D-Link®

Version 1.0 | January 08, 2013

User Manual

Mobile Companion

DIR-505

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 08, 2013	• Initial release

Trademarks

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

Table of Contents

Package Contents

DIR-505 Mobile Companion

Quick Install Guide

Companion Card

Plug Adapters

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

System Requirements

Network Requirements	• An Ethernet-based Cable or DSL modem • IEEE 802.11n or 802.11g wireless clients • 10/100 Ethernet
Web-based Configuration Utility Requirements	**Computer with the following:** • Windows®, Macintosh, or Linux-based operating system • An installed Ethernet adapter **Browser Requirements:** • Internet Explorer 8 or higher • Firefox 8.0 or higher • Safari 4.0 or higher • Google Chrome (16.0.9.12.75) **Windows® Users:** Make sure you have the latest version of Java installed. Visit www.java.com to download the latest version.
CD Installation Wizard Requirements	**Computer with the following:** • Windows® 7, Vista®, or XP (Service Pack 2 or higher), Mac OS X (v10.7) • An installed Ethernet adapter • CD-ROM drive

Introduction

TOTAL COVERAGE

Provides greater wireless signal rates even at farther distances for incredible wireless coverage.

ULTIMATE PERFORMANCE

The D-Link Mobile Companion (DIR-505) lets you 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.

TOTAL NETWORK SECURITY

The DIR-505 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 802.11n and 802.11g 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 an up to 150 Mbps* 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.

- **Compatible with 802.11g/b Devices** - The DIR-505 is still fully compatible with the IEEE 802.11g/b standards, so it can connect with existing 802.11g/b devices.

- **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 and website address.

    - **Filter Scheduling** - These filters can be scheduled to be active on certain days or for a duration of hours or minutes.

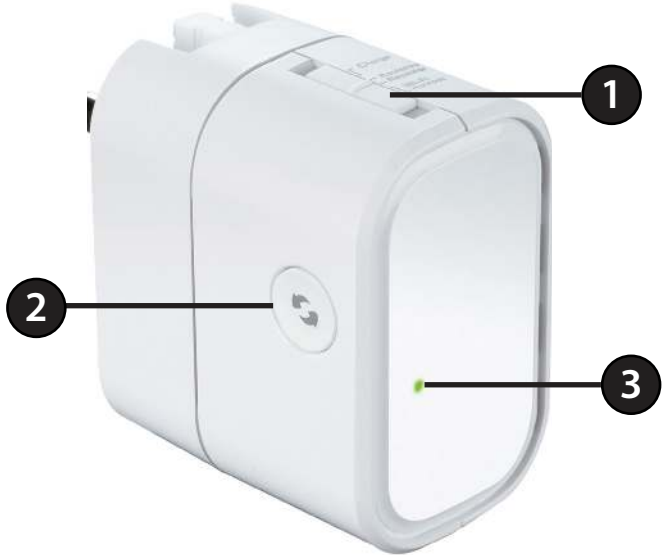
    - **Secure Multiple/Concurrent Sessions** - The DIR-505 can pass through VPN sessions. It supports multiple and concurrent IPSec and PPTP sessions, so users behind the DIR-505 can securely access corporate networks.

- **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 802.11n and 802.11g 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

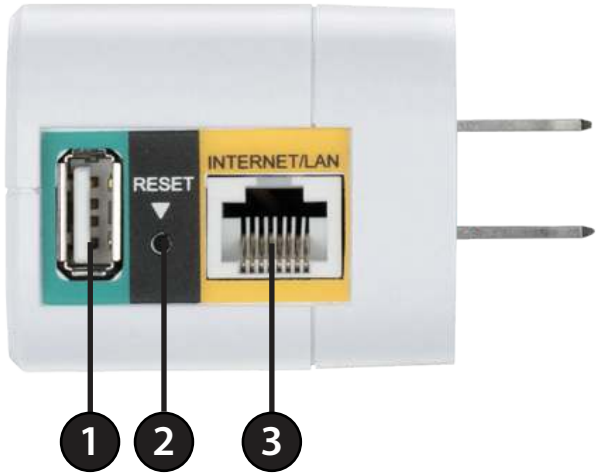
Front/Top



1	Mode Selector Switch	Slide this switch to select between Router/AP, Repeater, Wi-Fi Hotspot, and Charger modes.
2	WPS Button	Press this to activate Wi-Fi Protected Setup(WPS) to connect other devices wirelessly automatically.
3	LED Indicator	This indicates the current status of the DIR-505, as detailed in the table below.

LED Indicator	Color	Status	Description
Power/Status	Green	Solid Green	The device is powered ON and operating properly
		Blinking Green	The device is connecting to a device through WPS
		Light off	The device is off
	Red	Solid Red	During Power ON or system is defective
		Light off	The device is powered off

Hardware Overview
Bottom



1	USB Port	Connect a USB storage drive to share files with connected clients through SharePort™ Mobile.
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

Plug Adapters

Your DIR-505 comes equipped with convenient adapters that easily slide over the plug while it is in the up position. These adapters are suitable for use on European- and United Kingdom-style outlets.

Operation Modes

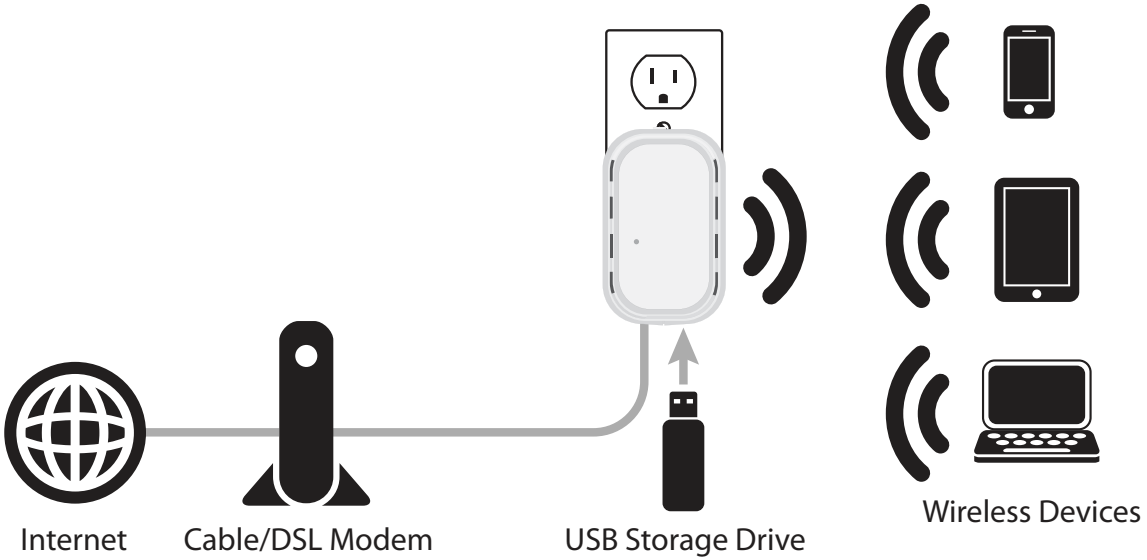
Depending on how you want to use your DIR-505 will determine which mode you use. The following pages describe each mode to help you figure out which one to use.

- Router Mode
- Access Point Mode
- Repeater Mode
- Wi-Fi Hotspot Mode

Router Mode

In Router Mode, the DIR-505 connects to your cable modem, DSL modem, or other Internet source and shares your Internet connection with your devices wirelessly, providing Internet access for an entire home or office. You can also share files with other computers or devices on your wireless network by using the SharePort Mobile feature.

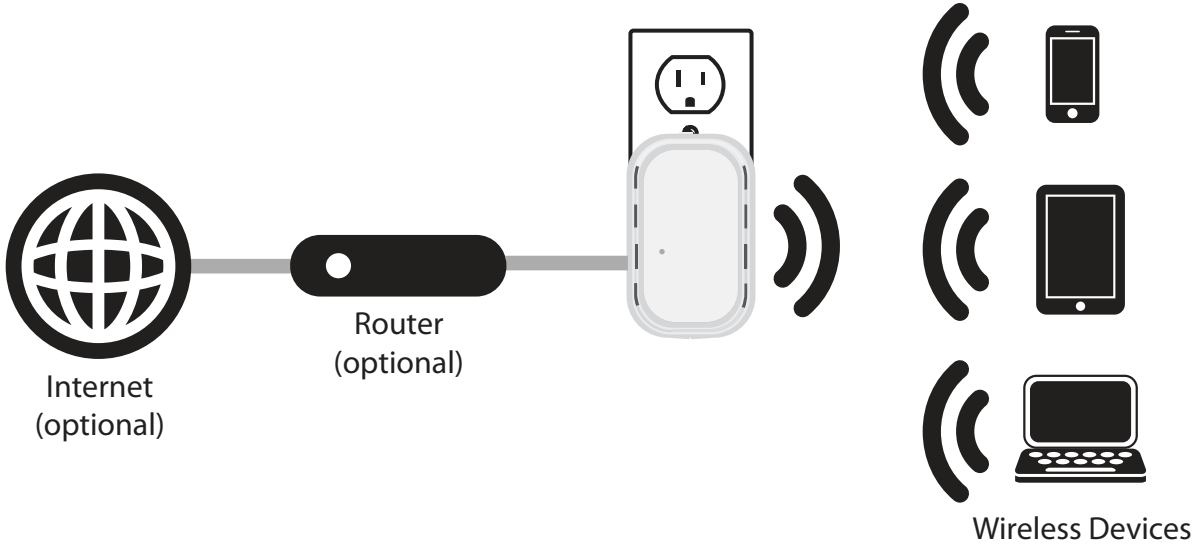
Router Mode



Access Point Mode

In Access Point Mode, the DIR-505 connects your wireless devices together, but does not provide routing functionality. It also allows a connected wired device to connect to your other devices wirelessly. This can be useful if you already have an existing Internet router that does not have built-in wireless capabilities. You can also use this to create a private wireless network without Internet access so that your devices can securely connect to one another without being exposed to the Internet or other computers.

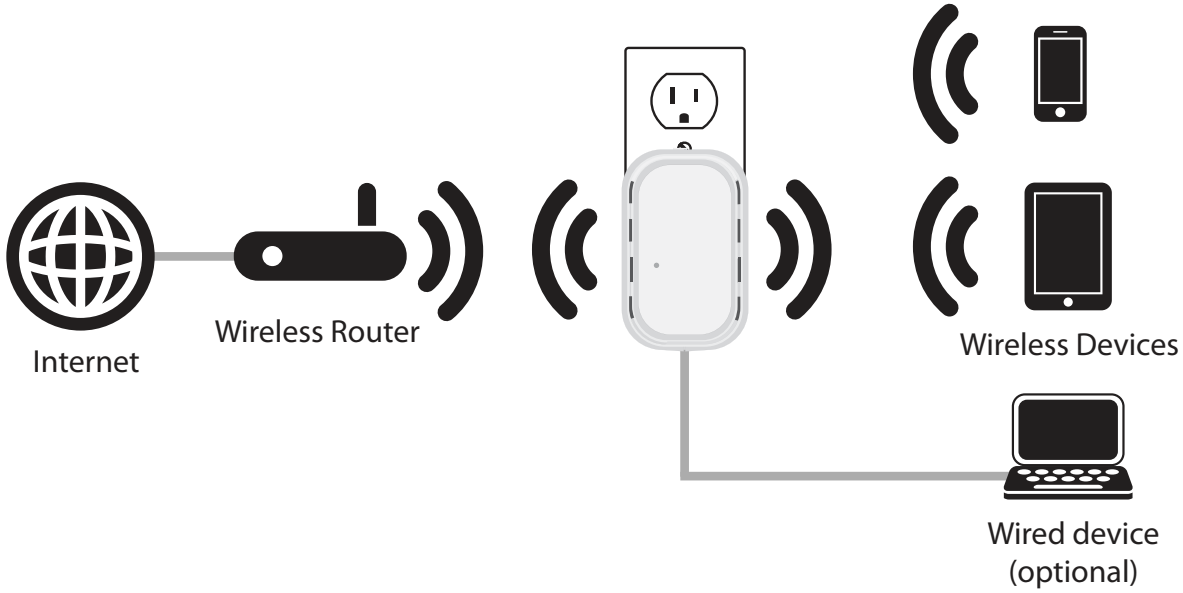
Access Point Mode



Repeater Mode

In Repeater Mode, the DIR-505 extends the range of an existing wireless network. You can use this to extend the coverage of an existing wireless router to provide better signal for parts of your home or office that may have poor reception. Additionally, you can use this mode to connect a wired device to a wireless network, which can be useful for devices that do not have a built-in wireless card, such as some smart TVs, game consoles, or DVRs.

