



User Manual

Wireless N PowerLine Router

DHP-1320

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	September 01, 2010	DHP-1320 Revision A1

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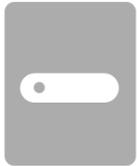
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Package Contents



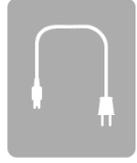
DHP-1320 Wireless N PowerLine Router



Two Detachable Antennas



Ethernet Cable



Power Adapter



CD-ROM with Manual and Setup Wizard

Note: Using a power supply with a different voltage rating than the one included with the DHP-1320 will cause damage and void the warranty for this product.

System Requirements

<p>Network Requirements</p>	<ul style="list-style-type: none"> • An Ethernet-based Cable or DSL modem • IEEE 802.11n or 802.11g wireless clients • 10/100 Ethernet
<p>Web-based Configuration Utility Requirements</p>	<p>Computer with the following:</p> <ul style="list-style-type: none"> • Windows®, Macintosh, or Linux-based operating system • An installed Ethernet adapter <p>Browser Requirements:</p> <ul style="list-style-type: none"> • Internet Explorer 6 or higher • Firefox 3.0 or higher • Safari 3.0 or higher • Chrome 2.0 or higher <p>Windows® Users: Make sure you have the latest version of Java installed. Visit www.java.com to download the latest version.</p>
<p>CD Installation Wizard Requirements</p>	<p>Computer with the following:</p> <ul style="list-style-type: none"> • Windows® 7/ Vista® / XP with Service Pack 3 • An installed Ethernet adapter • CD-ROM drive

Introduction

TOTAL PERFORMANCE

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

TOTAL SECURITY

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

TOTAL COVERAGE

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

ULTIMATE PERFORMANCE

The D-Link Wireless N PowerLine Router (DHP-1320) is a 802.11n compliant device that delivers real world performance of up to 14x faster than an 802.11g wireless connection (also faster than a 100Mbps wired Ethernet connection). Create a secure wireless network to share photos, files, music, video, printers, and network storage throughout your home. Connect the DHP-1320 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.

TOTAL NETWORK SECURITY

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

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

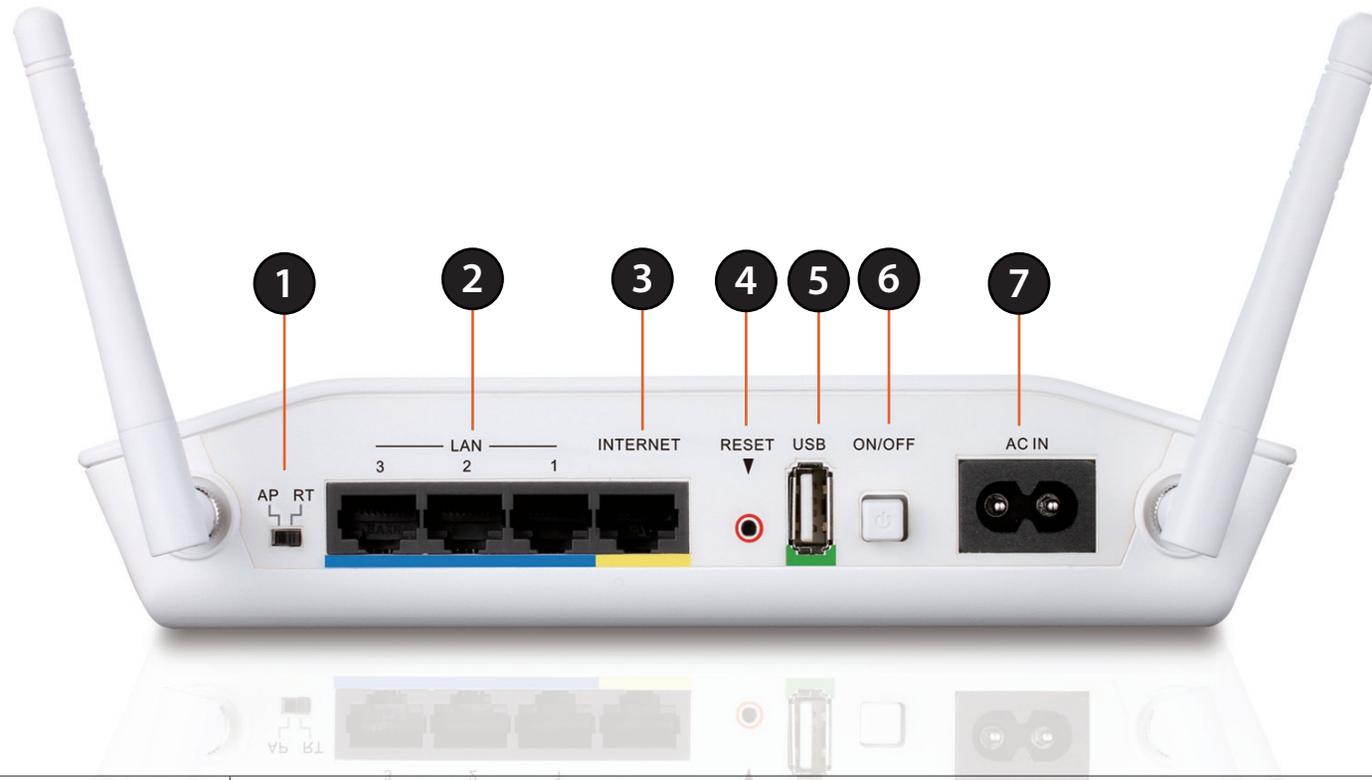
Features

- **Faster Wireless Networking** - The DHP-1320 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 DHP-1320 is still fully compatible with the IEEE 802.11g standards, so it can connect with existing 802.11g PCI, USB, and Cardbus adapters.
- **Advanced Firewall Features** - The Web-based user interface displays a number of advanced network management features including:
 - **Content Filtering** - Easily applied content filtering based on MAC Address, URL, and/or Domain Name.
 - **Filter Scheduling** - These filters can be scheduled to be active on certain days or for a duration of hours or minutes.
 - **Secure Multiple/Concurrent Sessions** - The DHP-1320 can pass through VPN sessions. It supports multiple and concurrent IPSec and PPTP sessions, so users behind the DHP-1320 can securely access corporate networks.
- **User-friendly Setup Wizard** - Through its easy-to-use Web-based user interface, the DHP-1320 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.

Hardware Overview

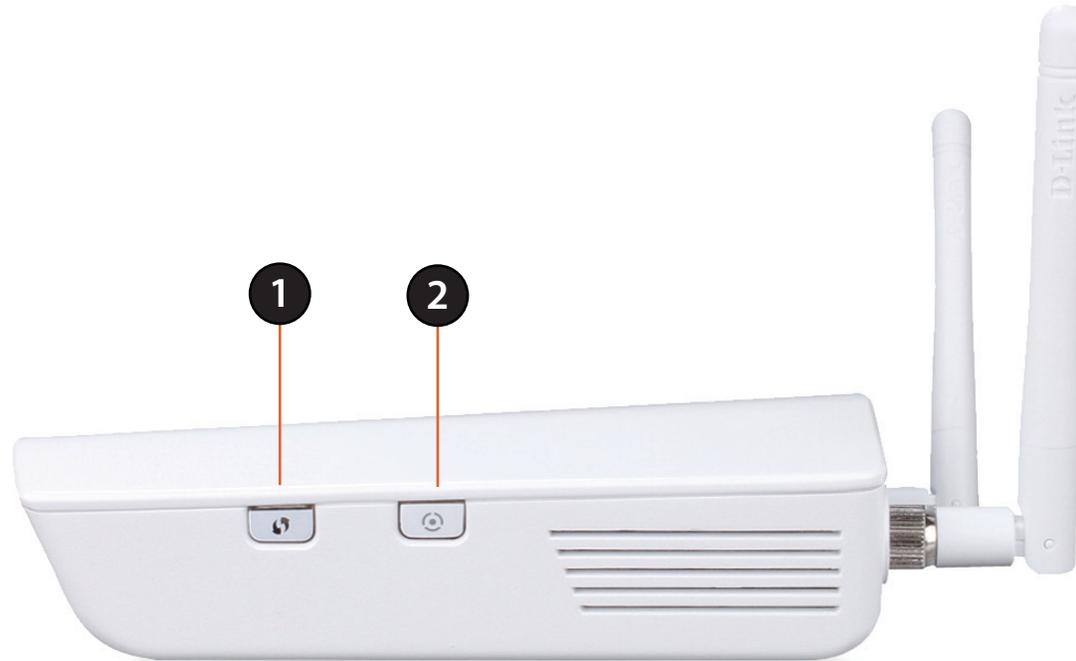
Connections



1	AP-Router Switch	Two-way switch used to Select AP or Router Mode.
2	LAN Ports (1-3)	Connect 10/100 Ethernet devices such as computers, switches, and hubs.
3	Internet Port	The auto MDI/MDIX Internet port is the connection for the Ethernet cable to the cable or DSL modem.
4	Reset Button	Pressing the Reset button restores the router to its original factory default settings.
5	USB	USB 1.1/2.0 port for SharePort™ Network and WCN support.
6	Power Button	Use this switch to power on/power off the device.
7	Power Receptor	Receptor for the supplied power cord.

Hardware Overview

WPS Button



1	WPS Button	Press the WPS button for one second to initiate the WPS process. The button will flash blue while a WPS connection is being established. The button will light solid blue for 5 seconds when the device has successfully been added to the network.
2	ENY Button	Push this button to establish a secure PowerLine network with other PowerLine AV devices.

Hardware Overview

LEDs



1	Power LED	A solid green light indicates a proper connection to the power supply. This LED will light orange during a factory reset or reboot. A slow blinking orange LED indicates that the Router has crashed during bootup.
2	Internet LED	A solid green light indicates that the internet connection has successfully completed. This LED blinks green during data transmission. A solid orange light indicates that the physical link is up, but the ISP service is down.
3	WLAN LED	A solid light indicates that the 2.4GHz wireless segment is ready. This LED blinks during wireless data transmission.
4	PowerLine AV LEDs	A solid light indicates that a powerLine connection is established. The LED will blink quickly when data is transmitted to or from another PowerLine unit.
5	LAN LEDs (1-3)	A solid light indicates a connection to an Ethernet-enabled computer on ports 1-3. This LED blinks during data transmission.
6	USB LED	A solid light indicated that the USB device is ready. This LED blinks during data transmission.

Installation

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

Before you Begin

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

Wireless Installation Considerations

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

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

Hardware Installation - For Router Mode

Start Here

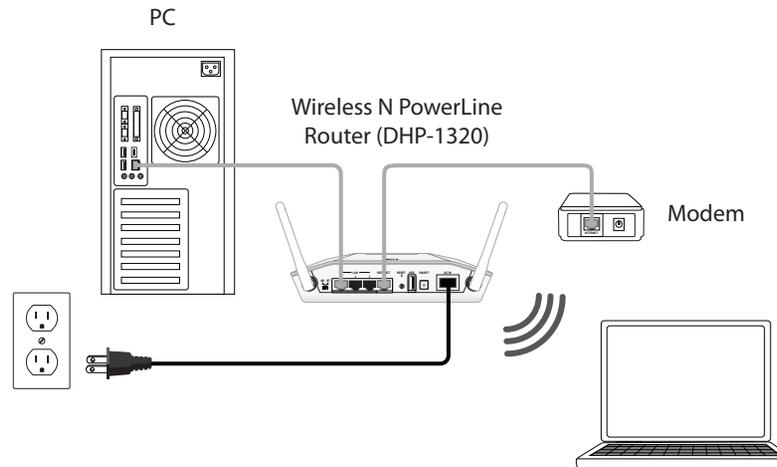
Windows users can use the **Quick Router Setup Wizard** (from the CD) to configure their router. If you do not want to use the wizard, lost your CD, or are running Mac or Linux, you will need to use the manual setup procedure below.

Quick Router Setup Wizard

For the Wizard to work, the computer must be connected to the Internet and be online. If you have disconnected any hardware, please re-connect your computer back into the modem and make sure you are online.

Insert the CD into your drive on a computer that is online and click **Install Router** to start the Quick Router Setup Wizard. Follow the onscreen instructions to install and configure your router.

Network Diagram



Connect to Cable/DSL/Satellite Modem

If you are connecting the router to a cable/DSL/satellite modem, please follow the steps below:

1. Place the router in an open and central location. Do not plug the power adapter into the router.
2. Unplug the modem's power adapter.
3. Unplug the Ethernet cable (that connects your computer to your modem) from your computer and place it into the Internet port on the router.
4. Plug an Ethernet cable into one of the three LAN ports on the router. Plug the other end into the Ethernet port on your computer.
5. Plug the power adapter back to the modem. Wait for the modem to boot (about 30 seconds).
6. Plug the power cord to the router and connect to an outlet.
7. Turn on the DHP-1320 Router by pushing the power button located on the back of this unit. Then, wait about 30 seconds for the router to boot.
8. Open a web browser, enter <http://192.168.0.1> (or <http://dlinkrouter>) and then press **Enter**. When the login window appears, set the user name to **Admin** and leave the password box blank. Click **Log In** to continue the setup and use the wizard. Please refer to the page **22** for detailed installation information and advanced features.

Connect to Another Router

If you are connecting the D-Link router to another router to use as a wireless access point and/or switch, you will have to do the following before connecting the router to your network:

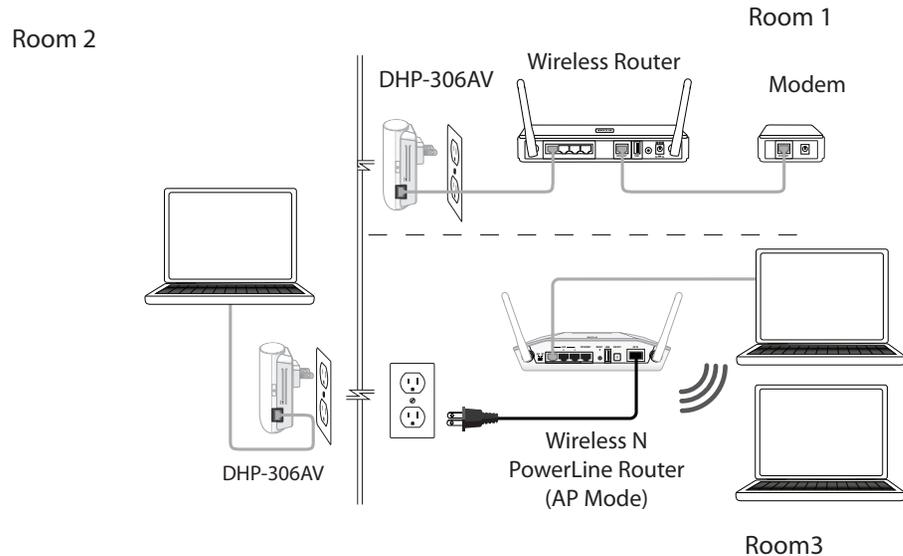
- Disable UPnP™
- Disable DHCP
- Change the LAN IP address to an available address on your network. The LAN ports on the router cannot accept a DHCP address from your other router.

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

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

6. Disconnect the Ethernet cable from the router and reconnect your computer to your network.
7. Connect an Ethernet cable in one of the **LAN** ports of the router and connect it to your other router. Do not plug anything into the Internet (WAN) port of the D-Link router.
8. You may now use the other 2 LAN ports to connect other Ethernet devices and computers. To configure your wireless network, open a web browser and enter the IP address you assigned to the router. Refer to the **Configuration** and **Wireless Security** sections for more information on setting up your wireless network.

Hardware Installation - For Access Point Mode



Step 1

Move the switch on the back of the DHP-1320 to "AP". Connect the supplied power cord into the power receptor located on the back of the DHP-1320 and plug into a power outlet as illustrated in **Room 3**.

Note: Power source is confirmed when the green LED Power Indicator on the PowerLine devices is illuminated.

Step 2

Turn on the DHP-1320 by pushing the power button located on the back of this unit. Connect one end of the included Ethernet cable to the Ethernet port on the DHP-1320 and attach the other end of the Ethernet cable to the PC as illustrated in **Room 3**.

Note: Connection to an Ethernet-enabled device is confirmed when the green LED Ethernet indicator on the PowerLine device is illuminated.

Step 3

Open a web browser, enter <http://192.168.0.1> and press **Enter**. When the login window appears, set the user name to **Admin** and leave the password box blank. Click **Log In** to continue the setup. Please refer to the user to page **108** for more detailed installation information and advanced features.

Note: To secure the PowerLine Network from unauthorized users, please refer to the **PowerLine Network Security** section.

PowerLine Installation Considerations

Plan the location of your PowerLine devices:

1. Connect the PowerLine devices to electrical outlets that are not controlled by a wall switch in order to avoid accidentally turning off the power to the device.
2. Do not connect the Wireless N PowerLine Router to an extension cord, surge protector, or power strip. This might prevent the device from working correctly or it may reduce the network performance.
3. Avoid using the Wireless N PowerLine Router in an electrical outlet that is located near an appliance that uses a lot of power, such as a washer, dryer or refrigerator. This may prevent the adapter from working correctly, or may negatively impact the network performance.
4. Verify that your PowerLine devices are electrically rated to operate with the power available in your location.
5. To help prevent against electrical shock, be sure to plug the power cables into properly grounded electrical outlets.

PowerLine Security

It is strongly recommended to encrypt your PowerLine network. By encrypting the data that is sent via your PowerLine adapters, you will prevent nearby hackers with a Powerline adapter to connect to your network and steal your information.

To encrypt your PowerLine network, follow the steps below:

PowerLine Network-Quick Setup Encryption Button Usage

The ENY Button is used to add a PowerLine AV device to a PowerLine network. You can allow the DHP-1320 to join a network by pressing the ENY Button to toggle it to the Broadcast state or Join state.

The ENY Button has 3 different trigger states:

Broadcast state- Enables the DHP-1320 to provide information for another PowerLine AV device to join its PowerLine network (works even if it is the only device existing within the network group). The first PowerLine device will use this state when the ENY Button is pressed.

Join State - This allows an ungrouped PowerLine AV device to join an existing PowerLine network. PowerLine devices added after the first device will be in the Join State when the ENY Button is pressed.

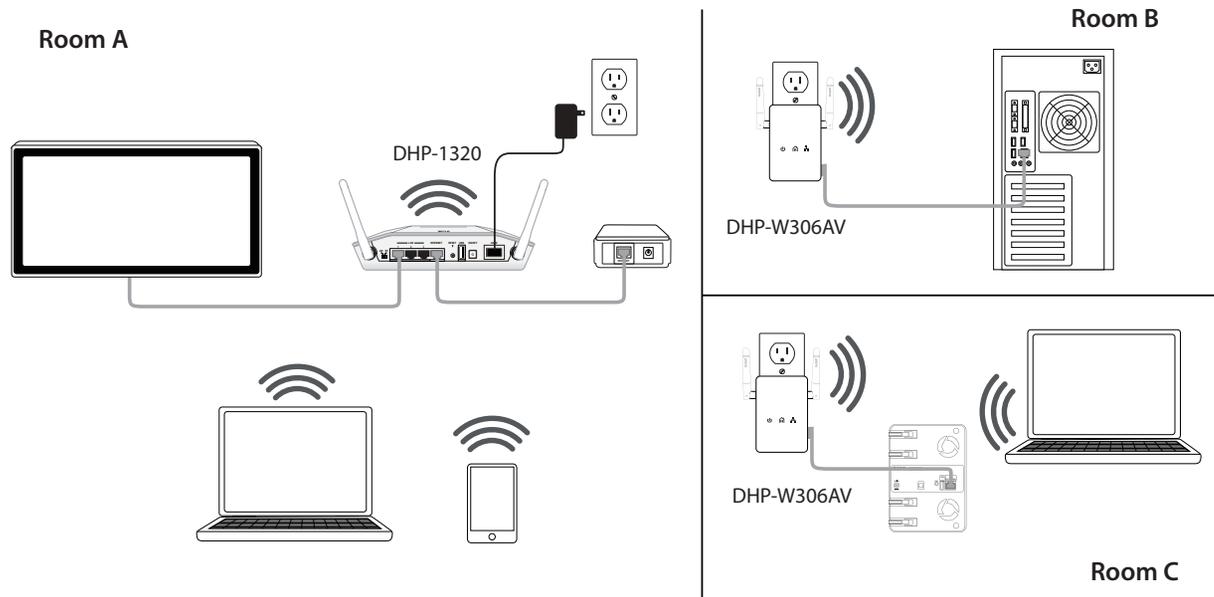
Ungroup State - Hold down the ENY Button for more than 10 seconds to detach the device from its network group.

Configuring a PowerLine Network

Connecting two PowerLine AV devices for the first time

To initially connect the DHP-1320 AV to another PowerLine AV device and create a network:

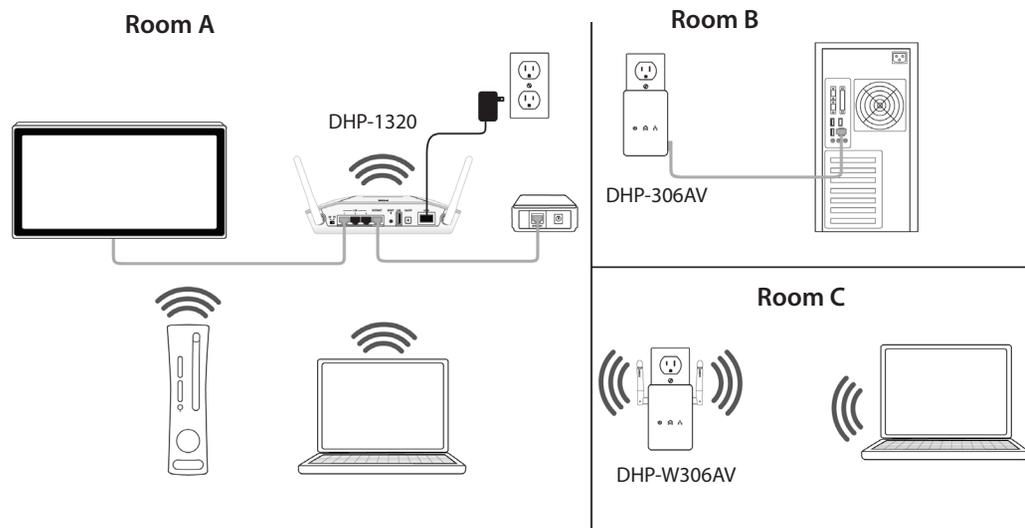
1. Plug the DHP-1320 into a power outlet. Press the ENY button for 1 to 3 seconds. The PowerLine AV LED  should start to blink.
2. Plug the other PowerLine device (e.g. the DHP-W306AV) into a power outlet. Press the ENY button on this PowerLine device for 1 to 3 seconds.
3. Wait for both devices to reboot (all LEDs will turn off and on). When the PowerLine AV LEDs on both devices are steadily lit, the two devices will be networked together.



