

User Manual

All-in-One Mobile Companion

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	January 11, 2012	• Initial release for Revision A1

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Package Contents



DIR-505 All-in-One Mobile Companion



Ethernet Cable



CD-ROM with Manual and Setup Wizard

If any of the above items are missing, please contact your reseller.

Note: *Using a power supply with a different voltage rating than the one included with the DIR-505 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 • IEEE 802.11a wireless clients • 10/100/1000 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®, or XP (Service Pack 2 or higher) • An installed Ethernet adapter • CD-ROM drive

Introduction

TOTAL PERFORMANCE

Combines award winning router features and IEEE 802.11a/g/n 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 All-in-One Mobile Companion (DIR-505) is a 802.11n/802.11a 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 DIR-505 router to a cable or DSL modem and share your high-speed Internet access with everyone on the network. In addition, this Router includes a Quality of Service (QoS) engine that keeps digital phone calls (VoIP) and online gaming smooth and responsive, providing a better Internet experience.

EXTENDED WHOLE HOME COVERAGE

Powered by Wireless N technology, this high performance router provides superior Whole Home Coverage while reducing dead spots. The router is designed for use in bigger homes and for users who demand higher performance networking. Add a Wireless N notebook or desktop adapter and stay connected to your network from virtually anywhere in your home.

TOTAL NETWORK SECURITY

The Wireless N 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 802.11a, 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 conditions will adversely affect wireless signal range.

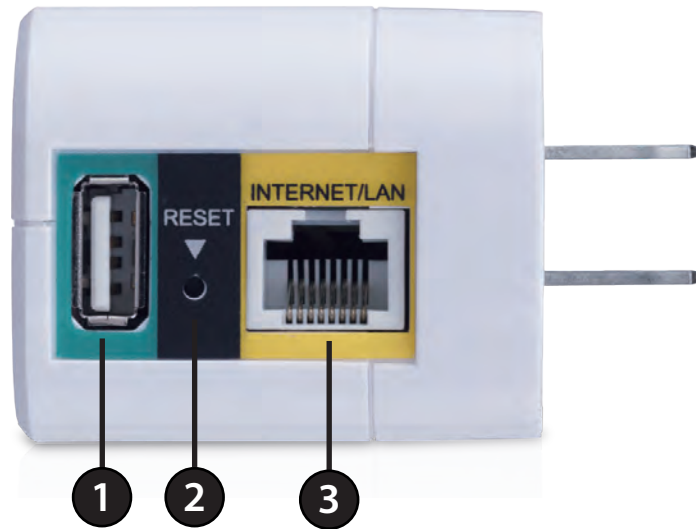
Features

- **Faster Wireless Networking** - The DIR-505 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 14x faster than 802.11g.
- **Compatible with 802.11a/g Devices** - The DIR-505 is still fully compatible with the IEEE 802.11g and 802.11a standards, so it can connect with existing 802.11g and 802.11a PCI, USB, and Cardbus adapters.
- **Advanced Firewall Features** - The Web-based user interface displays a number of advanced network management features including:
 - **Content Filtering** - Easily applied content filtering based on MAC Address, URL, and/or Domain Name.
 - **Filter Scheduling** - These filters can be scheduled to be active on certain days or for a duration of hours or minutes.
 - **Secure Multiple/Concurrent Sessions** - The DIR-505 can pass through VPN sessions. It supports multiple and concurrent IPSec and PPTP sessions, so users behind the DIR-505 can securely access corporate networks.
- **User-friendly Setup Wizard** - Through its easy-to-use Web-based user interface, the DIR-505 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, 802.11a, 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	USB Port	Connect a USB 1.1 or 2.0 flash drive to configure the wireless settings using WCN and SharePort. SharePort allows you to share a printer or storage device with your local network.
2	Reset Button	Pressing the Reset button restores the router to its original factory default settings.
3	Ethernet Port	The auto MDI/MDIX Internet port is the connection for the Ethernet cable to the cable or DSL modem.

Hardware Overview

LEDs



LED Indicator	Color	Status	Description
Power/Status	Green	Solid Green	The device is powered ON and operating properly
		Blinking Green	The device is processing WPS
		Light off	The device is off
	Red	Solid Red	During Power ON or system is defective
		Blinking Red	The device is under recovery mode
		Light off	The device is powered off

Installation

Please configure the DIR-505 with a computer connected directly to the AP. The next few pages will explain the different operational modes you can use.

Operation Modes

Depending on how you want to use your DIR-505 will determine which mode you use. This section will help you figure out which setting works with your setup.

- Access Point mode - page 13
- Wireless Client mode - page 14
- Range Extender Mode - page 15
- Bridge mode - page 16
- Bridge with AP mode - page 17
- WISP Client Router mode - page 18
- WISP Range Extender Mode - page 19

Access Point Mode

In the Access Point mode, the DIR-505 acts as a central connection point for any computer (client) that has a 802.11n or backward-compatible 802.11g wireless network interface and is within range of the AP. Clients must use the same SSID (wireless network name) and channel as the AP in order to connect. If wireless security is enabled on the AP, the client will need to enter a password to connect to the AP. In Access Point mode, multiple clients can connect to the AP at the same time.

Repeater Mode

In the Wireless Client mode, the DIR-505 acts as a wireless network adapter for your Ethernet-enabled device (such as a game console or a TV set-top box). Connect your Ethernet-enabled device to the AP using an Ethernet cable. The AP Client mode can support multiple wired clients.

If you are going to connect several Ethernet-enabled devices to your DIR-505, connect the LAN port of the DIR-505 to an Ethernet switch, then connect your devices to this switch.

Example: Connect a gaming console using an ethernet cable to the DIR-505. The unit is set to Wireless Client mode which will wirelessly connect to a wireless router on your network.

Hot Spot Mode

In Range Extender Mode, the DIR-505 increases the range of your wireless network by extending the wireless coverage of another AP or wireless router. The APs and wireless router (if used) must be within range of each other. Make sure that all clients, APs, and the wireless router all use the same SSID (wireless network name), channel, and security settings.

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.

Manual Setup

Important: for best results, insert the Installation CD and follow the on-screen instructions. If you are unable to use the CD or are using Mac or Linux, please use the following installation steps:

1. Turn off and unplug your cable or DSL broadband modem. This is required.
2. Position your router close to your modem and a computer. Place the router in an open area of your intended work area for better wireless coverage.
3. Unplug the Ethernet cable from your modem (or existing router if upgrading) that is connected to your computer. Plug it into the blue port labeled 1 on the back of your router. The router is now connected to your computer.

Connect to an Existing Router

Note: *It is strongly recommended to replace your existing router with the DIR-505 instead of using both. If your modem is a combo router, you may want to contact your ISP or manufacturer's user guide to put the router into Bridge mode, which will 'turn off' the router (NAT) functions.*

If you are connecting the DIR-505 router to an existing router to use as a wireless access point and/or switch, you will have to do the following to the DIR-505 before connecting it 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. 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, 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 3 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.

Configuration

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

- **Quick Router Setup Wizard** - Insert the supplied CD and launch the setup wizard (see below).
- **D-Link Setup Wizard** - This wizard will launch if you do not run the CD wizard and log into the router for the first time. Refer to page 15.
- **Manual Setup** - Log into the router and manually configure your router (advanced users only). Refer to page 21.

Quick Router Setup Wizard (CD)

To run the **Quick Router Setup Wizard**, insert the CD in the CD-ROM drive. When the autorun screen appears, click **English** (or **French**), and then click the **Install** button.

Note: *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).*

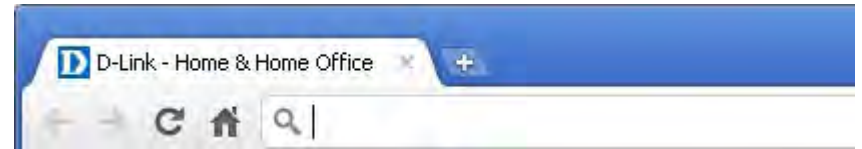
When the Wizard appears, select your language from the drop-down menu and then click **Next** to continue. Follow the on-screen instructions to configure your router.

Once you are finished, you may skip to page 21 and will be able to log into the web-based configuration utility and configure more advanced features.

Quick Setup Wizard

If this is your first time installing the router, open your web browser. You will automatically be directed to the **Wizard Setup Screen**.

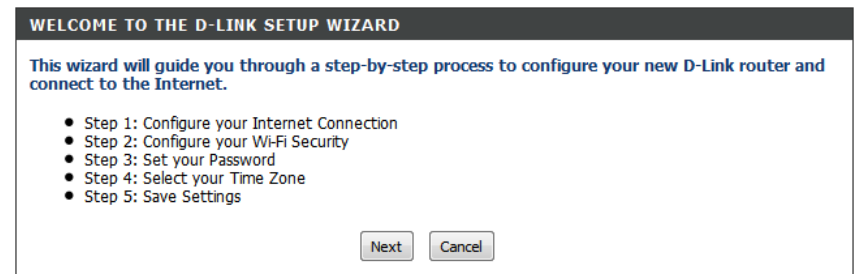
If you have already configured your settings and you would like to access the configuration utility, please refer to page 20.




If you did not run the setup wizard from the CD and this is the first time logging into the router, this wizard will start automatically.

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

Click **Next** to continue.



Please wait while your router detects your internet connection type. If the router detects your Internet connection, you may need to enter your ISP information such as username and password.



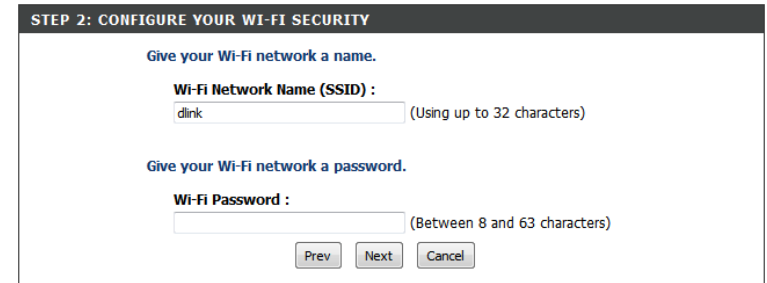
STEP 1: CONFIGURE YOUR INTERNET CONNECTION

Router is detecting your Internet connection type, please wait ...

Prev Next Cancel

Create a wireless security passphrase or key (between 8-63 characters). Your wireless clients will need to have this passphrase or key entered to be able to connect to your wireless network.

Click **Next** to continue.



STEP 2: CONFIGURE YOUR WI-FI SECURITY

Give your Wi-Fi network a name.

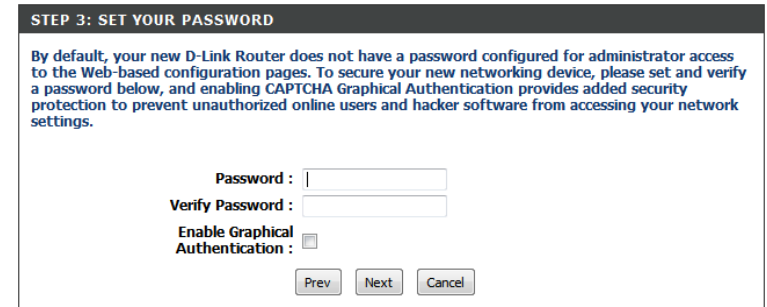
Wi-Fi Network Name (SSID) : dlink (Using up to 32 characters)

Give your Wi-Fi network a password.

Wi-Fi Password : (Between 8 and 63 characters)

Prev Next Cancel

In order to secure your router, please enter a new password. Check the Enable Graphical Authentication box to enable CAPTCHA authentication for added security. Click **Next** to continue.



STEP 3: SET YOUR PASSWORD

By default, your new D-Link Router does not have a password configured for administrator access to the Web-based configuration pages. To secure your new networking device, please set and verify a password below, and enabling CAPTCHA Graphical Authentication provides added security protection to prevent unauthorized online users and hacker software from accessing your network settings.

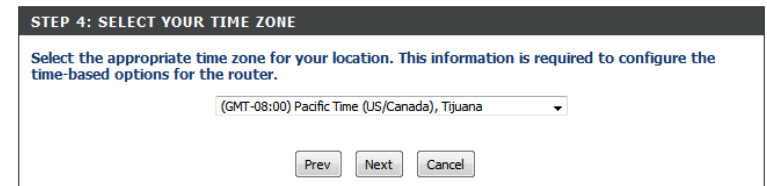
Password : |

Verify Password : |

Enable Graphical Authentication :

Prev Next Cancel

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



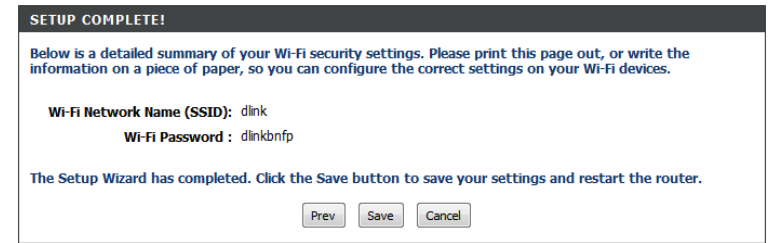
STEP 4: SELECT YOUR TIME ZONE

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

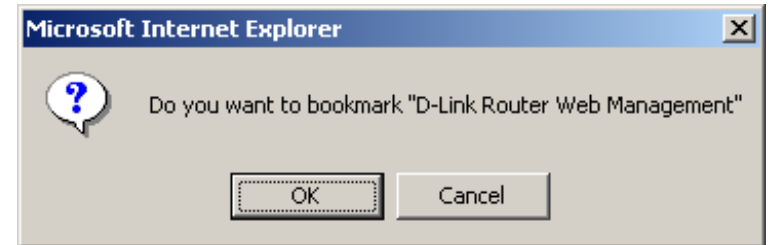
(GMT-08:00) Pacific Time (US/Canada), Tijuana

Prev Next Cancel

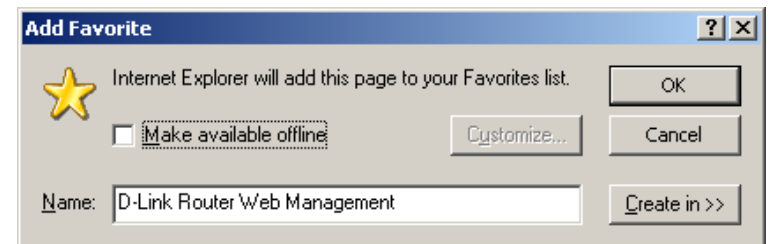
The Setup Complete window will display your wireless settings. Click **Save** to continue.



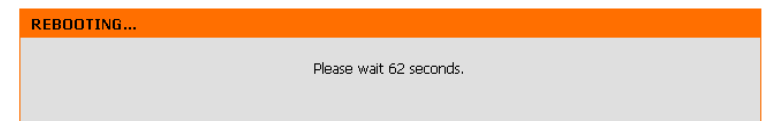
If you want to create a bookmark to the router, click **OK**. Click **Cancel** if you do not want to create a bookmark.



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



The router will now reboot. Please allow a minute or two. Click the **Continue** button once it is active.



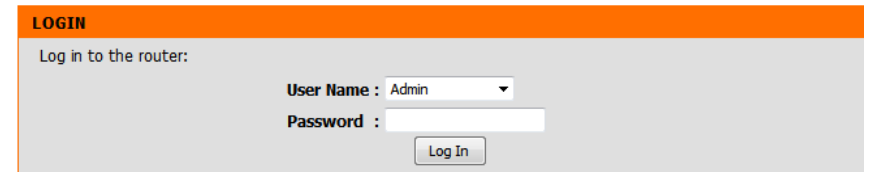
Web-based Configuration Utility

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

Windows and Mac users may also connect by typing **http://dlinkrouter** or **http://dlinkrouter.local** in the address bar.



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



Internet Connection Setup

Click **Manual Internet Connection Setup** to configure your connection manually and continue to the next page.

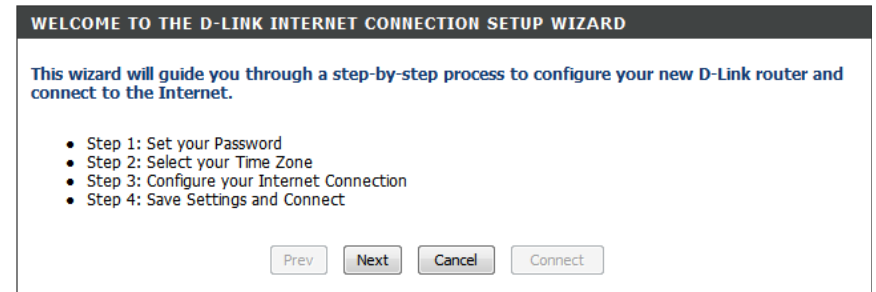
If you want to configure your router to connect to the Internet using the wizard, click **Internet Connection Setup Wizard**. You will be directed to the Quick Setup Wizard. Please skip to page 24.

DIR-505 // Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
INTERNET SETTINGS	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 SETUP WIZARD If you would like to utilize our easy to use Web-based Wizards to assist you in connecting your new D-Link Systems 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 these wizards, please make sure you have followed all steps outlined in the Quick Installation Guide included in the package.</p>				
STORAGE	MANUAL INTERNET CONNECTION OPTIONS If you would like to configure the Internet settings of your new D-Link Systems Router manually, then click on the button below. <div style="text-align: center;"> <input type="button" value="Manual Internet Connection Setup"/> </div>				

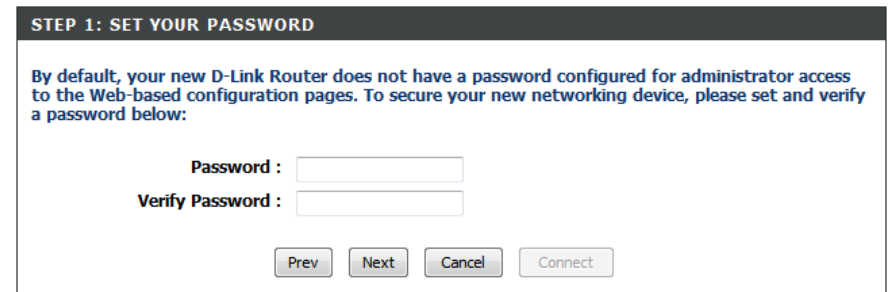
If you did not run the setup wizard from the CD and this is the first time logging into the router, this wizard will start automatically.

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

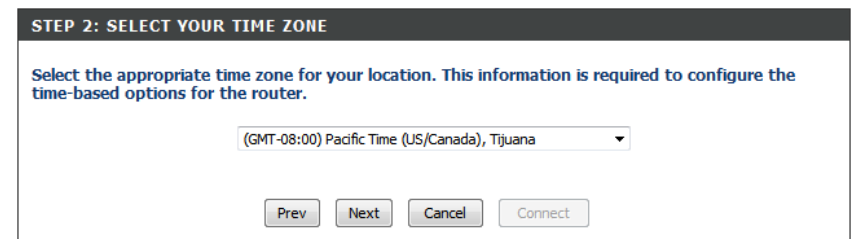
Click **Next** to continue.



In order to secure your router, please enter a new password. Check the Enable Graphical Authentication box to enable CAPTCHA authentication for added security. Click **Next** to continue.



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



Select your Internet connection type and 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.