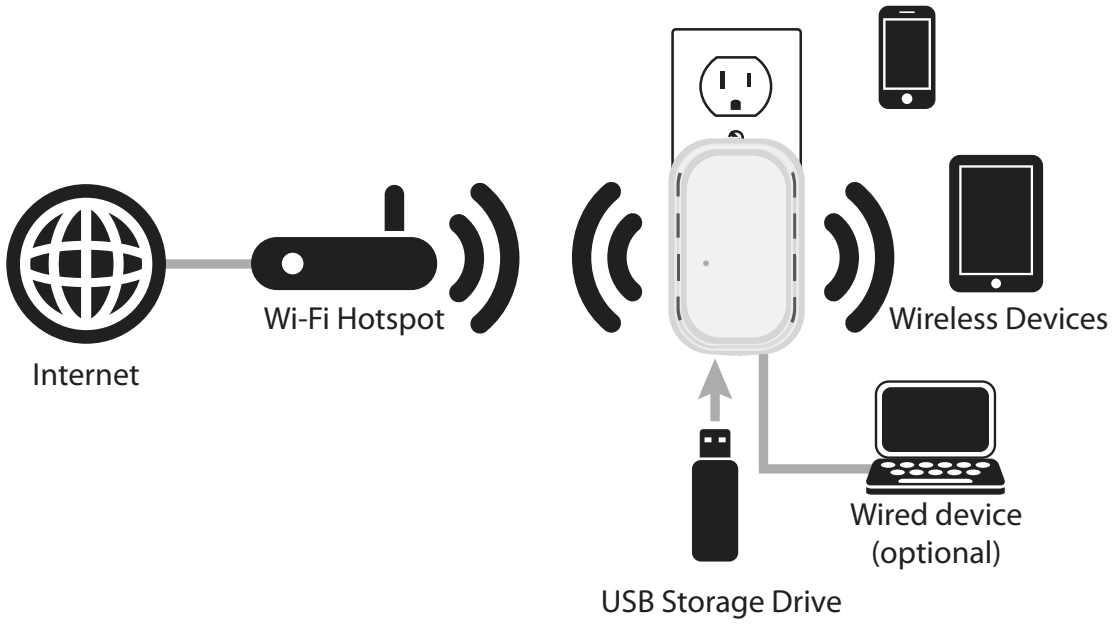
Repeater Mode



Wi-Fi Hotspot Mode

In Wi-Fi Hotspot Mode, the DIR-505 connects to a wireless hotspot or existing wireless network and lets you share access to that network with your devices. This mode is similar to Router mode, but instead of connecting to a cable or DSL modem as your Internet source, the DIR-505 connects to a Wi-Fi hotspot and shares that connection with your devices. This can be useful in places such as a hotel, airport, or café to use a single connection to a hotspot to provide an Internet connection for all your devices. Additionally, it can provide an added layer of security when connecting to public hotspots by hiding your computers and devices from other devices on the network, and keeping them in your own private network. You can also share files with other computers or devices on your wireless network by using the SharePort Mobile feature.

Wi-Fi Hot Spot Mode



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 in not in use.

Setting Up With QRS Mobile

If you have an iOS or Android mobile device, you can use the QRS Mobile App to set up your DIR-505 without requiring a PC.

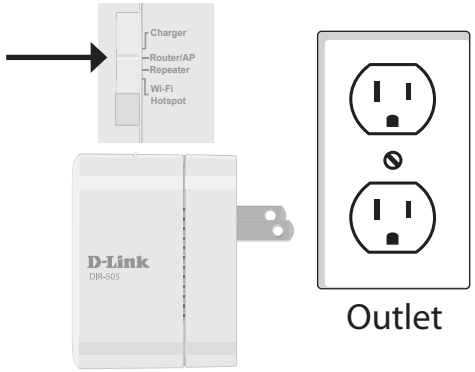
1. Use your mobile device to scan the appropriate QR code for your device to download the free **QRS Mobile** app from the App Store or Google Play.

   If you do not have a QR code reader, you can simply search for **QRS Mobile** in the App Store or Google Play.

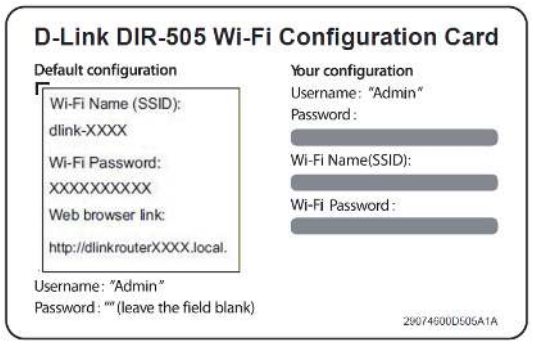
Available on the App Store

ANDROID APP ON Google play

2. Move the switch on the top of the DIR-505 to the mode you wish to use, then plug it in. Verify that the power LED has turned green before continuing.

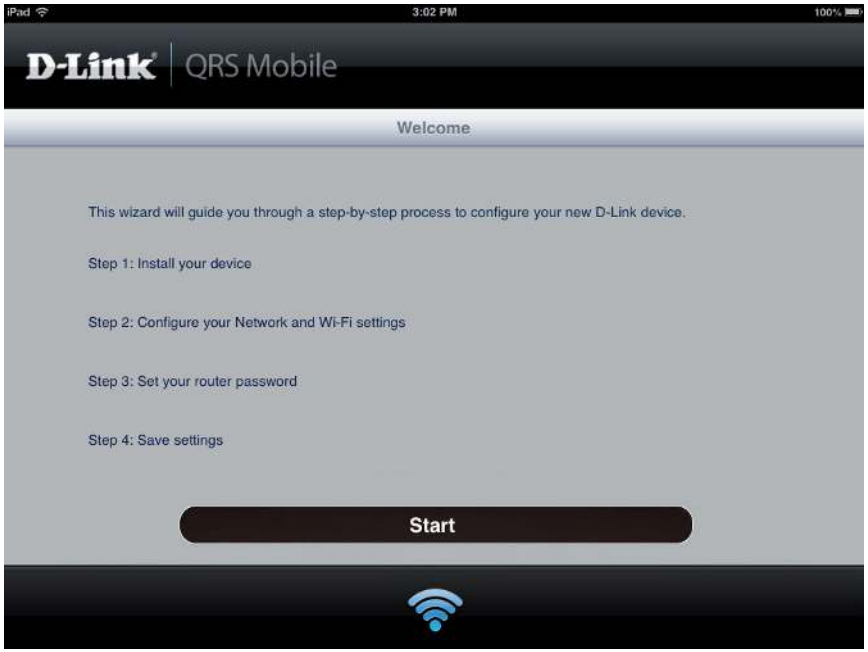


3. On your mobile device, go to your Wi-Fi settings and connect to the network (SSID) that is displayed on the Wi-Fi Configuration Card included in your package. The "XXXX" in the **SSID** will be the last four digits of the MAC Address. (example SSID: **dlink-a8fa**) Then, enter the Wi-Fi password also printed on the Wi-Fi Configuration Card (ex: **akbdj1936**).



4. Once your mobile device is connected, tap on the **QRS Mobile** app.

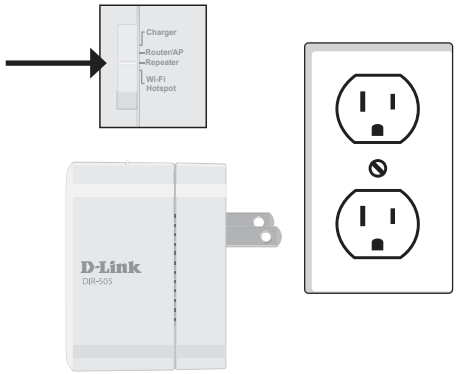
5. Click **Start** to continue, and follow the on-screen instructions to configure your DIR-505.



Setting Up With WPS(Repeater)

If you are setting the DIR-505 up in Repeater Mode to extend the range of an existing Wi-Fi network and your existing wireless router has a WPS button, you can use these steps to quickly set up your DIR-505.

1. Move the switch on the top of the DIR-505 to Repeater Mode, then plug it in within range of your existing Wi-Fi network. Verify that the power LED has turned green before continuing.



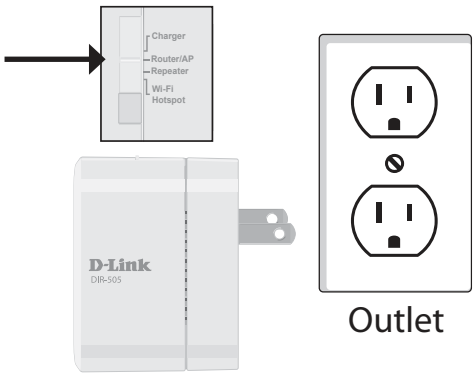
2. Press and hold the WPS button on the side of the DIR-505 for 5 seconds.

   Note: You must press the WPS button for at least 5 seconds. Pressing it for a shorter time activates a different WPS mode which is used to connect wireless devices to the DIR-505.

3. Within 2 minutes, press the WPS button on your existing wireless router. The DIR-505 will automatically create a connection to your existing router's Wi-Fi network and will extend it. You can connect to your extended network by using the default Wi-Fi network name and password printed on the Wi-Fi Configuration Card. To set the DIR-505 to use the same Wi-Fi network name and number, refer to "Extend Wi-Fi Setup" on page 102.

Setting Up With a Web Browser

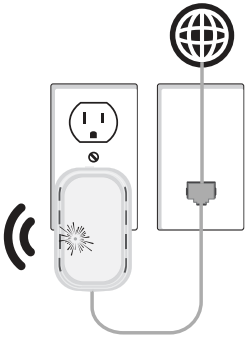
1. Move the switch on the top of the DIR-505 to the mode you wish to use, then plug it in. Verify that the power LED has turned green before continuing.



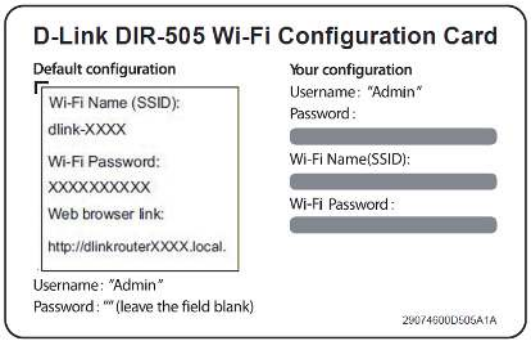
If you are using Router/AP Mode:

Move the switch on the top of the DIR-505 to **Router/AP** and plug it into a wall outlet near your cable/DSL modem or router.

Connect one end of the Ethernet cable into the Ethernet port of your cable/DSL modem or router and then plug the other end of the cable into the Ethernet port of the DIR-505. Verify that the power LED has turned green before continuing.



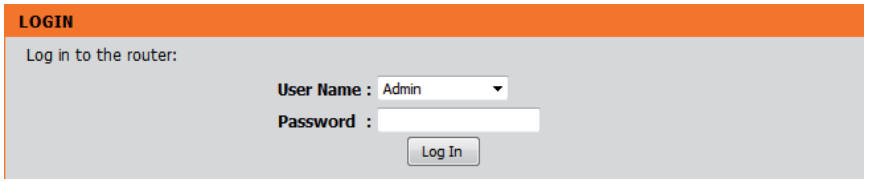
2. On your mobile device, go to your Wi-Fi settings and connect to the network (SSID) that is displayed on the Wi-Fi Configuration Card included in your package. The "XXXX" in the **SSID** will be the last four digits of the MAC Address. (example SSID: **dlink-a8fa**) Then, enter the Wi-Fi password also printed on the Wi-Fi Configuration Card (ex: **akbdj1936**).



3. Open a web browser. First time users will automatically be directed to the appropriate Setup Wizard for the selected operation mode. For more details about this wizard, refer to "Initial Setup Wizard (Router/AP Mode)" on page 19.

If the Setup Wizard does not appear, type **http://dlinkrouter.local.** in the address bar.

If you have set up the DIR-505 before, you will see a login screen. Select Admin as your user name, and enter the password for the DIR-505. By default, the password is blank. The configuration interface will open, and you can configure the different settings of the DIR-505.



For detailed information on configuring your device, refer to the following sections of the manual:

- "Router Mode" on page 27
- "Access Point Mode" on page 74
- "Repeater Mode" on page 96
- "Wi-Fi Hot Spot Mode" on page 115

Initial Setup Wizard (Router/AP Mode)

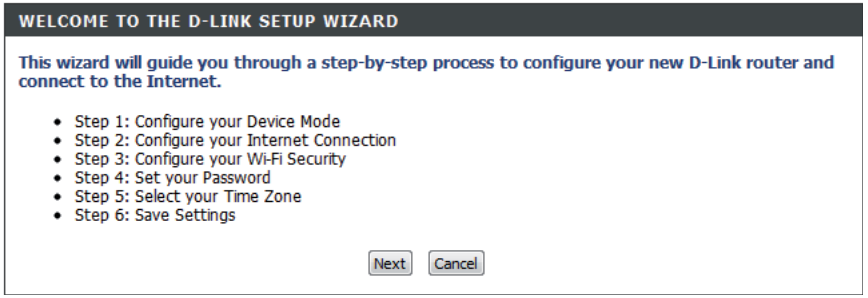
If this is your first time setting up the DIR-505, open your web browser. You will automatically be directed to the **Wizard Setup Screen**.

If the Setup Wizard does not appear automatically, type **http://dlinkrouter.local.** in the address bar.

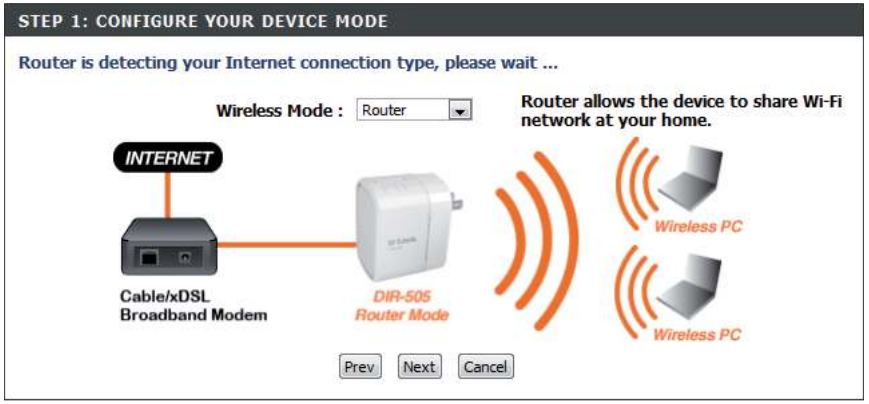
If you have already configured your settings and you would like to access the configuration utility, please refer to "Setting Up With a Web Browser" on page 17.