Connecting a PowerLine AV device to an existing PowerLine network

To add a DHP-1320 if you already have an existing network with 2 more PowerLine devices:

1. Press the ENY button on the DHP-1320 for more than 10 seconds to make sure it is not connected to any other PowerLine network.
2. Press the ENY button of any device already in your PowerLine network (e.g. the DHP-306AV) for 1 to 3 seconds. The ENY LED should start to blink.
3. Press the ENY button on the DHP-1320 for 1 to 3 seconds. The PowerLine AV LED  should start to blink.
4. Wait for the DHP-1320 to reboot (all LEDs will turn off and on). When the PowerLine AV LED  on all devices are steadily lit, the DHP-1320 will be connected to the existing network.



Getting Started

The DHP-1320 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 **Quick Router Setup 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:\autorun.exe**" (where **D:** represents the drive letter of your CD-ROM drive).

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



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

Configuration (Router Mode)

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

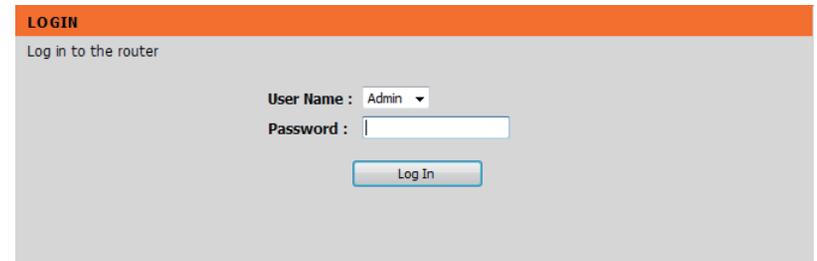
Web-based Configuration Utility

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).



Select **Admin** in the User Name field. Leave the password blank by default.

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



Setup Internet

This section allows you to configure your Router's Internet settings.

Internet Connection Setup Wizard: The Internet Connection Setup Wizard provides a quick method for configuring your Internet settings. To start the Internet Connection Setup Wizard, click the **Internet Connection Setup Wizard** button. Refer to "Internet Connection Setup Wizard" on page 22 for more information on how to use the Internet Connection Setup Wizard.

Manual Internet Connection Option: Click the **Manual Internet Connection Setup** button if you want to enter your Internet settings without running the Internet Connection Setup Wizard. Refer to "Manual Internet Connection Setup" on page 28 for more information on how to configure your Internet settings manually.

DHP-1320 // RT	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
INTERNET	INTERNET CONNECTION				Helpful Hints... If you are new to networking and have never configured a router before, click on Internet Connection Setup Wizard and the router will guide you through a few simple steps to get your network up and running. If you consider yourself an advanced user and have configured a router before, click Manual Internet Connection Setup to input all the settings manually. More...
WIRELESS SETTINGS	There are two ways to set up your Internet connection: you can use the Web-based Internet Connection Setup Wizard, or you can manually configure the connection.				
NETWORK SETTINGS	INTERNET CONNECTION WIZARD				
USB SETTINGS	If you would like to utilize our easy to use Web-based Wizards to assist you in connecting your new D-Link Corporation Router to the Internet, click on the button below. <div style="text-align: center;"> <input type="button" value="Internet Connection Setup Wizard"/> </div> <p>Note: Before launching the wizard, please make sure you have followed all steps outlined in the Quick Installation Guide included in the package.</p>				
PLC SETTINGS	MANUAL INTERNET CONNECTION OPTIONS				
	If you would like to configure the Internet settings of your new D-Link Corporation Router manually, then click on the button below. <div style="text-align: center;"> <input type="button" value="Manual Internet Connection Setup"/> </div>				

Internet Connection Setup Wizard

Click the **Internet Connection Setup Wizard** button to start the Internet Connection Setup Wizard.

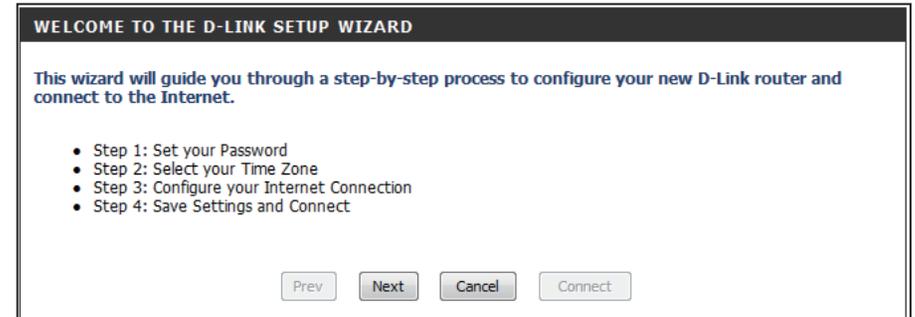
INTERNET CONNECTION WIZARD

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

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

The following window appears, summarizing the steps required to complete the Internet Connection Setup Wizard:

Click **Next** to continue.



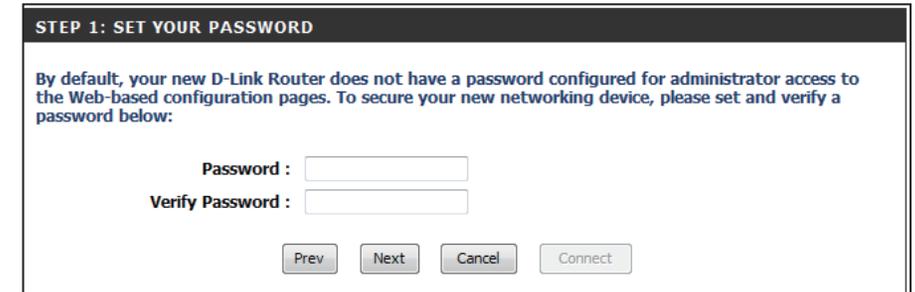
WELCOME TO THE D-LINK SETUP WIZARD

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

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



STEP 1: SET YOUR PASSWORD

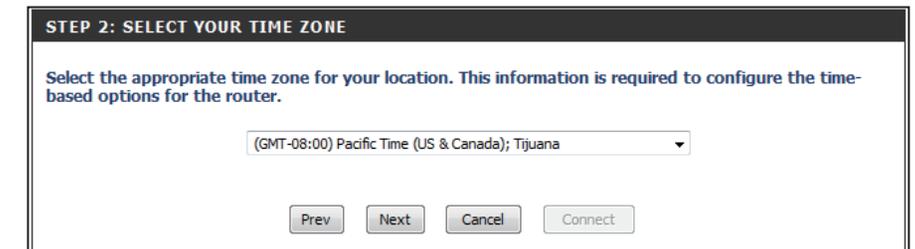
By default, your new D-Link Router does not have a password configured for administrator access to the Web-based configuration pages. To secure your new networking device, please set and verify a password below:

Password :

Verify Password :

Prev Next Cancel Connect

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



STEP 2: SELECT YOUR TIME ZONE

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

(GMT-08:00) Pacific Time (US & Canada); Tijuana ▼

Prev Next Cancel Connect

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

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)**
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 (L2TP)**
Choose this option if your Internet connection requires a username and password to get online. Most DSL modems use this connection type of connection.
- Static IP Address Connection**
Choose this option if your INTERNET Provider provided you with IP Address information that has to be manually configured.

Prev Next Cancel Connect

If you selected **DHCP Connection (Dynamic IP Address)**, 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.

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 : 00:11:22:07:27:18 (Optional)
Clone Your PC's MAC Address

Host Name : DHP-1320

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

Prev Next Cancel Connect

If you selected **PPPoE**, enter your PPPoE username and password.

If your ISP requires you to enter a PPPoE service name, enter the service name in the **Service Name** field.

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

Click **Next** to continue.

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

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.

Prev Next Cancel Connect

If you selected **PPTP**, enter your PPTP username and password.

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

Click **Next** to continue.

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 :

Prev Next Cancel Connect

If you selected **L2TP**, enter your L2TP username and password.

Select **Static** if your ISP assigned you the IP address, subnet mask, gateway, and L2TP server addresses.

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 :

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 :

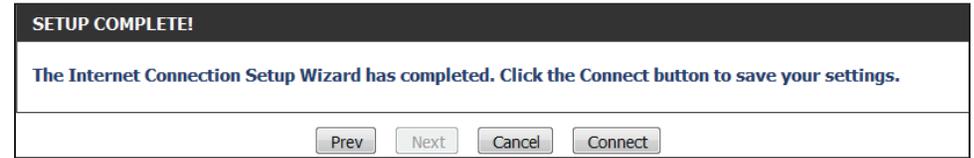
Subnet Mask :

Gateway Address :

Primary DNS Address :

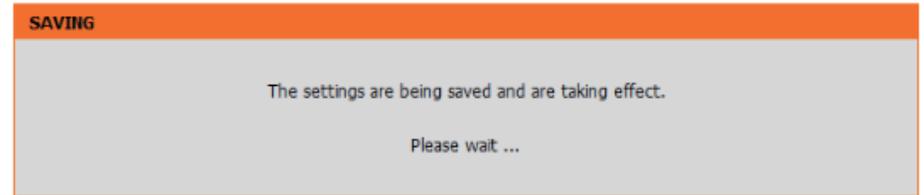
Secondary DNS Address :

Click **Connect** to save your settings.



The following window appears to indicate that the settings are being saved. When the Router has finished saving all the changes, the **Setup> Internet** window will open.

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



Manual Internet Connection Setup

Internet Connection Type: Use the My Internet Connection is drop-down menu to select the mode that the router should use to connect to the Internet.

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

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

WAN

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

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

INTERNET CONNECTION TYPE

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

My Internet Connection is :

ADVANCED DNS SERVICE

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

Enable Advanced DNS Service :

Manual Internet Connection Setup

Static IP

Select **Static IP** from the drop-down menu 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.

Click the **Save Settings** button to save any changes made.

INTERNET CONNECTION TYPE

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

My Internet Connection is : Static IP

ADVANCED DNS SERVICE

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

Enable Advanced DNS Service :

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 :

Manual Internet Connection Setup

Dynamic IP (DHCP)

Select **Dynamic IP (DHCP)** from the drop-down menu 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.

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. Enter the value 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.

Click the **Save Settings** button to save any changes made.

INTERNET CONNECTION TYPE	
Choose the mode to be used by the router to connect to the Internet.	
My Internet Connection is :	Dynamic IP (DHCP) ▾
ADVANCED DNS SERVICE	
Advanced DNS is a free security option that provides Anti-Phishing to protect your Internet connection from fraud and navigation improvements such as auto-correction of common URL typos.	
Enable Advanced DNS Service :	<input type="checkbox"/>
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 :	DHP-1320
Use Unicasting :	<input checked="" type="checkbox"/> (compatibility for some DHCP Servers)
Primary DNS Address :	0.0.0.0
Secondary DNS Address :	0.0.0.0
MTU :	1500 (bytes)MTU default = 1500
MAC Address :	00:11:22:07:27:18
	<input type="button" value="Clone Your PC's MAC Address"/>

Manual Internet Connection Setup

PPPoE (Username/Password)

Select **PPPoE (Username/Password)** from the drop-down menu 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.

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

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

User Name: Enter your PPPoE user name.

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

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

Reconnect Mode: Use the radio buttons to specify the reconnect mode. The user can specify a custom schedule or specify the **On Demand**, or **Manual** option.

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 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.

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 :

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.

Click the **Save Settings** button to save any changes made.

Manual Internet Connection Setup

PPTP

Select **PPTP (Point-to-Point Tunneling Protocol)** from the drop-down menu 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 IP** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select **Dynamic IP**.

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

PPTP Server IP Address: 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: Use the radio buttons to specify the reconnect mode. The user can specify a custom schedule or specify the **On Demand**, or **Manual** option.

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).

INTERNET CONNECTION TYPE

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

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

ADVANCED DNS SERVICE

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

Enable Advanced DNS Service :

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 :

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1454 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.

Click the **Save Settings** button to save any changes made.

Manual Internet Connection Setup

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

L2TP Server IP Address: 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: Use the radio buttons to specify the reconnect mode. The user can specify a custom schedule or specify the **On Demand**, or **Manual** option.

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

Primary DNS Server: Enter the Primary DNS server IP address assigned by your ISP. These address is usually obtained automatically from your ISP. Enter the value 0.0.0.0 if you did not specifically receive these from your ISP.

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:

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1454 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.

Wireless Settings

If you want to configure the wireless settings on your router using the wizard, click **Wireless Connection Setup Wizard** and refer to “Wireless Connection Setup Wizard” on page 103.

Click **Add Wireless Device with WPS** if you want to add a wireless device using Wi-Fi Protected Setup (WPS) and refer to “Add Wireless Device with WPS Wizard” on page 106.

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

DHP-1320 // RT	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
INTERNET	WIRELESS SETTINGS				Helpful Hints... If you are new to wireless networking and have never configured a wireless router before, click on Wireless Connection Setup Wizard and the router will guide you through a few simple steps to get your wireless network up and running. If you consider yourself an advanced user and have configured a wireless router before, click Manual Wireless Connection Setup to input all the settings manually. More...
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.				
NETWORK SETTINGS	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. <input type="button" value="Wireless Connection Setup Wizard"/>				
USB SETTINGS	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. <input type="button" value="Add Wireless Device with WPS"/>				
PLC SETTINGS	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 Corporation Router manually, then click on the Manual Wireless Network Setup button below. <input type="button" value="Manual Wireless Connection Setup"/>				

Manual Wireless Settings

802.11n/b/g (2.4GHz)

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

Schedule: Select the time frame that you would like your wireless network enabled. The schedule may be set to Always. Any schedule you create will be available in the drop-down menu. Click **New Schedule** to create a new schedule.

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

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.

802.11b Only - Select if all of your wireless clients are 802.11b.

Mixed 802.11n and 802.11g - Select if you are using a mix of 802.11n and 802.11g wireless clients.

Mixed 802.11g and 802.11b - Select if you are using a mix of 802.11g and 802.11b wireless clients.

Mixed 802.11n, 802.11g and 802.11b - Select 802.11n, 802.11g and 802.11b

Enable Auto Channel Selection: The **Auto Channel Selection** setting can be selected to allow the DHP-1320 to choose the channel with the least amount of interference.

Wireless Channel: Indicates the channel setting for the DHP-1320. By default the channel is set to 1. The Channel can be changed to fit the channel setting for an existing wireless network or to customize the wireless network. If you enable **Auto Channel Selection**, this option will be greyed out.

The screenshot shows the web interface for the DHP-1320 RT router. The main menu on the left includes INTERNET, WIRELESS SETTINGS, NETWORK SETTINGS, USB SETTINGS, and PLC SETTINGS. The current page is titled 'WIRELESS NETWORK :'. It contains a 'Save Settings' button and a 'Don't Save Settings' button. Below this is the 'WIRELESS NETWORK SETTINGS' section, which includes:

- Enable Wireless:** A checked checkbox and a dropdown menu set to 'Always', with an 'Add New Schedule' button.
- Wireless Network Name:** A text field containing 'dlink' (Also called the SSID).
- 802.11 Mode:** A dropdown menu set to 'Mixed 802.11n, 802.11g and 802.11b'.
- Enable Auto Channel Scan:** A checked checkbox.
- Wireless Channel:** A dropdown menu set to '2.437 GHz - CH 6'.
- Channel Width:** A dropdown menu set to '20 MHz'.
- Visibility Status:** Radio buttons for 'Visible' (selected) and 'Invisible'.

 The 'WIRELESS SECURITY MODE' section at the bottom includes a text block explaining security options and a 'Security Mode' dropdown menu set to 'None'. A 'Helpful Hints...' sidebar on the right provides additional information about changing the SSID, enabling Auto Channel Scan, and enabling Hidden Mode.

Channel Width: Select the Channel Width:

Auto 20/40 - 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. This is the default setting.

Wireless Security Mode: Refer to "Wireless Security" on page 136 for more information regarding wireless security.

Click the **Save Settings** button to save any changes made.

Network Settings

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

Router Settings: Use this section to configure the Router's local network settings.

DHCP Server Settings: Use this section to configure the DHP-1320's built-in DHCP server settings.

Add DHCP Reservation: Use this section to create a new DHCP reservation or manage existing DHCP reservations.

DHCP Reservations List: Displays information about the devices that have a DHCP reservation from the DHP-1320. The information includes the *Host Name*, *IP Address*, *MAC Address*, and *Expiration Time*.

Number of Dynamic DHCP Clients: Displays information about the devices that have a dynamic DHCP lease from the DHP-1320. The information includes the *Host Name*, *IP Address*, *MAC Address*, and *Lease Expiration Time*.

DHP-1320 // RT	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT									
INTERNET	NETWORK SETTINGS				Helpful Hints... If you already have a DHCP server on your network or are using static IP addresses on all the devices on your network, uncheck Enable DHCP Server to disable this feature. If you have devices on your network that should always have fixed IP addresses, add a DHCP Reservation for each such device. More...									
WIRELESS 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. <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>													
NETWORK SETTINGS	ROUTER SETTINGS													
USB 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 : <input type="text" value="192.168.0.1"/> Subnet Mask : <input type="text" value="255.255.255.0"/> Device Name : <input type="text" value="dlinkrouter"/> Local Domain Name : <input type="text"/> Enable DNS Relay : <input checked="" type="checkbox"/>													
PLC SETTINGS	DHCP SERVER SETTINGS													
	Use this section to configure the built-in DHCP Server to assign IP addresses to the computers on Enable DHCP Server : <input checked="" type="checkbox"/> DHCP IP Address Range : <input type="text" value="192.168.0.100"/> to <input type="text" value="192.168.0.199"/> DHCP Lease Time : <input type="text" value="1440"/> (minutes) Always broadcast : <input checked="" type="checkbox"/> (compatibility for some DHCP Clients) NetBIOS announcement : <input type="checkbox"/> Learn NetBIOS from WAN : <input type="checkbox"/> NetBIOS Scope : <input type="text"/> (optional) NetBIOS node type : <input checked="" type="radio"/> Broadcast only (use when no WINS servers configured) <input type="radio"/> Point-to-Point (no broadcast) <input type="radio"/> Mixed-mode (Broadcast then Point-to-Point) <input type="radio"/> Hybrid (Point-to-Point then Broadcast) Primary WINS IP Address : <input type="text" value="0.0.0.0"/> Secondary WINS IP Address : <input type="text" value="0.0.0.0"/>													
	ADD DHCP RESERVATION													
	Enable : <input type="checkbox"/> Computer Name : <input type="text"/> << <input type="text" value="Computer Name"/> >> IP Address : <input type="text"/> MAC Address : <input type="text"/> <input type="button" value="Copy Your PC's MAC Address"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>													
	DHCP RESERVATIONS LIST :													
	<table border="1"> <thead> <tr> <th>Enable</th> <th>Host Name</th> <th>MAC Address</th> <th>IP Address</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				Enable	Host Name	MAC Address	IP Address						
Enable	Host Name	MAC Address	IP Address											
	NUMBER OF DYNAMIC DHCP CLIENTS : 1													
	<table border="1"> <thead> <tr> <th>Hardware Address</th> <th>Assigned IP</th> <th>Hostname</th> <th>Expires</th> <th></th> </tr> </thead> <tbody> <tr> <td>00:17:42:c7:72:19</td> <td>192.168.0.100</td> <td>Lifbook</td> <td>Fri Sep 3 17:00:15 2010</td> <td><input type="button" value="Revoke"/> <input type="button" value="Reserve"/></td> </tr> </tbody> </table>				Hardware Address	Assigned IP	Hostname	Expires		00:17:42:c7:72:19	192.168.0.100	Lifbook	Fri Sep 3 17:00:15 2010	<input type="button" value="Revoke"/> <input type="button" value="Reserve"/>
Hardware Address	Assigned IP	Hostname	Expires											
00:17:42:c7:72:19	192.168.0.100	Lifbook	Fri Sep 3 17:00:15 2010	<input type="button" value="Revoke"/> <input type="button" value="Reserve"/>										

Network Settings

Router Settings

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

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

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

Device Name: Enter a Host Name to identify the DHP-1320.

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.

Click the **Save Settings** button to save any changes made.

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 :

Network Settings

DHCP Server Settings

DHCP stands for Dynamic Host Control Protocol. The DHP-1320 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 DHP-1320. 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 Check this box to enable the DHCP server on your router.
Server: 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.

Learn NetBIOS WAN: If NetBIOS advertisement is switched on, switching this setting on causes WINS information to be learned from the WAN side, if available. Turn this setting off to configure manually.

NetBIOS scope: This is an advance setting and is normally left blank. This allows the configuration of NetBIOS domain name under which network hosts operate. This setting has no effect if the " Learn NetBIOS information form WAN is activated.

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 :

When you have finished configuring the new DHCP Server Settings, click the **Save Settings** button at the top or bottom of the window.

Network Settings

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. Alternatively, select a computer that currently has a DHCP lease from the drop down menu and click << to automatically populate the **Computer Name**, **IP Address**, and **MAC Address** fields.

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.

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

When you have finished configuring the new DHCP Reservation, click the **Save Settings** button at the top or bottom of the window to activate your reservations.

ADD DHCP RESERVATION

Enable :

Computer Name : << Computer Name ▾

IP Address :

MAC Address :

Copy Your PC's MAC Address

Save Clear

DHCP RESERVATIONS LIST :

Enable	Host Name	MAC Address	IP Address

NUMBER OF DYNAMIC DHCP CLIENTS : 0

Hardware Address	Assigned IP	Hostname	Expires

USB Settings

In this section you may configure your USB port. You can select several configurations to choose from such as Share Port and WCN Configuration.

DHP-1320 // RT	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
INTERNET WIRELESS SETTINGS NETWORK SETTINGS USB SETTINGS PLC SETTINGS	<p>USB SETTINGS</p> <p>Use this section to configure your USB port. There are several configurations to choose from: Network USB, 3G USB Adapter and WCN Configuration.</p> <p>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.</p> <p><input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/></p> <p>USB SETTINGS</p> <p>Choose the type of USB device to be plugged into the USB port.</p> <p>My USB type is : <input type="text" value="SharePort"/></p>				<p>Helpful Hints...</p> <p>Device drivers and the D-Link USB Network Utility must be installed on each computer that will use the device.</p> <p>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.</p> <p>More...</p>

PLC Settings (Router Mode)

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

The screenshot displays the web-based configuration utility for the D-Link DHP-1320 router in Router Mode. The interface is organized into a top navigation bar and a main content area.

Navigation Bar: Includes the model number 'DHP-1320 // RT' and tabs for 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'.

Left Sidebar: Lists configuration categories: 'INTERNET', 'WIRELESS SETTINGS', 'NETWORK SETTINGS', 'USB SETTINGS', and 'PLC SETTINGS' (which is currently selected).