Comcast

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

DHCP Connection (Dynamic IP Address)
Choose this if your Internet connection automatically provides you with an IP Address. Most Cable Modems use this type of connection.

Username / Password Connection (PPPoE)
Choose this option if your Internet connection requires a username and password to get online. Most DSL modems use this type of connection.

Username / Password Connection (PPTP)
PPTP client.

Username / Password Connection (L2TP)
L2TP client.

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

Prev Next Cancel Connect

Verify that you are connected to the D-Link Router with the PC that was originally connected to your broadband connection, and if you are, then click the **Clone MAC button** to copy your computer's MAC Address.

Click **Next** to continue.

DHCP CONNECTION (DYNAMIC IP ADDRESS)

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

MAC Address : 00:16:ea:61:54:76 (optional)
Clone Your PC's MAC address

Host Name : |

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

Your setup is complete. Click **Connect** to save your settings and reboot your router.

SETUP COMPLETE!

The Internet Connection Setup Wizard has completed. Click the **Connect** button to save your settings and reboot the router.

Prev Next Cancel Connect

If the router detected or you selected **PPPoE**, enter your PPPoE username and password and click **Next** to continue.

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

SET USERNAME / PASSWORD CONNECTION (PPPOE)

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

Address Mode : Dynamic IP Static IP

IP Address :

User Name :

Password :

Verify Password :

Service Name : (optional)

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

DNS SETTINGS

Primary DNS Address :

Secondary DNS Address :

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

SET USERNAME / 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 :

User Name :

Password :

Verify Password :

DNS SETTINGS

Primary DNS Address :

Secondary DNS Address :

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

SET USERNAME / 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 :

User Name :

Password :

Verify Password :

DNS SETTINGS

Primary DNS Address :

Secondary DNS Address :

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

Manual Internet Setup

Dynamic (Cable)

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

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

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

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

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

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

WAN

Use this section to configure your Internet Connection type. There are several connection types to choose from: Static IP, DHCP, PPPoE, PPTP, L2TP, and Usb3g. 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 : Dynamic IP (DHCP)

DYNAMIC IP (DHCP) INTERNET CONNECTION TYPE :

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

Host Name :

Use Unicasting : (compatibility for some DHCP Servers)

Primary DNS Server :

Secondary DNS Server :

MTU : (bytes) MTU default = 1500

MAC Address :

Internet Setup

PPPoE

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

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

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

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

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

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

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

WAN

Use this section to configure your Internet Connection type. There are several connection types to choose from: Static IP, DHCP, PPPoE, PPTP, L2TP, and Usb3g. 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 : PPTP (Username / Password) ▼

PPTP INTERNET CONNECTION TYPE :

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 Server :

Secondary DNS Server :

MTU : (bytes) MTU default = 1492

MAC Address :

Wireless Settings

If you want to configure the wireless settings on your router using the wizard, click **Wireless Security Setup Wizard** and refer to page 38.

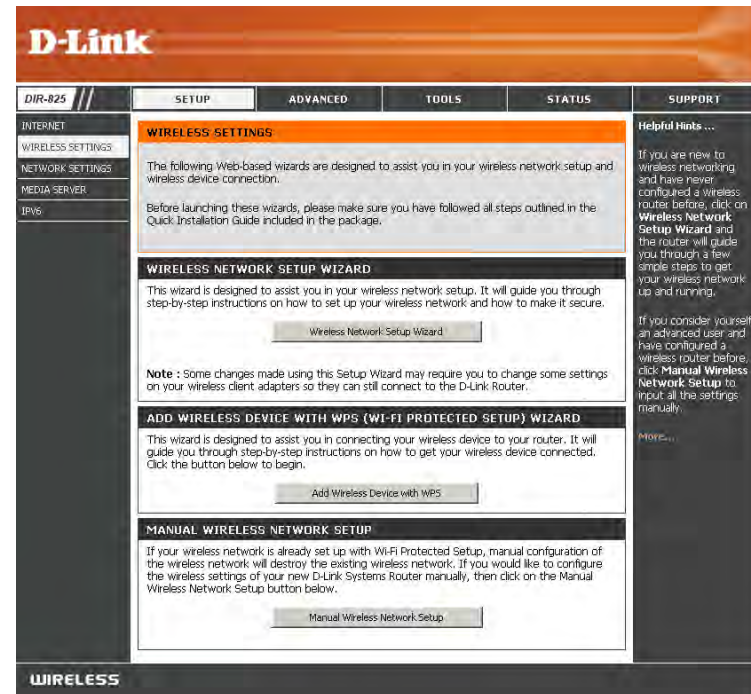
Click **Add Wireless Device with WPS** if you want to add a wireless device using Wi-Fi Protected Setup (WPS) and refer to page 41.

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

DIR-505 Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
INTERNET SETTINGS	WIRELESS SETTINGS				Helpful Hints... If you are new to wireless networking and have never configured a wireless router before, click on Wireless Network 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 Network 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. <div style="text-align: center;"> <input type="button" value="Wireless Network Setup Wizard"/> </div> <p>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.</p>				
STORAGE	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. <div style="text-align: center;"> <input type="button" value="Manual Wireless Network Setup"/> </div>				

Wireless Security Setup Wizard

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

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.

Use WPA encryption instead of WEP (WPA is stronger than WEP and all D-Link wireless client adapters support WPA)

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.

Network Name (SSID): DIR505
WEP Key Length : 128 bit
Default WEP Key to Use : 1
Authentication : Both
WEP Key : 44A8C62AD0635678E1673C6988

Select **Manually** 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.

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.

Use WPA encryption instead of WEP (WPA is stronger than WEP and all D-Link wireless client adapters support WPA)

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

If you selected **Manually**, the following screen will appear once the setup is complete.

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.

Network Name (SSID): DIR505
Security Mode : Auto (WPA or WPA2) - Personal
Cipher Type TKIP and AES
Pre-Shared Key : 12345678

Manual Configuration

Wireless Settings

DIR-505 Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
INTERNET SETTINGS	WIRELESS				<p>Helpful Hints...</p> <p>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.</p> <p>Enable Auto Channel Scan so that the router can select the best possible channel for your wireless network to operate on.</p> <p>Visibility Status is another way to secure your network. With invisible option enabled no wireless clients will be able to see your wireless network when they perform scan to see what's available. In order for your wireless devices to connect to your AP, you will need to manually enter the Wireless Network Name on each device.</p>
WIRELESS SETTINGS	<p>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.</p> <p>Save Settings Don't Save Settings</p>				
NETWORK SETTINGS	<p>WIRELESS NETWORK SETTINGS</p> <p>Enable Wireless : <input checked="" type="checkbox"/> Always <input type="checkbox"/> Add New</p> <p>Wireless Mode : Router</p> <p>Wireless Network Name : DIR505 (Also called the SSID)</p> <p>Wireless Band : 2.4GHz</p> <p>802.11 Mode : Mixed 802.11n, 802.11g and 802.11b</p> <p>Enable Auto Channel Scan : <input checked="" type="checkbox"/></p> <p>Wireless Channel : 2.437 GHz - CH 6 (Domain:United States)</p> <p>Channel Width : Auto 20/40 MHz</p> <p>Visibility Status : <input checked="" type="radio"/> Visible <input type="radio"/> Invisible</p>				
STORAGE	<p>WIRELESS SECURITY MODE</p> <p>Security Mode : None WEP WPA-Personal WPA-Enterprise</p>				

Access Point Mode

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. You may also set up a specific time range (schedule). Select a schedule from the drop-down menu or click **Add New** to create a new schedule.

Wireless Mode: Select **Access Point** from the drop-down menu.

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, it is highly recommended to change from the default network name.

802.11 Mode: Select one of the following:

802.11b Only - Select if you are only using 802.11b wireless clients.

802.11g Only - Select if you are only using 802.11g wireless clients.

802.11n Only - Select if you are only using 802.11n wireless clients.

Mixed 802.11g and 802.11b - Select if you are using a mix of 802.11g and 11b wireless clients.

Mixed 802.11n and 802.11g - Select if you are using a mix of 802.11n and 11g 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.

Wireless Channel: Indicates the channel setting for the DIR-505. 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.

Enable Auto Channel Scan: The **Auto Channel Scan** setting can be selected to allow the DIR-505 to choose the channel with the least amount of interference.

DIR-505 // Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
INTERNET SETTINGS	WIRELESS				Helpful Hints... Changing your Wireless Network Name is the first step in securing your wireless network. Change it to a familiar name that does not contain any personal information. Enable Auto Channel Scan so that the router can select the best possible channel for your wireless network to operate on. Visibility Status is another way to secure your network. With invisible option enabled, no wireless clients will be able to see your wireless network when they perform scan to see what's available. In order for your wireless devices to connect to your AP, you will need to manually enter the Wireless Network Name.
WIRELESS SETTINGS	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.				
NETWORK SETTINGS	Save Settings Don't Save Settings				
STORAGE	WIRELESS NETWORK SETTINGS				
	Enable Wireless : <input checked="" type="checkbox"/> Always <input type="checkbox"/> Add New Wireless Mode : Access Point Wireless Network Name : DIR505 (Also called the SSID) Wireless Band : 2.4GHz 802.11 Mode : Mixed 802.11n, 802.11g and 802.11b Enable Auto Channel Scan : <input checked="" type="checkbox"/> Wireless Channel : 2.437 GHz - CH 6 (Domain:United States) Channel Width : Auto 20/40 MHz Visibility Status : <input checked="" type="radio"/> Visible <input type="radio"/> Invisible				
	WIRELESS SECURITY MODE				
	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.

Visibility Status: Check the box if you do not want the SSID of your wireless network to be broadcasted by the DIR-505. If checked, the SSID of the DIR-505 will not be seen by Site Survey utilities so your wireless clients will have to know the SSID of your DIR-505 in order to connect to it.

Security Mode: Refer to page 30 for more information regarding the wireless security.

Wireless Security

This section will show you the different levels of security you can use to protect your data from intruders. The DIR-605L offers the following types of security:

- WPA2 (Wi-Fi Protected Access 2)
- WPA (Wi-Fi Protected Access)
- WEP (Wired Equivalent Privacy)
- WPA2-PSK (Pre-Shared Key)
- WPA-PSK (Pre-Shared Key)

What is WEP?

WEP stands for Wired Equivalent Privacy. It is based on the IEEE 802.11 standard and uses the RC4 encryption algorithm. WEP provides security by encrypting data over your wireless network so that it is protected as it is transmitted from one wireless device to another.

To gain access to a WEP network, you must know the key. The key is a string of characters that you create. When using WEP, you must determine the level of encryption. The type of encryption determines the key length. 128-bit encryption requires a longer key than 64-bit encryption. Keys are defined by entering in a string in HEX (hexadecimal - using characters 0-9, A-F) or ASCII (American Standard Code for Information Interchange – alphanumeric characters) format. ASCII format is provided so you can enter a string that is easier to remember. The ASCII string is converted to HEX for use over the network. Four keys can be defined so that you can change keys easily.

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). Click on Wireless Setup on the left side.

2. In the **Security Mode section**, select **WEP** from the drop-down menu.

3. In **WEP Key Length**, select either 64Bit or 128Bit encryption from the drop-down menu.

5. Next to **WEP Key 1**, enter a WEP key that you create. Make sure you enter this key exactly on all your wireless devices. You may enter up to four different keys either using Hex or ASCII. Hex is recommended (letters A-F and numbers 0-9 are valid). In ASCII all numbers and letters are valid.

6. Click **Save Settings** to save your settings. If you are configuring the router with a wireless adapter, you will lose connectivity until you enable WEP on your adapter and enter the same WEP key as you did on the router.

WIRELESS SECURITY MODE

Security Mode : WEP

WEP

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

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

If you choose the WEP security option this device will **ONLY** operate in **Legacy Wireless mode (802.11B/G)**. This means you will **NOT** get 11N performance due to the fact that WEP is not supported by the Draft 11N specification.

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

WEP Key 1 :

Authentication : Both

Configure WPA/WPA2 Personal

It is recommended to enable encryption on your wireless access point 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 access point (192.168.0.50). Click on Setup and then click Wireless Settings on the left side.
2. Next to *Security Mode*, select **WPA-Personal**.
3. Next to *Cipher Type*, select **TKIP**, **AES**, or **Auto**.
4. Next to *Passphrase*, enter a key. The key is entered as a passphrase in ASCII format at both ends of the wireless connection. The passphrase must be between 8-63 characters.
6. Click **Save Settings** at the top of the window to save your settings.
If you are configuring the access point 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 access point.

WIRELESS SECURITY MODE

Security Mode :

WPA

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

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

WPA Mode :

Cipher Type :

PRE-SHARED KEY

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

Pre-Shared Key :

Configure WPA Enterprise

It is recommended to enable encryption on your wireless access point 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 access point (192.168.0.50). Click on **Setup** and then click **Wireless Settings** on the left side.
2. Next to *Security Mode*, select **WPA-Enterprise**.
3. Next to *WPA Mode* select **Auto (WPA or WPA2)**.
4. Next to *Cipher Mode*, select **TKIP, AES**, or **Auto**.
5. Next to *RADIUS Server*, enter the IP Address of your RADIUS server.
6. Next to *RADIUS Server Port*, enter the port you are using with your RADIUS server. 1812 is the default port.
7. Next to *Shared Secret*, enter the security key.
8. Click **Save Settings** to save your settings.

WIRELESS SECURITY MODE

Security Mode :

WPA

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

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

WPA Mode :

Cipher Type :

EAP (802.1X)

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

RADIUS Server IP Address :

RADIUS Server Port :

RADIUS Server Shared Secret :

Optional backup RADIUS server :

Second RADIUS Server IP Address :

Second RADIUS Server Port :

Second RADIUS Server Shared Secret :

Network Settings

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

Router Settings

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

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

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

Device Name: Enter a name for the router.

Local Domain: Enter the Domain name (Optional).

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

DIR-505 Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
INTERNET SETTINGS	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				
STORAGE	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"/> (optional) Enable DNS Relay : <input checked="" type="checkbox"/>				

DHCP Reservation

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

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

Enable: Check this box to enable the reservation.

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

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

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

Clone 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.

DHCP Reservations List

DHCP Reservations List: Displays any reservation entries. Displays the host name (name of your computer or device), MAC Address, and IP address.

Enable: Check to enable the reservation.

Edit: Click the edit icon to make changes to the reservation entry.

Delete: Click to remove the reservation from the list.

ADD DHCP RESERVATION

Enable :


Computer Name : << Computer Name ▾

IP Address :

MAC Address :

DHCP RESERVATIONS LIST			
Enable	Computer Name	MAC Address	IP Address

NUMBER OF DYNAMIC DHCP CLIENTS:					
Hardware Address	Assigned IP	Hostname	Expires		
00:16:ea:61:54:76	192.168.0.100	Lifebook	Sun Jan 2 00:35:39 2011	Revoke	Reserve

DHCP RESERVATIONS LIST				
Enable	Host Name	MAC Address	IP Address	
<input checked="" type="checkbox"/>	PM_test01	00:04:23:2c:51:a3	192.168.0.112	 

NUMBER OF DYNAMIC DHCP CLIENTS : 1					
Hardware Address	Assigned IP	Hostname	Expires		
00:04:23:2c:51:a3	192.168.0.112	PM_test01	Thu Sep 1 19:49:06 2011	Revoke	Reserve

Storage

This page will allow you to access files from a USB external hard drive or thumb drive that is plugged into the router from your local network or from the Internet using either a web browser or an app for your smartphone or tablet. You can create users to be allowed to access these files.

Enable Web File Access: Check to enable sharing files on your USB storage device that is plugged in your router.

Enable HTTP Storage Remote Access: Check to enable HTTP access to your router's storage. You will have to type HTTP in the URL.

Remote Access Port: Enter a port (8181 is default). You will have to enter this port in the URL when connecting to the shared files. For example: (**http://192.168.0.1:8181**).

Enable HTTPS Storage Remote Access: Check to enable HTTPS (secure) access to your router's storage. You will have to type HTTPS in the URL.

Remote HTTPS Port: Enter a port (4433 is default). You will have to enter this port in the URL when connecting to the shared files. For example: (**https://192.168.0.1:8181**).

User Name: To create a new user, enter a user name.

Password: Enter a password for this account.

Verify Password: Re-enter the password. Click **Add/Edit** to create the user.

User List: Displays the accounts. The Admin and Guest accounts are built-in to the router.

Number of Devices: Displays the USB device plugged into the router.

STORAGE

Web File Access allows you to use a web browser to remotely access files stored on an SD card or USB storage drive plugged into the router. To use this feature, check the **Enable Web File Access** checkbox, then create user accounts to manage access to your storage devices or use the Guest account(guest/guest) to access the Guest Folder. After plugging in an SD card or USB storage drive, the new device will appear in the list with a link to it. You can then use this link to connect to the drive and log in with a user account.

Save Settings Don't Save Settings

HTTP STORAGE

Enable Web File Access :

Enable HTTP Storage Remote Access :

Remote Access Port : 8181

Enable HTTPS Storage Remote Access :

Remote HTTPS Port : 4433

10 -- USER CREATION

User Name : << User Name

Password :

Verify Password : Add/Edit Delete

USER LIST

No.	User Name	Access Path	Permission	:Modify	:Delete
1	Admin	/	Read/Write		
2	Guest	None	Read Only		

NUMBER OF DEVICES : 0

Device	Total Space	Free Space

HTTP STORAGE LINK

You can use this link to connect to the drive remotely after logging in with a user account.

Advanced Virtual Server

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

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

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

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

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

DIR-505 Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP	
VIRTUAL SERVER	VIRTUAL SERVER				Helpful Hints...	
APPLICATION RULES	The Virtual Server option allows you to define a single public port on your router for redirection to an internal LAN IP Address and Private LAN port if required. This feature is useful for hosting online services such as FTP or Web Servers.				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.	
MAC ADDRESS FILTER	<input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>					
WEBSITE FILTER	8--VIRTUAL SERVERS LIST				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. More...	
FIREWALL SETTINGS	<input type="checkbox"/>	Name	<< Application Name	Port Public 0		Traffic Type Protocol TCP
ADVANCED WIRELESS		IP Address	<< Computer Name	Private 0		5
WI-FI PROTECTED SETUP	<input type="checkbox"/>	Name	<< Application Name	Public 0		Protocol TCP
UPNP SETTINGS		IP Address	<< Computer Name	Private 0		5
GUEST ZONE	<input type="checkbox"/>	Name	<< Application Name	Public 0		Protocol TCP
DMZ		IP Address	<< Computer Name	Private 0		5
	<input type="checkbox"/>	Name	<< Application Name	Public 0	Protocol TCP	
		IP Address	<< Computer Name	Private 0	5	

Application Rules

Some applications require multiple connections, such as Internet gaming, video conferencing, Internet telephony and others. These applications have difficulties working through NAT (Network Address Translation). Special Applications makes some of these applications work with the DIR-505. If you need to run applications that require multiple connections, specify the port normally associated with an application in the "Trigger Port" field, select the protocol type as TCP or UDP, then enter the firewall (public) ports associated with the trigger port to open them for inbound traffic.

The DIR-505 provides some predefined applications in the table on the bottom of the web page. Select the application you want to use and enable it.