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.

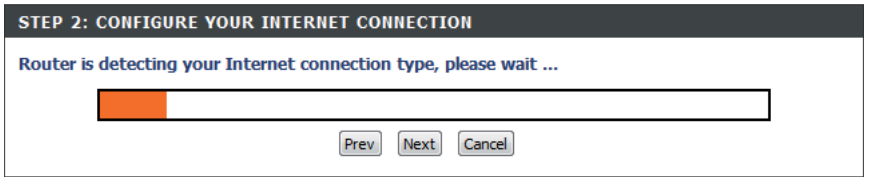
Click **Next** to continue.



Select whether you want to use **Router** mode or **Access Point** mode for your DIR-505 and click **Next**. In most situations, Router mode should be used.

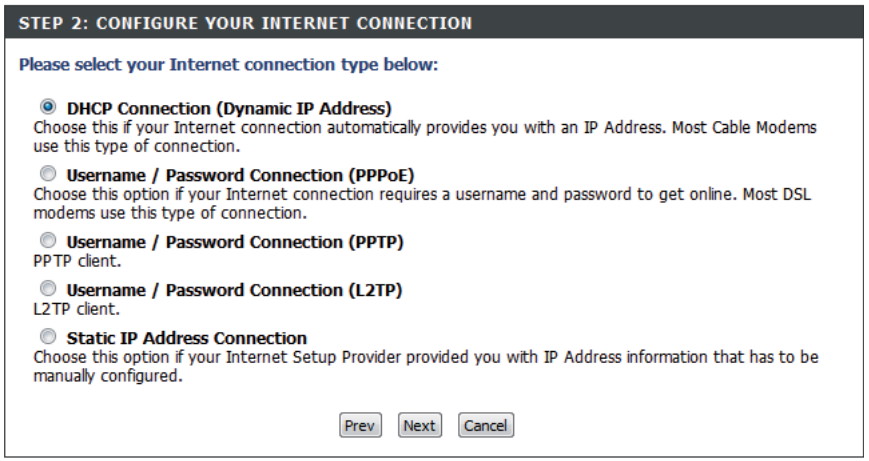


If you chose Router mode, the DIR-505 will try to detect what type of Internet connection you have and will ask you for the related settings. Enter the settings for your connection and click **Next**.



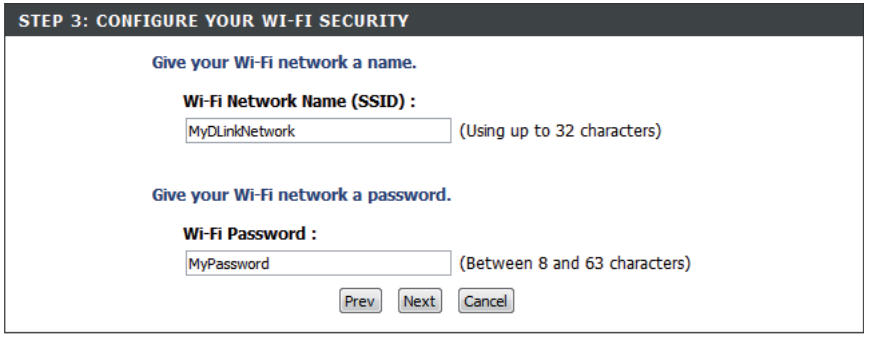
If your Internet connection cannot be detected(or if you click the **Prev** button after the previous step), you will need to select which type of Internet connection you have. Select your Internet connection type, then click the **Next** button and enter the related settings.

Note: Most cable modem connections use DHCP, and most DSL modem connections use **PPPoE**. If you are not sure which connection type you use or what settings to enter, contact your Internet service provider.

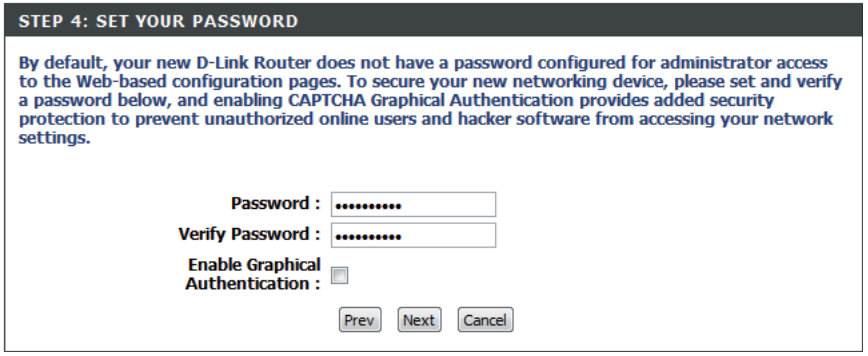


Create a wireless security passphrase or key (between 8-63 characters). Your wireless clients will need to have this passphrase or key entered to be able to connect to your wireless network.

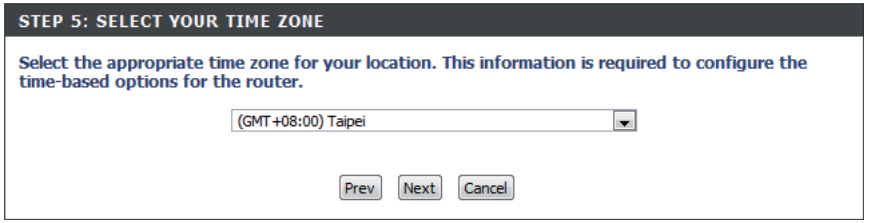
Click **Next** to continue.



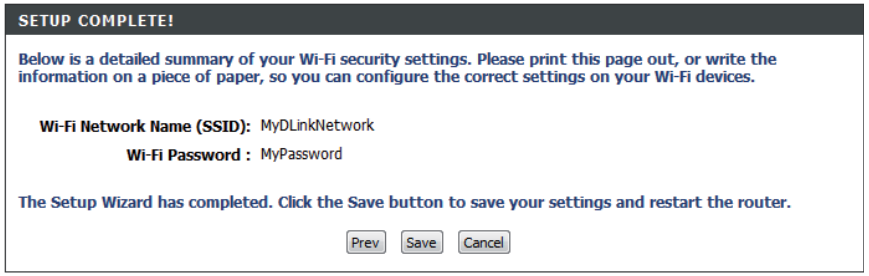
Enter a password to secure configuration access to your router. Please note that this password will be used to log in to the configuration interface, but is not the same as the password used for your wireless network. Check the **Enable Graphical Authentication** box to enable CAPTCHA authentication for added security. Click **Next** to continue.



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



Setup is complete, and your wireless network name and password will be displayed. It is recommended that you write this information down for future reference. Click **Save** to save your settings and reboot the router.



Using the SharePort Mobile App

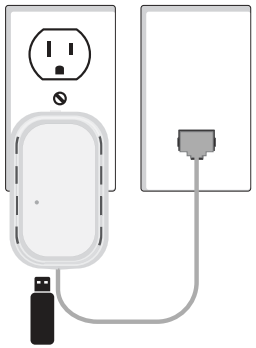
The SharePort Mobile app allows you to access files stored on a USB flash drive or USB external hard drive connected to the DIR-505. It enables you to watch movies. play music, enjoy photos, and view PDF and Office documents. You can also upload your videos and photos to your USB flash drive. The following pages will help you set up and use SharePort Mobile for remote and local use. For more information on using this feature, you can also refer to "Storage" on page 50.

Note: The SharePort Mobile feature of the DIR-505 can only be used when the device is in **Router** or **Wi-Fi Hot Spot** mode; it will not work in **Repeater** mode.

1. Make sure that the switch on top of the DIR-505 is set to **Router/AP** or **Wi-Fi Hotspot**.

2. Plug your USB storage drive into the USB port on the bottom of the DIR-505, and then plug the DIR-505 into a power outlet.

   Note: The DIR-505 works with USB storage drives up to 250 GB.



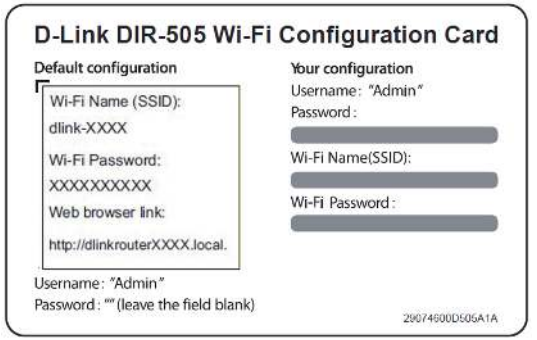
3. Use your iOS or Android mobile device to scan the appropriate QR code for your device to download the free **SharePort Mobile** app from the App Store or Google Play.

   If you do not have a QR code reader, you can simply search for **SharePort Mobile** in the App Store or Google Play.

Available on the App Store

ANDROID APP ON Google play

4. On your mobile device, go to your Wi-Fi settings and connect to the Wi-Fi network that you created during initial setup. If you are still using the default settings, the network name (SSID) is displayed on the Wi-Fi Configuration Card included in your package. The "XXXX" in the **SSID** will be the last four digits of the MAC Address. (example SSID: **dlink-a8fa**) Then, enter the Wi-Fi password also printed on the Wi-Fi Configuration Card (ex: **akbdj1936**).



5. Once connected, tap the **SharePort Mobile** icon, and the SharePort Mobile app will load.

Note: *The following are iPad examples. Screens on different hardware or software may vary slightly.*

6. Enter the administration password for your DIR-505. If your password is accepted, setup is complete.

7. You can now use the **SharePort Mobile** app to access the files on your USB storage drive. See the next page for instructions.

Note: If you connect a USB storage drive with many files or with a large capacity, it may take a while for the DIR-505 to scan and catalog your files.

To permanently download a file to your mobile device, select the **"Star"** icon next to it while browsing the categories (listed below). This will save it as a **Favorite** and make the file available to you even when not connected to the DIR-505. If a file is not added as a favorite, then it will not be saved to your mobile device.

Favorite

To upload a file from your mobile device to your USB drive, go to the **Folder** section, select **Upload** from the menu, (Android users may need to press a "**...**" button to create the menu.) and then select the "**+**" at the top-right corner. This will give you a direct view of your device's files and folders. Browse for the file you want to upload, and select it. Your file will then be copied from your mobile device to your USB drive.

Folder

In **Folder** you may also explore the various folders on the USB drive without separating the content by type of file.

For the Movie section, click the **Movie** icon to play your movie from your USB flash drive. Supported video formats are mp4, mov, and m4v.

Movie

For the Music section, click the **Music** icon to play your music from your USB flash drive. Supported audio formats are mp3, wav, and m4a.

Music

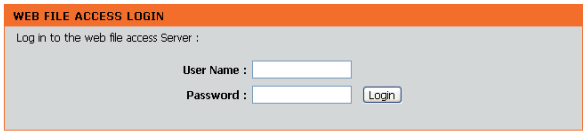
For the Photo section, click the **Photo** icon to view your photos from your USB drive. Supported image formats are jpg, bmp, and png.

Photo

For the Files section, click on the **Files** icon to open your file from your USB flash drive. Supports Microsoft Office and Adobe Acrobat (PDF) in iOS. For Android devices, file format support varies by device.

File

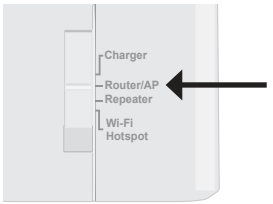
You can access files on a USB hard drive that is plugged into the DIR-505 from a web browser: **http://shareport.local**



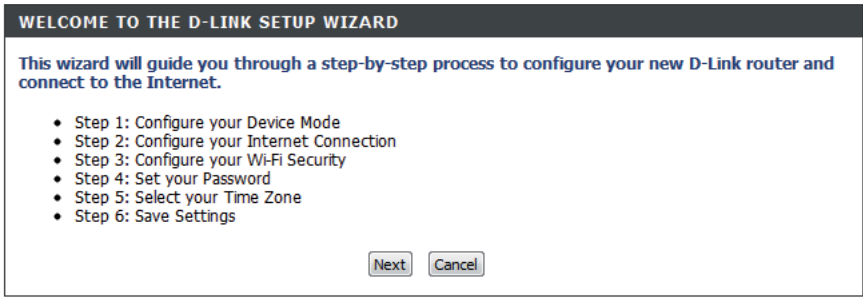
Note: *If you change your device/admin password, you will need to use the new password in the SharePort Mobile app.*

Router Mode

This section describes the configuration interface for Router mode. Make sure that the mode selector switch is in the Router/AP position on your DIR-505.

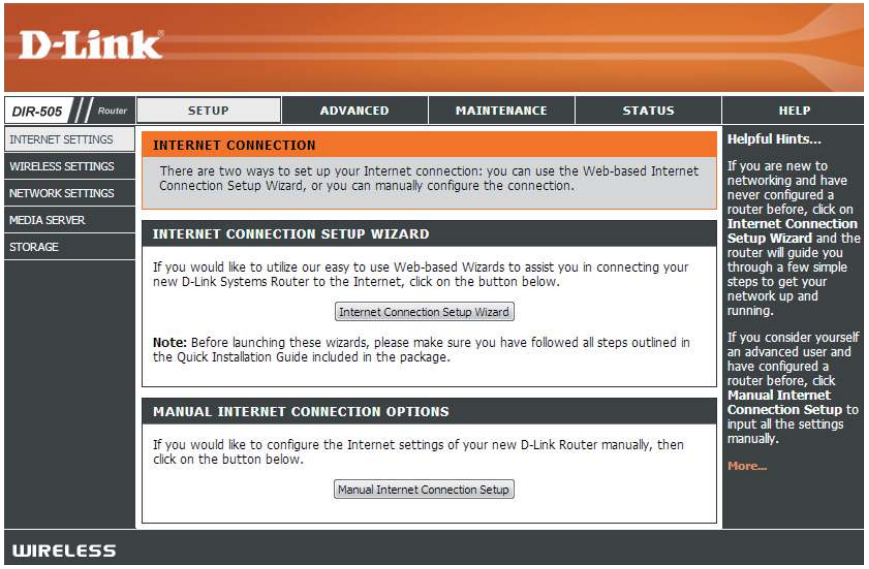


If this is your first time configuring the DIR-505, open your web browser and type **http://dlinkrouter.local.** in the address bar. You will automatically be directed to the **Wizard Setup Screen**. For more information, refer to "Initial Setup Wizard (Router/AP Mode)" on page 19.