Main Content Area:

- POWER LINE SETTING:** An orange header section with the instruction: "Use this section to configure the power line settings and Qos Settings for your D-Link device." It contains two buttons: "Save Settings" and "Don't Save Settings".
- Network Name:** A section with two radio button options:
 - Public, Network Name is HomePlugAV
 - Private, Network Name is
- Add Member:** A section with a table header:

Device Name	MAC Address	Link Rate(Mbps)
<input type="button" value="Scan"/>		
- Manual Add Member:** A section with input fields for "Device Name" and "Password" (with a 4-character mask), and an "Add" button.
- Member List:** A section with a table header:

Device Name	MAC Address	Link Rate(Mbps)	Status
- Qos Settings:** A section with a table for configuring Quality of Service:

Name	MAC Address	Priority	
<input type="text"/>	<input type="text"/>	Highest ▾	<input type="button" value="Clear"/>
<input type="text"/>	<input type="text"/>	Highest ▾	<input type="button" value="Clear"/>
<input type="text"/>	<input type="text"/>	Highest ▾	<input type="button" value="Clear"/>
<input type="text"/>	<input type="text"/>	Highest ▾	<input type="button" value="Clear"/>
<input type="text"/>	<input type="text"/>	Highest ▾	<input type="button" value="Clear"/>
<input type="text"/>	<input type="text"/>	Highest ▾	<input type="button" value="Clear"/>
<input type="text"/>	<input type="text"/>	Highest ▾	<input type="button" value="Clear"/>

Network Name: You can set the name of your network and to make it either public or private. Make sure the Network Name of all of the devices within your PowerLine network is the same.

Public Network Name: Select this option if you would like to make your powerline network public with the default Network Name of "HomePlugAV". Since this is a commonly used Network Name, it is less secure than a private Network Name.

Private Network Name: Select this option if you wish to make your powerline network more secure by using a private Network Name. Type the name of your private PowerLine network in the field.

Scan: Scan for new PowerLine devices.

Add Member: This section lets you add new PowerLine AV devices to your PowerLine network. To add a new device, give it a Device Name and enter its Password, then click Add. When you add a device it is given the current Network Name.

Device Name: Type a name you wish to use to identify a specific PowerLine AV device. For example, "Jack's room".

Password: The Password is used to verify that you are authorized to perform changes on a device. You can find the Password printed on the back of your device.

The screenshot displays three sections of a configuration interface:

- Network Name:** A section with two radio button options. The first is "Public, Network Name is HomePlugAV" (selected). The second is "Private, Network Name is" followed by an empty text input field.
- Add Member:** A section containing a table with three columns: "Device Name", "MAC Address", and "Link Rate(Mbps)". Below the table is a "Scan" button.
- Manual Add Member:** A section with two rows of input fields. The first row is labeled "Device Name" and has one text input field. The second row is labeled "Password" and has four small text input fields. An "Add" button is located to the right of the password fields.

Member List: This section provides information on the PowerLine AV devices in your PowerLine network, or any devices that were previously connected but it are currently disconnected.

Link Rate: Displays the device's current data rate in Mbps.

Status: This field shows the status of the device. If the field displays the word Connect, then the device is connected to your PowerLine network. If the field displays the word Disconnect, then the device has been added to the network but it is not ready. Please check its password and make sure the device is powered on.

Qos Settings: You can configure your PowerLine AV devices to give priority to powerline network traffic accordingly. Enter the name, MAC Address, and priority level.

Mac Address: You can find the MAC address printed on the back of your device.

Member List

Device Name	MAC Address	Link Rate(Mbps)	Status
-------------	-------------	-----------------	--------

Qos Settings

Name	MAC Address	Priority	
<input type="text"/>	<input type="text"/>	Highest ▾	<input type="button" value="Clear"/>
<input type="text"/>	<input type="text"/>	Highest ▾	<input type="button" value="Clear"/>
<input type="text"/>	<input type="text"/>	Highest ▾	<input type="button" value="Clear"/>
<input type="text"/>	<input type="text"/>	Highest ▾	<input type="button" value="Clear"/>
<input type="text"/>	<input type="text"/>	Highest ▾	<input type="button" value="Clear"/>
<input type="text"/>	<input type="text"/>	Highest ▾	<input type="button" value="Clear"/>
<input type="text"/>	<input type="text"/>	Highest ▾	<input type="button" value="Clear"/>

Advanced Virtual Server

The DHP-1320 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 DHP-1320 firewall feature filters out unrecognized packets to protect your LAN network so all computers networked with the DHP-1320 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 DHP-1320 redirects the external service request to the appropriate server within the LAN network.

The DHP-1320 is also capable of port-redirection, meaning that incoming traffic to a particular port may be redirected to a different port on the server computer.

For a list of ports for common applications, please visit <http://support.dlink.com/faq>.

The Virtual Server window allows you to open a single port. If you would like to open a range of ports, refer to the next page.

Enable Checkbox: Check the box on the left side to enable the Virtual Server rule.

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 <<.

Public Port/Private Port: Enter the port that you want to open next to Public Port and Private Port. The public and private 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.

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

Schedule

Drop-Down Menu: Use the drop-down menu to schedule the time that the Virtual Server Rule will be enabled. The schedule may be set to Always,

which will allow the particular service to always be enabled. You can create your own times in the **Tools > Schedules** section.

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

Click the **Save Settings** button to save any changes made.

Helpful Hints...

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.

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.

Select a schedule for when the virtual server 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.

Select a filter that restricts the Internet hosts that can access this virtual server to hosts that you trust. 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.

Port Forwarding

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

Enable Checkbox: Tick the checkbox on the left side to enable the Port Forwarding rule.

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), your computer will be listed in the **Computer Name** drop-down menu. Select your computer and click <<.

TCP Port/UDP Port: Enter the port that you want to open next to TCP Port and UDP Port.

Schedule: Use the drop-down menu to schedule the time that the Port Forwarding rule will be enabled. The schedule may be set to *Always*, which will allow the particular service to always be enabled. You can create your own times in the **Tools > Schedules** section.

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

Click the **Save Settings** button to save any changes made.

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

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 DHP-1320. 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.

Enable Checkbox: Check the box on the left side to enable the Application Rule.

Name: Enter a name for the rule. You may select a pre-defined application from the **Application** 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 Any).

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 or UDP).

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.

Click the **Save Settings** button to save any changes made.

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	Port	Traffic Type	Schedule
<input type="checkbox"/>		<< Application Name	Trigger 0	TCP	Always
			Firewall 0	TCP	
<input type="checkbox"/>		<< Application Name	Trigger 0	TCP	Always
			Firewall 0	TCP	
<input type="checkbox"/>		<< Application Name	Trigger 0	TCP	Always
			Firewall 0	TCP	
<input type="checkbox"/>		<< Application Name	Trigger 0	TCP	Always
			Firewall 0	TCP	

More...

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** screen and create a new schedule.

More...

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 Shapping: 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. ISP's often define speed as a download/upload pair. For example, 1.5Mbits/284Kbits. Using this example, you would enter 284. Alternatively you can test your uplink speed with a service such as www.dslreports.com.

The screenshot shows the router's configuration interface. On the left is a sidebar menu with options: VIRTUAL SERVER, PORT FORWARDING, APPLICATION RULES, QoS ENGINE (selected), NETWORK FILTER, ACCESS CONTROL, WEBSITE FILTER, INBOUND FILTER, FIREWALL SETTINGS, ROUTING, ADVANCED WIRELESS, WI-FI PROTECTED SETUP, ADVANCED NETWORK, IPv6, and IPV6 ROUTING. The main content area has tabs for SETUP, ADVANCED (selected), TOOLS, STATUS, and SUPPORT. The 'QoS ENGINE' section is highlighted in orange and contains the text: 'Use this section to configure D-Link's QoS Engine. The QoS Engine improves your online gaming experience by ensuring that your game traffic is prioritized over other network traffic, such as FTP or Web.' Below this text are two buttons: 'Save Settings' and 'Don't Save Settings'. The 'WAN TRAFFIC SHAPING' section is below and contains: 'Enable Traffic Shapping: ', 'Automatic Uplink Speed: ', 'Measured Uplink Speed: Not Estimated', and 'Manual Uplink Speed: 128 kbps << Select Transmission Rate'. On the right side of the page, there is a 'Helpful Hints...' section with text: '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.' and a 'More...' link.

Click the **Save Settings** button to save any changes made.

Network Filter

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

MAC ADDRESS FILTER

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

Save Settings Don't Save Settings

24 -- MAC FILTERING RULES

Configure MAC Filtering below:
Turn MAC Filtering OFF

MAC Address		DHCP Client List	
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	Computer Name	Clear
00:00:00:00:00:00	<<	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...](#)

Click the **Save Settings** button to save any changes made.

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: Check the **Enable Access Control** check box and click the **Add Policy** button to start the **Access Control Wizard**.

The screenshot shows the 'ACCESS CONTROL' configuration page for a DHP-1320 RT router. The left sidebar lists various configuration options, with 'ACCESS CONTROL' selected. The main content area is divided into three sections:

- ACCESS CONTROL:** Contains a description: "The Access Control option allows you to control access in and out of your network. Use this feature as Access Controls to only grant access to approved sites, limit web access based on time or dates, and/or block internet access for applications like P2P utilities or games." Below the text are two buttons: "Save Settings" and "Don't Save Settings".
- ENABLE:** Contains a checkbox labeled "Enable Access Control" which is checked. Below the checkbox is an "Add Policy" button.
- POLICY TABLE:** A table with columns: "Enable Policy", "Machine", "Filtering", "Logged", and "Schedule".

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

- Check **Enable Access Control** if you want to enforce rules that limit Internet access from specific LAN computers.
- Click **Add Policy** to start the processes of creating a rule. You can cancel the process at any time. When you are finished creating a rule it will be added to the **Policy Table** below.
- Click the **Edit** icon to modify an existing rule using the Policy Wizard.
- Click the **Delete** icon to permanently remove a rule.

Access Control Wizard

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

The screenshot shows the "ADD NEW POLICY" wizard. The title bar reads "ADD NEW POLICY". Below the title bar, the text says: "This wizard will guide you through the following steps to add a new policy for Access Control."

The steps listed are:

- Step 1 - Choose a unique name for your policy
- Step 2 - Select a schedule
- Step 3 - Select the machine to which this policy applies
- Step 4 - Select filtering method
- Step 5 - Select filters
- Step 6 - Configure Web Access Logging

At the bottom of the wizard, there are four buttons: "Prev", "Next", "Save", and "Cancel".

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.

 << Computer Name' and 'Machine Address : << Computer Name'. There is a button 'Copy Your PC's MAC Address', and 'OK' and 'Cancel' buttons. At the bottom is a table with one row labeled 'Machine' and three empty cells. At the very bottom are four buttons: 'Prev', 'Next', 'Save', and 'Cancel'."/>

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 :

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

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

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

STEP 6: CONFIGURE WEB ACCESS LOGGING

Web Access Logging : Disabled Enabled

Website Filter

Website Filters are used to allow you to set up a list of Web sites that can be viewed by multiple users through the network. To use this feature select the appropriate Web Filtering option, enter the domain or website, and click **Save Settings**.

Configure Web Filtering: Select **ALLOW** computers access to **ONLY** these sites, or **DENY** computers access to **ONLY** these sites from the drop-down menu.

Website URL: Enter the keywords or URLs that you want to allow or block.

Click the **Save Settings** button to save any changes made.

The screenshot shows the DHP-1320 RT web interface. The left sidebar contains navigation options: VIRTUAL SERVER, PORT FORWARDING, APPLICATION RULES, QOS ENGINE, NETWORK FILTER, ACCESS CONTROL, WEBSITE FILTER (highlighted), INBOUND FILTER, FIREWALL SETTINGS, ROUTING, ADVANCED WIRELESS, WI-FI PROTECTED SETUP, ADVANCED NETWORK, IPV6, and IPV6 ROUTING. The main content area is divided into three tabs: SETUP, ADVANCED (selected), TOOLS, STATUS, and SUPPORT. The 'WEBSITE FILTER' section is highlighted in orange and contains the 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". The '40 - WEBSITE FILTERING RULES' section is highlighted in black and contains the text: "Configure Website Filter below:" followed by a dropdown menu set to "DENY computers access to ONLY these sites" and a "Clear the list below..." button. Below this is a table with the header "Website URL / Domain" and 15 empty rows. The right sidebar contains "Helpful Hints..." with a link to "Create a list of Web Sites to which you would like to deny or allow through the network." and "Use with Advanced -> Access Control. More..."

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 with Virtual Server, Port Forwarding, or Remote Administration features.

Name: Enter a name for the inbound filter rule.

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

Enable: Check to enable rule.

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

Remote IP End: Enter the ending IP address. Enter 255.255.255.255 if you do not want to specify an IP range.

Add: Click the **Add** button to apply your settings.

DHP-1320 RT | 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
WI-FI PROTECTED SETUP
ADVANCED NETWORK
IPv6
IPv6 ROUTING

INBOUND FILTER

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

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

ADD INBOUND FILTER RULE

Name :

Action : Allow All

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

Add Clear

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...](#)

Firewall Settings

A firewall protects your network from the outside world. The DHP-1320 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.

Firewall Settings: Check the **Enable SPI** box to enable the SPI (Stateful Packet Inspection, also known as dynamic packet filtering) feature. Enabling SPI 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 Anti-Spoof Checking: Enable this option to provide protection from certain kinds of "spoofing" attacks.

The screenshot shows the Firewall Settings page for a DHP-1320 RT router. The page is organized into several sections:

- FIREWALL SETTINGS:** Includes a description of the firewall settings and two buttons: "Save Settings" and "Don't Save Settings". The "Enable SPI" checkbox is checked.
- NAT ENDPOINT FILTERING:** Contains settings for UDP and TCP endpoint filtering.
 - 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:** Includes the "Enable anti-spoof checking" checkbox, which is unchecked.
- DMZ HOST:** Includes a description of the DMZ option, a "Note" about security risks, and fields for "Enable DMZ Host" (unchecked) and "DMZ IP Address" (0.0.0.0). There is also a dropdown menu for "Computer Name".
- APPLICATION LEVEL GATEWAY (ALG) CONFIGURATION:** Includes checkboxes for "PPTP", "IPSec (VPN)", "RTSP", and "SIP", all of which are checked.

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.

Carry out the following to create a DMZ host:

1. Check the **Enable DMZ** box.
2. Specify the IP address of the computer on the LAN that you want to have unrestricted Internet communication in the DMZ IP address field. To specify an existing DHCP client, use the **Computer Name** drop-down to select the computer that you want to make a DMZ host. If selecting a computer that is a DHCP client, be sure to make a static reservation in the **Setup > Network Settings** page so that the IP address of the DMZ machine does not change.
3. Click the **Save Settings** button to add the new DMZ host.

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 **System > Network Settings** page so that the IP address of the DMZ machine does not change.

Routing

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

Routing List: Each Route has a checkbox next to it, check the box of the route you wish to enable.

Name: Specify a name for identification of this route.

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

Destination IP: Enter the address of the host or network you wish to access.

Netmask: This field identifies the portion of the destination IP in use.

Gateway: The IP address of the router will be displayed here.

The screenshot shows the D-Link DHP-1320 RT web interface. The navigation menu on the left includes: VIRTUAL SERVER, PORT FORWARDING, APPLICATION RULES, QOS ENGINE, NETWORK FILTER, ACCESS CONTROL, WEBSITE FILTER, INBOUND FILTER, FIREWALL SETTINGS, ROUTING (selected), ADVANCED WIRELESS, WI-FI PROTECTED SETUP, ADVANCED NETWORK, and IPv6.

The main content area is titled "ROUTING :". It contains the following text: "This Routing page allows you to specify custom routes that determine how data is moved around your network." Below this text are two buttons: "Save Settings" and "Don't Save Settings".

Below the buttons is a section titled "32 --ROUTE LIST" containing a table with the following columns: Name, Destination IP, Netmask, gateway, Metric, and Interface. The table lists four routes, each with a checkbox in the Name column. The first route is selected (checkbox checked).

Name	Destination IP	Netmask	gateway	Metric	Interface
<input checked="" type="checkbox"/>	0.0.0.0	0.0.0.0	gateway	1	WAN
<input type="checkbox"/>	0.0.0.0	0.0.0.0	gateway	1	WAN
<input type="checkbox"/>	0.0.0.0	0.0.0.0	gateway	1	WAN
<input type="checkbox"/>	0.0.0.0	0.0.0.0	gateway	1	WAN

The sidebar on the right is titled "Helpful Hints..". It contains the following text: "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." Below this text is a "More..." link.

Click the **Save Settings** button to save any changes made.

Advanced Wireless Settings

802.11n/b/g (2.4GHz)

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 2346. If inconsistent data flow is a problem, only a minor modification should be made.

DTIM Interval: (Delivery Traffic Indication Message) 1 is the default setting. A DTIM is a countdown informing clients of the next window for listening to broadcast and multicast messages.

WLAN Partition: This enables 802.11d operation. 802.11d is a wireless specification developed to allow implementation of wireless networks in countries that cannot use the 802.11 standard. This feature should only be enabled if you are in a country that requires it.

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

Short Guard Interval: 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.

Click the **Save Settings** button to save any changes made.

DHP-1320 // RT	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
VIRTUAL SERVER	ADVANCED WIRELESS				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...
PORT FORWARDING	If you are not familiar with these Advanced Wireless settings, please read the help section before attempting to modify these settings.				
APPLICATION RULES	<input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
QOS ENGINE	ADVANCED WIRELESS SETTINGS				
NETWORK FILTER	Transmit Power : High				
ACCESS CONTROL	Beacon Period : 100 (20..1000)				
WEBSITE FILTER	RTS Threshold : 2346 (256..2346)				
INBOUND FILTER	DTIM Interval : 1 (1..15)				
FIREWALL SETTINGS	WLAN Partition : <input type="checkbox"/>				
ROUTING	WMM Enable : <input checked="" type="checkbox"/>				
ADVANCED WIRELESS	Short GI : <input checked="" type="checkbox"/>				
WI-FI PROTECTED SETUP					
ADVANCED NETWORK					
IPv6					
IPv6 ROUTING					

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.

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.

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

Reset PIN to Default: Click this button to restore the default PIN of the router.

Generate New PIN: Click this button to 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.

DHP-1320 // RT	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
VIRTUAL SERVER	WI-FI PROTECTED SETUP				Helpful Hints... 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 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...
PORT FORWARDING	Wi-Fi Protected Setup is used to easily add devices to a network using a PIN or button press. Devices must support Wi-Fi Protected Setup in order to be configured by this method. <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
APPLICATION RULES	WI-FI PROTECTED SETUP Enable : <input checked="" type="checkbox"/> Lock Wireless Security Settings : <input type="checkbox"/> <input type="button" value="Reset to Unconfigured"/>				
QOS ENGINE	PIN SETTINGS				
NETWORK FILTER	Current PIN : 93922852 <input type="button" value="Generate New PIN"/> <input type="button" value="Reset PIN to Default"/>				
ACCESS CONTROL	ADD WIRELESS STATION				
WEBSITE FILTER	<input type="button" value="Add Wireless Device with WPS"/>				
INBOUND FILTER					
FIREWALL SETTINGS					
ROUTING					
ADVANCED WIRELESS					
WI-FI PROTECTED SETUP					
ADVANCED NETWORK					
IPv6					
IPv6 ROUTING					

Add Wireless Station: Click the **Add Wireless Device with WPS** button to start Wireless Connection Setup Wizard. This wizard helps you add wireless devices to the wireless network.

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.

Click the **Save Settings** button to save any changes made.

Advanced Network

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

Enable WAN Ping Response: Unchecking the box will not allow the DHP-1320 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, or auto. Some older cable or DSL modems may require you to set the port speed to 10Mbps.

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

DHP-1320 // RT	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
VIRTUAL SERVER	ADVANCED NETWORK				<p>Helpful Hints...</p> <p>UPnP helps other UPnP LAN hosts interoperate with the router. Leave the UPnP option enabled as long as the LAN has other UPnP applications.</p> <p>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.</p> <p>The WAN speed is usually detected automatically. If you are having problems connecting to the WAN, try selecting the speed manually.</p> <p>If you are having trouble receiving multicast streams from the Internet, make sure the Multicast Streams option is enabled.</p> <p>More...</p>
PORT FORWARDING	<p>If you are not familiar with these Advanced Network settings, please read the help section before attempting to modify these settings.</p> <p><input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/></p>				
APPLICATION RULES	UPNP				
QOS ENGINE	<p>Universal Plug and Play (UPnP) supports peer-to-peer Plug and Play functionality for network devices.</p> <p>Enable UPnP : <input checked="" type="checkbox"/></p>				
NETWORK FILTER	WAN PING				
ACCESS CONTROL	<p>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.</p> <p>Enable WAN Ping Respond : <input checked="" type="checkbox"/></p> <p>WAN Ping Inbound Filter : <input type="text" value="Allow All"/></p> <p>Details : <input type="text" value="Allow_All"/></p>				
WEBSITE FILTER	WAN PORT SPEED				
INBOUND FILTER	<p>WAN Port Speed : <input type="text" value="10/100Mbps Auto"/></p>				
FIREWALL SETTINGS	MULTICAST STREAMS				
ROUTING	<p>Enable Multicast Streams : <input type="checkbox"/></p>				
ADVANCED WIRELESS					
WI-FI PROTECTED SETUP					
ADVANCED NETWORK					
IPv6					
IPv6 ROUTING					

Click the **Save Settings** button to save any changes made.

IPv6

Use the IPv6 window to configure the mode that the Router will use to access an IPv6 Internet connection.

My IPv6 Connection is: Internet Connection mode.

DHP-1320 // RT	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
VIRTUAL SERVER	IPv6				Helpful Hints... 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. More...
PORT FORWARDING	Use this section to configure your IPv6 Connection type. If you are unsure of your connection method, please contact your Internet Service Provider. <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
APPLICATION RULES	IPv6 CONNECTION TYPE Choose the mode to be used by the router to the IPv6 Internet. My IPv6 Connection is : <input type="text" value="Link-local only"/>				
QOS ENGINE	LAN IPv6 ADDRESS SETTINGS : Use this section to configure the internal network settings of your router. LAN IPv6 Link-Local Address : FE80::211:22FF:FE07:2717/64				
NETWORK FILTER					
ACCESS CONTROL					
WEBSITE FILTER					
INBOUND FILTER					
FIREWALL SETTINGS					
ROUTING					
ADVANCED WIRELESS					
WI-FI PROTECTED SETUP					
ADVANCED NETWORK					
IPv6					
IPv6 ROUTING					

IPv6

Static IPv6

Select **Static IPv6** from the **My IPv6 Connection is** drop-down menu if your Router will use a static IPv6 address to connect to the Internet.

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 Address Autoconfiguration Settings: Use this section to configure the IPv6 autoconfiguration settings.

Click the **Save Settings** button to save any changes made.