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

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

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

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

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

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

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

8 -- APPLICATION RULES

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

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. [More...](#)

MAC Address Filter

The MAC address filter section can be used to filter network access by machines based on the unique MAC addresses of their network adapter(s). It is most useful to prevent unauthorized wireless devices from connecting to your network. A MAC address is a unique ID assigned by the manufacturer of the network adapter.

Configure When you **Turn MAC Filtering OFF** is selected, MAC addresses are not used to control network access. When **Turn MAC Filtering ON and ALLOW computers listed to access the network** is selected, only computers with MAC addresses listed in the MAC Address List are granted network access. When **Turn MAC Filtering ON and DENY computers listed to access the network** is selected, any computer with a MAC address listed in the MAC Address List is refused access to the network.

Add MAC Filtering This parameter allows you to manually add a MAC filtering rule. Click the **Add** button to add the new MAC filtering rule **Rule:** to the MAC Filtering Rules list at the bottom of this screen.

The screenshot displays the configuration interface for the MAC Address Filter on a D-Link DIR-505 Router. The interface is divided into several sections:

- Navigation Menu:** Includes VIRTUAL SERVER, APPLICATION RULES, MAC ADDRESS FILTER (selected), WEBSITE FILTER, FIREWALL SETTINGS, ADVANCED WIRELESS, WI-FI PROTECTED SETUP, UPNP SETTINGS, GUEST ZONE, and DMZ.
- MAC ADDRESS FILTER:** Contains a description: "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 the description are two buttons: "Save Settings" and "Don't Save Settings".
- WIRELESS ACCESS SETTINGS:** Includes a section titled "Configure MAC Filtering below:" with a dropdown menu set to "Turn MAC Filtering ON and ALLOW computers listed to access the network".
- Table:** A table with two columns: "MAC Address" and "Wireless Client List". The "MAC Address" column contains eight rows of "00:00:00:00:00:00". The "Wireless Client List" column contains a dropdown menu labeled "MAC Address" and a "Clear" button for each row.
- Helpful Hints...** A sidebar on the right provides instructions: "Create a list of MAC address that you would either like to allow or deny access to your network." and "Select a MAC address from the drop down menu, then click the arrow to add that MAC address to the list." Below this, it says: "Click the Clear button to remove the MAC address from the MAC Filtering list."

Website Filters

Website Filters are used to allow you to set up a list of Web sites that can be viewed by multiple users through the network. To use this feature select to **Allow** or **Deny**, enter the domain or website and click **Save Settings**. You must also select **Apply Web Filter** under the *Access Control* section (page 33).

Add Website Filtering Rule: Select either **DENY computers access to ONLY these sites** or **ALLOW computers access to ONLY these sites**.

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

DIR-505 // Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP								
VIRTUAL SERVER	WEBSITE FILTER				Helpful Hints... Create a list of Web Sites to which you would like to deny or allow through the network. More...								
APPLICATION RULES	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 use this feature, you must also select the "Apply Web Filter" checkbox in the Access Control section. <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>												
MAC ADDRESS FILTER	8 -- WEBSITE FILTERING RULES												
WEBSITE FILTER	Configure Website Filter below: DENY computers access to ONLY these sites <input type="button" value="Clear the list below..."/>												
FIREWALL SETTINGS	<table border="1"> <thead> <tr> <th colspan="2">Website URL/Domain</th> </tr> </thead> <tbody> <tr> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table>				Website URL/Domain		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Website URL/Domain													
<input type="text"/>	<input type="text"/>												
<input type="text"/>	<input type="text"/>												
<input type="text"/>	<input type="text"/>												
ADVANCED WIRELESS													
WI-FI PROTECTED SETUP													
UPNP SETTINGS													
GUEST ZONE													
DMZ													

Firewall Settings

A firewall protects your network from the outside world. The DIR-505 offers a firewall type functionality. The SPI feature helps prevent cyber attacks. Sometimes you may want a computer exposed to the outside world for certain types of applications. If you choose to expose a computer, you can enable DMZ. DMZ is short for Demilitarized Zone. This option will expose the chosen computer completely to the outside world.

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

Anti-Spoof Check: Enable this feature to protect your network from certain kinds of “spoofing” attacks.

' and 'ANTI-SPOOF CHECKING' with 'Enable anti-spoof checking : '. A sidebar on the right contains 'Helpful Hints...' and 'More...'."/>

DIR-505 // Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
VIRTUAL SERVER	FIREWALL SETTINGS				Helpful Hints... ALGs provide special handling of the IP payload for some protocols and applications to make them work with network address translation (NAT). More...
APPLICATION RULES	The Firewall Settings allow you to set a single computer on your network outside of the router. <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
MAC ADDRESS FILTER	FIREWALL SETTINGS				
WEBSITE FILTER	Enable SPI : <input checked="" type="checkbox"/>				
FIREWALL SETTINGS	ANTI-SPOOF CHECKING				
ADVANCED WIRELESS	Enable anti-spoof checking : <input type="checkbox"/>				
WIFI PROTECTED SETUP					
UPNP SETTINGS					
GUEST ZONE					
DMZ					

Advanced Wireless

Transmit Power: Set the transmit power of the antennas.

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

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

IGMP Snooping: Check to enable this feature.

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.

DIR-505 // Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
VIRTUAL SERVER	ADVANCED WIRELESS				Helpful Hints... Advanced Wireless: It is recommended that you leave these options at their default values. Adjusting them could negatively impact the performance of your wireless network. The options on this page should be changed by advanced users or if you are instructed to by one of our support personnel, as they can negatively affect the performance of your Access Point if configured improperly.
APPLICATION RULES	If you are not familiar with these Advanced Wireless settings, please read the help section before attempting to modify these settings. <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
MAC ADDRESS FILTER	ADVANCED WIRELESS SETTINGS				
WEBSITE FILTER	Transmit Power : 100% ▾ WMM Enable : <input checked="" type="checkbox"/> Short GI : <input checked="" type="checkbox"/> IGMP Snooping : <input checked="" type="checkbox"/> WLAN Partition : <input type="checkbox"/>				
FIREWALL SETTINGS					
ADVANCED WIRELESS					
WI-FI PROTECTED SETUP					
UPNP SETTINGS					
GUEST ZONE					
DMZ					

Wi-Fi Protected Setup (WPS)

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

Enable: Enable the Wi-Fi Protected Setup feature.

Note: *if this option is unchecked, the WPS button on the side of the router will be disabled.*

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

PIN Settings: A PIN is a unique number that can be used to add the router to an existing network or to create a new network. Only the Administrator (“admin” account) can change or reset the PIN.

Current PIN: Shows the current PIN.

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

Generate New PIN: Create a random number that is a valid PIN. This becomes the router’s PIN. You can then copy this PIN to the user interface of the wireless client.

The screenshot shows the configuration interface for a DIR-505 Router. The main menu on the left includes: VIRTUAL SERVER, APPLICATION RULES, MAC ADDRESS FILTER, WEBSITE FILTER, FIREWALL SETTINGS, ADVANCED WIRELESS, WI-FI PROTECTED SETUP (highlighted), UPNP SETTINGS, GUEST ZONE, and DMZ. The top navigation tabs are SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The main content area is titled "WI-FI PROTECTED SETUP" and contains the following sections:

- WI-FI PROTECTED SETUP (Introduction):** Explains that WPS is used to easily add devices to a network using a PIN or button press. It notes that devices must support WPS and that the PIN will be used for future setups. It also warns that not saving settings will result in a reboot or power loss. Buttons for "Save Settings" and "Don't Save Settings" are present.
- WI-FI PROTECTED SETUP (Configuration):** Features a checked "Enable" checkbox and an unchecked "Lock Wireless Security Settings" checkbox. A "Reset to Unconfigured" button is located below these options.
- PIN SETTINGS:** Displays the "Current PIN" as 69740909. It includes "Reset PIN to Default" and "Generate New PIN" buttons.
- ADD WIRELESS STATION:** Contains a single button labeled "Add Wireless Device With WPS".

On the right side, a "Helpful Hints..." sidebar provides additional information:

- It states that other wireless devices must support WPS to be included in the local network.
- It notes that only the "Admin" account can change security settings.
- It suggests clicking "Add Wireless Device Wizard" to use WPS for adding devices.
- A "More..." link is provided at the bottom.

Add Wireless Station: 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.

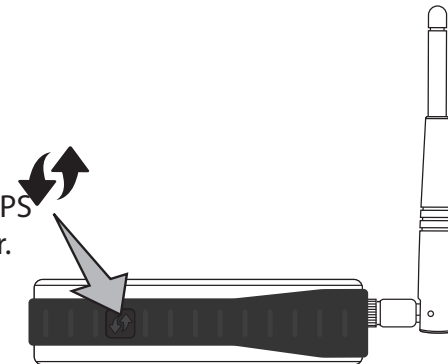
There are several ways to add a wireless device to your network. A “registrar” controls access to the wireless network. A registrar only allows devices onto the wireless network if you have entered the PIN, or pressed a special Wi-Fi Protected Setup button on the device. The router acts as a registrar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

Add Wireless Device Wizard: Click to start the wizard.

WPS Button

You can also simply press the WPS button on the side of the router, and then press the WPS button on your wireless client to automatically connect without logging into the router.

Refer to page 106 for more information.



UPnP Settings

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

DIR-505 // Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
VIRTUAL SERVER	UPNP SETTINGS				Helpful Hints... UPnP helps other UPnP LAN hosts interoperate with the router. Leave the UPnP option enabled as long as the LAN has other UPnP applications. More...
APPLICATION RULES	Universal Plug and Play (UPnP) supports peer-to-peer Plug and Play functionality for network devices. <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
MAC ADDRESS FILTER					
WEBSITE FILTER					
FIREWALL SETTINGS	UPNP SETTINGS				
ADVANCED WIRELESS	Enable UPnP : <input checked="" type="checkbox"/>				
WI-FI PROTECTED SETUP					
UPNP SETTINGS					
GUEST ZONE					
DMZ					

Guest Zone

The Guest Zone feature will allow you to create temporary zones that can be used by guests to access the Internet. These zones will be separate from your main wireless network. You may configure different zones for the 2.4GHz and 5GHz wireless bands.

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

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

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

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

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

DIR-505 Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
VIRTUAL SERVER	GUEST ZONE				Helpful Hints... Use this section to configure the guest zone settings of your router. The guest zone provide a separate network zone for guest to access Internet. More...
APPLICATION RULES	Use this section to configure the guest zone settings of your router. The guest zone provide a separate network zone for guest to access Internet. <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
MAC ADDRESS FILTER	GUEST ZONE SELECTION				
WEBSITE FILTER	Enable Guest Zone : <input checked="" type="checkbox"/> Always <input type="button" value="Add New Schedule"/>				
FIREWALL SETTINGS	Wireless Band : 2.4GHz Band				
ADVANCED WIRELESS	Wireless Network Name : dlink_guest (Also called the SSID)				
WI-FI PROTECTED SETUP	Enable Routing Between Zones : <input type="checkbox"/>				
UPNP SETTINGS	Security Mode : WPA-Personal				
GUEST ZONE	WPA				
DMZ	Use WPA or WPA2 mode to achieve a balance of strong security and best compatibility. This mode uses WPA for legacy clients while maintaining higher security with stations that are WPA2 capable. Also the strongest cipher that the client supports will be used. For best security, use WPA2 Only mode. This mode uses AES(CCMP) cipher and legacy stations are not allowed access with WPA security. For maximum compatibility, use WPA Only . This mode uses TKIP cipher. Some gaming and legacy devices work only in this mode. To achieve better wireless performance use WPA2 Only security mode (or in other words AES cipher).				
	WPA Mode : Auto (WPA or WPA2)				
	Cipher Type : TKIP and AES				
	PRE-SHARED KEY				
	Enter an 8 to 63 character alphanumeric pass-phrase. For good security it should be of ample length and should not be a commonly known phrase.				
	Pre-Shared Key : <input type="text"/>				

DMZ

This feature allows you to set a single computer from your network to outside of the router and get unrestricted Internet access.

Enable DMZ: Check the box to enable DMZ.

DMZ IP Address: Enter the DMZ IP Address.

DIR-505 Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
VIRTUAL SERVER	DMZ SETTINGS				Helpful Hints... Enable the DMZ option only as a last resort. If you are having trouble using an application from a computer behind the router, first try opening ports associated with the application in the Virtual Server sections. More...
APPLICATION RULES	The DMZ (Demilitarized Zone) option lets you set a single computer on your network outside of the router. If you have a computer that cannot run Internet applications successfully from behind the router, then you can place the computer into the DMZ for unrestricted Internet access. Note: Putting a computer in the DMZ may expose that computer to a variety of security risks. Use of this option is only recommended as a last resort. <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
MAC ADDRESS FILTER	DMZ HOST				
WEBSITE FILTER	Enable DMZ : <input checked="" type="checkbox"/>				
FIREWALL SETTINGS	DMZ IP Address : 0.0.0.0 << Computer Name ▾				
ADVANCED WIRELESS					
WI-FI PROTECTED SETUP					
UPNP SETTINGS					
GUEST ZONE					
DMZ					

Maintenance Admin

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

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

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

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

Enable HTTPS Server: Check to enable HTTPS to connect to the router securely. This means to connect to the router, you must enter **https://192.168.0.1** (for example) instead of **http://192.168.0.1**.

Enable Remote Management: Remote management allows the DIR-505 to be configured from the Internet by a web browser. A username/password is still required to access the Web Management interface.

Remote Admin Port: The port number used to access the DIR-505 is used in the URL. Example: **http://x.x.x.x:8080** whereas x.x.x.x is the Internet IP address of the DIR-505 and 8080 is the port used for the Web Management interface.

If you have enabled **HTTPS Server**, you must enter **https://** as part of the URL to access the router remotely.

DIR-505 // Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
ADMIN	ADMINISTRATOR SETTINGS				Helpful Hints... For security reasons, it is recommended that you change the password for the Admin account. 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. More...
TIME	The 'admin' account can access the management interface. The admin has read/write access and can change passwords. By default there is no password configured. It is highly recommended that you create a password to keep your router secure.				
SYSTEM	Save Settings Don't Save Settings				
FIRMWARE	ADMIN PASSWORD				
DYNAMIC DNS	Please enter the same password into both boxes, for confirmation.				
SYSTEM CHECK	Password : <input type="text"/>				
SCHEDULES	Verify Password : <input type="text"/>				
	ADMINISTRATION				
	Enable Graphical Authentication : <input type="checkbox"/>				
	Enable HTTPS Server : <input type="checkbox"/>				
	Enable Remote Management : <input type="checkbox"/>				
	Remote Admin Port : <input type="text" value="8080"/>				

Time

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

Current Router Time: Displays the current date and time of the router.

Time:

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

Enable 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. A NTP server will synch the time and date with your router. This will only connect to a server on the Internet, not a local server. Check the box to enable this feature.

NTP Server Used: Enter the IP address of a NTP server or select one from the drop-down menu.

Set the Date and Time Manually: To manually input the time, enter the values in these fields for the Year, Month, Day, Hour, Minute, and Second and then click **Set Time**.

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

DIR-505 // Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP															
ADMIN	TIME				Helpful Hints... Good timekeeping is important for accurate logs and scheduled firewall rules. More...															
TIME	The Time Configuration option allows you to configure, update, and maintain the correct time on the internal system clock. From this section you can set the time zone that you are in and set the NTP (Network Time Protocol) Server. Daylight Saving can also be configured to automatically adjust the time when needed. <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>																			
SYSTEM	TIME CONFIGURATION																			
FIRMWARE	Current Router Time : Jan/01/2011 04:16:53 Time Zone : (GMT-08:00) Pacific Time (US/Canada), Tijuana Enable Daylight Saving : <input checked="" type="checkbox"/> Daylight Saving Dates : <table border="0"> <tr> <td></td> <td>Month</td> <td>Week</td> <td>Day of Week</td> <td>Time</td> </tr> <tr> <td>DST start</td> <td>Mar</td> <td>3rd</td> <td>Sun</td> <td>1 am</td> </tr> <tr> <td>DST End</td> <td>Nov</td> <td>2nd</td> <td>Sun</td> <td>1 am</td> </tr> </table>						Month	Week	Day of Week	Time	DST start	Mar	3rd	Sun	1 am	DST End	Nov	2nd	Sun	1 am
	Month	Week	Day of Week	Time																
DST start	Mar	3rd	Sun	1 am																
DST End	Nov	2nd	Sun	1 am																
DYNAMIC DNS	AUTOMATIC TIME CONFIGURATION																			
SYSTEM CHECK	Enable NTP Server : <input checked="" type="checkbox"/> NTP Server Used : <input type="text"/> << Select NTP Server																			
SCHEDULES	SET THE DATE AND TIME MANUALLY																			
	Date And Time : Year 2011 Month Jan Day 01 Hour 00 Minute 00 Second 00 <input type="button" value="Copy Your Computer's Time Settings"/>																			

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.

Clear Language Pack: If you previously installed a language pack and want to revert all the menus on the Router interface back to the default language settings, click the **Clear** button.

DIR-505 // Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
ADMIN	SYSTEM SETTINGS				Helpful Hints...
TIME	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.				Once your router is configured the way you want it, you can save the configuration settings to a configuration file.
SYSTEM	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.				
FIRMWARE	SYSTEM SETTINGS				You might need this file so that you can load your configuration later in the event that the router's default settings are restored.
DYNAMIC DNS	<p>Save Settings To Local Hard Drive : <input type="button" value="Save Configuration"/></p> <p>Load Settings From Local Hard Drive : <input type="text"/> <input type="button" value="Browse..."/> <input type="button" value="Restore Configuration from File"/></p> <p>Restore To Factory Default Settings : <input type="button" value="Restore Factory Defaults"/> Restore all settings to the factory defaults.</p> <p>Reboot The Device : <input type="button" value="Reboot The Device"/></p> <p>Remove Language Pack : <input type="button" value="Remove"/></p>				
SYSTEM CHECK					To save the configuration, click the Save Configuration button.
SCHEDULES					More...

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.

Language Pack Upgrade: If you want to change the Router's language pack, click **Browse** to locate the language pack. Click **Upload** to complete the load the new language pack.

DIR-505 // Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
ADMIN	FIRMWARE				Helpful Hints...
TIME	<p>There may be new firmware for your DIR-505 to improve functionality and performance. Click here to check for an upgrade on our support site.</p> <p>After you have downloaded the new firmware file from our support site, click the Browse button below to find the firmware file on your local hard drive. Click the Upload button to update the firmware on the DIR-505.</p> <p>Do not update firmware through wireless network!!</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.
SYSTEM	FIRMWARE AND LANGUAGE PACK INFORMATION				More...
FIRMWARE	<p>Current Firmware Version : 1.00betaNA Date : 2011/11/25</p> <p>Current Language Pack Version : No Language pack</p> <p>Check Online Now for Latest Firmware and Language pack Version : <input type="button" value="Check Now"/></p>				
DYNAMIC DNS	FIRMWARE UPGRADE				
SYSTEM CHECK	<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 Maintenance -> System screen</p> <p>To upgrade the firmware, your PC must have a wired connection to the access point. Enter the name of the firmware upgrade file, and click on the Upload button.</p> <p>Upload : <input type="text"/> <input type="button" value="Browse..."/></p> <p><input type="button" value="Upload"/></p>				
SCHEDULES	LANGUAGE PACK UPGRADE				
	<p>Upload : <input type="text"/> <input type="button" value="Browse..."/></p> <p><input type="button" value="Upload"/></p>				

Dynamic DNS

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

Enable Dynamic DNS: 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: Select your DDNS provider from the drop-down menu or enter the DDNS server address.