If the Setup Wizard does not appear, type **http://dlinkrouter.local.** in the address bar.

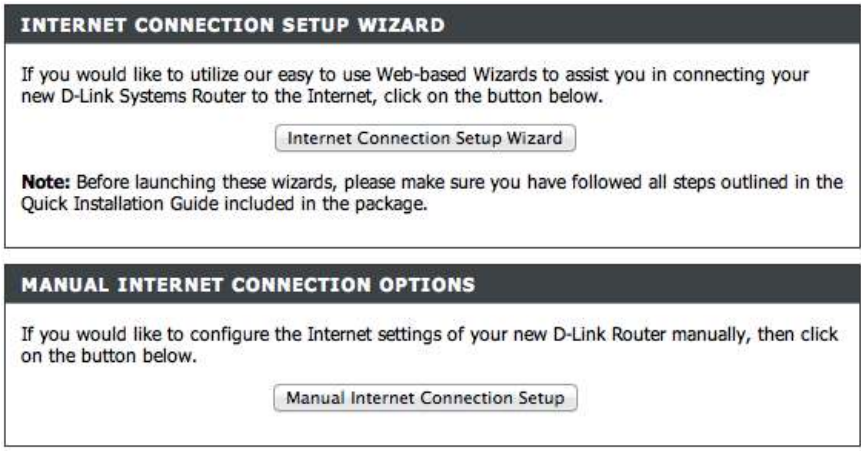
Otherwise, the main configuration screen will appear. You will still be able to use the different setup wizards to configure your DIR-505.



Setup
Internet Settings

If you want to configure your router to connect to the Internet using a setup wizard, click **Internet Connection Setup Wizard**, and continue to the next page.

To configure your Internet settings manually, click the **Manual Internet Connection Setup** button and go to "Manual Internet Setup" on page 33.



Internet Connection Setup Wizard

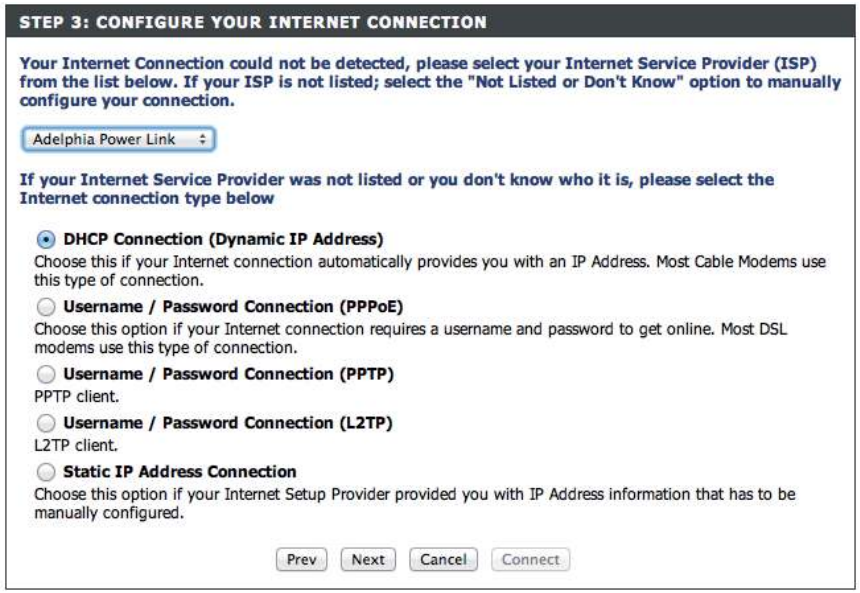
The Internet Connection Setup Wizard is designed to guide you through a step-by-step process to configure your DIR-505 and connect to the Internet.

Click **Next** to continue.

In order to secure your router, please enter a new password. Click **Next** to continue.

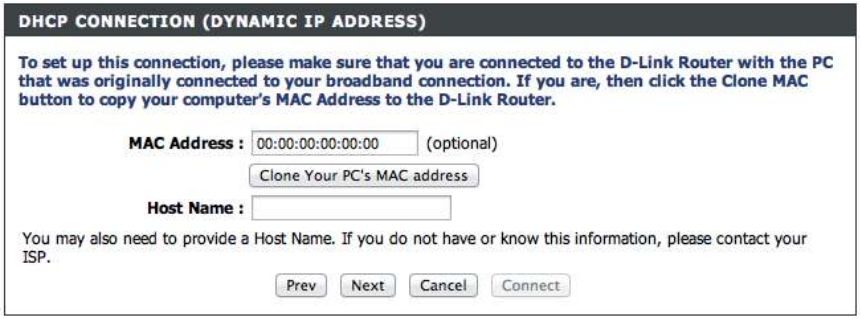
Select your time zone from the drop-down menu and click **Next** to continue.

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



If you selected **DHCP Connection**, you will see the following screen. If your ISP requires you to enter a MAC address and Host Name, fill them in here. You can click the **Clone MAC button** to enter your current computer's MAC address.

Click **Next** to continue.



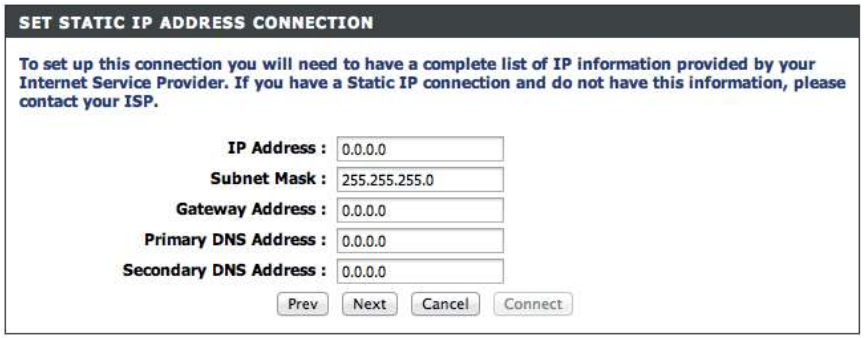
If you selected **PPPoE Connection**, you will see the following screen. Enter your PPPoE username, password and verify password, then click **Next** to continue.

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

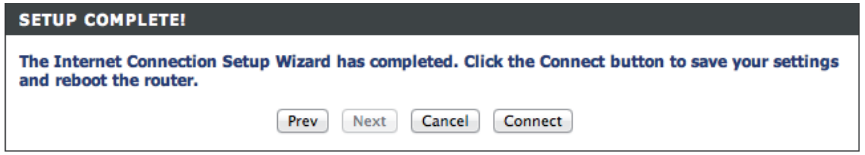
If you selected **PPTP Connection**, you will see the following screen. Enter your PPTP username, password, and other information supplied by your ISP. Click **Next** to continue.

If you selected **L2TP Connection**, you will see the following screen. Enter your L2TP username, password, and other information supplied by your ISP. Click **Next** to continue.

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



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



Manual Internet Setup

If you clicked **Manual Internet Connection Setup** on the **Internet Settings** page, you will see this screen. Here, you can configure the Internet connection for your DIR-505. After making your changes, click the **Save Settings** button.

Operation Mode: This should be set to Router mode. If you want to use Access Point mode, select Access Point mode and click the Save Settings button to switch to the Access Point configuration interface. For more information, refer to "Access Point Mode" on page 74.

Host Name: Select the connection mode to use: **Dynamic IP (DHCP)**, **PPPoE**, **PPTP**, **L2TP**, or **Static**. The remaining settings will change depending on which connection mode you use.

Note: Most cable modem connections use DHCP, and most DSL connections use PPPoE. If you are not sure which connection mode to use, contact your Internet service provider.

If you selected **Dynamic IP (DHCP)**, you will see the following settings.

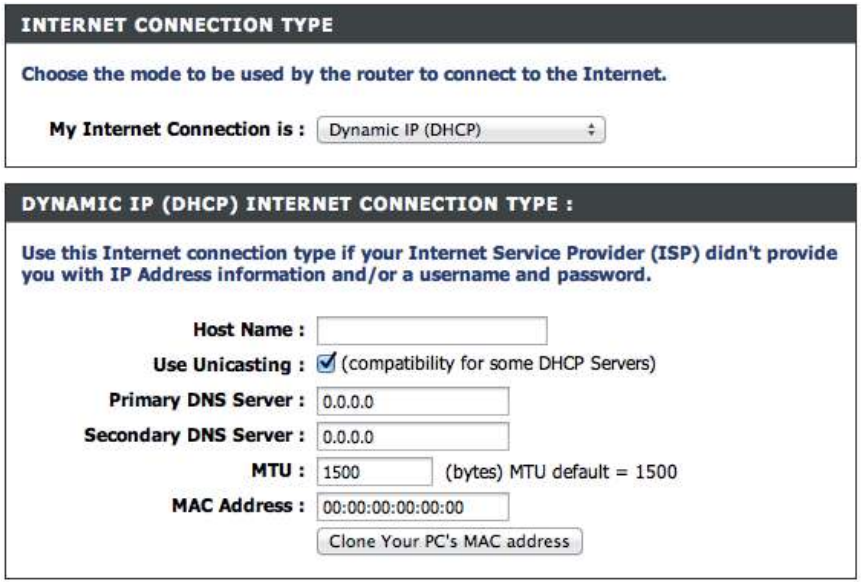
Host Name: Entering a host name is optional but may be required by some ISPs. Leave this blank if you are not sure.

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 this setting at 0.0.0.0 if you did not specifically receive these from your ISP.

MTU: If you experience connection issues, you may need to change the MTU setting for optimal performance with your specific ISP. 1492 is the default MTU.

MAC Address: If your ISP requires you to enter a MAC address, fill it in here. You can click the **Clone MAC button** to enter your current computer's MAC address.



If you selected **PPPoE**, you will see the following settings. Your ISP will provide you with a username and password. This option is typically used for DSL services. Make sure to remove your PPPoE software from your computer. The software is no longer needed and will not work through a router.

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

IP Address: Enter the IP address (for 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).

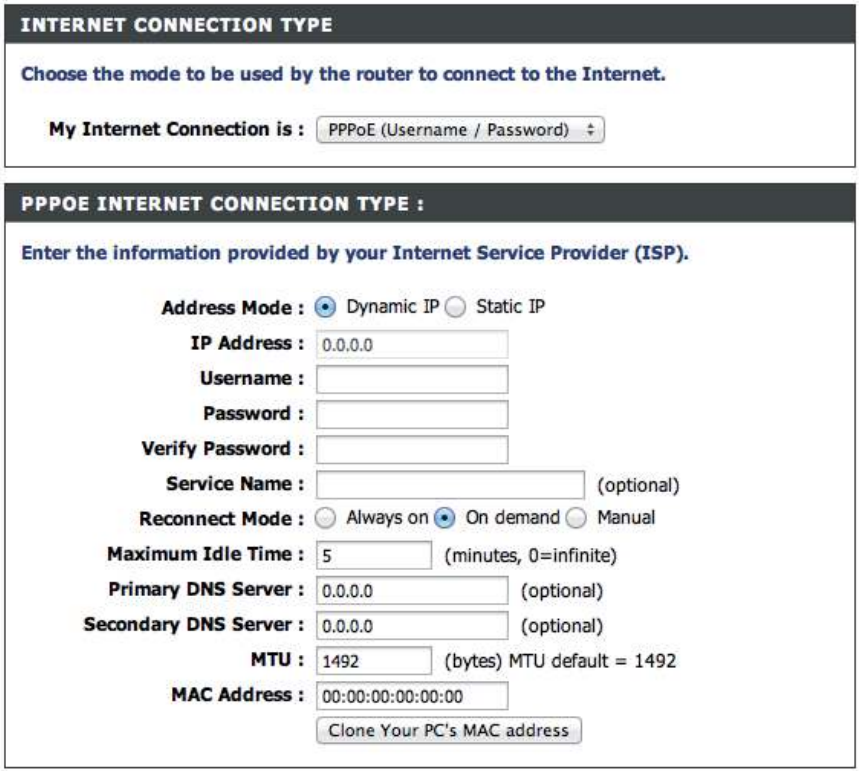
Reconnect Mode: Select either **Always-on**, **On-Demand**, or **Manual**.

Maximum Idle Time: Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, set the **Reconnect Mode** to **Always on**.

Primary/ Secondary DNS Server: Enter the primary and secondary DNS server addresses (Static PPPoE only).

MTU: If you experience connection issues, you may need to change the MTU setting for optimal performance with your specific ISP. 1492 is the default MTU.

MAC Address: If your ISP requires you to enter a MAC address, fill it in here. You can click the **Clone MAC button** to enter your current computer's MAC address.



If you selected **PPTP**, you will see the following settings. Your ISP will provide you with a username and password. This option is typically used for DSL services.

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

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

PPTP Subnet Mask: Enter the primary and secondary DNS server addresses (for static PPTP only).