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 type="checkbox"/>
IPv6 Address :	<input type="text"/>
Subnet Prefix Length :	<input type="text"/>
Default Gateway :	<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 :	<input type="text"/> /64
LAN IPv6 Link-Local Address :	FE80::211:22FF:FE07:2717/64
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)

IPv6

Static IPv6 - Stateless

To configure the Router to use a Static IPv6 Stateless connection, configure the parameters in the **LAN Address Autoconfiguration Settings** section as described below:

Enable automatic IPv6 address assignment: Check to enable the Autoconfiguration feature.

Autoconfiguration Type: Select the *Stateless* option from the drop-down menu.

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

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: 1440 (minutes)

Click the **Save Settings** button to save any changes made.

IPv6

Static IPv6 - Stateful

To configure the Router to use a Static IPv6 Stateful connection, configure the parameters in the **LAN Address Autoconfiguration Settings** section as described below:

Enable Check to enable the Autoconfiguration feature.

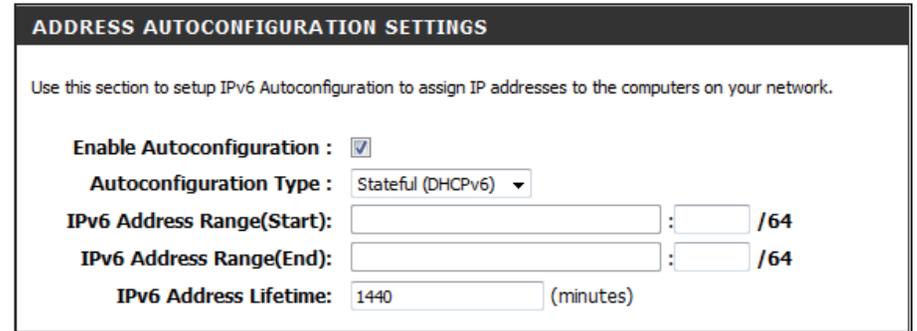
Autoconfiguration:

Autoconfiguration Type: Select the *Stateful(DHCPv6)* option from the drop-down menu.

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).



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): : /64

IPv6 Address Range(End): : /64

IPv6 Address Lifetime: 1440 (minutes)

Click the **Save Settings** button to save any changes made.

IPv6

Autoconfiguration (Stateless/DHCPv6)

Select **Static IPv6** from the **My IPv6 Connection is** drop-down menu if your Router will use a static IPv6 address to connect to the Internet.

IPv6 DNS Settings: Select Obtain DNS Server address automatically or enter a specific DNS server address.

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

LAN IPv6 Link-Local Address: Displays the Router's LAN Link-Local Address.

Address Autoconfiguration Settings: Use this section to configure the IPv6 autoconfiguration settings.

Address Autoconfiguration Settings: Use this section to configure the IPv6 autoconfiguration settings.

Click the **Save Settings** button to save any changes made.

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 DNS server address automatically or enter a specific DNS server address.	
<input checked="" type="radio"/> Obtain IPv6 DNS Servers automatically <input type="radio"/> Use the following IPv6 DNS Servers	
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.	
Enable DHCP-PD :	<input checked="" type="checkbox"/>
LAN IPv6 Address :	<input type="text"/> /64
LAN IPv6 Link-Local Address :	FE80::211:22FF:FE07:2717/64
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 <input type="text"/> (minutes)

IPv6

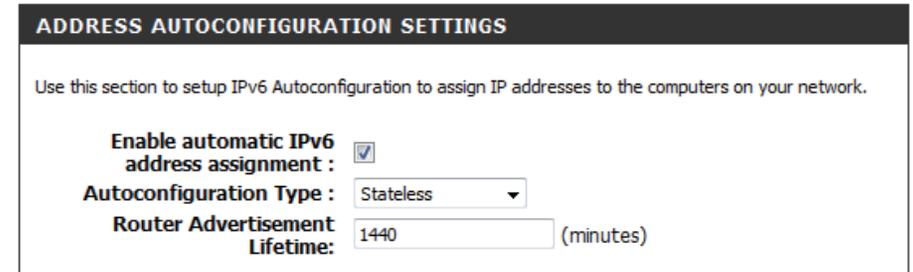
Autoconfiguration (Stateless/DHCPv6) - Stateless

To configure the Router to use a Static IPv6 Stateless connection, configure the parameters in the **LAN Address Autoconfiguration Settings** section as described below:

Enable automatic IPv6 address assignment: Check to enable the Autoconfiguration feature.

Autoconfiguration Type: Select the *Stateless* option from the drop-down menu.

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



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: 1440 (minutes)

Click the **Save Settings** button to save any changes made.

IPv6

Autoconfiguration (Stateless/DHCPv6) - Stateful

To configure the Router to use a Static IPv6 Stateful connection, configure the parameters in the **LAN Address Autoconfiguration Settings** section as described below:

Enable automatic IPv6 address assignment: Check to enable the Autoconfiguration feature.

Autoconfiguration Type: Select the *Stateful(DHCPv6)* option from the drop-down menu.

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).

Click the **Save Settings** button to save any changes made.

ADDRESS AUTOCONFIGURATION SETTINGS

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

Enable automatic IPv6 address assignment :

Autoconfiguration Type : Stateful DHCPv6 ▾

IPv6 Address Range(Start): ::

IPv6 Address Range(End): ::

IPv6 Address Lifetime: (minutes)

IPv6

6to4

Select **6to4** from the **My IPv6 Connection is** drop-down menu if your Router will use a 6 to 4 tunnel to connect to the Internet.

Primary DNS Address: Enter the DNS Address supplied by your Internet provider (ISP).

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

Click the **Save Settings** button to save any changes made.

IPv6 CONNECTION TYPE	
Choose the mode to be used by the router to the IPv6 Internet.	
My IPv6 Connection is :	6to4
6to4 SETTINGS :	
Enter the IPv6 address information provided by your Internet Service Provider (ISP).	
6to4 Address :	0:0:0:0:0:0:0
6to4 Relay :	192.88.99.1
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 :	2002:0:0:0001 ::1/64
LAN IPv6 Link-Local Address :	FE80::211:22FF:FE07:2717/64
LAN 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)

IPv6 6to4 - Stateless

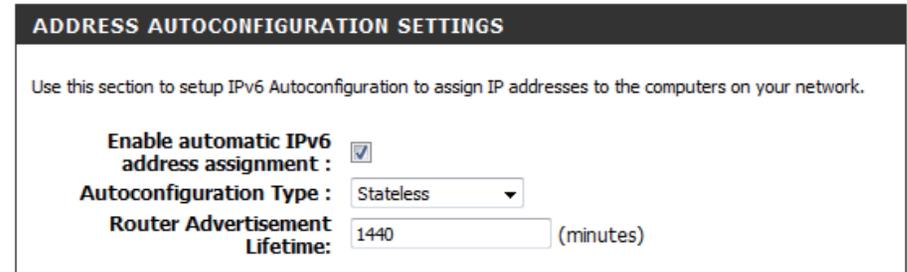
To configure the Router to use an IPv6 to IPv4 tunnel stateless autoconfiguration connection, configure the parameters in the **LAN Address Autoconfiguration Settings** section as described below:

Enable automatic IPv6 address assignment: Check to enable the Autoconfiguration feature.

Autoconfiguration Type: Select the *Stateless* option from the drop-down menu.

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

Click the **Save Settings** button to save any changes made.



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: 1440 (minutes)

IPv6 6to4 - Stateful

To configure the Router to use an IPv6 to IPv4 tunnel stateful autoconfiguration connection, configure the parameters in the **LAN Address Autoconfiguration Settings** section as described below:

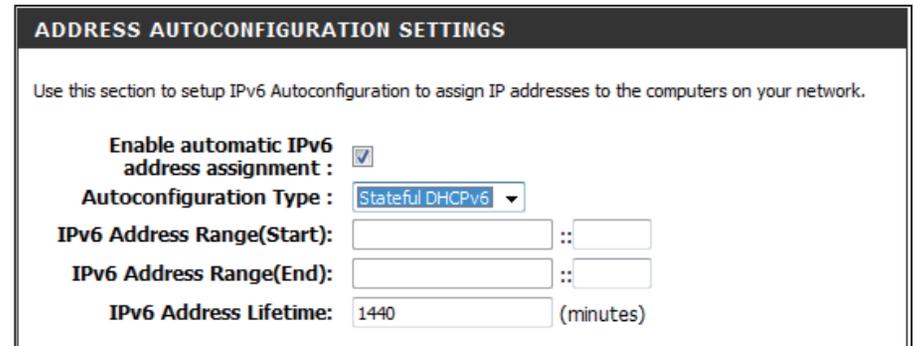
Enable automatic IPv6 address assignment: Check to enable the Autoconfiguration feature.

Autoconfiguration Type: Select the **Stateful** option from the drop-down menu.

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).



The screenshot shows a configuration window titled "ADDRESS AUTOCONFIGURATION SETTINGS". Below the title is a subtitle: "Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network." The configuration options are as follows:

- Enable automatic IPv6 address assignment:** A checkbox that is checked.
- Autoconfiguration Type:** A dropdown menu with "Stateful DHCPv6" selected.
- IPv6 Address Range(Start):** Two empty input boxes separated by a double colon (::).
- IPv6 Address Range(End):** Two empty input boxes separated by a double colon (::).
- IPv6 Address Lifetime:** An input box containing the number "1440" followed by the text "(minutes)".

Click the **Save Settings** button to save any changes made.

IPv6 6rd

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

6rd IPv6 Prefix: Enter the settings supplied by your Internet provider (ISP).

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

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 :	0.0.0.0 Mask Length: <input type="text" value="0"/>
Assigned IPv6 Prefix :	None
Tunnel Link-Local Address :	FE80::0000:0000/64
6rd Relay :	<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::211:22FF:FE07:2717/64
LAN 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)

IPv6 6rd (Stateless)

Enable automatic IPv6 address assignment: Check to enable the Autoconfiguration feature.

Autoconfiguration Type: Select the *Stateless* option from the drop-down menu.

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

Click the **Save Settings** button to save any changes made.

LAN 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: 1440 (minutes)

IPv6 6rd (Stateful)

Enable automatic IPv6 address assignment: Check to enable the Autoconfiguration feature.

Autoconfiguration Type: Select the **Stateful DHCPv6** option from the drop-down menu.

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).

The screenshot shows a configuration window titled "LAN ADDRESS AUTOCONFIGURATION SETTINGS". Below the title is a subtitle: "Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network." The settings are as follows:

- Enable automatic IPv6 address assignment :** A checked checkbox.
- Autoconfiguration Type :** A dropdown menu set to "Stateful DHCPv6".
- IPv6 Address Range(Start):** A text input field followed by "::" and another empty text input field.
- IPv6 Address Range(End):** A text input field followed by "::" and another empty text input field.
- IPv6 Address Lifetime:** A text input field containing "1440" followed by "(minutes)".

Click the **Save Settings** button to save any changes made.

IPv6

IPv6 over IPv4 Tunnel

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

IPv6 over IPv4 Tunnel Settings: Enter the IPv6 settings supplied by your Tunnel Broker.

IPv6 DNS Settings: Obtain a DNS server address automatically or enter a specific DNS server 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.

IPv6 CONNECTION TYPE	
Choose the mode to be used by the router to the IPv6 Internet.	
My IPv6 Connection is :	IPv6 over IPv4 Tunnel ▾
IPv6 over IPv4 TUNNEL SETTINGS :	
Enter the IPv6 over 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 IPv6 DNS Servers automatically <input type="radio"/> Use the following IPv6 DNS Servers	
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.	
Enable DHCP-PD :	<input checked="" type="checkbox"/>
LAN IPv6 Address :	<input type="text"/> /64
LAN IPv6 Link-Local Address :	FE80::211:22FF:FE07:2717/64
LAN 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 <input type="text"/> (minutes)

IPv6

IPv6 over IPv4 Tunnel - Stateless

Enable automatic IPv6 address assignment: Check to enable the IPv6 address assignment feature.

Autoconfiguration Type: Select **Stateless**. Refer to the previous page for Stateful.

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

LAN 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: 1440 (minutes)

IPv6

IPv6 over IPv4 Tunnel - Stateful

Enable automatic IPv6 address assignment: Check to enable the automatic IPv6 address assignment feature.

Autoconfiguration Type: Select **Stateful (DHCPv6)**. Refer to the next page for Stateless.

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).

The screenshot shows a configuration window titled "LAN ADDRESS AUTOCONFIGURATION SETTINGS". Below the title is a subtitle: "Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network." The settings are as follows:

- Enable automatic IPv6 address assignment:** A checkbox that is checked.
- Autoconfiguration Type:** A dropdown menu set to "Stateful DHCPv6".
- IPv6 Address Range(Start):** A text input field followed by a colon and an empty text input field.
- IPv6 Address Range(End):** A text input field followed by a colon and an empty text input field.
- IPv6 Address Lifetime:** A text input field containing the value "1440" followed by "(minutes)".

IPv6 Link-local Only

Select **Link-local Only** from the **My IPv6 Connection** is drop-down menu if your Router will use the IPv6 link local method to connect to the Internet.

LAN IPv6 Address Settings: Displays the LAN IPv6 Link-Local address of the router.

The screenshot shows the IPv6 configuration interface for a DHP-1320 RT router. The interface is divided into several sections:

- Navigation:** DHP-1320 // RT, SETUP, ADVANCED (selected), TOOLS, STATUS, SUPPORT.
- IPv6 Section:**
 - IPv6:** Use this section to configure your IPv6 Connection type. If you are unsure of your connection method, please contact your Internet Service Provider. Includes 'Save Settings' and 'Don't Save Settings' buttons.
 - IPv6 CONNECTION TYPE:** Choose the mode to be used by the router to the IPv6 Internet. 'My IPv6 Connection is' is set to 'Link-local only'.
 - LAN IPv6 ADDRESS SETTINGS :** Use this section to configure the internal network settings of your router. 'LAN IPv6 Link-Local Address' is FE80::211:22FF:FE07:2717/64.
- Helpful Hints...:**
 - 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.
 - More...

Click the **Save Settings** button to save any changes made.

IPv6 PPPoE

The DHP-1320's IPv6 Firewall feature allows you to configure which kind of IPv6 traffic is allowed to pass through the device. The DHP-1320's IPv6 Firewall functions in a similar way to the IP Filters feature.

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**.

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

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

IPv6 CONNECTION TYPE

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

My IPv6 Connection is :

PPPOE :

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

PPPoE Session : Share with IPv4 Create a new one

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 IPv6 DNS Servers automatically

Use the following IPv6 DNS Servers

Primary DNS Address :

Secondary DNS Address :

LAN IPv6 ADDRESS SETTINGS :

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

Enable DHCP-PD :

LAN IPv6 Address : /64

LAN IPv6 Link-Local Address : FE80::211:22FF:FE07:2717/64

LAN 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 :

Router Advertisement Lifetime : (minutes)

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)** or **Stateless**. Refer to the next page for Stateless.

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 Routing

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

Routing List: Each Route has a checkbox next to it, check the box of the route you wish to enable.

Name: Specify a name for identification of this route.

Destination IP: This field identifies the portion of the destination IP in use.

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 which the IP packet must use to transit out of the router when this route is used.

Gateway: The IP address of the router will be displayed here.

The screenshot shows the IPv6 Routing configuration page. The sidebar on the left contains the following menu items: VIRTUAL SERVER, PORT FORWARDING, APPLICATION RULES, QOS ENGINE, NETWORK FILTER, ACCESS CONTROL, WEBSITE FILTER, INBOUND FILTER, FIREWALL SETTINGS, ROUTING, ADVANCED WIRELESS, WI-FI PROTECTED SETUP, ADVANCED NETWORK, IPv6, and IPv6 ROUTING. The main content area is titled 'ROUTING' and contains a description: 'This Routing page allows you to specify custom routes that determine how data is moved around your network.' Below this are 'Save Settings' and 'Don't Save Settings' buttons. The 'ROUTE LIST' section shows a table with 10 entries, each with a checkbox, a Name field, a Destination IPv6/Prefix Length field (e.g., /64), a metric field, an Interface dropdown menu (set to NULL), and a Gateway field. The right sidebar contains 'Helpful Hints..' with the following text: '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.', and a 'More...' link.

Tools

Admin

This page will allow you to change the Administrator password and configure the authentication settings. This window also allows you to enable Remote Management, via the Internet.

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 can only see the settings, but cannot change them.

Gateway Name: Enter a name for your DHP-1320 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 Remote Management: Remote management allows the DHP-1320 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.

Remote Admin Port: Enter the port number that will be used to access the DHP-1320.

DHP-1320 // RT	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
ADMIN	ADMINISTRATOR SETTINGS				Helpful Hints...
TIME	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.				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.
SYSLOG	By default there is no password configured. It is highly recommended that you create a password to keep your router secure.				
EMAIL SETTINGS	<input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				Enabling Remote Management, allows you or others to change the router configuration from a computer on the Internet.
SYSTEM	ADMIN PASSWORD				
FIRMWARE	Please enter the same password into both boxes, for confirmation.				
DYNAMIC DNS	Password : <input type="text"/> Verify Password : <input type="text"/>				Choose a port to open for remote management.
SYSTEM CHECK	USER PASSWORD				
SCHEDULES	Please enter the same password into both boxes, for confirmation.				
	Password : <input type="text"/> Verify Password : <input type="text"/>				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.
	SYSTEM NAME				
	Gateway Name : <input type="text" value="DHP-1320"/>				
	ADMINISTRATION				More...
	Enable Graphical Authentication : <input type="checkbox"/>				
	Enable Remote Management : <input type="checkbox"/>				
	Remote Admin Port : <input type="text" value="8080"/>				
	Remote Admin Inbound Filter : <input type="text" value="Allow All"/>				
	Detail : <input type="text" value="Allow All"/>				

Click the **Save Settings** button to save any changes made.

Time

The Time window 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.

Enable Daylight Saving: Check this box if the country your are located in uses Daylight Saving time. Enter a start date and an end date for daylight saving time.

Enable NTP Server: Check this box to enable the NTP Server.

NTP Server Used: NTP is short for Network Time Protocol. NTP synchronizes computer clock times in a network of computers. To enable NTP carry out the following:

1. Check the **Automatically synchronize with D-Link's Internet Time Server** box.
2. Choose the D-Link NTP server that you would like to synchronize with from the **NTP Server Used** drop-down menu.

Set the Time and Date Manually: Use this section to configure the time manually. To configure the time manually, use the drop-down menus to select the appropriate *Year, Month, Day, Hour, Minute, and Second*.

The screenshot shows the 'TIME' configuration page for a DHP-1320 RT device. The page has a navigation menu on the left with options like ADMIN, TIME, SYSLOG, etc. The main content area is titled 'TIME' and contains the following sections:

- TIME:** A header section with a description: "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 adjust the time when needed." Below this are 'Save Settings' and 'Don't Save Settings' buttons.
- TIME CONFIGURATION:** Shows the current time as 'Thursday, September 02, 2010 7:16:52 PM' and the time zone as '(GMT-08:00) Pacific Time (US/Canada), Tijuana'. It includes a checkbox for 'Enable Daylight Saving' and 'Daylight Saving Dates' with dropdowns for DST Start (Mar 3rd Sun 1 am) and DST End (Nov 2nd Sun 1 am).
- AUTOMATIC TIME CONFIGURATION:** Includes a checkbox for 'Enable NTP Server' and a dropdown for 'NTP Server Used' with a '<< Select NTP Server' button.
- SET THE DATE AND TIME MANUALLY:** Features dropdown menus for Year (2010), Month (Sep), Day (2), Hour (07), Minute (16), and Second (49), along with a PM/AM selector and a 'Copy Your Computer's Time Settings' button.

Click the **Save Settings** button to save any changes made.

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).

DHP-1320 // RT	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
ADMIN	SYSLOG				Helpful Hints... 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.
TIME	The SysLog options allow you to send log information to a SysLog Server. <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
SYSLOG	SYLOG SETTINGS				More...
EMAIL SETTINGS	<input checked="" type="checkbox"/> Enable Logging To Syslog Server				
SYSTEM	Syslog Server IP Address: <input type="text" value="0.0.0.0"/> << <input type="text" value="Computer Name"/>				
FIRMWARE					
DYNAMIC DNS					
SYSTEM CHECK					
SCHEDULES					

Email Settings

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

Enable Email Notifications: When this option is enabled, router activity logs are e-mailed to a designated e-mail 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.

Send Mail Now: Click this button to send a test email from the Router to verify that the email settings have been configured correctly.

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

On Schedule: Selecting this option will send the logs via e-mail 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**.

Click the **Save Settings** button to save any changes made.

The screenshot shows the web interface for a DHP-1320 RT router. The navigation menu on the left includes ADMIN, TIME, SYSLOG, EMAIL SETTINGS (selected), SYSTEM, FIRMWARE, DYNAMIC DNS, SYSTEM CHECK, and SCHEDULES. The main content area is titled 'EMAIL SETTINGS' and contains the following configuration options:

- EMAIL NOTIFICATION:** 'Enable Email Notification' is checked.
- EMAIL SETTINGS:**
 - From Email Address: [Text Input]
 - To Email Address: [Text Input]
 - SMTP Server Address: [Text Input]
 - SMTP Server Port: 25 [Text Input]
 - Enable Authentication:
 - Account Name: User [Text Input]
 - Password: [Masked Text Input]
 - Verify Password: [Masked Text Input]
- EMAIL LOG WHEN FULL OR ON SCHEDULE:**
 - On Log Full:
 - On Schedule:
 - Schedule: Never [Dropdown]
 - Detail: Never [Text Input]

Buttons for 'Save Settings' and 'Don't Save Settings' are located at the top of the configuration area. A 'Send Mail Now' button is mentioned in the text but not clearly visible in the screenshot.

System

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

Save Settings to 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. A file dialog will appear, allowing you to select a location and file name for the settings.

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

Firmware

Use the Firmware window to upgrade the firmware of the Router and install language packs. If you plan to install new firmware, make sure the firmware you want to use is on the local hard drive of the computer. If you want to install a new language pack, make sure that you have the language pack available. 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 Information: This section displays information about the firmware that is loaded on the Router. Click the **Check Now** button to find out if there is an updated firmware; if so, download the new firmware to your hard drive.

Firmware Upgrade: 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.

The screenshot shows the D-Link DHP-1320 RT web interface. The left sidebar contains a navigation menu with the following items: ADMIN, TIME, SYSLOG, EMAIL SETTINGS, SYSTEM, FIRMWARE (highlighted), DYNAMIC DNS, SYSTEM CHECK, and SCHEDULES. The main content area is divided into several sections:

- FIRMWARE:** A section with an orange header. It contains the text: "There may be new firmware for your DHP-1320 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:** A section with a dark header. It displays:
 - Current Firmware Version : 1.00NA
 - Current Firmware Date : Thu, 02, Sep, 2010
 - Check Online Now for Latest Firmware Version :
- FIRMWARE UPGRADE:** A section with a dark header. It contains a note: "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." Below the note, it says: "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." At the bottom of this section, there is a text input field, a button, and an button.