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

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

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

Timeout: Enter a timeout time (in hours).

Status: Displays the current connection status.

DIR-505 Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
ADMIN	DYNAMIC DNS				Helpful Hints... To use this feature, you must first have a Dynamic DNS account from one of the providers in the drop down menu. More...
TIME	The DDNS feature allows you to host a server (Web, FTP, Game Server, etc...) using a domain name that you have purchased (www.whateveryournameis.com) with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IP addresses. Using a DDNS service provider, your friends can enter your host name to connect to your game server no matter what your IP address is. Sign up for D-Link's Free DDNS service at www.dlinkddns.com <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
SYSTEM	DYNAMIC DNS				
FIRMWARE	Enable Dynamic DNS : <input checked="" type="checkbox"/>				
DYNAMIC DNS	Server Address : <input type="text" value="dlinkddns.com"/> << Select Dynamic DNS Server				
SYSTEM CHECK	Host Name : <input type="text"/>				
SCHEDULES	Username or Key : <input type="text"/>				
	Password or Key : <input type="text"/>				
	Verify Password or Key : <input type="text"/>				
	Timeout : <input type="text" value="576"/> (hours)				
	Status : Disconnected				

System Check

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

IPv6 Ping Test: Enter the IPv6 address that you wish to Ping and click **Ping**.

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

DIR-505 // Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
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.				
SYSTEM	PING TEST				
FIRMWARE	Host Name or IP 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 format: Check **All Day - 24hrs** or enter a start and end time for your schedule.

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

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

DIR-505 Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP									
ADMIN	SCHEDULES				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 the Edit icon to change an existing schedule. Click the Delete icon to permanently delete a schedule. More...									
TIME	The Schedule configuration option is used to manage schedule rules for various firewall and parental control features.													
SYSTEM	ADD SCHEDULE RULE													
FIRMWARE	Name : <input type="text"/> Day(s) : <input type="radio"/> All Week : <input checked="" type="radio"/> Select Day(s) : <input type="checkbox"/> Sun <input type="checkbox"/> Mon <input type="checkbox"/> Tue <input type="checkbox"/> Wed <input type="checkbox"/> Thu <input type="checkbox"/> Fri <input type="checkbox"/> Sat All Day - 24 hrs : <input type="checkbox"/> Time format : 24-hour ▾ Start Time : 00 : 00 AM (hour:minute) End Time : 00 : 00 AM (hour:minute) <input type="button" value="Save"/> <input type="button" value="Clear"/>													
DYNAMIC DNS	SCHEDULE RULES LIST													
SYSTEM CHECK	<table border="1"> <thead> <tr> <th>Name</th> <th>Day(s)</th> <th>Time Frame</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				Name	Day(s)	Time Frame							
Name	Day(s)	Time Frame												
SCHEDULES														

Status Device Info

This page displays the current information for the DIR-505. 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.

The screenshot shows the 'Status Device Info' page for a DIR-505 router. The page is organized into several sections:

- General:** Displays the router's time (Jan/01/2011 04:43:57), system up time (0 Day, 04:44:20), and firmware version (1.00beta1A, Fri, 25 Nov 2011).
- WAN:** Shows connection type (DHCP client), cable status (Disconnected), network status (Disconnected), connection up time (N/A), MAC address (00:18:e7:95:6a:7f), 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), and secondary DNS server (0.0.0.0). Buttons for 'DHCP Renew' and 'DHCP Release' are visible.
- LAN:** Shows MAC address (00:18:e7:95:6a:7e), IP address (192.168.0.1), subnet mask (255.255.255.0), and DHCP server (Enabled).
- Wireless LAN:** Shows wireless radio (Enable), wireless mode (Mixed 802.11n, 802.11g and 802.11b), channel width (Auto 20/40 MHz), channel (0), and Wi-Fi Protected Setup (Enable / Configured).
- SSID List:** A table showing network name (SSID), guest status, MAC address, and security mode.

Network Name (SSID)	Guest	MAC Address	Security Mode
DIR505	No	00:18:e7:95:6a:7e	None
- LAN Computers:** A table showing IP address, name (if any), and MAC address.

IP Address	Name (If Any)	MAC
192.168.0.100	Lifebook	00:16:ea:61:54:76

Logs

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.

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.

Log Level: There are three levels of message importance: **Critical, Warning,** and **Information.** Select the levels that you want displayed in the log.

Log Files: Use this section to view and manage the Router's log entries.

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.

The screenshot shows the D-Link DIR-505 Router web interface. The main content area is titled 'LOGS' and contains the following sections:

- LOGS:** Use this option to view the device logs. You can define what types of events you want to view and the event levels to view.
- LOG OPTIONS:**
 - Log Type:**
 - System Activity
 - Debug Information
 - Attacks
 - Dropped Packets
 - Notice
 -
- LOG DETAILS:**
 - Navigation buttons:
 -
 - 1/7
 - Table with columns **Time** and **Message**:

Time	Message
Jan 1 04:16:29	UDHCPD Inform: add_lease 192.168.0.100
Jan 1 03:24:56	UDHCPD Inform: add_lease 192.168.0.100
Jan 1 03:19:48	UDHCPD Inform: add_lease 192.168.0.100
Jan 1 03:18:12	UDHCPD Inform: add_lease 192.168.0.100
Jan 1 03:16:30	UDHCPD Inform: add_lease 192.168.0.100
Jan 1 02:16:31	UDHCPD Inform: add_lease 192.168.0.100
Jan 1 01:23:26	UDHCPD Inform: add_lease 192.168.0.100
Jan 1 00:35:39	UDHCPD Inform: add_lease 192.168.0.100
Jan 1 00:35:33	UDHCPD sending ACK to 192.168.0.100
Jan 1 00:35:33	UDHCPD sending OFFER of 192.168.0.100

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.

DIR-505 // Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
DEVICE INFO	INTERNET SESSIONS				Helpful Hints... This is a list of all active conversations between WAN computers and LAN computers. More...
LOGS	This page displays the full details of active internet sessions to your router.				
STATISTICS	INTERNET SESSIONS				
INTERNET SESSIONS	Local NAT Internet Protocol State Dir Time-Out				
WIRELESS					

Wireless

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

DIR-505 // Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP									
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														
INTERNET SESSIONS	NUMBER OF WIRELESS CLIENTS : 1													
WIRELESS	<table border="1"> <thead> <tr> <th>MAC Address</th> <th>IP Address</th> <th>Mode</th> <th>Rate (Mbps)</th> <th>Signal (%)</th> </tr> </thead> <tbody> <tr> <td>00:16:ea:61:54:76</td> <td>192.168.0.100</td> <td>802.11n (2.4GHz)</td> <td>66M</td> <td>94</td> </tr> </tbody> </table>					MAC Address	IP Address	Mode	Rate (Mbps)	Signal (%)	00:16:ea:61:54:76	192.168.0.100	802.11n (2.4GHz)	66M
MAC Address	IP Address	Mode	Rate (Mbps)	Signal (%)										
00:16:ea:61:54:76	192.168.0.100	802.11n (2.4GHz)	66M	94										

Help

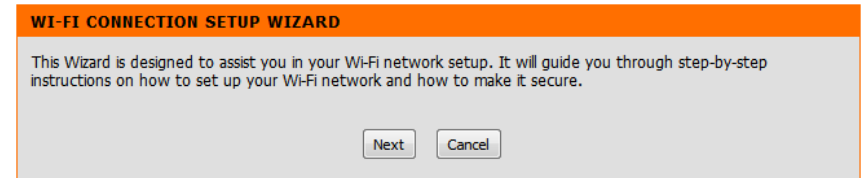
DIR-505 // Router	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
MENU	SUPPORT MENU				Helpful Hints... Click on the links for more informations of each section in the GUI.
SETUP	<ul style="list-style-type: none"> • Setup • Advanced • Maintenance • Status 				
ADVANCED	SETUP HELP <ul style="list-style-type: none"> • Internet Connection • Internet Settings • Wireless Settings • Network Settings 				
MAINTENANCE	ADVANCED HELP <ul style="list-style-type: none"> • Virtual Server • Application Rules • MAC Address Filter • Website Filter • Firewall Settings • Advanced Wireless • Wi-Fi Protected Setup • UPNP Settings • Guest Zone • DMZ 				
STATUS	MAINTENANCE HELP <ul style="list-style-type: none"> • Admin • Time • System • Firmware • Schedules 				
	STATUS HELP <ul style="list-style-type: none"> • Device Info • Logs • Statistics • Internet Sessions • Wireless 				

Quick Setup Wizard

Repeater Mode

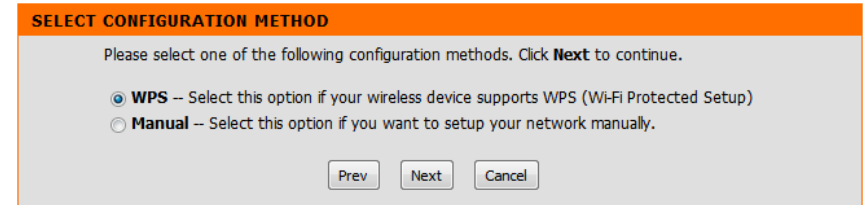
This Wizard is designed to assist you in configuring your DIR-505 as an repeater.

To start the Setup Wizard click **Next**.

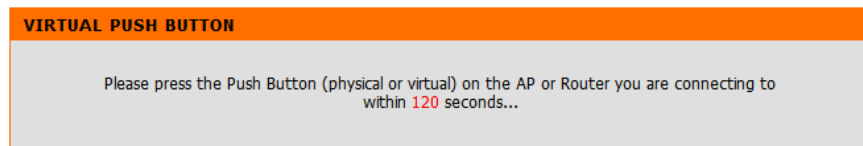


Select **WPS** as the configuration method only if your wireless device supports Wi-Fi Protected Setup (WPS). For **Manual** setup, skip to page 67.

Click **Next** to continue.



Press down the **Push Button** on the Wireless device you are adding to your wireless network.



Select **Manual** as the configuration method to set up your network manually.

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.

Please wait while your device scans for available Wi-Fi networks.

SELECT WI-FI NETWORK

Scanning for available Wi-Fi network...

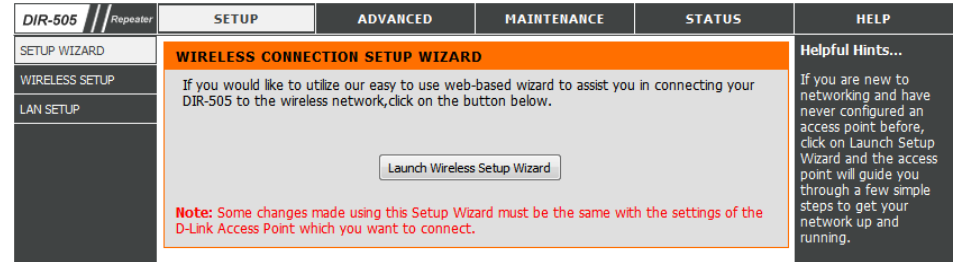
Select the network you would like your device to connect to.

SELECT WI-FI NETWORK

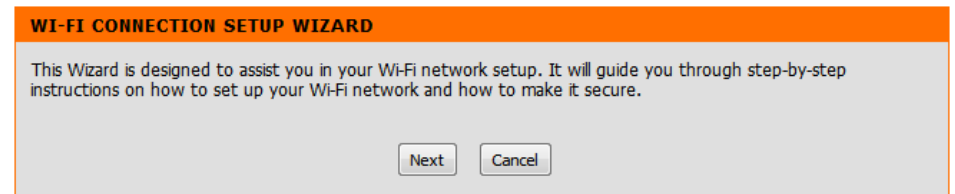
ID	Wi-Fi Network Name	Encrypt	Channel	Signal(%)	Select
1	Linksys Staples	WPA2-PSK	3	94	<input type="radio"/>
2	00265a493e08	WPA2-PSK	1	94	<input type="radio"/>
3	Cisco Staples	WPA/WPA2-PSK(auto)	1	94	<input type="radio"/>
4	CAMERA432	WPA/WPA2-PSK(auto)	3	94	<input type="radio"/>
5	DSR-500N_1	WPA2-PSK	6	94	<input type="radio"/>
6	mywirelessnetwork	WPA/WPA2-PSK(auto)	11	94	<input type="radio"/>
7	00265a493e1e	WPA2-PSK	11	94	<input type="radio"/>
8	neopolitan	WPA/WPA2-PSK(auto)	6	94	<input type="radio"/>
9	Strawberry	WPA/WPA2-PSK(auto)	9	94	<input type="radio"/>
10	Firefly	WPA/WPA2-PSK(auto)	9	94	<input type="radio"/>
11	vanilla	WEP	1	94	<input type="radio"/>
12	vanilla	WEP	1	94	<input type="radio"/>
13	vanilla	WEP	1	94	<input type="radio"/>
14	7245 6100	WEP	6	94	<input type="radio"/>
15	vanilla	WEP	6	94	<input type="radio"/>
16	vanilla	WEP	6	94	<input type="radio"/>
17	vanilla	WEP	6	94	<input type="radio"/>
18	TheRack	WEP	6	94	<input type="radio"/>
19	vanilla	WEP	11	94	<input type="radio"/>
20	vanilla	WEP	11	94	<input type="radio"/>
21	vanilla	WEP	11	94	<input type="radio"/>
22	Chocolate	None	9	94	<input type="radio"/>
23	vanilla	WEP	6	94	<input type="radio"/>
24	dlink	None	10	94	<input type="radio"/>
25	fc75164f587b	WPA2-PSK	11	93	<input type="radio"/>
26	vanilla	WEP	1	93	<input type="radio"/>

Setup Wizard

Click **Launch Wireless Setup Wizard** to begin the Setup Wizard.

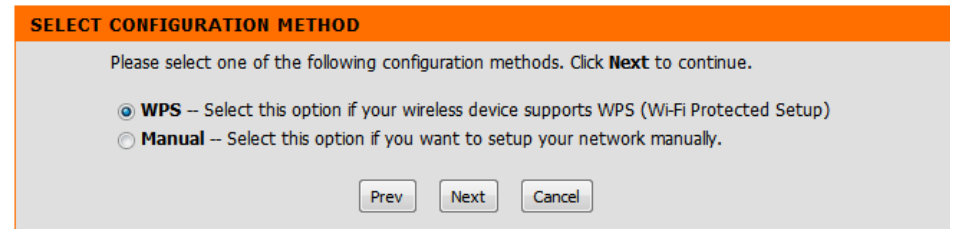


To start the Setup Wizard click **Next**.

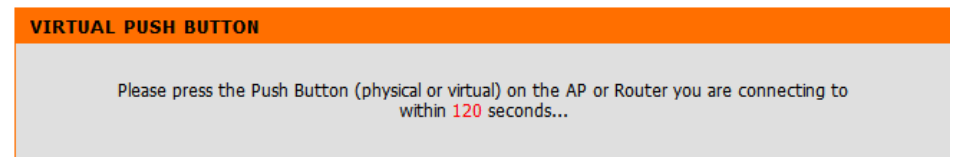


Select **WPS** as the configuration method only if your wireless device supports Wi-Fi Protected Setup (WPS).

Click **Next** to continue.



Press down the **Push Button** on the Wireless device you are adding to your wireless network.



Select **Manual** as the configuration method to set up your network manually.

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.

SELECT WI-FI NETWORK

Scanning for available Wi-Fi network...

Select the network you would like your device to connect to.

SELECT WI-FI NETWORK

ID	Wi-Fi Network Name	Encrypt	Channel	Signal(%)	Select
1	Linksys Staples	WPA2-PSK	3	94	<input type="radio"/>
2	00265a493e08	WPA2-PSK	1	94	<input type="radio"/>
3	Cisco Staples	WPA/WPA2-PSK(auto)	1	94	<input type="radio"/>
4	CAMERA432	WPA/WPA2-PSK(auto)	3	94	<input type="radio"/>
5	DSR-500N_1	WPA2-PSK	6	94	<input type="radio"/>
6	mywirelessnetwork	WPA/WPA2-PSK(auto)	11	94	<input type="radio"/>
7	00265a493e1e	WPA2-PSK	11	94	<input type="radio"/>
8	neopolitan	WPA/WPA2-PSK(auto)	6	94	<input type="radio"/>
9	Strawberry	WPA/WPA2-PSK(auto)	9	94	<input type="radio"/>
10	Firefly	WPA/WPA2-PSK(auto)	9	94	<input type="radio"/>
11	vanilla	WEP	1	94	<input type="radio"/>
12	vanilla	WEP	1	94	<input type="radio"/>
13	vanilla	WEP	1	94	<input type="radio"/>
14	7245 6100	WEP	6	94	<input type="radio"/>
15	vanilla	WEP	6	94	<input type="radio"/>

Manual Configuration

Wireless Settings

DIR-505 // Repeater	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
SETUP WIZARD	WIRELESS				Helpful Hints... Changing your Wireless Network Name is the first step in securing your wireless network. Change it to a familiar name that does not contain any personal information. Enable Auto Channel Scan so that the Access Point can select the best possible channel for your wireless network to operate on. Visibility Status is another way to secure your network. With invisible option enabled, no wireless clients will be able to see your wireless network when they perform scan to see what's available. In order for your wireless devices to connect to your AP, you will need to manually enter the Wireless Network Name on each device. If you have enabled Wireless Security, make
WIRELESS SETUP	Use this section to configure the wireless settings for your D-Link Access Point. Please note that changes made on this section will also need to be duplicated to your wireless clients and PC. <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
LAN SETUP	WIRELESS NETWORK SETTINGS Enable Wireless : <input checked="" type="checkbox"/> Wireless Mode : Repeater Mode <input type="button" value="Site Survey"/> Wireless Network Name : dlink (Also called the SSID) Channel Width : Auto 20/40 MHz				
	WIRELESS SECURITY MODE Security Mode : None				
	WIFI PROTECTED SETUP (ALSO CALLED WCN 2.0 IN WINDOWS VISTA) Enable : <input checked="" type="checkbox"/> Current PIN: 86844840 <input type="button" value="Reset PIN to Default"/> <input type="button" value="Generate New PIN"/> <input type="button" value="Process WPS"/>				

Repeater Mode

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. You may also set up a specific time range (schedule). Select a schedule from the drop-down menu or click **Add New** to create a new schedule.

Wireless Mode: Select **Repeater Mode** from the drop-down menu.

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, it is highly recommended to change from the default network name.

Channel Width: Select the appropriate channel width between **20MHz** or **Auto 20/40MHz** from the drop-down menu.

Security Mode: Select **WEP** or **WPA Personal**.

The screenshot displays the configuration interface for a wireless network in Repeater Mode. It is divided into three main sections:

- WIRELESS NETWORK SETTINGS:** This section includes a checked **Enable Wireless** checkbox, a **Wireless Mode** dropdown menu set to **Repeater Mode** with a **Site Survey** button, a **Wireless Network Name** text input field containing "dlink" (noted as "Also called the SSID"), and a **Channel Width** dropdown menu set to "Auto 20/40 MHz".
- WIRELESS SECURITY MODE:** This section features a **Security Mode** dropdown menu with a list of options: "None", "WEP", and "WPA Personal".
- WIFI PROTECTED SETUP (ALSO CALLED WCN 2.0 IN WINDOWS VISTA):** This section has a checked **Enable** checkbox, a **Current PIN** field showing "86844840", and three buttons: **Reset PIN to Default**, **Generate New PIN**, and **Process WPS**.