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

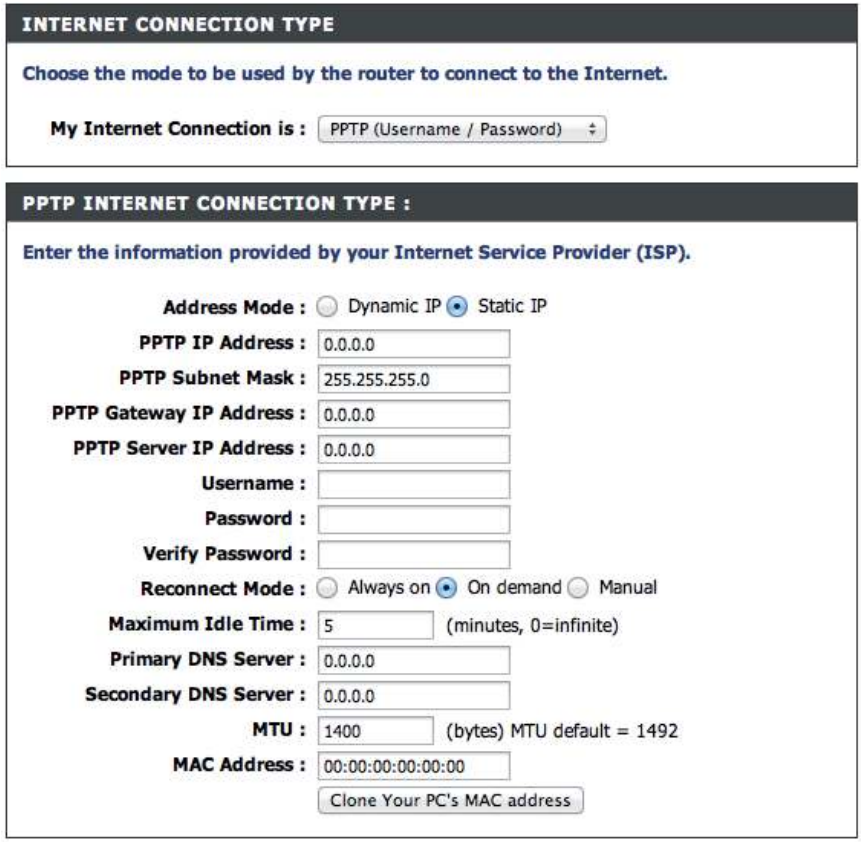
PPTP Server IP Address: Enter the server IP provided by your ISP (optional).

Username: Enter your PPTP username.

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

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

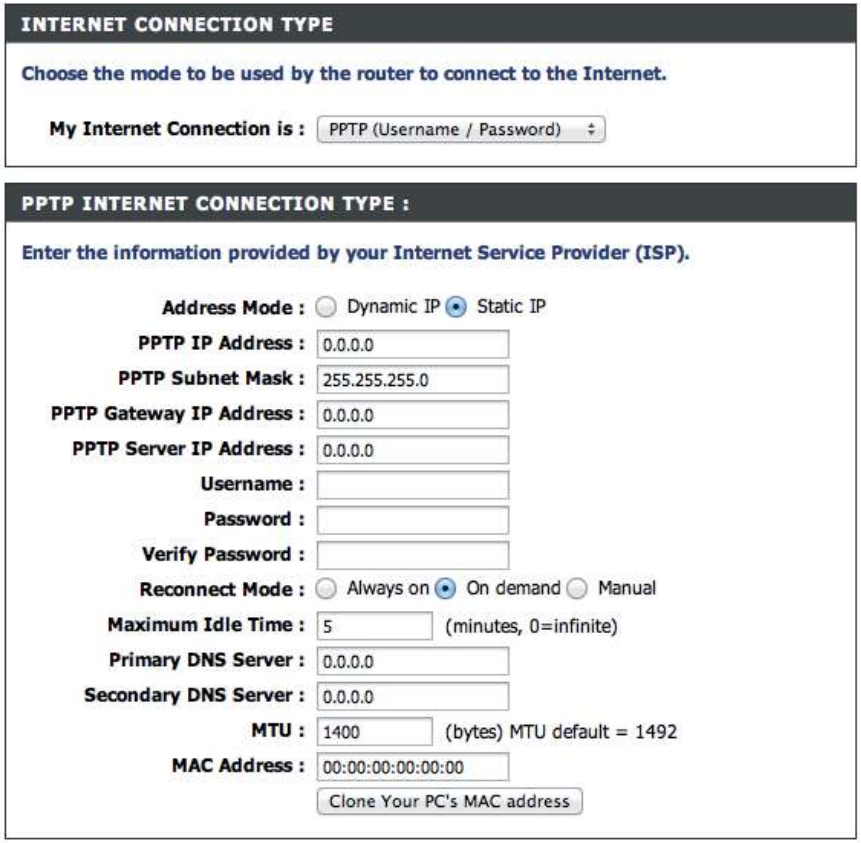
Maximum Idle Time: Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, set the **Reconnect Mode** to **Always on**.



Primary/ Secondary DNS Server: The DNS server information will be supplied by your ISP (Internet Service Provider.)

MTU: If you experience connection issues, you may need to change the MTU setting for optimal performance with your specific ISP. 1492 is the default MTU.

MAC Address: If your ISP requires you to enter a MAC address, fill it in here. You can click the **Clone MAC button** to enter your current computer's MAC address.



If you selected **L2TP**, you will see the following settings. Your ISP will provide you with a username and password. This option is typically used for DSL services.

My Internet Connection: Select **L2TP (Username/Password)** from the drop-down menu.

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

L2TP IP Address: Enter the L2TP IP address supplied by your ISP (for static IP only).

L2TP Subnet Mask: Enter the subnet mask supplied by your ISP (for static IP only).

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

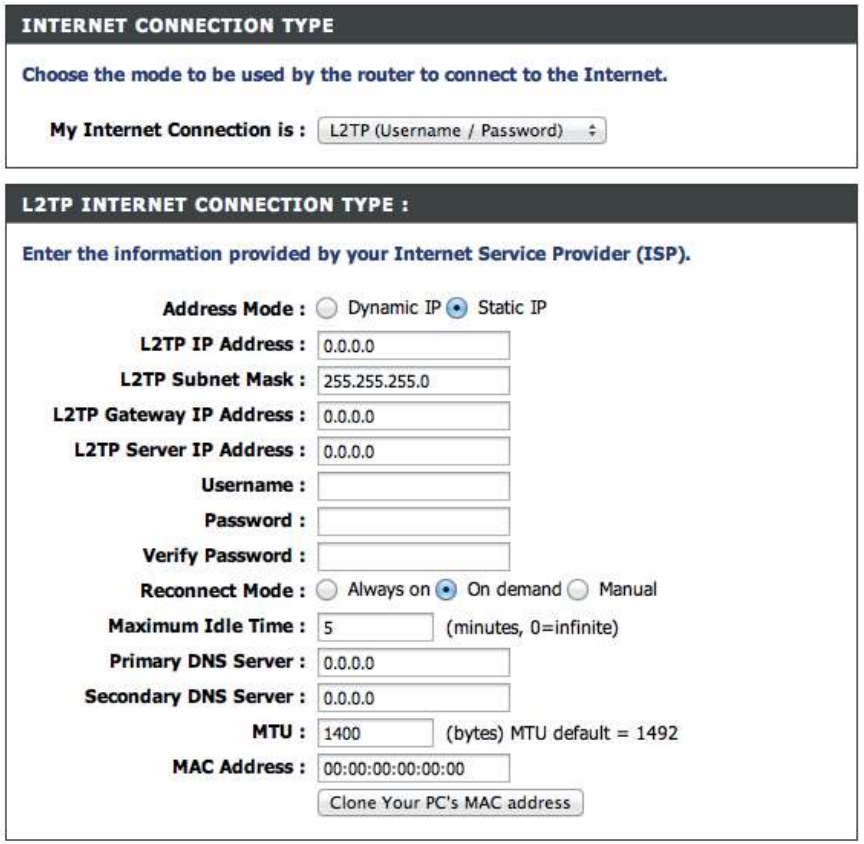
L2TP Server IP Address: Enter the server IP provided by your ISP (optional).

Username: Enter your L2TP username.

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

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

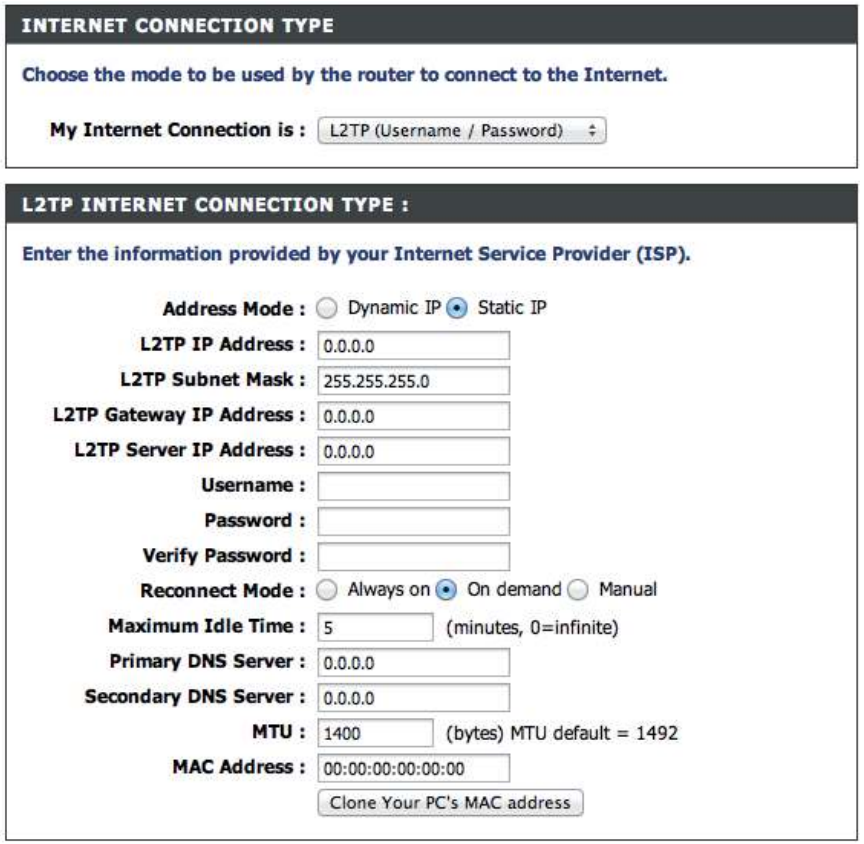
Maximum Idle Time: Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, set the **Reconnect Mode** to **Always on**.



Primary/ Secondary DNS Server: Enter the primary and secondary DNS server addresses (for static L2TP only).

MTU: If you experience connection issues, you may need to change the MTU setting for optimal performance with your specific ISP. 1492 is the default MTU.

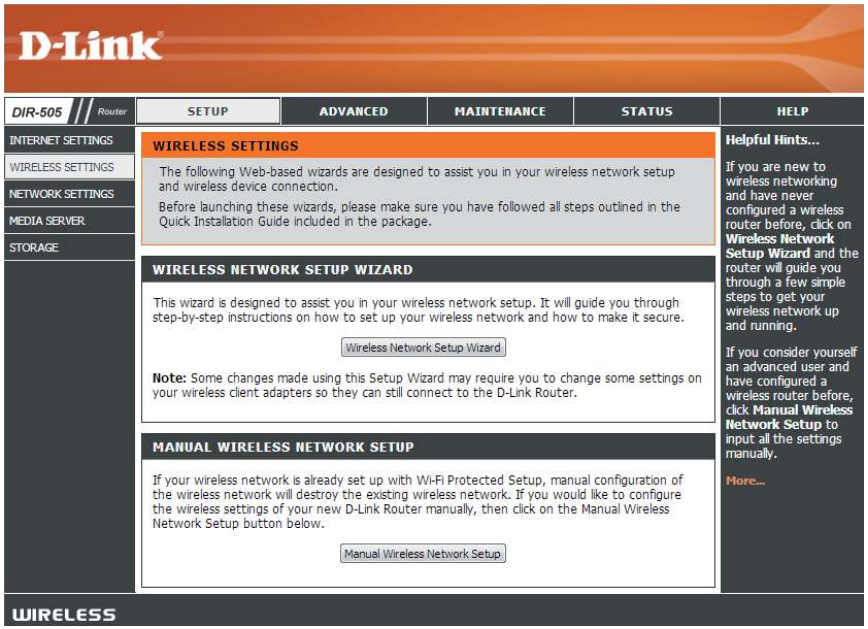
MAC Address: If your ISP requires you to enter a MAC address, fill it in here. You can click the **Clone MAC button** to enter your current computer's MAC address.



Wireless Settings

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

If you want to manually configure the wireless settings on your router click **Manual Wireless Network Setup** and refer to "Manual Wireless Network Configuration" on page 43.



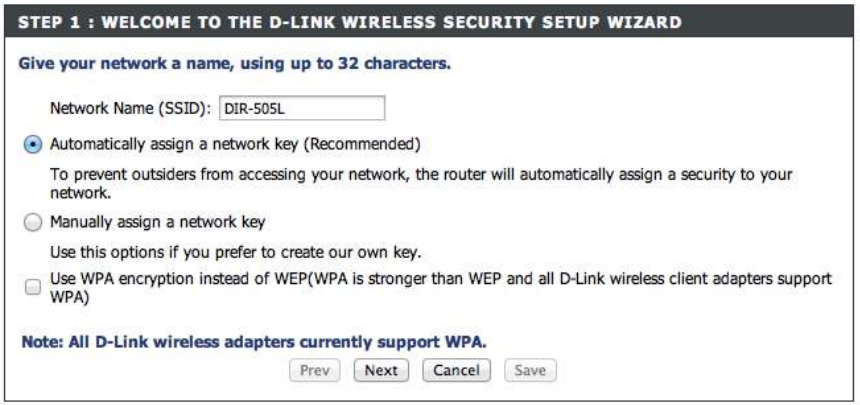
Wireless Network Setup Wizard

The Internet Connection Setup Wizard is designed to guide you through a step-by-step process to configure your wireless network.