On the right side of the interface, there is a sidebar with the following content:

- Helpful Hints...** A link to a help page.
- A paragraph of text: "Firmware updates are released periodically to improve the functionality of your router and to add features. If you run into a problem with a specific feature of the router, check if updated firmware is available for your router."
- More...** A link to more information.

Dynamic DNS

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

Enable 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.

Timeout: Enter a time in (hours).

Status: Displays the current connection status to your DDNS server.

DHP-1320 // RT	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
ADMIN	DYNAMIC DNS				Helpful Hints...
TIME	<p>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.</p> <p>Sign up for D-Link's Free DDNS service at www.dlinkddns.com.</p> <p>Save Settings Don't Save Settings</p>				To use this feature, you must first have a Dynamic DNS account from one of the providers in the drop down menu.
SYSLOG	DYNAMIC DNS SETTINGS				More...
EMAIL SETTINGS	<p>Enable Dynamic DNS : <input type="checkbox"/></p> <p>Server Address : <input type="text" value="www.dlinkddns.com(Free)"/> <input type="button" value="<<"/> <input type="button" value="Select Dynamic DNS Server"/> <input type="button" value=">>"/></p> <p>Host Name : <input type="text"/></p> <p>Username or Key : <input type="text"/></p> <p>Password or Key : <input type="password" value="*****"/></p> <p>Verify Password or Key : <input type="password" value="*****"/></p> <p>Timeout : <input type="text" value="576"/> (hours)</p> <p>Status : Disconnected</p>				
SYSTEM					
FIRMWARE					
DYNAMIC DNS					
SYSTEM CHECK					
SCHEDULES					

Click the **Save Settings** button to save any changes made.

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**. Click **Stop** to stop sending Ping packets

IPv6 Ping Test: The IPv6 Ping Test is used to send IPv6 Ping packets to test if a computer is on the Internet. Enter the IPv6 Address that you wish to Ping, and click **Ping**. Click **Stop** to stop sending IPv6 Ping packets

Ping Results: The results of your Ping/IPv6 Ping attempts will be displayed here.

DHP-1320 // RT	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
ADMIN	PING TEST				Helpful Hints... "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. More...
TIME	Ping Test sends "ping" packets to test a computer on the Internet.				
SYSLOG	PING TEST				
EMAIL SETTINGS	Host Name or IP Address : <input type="text"/> <input type="button" value="ping"/>				
SYSTEM	IPv6 PING TEST				
FIRMWARE	Host Name or IPv6 Address : <input type="text"/> <input type="button" value="ping"/>				
DYNAMIC DNS	PING RESULT				
SYSTEM CHECK					
SCHEDULES					

Schedules

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

Name: Enter a name for your new schedule.

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

Time: Check **All Day - 24hrs** or enter a *Start Time* and *End Time* for your schedule.

Save: Click **Save** to save your schedule. You must click the **Save** button 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.

The screenshot shows the DHP-1320 RT web interface. The top navigation bar includes 'DHP-1320 // RT', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar lists various configuration options: ADMIN, TIME, SYSLOG, EMAIL SETTINGS, SYSTEM, FIRMWARE, DYNAMIC DNS, SYSTEM CHECK, and SCHEDULES. The main content area is titled 'SCHEDULES' and contains the following text: 'The Schedule configuration option is used to manage schedule rules for various firewall and parental control features.' Below this text are two buttons: 'Save Settings' and 'Don't Save Settings'. The '10 - ADD SCHEDULE RULE' section includes a 'Name' input field, a 'Day(s)' section with radio buttons for 'All Week' (selected) and 'Select Day(s)', and checkboxes for 'Sun', 'Mon', 'Tue', 'Wed', 'Thu', 'Fri', and 'Sat'. There is also an 'All Day - 24 hrs' checkbox. The 'Time format' is set to '24-hour'. The 'Start Time' is set to 12:00 AM and the 'End Time' is set to 12:00 AM. Below this is a 'SCHEDULE RULES LIST' table with columns for 'Name', 'Day(s)', and 'Time Frame'. The right sidebar, titled 'Helpful Hints...', provides instructions on how to name schedules, save, edit, and delete them.

Status

Device Info

This page displays the current information for the DHP-1320. 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 Computer: Displays computers and other devices which are connected to the router via Ethernet, and that are receiving an IP address assigned by the router CDHCP).

IGMP Multicast Memberships: Displays the Multicast Group IP address.

DEVICE INFORMATION		
All of your Internet and network connection details are displayed on this page. The firmware version is also displayed here.		
GENERAL		
Time : Thursday, August 26, 2010 5:31:39 PM		
Firmware Version : 1.00NA . Thu. 26. Aug. 2010		
WAN		
Connection Type: DHCP Client Disconnected		
<input type="button" value="DHCP Release"/> <input type="button" value="DHCP Renew"/>		
Cable Status : Disconnected		
Network Status : Disconnected		
Connection Up Time : N/A		
MAC Address : 00:11:22:07:27:18		
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 :		
Advanced DNS : Disabled		
LAN		
MAC Address : 00:11:22:07:27:17		
IP Address : 192.168.0.1		
Subnet Mask : 255.255.255.0		
DHCP Server : Enabled		
WIRELESS LAN		
Wireless Radio : Enabled		
MAC Address : 00:11:22:07:27:17		
Network Name (SSID) : dlink		
Channel : 1		
Security Mode : disable		
LAN COMPUTERS		
IP Address	Name (if any)	MAC
IGMP MULTICAST MEMBERSHIPS		
Multicast Group Address		

Logs

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.

Save Log File: Click the **Apply Log Settings Now** button save the Router's log entries to a log file on your computer.

Log Type: Use the radio buttons to select the types of messages that you want to display from the log. **System, Firewall & Security, and Router Status** messages can be selected.

First Page: Click this button to view the first page of the Router logs.

Last Page: Click this button to view the last page of the Router logs.

Previous: Click this button to view the previous page of the Router logs.

Next: Click this button to view the next page of the Router logs.

Clear: Clears all of the log contents.

Email Now: Click this button to open the **Tools > Email Settings** screen so that you can change the Email configuration for sending logs.

The screenshot shows the D-Link DHP-1320 RT web interface. The main navigation tabs are SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The left sidebar menu includes DEVICE INFO, LOGS, STATISTICS, INTERNET SESSIONS, ROUTING, WIRELESS, and IPv6. The main content area is titled 'LOGS' and contains the following text: '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.'

Below this text is the 'LOG OPTIONS' section, which includes a 'Log Type' section with the following checked options: System Activity, Attacks, and Notice. There are also unchecked options for Debug Information and Dropped Packets. An 'Apply Log Settings Now' button is located below these options.

The 'LOG DETAILS' section at the bottom features navigation buttons: First Page, Last Page, Previous, Next, Refresh, Clear, Email Now, and Save Log. Below these buttons is a table showing log entries:

Time	Message
Sep 2 19:39:42	Sending discover...
Sep 2 19:39:40	Sending discover...
Sep 2 19:39:38	Sending discover...
Sep 2 19:38:34	Sending discover...

On the right side of the interface, there is a 'Helpful Hints...' section with the following text: 'Check the log frequently to detect unauthorized network usage. You can also have the log mailed to you periodically. Refer to Tools -> EMail. More...'

Statistics

The screen below displays the **Traffic Statistics**. Here you can view the amount of packets that pass through the DHP-1320 on both the WAN, LAN ports and the 802.11n/g (2.4GHz) wireless band. The traffic counter will reset if the device is rebooted.

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

Reset: Click the **Reset** button to reset the Router's traffic statistics.

DHP-1320 // RT	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT								
DEVICE INFO LOGS STATISTICS INTERNET SESSIONS ROUTING WIRELESS IPv6	TRAFFIC STATISTICS Traffic Statistics display Receive and Transmit packets passing through your router. <input type="button" value="Refresh Statistics"/> <input type="button" value="Clear Statistics"/>				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...								
LAN STATISTICS													
<table border="0"> <tr> <td>Sent : 162879</td> <td>Received : 151185</td> </tr> <tr> <td>TX Packets : 0</td> <td>RX Packets : 0</td> </tr> <tr> <td>Dropped : 0</td> <td>Dropped : 0</td> </tr> <tr> <td>Collisions : 0</td> <td>Errors : 0</td> </tr> </table>						Sent : 162879	Received : 151185	TX Packets : 0	RX Packets : 0	Dropped : 0	Dropped : 0	Collisions : 0	Errors : 0
Sent : 162879	Received : 151185												
TX Packets : 0	RX Packets : 0												
Dropped : 0	Dropped : 0												
Collisions : 0	Errors : 0												
WAN STATISTICS													
<table border="0"> <tr> <td>Sent : 0</td> <td>Received : 0</td> </tr> <tr> <td>TX Packets : 0</td> <td>RX Packets : 0</td> </tr> <tr> <td>Dropped : 0</td> <td>Dropped : 0</td> </tr> <tr> <td>Collisions : 0</td> <td>Errors : 0</td> </tr> </table>						Sent : 0	Received : 0	TX Packets : 0	RX Packets : 0	Dropped : 0	Dropped : 0	Collisions : 0	Errors : 0
Sent : 0	Received : 0												
TX Packets : 0	RX Packets : 0												
Dropped : 0	Dropped : 0												
Collisions : 0	Errors : 0												
WIRELESS STATISTICS													
<table border="0"> <tr> <td>Sent : 675</td> <td>Received : 0</td> </tr> <tr> <td>TX Packets : 6720</td> <td>RX Packets : 0</td> </tr> <tr> <td>Dropped : 0</td> <td>Dropped : 0</td> </tr> <tr> <td></td> <td>Errors : 0</td> </tr> </table>						Sent : 675	Received : 0	TX Packets : 6720	RX Packets : 0	Dropped : 0	Dropped : 0		Errors : 0
Sent : 675	Received : 0												
TX Packets : 6720	RX Packets : 0												
Dropped : 0	Dropped : 0												
	Errors : 0												

Internet Sessions

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

DHP-1320 // RT	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT			
DEVICE INFO	INTERNET SESSIONS This page displays the full details of active internet sessions to your router.				Helpful Hints...			
LOGS					This is a list of all active conversations between WAN computers and LAN computers.			
STATISTICS	INTERNET SESSIONS				More...			
INTERNET SESSIONS					<table border="1"> <thead> <tr> <th>Local</th> <th>NAT</th> <th>Internet</th> <th>Protocol</th> <th>State</th> <th>Dir</th> <th>Time Out</th> </tr> </thead> </table>	Local	NAT	Internet
Local	NAT	Internet	Protocol	State	Dir	Time Out		
ROUTING								
WIRELESS								
IPv6								

Routing Table

This page displays the routing details configured for your router.

DHP-1320 // RT	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT																												
DEVICE INFO LOGS STATISTICS INTERNET SESSIONS ROUTING WIRELESS IPv6	<p>ROUTING</p> <p>Routing Table</p> <p>This page displays the routing details configured for your router.</p>																																
	<p>ROUTING TABLE</p> <table border="1"> <thead> <tr> <th>Deatination IP</th> <th>NetMask</th> <th>Gateway</th> <th>Metric</th> <th>Interface</th> <th>Type</th> <th>Creator</th> </tr> </thead> <tbody> <tr> <td>192.168.0.0</td> <td>255.255.255.0</td> <td>0.0.0.0</td> <td>0</td> <td>LAN</td> <td>INTRANET</td> <td>System</td> </tr> <tr> <td>239.0.0.0</td> <td>255.0.0.0</td> <td>0.0.0.0</td> <td>0</td> <td>LAN</td> <td>INTRANET</td> <td>System</td> </tr> <tr> <td>127.0.0.0</td> <td>255.0.0.0</td> <td>0.0.0.0</td> <td>0</td> <td>Local Loopback</td> <td>LOCAL</td> <td>System</td> </tr> </tbody> </table>				Deatination IP	NetMask	Gateway	Metric	Interface	Type	Creator	192.168.0.0	255.255.255.0	0.0.0.0	0	LAN	INTRANET	System	239.0.0.0	255.0.0.0	0.0.0.0	0	LAN	INTRANET	System	127.0.0.0	255.0.0.0	0.0.0.0	0	Local Loopback	LOCAL	System	
Deatination IP	NetMask	Gateway	Metric	Interface	Type	Creator																											
192.168.0.0	255.255.255.0	0.0.0.0	0	LAN	INTRANET	System																											
239.0.0.0	255.0.0.0	0.0.0.0	0	LAN	INTRANET	System																											
127.0.0.0	255.0.0.0	0.0.0.0	0	Local Loopback	LOCAL	System																											

Wireless

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

DHP-1320 // RT	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
DEVICE INFO	WIRELESS Use this option to view the wireless clients that are connected to your wireless router.				Helpful Hints... This is a list of all wireless clients that are currently connected to your wireless router. More...
LOGS					
STATISTICS					
INTERNET SESSIONS					
ROUTING					
WIRELESS	NUMBER OF WIRELESS CLIENTS : 0				
IPv6	MAC Address	IP Address	Mode	Rate	Signal(%)

IPv6

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

DHP-1320 // RT	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT						
DEVICE INFO LOGS STATISTICS INTERNET SESSIONS ROUTING WIRELESS IPv6	<div data-bbox="535 397 1543 446" style="background-color: #f4a460; padding: 5px;">IPv6 Network Information</div> <div data-bbox="535 446 1543 527" style="background-color: #e0e0e0; padding: 5px;">All of your IPv6 Internet and network connection details are displayed on this page.</div> <div data-bbox="535 527 1543 576" style="background-color: #333; color: white; padding: 5px;">IPv6 Connection Information</div> <div data-bbox="535 576 1543 722" style="padding: 5px;"> <p>IPv6 Connection Type : Link Local IPv6 Default Gateway : None LAN IPv6 Link-Local Address : fe80::211:22ff:fe07:2717/64 DHCP-PD : Disabled</p> </div> <div data-bbox="535 722 1543 771" style="background-color: #333; color: white; padding: 5px;">LAN IPv6 Computers</div> <table border="1" data-bbox="535 771 1543 844" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Name (if any)</th> <th style="width: 15%;">MAC</th> <th style="width: 35%;">IPv6 Address</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				Name (if any)	MAC	IPv6 Address				<div data-bbox="1564 397 1816 430">Helpful Hints...</div> <div data-bbox="1564 454 1816 535">All of your WAN and LAN connection details are displayed here.</div> <div data-bbox="1564 560 1816 592">More...</div>
Name (if any)	MAC	IPv6 Address									

Support

DHP-1320 // RT	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
MENU	SUPPORT MENU				
SETUP	<ul style="list-style-type: none">• Setup• Advanced• Tools• Status				
ADVANCED	SETUP HELP				
TOOLS	<ul style="list-style-type: none">• Internet Connection• WAN• Wireless• Network Settings				
STATUS	ADVANCED HELP				
	<ul style="list-style-type: none">• Virtual Server• Port Forwarding• Application Rules• QoS Engine• Network Filter• Access Control• Website Filter• Inbound Filter• Firewall Settings• Routing• Advanced Wireless• Wi-Fi Protected Setup• Advanced Network• IPv6				
	TOOLS HELP				
	<ul style="list-style-type: none">• Admin• Time• Syslog• Email Settings• System• Firmware• Dynamic DNS• System Check• Schedules				
	STATUS				
	<ul style="list-style-type: none">• Device Info• Logs• Statistics• Internet Sessions• Routing• Wireless• IPV6				

Wireless Connection Setup Wizard

To run the Wireless Connection Setup Wizard, click the **Wireless Connection Setup Wizard** button in the **Setup>Wireless Settings** window.

WIRELESS SETTINGS

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

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

WIRELESS NETWORK SETUP WIZARD

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

[Wireless Connection Setup Wizard](#)

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

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 Connection Setup](#)

Wireless Security Setup Wizard

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

Type your desired wireless network name (SSID).

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

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

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

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

Wireless Network Name (SSID) :

Automatically assign a network key (Recommended)
To prevent outsiders from accessing your network, the router will automatically assign a security 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.

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

SETUP COMPLETE!

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

Wireless Band : 2.4GHz Band

Wireless Network Name (SSID) : dlink

Security Mode : Auto (WPA or WPA2) - Personal

Cipher Type : TKIP and AES

Pre-Shared Key :
23259f118109eed04c1d464d143201320f45d0d2483e13baac9bf0f314087929

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

Enter the *Wireless Security Password* you would like to use for your wireless network and click **Next** to proceed to the next window.

STEP 2: SET YOUR WIRELESS SECURITY PASSWORD

You have selected your security level - you will need to set a wireless security password.

The WPA (Wi-Fi Protected Access) key must meet one of following guidelines:

- Between 8 and 63 characters (A longer WPA key is more secure than a short one)
- Exactly 64 characters using 0-9 and A-F

Wireless Security Password :

Note: You will need to enter the same password as keys in this step into your wireless clients in order to enable proper wireless communication.

Prev Next Cancel Save

The summary window will display your settings. Write down the security key and enter this on your wireless clients. Click **Save** to save your settings.

SETUP COMPLETE!

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

Wireless Band : 2.4GHz Band

Wireless Network Name (SSID) : dlink

Security Mode : Auto (WPA or WPA2) - Personal

Cipher Type : TKIP and AES

Pre-Shared Key : 12345678

Prev Next Cancel Save

Add Wireless Device with WPS Wizard

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

Select **Auto** to add a wireless client using WPS (Wi-Fi Protected Setup). Once you select **Auto** and click **Connect**, you will have a 120 second time limit to apply the settings to your wireless client(s) and successfully establish a connection.

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

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

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

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

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

Add Wireless Device with WPS

STEP 1: SELECT CONFIGURATION METHOD FOR YOUR WIRELESS NETWORK

Please select one of following configuration methods and click next to continue.

Auto Select this option if your wireless device supports WPS (Wi-Fi Protected Setup)

Manual Select this option will display the current wireless settings for you to configure the wireless device manually

Prev

Next

Cancel

Connect

STEP 2: CONNECT YOUR WIRELESS DEVICE

There are two ways to add wireless device to your wireless network:
 -PIN (Personal Identification Number)
 -PBC (Push Button Configuration)

PIN :

please enter the PIN from your wireless device and click the below "Connect" Button within 120 seconds

PBC

please press the push button on your wireless device and click the below "Connect" Button within 120 seconds

Prev

Next

Cancel

Connect

Configuration (AP Mode)

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

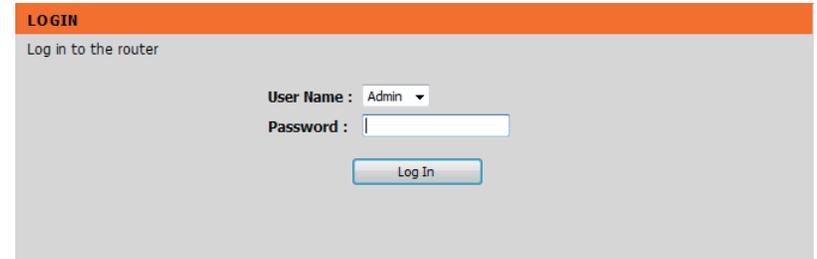
Web-based Configuration Utility

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



Select **Admin** in the User Name field. Leave the password blank by default.

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



Wireless Setup Wizard

To use our web-based wizard to assist you in connecting your DHP-1320, click **Launch Wireless Setup Wizard** to begin.



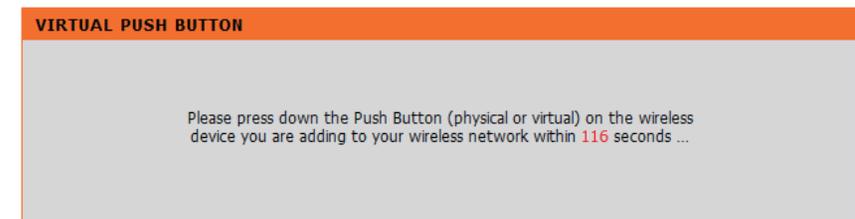
Click **Next** to continue your wireless network setup.



Select one of the two configuration methods. Select **WPS** if your wireless device supports WPS and click **Next** to continue to the next step.



Press down the Push Button on the wireless device within 116 seconds.



If you would like to setup your network manually, select **Manual** and click **Next** to continue.

SELECT CONFIGURATION METHOD

Please select one of the following configuration methods. Click Next to continue.

WPS -- Select this option if your wireless device supports WPS (Wi-Fi Protected Setup)

Manual -- Select this option if you want to setup your network manually.

Prev Next Cancel

Enter the SSID (Service Set Identifier). The SSID is the name of your wireless network. Create a name using up to 32 characters. The SSID is case-sensitive. Select Assign a network key and click **Next**.

WELCOME TO THE D-LINK WIRELESS SETUP WIZARD

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

Network Name (SSID) : dlink

Assign a network key

The WPA (Wi-Fi Protected Access) key must meet the following guidelines

- Between 8 and 63 characters (A longer WPA key is more secure than a short one)

Network key :

Prev Next Cancel

Once this screen appears, the setup is complete. You will be given a detailed summary of your wireless security settings. Click **Save** to continue.

WELCOME TO THE D-LINK WIRELESS SETUP WIZARD

Please keep a note of the following settings for future reference.

Network Name (SSID) : dlink

Security Mode : Auto (WPA or WPA2) - Personal

Cipher Type : TKIP and AES

Pre-Shared Key : 12345678dlinkno1

Prev Save Cancel

Wireless Setup

Enable Wireless: Check this box to enable the wireless function. If you would prefer not to use wireless, uncheck the box to disable all the wireless functions. You may also set up a specific time range (schedule). Select a schedule from the drop-down menu or click Add New Schedule to create a new schedule.

Wireless Network Name: When you are browsing for available wireless networks, this is the name that will appear in the list (unless Visibility Status is set to Invisible, see below). This name is also referred to as the SSID. For security purposes, changing the default network name is highly recommended.

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

Enable Auto Channel Scan: The Auto Channel Scan setting can be selected to allow the DHP-1320 to select the channel with the least amount of interference (during boot-up). Indicates the channel setting for the DHP-1320.

Wireless Channel: 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 grayed out.

DHP-1320 // AP	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
SETUP WIZARD WIRELESS SETUP LAN SETUP PLC SETUP	WIRELESS NETWORK : 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. <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				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
WIRELESS NETWORK SETTINGS					
Enable Wireless : <input checked="" type="checkbox"/> Always <input type="button" value="Add New Schedule"/> Wireless Network Name : dlink (Also called the SSID) Wireless Mode : Mixed 802.11n, 802.11g and 802.11b Enable Auto Channel Scan : <input checked="" type="checkbox"/> Wireless Channel : 2.437 GHz - CH 6 Channel Width : 20 MHz Visibility Status : <input checked="" type="radio"/> Visible <input type="radio"/> 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 : None					

Channel Width: Select the Channel Width:
Auto 20/40 - 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.