Wireless Security

This section will show you the different levels of security you can use to protect your data from intruders. The DIR-605L offers the following types of security:

- WPA2 (Wi-Fi Protected Access 2)
- WPA (Wi-Fi Protected Access)
- WEP (Wired Equivalent Privacy)
- WPA2-PSK (Pre-Shared Key)
- WPA-PSK (Pre-Shared Key)

What is WEP?

WEP stands for Wired Equivalent Privacy. It is based on the IEEE 802.11 standard and uses the RC4 encryption algorithm. WEP provides security by encrypting data over your wireless network so that it is protected as it is transmitted from one wireless device to another.

To gain access to a WEP network, you must know the key. The key is a string of characters that you create. When using WEP, you must determine the level of encryption. The type of encryption determines the key length. 128-bit encryption requires a longer key than 64-bit encryption. Keys are defined by entering in a string in HEX (hexadecimal - using characters 0-9, A-F) or ASCII (American Standard Code for Information Interchange – alphanumeric characters) format. ASCII format is provided so you can enter a string that is easier to remember. The ASCII string is converted to HEX for use over the network. Four keys can be defined so that you can change keys easily.

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). Click on Wireless Setup on the left side.

2. In the **Security Mode** section, select **WEP** from the drop-down menu.

3. In **WEP Key Length**, select either 64Bit or 128Bit encryption from the drop-down menu.

5. Next to **WEP Key 1**, enter a WEP key that you create. Make sure you enter this key exactly on all your wireless devices. You may enter up to four different keys either using Hex or ASCII. Hex is recommended (letters A-F and numbers 0-9 are valid). In ASCII all numbers and letters are valid.

6. Click **Save Settings** to save your settings. If you are configuring the router with a wireless adapter, you will lose connectivity until you enable WEP on your adapter and enter the same WEP key as you did on the router.

WIRELESS SECURITY MODE

Security Mode : WEP

WEP

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

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

If you choose the WEP security option this device will **ONLY** operate in **Legacy Wireless mode (802.11B/G)**. This means you will **NOT** get 11N performance due to the fact that WEP is not supported by the Draft 11N specification.

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

WEP Key 1 :

Authentication : Both

WIFI PROTECTED SETUP (ALSO CALLED WCN 2.0 IN WINDOWS VISTA)

Enable :

Current PIN: 86844840

Reset PIN to Default
Generate New PIN
Process WPS

Configure WPA/WPA2 Personal

It is recommended to enable encryption on your wireless access point 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 access point (192.168.0.50). Click on Setup and then click Wireless Settings on the left side.
2. Next to *Security Mode*, select **WPA-Personal**.
3. Next to *Cipher Type*, select **TKIP, AES, or Auto**.
4. Next to *Passphrase*, enter a key. The key is entered as a passphrase in ASCII format at both ends of the wireless connection. The passphrase must be between 8-63 characters.
6. Click **Save Settings** at the top of the window to save your settings. If you are configuring the access point 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 access point.

WIRELESS SECURITY MODE

Security Mode :

WPA

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

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

WPA Mode :

Cipher Type :

PRE-SHARED KEY

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

Pre-Shared Key :

WIFI PROTECTED SETUP (ALSO CALLED WCN 2.0 IN WINDOWS VISTA)

Enable :

Current PIN: 86844840

LAN Settings

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

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

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

My IPv6 Connection Type: Select from the drop-down menu the type of IPv6 connection you would like to use.

IP Address: Enter the IP address of the access point. The default IP address is 192.168.0.50. If you change the IP address, once you click **Apply**, you will need to enter the new IP address in your browser to get back into the configuration utility.

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

Gateway Address: Enter the Gateway assigned by your ISP.

DIR-505 // Repeater	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP									
SETUP WIZARD	NETWORK SETTINGS				Helpful Hints... Device Name: Device 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 device configuration. Recommend to change the device name if there're more than one D-Link devices within the network. LAN Settings: Also referred as private settings. LAN settings allow you to configure LAN interface of DIR-505. LAN IP address is private to your internal network and is not visible to Internet. The factory default setting is Dynamic IP(DHCP).									
WIRELESS SETUP	Use this section to configure the internal network settings of your AP. Device 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 SETUP	<input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>													
	DEVICE NAME Device Name : <input type="text" value="dlinkrouter"/>													
	LAN IPV4 CONNECTION TYPE Choose the IPv4 mode to be used by the Access Point. My LAN Connection is : <input type="text" value="Dynamic IP (DHCP)"/>													
	DYNAMIC IP(DHCP) LAN IPV4 CONNECTION TYPE Enter the IPv4 Address Information. <table border="0"> <tr> <td>IP Address :</td> <td><input type="text" value="192.168.0.1"/></td> </tr> <tr> <td>Subnet Mask :</td> <td><input type="text" value="255.255.255.0"/></td> </tr> <tr> <td>Gateway Address :</td> <td><input type="text" value="0.0.0.0"/></td> </tr> <tr> <td>Primary DNS Server :</td> <td><input type="text" value="0.0.0.0"/></td> </tr> <tr> <td>Secondary DNS Server :</td> <td><input type="text" value="0.0.0.0"/></td> </tr> </table>				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"/>	Primary DNS Server :	<input type="text" value="0.0.0.0"/>	Secondary DNS Server :	<input type="text" value="0.0.0.0"/>
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"/>													
Primary DNS Server :	<input type="text" value="0.0.0.0"/>													
Secondary DNS Server :	<input type="text" value="0.0.0.0"/>													

Static IP

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

Device Name: Enter the Device Name of the AP. It recommended to 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 the instead of IP address for configuration. If you are using the device name to connect, ensure that your PC and your DIR-505 are on the same network.

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

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

Default Gateway: Enter the Gateway assigned by your ISP.

DIR-505 // Repeater	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
SETUP WIZARD	NETWORK SETTINGS				Helpful Hints... Device Name: Device 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 device configuration. Recommend to change the device name if there're more than one D-Link devices within the network. LAN Settings: Also referred as private settings. LAN settings allow you to configure LAN interface of DIR-505. LAN IP address is private to your internal network and is not visible to Internet. The factory default setting is Dynamic IP(DHCP).
WIRELESS SETUP	Use this section to configure the internal network settings of your AP. Device 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 SETUP	<input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
	DEVICE NAME Device Name : <input type="text" value="dlinkrouter"/>				
	LAN IPV4 CONNECTION TYPE Choose the IPv4 mode to be used by the Access Point. My LAN Connection is : <input type="text" value="Static IP"/>				
	STATIC IP ADDRESS LAN IPV4 CONNECTION TYPE Enter the static 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"/> Primary DNS Server : <input type="text" value="0.0.0.0"/> Secondary DNS Server : <input type="text" value="0.0.0.0"/>				

Advanced Advanced Wireless

Transmit Power: Sets the transmit power of the antennas.

HT 20/40 Coexistence: Check to enable or disable this feature.

DIR-505 // Repeater	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
ADVANCED WIRELESS	<p>ADVANCED WIRELESS</p> <p>These options are for users that wish to change the behaviour of their 802.11n wireless radio from the standard setting. D-link does not recommend changing these settings from the factory default. Incorrect settings may impair the performance of your wireless radio. The default settings should provide the best wireless radio performance in most environments.</p> <p>Save Settings Don't Save Settings</p>				<p>Helpful Hints...</p> <p>Advanced Wireless: It is recommended that you leave these options at their default values. Adjusting them could negatively impact the performance of your wireless network. The options on this page should be changed by advanced users or if you are instructed to by one of our support personnel, as they can negatively</p>
WI-FI PROTECTED SETUP	<p>ADVANCED WIRELESS SETTINGS</p> <p>Transmit Power : 100% ▾</p> <p>HT20/40 Coexistence : <input checked="" type="radio"/> Enable <input type="radio"/> Disable</p>				

Wi-Fi Protected Setup

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: Check this box to enable the function

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

Pin Settings: Press the button to generate a new PIN or Reset to Default.

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

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

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

Add Wireless Station: Press the button to start with the wizard to setup the WPS.

DIR-505 // Repeater	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
ADVANCED WIRELESS	WI-FI PROTECTED SETUP 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. If the PIN changes, the new PIN will be used in following Wi-Fi Protected Setup process. Clicking on “Don’t Save Settings” button will not reset the PIN. However, if the new PIN is not saved, it will get lost when the device reboots or loses power. <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				Helpful Hints... Enable if other wireless devices you wish to include in the local network support Wi-Fi Protected Setup. Click Add Wireless Device Wizard to use Wi-Fi Protected Setup to add wireless devices to the wireless network.
WI-FI PROTECTED SETUP	WI-FI PROTECTED SETUP Enable : <input checked="" type="checkbox"/> Lock Wireless Security Settings : <input type="checkbox"/> <input type="button" value="Reset to Unconfigured"/>				
	PIN SETTINGS Current PIN: 86844840 <input type="button" value="Reset PIN to Default"/> <input type="button" value="Generate New PIN"/>				
	ADD WIRELESS STATION <input type="button" value="Add Wireless Device With WPS"/>				

Maintenance 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 Administrator Login Name. The administrator can make changes to the settings.

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

Enable Graphical Authentication: Check to enable this feature.

DIR-505 // Repeater	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
ADMIN	ADMINISTRATOR SETTINGS				Helpful Hints... Passwords: For security reasons, is recommended that you change the Password for the Administrator account. Be sure to write down the Passwords to avoid having to reset them in the event that they are forgotten.
SYSTEM	Enter the new password in the "New Password" field and again in the next field to confirm. Click on "Save Settings" to execute the password change. The Password is case-sensitive, and can be made up of any keyboard characters. The new password must be between 0 and 15 characters in length.				
FIRMWARE	<input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
TIME	PASSWORD Please enter the same password into both boxes, for confirmation.				
	ADMINISTRATION Enable Graphical Authentication : <input type="checkbox"/>				

System

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

Upload from Local Hard Drive: Use this option to load previously saved access point configuration settings. Click **Browse** to find a previously saved configuration file. Then, click the **Upload Settings** button to transfer those settings to the access point.

Restore to Factory Default: This option will restore all configuration settings back to the settings that were in effect at the time the access point 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 access point configuration settings, use the **Save** button above.

Note: Restoring the factory default settings will not reset the Wi-Fi Protected Status to Not Configured.

Reboot the Device: Click to reboot the access point.

The screenshot shows the web interface for a DIR-505 Repeater. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar lists menu items: ADMIN, SYSTEM, FIRMWARE, and TIME. The main content area is titled 'SAVE AND RESTORE' and contains the following text and controls:

SAVE AND RESTORE

The current system settings can be saved as a file onto the local hard drive. You can upload any save settings file that was created by the DIR-505.

SAVE AND RESTORE

Save Settings To Local Hard Drive :

Load Settings From Local Hard Drive :

Restore To Factory Default Settings :

Reboot The Device :

Remove Language Pack :

On the right side, there is a 'Helpful Hints...' section titled 'Saving System Settings:' which provides instructions on how to save and restore settings to the local hard drive.

Firmware

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

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

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

Upload: Once you have a firmware update on your computer, use this option to browse for the file and then upload the information into the access point.

Language Pack

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

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

DIR-505 // Repeater	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
ADMIN	FIRMWARE				Helpful Hints... Firmware Updates: Firmware updates are released periodically to improve the functionality of your Access Point and also to add features. If you run into a problem with a specific feature of the Access Point, check our support site by clicking on the Click here to check for an upgrade on our support site link and see if an updated firmware is available for your Access Point.
SYSTEM	There may be new firmware for your DIR-505 to improve functionality and performance. Click here to check for an upgrade on our support site. After you have download the new firmware file from our support site, click the Browse button below to find the firmware file on your local hard drive. Click the Upload button to update the firmware on the DIR-505. Do not update firmware through wireless network!!				
FIRMWARE	FIRMWARE AND LANGUAGE PACK INFORMATION Current Firmware Version : 1.00beta Date : 2011/12/12 Current Language Pack Version : No Language pack Check Online Now for Latest Firmware and Language pack Version : <input type="button" value="Check Now"/>				
TIME	FIRMWARE UPGRADE Note: Some firmware upgrades reset the configuration options to the factory defaults. Before performing an upgrade, be sure to save the current configuration from the Maintenance -> System screen To upgrade the firmware, your PC must have a wired connection to the access point. Enter the name of the firmware upgrade file, and click on the Upload button. Upload : <input type="text"/> <input type="button" value="Browse..."/> <input type="button" value="Upload"/>				
	LANGUAGE PACK UPGRADE Upload : <input type="text"/> <input type="button" value="Browse..."/> <input type="button" value="Upload"/>				

Time

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

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

Daylight Saving: To select Daylight Saving time manually, click the **Enable Daylight Saving** check box. Next use the drop-down menu to select a Daylight Saving Offset and then 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.

Date and Time: To manually input the time, enter the values in these fields for the Year, Month, Day, Hour, Minute, and Second and then click **Save Settings**. You can also click the **Copy Your Computer's Time Settings** button at the bottom of the screen.

DIR-505 // Repeater	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
ADMIN	TIME				Helpful Hints... System Time Settings: This section allows admins to configure, update, and maintain the correct time on the Access Point's internal system clock.
SYSTEM	The Time Configuration option allows you to configure, update, and maintain the correct time on the internal system clock. From this section you can set the time zone that you are in and set the NTP (Network Time Protocol) Server. Daylight Saving can also be configured to automatically adjust the time when needed.				
FIRMWARE	<input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
TIME	TIME CONFIGURATION Current Time : Jan/01/2011 00:20:35 Time Zone : (GMT-08:00) Pacific Time (US/Canada), Tijuana Enable Daylight Saving : <input type="checkbox"/> Daylight Saving Offset : +1:00 Daylight Saving Dates : DST start : Mar 3rd Sun 1 am DST End : Nov 2nd Sun 1 am				
	AUTOMATIC TIME CONFIGURATION Enable NTP Server : <input type="checkbox"/> NTP Server Used : << Select NTP Server >>				
	SET THE DATE AND TIME MANUALLY Date And Time : Year 2011 Month Jan Day 01 Hour 00 Minute 00 Second 00 <input type="button" value="Copy Your Computer's Time Settings"/>				

Status

Device Info

This page displays the current information for the DIR-505. 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.

DIR-505 // Repeater	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
DEVICE INFO	DEVICE INFORMATION				Helpful Hints... All of your LAN and Wireless connection details are displayed here.
LOGS	All of your wireless and network connection details are displayed on this page. The firmware version is also displayed here.				
STATISTICS					
	GENERAL				
	Time : Jan/01/2011 00:21:06 Firmware Version : 1.00beta, Mon, 12 Dec 2011				
	LAN				
	MAC Address : 00:18:e7:95:6d:d0 Connection : Dynamic IP IP Address : 192.168.0.107 Subnet Mask : 255.255.255.0 Gateway Address : 192.168.0.1 Primary DNS Server : 192.168.0.1 Secondary DNS Server : 0.0.0.0				
	WIRELESS LAN				
	MAC Address : 00:18:e7:95:6d:d0 Network Name (SSID) : dlink Security Mode : Disable				

Logs

The DIR-505 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 Setting.

Log Options: There are several types of logs that can be viewed: **System Activity, Debug Information, Attacks, Dropped Packets** and **Notice**.

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

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

Clear Log: 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.

The screenshot shows the DIR-505 web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains links for DEVICE INFO, LOGS, and STATISTICS. The main content area is titled 'LOGS' and contains the following sections:

- LOGS:** A header section with a description: "Use this option to view the device logs. You can define what types of events you want to view and the event levels to view."
- LOG OPTIONS:** A section with checkboxes for Log Type: System Activity (checked), Debug Information, Attacks (checked), Dropped Packets, and Notice (checked). There is an "Apply Log Settings Now" button.
- LOG DETAILS:** A section with navigation buttons: First Page, Last Page, Previous, Next, Clear, Save Log, and Refresh.
- Log Entries:** A table showing log entries with columns for Time and Message. The entries are:

Time	Message
Jan 1 00:00:26	Lease of 192.168.0.107 obtained, lease time 86400
Jan 1 00:00:25	Sending discover...
Jan 1 00:00:23	Sending discover...
Jan 1 00:00:08	Sending discover...
Jan 1 00:00:06	Sending discover...
Jan 1 00:00:04	Sending discover...
Jan 1 00:00:04	DHCP client start.
Jan 1 00:00:03	read /etc/hosts - 1 addresses
Jan 1 00:00:03	using nameserver 168.95.1.1#53
Jan 1 00:00:03	using nameserver 168.95.1.2#53

On the right side of the interface, there is a 'Helpful Hints...' section with the text: "Check the log frequently to detect unauthorized network usage."

Statistics

The DIR-505 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.

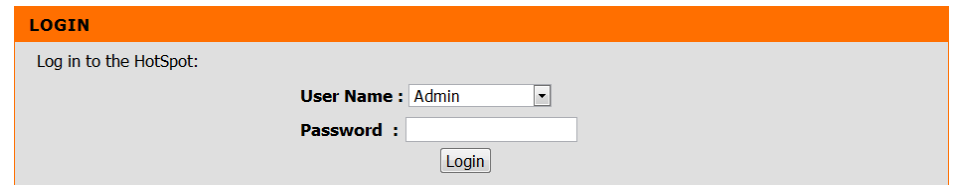
DIR-505 // Repeater	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP					
DEVICE INFO	TRAFFIC STATISTICS				Helpful Hints... This is a summary of the number of packets that have passed between the Wireless and the LAN since the device was last initialized.					
LOGS	Traffic Statistics display Receive and Transmit packets passing through your router.									
STATISTICS	<input type="button" value="Refresh Statistics"/> <input type="button" value="Clear Statistics"/>									
	LAN STATISTICS <table border="1"> <tbody> <tr> <td>Sent : 329</td> <td>Received : 249</td> </tr> <tr> <td>TX Packets Dropped : 0</td> <td>RX Packets Dropped : 0</td> </tr> <tr> <td>Collisions : 0</td> <td>Errors : 0</td> </tr> </tbody> </table>					Sent : 329	Received : 249	TX Packets Dropped : 0	RX Packets Dropped : 0	Collisions : 0
Sent : 329	Received : 249									
TX Packets Dropped : 0	RX Packets Dropped : 0									
Collisions : 0	Errors : 0									
	WIRELESS STATISTICS <table border="1"> <tbody> <tr> <td>Sent : 34</td> <td>Received : 0</td> </tr> <tr> <td>TX Packets Dropped : 31</td> <td>RX Packets Dropped : 0</td> </tr> <tr> <td>Collisions : 0</td> <td>Errors : 0</td> </tr> </tbody> </table>				Sent : 34	Received : 0	TX Packets Dropped : 31	RX Packets Dropped : 0	Collisions : 0	Errors : 0
Sent : 34	Received : 0									
TX Packets Dropped : 31	RX Packets Dropped : 0									
Collisions : 0	Errors : 0									

Quick Setup Wizard

WiFi Hot Spot

If this is your first time using this device, you will be directed to the Pre-Setup Wizard. If you have already completed the Pre-Setup Wizard, please continue to page 88.