Type your desired wireless network name (SSID) and choose from the following options:

Automatically assign a network key (Recommended): Select this option to automatically generate the router's network key and click **Next**.

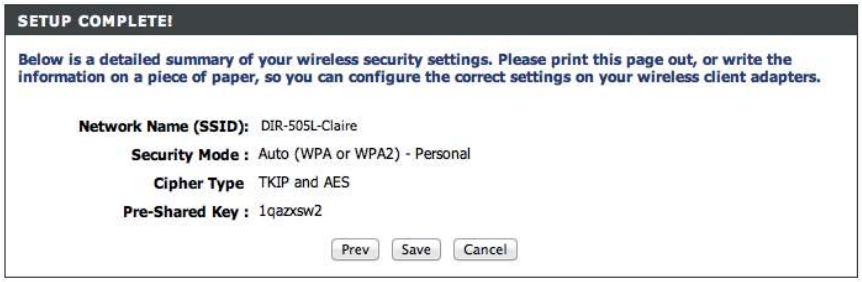
Manually assign a network key: Select this option to manually enter your network key and click **Next**.



It is also recommended that you tick the **Use WPA encryption instead of WEP** checkbox in order to give your wireless network the highest level of security.

If you selected **Manually assign a network key**, you will need to manually enter a password (network key) for your wireless network, and then click **Next**.

Wireless setup is now complete. Click **Save** to save your settings and complete the setup process.



Manual Wireless Network Configuration

If you clicked **Manual Wireless Network Setup** on the **Wireless Settings** page, you will see this screen. Here, you can configure the wireless network settings of the DIR-505. After making your changes, click the **Save Settings** button.

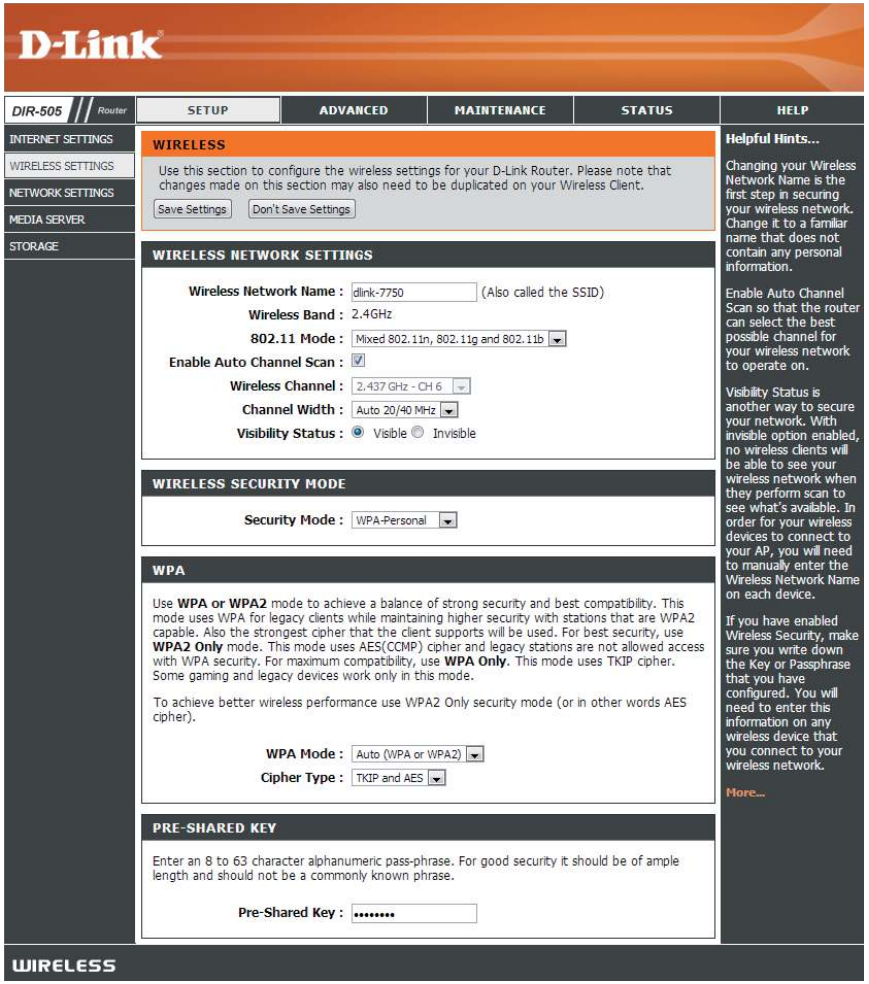
Wireless Network Name: When you are browsing for available wireless networks, this is the name that will appear in the list (unless Visibility Status is set to Invisible, see below). This name is also referred to as the SSID. For security purposes, it is highly recommended to change from the default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

802.11 Mode: Select one of the following based on your needs:

- **802.11b Only**: Select this if you are only using 802.11b wireless clients.
- **802.11g Only**: Select this if you are only using 802.11g wireless clients.
- **802.11n Only**: Select this if you are only using 802.11n wireless clients.
- **Mixed 802.11g and 802.11b:** Select this if you are using a mix of 802.11g and 11b wireless clients.
- **Mixed 802.11n and 802.11g**: Select this if you are using a mix of 802.11n and 11g wireless clients.
- **Mixed 802.11n, 802.11g and 802.11b**: Select this if you are using a mix of 802.11n, 11g, and 11b wireless clients.

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.

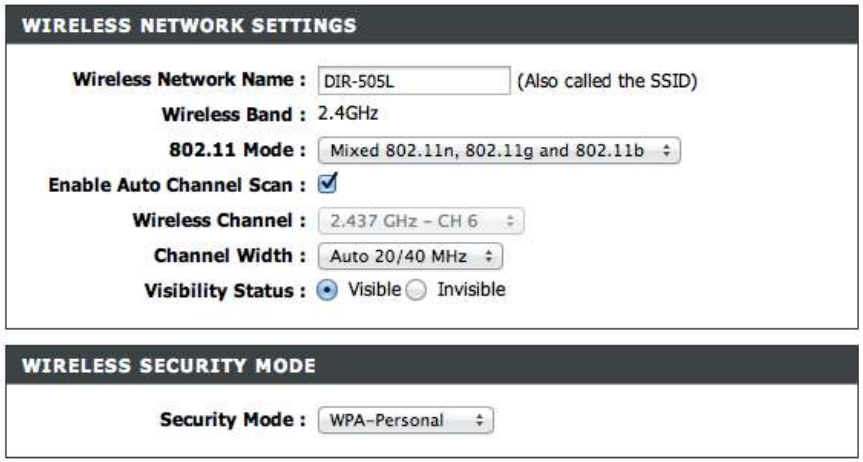
Wireless Channel: Indicates the channel setting for the DIR-505. The Channel can be changed to fit the channel setting for an existing wireless network or to customize the wireless network. If you enable Auto Channel Scan, this option will be grayed out.



Channel Width: Select whether to use **Auto 20/40 MHz** or **20 MHz** for the channel width. Normally, this should be left on **Auto 20/40 MHz**. If you are not using any 802.11n wireless clients, you can set this to **20 MHz**.

Visibility Status: This setting controls whether the router's wireless network name(SSID) will be broadcast so that wireless devices can scan for it. If you set it to **Invisible**, all wireless clients will need to enter the network name and security settings of your wireless network manually.

Wireless Security Mode: Here, you can select between **None**, **WEP**, **WPA-Personal**, and **WPA-Enterprise**. Refer to the following pages for details on configuring the different security modes.

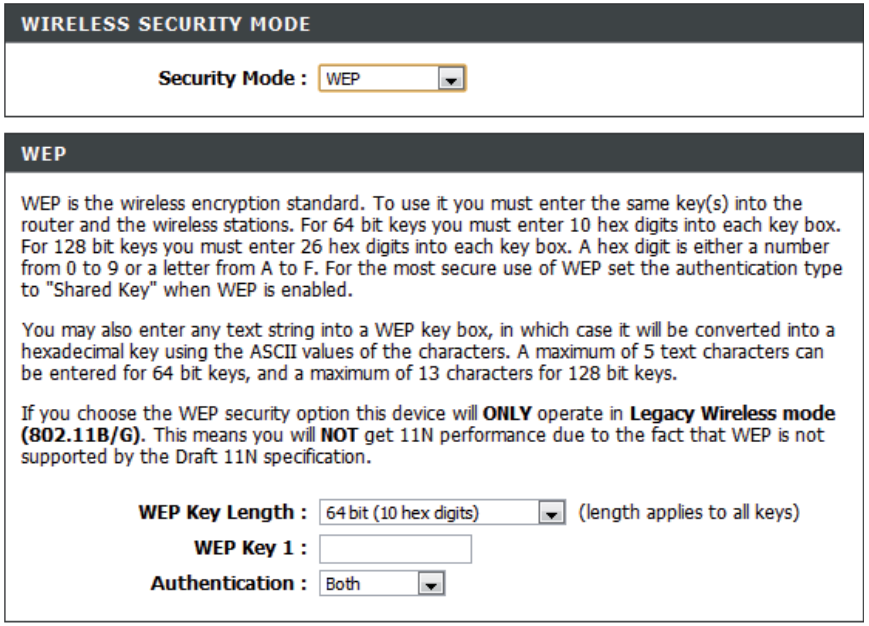


If you select **WEP** as your Security Mode:

WEP Key Length: Select an encryption level and key length to use. This will also set the type and length of the key you will need to enter.

WEP Key: Enter the password(key) for your wireless network. It will need to match the requirements for the WEP Key Length selected above.

Authentication: Choose what Authentication type to use.



If you select **WPA-Personal** as your Security Mode:

WPA Mode: Select whether to use **WPA**, **WPA2**, or both **WPA and WPA2** for your wireless network..

Cipher Type: Choose whether to use **TKIP**, **AES**, or both **TKIP and AES** ciphers for your wireless network.

Pre-Shared Key: Enter the password(key) for your wireless network.

If you select **WPA-Enterprise** as your Security Mode:

WPA Mode: Select whether to use **WPA**, **WPA2**, or both **WPA and WPA2** for your wireless network..

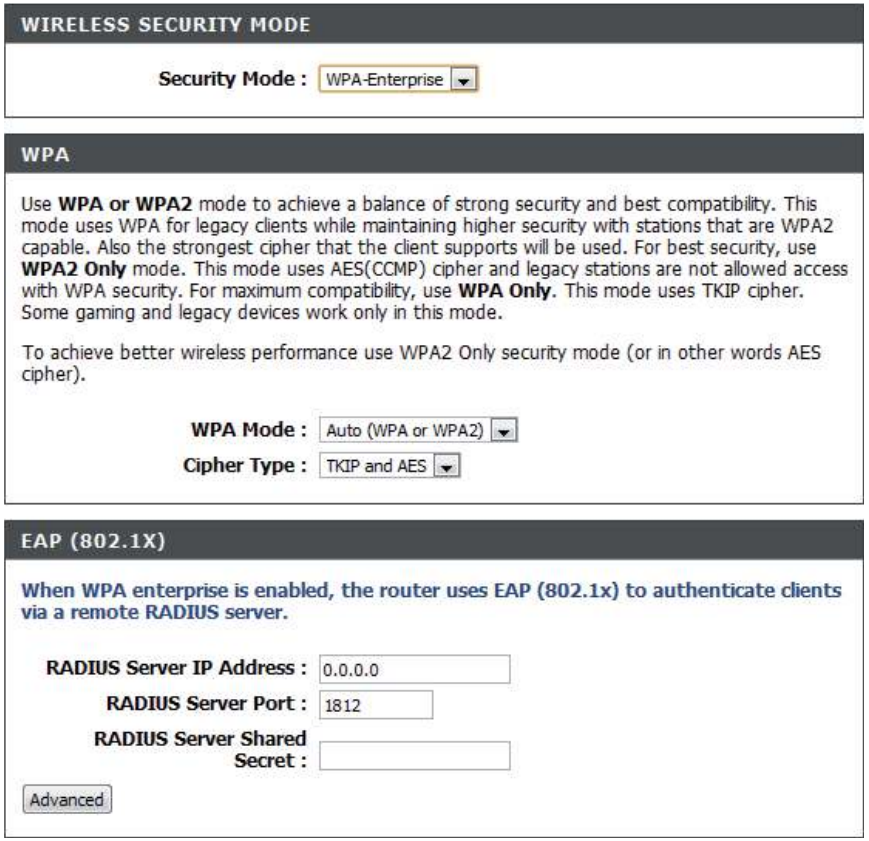
Cipher Type: Choose whether to use **TKIP**, **AES**, or both **TKIP and AES** ciphers for your wireless network.

Pre-Shared Key: Enter the password(key) for your wireless network.

RADIUS Server IP Address: Enter your RADIUS server IP address.

RADIUS Server Port: Enter your RADIUS server port.

RADIUS Server Shared Secret: Enter your 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. After making your changes, click the **Save Settings** button.

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.