Wireless Security Settings: Locking the wireless security settings prevents the settings from being changed by any new external user using its PIN. Devices can still be added to the wireless network using Wi-Fi Protected Setup. It is still possible to change wireless network settings with Manual Wireless Network Setup, Wireless Network Setup Wizard, or an existing external WLAN Manager user. Please refer to page **121**.

Save Settings: Click **Save Settings** to save and activate the new changes.

Network Settings - DHCP

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

LAN Connection Type: Use the drop-down menu to select Dynamic IP (DHCP) to automatically obtain an IP address on the LAN/private network.

Device Name: Enter the Device Name of the AP. Changing the Device Name is recommended if there is more than one D-Link device within the subnet.

Save Settings: Click **Save Settings** to save and activate the new changes.

DHP-1320 // AP	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
SETUP WIZARD WIRELESS SETUP LAN SETUP PLC SETUP	NETWORK SETTINGS Use this section to configure the internal network settings of your AP. Device Name(NetBIOS Name) allows you to configure this device more easily when your network using TCP/IP protocol. You can enter the device name of the AP into your web browser to access the instead of IP address for configuration. Recommend to change the device name if there're more than one D-Link devices within the subnet. <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				Helpful Hints... LAN Settings: Also referred as private settings. LAN settings allow you to configure LAN interface of DHP-W306AV. LAN IP address is private to your internal network and is not visible to Internet. The factory default setting is Dynamic IP(DHCP). LAN Connection type: The factory default setting is Dynamic IP (DHCP) to allow the DHCP host to automatically assign the Access Point an IP address that conforms to the applied local area network. Enable "Static IP" which allows the IP address of the DHP-W306AV to be manually configured in accordance to the applied local area network. IP Address: The default IP address is 192.168.0.1. It can be modified to conform to an existing local area network. Please note that the IP address of each device in the wireless local area network must be within the same IP address range and subnet mask. Take default DHP-W306AV IP address as an example, each station associated to the AP must be configured with a unique IP address falling in the
	LAN CONNECTION TYPE Choose the mode to be used by the Access Point. My LAN Connection is : <input type="text" value="Dynamic IP (DHCP)"/>				
	DYNAMIC IP(DHCP) LAN CONNECTION TYPE IP Address Information. IP Address : <input type="text" value="192.168.0.1"/> Subnet Mask : <input type="text" value="255.255.255.0"/> Gateway Address : <input type="text" value="0.0.0.0"/>				
	DEVICE NAME(NETBIOS NAME) Device Name : <input type="text" value="dlinkrouter"/>				
	IPv6 CONNECTION TYPE Choose the IPv6 mode to be used by the Access Point. My IPv6 Connection is : <input type="text" value="Link-local only"/>				
	LAN IPv6 ADDRESS SETTINGS : 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. LAN IPv6 Link-Local Address : FE80::211:22FF:FE07:2717/64				

Network Setup - Static IP

Select Static IP to manually enter the IP address, subnet mask, and default gateway addresses.

LAN Connection Type: Select Static IP from the drop-down menu.

IP Address: Enter the IP address of the access point. 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 return to the configuration utility.

Subnet Mask: Enter the Subnet Mask.

Default Gateway: Enter the Gateway. This is usually the LAN or internal IP address of your router.

Device Name: Enter the Device Name of the AP. It is recommended that you change the Device Name if there is more than one D-Link device within the subnet. You can enter the device name of the AP into your web browser to access it instead of IP address for configuration. If you are using the device name to connect, make sure that your PC and your DHP-1320 are on the same network.

Save Settings: Click **Save Settings** to save and activate the new changes.

NETWORK SETTINGS

Use this section to configure the internal network settings of your AP. Device Name(NetBIOS Name) allows you to configure this device more easily when your network using TCP/IP protocol. You can enter the device name of the AP into your web browser to access the instead of IP address for configuration. Recommend to change the device name if there're more than one D-Link devices within the subnet.

LAN CONNECTION TYPE

Choose the mode to be used by the Access Point.

My LAN Connection is :

STATIC IP ADDRESS LAN CONNECTION TYPE

Enter the static address Information

IP Address :
Subnet Mask :
Gateway Address :

DEVICE NAME(NETBIOS NAME)

Device Name :

My IPv6 Connection is: Select Link-local only from the drop-down menu.

LAN IPv6 Address settings: This section displays the IPv6 address of the router.

DEVICE NAME(NETBIOS NAME)
Device Name : <input type="text" value="DHP-1320"/>
IPv6 CONNECTION TYPE
Choose the IPv6 mode to be used by the Access Point.
My IPv6 Connection is : <input type="text" value="Link-local only"/>
LAN IPv6 ADDRESS SETTINGS :
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.
LAN IPv6 Link-Local Address :

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

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

DEVICE NAME(NETBIOS NAME)
Device Name : <input type="text" value="DHP-1320"/>
IPv6 CONNECTION TYPE
Choose the IPv6 mode to be used by the Access Point.
My IPv6 Connection is : <input type="text" value="Static IPv6"/>
LAN IPv6 ADDRESS SETTINGS :
Enter the IPv6 address information.
IPv6 Address : <input type="text"/>
Subnet Prefix Length : <input type="text"/>
Default Gateway : <input type="text"/>
Primary DNS Address : <input type="text"/>
Secondary DNS Address : <input type="text"/>

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

IPv6 DNS Select **Obtain IPv6 DNS Server automatically** or enter a **Settings:** specific DNS Server address.

DEVICE NAME(NETBIOS NAME)
Device Name : <input type="text" value="DHP-1320"/>
IPv6 CONNECTION TYPE
Choose the IPv6 mode to be used by the Access Point.
My IPv6 Connection is : <input type="text" value="Autoconfiguration (Stateless/DHCPv6)"/>
IPv6 DNS SETTINGS :
Obtain DNS server address automatically or enter a specific DNS server address.
<input checked="" type="radio"/> Obtain IPv6 DNS Servers automatically
<input type="radio"/> Use the following IPv6 DNS Servers
Primary DNS Address : <input type="text"/>
Secondary DNS Address : <input type="text"/>

Configuration

PLC Settings - AP Mode

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

The screenshot displays the web-based configuration utility for the D-Link DHP-1320. The interface is divided into several sections:

- Navigation:** A top menu bar includes 'DHP-1320', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. A left sidebar lists 'INTERNET', 'WIRELESS SETTINGS', 'NETWORK SETTINGS', and 'PLC SETTINGS'.
- POWER LINE SETTING:** The main content area is titled 'POWER LINE SETTING' and includes the instruction: 'Use this section to configure the power line settings and Qos Settings for your D-Link device.' Below this are 'Save Settings' and 'Don't Save Settings' buttons.
- Network Name:** This section allows users to choose between 'Public, Network Name is HomePlugAV' (selected) and 'Private, Network Name is' followed by an input field.
- Add Member:** A table with columns for 'Device Name', 'MAC Address', and 'Link Rate(Mbps)', and a 'Scan' button below it.
- Manual Add Member:** Fields for 'Device Name' and 'Password' (with four input boxes) and an 'Add' button.
- Member List:** A table with columns for 'Device Name', 'MAC Address', 'Link Rate(Mbps)', and 'Status'.
- Qos Settings:** A table with columns for 'Name', 'MAC Address', and 'Priority'. Each row has input fields for Name and MAC Address, a dropdown menu for Priority (all set to 'Highest'), and a 'Clear' button.
- Helpful Hints...:** A vertical sidebar on the right side of the page.

Network Name: You can set the name of your network and to make it either public or private. Make sure the Network Name of all of the devices within your PowerLine network is the same.

Public Network Name: Select this option if you would like to make your powerline network public with the default Network Name of "HomePlugAV". Since this is a commonly used Network Name, it is less secure than a private Network Name.

Private Network Name: Select this option if you wish to make your powerline network more secure by using a private Network Name. Type the name of your private PowerLine network in the field.

Scan: Scan for new PowerLine devices.

Add Memeber: This section lets you add new PowerLine AV devices to your PowerLine network. To add a new device, give it a Device Name and enter its Password, then click Add. When you add a device it is given the current Network Name.

Device Name: Type a name you wish to use to identify a specific PowerLine AV device. For example, "Jack's room".

Password: The Password is used to verify that you are authorized to perform changes on a device. You can find the Password printed on the back of your device.

Member List: This section provides information on the PowerLine AV devices in your PowerLine network, or any devices that were previously connected but it are currently disconnected.

Link Rate: Displays the device's current data rate in Mbps.

The screenshot displays the configuration interface for a PowerLine network. It is divided into four main sections:

- Network Name:** This section allows the user to choose between a public network (default name: HomePlugAV) and a private network (where a custom name can be entered).
- Add Member:** This section features a table with columns for Device Name, MAC Address, and Link Rate(Mbps). A Scan button is located below the table.
- Manual Add Member:** This section includes input fields for Device Name and Password (with four characters visible), and an Add button.
- Member List:** This section displays a table with columns for Device Name, MAC Address, Link Rate(Mbps), and Status.

Status: This field shows the status of the device. If the field displays the word Connect, then the device is connected to your PowerLine network. If the field displays the word Disconnect, then the device has been added to the network but it is not ready. Please check its password and make sure the device is powered on.

QoS Setting: You can configure your PowerLine AV devices to give priority to powerline network traffic accordingly. Enter the name, MAC Address, and priority level.

Mac Address: You can find the MAC address printed on the back of your device.

Qos Settings			
Name	MAC Address	Priority	
<input type="text"/>	<input type="text"/>	Highest ▾	Clear
<input type="text"/>	<input type="text"/>	Highest ▾	Clear
<input type="text"/>	<input type="text"/>	Highest ▾	Clear
<input type="text"/>	<input type="text"/>	Highest ▾	Clear
<input type="text"/>	<input type="text"/>	Highest ▾	Clear
<input type="text"/>	<input type="text"/>	Highest ▾	Clear
<input type="text"/>	<input type="text"/>	Highest ▾	Clear

Network Filter

Use MAC (Media Access Control) Filters to authorize wireless clients to access your network by their MAC addresses. When enabled, any client not on the MAC filter list will not be able to access your network.

MAC Address Filter: Select **Enable** or Disable 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. Click **Save Settings** to activate and save.

Note: Make sure to enter the computer you are currently using to configure the access point first or you will not be able to access the configuration utility once you click Save Settings.

Wireless Client List: Select a DHCP client from the drop-down menu and click to copy the MAC Address.

Save Settings: Click **Save Settings** to save and activate the new changes.

The screenshot shows the configuration utility for a DHP-1320 AP. The top navigation bar includes tabs for SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The left sidebar lists menu items: NETWORK FILTER, ADVANCED WIRELESS, WI-FI PROTECTED SETUP, and USER LIMIT. The main content area is titled 'MAC ADDRESS FILTER' and contains the following text: '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.' Below this text are 'Save Settings' and 'Don't Save Settings' buttons. A section titled '24 --- WIRELESS ACCESS SETTINGS' contains a dropdown menu for 'Configure MAC Filtering below:' with the option 'Turn MAC Filtering OFF' selected. Below this is a table with two columns: 'MAC Address' and 'Wireless Client List'. The table has eight rows, each with a text input field for the MAC address, a '<<' button, a 'Wireless Client List' dropdown menu, and a 'Clear' button. The 'Wireless Client List' dropdowns are currently set to 'MAC Address'. To the right of the main content area is a 'Helpful Hints...' section with the following text: 'Create a list of MAC addresses that you would either like to allow or deny access to your network. Select a MAC address from the drop down menu, then click the arrow to add that MAC address to the list. Click the Clear button to remove the MAC address from the MAC Filtering list. More...'

Advanced Wireless

Transmit Power: Sets the transmit power of the antennas.

Note: Transmit power is regulated by international standard. Users are forbidden to change its maximum limit.

WLAN Partition: Select this checkbox to enable WLAN partition. If this feature is enabled, then there is no barrier between communication among wireless stations connecting to the Access Point. If this is disabled, wireless clients are not allowed to exchange data through the Access Point.

WMM Enable: WMM is a Quality of Service (QoS) system for your wireless network. Enabling this feature will improve the quality of video and ice applications for your wireless clients.

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

DHP-1320 // AP	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
NETWORK FILTER	ADVANCED WIRELESS				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
ADVANCED WIRELESS	If you are not familiar with these Advanced Wireless settings, please read the help section before attempting to modify these settings.				
WI-FI PROTECTED SETUP	<input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
USER LIMIT	ADVANCED WIRELESS SETTINGS				
	Transmit Power : <input type="text" value="High"/>				
	WLAN Partition : <input type="checkbox"/>				
	WMM Enable : <input checked="" type="checkbox"/>				
	Short GI : <input checked="" type="checkbox"/>				

Wi-Fi Protect Setup

Wi-Fi Protect Setup: Enables the Wi-Fi Protected Setup feature.

Reset to Unconfigure: Restores the default Wi-Fi setup.

Current PIN: Shows the current value of the access point's PIN.

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

Reset PIN to Default: Restores the default PIN of the access point.

DHP-1320 // AP	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
<ul style="list-style-type: none"> NETWORK FILTER ADVANCED WIRELESS WI-FI PROTECTED SETUP USER LIMIT 	<div style="border: 1px solid orange; padding: 5px;"> <p>WI-FI PROTECTED SETUP</p> <p>Wi-Fi Protected Setup is used to easily add devices to a network using a PIN or button press. Devices must support Wi-Fi Protected Setup in order to be configured by this method.</p> <p> <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/> </p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>WI-FI PROTECTED SETUP</p> <p> Enable : <input checked="" type="checkbox"/> </p> <p> Lock Wireless Security Settings : <input type="checkbox"/> <input type="button" value="Reset to Unconfigured"/> </p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>PIN SETTINGS</p> <p> Current PIN : 93922852 <input type="button" value="Generate New PIN"/> <input type="button" value="Reset PIN to Default"/> </p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>ADD WIRELESS STATION</p> <p> <input type="button" value="Add Wireless Device with WPS"/> </p> </div>				<p>Helpful Hints...</p> <p>Enable if other wireless devices you wish to include in the local network support Wi-Fi Protected Setup.</p> <p>Only "Admin" account can change security settings.</p> <p>Lock Wireless Security Settings after all wireless network devices have been configured.</p> <p>Click Add Wireless Device Wizard to use Wi-Fi Protected Setup to add wireless devices to the wireless network.</p> <p>More...</p>

Add Wireless Device with WPS

Adding a Wireless Device Using the PIN Method

Please select one of the following configuration methods and click **Next** to continue.

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

There are two ways to add wireless device to your wireless network:

- PIN (Personal Identification Number)
- PBC (Push Button Configuration)

PIN :

Please enter the PIN from your wireless device and click the below "Connect" button

PBC

Please press the push button on your wireless device and press the "Connect" button below within 120 seconds

Adding a Wireless Device Using the PBC Method

Select PBC to use Push Button Configuration in order to connect to your network.

Click **Connect** to continue.

ADD WIRELESS DEVICE WITH WPS (WIFI PROTECTED SETUP) WIZARD

There are two ways to add wireless device to your wireless network :

- PIN(Personal Identification Number)
- PBC(Push Button Configuration)

PIN :

please enter the PIN from your wireless device and click the below 'Connect' Button

PBC

please press the push button on your wireless device and click the below 'Connect' Button within 120 seconds

Press the WPS Button on the wireless device that you are adding to your network to complete the setup.

VIRTUAL PUSH BUTTON

Please press down the Push Button (physical or virtual) on the wireless device you are adding to your wireless network within **113** seconds...

User Limit Settings

In this section, you may set a limit to the number of wireless clients to prevent heavy wireless traffic.

DHP-1320 // AP	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
NETWORK FILTER	USER LIMIT SETTINGS				Helpful Hints... User Limit can set a limit upon the number of wireless clients. Using user limit, you can prevent scenarios where the DHP-W306AV in your network shows performance degradation because it is handling heavy wireless traffic.
ADVANCED WIRELESS	Please Apply the settings to limit how many wireless stations connecting to AP.				
WI-FI PROTECTED SETUP	<input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
USER LIMIT	USER LIMIT SETTINGS				
	Enable User Limit : <input type="checkbox"/>				
	User Limit(1 - 32) : <input type="text" value="0"/>				

Admin

This page will allow you to change the Administrator password. The administrator password has read/write access.

Password: Enter a new password for the Admin User Name. The administrator account can change the configuration of the device.

Verify Password: Enter the same password that you entered in the previous textbox in order to confirm its accuracy.

System Name: Enter DHP-1320.

Enable Graphical: Enables a challenge-response test which will 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 device's configuration. This feature is disabled by default.

Save Settings: Click **Save Settings** to save and activate the new changes.

DHP-1320 // AP	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
ADMIN	ADMINISTRATOR SETTINGS				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 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...
TIME	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. <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
SYSTEM	ADMIN PASSWORD				
FIRMWARE	Please enter the same password into both boxes, for confirmation. Password : <input type="text"/> Verify Password : <input type="text"/>				
SCHEDULES	USER PASSWORD				
	Please enter the same password into both boxes, for confirmation. Password : <input type="text"/> Verify Password : <input type="text"/>				
	SYSTEM NAME				
	Gateway Name : <input type="text" value="DHP-1320"/>				
	ADMINISTRATION				
	Enable Graphical Authentication : <input type="checkbox"/>				

Time

This page will allow you to change the Administrator password. The administrator password has read/write access.

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**.

DHP-1320 // AP	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
ADMIN	TIME				Helpful Hints...
TIME	<p>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 adjust the time when needed</p> <p>Save Settings Don't Save Settings</p>				Good timekeeping is important for accurate logs and scheduled firewall rules.
SYSTEM	TIME CONFIGURATION				More...
FIRMWARE	<p>Time : Thursday, September 02, 2010 7:36:14 PM</p> <p>Time Zone : (GMT-08:00) Pacific Time (US/Canada), Tijuana</p> <p>Enable Daylight Saving : <input type="checkbox"/></p> <p>Daylight Saving Dates : DST Start Mar 3rd Sun 1 am</p> <p>DST End Nov 2nd Sun 1 am</p>				
SCHEDULES	AUTOMATIC TIME CONFIGURATION				
	<p>Enable NTP Server : <input type="checkbox"/></p> <p>NTP Server Used : << Select NTP Server</p>				
	SET THE DATE AND TIME MANUALLY				
	<p>Date And Time : Year 2010 Month Sep Day 2</p> <p>Hour 07 Minute 24 Second 47 PM</p> <p>Copy Your Computer's Time Settings</p>				

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, use the Browse control to find a previously save file of configuration settings. 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.

The screenshot shows the web interface for a DHP-1320 AP. The top navigation bar includes 'DHP-1320 // AP', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar menu has 'ADMIN', 'TIME', 'SYSTEM', 'FIRMWARE', and 'SCHEDULES'. The main content area is titled 'SYSTEM SETTINGS' and contains the following text and buttons:

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.

Save To Local Hard Drive:

Load From Local Hard Driver:

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

Reboots 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...](#)

Firmware

You can upgrade the firmware of the access point from this page. Make sure the firmware you would like to use is on the local hard drive of your computer. Click **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 Information: Click on the **Check Now** button to find out if there is an updated firmware or language pack version. If a new version exists, download the new firmware to your hard drive.

Firmware Upgrade: 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.

Notification Options: Check Online for the latest firmware version in order to have your router check automatically for new firmware upgrades.

DHP-1320 // AP	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
ADMIN	<div style="background-color: #f4a460; padding: 5px;">FIRMWARE</div> <p>There may be new firmware for your DHP-1320 to improve functionality and performance.</p> <p>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.</p> <div style="background-color: #333; color: white; padding: 5px;">FIRMWARE INFORMATION</div> <p>Current Firmware Version : 1.00NA Current Firmware Date : Thu, 02, Sep, 2010</p> <p>Check Online Now for Latest Firmware Version : <input type="button" value="Check Now"/></p> <div style="background-color: #333; color: white; padding: 5px;">FIRMWARE UPGRADE</div> <p>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.</p> <p>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.</p> <p><input type="text"/> <input type="button" value="Browse..."/></p> <p><input type="button" value="Upload"/></p>				Helpful Hints...
TIME					<p>Firmware updates are released periodically to improve the functionality of your router and to add features. If you run into a problem with a specific feature of the router, check if updated firmware is available for your router.</p> <p>More...</p>
SYSTEM					
FIRMWARE					
SCHEDULES					

Schedules

Schedules can be created for use with enforcing rules. For example, if you would like to restrict web access to Mon-Fri from 3:00 p.m. to 8:00 p.m., you could create a schedule selecting Mon, Tue, Wed, Thu, and Fri and enter a StartTime of 3:00 p.m. and End Time of 8:00 p.m.

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 Days or enter a start and end time for your schedule.

Add: After making your changes, click **Save** to save the schedule rule.
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.

SCHEDULES

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

Save Settings Don't Save Settings

10 - ADD SCHEDULE RULE

Name :

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

Sun Mon Tue Wed Thu Fri Sat

All Day - 24 hrs :

Time format : 24-hour

Start Time : 12 : 00 AM (hour:minute, 12 hour time)

End Time : 12 : 00 AM (hour:minute, 12 hour time)

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.

Device Info

This page displays the current information for the DHP-W306AV. It will display the LAN and wireless LAN information.

General: Displays the access point's time and firmware version.

LAN: Displays the MAC address and the private (local) IP settings for the access point.

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

DHP-1320 // AP	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
DEVICE INFO	DEVICE INFORMATION				Helpful Hints... All of your WAN and LAN connection details are displayed here. More...
LOGS	All of your Internet and network connection details are displayed on this page. The firmware version is also displayed here.				
STATISTICS	GENERAL				
INTERNET SESSIONS	Time : Thursday, September 02, 2010 7:07:37 PM Firmware Version : 1.001A, Thu, 02, Sep, 2010				
ROUTING	LAN				
WIRELESS	MAC Address : 00:11:22:07:27:17 IP Address : 10.0.8.219 Subnet Mask : 255.255.255.0 Default Gateway : 10.0.8.1				
IPv6	WIRELESS LAN				
	Wireless Radio : Enabled MAC Address : 00:11:22:07:27:17 Network Name (SSID) : dlink Channel : 1 Security Mode : disable				

Logs

The DHP-W306AV keeps a running log of events and activities occurring on the AP. If the AP is rebooted, the logs are automatically cleared. You can save the log files under Log Settings.

Log Options: You can select the types of messages that you would like to display from the log: System Activity, Debug Information, Attacks, Dropped Packets, and Notice. Select the types you want to view and click Apply Log Settings Now.

First Page: This button directs you to the first page of the log.

Last Page: This button directs you to the last page of the log.

Previous: This button directs you to the previous page of the log.

Next: This button directs you to the next page of the log.

Clear: This button clears all current log content.

Log Settings: This button opens a new menu where you can configure the log settings.

Refresh: This button refreshes the log.