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



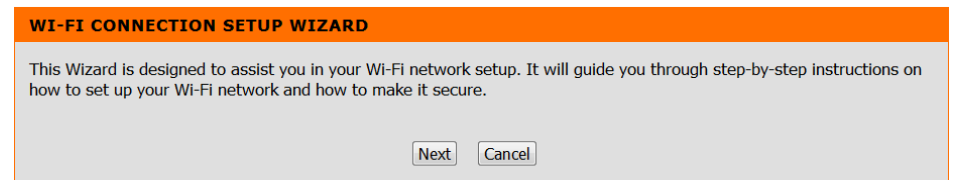
LOGIN

Log in to the HotSpot:

User Name :

Password :

Click Next to continue.



WI-FI CONNECTION SETUP WIZARD

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

Please wait while your device scans for an available Wi-Fi Network.



SELECT WI-FI NETWORK

Scanning for available Wi-Fi network...

Select the Network you would like your device to connect to and click **Connect**.

SELECT WI-FI HOTSPOT

ID	Wi-Fi Network Name	Encrypt	Channel	Signal(%)	Select
1	DHP-W306AV	WPA/WPA2-PSK(auto)	8	94	<input type="radio"/>
2	dlink_DHP-1565	WPA/WPA2-PSK(auto)	6	94	<input type="radio"/>
3	LoudFish	WPA/WPA2-PSK(auto)	11	94	<input type="radio"/>
4	LoudFish-guest	None	11	94	<input type="radio"/>
5	irvine2	WPA/WPA2-PSK(auto)	6	82	<input type="radio"/>
6	ATT720	WPA/WPA2-PSK(auto)	1	3	<input type="radio"/>

Enter the Wi-Fi password and click **Next** to continue.

ENTER WI-FI PASSWORD

Please enter Wi-Fi Password to establish wireless connection

Wi-Fi Password:

Select **Use the same Wi-Fi Network name for the extended Network** and click **Next**.

PLEASE ENTER THE SETTINGS FOR THE EXTENDER NETWORK

Use the same Wi-Fi Network Name for the Extended Network

Wi-Fi Network Name (SSID): DHP-W306AV

Your setup is now complete. Click **Save** to finish.

SETUP COMPLETE!

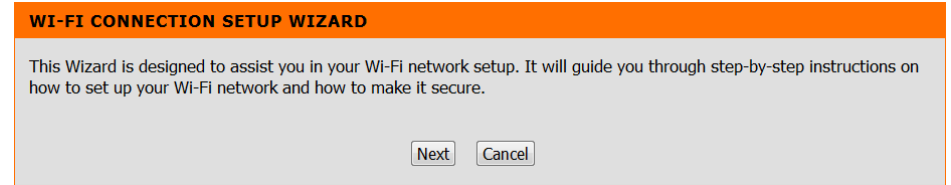
Please take a note of the following summary of your Wi-Fi Security settings for future reference.

Wi-Fi Network Name (SSID) : DHP-W306AV

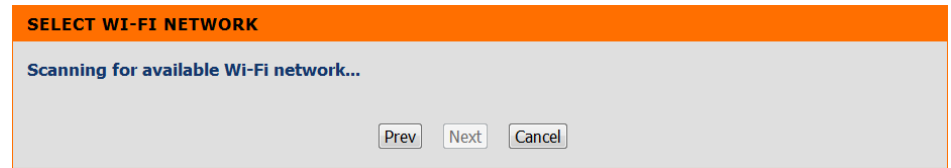
Wi-Fi Password : dlink1234

The Setup Wizard has completed. Click the **Save** button to save your settings and reboot the device.

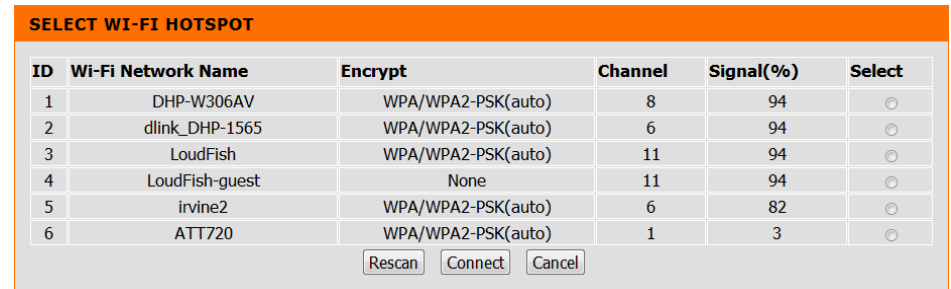
To start the Wizard, click **Next** to continue.



Please wait while your device scans for an available Wi-Fi Network.



Select the Network you would like your device to connect to and click **Connect**.



Enter the Wi-Fi password and click **Next** to continue.

The screenshot shows a configuration window with an orange header titled "ENTER WI-FI PASSWORD". Below the header, the text reads "Please enter Wi-Fi Password to establish wireless connection". There is a text input field labeled "Wi-Fi Password:" which is currently empty. At the bottom right of the window, there are three buttons: "Prev", "Next", and "Cancel".

Select **Use the same Wi-Fi Network name for the extended Network** and click **Next**.

The screenshot shows a configuration window with an orange header titled "PLEASE ENTER THE SETTINGS FOR THE EXTENDER NETWORK". Below the header, there is a checked checkbox with the label "Use the same Wi-Fi Network Name for the Extended Network". Underneath, the text "Wi-Fi Network Name (SSID): DHP-W306AV" is displayed. At the bottom right, there are three buttons: "Prev", "Next", and "Cancel".

Your setup is now complete. Click **Save** to finish.

The screenshot shows a configuration window with an orange header titled "SETUP COMPLETE!". Below the header, the text reads "Please take a note of the following summary of your Wi-Fi Security settings for future reference." The summary lists "Wi-Fi Network Name (SSID) : DHP-W306AV" and "Wi-Fi Password : dlink1234". Below the summary, it says "The Setup Wizard has completed. Click the Save button to save your settings and reboot the device." At the bottom right, there are three buttons: "Prev", "Save", and "Cancel".

Setup

Wi-Fi Hot Spot Setup

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. You may also set up a specific time range (schedule). Select a schedule from the drop-down menu or click **Add New** to create a new schedule.

Wireless Mode: Select **Wi-Fi Hot Spot Mode** from the drop-down menu.

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, it is highly recommended to change from the default network name.

Channel Width: Select the appropriate channel width between **20MHz** or **Auto 20/40MHz** from the drop-down menu.

Security Mode: Select **WEP** or **WPA Personal**.

DIR-505 // HotSpot	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
SETUP WIZARD	WIRELESS				Helpful Hints... Changing your Wireless Network Name is the first step in securing your wireless network. Change it to a familiar name that does not contain any personal information. Enable Auto Channel Scan so that the Access Point can select the best possible channel for your Wireless network to operate on. Visibility Status is another way to secure your network. With invisible option enabled, no wireless clients will be able to see your wireless network when they perform scan to see what's available. In order for your wireless devices to connect to your AP, you will need to manually enter the Wireless Network Name on each device. If you have enabled Wireless Security, make sure you write down the Key or Passphrase that you have configured. You will need to enter this information on any wireless device that you connect to your wireless network.
WI-FI HOTSPOT SETUP	Use this section to configure the wireless settings for your D-Link Access Point. Please note that changes made on this section will also need to be duplicated to your wireless clients and PC. <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
WIRELESS SETUP	WIRELESS NETWORK SETTINGS Enable Wireless : <input checked="" type="checkbox"/> Wireless Mode : Wi-Fi HotSpot Mode <input type="button" value="Site Survey"/> Wireless Network Name : dlink (Also called the SSID) Channel Width : Auto 20/40 MHz				
LAN SETUP	WIRELESS SECURITY MODE Security Mode : None				
	WAN SETTINGS This page is used to configure the parameters for Internet network which connects to the WAN port of your Access Point. Here you may change the access method to Static IP, DHCP, PPPoE or PPTP by click the item value of WAN Access type. My Internet Connection is : Dynamic IP (DHCP) Host Name : DIR-505 MTU : 1500 <input checked="" type="radio"/> Attain DNS Automatically <input type="radio"/> Set DNS Manually MAC Address : 00:00:00:00:00:00 <input type="button" value="Clone Your PC's MAC address"/>				
	WIFI PROTECTED SETUP (ALSO CALLED WCN 2.0 IN WINDOWS VISTA) Enable : <input checked="" type="checkbox"/> Current PIN : 69747786 <input type="button" value="Reset PIN to Default"/> <input type="button" value="Generate New PIN"/> <input type="button" value="Process WPS"/>				

Please Select the Wi-Fi Hotspot you would like to connect to with your device.

SELECT WI-FI HOTSPOT					
ID	SSID	Encrypt	Channel	Signal(%)	Select
1	DHP-W306AV	WPA/WPA2-PSK(auto)	8	94	<input type="radio"/>
2	dlink_DHP-1565	WPA/WPA2-PSK(auto)	6	94	<input type="radio"/>
3	LoudFish	WPA/WPA2-PSK(auto)	11	94	<input type="radio"/>
4	LoudFish-guest	None	11	94	<input type="radio"/>
5	irvine2	WPA/WPA2-PSK(auto)	6	88	<input type="radio"/>
6	Express Network	WPA/WPA2-PSK(auto)	11	87	<input type="radio"/>
7	ATT720	WPA/WPA2-PSK(auto)	1	4	<input type="radio"/>

Configure WPA/WPA2 Personal

It is recommended to enable encryption on your wireless access point 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 access point (192.168.0.50). Click on Setup and then click Wireless Settings on the left side.
2. Next to *Security Mode*, select **WPA-Personal**.
3. Next to WPA Mode, select **Auto (WPA or WPA2)**.
4. Next to *Cipher Type*, select **TKIP, AES, or Auto**.
5. Next to *Passphrase*, enter a key. The key is entered as a passphrase in ASCII format at both ends of the wireless connection. The passphrase must be between 8-63 characters.
7. Click **Save Settings** at the top of the window to save your settings. If you are configuring the access point 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 access point.

WIRELESS NETWORK SETTINGS

Enable Wireless :

Wireless Mode : **Wi-Fi HotSpot Mode** Site Survey

Wireless Network Name : (Also called the SSID)

Channel Width : Auto 20/40 MHz

WIRELESS SECURITY MODE

Security Mode : WPA-Personal

WPA

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

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

WPA Mode : Auto (WPA or WPA2)

Cipher Type : TKIP and AES

PRE-SHARED KEY

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

Pre-Shared Key :

WAN Settings

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

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

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

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.

WAN SETTINGS

This page is used to configure the parameters for Internet network which connects to the WAN port of your Access Point. Here you may change the access method to Static IP, DHCP, PPPoE or PPTP by click the item value of WAN Access type.

My Internet Connection is :

Host Name :

MTU :

Attain DNS Automatically
 Set DNS Manually

MAC Address :

WIFI PROTECTED SETUP (ALSO CALLED WCN 2.0 IN WINDOWS VISTA)

Enable :

Current PIN : 69747786

Wireless Setup

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

Channel Width: 20MHz - Select if you are not using any 802.11n wireless clients.

40MHz - Select if you are using 802.11n wireless clients only.

Security Mode: Select from the drop-down menu the type of security mode you would like to use.

DIR-505 // HotSpot	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
SETUP WIZARD	WIRELESS				Helpful Hints... Changing your Wireless Network Name is the first step in securing your wireless network. Change it to a familiar name that does not contain any personal information. Enable Auto Channel Scan so that the Access Point can select the best possible channel for your wireless network to operate on. Visibility Status is another way to secure your network. With invisible option enabled, no wireless clients will be able to see your wireless network when they perform scan to see what's available. In order for your wireless devices to connect to your AP, you will need to manually enter the Wireless Network Name on each device. If you have enabled
WIFI HOTSPOT SETUP	Use this section to configure the wireless settings for your D-Link Access Point. Please note that changes made on this section will also need to be duplicated to your wireless clients and PC. <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
WIRELESS SETUP	WIRELESS NETWORK SETTINGS Extended SSID : <input type="radio"/> Remain the same as SSID <input checked="" type="radio"/> Create Extended SSID <input type="text" value="dlink_hotspot"/> Wireless Network Name : dlink Channel Width : Auto 20/40 MHz				
LAN SETUP	WIRELESS SECURITY MODE Security Mode : None				
	WIFI PROTECTED SETUP (ALSO CALLED WCN 2.0 IN WINDOWS VISTA) Enable : <input checked="" type="checkbox"/> Current PIN : 69747786 <input type="button" value="Reset PIN to Default"/> <input type="button" value="Generate New PIN"/> <input type="button" value="Process WPS"/>				

Manual Wireless Settings

Extended SSID: Select **Remain the same as SSID** or **Create Extended SSID**.

Channel Width: 20MHz - Select if you are not using any 802.11n wireless clients.

40MHz - Select if you are using 802.11n wireless clients only.

Security Mode: Select from the drop-down menu the type of security mode you would like to use.

WPA Mode: Select **Auto**, **WPA2 Only**, or **WPA Only**. Use **Auto** if you have wireless clients using both WPA and WPA2.

Cipher Type: Select **TKIP and AES**, **TKIP**, or **AES**.

Pre-Shared Key: Enter a key (passphrase). The key is entered as a passphrase in ASCII format at both ends of the wireless connection. The pass-phrase must be between 8-63 characters.

WIRELESS NETWORK SETTINGS

Extended SSID : Remain the same as SSID
 Create Extended SSID

Wireless Network Name : dlink

Channel Width :

WIRELESS SECURITY MODE

Security Mode :

WPA

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

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

WPA Mode :

Cipher Type :

PRE-SHARED KEY

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

Pre-Shared Key :

WIFI PROTECTED SETUP (ALSO CALLED WCN 2.0 IN WINDOWS VISTA)

Enable :

Current PIN : 69747786

LAN Setup

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

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

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

IP Address: Enter the IP address of the access point. The default IP address is 192.168.0.50. If you change the IP address, once you click **Apply**, you will need to enter the new IP address in your browser to get back into the configuration utility.

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

Gateway Address: Enter the Gateway assigned by your ISP.

DIR-505 // HotSpot	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
SETUP WIZARD	NETWORK SETTINGS				Helpful Hints... Device Name: Device 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 device configuration. Recommend to change the device name if there're more than one D-Link devices within the network. LAN Settings: Also referred as private settings. LAN settings allow you to configure LAN interface of DIR-505. LAN IP address is private to your internal network and is not visible to Internet. The factory default setting is Dynamic IP(DHCP).
WI-FI HOTSPOT SETUP	Use this section to configure the internal network settings of your AP. Device 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"/>				
WIRELESS SETUP	DEVICE NAME Device Name allows you to configure this device more easily. You can enter "http://device name" into your web browser instead of IP address for configuration. (Default: http://dlinkap) Device Name : <input type="text" value="dlinkrouter"/>				
LAN SETUP	LAN IPV4 CONNECTION TYPE Choose the IPv4 mode to be used by the Access Point. My LAN Connection is : Static IP				
	DYNAMIC IP (DHCP) LAN CONNECTION TYPE Enter the IPv4 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="192.168.0.1"/> Primary DNS Server : <input type="text" value="0.0.0.0"/> Secondary DNS Server : <input type="text" value="0.0.0.0"/>				
	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 : <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)				

Advanced Advanced Wireless

Transmit Power: Sets the transmit power of the antennas.

HT 20/40 Coexistence: Check to enable or disable this feature.

DIR-505 HotSpot	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
ADVANCED WIRELESS	<p>ADVANCED WIRELESS</p> <p>These options are for users that wish to change the behaviour of their 802.11n wireless radio from the standard setting. D-link does not recommend changing these settings from the factory default. Incorrect settings may impair the performance of your wireless radio. The default settings should provide the best wireless radio performance in most environments.</p> <p>Save Settings Don't Save Settings</p>				<p>Helpful Hints...</p> <p>Advanced Wireless: It is recommended that you leave these options at their default values. Adjusting them could negatively impact the performance of your wireless network.</p> <p>The options on this page should be changed by advanced users or if you are instructed to by one of our support personnel, as they can negatively affect the performance of your Access Point if configured improperly.</p> <p>Transmit Power: You can lower the output power of the DIR-505 by selecting lower percentage Transmit Power values from the drop down. Your choices are: 100%, 75%, 50%, and 25%.</p>
	<p>ADVANCED WIRELESS SETTINGS</p> <p>Transmit Power : 100% ▾</p> <p>HT20/40 Coexistence : <input checked="" type="radio"/> Enable <input type="radio"/> Disable</p>				

Maintenance 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 Administrator Login Name. The administrator can make changes to the settings.

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

Enable Graphical Authentication: Check to enable this feature.

DIR-505 // HotSpot	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
ADMIN	ADMINISTRATOR SETTINGS				Helpful Hints... Passwords: For security reasons, it is recommended that you change the Password for the Administrator accounts. Be sure to write down the Passwords to avoid having to reset the AP in the event that they are forgotten.
SYSTEM	Enter the new password in the "New Password" field and again in the next field to confirm. Click on "Save Settings" to execute the password change. The Password is case-sensitive, and can be made up of any keyboard characters. The new password must be between 0 and 15 characters in length.				
FIRMWARE	<input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
TIME	PASSWORD Please enter the same password into both boxes, for confirmation.				
	ADMINISTRATION Enable Graphical Authentication: <input type="checkbox"/>				

Firmware

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

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

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

Upload: Once you have a firmware update on your computer, use this option to browse for the file and then upload the information into the access point.

Language Pack

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

After you have downloaded the new language pack, click **Browse** to locate the language pack file on your hard drive. Click **Upload** to complete the language pack upgrade.

DIR-505 // HotSpot	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
ADMIN	FIRMWARE				Helpful Hints... Firmware Updates: Firmware updates are released periodically to improve the functionality of your Access Point and also to add features. If you run into a problem with a specific feature of the Access Point, check our support site by clicking on the Click here to check for an upgrade on our support site link and see if an updated firmware is available for your Access Point.
SYSTEM	There may be new firmware for your DIR-505 to improve functionality and performance. Click here to check for an upgrade on our support site.				
FIRMWARE	After you have download the new firmware file from our support site, click the Browse button below to find the firmware file on your local hard drive. Click the Upload button to update the firmware on the DIR-505. Do not update firmware through wireless network!!				
TIME	FIRMWARE AND LANGUAGE PACK INFORMATION Current Firmware Version : 1.00beta Date : 2011/12/12 Current Language Pack Version : No Language pack Check Online Now for Latest Firmware and Language pack Version : <input type="button" value="Check Now"/>				
	FIRMWARE UPGRADE Note: Some firmware upgrades reset the configuration options to the factory defaults. Before performing an upgrade, be sure to save the current configuration from the Maintenance -> System screen To upgrade the firmware, your PC must have a wired connection to the access point. Enter the name of the firmware upgrade file, and click on the Upload button.				
	Upload : <input type="button" value="Choose File"/> No file chosen <input type="button" value="Upload"/>				

Time

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

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

Daylight Saving: To select Daylight Saving time manually, click the **Enable Daylight Saving** check box. Next use the drop-down menu to select a Daylight Saving Offset and then 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.

Date and Time: To manually input the time, enter the values in these fields for the Year, Month, Day, Hour, Minute, and Second and then click **Save Settings**. You can also click the **Copy Your Computer's Time Settings** button at the bottom of the screen.