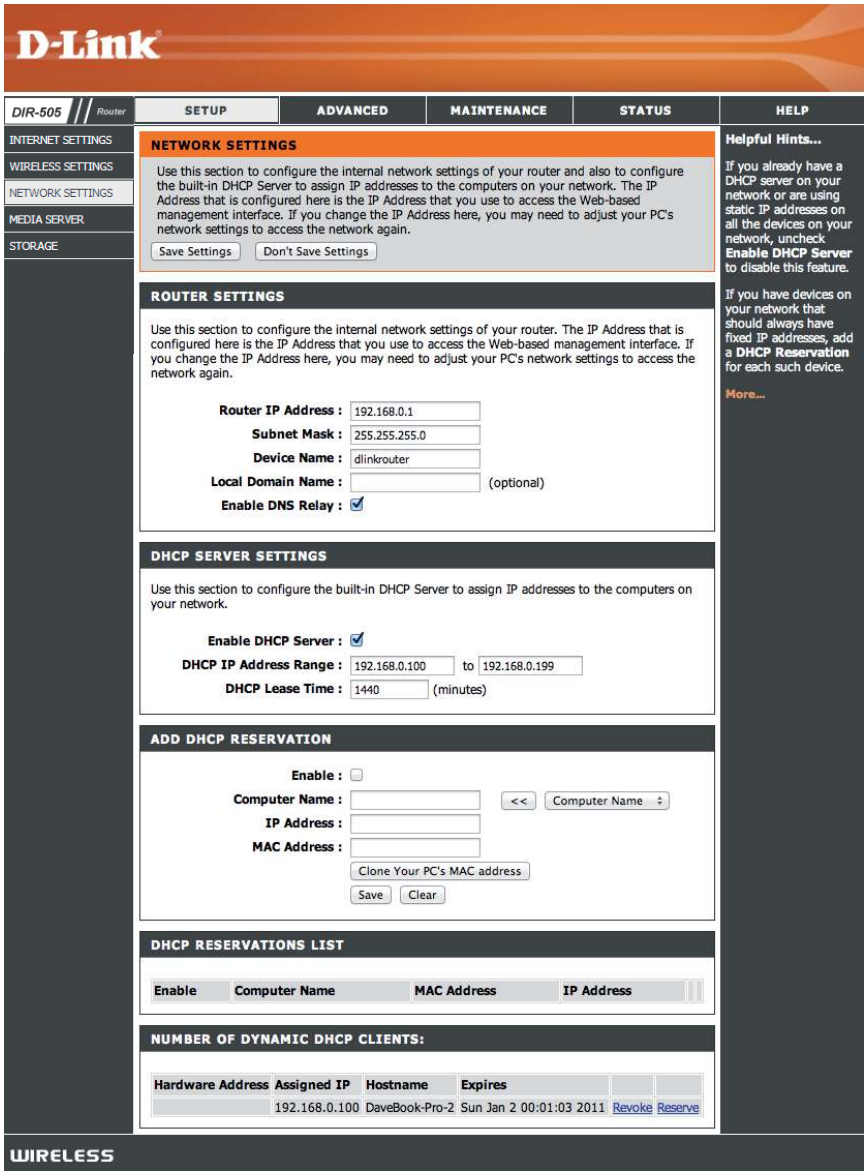
Subnet Mask: Enter the Subnet Mask. The default subnet mask is 255.255.255.0.

Device Name: Enter a name for the DIR-505.

Local Domain: Enter the Domain name (Optional).

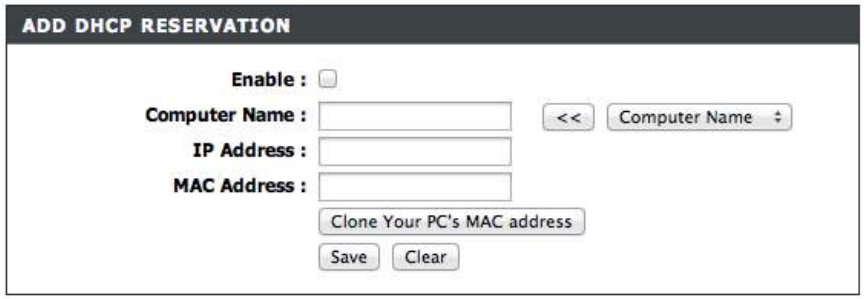
Enable DNS Relay: Uncheck the box to transfer the DNS server information from your ISP to your computers. If checked, your computers will use the router for a DNS server.

(Continued on the next page)



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.



Enable: Check this box to enable the reservation.

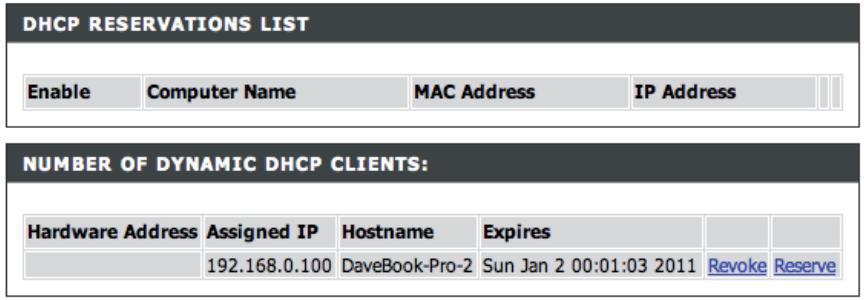
Computer Name: Enter a name for your computer. You can also use the dropdown box to select a currently connected computer, and automatically fill in your computer's information.

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: You can click this button to automatically add the MAC address of the computer that you are currently using.

Save: Click **Save** to save your DHCP reservation. You will still need to click **Save Settings** at the top of the screen to activate.



DHCP Reservations List: The list of DHCP reservations shows Computer Name, MAC Address, and IP address for each reservation.

Enable: Check to enable the reservation.

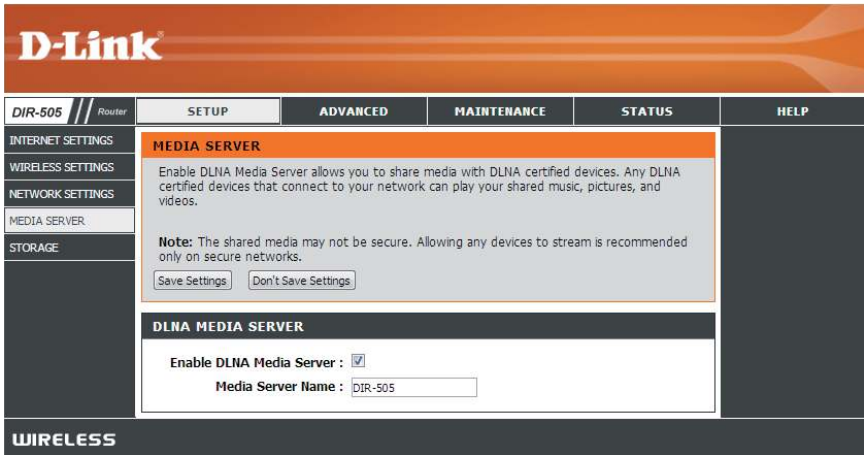
Number of Dynamic DHCP Clients: This section shows you all devices that have been assigned an IP address. You can click the **Revoke** link for a device to revoke its IP address, which will cut off the device's access to your network. You can also click the **Reserve** link to automatically fill in the **Add DHCP Reservation** form with that computer's information.

Media Server

This feature allows you to share music, pictures and videos with any devices connected to your network. After making your changes, click the **Save Settings** button.

Enable Media Server: Check to enable the DLNA Media Server function.

Computer Name: Choose a name for your DLNA media server so that it can be found.



Storage

This page will allow you to access files from a USB drive plugged into the DIR-505 from your local network or from the Internet using either a web browser or the **SharePort Mobile** app for your smartphone or tablet. You can create users to customize access rights to the files stored on the USB drive. After making your changes, click the **Save Settings** button.

Enable Shareport Web Access: Check this box to enable sharing files stored on a USB storage drive connected to the DIR-505.

HTTP Access Port: Enter a port to use for HTTP web access to your files (8181 is the default). You will have to add this port to the IP address of the DIR-505 when connecting. For example: http://192.168.0.1:8181

HTTPS Access Port: Enter a port to use for HTTPS secure access to your files (4433 is the default). You will have to add this port to the IP address of the DIR-505 when connecting. For example: https://192.168.0.1:4433

Allow Remote Access: Check to enable remote access to your router's storage.

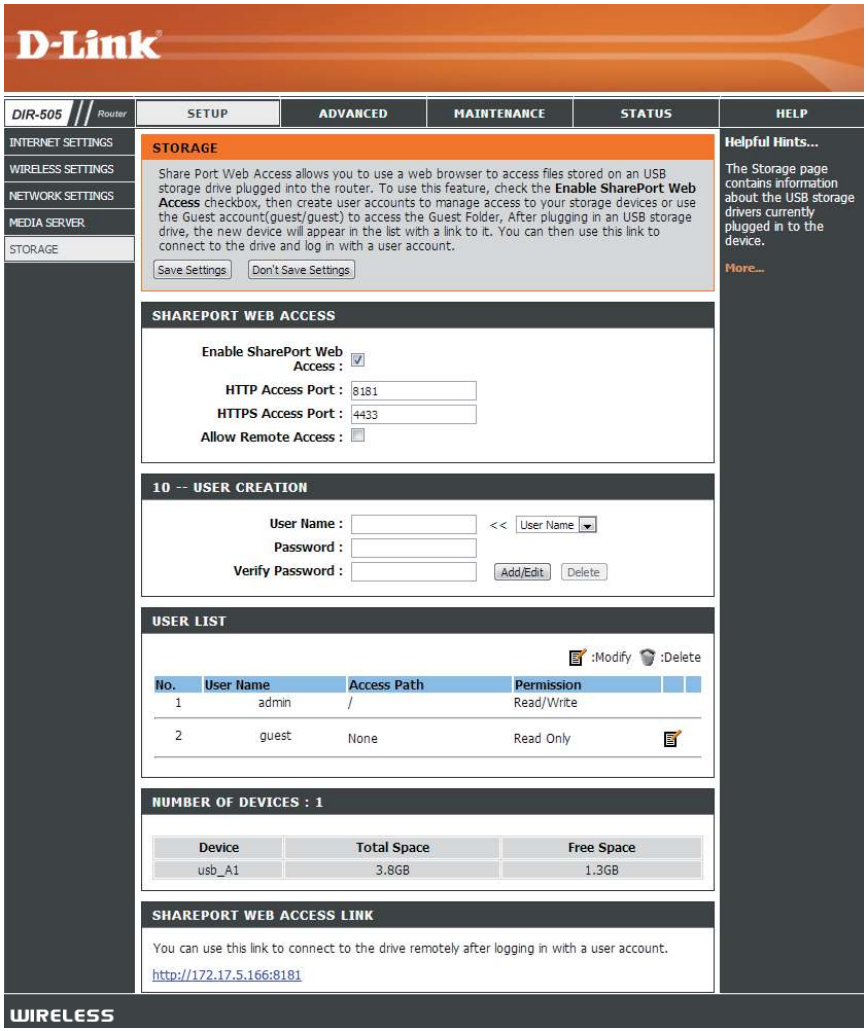
User Name: To create a new user, enter a user name. To edit an existing user, use the dropdown box to the right.

Password/Verify Password: Enter a password for the account and re-enter to verfiy in the **Verify Password** text box, then click **Add/Edit** to save your changes.

User List: This section shows existing user accounts. There are **admin** and **guest** accounts by default.

Number of Devices: This section shows you information about the USB storage device plugged into the router.

SharePort Web Access Link: This will give you a direct link to the web access interface that you can click on or copy and paste.



Advanced
Virtual Server

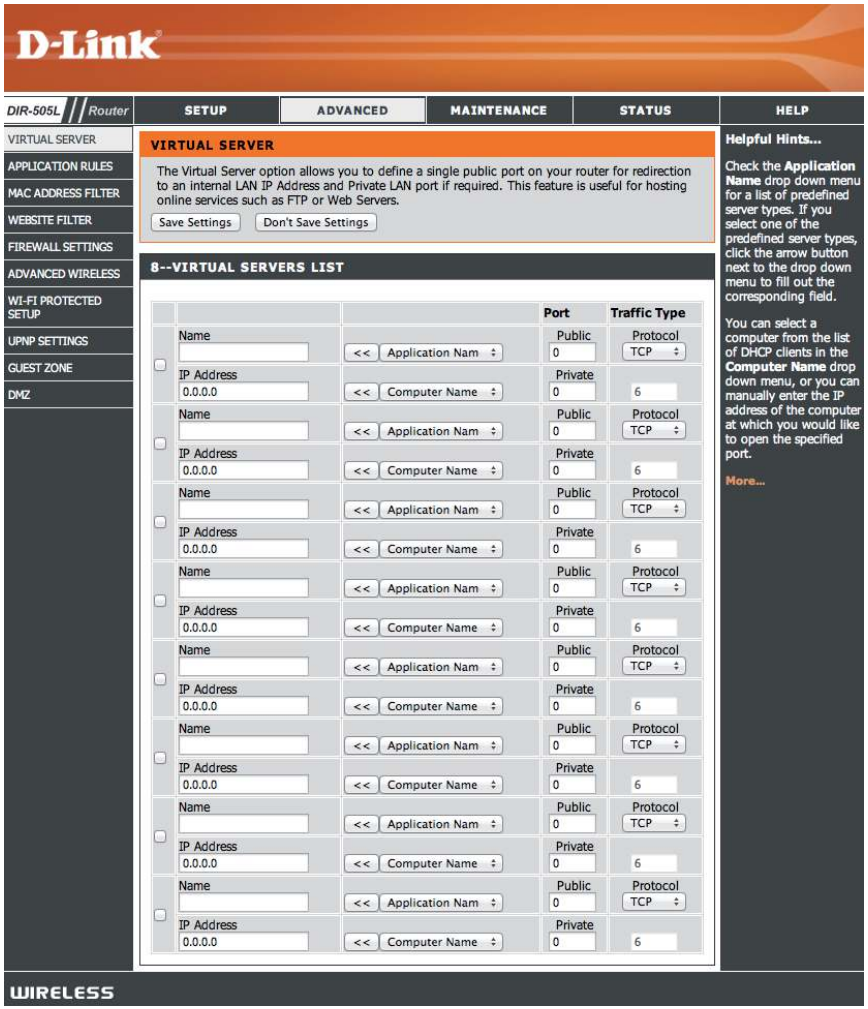
This will allow you to open a single port. If you would like to open a range of ports, refer to "Application Rules" on page 52. After making your changes, click the **Save Settings** button.