DHP-1320 // AP **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

1 / 13

Time	Message
Sep 2 17:21:58	ath0: STA 00:1f:3c:6f:73:2c IEEE 802.11: associated
Sep 2 17:21:58	ath0: STA 00:1f:3c:6f:73:2c IEEE 802.11: disassociated
Sep 2 17:21:23	ath0: STA 00:1f:3c:6f:73:2c IEEE 802.11: associated
Sep 2 17:21:23	ath0: STA 00:1f:3c:6f:73:2c IEEE 802.11: disassociated
Sep 2 17:21:22	ath0: STA 00:1f:3c:6f:73:2c IEEE 802.11: disassociated
Sep 2 17:21:22	ath0: STA 00:1f:3c:6f:73:2c IEEE 802.11: disassociated
Sep 2 17:20:45	ath0: STA 00:1f:3c:6f:73:2c IEEE 802.11: associated

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...](#)

Statistics

The DHP-1360 keeps statistics of the traffic that passes through it. You can view the amount of packets that pass through the LAN and wireless portions of the network. The traffic counter will reset if the access point is rebooted.

Refresh Statistics: Click the **Refresh** button to refresh the Access Point's traffic statistics.

DHP-1320 // AP	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT																								
DEVICE INFO LOGS STATISTICS INTERNET SESSIONS ROUTING WIRELESS IPv6	<div style="background-color: #f4a460; padding: 2px;">TRAFFIC STATISTICS</div> <p>Traffic Statistics display Receive and Transmit packets passing through your router.</p> <p> <input type="button" value="Refresh Statistics"/> <input type="button" value="Clear Statistics"/> </p> <div style="background-color: #333; color: white; padding: 2px;">LAN STATISTICS</div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Sent : 131589</td> <td style="text-align: right;">Received : 125408</td> </tr> <tr> <td style="text-align: right;">TX Packets : 0</td> <td style="text-align: right;">RX Packets : 0</td> </tr> <tr> <td style="text-align: right;">Dropped : 0</td> <td style="text-align: right;">Dropped : 0</td> </tr> <tr> <td style="text-align: right;">Collisions : 0</td> <td style="text-align: right;">Errors : 0</td> </tr> </table> <div style="background-color: #333; color: white; padding: 2px;">WAN STATISTICS</div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Sent : 0</td> <td style="text-align: right;">Received : 0</td> </tr> <tr> <td style="text-align: right;">TX Packets : 0</td> <td style="text-align: right;">RX Packets : 0</td> </tr> <tr> <td style="text-align: right;">Dropped : 0</td> <td style="text-align: right;">Dropped : 0</td> </tr> <tr> <td style="text-align: right;">Collisions : 0</td> <td style="text-align: right;">Errors : 0</td> </tr> </table> <div style="background-color: #333; color: white; padding: 2px;">WIRELESS STATISTICS</div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Sent : 3994</td> <td style="text-align: right;">Received : 324</td> </tr> <tr> <td style="text-align: right;">TX Packets : 8489</td> <td style="text-align: right;">RX Packets : 0</td> </tr> <tr> <td style="text-align: right;">Dropped : 0</td> <td style="text-align: right;">Dropped : 0</td> </tr> <tr> <td></td> <td style="text-align: right;">Errors : 0</td> </tr> </table>				Sent : 131589	Received : 125408	TX Packets : 0	RX Packets : 0	Dropped : 0	Dropped : 0	Collisions : 0	Errors : 0	Sent : 0	Received : 0	TX Packets : 0	RX Packets : 0	Dropped : 0	Dropped : 0	Collisions : 0	Errors : 0	Sent : 3994	Received : 324	TX Packets : 8489	RX Packets : 0	Dropped : 0	Dropped : 0		Errors : 0	<p>Helpful Hints...</p> <p>This is a summary of the number of packets that have passed between the WAN and the LAN since the router was last initialized.</p> <p>More...</p>
Sent : 131589	Received : 125408																												
TX Packets : 0	RX Packets : 0																												
Dropped : 0	Dropped : 0																												
Collisions : 0	Errors : 0																												
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TX Packets : 0	RX Packets : 0																												
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Collisions : 0	Errors : 0																												
Sent : 3994	Received : 324																												
TX Packets : 8489	RX Packets : 0																												
Dropped : 0	Dropped : 0																												
	Errors : 0																												

Wireless

This section allows you to view the wireless clients that are connected to your wireless access point.

DHP-1320 // AP	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT					
DEVICE INFO	WIRELESS				Helpful Hints... This is a list of all wireless clients that are currently connected to your wireless router. More...					
LOGS	Use this option to view the wireless clients that are connected to your wireless router.									
STATISTICS	NUMBER OF WIRELESS CLIENTS : 0									
INTERNET SESSIONS	<table border="1"><thead><tr><th>MAC Address</th><th>IP Address</th><th>Mode</th><th>Rate</th><th>Signal(%)</th></tr></thead></table>					MAC Address	IP Address	Mode	Rate	Signal(%)
MAC Address	IP Address	Mode	Rate	Signal(%)						
ROUTING										
WIRELESS										
IPv6										

IPv6

This section will display all of your IPv6 Internet and network connection details.

DHP-1320 // AP	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT			
<ul style="list-style-type: none"> DEVICE INFO LOGS STATISTICS INTERNET SESSIONS ROUTING WIRELESS IPv6 	<p>IPv6 Network Information</p> <p>All of your IPv6 Internet and network connection details are displayed on this page.</p>			<p>Helpful Hints...</p> <p>All of your WAN and LAN connection details are displayed here.</p> <p>More...</p>				
<p>IPv6 Connection Information</p> <p>IPv6 Connection Type : Link Local IPv6 Default Gateway : None LAN IPv6 Link-Local Address : fe80::211:22ff:fe07:2717/64 DHCP-PD : Disabled</p>								
<p>LAN IPv6 Computers</p> <table border="1"> <thead> <tr> <th>Name (if any)</th> <th>MAC</th> <th>IPv6 Address</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			Name (if any)		MAC	IPv6 Address		
Name (if any)	MAC	IPv6 Address						

Support

DHP-1320 // AP	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
MENU SETUP ADVANCED TOOLS STATUS	SUPPORT MENU				
	<ul style="list-style-type: none"> • Setup • Advanced • Tools • Status 				
	SETUP HELP				
	<ul style="list-style-type: none"> • Internet Connection • WAN • Wireless 				
	ADVANCED HELP				
<ul style="list-style-type: none"> • Virtual Server • Port Forwarding • Application Rules • QoS Engine • Network Filter • Access Control • Website Filter • Inbound Filter • Firewall Settings • Routing • Advanced Wireless • Wi-Fi Protected Setup • Advanced Network • IPv6 					
TOOLS HELP					
<ul style="list-style-type: none"> • Admin • Time • Syslog • Email Settings • System • Firmware • Dynamic DNS • System Check • Schedules 					
STATUS					
<ul style="list-style-type: none"> • Device Info • Logs • Statistics • Internet Sessions • Routing • Wireless • IPv6 					

Wireless Security

This section will show you the different levels of security you can use to protect your data from intruders. The DHP-1320 offers the following types of security:

- WPA2 (Wi-Fi Protected Access 2)
- WPA (Wi-Fi Protected Access)
- WPA2-PSK (Pre-Shared Key)
- WPA-PSK (Pre-Shared Key)

What is WPA?

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

The 2 major improvements over WEP:

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

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

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

Configure WEP

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).
2. Click on **Setup** and then click **Wireless Settings** on the left side.
3. Click the **Manual Wireless Connection Setup** button.
4. Next to *Security Mode*, select **Enable WEP Wireless Security (basic)**.
5. Next to *WEP Encryption*, select **64bit** or **128bit**.
6. Next to *Default WEP Key*, select the WEP key you would like to use as the default WEP key. The available options are **WEP Key 1**, **WEP Key 2**, **WEP Key 3**, or **WEP Key 4**.
7. Enter the WEP key you would like to use in the *WEP Key* field.
8. Click **Save Settings** to save your settings. If you are configuring the router with a wireless adapter, you will lose connectivity until you enable WEP on your adapter and enter the same WEP key as you did on the router.

WIRELESS SECURITY MODE

Security Mode :

WEP

WEP is the wireless encryption standard. To use it you must enter the same key(s) into the router and the wireless stations. For 64-bit keys you must enter 10 hex digits into each key box. For 128-bit keys you must enter 26 hex digits into each key box. A hex digit is either a number from 0 to 9 or a letter from A to F. For the most secure use of WEP set the authentication type to "Shared Key" when WEP is enabled.

You may also enter any text string into a WEP key box, in which case it will be converted into a hexadecimal key using the ASCII values of the characters. A maximum of 5 text characters can be entered for 64-bit keys, and a maximum of 13 characters for 128-bit keys.

Authentication :

WEP Encryption :

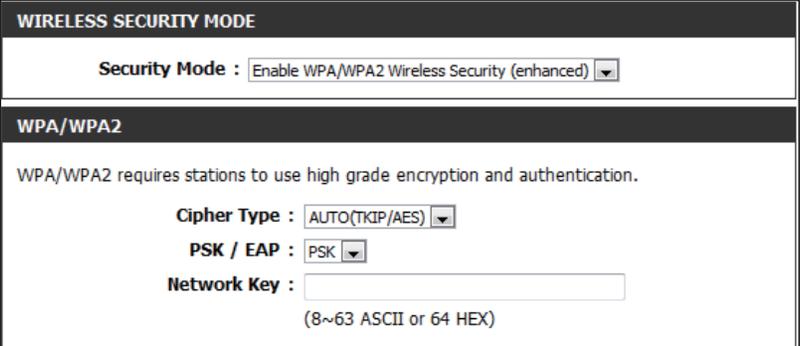
Default WEP Key :

WEP Key : (5 ASCII or 10 HEX)

Configure WPA/WPA2-Personal (PSK)

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

1. Log into the web-based configuration by opening a web browser and entering the IP address of the router (192.168.0.1).
2. Click on **Setup** and then click **Wireless Settings** on the left side.
3. Click the **Manual Wireless Connection Setup** button.
4. Next to *Security Mode*, select **Enable WPA/WPA2 Wireless Security (enhanced)**.
5. Next to *Cipher Type*, select **Auto (TKIP/AES)**, **TKIP**, or **AES**.
6. Next to *PSK/EAP*, select **PSK**.
7. Enter the **WPA network key** you would like to use in the *Network Key* field.
8. 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.



The screenshot displays the 'WIRELESS SECURITY MODE' configuration page. At the top, the 'Security Mode' is set to 'Enable WPA/WPA2 Wireless Security (enhanced)'. Below this, the 'WPA/WPA2' section is active, showing a note: 'WPA/WPA2 requires stations to use high grade encryption and authentication.' The 'Cipher Type' is set to 'AUTO(TKIP/AES)', and 'PSK / EAP' is set to 'PSK'. The 'Network Key' field is empty, with a note below it stating '(8~63 ASCII or 64 HEX)'.

Configure WPA/WPA2-Enterprise (RADIUS)

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

1. Log into the web-based configuration by opening a web browser and entering the IP address of the router (192.168.0.1).
2. Click on **Setup** and then click **Wireless Settings** on the left side.
3. Click the **Manual Wireless Connection Setup** button.
4. Next to *Security Mode*, select **Enable WPA/WPA2 Wireless Security (enhanced)**.
5. Next to *Cipher Type*, select **Auto (TKIP/AES)**, **TKIP**, or **AES**.
6. Next to *PSK/EAP*, select **EAP**.
7. Next to *RADIUS Server IP Address* enter the IP Address of your RADIUS server.
8. Next to *Port*, enter the port you are using with your RADIUS server. 1812 is the default port.
9. Next to *Shared Secret*, enter the security key.
10. Click **Save Settings** to save your settings.

The screenshot shows a web-based configuration interface for wireless security. It is divided into two main sections: "WIRELESS SECURITY MODE" and "WPA/WPA2".

WIRELESS SECURITY MODE

Security Mode :

WPA/WPA2

WPA/WPA2 requires stations to use high grade encryption and authentication.

Cipher Type :

PSK / EAP :

RADIUS Server IP Address :

Port :

Shared Secret :

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).



Wireless Icon

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

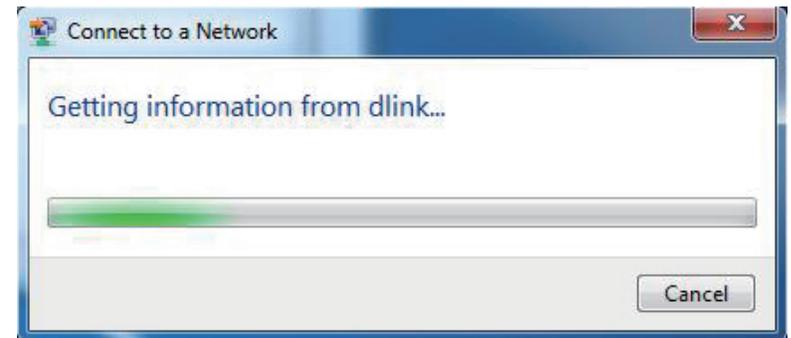


3. Highlight the wireless network (SSID) you would like to connect to and click the **Connect** button.

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 **Connect**. You can also connect by pushing the WPS button on the router.

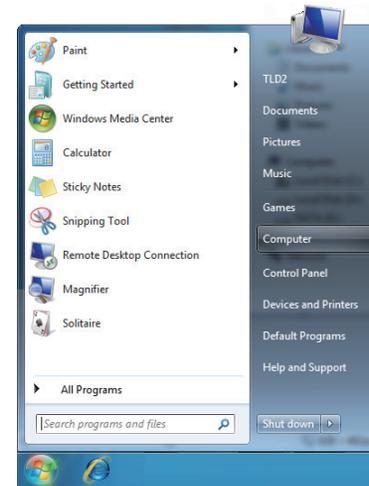
It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the security settings are correct. The key or passphrase must be exactly the same as on the wireless router.



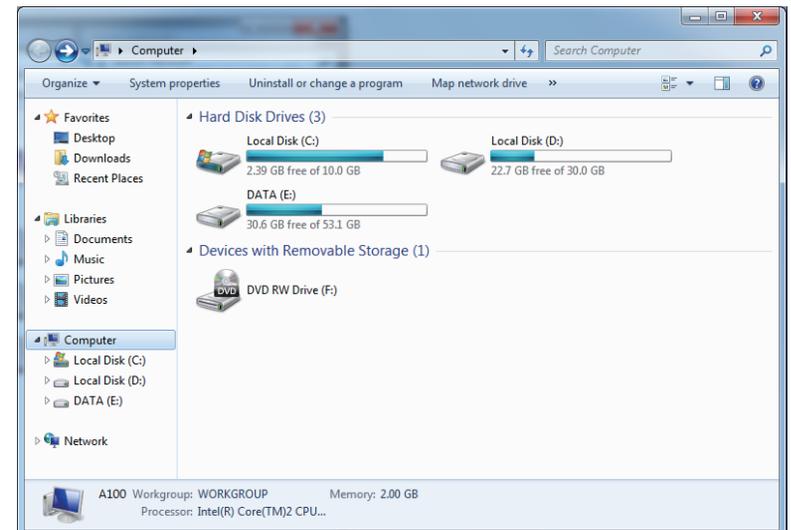
Configure WPS

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

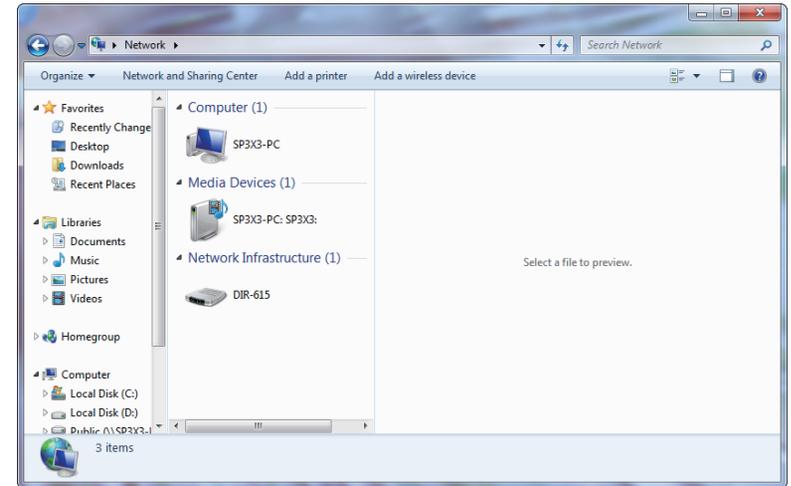
1. Click the **Start** button and select **Computer** from the Start menu.



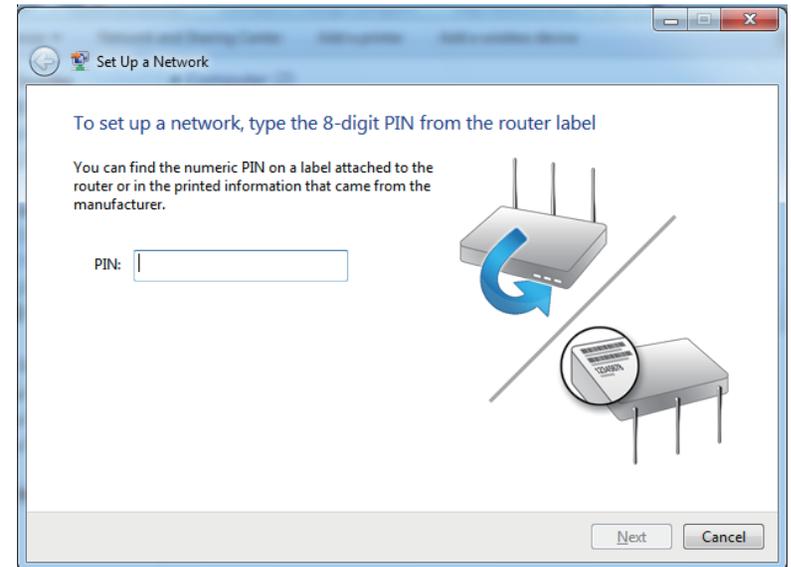
2. Click the **Network** option.



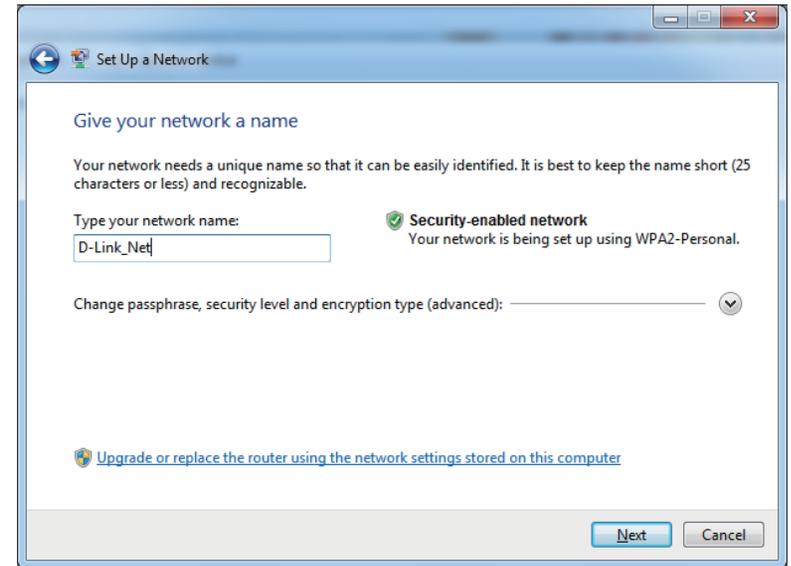
3. Double-click the DHP-1320.



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

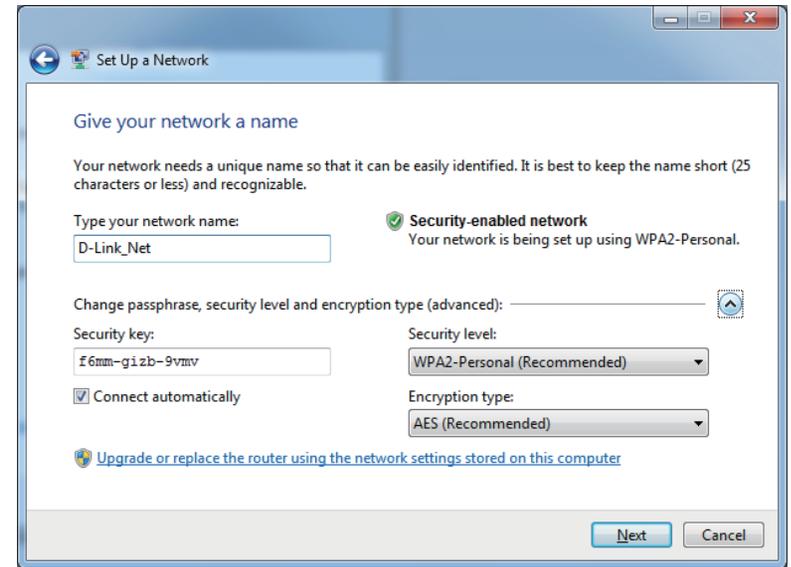


5. Type a name to identify the network.



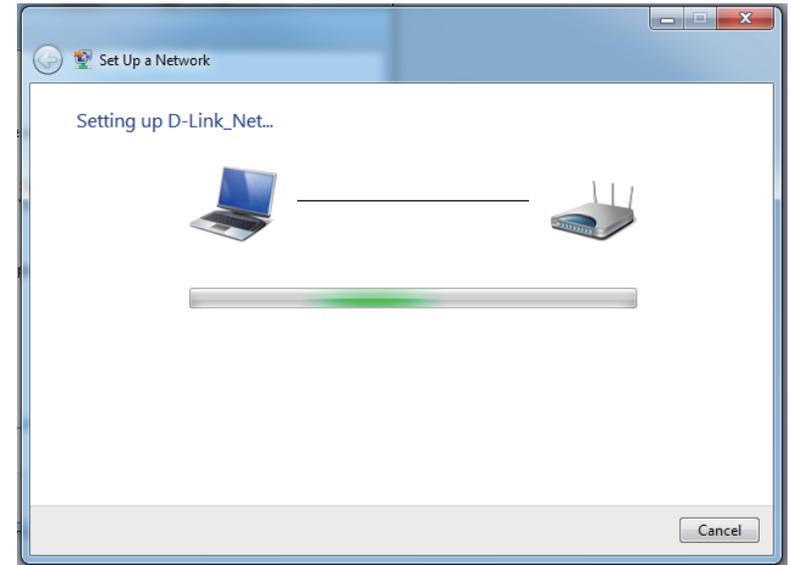
6. To configure advanced settings, click the  icon.

Click **Next** to continue.