DIR-505 // HoSpot	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP															
ADMIN	TIME				Helpful Hints... System Time Settings: This section allows admins to configure, update, and maintain the correct time on the Access Point's internal system clock.															
SYSTEM	The Time Configuration option allows you to configure, update, and maintain the correct time on the internal system clock. From this section you can set the time zone that you are in and set the NTP (Network Time Protocol) Server. Daylight Saving can also be configured to automatically adjust the time when needed.																			
FIRMWARE	<input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>																			
TIME	TIME CONFIGURATION Current Time : Jan/01/2011 01:02:48 Time Zone : (GMT-08:00) Pacific Time (US/Canada), Tijuana Enable Daylight Saving : <input type="checkbox"/> Daylight Saving Offset : +1:00 Daylight Saving Dates : <table border="0"> <tr> <td></td> <td>Month</td> <td>Week</td> <td>Day of Week</td> <td>Time</td> </tr> <tr> <td>DST start</td> <td>Mar</td> <td>3rd</td> <td>Sun</td> <td>1 am</td> </tr> <tr> <td>DST End</td> <td>Nov</td> <td>2nd</td> <td>Sun</td> <td>1 am</td> </tr> </table>						Month	Week	Day of Week	Time	DST start	Mar	3rd	Sun	1 am	DST End	Nov	2nd	Sun	1 am
	Month	Week	Day of Week	Time																
DST start	Mar	3rd	Sun	1 am																
DST End	Nov	2nd	Sun	1 am																
	AUTOMATIC TIME CONFIGURATION Enable NTP Server : <input type="checkbox"/> NTP Server Used : << Select NTP Server >>																			
	SET THE DATE AND TIME MANUALLY Date And Time : Year 2011 Month Jan Day 01 Hour 00 Minute 00 Second 00 <input type="button" value="Copy Your Computer's Time Settings"/>																			

Status

Device Info

This page displays the current information for the DIR-505. 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.

DIR-505 // HotSpot	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
DEVICE INFO	DEVICE INFORMATION				Helpful Hints...
LOGS	All of your wireless and network connection details are displayed on this page. The firmware version is also displayed here.				All of your LAN and Wireless connection details are displayed here.
STATISTICS					
GENERAL					
Time : Jan/01/2011 01:03:32					
Firmware Version : 1.00beta, Mon, 12 Dec 2011					
WI-FI HOTSPOT					
MAC Address : 02:18:e7:95:6d:ce					
Connection : DHCP					
IP Address : 0.0.0.0					
Subnet Mask : 0.0.0.0					
Default Gateway : 0.0.0.0					
Primary DNS Server : 0.0.0.0					
Secondary DNS Server : 0.0.0.0					
LAN					
MAC Address : 00:18:e7:95:6d:ce					
Connection : Static IP / DHCP Server					
IP Address : 192.168.0.1					
Subnet Mask : 255.255.255.0					
WIRELESS LAN					
MAC Address : 00:18:e7:95:6d:ce					
Network Name (SSID) : dlink					
Extended Network Name : dlink_hotspot					
Security Mode : None					
Channel Width : Auto 20/40 MHz					
Channel : 1					
Wi-Fi Protected Setup : Enable / Not Configured					

Logs

The DIR-505 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 Setting.

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.

Log Level: There are three levels of message importance: **Critical**, **Warning**, and **Information**. Select the levels that you want displayed in the log.

Log Files: Use this section to view and manage the Router's log entries.

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.

The screenshot shows the DIR-505 web interface. The top navigation bar includes 'DIR-505 // HotSpot', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar has 'DEVICE INFO', 'LOGS', and 'STATISTICS'. The main content area is titled 'LOGS' and contains the following sections:

- LOGS:** A text box stating: "Use this option to view the device logs. You can define what types of events you want to view and the event levels to view." To the right is a 'Helpful Hints...' section with the text: "Check the log frequently to detect unauthorized network usage."
- LOG OPTIONS:** A section with 'Log Type:' and several checked checkboxes: 'System Activity', 'Debug Information', 'Attacks', 'Dropped Packets', and 'Notice'. Below these is an 'Apply Log Settings Now' button.
- LOG DETAILS:** A section with navigation buttons: 'First Page', 'Last Page', 'Previous', 'Next', 'Clear', and 'Save Log'. Below these is a 'Refresh' button and a '0/0' indicator. At the bottom is a table header with columns for 'Time' and 'Message'.

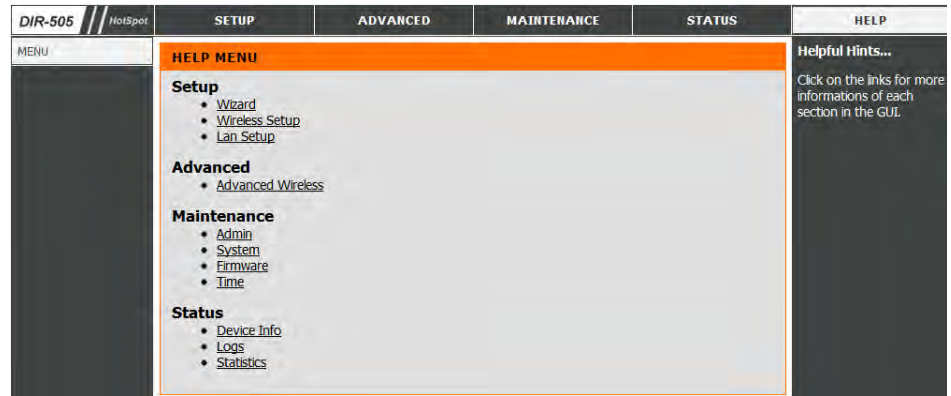
Statistics

The DAP-505 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.

DIR-505 // HotSpot	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
DEVICE INFO	TRAFFIC STATISTICS				Helpful Hints... This is a summary of the number of packets that have passed between the Wireless and the LAN since the device was last initialized.
LOGS	Traffic Statistics display Receive and Transmit packets passing through your router. <input type="button" value="Refresh Statistics"/> <input type="button" value="Clear Statistics"/>				
STATISTICS					
	LAN STATISTICS				
	Sent : 3557		Received : 4799		
	TX Packets Dropped : 0		RX Packets Dropped : 0		
	Collisions : 0		Errors : 0		
	WIRELESS STATISTICS				
	Sent : 5248		Received : 4798		
	TX Packets Dropped : 0		RX Packets Dropped : 0		
	Collisions : 0		Errors : 0		

Help

Click the desired hyperlink to get more information about how to use the Router.



Connect a Wireless Client to your Router

WPS Button

The easiest and most secure way to connect your wireless devices to the router is WPS (Wi-Fi Protected Setup). Most wireless devices such as wireless adapters, media players, Blu-ray DVD players, wireless printers and cameras will have a WPS button (or a software utility with WPS) that you can press to connect to the DIR-505 router. Please refer to your user manual for the wireless device you want to connect to make sure you understand how to enable WPS. Once you know, follow the steps below:

Step 1 - Press the WPS button on the DIR-505 for about 1 second. The WPS button will start to blink.

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

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

Windows® 7

WPA/WPA2

It is recommended to enable wireless security (WPA/WPA2) on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the security key or passphrase being used.

1. Click on the wireless icon in your system tray (lower-right corner).



Wireless Icon

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

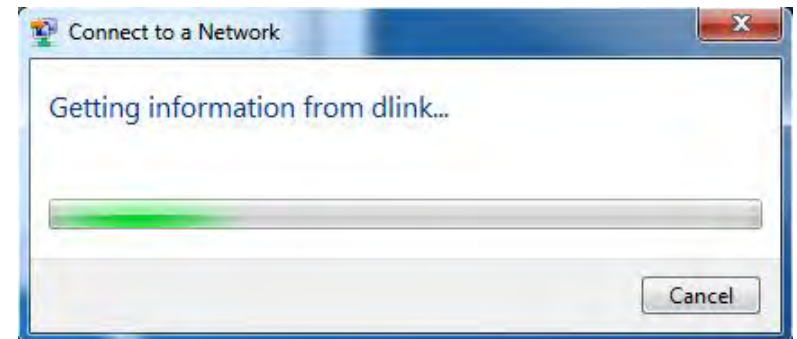


3. Highlight the wireless network (SSID) you would like to connect to and click the **Connect** button.

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.

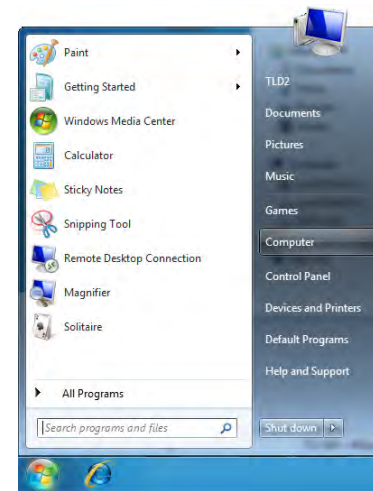
It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the security settings are correct. The key or passphrase must be exactly the same as on the wireless router.



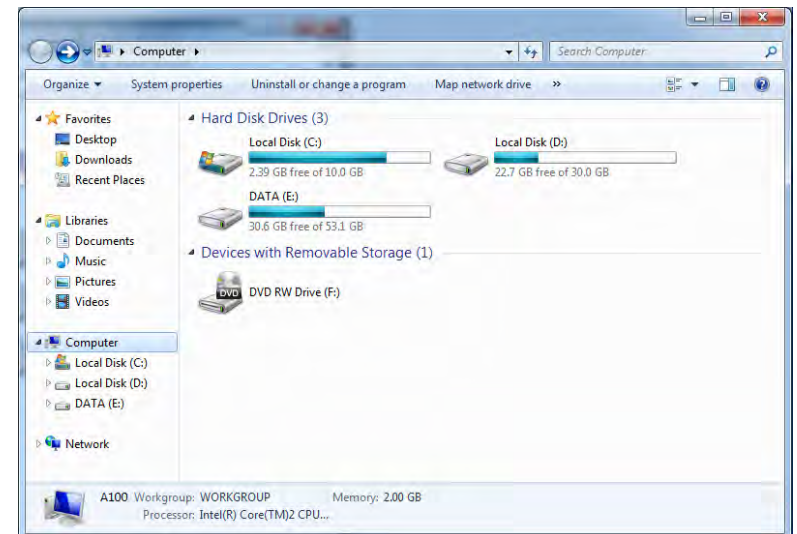
WPS

The WPS feature of the DIR-505 can be configured using Windows® 7. Carry out the following steps to use Windows® 7 to configure the WPS feature:

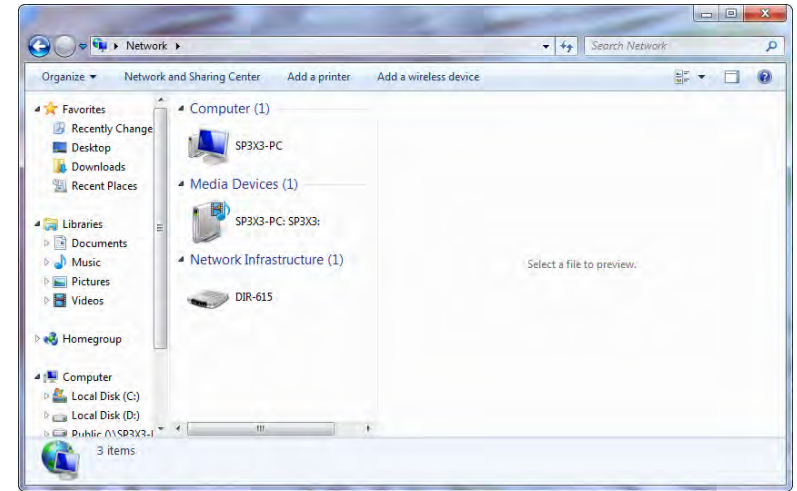
1. Click the **Start** button and select **Computer** from the Start menu.



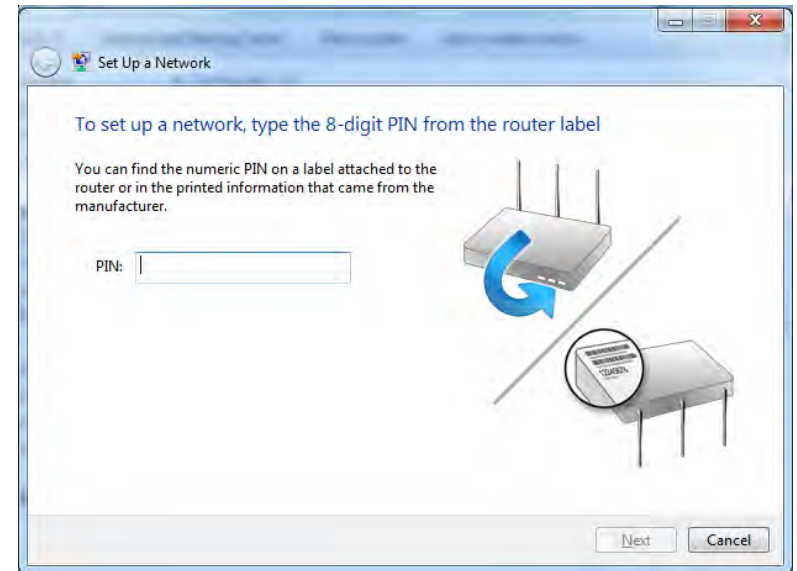
2. Click **Network** on the left side.



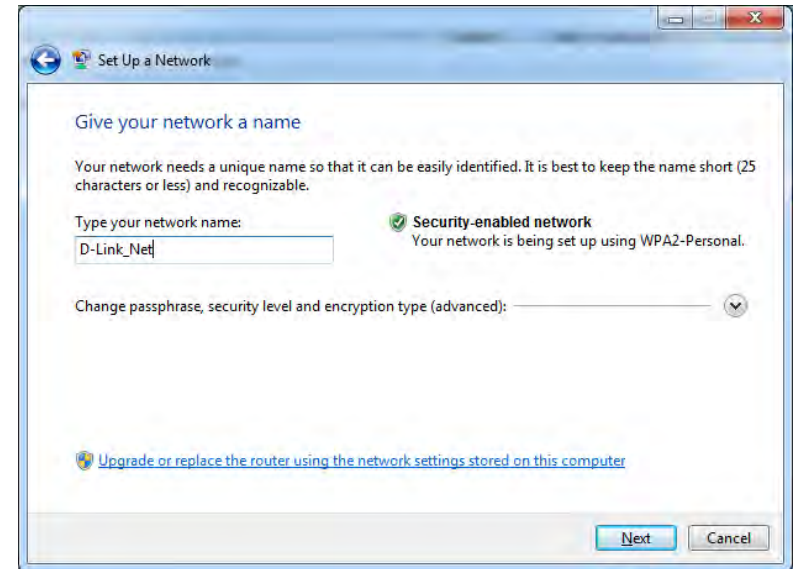
3. Double-click the DIR-505.



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**.

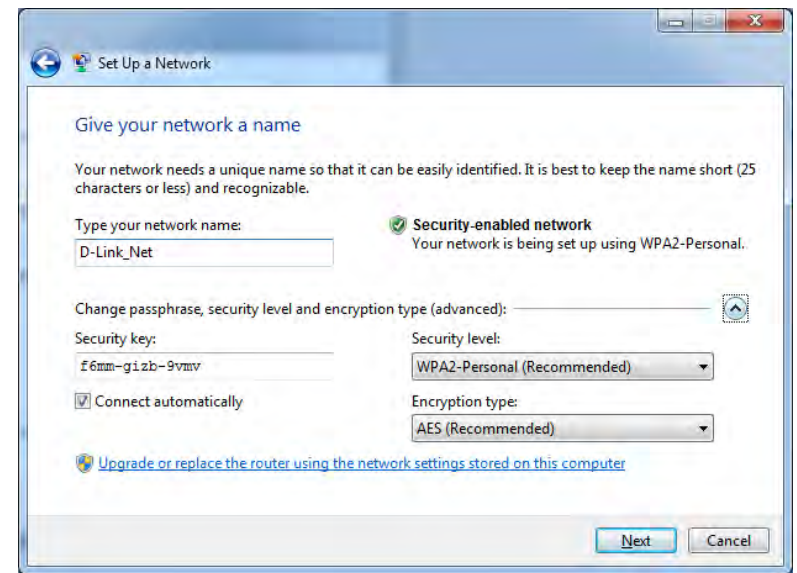


5. Type a name to identify the network.



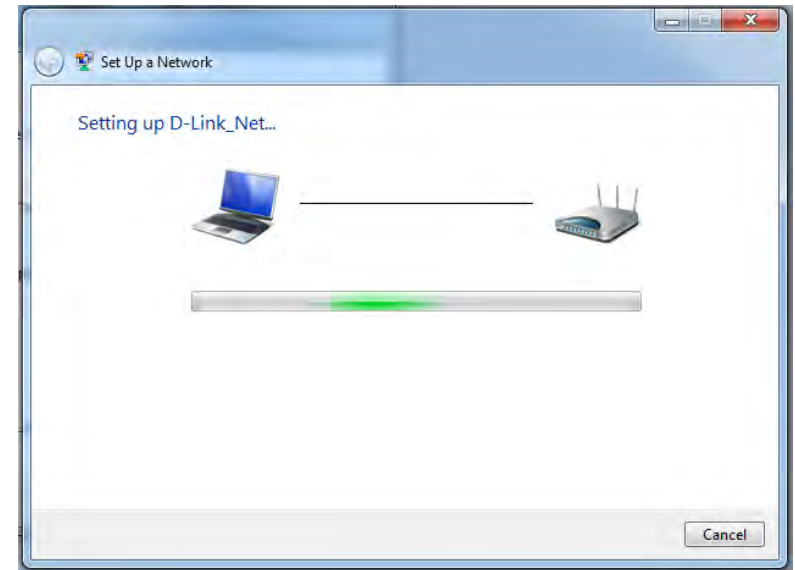
6. To configure advanced settings, click the  icon.

Click **Next** to continue.



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

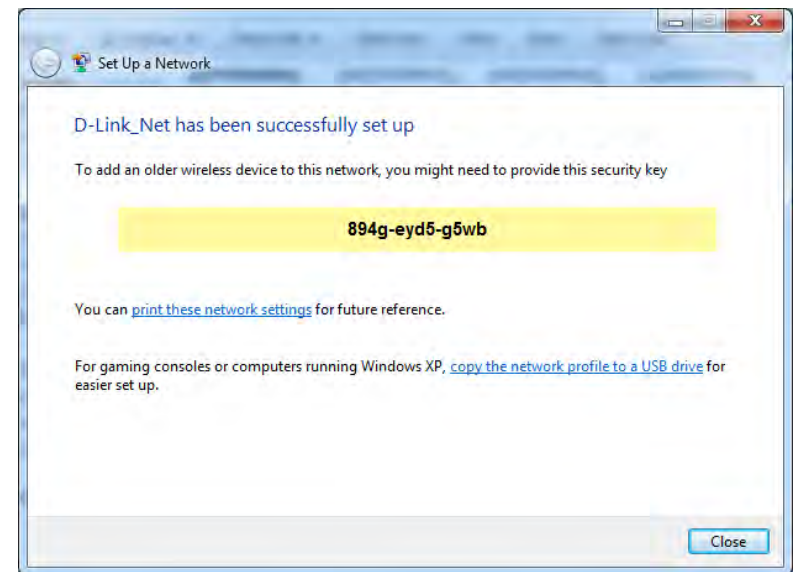
Wait for the configuration to complete.



8. The following window informs you that WPS on the router has been setup successfully.

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

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



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.

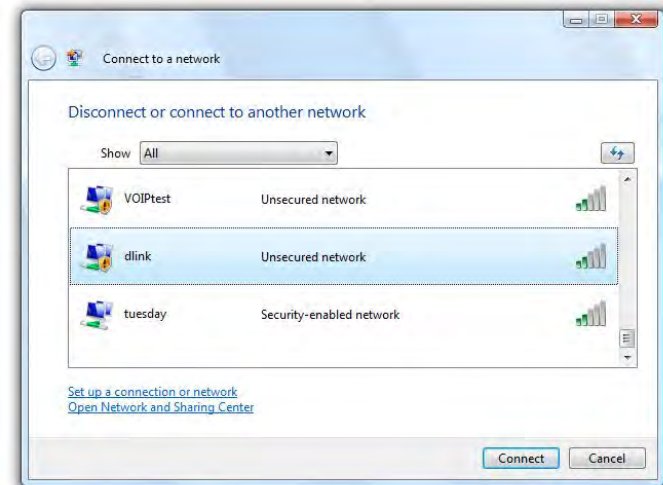
or

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.

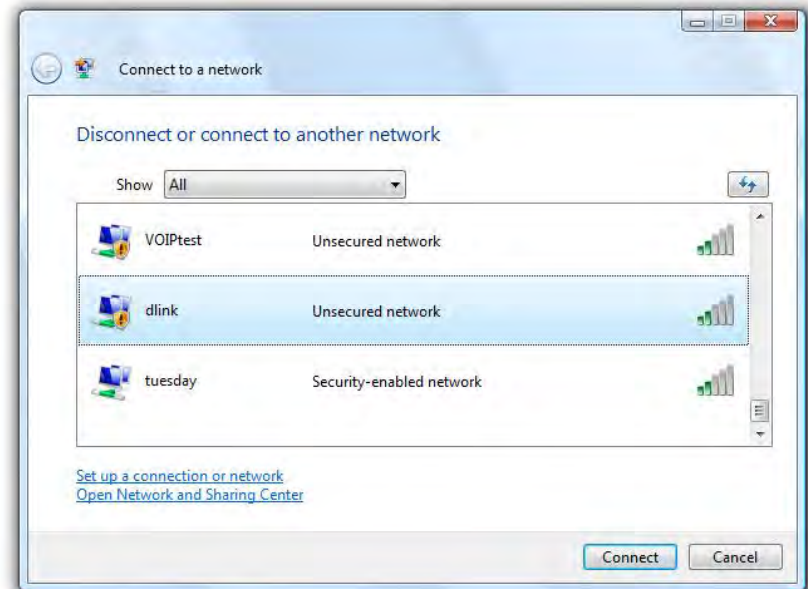
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



WPA/WPA2

It is recommended to enable wireless security (WPA/WPA2) on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the security key or passphrase being used.

1. Open the Windows Vista® 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.



WPS/WCN 2.0

The router supports Wi-Fi protection, referred to as WCN 2.0 in Windows Vista®. The following instructions for setting this up depends on whether you are using Windows Vista® to configure the router or third party software.

When you first set up the router, Wi-Fi protection is disabled and unconfigured. To enjoy the benefits of Wi-Fi protection, the router must be both enabled and configured. There are three basic methods to accomplish this: use Windows Vista's built-in support for WCN 2.0, use software provided by a third party, or manually configure.

If you are running Windows Vista®, log into the router and click the **Enable** checkbox in the **Basic > Wireless** section. Use the Current PIN that is displayed on the **Advanced > Wi-Fi Protected Setup** section or choose to click the **Generate New PIN** button or **Reset PIN to Default** button.



If you are using third party software to set up Wi-Fi Protection, carefully follow the directions. When you are finished, proceed to the next section to set up the newly-configured router.

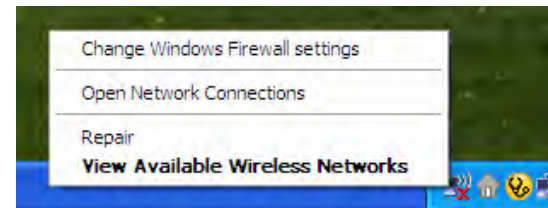
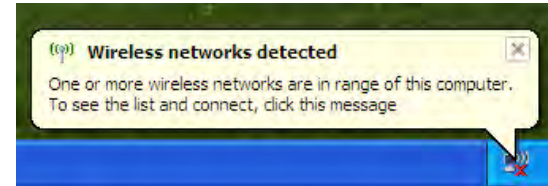
Windows® XP

Windows® XP users may use the built-in wireless utility (Zero Configuration Utility). The following instructions are for Service Pack 2 users. If you are using another company's utility, please refer to the user manual of your wireless adapter for help with connecting to a wireless network. Most utilities will have a "site survey" option similar to the Windows® XP utility as seen below.

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

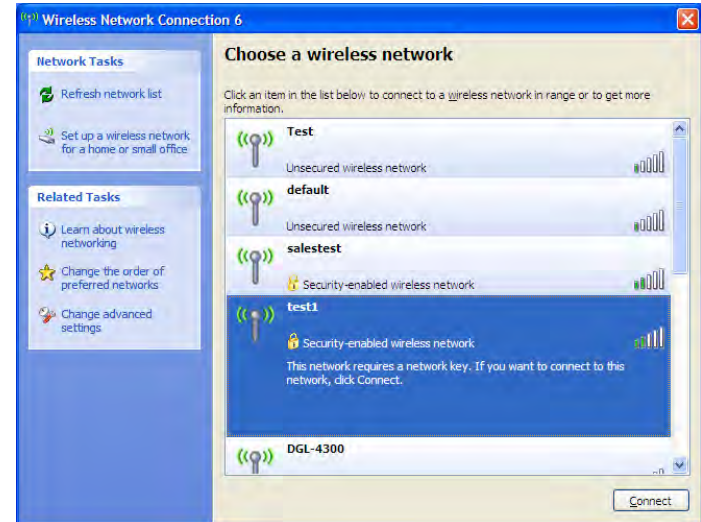
or

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.

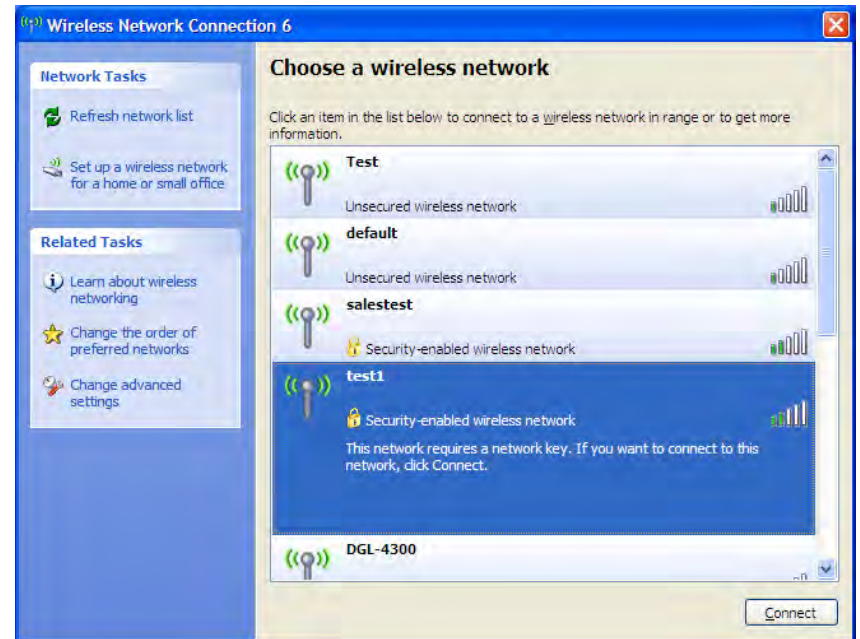
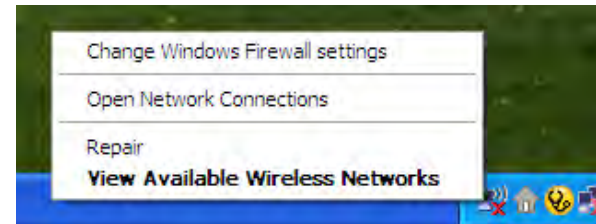
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



WPA/WPA2

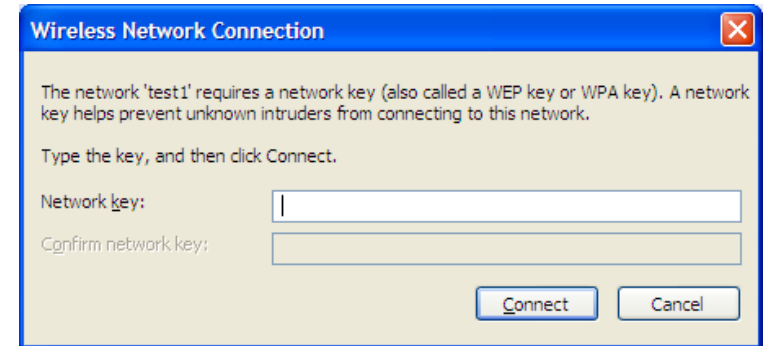
It is recommended to enable WPA on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the WPA key being used.

1. Open the Windows® XP Wireless Utility by right-clicking on the wireless computer icon in your system tray (lower-right corner of screen). Select **View Available Wireless Networks**.
2. Highlight the wireless network (SSID) you would like to connect to and click **Connect**.



3. The **Wireless Network Connection** box will appear. Enter the WPA-PSK passphrase and click **Connect**.

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



Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DIR-505. 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 10 seconds. Release the button and the router will go through its reboot process. Wait about 30 seconds to access the router. The default IP address is 192.168.0.1. When logging in, the username is **admin** and leave the password box empty.

3. Why can't I connect to certain sites or send and receive emails when connecting through my router?

If you are having a problem sending or receiving email, or connecting to secure sites such as eBay, banking sites, and Hotmail, we suggest lowering the MTU in increments of ten (Ex. 1492, 1482, 1472, etc).

To find the proper MTU Size, you'll have to do a special ping of the destination you're trying to go to. A destination could be another computer, or a URL.

- Click on **Start** and then click **Run**.
- Windows® 95, 98, and Me users type in **command** (Windows® NT, 2000, XP, Vista®, and 7 users type in **cmd**) and press **Enter** (or click **OK**).
- Once the window opens, you'll need to do a special ping. Use the following syntax:

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

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

```
C:\>ping yahoo.com -f -l 1482
Pinging yahoo.com [66.94.234.13] with 1482 bytes of data:
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
Ping statistics for 66.94.234.13:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping yahoo.com -f -l 1472
Pinging yahoo.com [66.94.234.13] with 1472 bytes of data:
Reply from 66.94.234.13: bytes=1472 time=93ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=109ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=125ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=203ms TTL=52
Ping statistics for 66.94.234.13:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 93ms, Maximum = 203ms, Average = 132ms
C:\>
```


You should start at 1472 and work your way down by 10 each time. Once you get a reply, go up by 2 until you get a fragmented packet. Take that value and add 28 to the value to account for the various TCP/IP headers. For example, let's say that 1452 was the proper value, the actual MTU size would be 1480, which is the optimum for the network we're working with (1452+28=1480).

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

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

- Open your browser, enter the IP address of your router (192.168.0.1) 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 your next-door neighbors or intruders connect to your wireless network. Secure your wireless network by turning on the WPA or WEP security feature on the router. Refer to product manual for detail information on how to set it up.

Wireless Modes

There are basically two modes of networking:

- **Infrastructure** – All wireless clients will connect to an access point or wireless router.
- **Ad-Hoc** – Directly connecting to another computer, for peer-to-peer communication, using wireless network adapters on each computer, such as two or more DIR-505 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

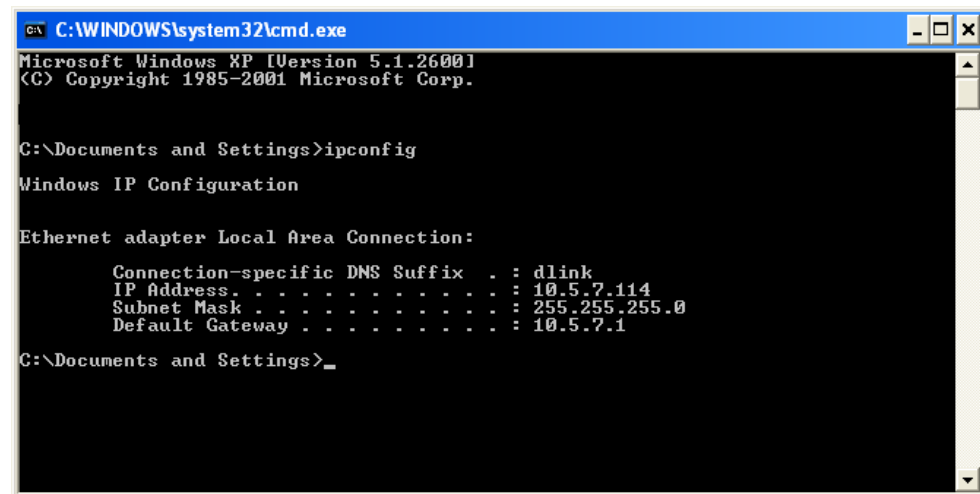
After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

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**.
 - 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**.

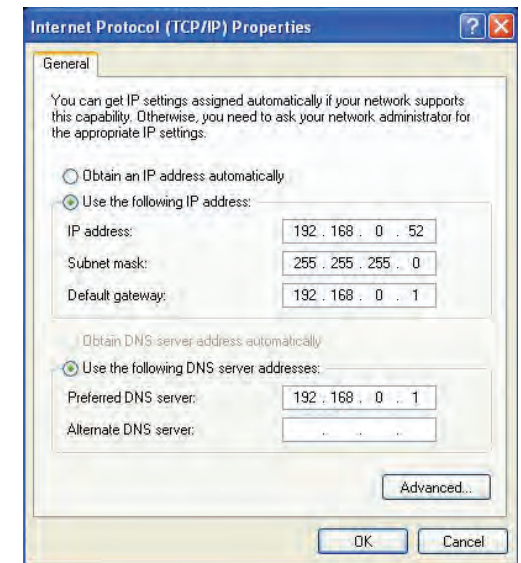
Step 3
Highlight **Internet Protocol (TCP/IP)** and click **Properties**.

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 the Default Gateway the same as the LAN IP address of your router (I.E. 192.168.0.1).

Set Primary DNS the same as the LAN IP address of your router (192.168.0.1). The Secondary DNS is not needed or you may enter a DNS server from your ISP.

Step 5
Click **OK** twice to save your settings.



Technical Specifications

Standards

- IEEE 802.11n
- IEEE 802.11g
- IEEE 802.3
- IEEE 802.3u

Security

- WPA™ - Personal/Enterprise
- WPA2™ - Personal/Enterprise

Wireless Signal Rates¹

IEEE 802.11n 2.4GHz(HT20/40):

- 72.2Mbps (150)
- 57.8Mbps (120)
- 28.9Mbps (60)
- 14.4Mbps (30)
- 65Mbps (135)
- 43.3Mbps (90)
- 21.7Mbps (45)
- 7.2Mbps (15)

IEEE 802.11g:

- 54Mbps
- 24Mbps
- 11Mbps
- 5.5Mbps
- 48Mbps
- 18Mbps
- 9Mbps
- 2Mbps
- 36Mbps
- 12Mbps
- 6Mbps
- 1Mbps

Frequency Range² (North America)

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

Operating Temperature

- 32°F to 104°F (0°C to 40°C)

Humidity

- 95% maximum (non-condensing)

Safety & Emissions

- FCC
- CE
- C-Tick
- UL
- IC

Dimensions

- 2.68" x 1.65" x 2"
(68 x 42 x 51mm)

Warranty

- 1 Year

AC Input

- 110~240VAC, 50/60MHz, 0.3A

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

² Frequency Range varies depending on country's regulation.

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. DIR-505)
- Hardware Revision (located on the label on the bottom of the router (e.g. rev C1))
- 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>

GPL Code Statement

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<http://tsd.dlink.com.tw/GPL.asp>

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WRITTEN OFFER FOR GPL AND LGPL SOURCE CODE

Where such specific license terms entitle you to the source code of such software, D-Link will provide upon written request via email and/or traditional paper mail the applicable GPL and LGPL source code files via CD-ROM for a nominal cost to cover shipping and media charges as allowed under the GPL and LGPL.

Please direct all inquiries to:
Email: GPLCODE@DLink.com
Snail Mail:
Attn: GPLSOURCE REQUEST
D-Link Systems, Inc.
17595 Mt. Herrmann Street
Fountain Valley, CA 92708

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Preamble

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Some devices are designed to deny users access to install or run modified versions of the software inside them, although the manufacturer can do so. This is fundamentally incompatible with the aim of protecting users' freedom to change the software. The systematic pattern of such abuse occurs in the area of products for individuals to use, which is precisely where it is most unacceptable. Therefore, we have designed this version of the GPL to prohibit the practice for those products. If such problems arise substantially in other domains, we stand ready to extend this provision to those domains in future versions of the GPL, as needed to protect the freedom of users.

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The precise terms and conditions for copying, distribution and modification follow.

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The “source code” for a work means the preferred form of the work for making modifications to it. “Object code” means any non-source form of a work.

A “Standard Interface” means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The “System Libraries” of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A “Major Component”, in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

The “Corresponding Source” for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work’s System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work.

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A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger program, in or on a volume of a storage or distribution medium, is called an "aggregate" if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this License to apply to the other parts of the aggregate.

6. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

- a) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.
- b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.
- c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.
- d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.
- e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

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Corresponding Source conveyed, and Installation Information provided, in accord with this section must be in a format that is publicly documented (and with an implementation available to the public in source code form), and must require no special password or key for unpacking, reading or copying.

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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 D-Link 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 (USA):

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. D-Link 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.

Submitting A Claim (Canada):

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:

- Customers need to provide their receipt (proof of purchase) even if the product is registered. Without a receipt, no warranty service will be done. The registration is not considered a proof of purchase.
- 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 D-Link 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 1-800-361-5265, 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.ca/>.
- 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. D-Link 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

be rejected by D-Link. Products shall be fully insured by the customer and shipped to D-Link Networks, Inc., 2525 Meadowvale Boulevard Mississauga, Ontario, L5N 5S2 Canada. 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 Purolator Canada or any common carrier selected by D-Link. Return shipping charges shall be prepaid by D-Link if you use an address in Canada, 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.

- RMA phone number: 1-800-361-5265 Hours of Operation: Monday-Friday, 9:00AM – 9:00PM EST

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 NON-INFRINGEMENT.

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.

Federal Communication Commission Interference Statement:

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

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate

radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

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

FCC Caution:

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

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

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.

Note:

The country code selection is for non-US model only and is not available to all US model. Per FCC regulation, all WiFi product marketed in US must fixed to US operation channels only.

Industry Canada statement:

This device complies with RSS-210 of the Industry Canada Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and

operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

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

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.

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 registration.dlink.com



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

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