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

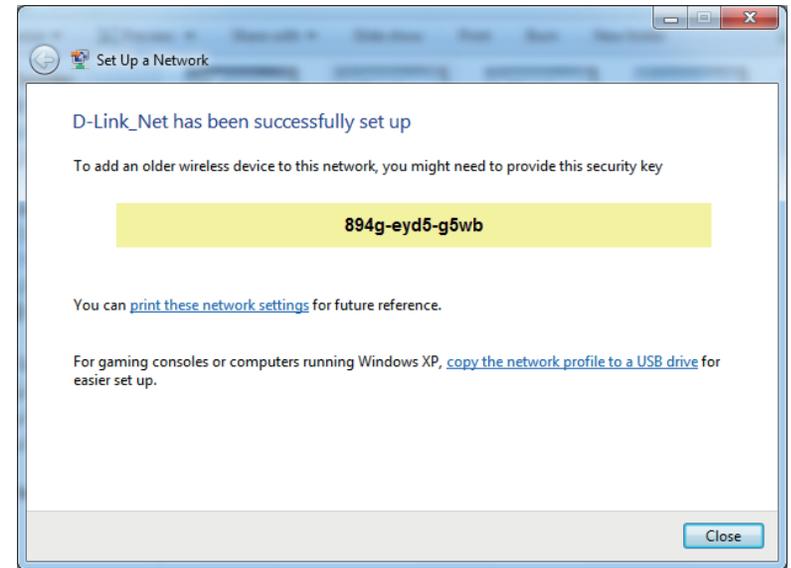
Wait for the configuration to complete.



8. The following window informs you that WPS on the DHP-1320 has been setup successfully.

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

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



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.

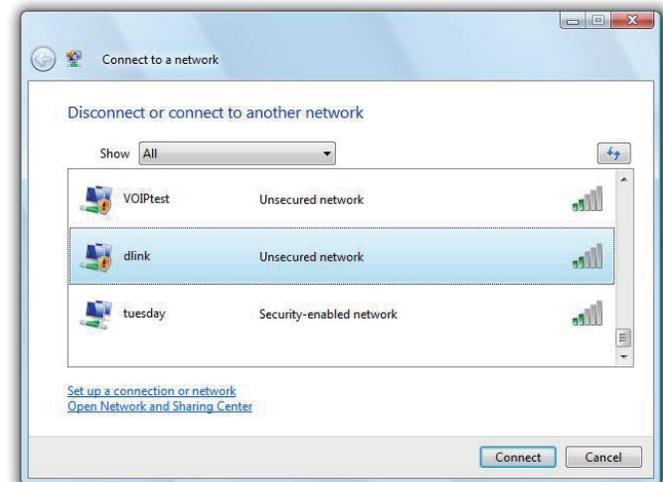
If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

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.



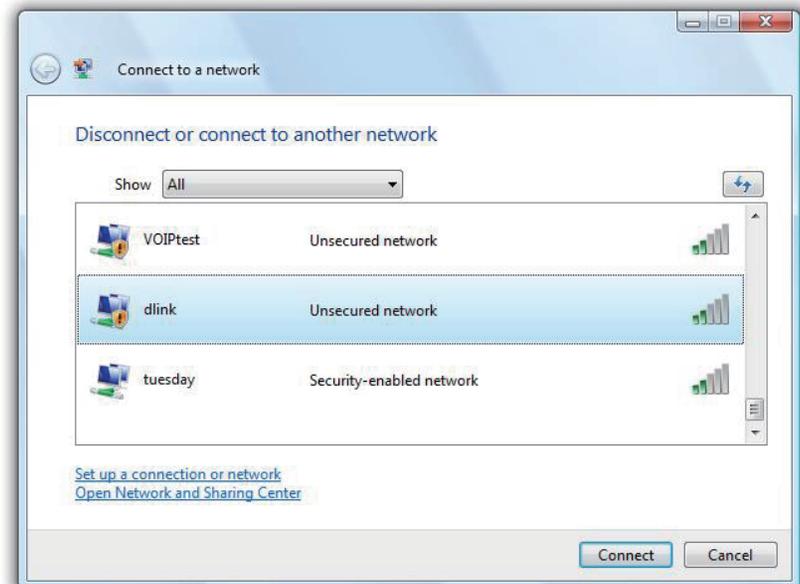
Configure Wireless Security

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**.

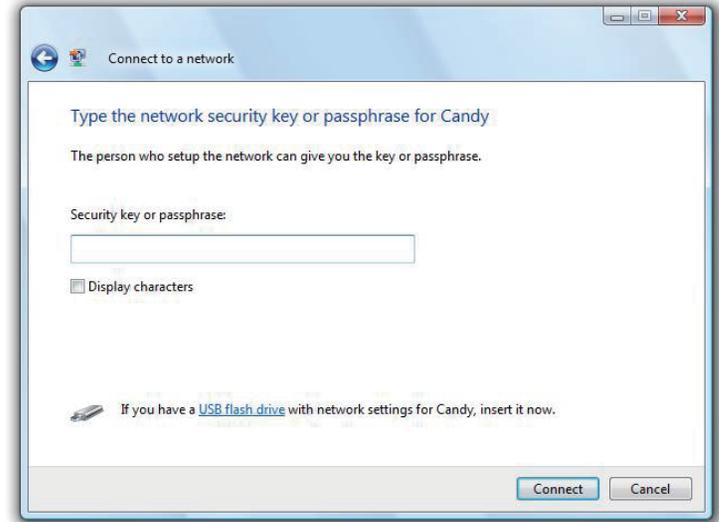


2. Highlight the wireless network (SSID) you would like to connect to and click **Connect**.



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.

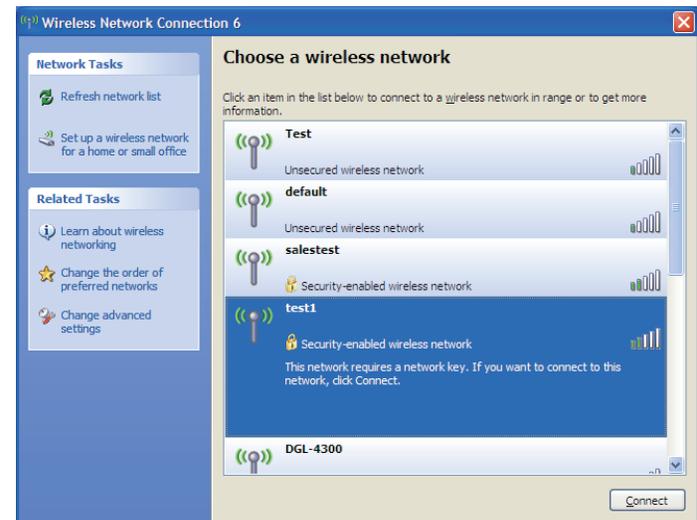
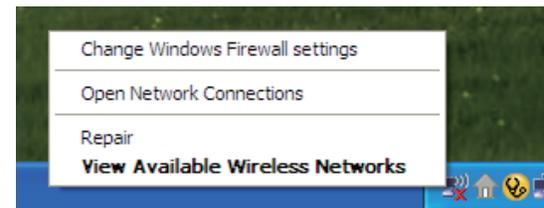
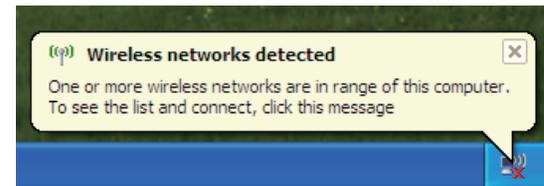
If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

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.

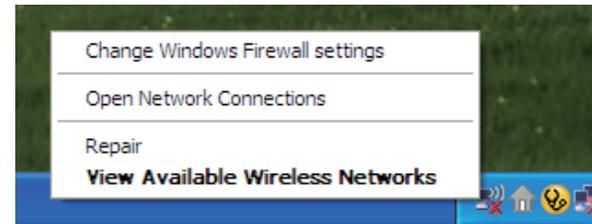
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



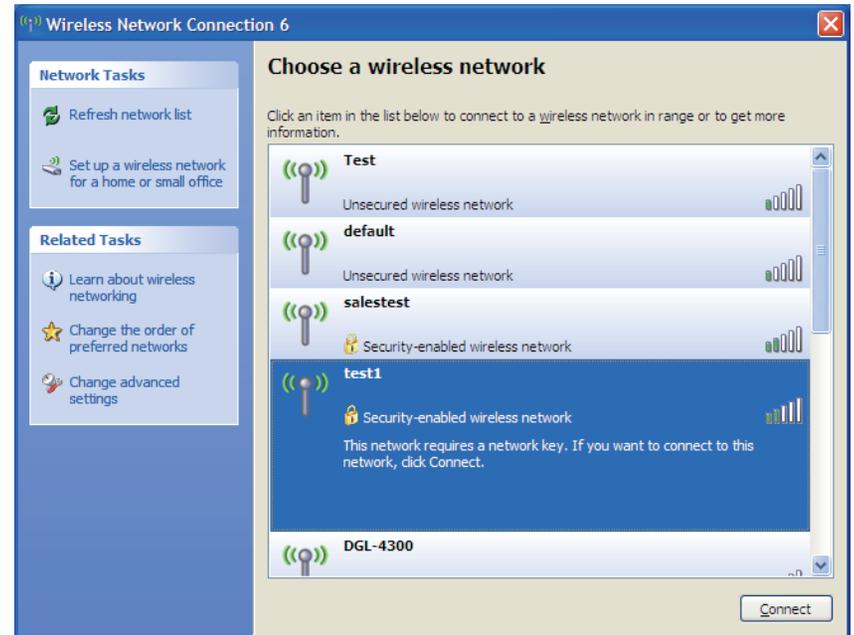
Configure WPA-PSK

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

1. Open the Windows® 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**.

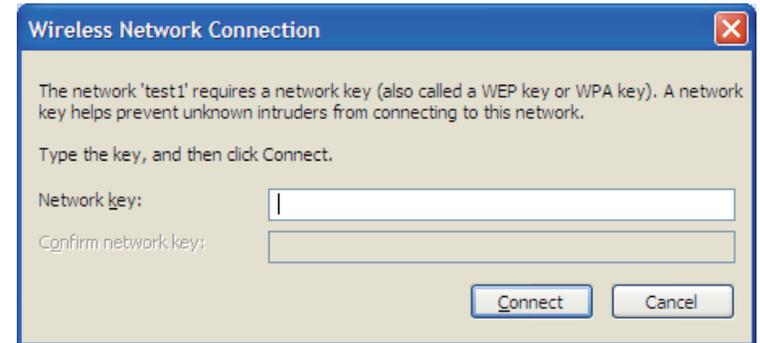


2. Highlight the wireless network (SSID) you would like to connect to and click **Connect**.



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 DHP-1320. 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 nor do you have to be connected to the Internet. The device has the utility built-in to a ROM chip in the device itself. Your computer must be on the same IP subnet to connect to the web-based utility.

- Make sure you have an updated Java-enabled web browser. We recommend the following:
 - Microsoft Internet Explorer® 6.0 and higher
 - Mozilla Firefox 3.0 and higher
 - Google™ Chrome 2.0 and higher
 - Apple Safari 3.0 and higher

- Verify physical connectivity by checking for solid link lights on the device. If you do not get a solid link light, try using a different cable or connect to a different port on the device if possible. If the computer is turned off, the link light may not be on.

- Disable any Internet security software running on the computer. Software firewalls such as Zone Alarm, Black Ice, Sygate, Norton Personal Firewall, and Windows® XP firewall may block access to the configuration pages. Check the help files included with your firewall software for more information on disabling or configuring it.

• Configure your Internet settings:

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

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

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

To reset the router, locate the reset button (hole) on the rear panel of the unit. With the router powered on, use a paperclip to hold the button down for 5 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, and XP 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**

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

```
C:\>ping yahoo.com -f -l 1482
Pinging yahoo.com [66.94.234.13] with 1482 bytes of data:
Packet needs to be fragmented but DF set.

Ping statistics for 66.94.234.13:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 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:\>
```

1452 was the proper value, the actual MTU size would be 1480, which is the optimum for the network we're working with ($1452+28=1480$).

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

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

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

Wireless Basics

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

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

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

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

What is Wireless?

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

Why D-Link Wireless?

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

How does wireless work?

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

Wireless Local Area Network (WLAN)

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

Wireless Personal Area Network (WPAN)

Bluetooth is the industry standard wireless technology used for WPAN. Bluetooth devices in WPAN operate in a range up to 30 feet away. Compared to WLAN the speed and wireless operation range are both less than WLAN, but in return it doesn't use nearly as much power which makes it ideal for personal devices, such as mobile phones, PDAs, headphones, laptops, speakers, and other devices that operate on batteries.

Who uses wireless?

Wireless technology 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, etc.
- Gets rid of the cables around the house
- Simple and easy to use

Small Office and Home Office

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

Where is wireless used?

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

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

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

Tips

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

Centralize your router or Access Point

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

Eliminate Interference

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

Security

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

Wireless Modes

There are basically two modes of networking:

- **Infrastructure** – All wireless clients will connect to an access point or wireless router.
- **Ad-Hoc** – Directly connecting to another computer, for peer-to-peer communication, using wireless network adapters on each computer, such as two or more DHP-1320 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

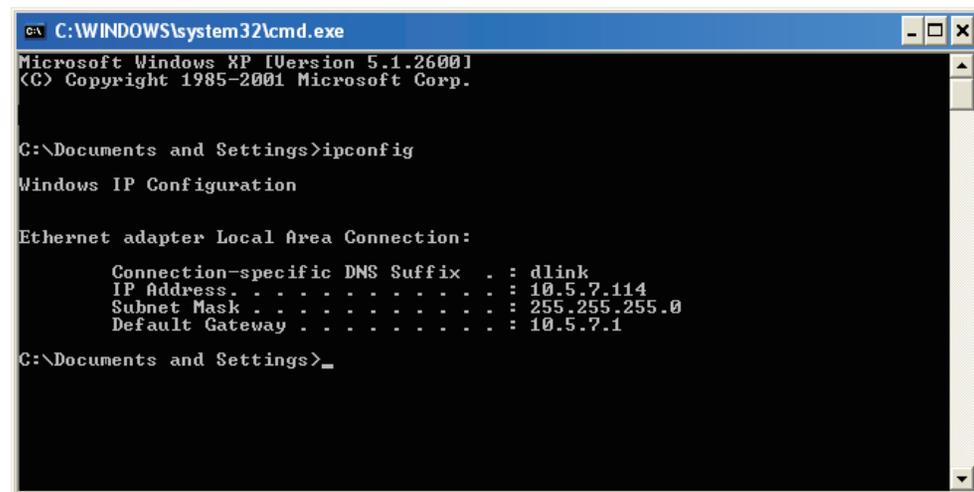
After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

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

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

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

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



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

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

C:\Documents and Settings>_
```

Statically Assign an IP address

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

Step 1

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

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

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

Windows® 2000 - From the desktop, right-click **My Network Places > Properties.**

Step 2

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

Step 3

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

Step 4

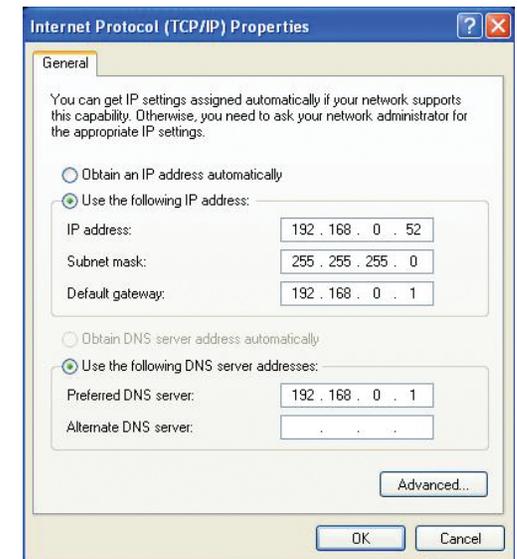
Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your router.

Example: If the router's LAN IP address is 192.168.0.1, 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 802.3
- IEEE 802.3u
- IEEE 802.11b
- IEEE 802.11g
- IEEE 802.11n
- HomePlug AV

Ethernet Interface

- 10/100Base-TX Ethernet Port with Auto MDI/MDIX
- RJ-45 Connector

Security

- 128-bit AES Data encryption
- WEP 64/128-Bit Data encryption
- Wi-Fi Protected Access (WPA/WPA2)
- WPS™

Maximum PowerLine Data Rate

- 200 Mbps

Antenna

- Two fixed external 2 dBi Omni-direction antennas

PowerLine Modulations Scheme

- OFDM Symbol Modulation

PowerLine Frequency Band

- 2Mhz to 30 Mhz

Security

- 128-bit AES Data encryption
- WEP 64/128-Bit Data encryption
- Wi-Fi Protected Access (WPA/WPA2)
- WPS™

LEDs

- Power
- Powerline
- LAN
- WLAN
- Internet
- USB

Power Saving

- Power saving mode supported
- Compliant with European Energy using Product Directive (EuP)

Safety Certifications

- UL

EMC Certifications

- FCC
- IC

Operating Temperature

- 30°F to 104°F (0°C to 40°C)

Operating Humidity

- 10% to 95% (Non-condensing)

Dimensions

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

2 Frequency Range varies depending on country's regulation

- L = 5.5 inches (139.7 mm)
- W = 8 inches (203.2 mm)
- H = 1.5 inches (38.09 mm)

Weight

- 1.068 lbs (484.43 g)

Wireless Signal Rates¹

IEEE 802.11n:

20MHz Channel:

- 1Nss: 65/72.2 Mbps (max)
- 2Nss: 130/144.44 Mbps (max)

40MHz Channel:

- 1Nss: 135/150 Mbps (max)
- 2Nss: 270/300 Mbps (max)

IEEE 802.11g:

- | | | |
|----------|----------|----------|
| • 54Mbps | • 48Mbps | • 36Mbps |
| • 24Mbps | • 18Mbps | • 12Mbps |
| • 11Mbps | • 9Mbps | • 6Mbps |

Wireless Frequency Range² (North America)

- 2.412GHz to 2.462GHz (802.11g/n)

Warranty

- 1 Year

Contacting Technical Support

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

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

- Model number of the product (e.g. DHP-1320)
- Hardware Revision (located on the label on the bottom of the router (e.g. rev A1))
- Serial Number (S/N number located on the label on the bottom of the router).

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

For customers within the United States:

Phone Support:

(877) 453-5465

Internet Support:

<http://support.dlink.com>

For customers within Canada:

Phone Support:

(800) 361-5265

Internet Support:

<http://support.dlink.ca>

Warranty

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

- Only to the person or entity that originally purchased the product from D-Link or its authorized reseller or distributor, and
- Only for products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, or addresses with an APO or FPO.

Limited Warranty:

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

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

The customer’s sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link’s option, to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund the actual purchase price paid. Any repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement hardware need not be new or have an identical make, model or part. D-Link may, at its option, replace the defective Hardware or any part thereof with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement hardware will be warranted for the remainder of the original Warranty Period or ninety (90) days, whichever is longer, and is subject to the same limitations and exclusions. If a material defect is incapable of correction, or if D-Link determines that it is not practical to repair or replace the defective Hardware, the actual price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware or part thereof that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

Limited Software Warranty:

D-Link warrants that the software portion of the product (“Software”) will substantially conform to D-Link’s then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days (“Software Warranty Period”), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Software Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. The customer’s sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link’s option, to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link’s functional specifications for the Software or to refund the portion of the actual purchase price paid that is attributable to the Software. Except as otherwise agreed by DLink in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. Replacement Software will be warranted for the remainder of the original Warranty Period and is subject to the same limitations and exclusions. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software, the price paid by the original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-Link. The license granted respecting any Software for which a refund is given automatically terminates.

Non-Applicability of Warranty:

The Limited Warranty provided hereunder for Hardware and Software portions of D-Link’s products will not be applied to and does not cover any refurbished product and any product purchased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold “As-Is” without any warranty whatsoever including, without limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

Submitting A Claim:

The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

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

- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. DLink will only replace the defective portion of the product and will not ship back any accessories.
- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery (“COD”) is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer and shipped to D-Link Systems, Inc., 17595 Mt. Herrmann, Fountain Valley, CA 92708. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link. Return shipping charges shall be prepaid by D-Link if you use an address in the United States, otherwise we will ship the product to you freight collect. Expedited shipping is available upon request and provided shipping charges are prepaid by the customer. D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link’s reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

What Is Not Covered:

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

Products that, in D-Link’s judgment, have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance; Damage that occurs in shipment, due to act of God, failures due to power surge, and cosmetic damage; Any hardware, software, firmware or other products or services provided by anyone other than D-Link; and Products that have been purchased from inventory clearance or liquidation sales or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product.

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

Disclaimer of Other Warranties:

EXCEPT FOR THE LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED “AS-IS” WITHOUT ANY WARRANTY OF ANY KIND WHATSOEVER INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT.

IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE LIMITED TO THE DURATION OF THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISK AS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT.

Limitation of Liability:

TO THE MAXIMUM EXTENT PERMITTED BY LAW, D-LINK IS NOT LIABLE UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE OR DAMAGES OF ANY CHARACTER, WHETHER DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF GOODWILL, LOSS OF REVENUE OR PROFIT, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, FAILURE OF OTHER EQUIPMENT OR COMPUTER PROGRAMS TO WHICH D-LINK'S PRODUCT IS CONNECTED WITH, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH ANY PRODUCT RETURNED TO D-LINK FOR WARRANTY SERVICE) RESULTING FROM THE USE OF THE PRODUCT, RELATING TO WARRANTY SERVICE, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY, EVEN IF D-LINK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE FOREGOING LIMITED WARRANTY IS REPAIR, REPLACEMENT OR REFUND OF THE DEFECTIVE OR NONCONFORMING PRODUCT. THE MAXIMUM LIABILITY OF D-LINK UNDER THIS WARRANTY IS LIMITED TO THE PURCHASE PRICE OF THE PRODUCT COVERED BY THE WARRANTY. THE FOREGOING EXPRESS WRITTEN WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ANY OTHER WARRANTIES OR REMEDIES, EXPRESS, IMPLIED OR STATUTORY.

Governing Law:

This Limited Warranty shall be governed by the laws of the State of California. Some states do not allow exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the foregoing limitations and exclusions may not apply. This Limited Warranty provides specific legal rights and you may also have other rights which vary from state to state.

Trademarks:

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CE Mark Warning:

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

FCC Statement:

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

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution:

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

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

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

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.

ICC Notice:

Operation is subject to the following two conditions:

- 1) This device may not cause interference and
- 2) This device must accept any interference, including interference that may cause undesired operation of the device.

IMPORTANT NOTE:

IC Radiation Exposure Statement:

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

This device has been designed to operate with an antenna having a maximum gain of 2 dB. Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50 ohms.

Règlement d'Industry Canada

Les conditions de fonctionnement sont sujettes à deux conditions:

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

Registration

Register your product online at www.onlineregister.com/dlink



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

Version 1.0
September 28, 2010