Name: Enter a name for the rule or select an application from the drop-down menu and click << to automatically fill in the rule with the default settings for that application.

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 the << button to automatically fill in the IP address.

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.



Application Rules

Some applications may require multiple connections, such as Internet gaming, video conferencing, and VoIP calls over the Internet. These applications may have difficulty working through NAT (Network Address Translation). Application Rules allow 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 the application in the **Trigger Port** setting, 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. After making your changes, click the **Save Settings** button.

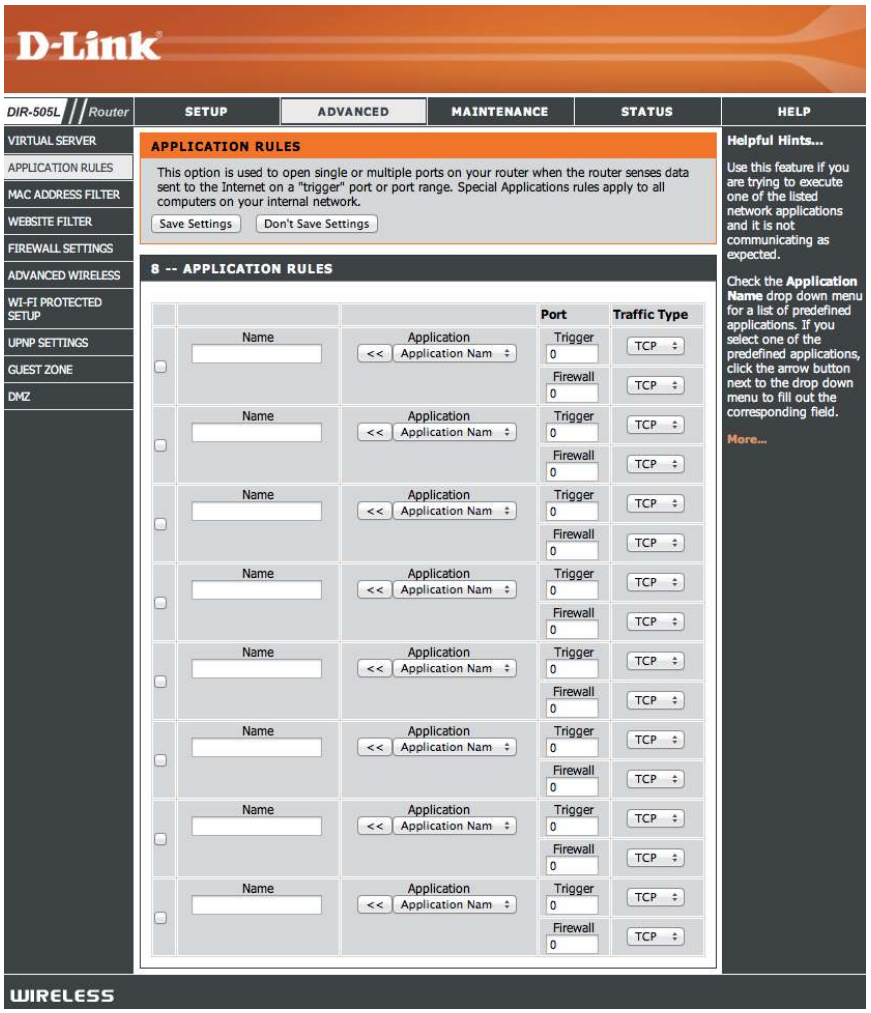
Name: Enter a name for the rule or select an application from the drop-down menu and click << to automatically fill in the rule with the default settings for that application.

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).



MAC Address Filter

Use MAC (Media Access Control) Filters to control access to your network based on the MAC addresses of connected clients. You can set MAC address filtering to only allow the listed MAC addresses to connect, or block access to all listed MAC addresses. After making your changes, click the **Save Settings** button.

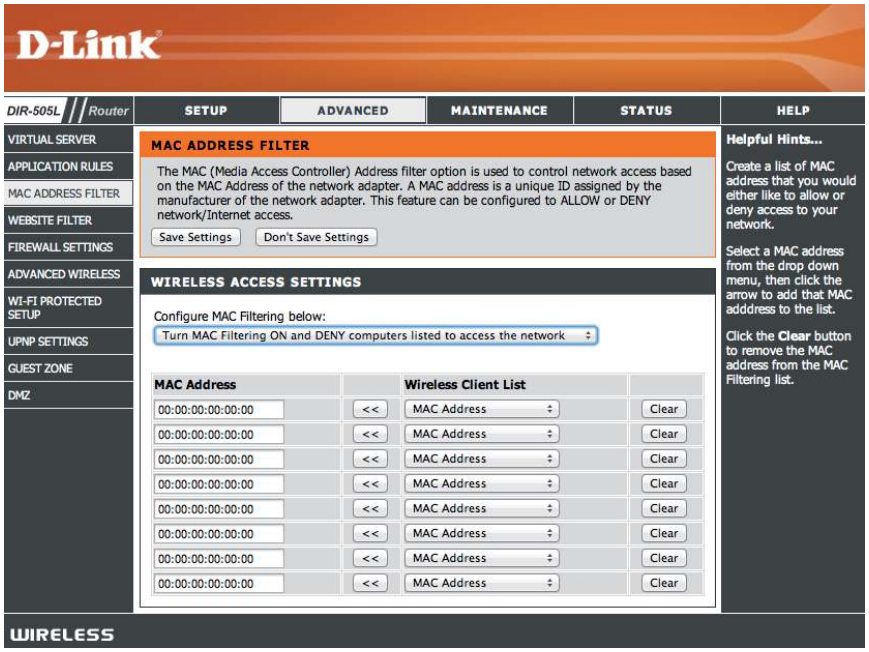
Wireless Access Settings: Configure how MAC filtering works by using the dropdown box to select an option:

Turn MAC Filtering OFF: This disables MAC filtering.

Turn MAC Filtering ON and ALLOW computers listed to access the network: When this option is selected, only PCs and devices with MAC addresses in the MAC Address List are granted network access. All other devices will be blocked.

Turn MAC Filtering ON and DENY computers listed to access the network: When this option is selected, all PCs and devices with MAC addresses in the MAC Address List will be refused access to your network. All other devices will be allowed access.

MAC Address: Enter the MAC addresses you would like to filter. You can select a client currently connected to your access point from the **Wireless Client List** drop-down menu and then click the corresponding << button fill in the MAC address automatically. Click the Clear button to remove any entered MAC address.



Website Filters

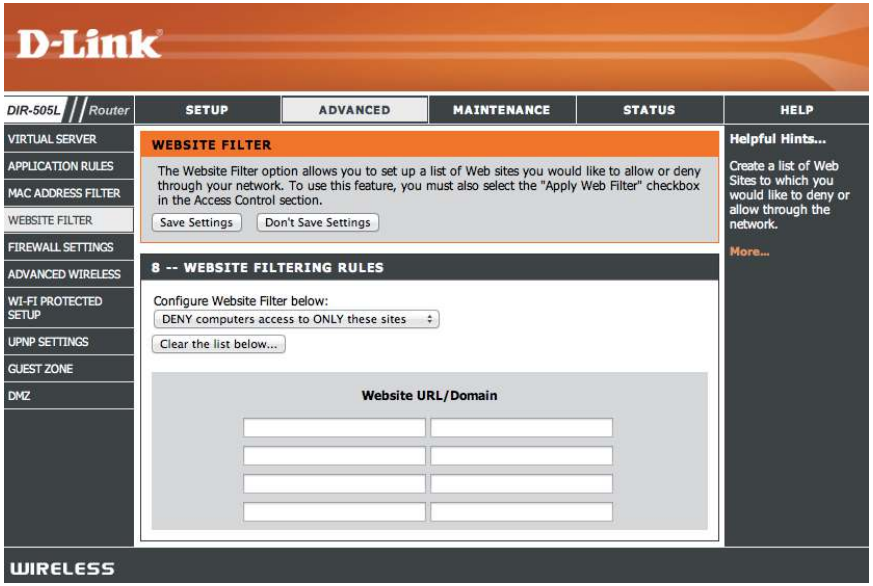
Website Filters are used to allow you to set up a list of websites to either allow or block access to. After making your changes, click the **Save Settings** button.

Website Filtering Rules: Configure how website filtering works by using the dropdown box to select an option:

DENY computers access to ONLY these sites: When this option is selected, all PCs and devices on your network will be blocked access to the websites specified All other websites will be allowed access.

ALLOW computers access to ONLY these sites: When this option is selected, all PCs and devices on your network will only be allowed to access to the websites specified. All other websites will be blocked.

Website URL/ Domain: Enter the websites you want to block or allow in the text boxes. Any website address that contains the text entered will be blocked.

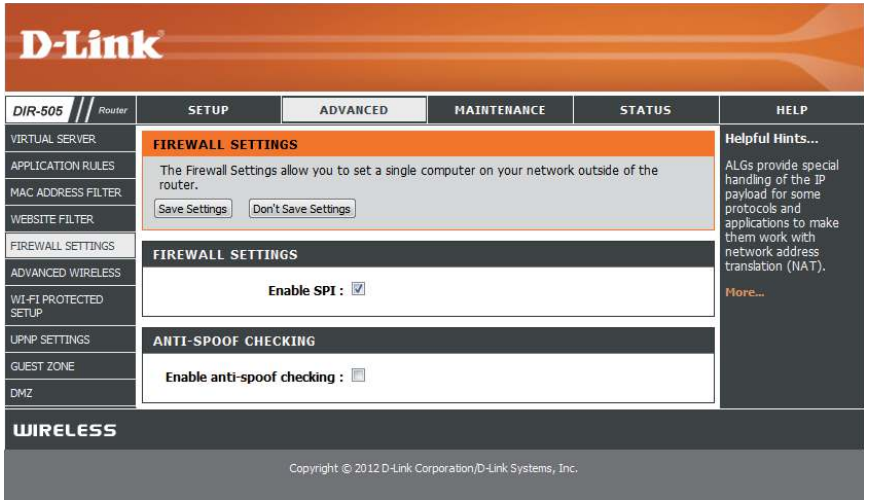


Firewall Settings

Enabling the SPI firewall and anti-spoof checking helps protect against attacks over the Internet. In some cases, you may want to disable them if you are having problems getting certain applications to work. After making your changes, click the **Save Settings** button.

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.



Advanced Wireless

This screen allows you to set various advanced wireless settings of your DIR-505. Unless you are experiencing specific problems, it is recommended that you leave these settings at their default values. After making your changes, click the **Save Settings** button.

Transmit Power: Use the dropdown box to set the transmit power of the antennas.

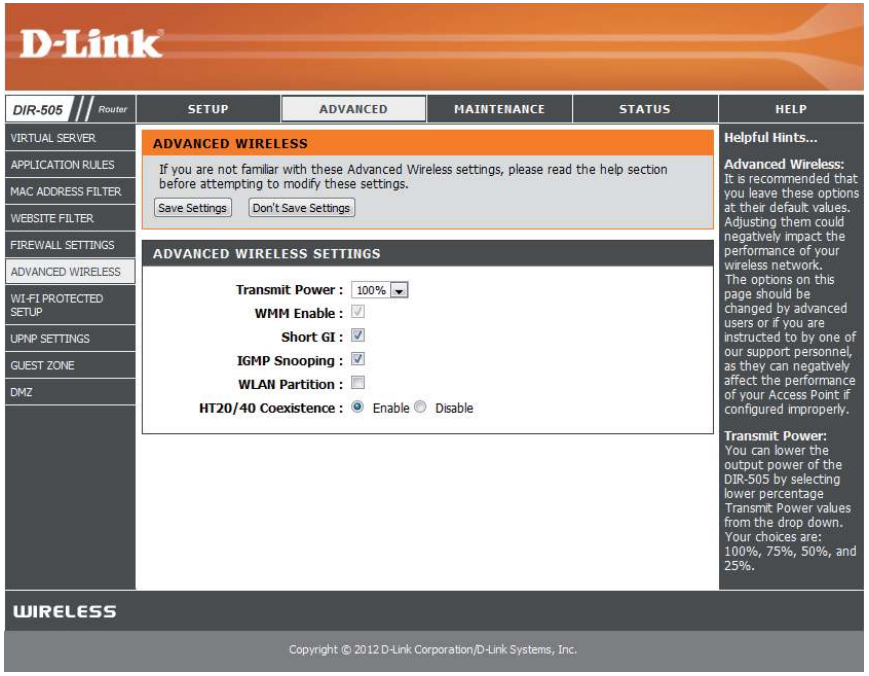
WMM Enable: WMM is Quality of Service(QoS) for your wireless network. This will improve the quality of video and voice applications for your wireless clients.

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

IGMP Snooping: Tick this checkbox 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.

HT 20/40 Coexistence: Enable this option to reduce interference from other wireless networks in your area. If the channel width is operating at 40MHz and there is another wireless network's channel over-lapping and causing interference, the router will automatically change to 20MHz.



Wi-Fi Protected Setup (WPS)

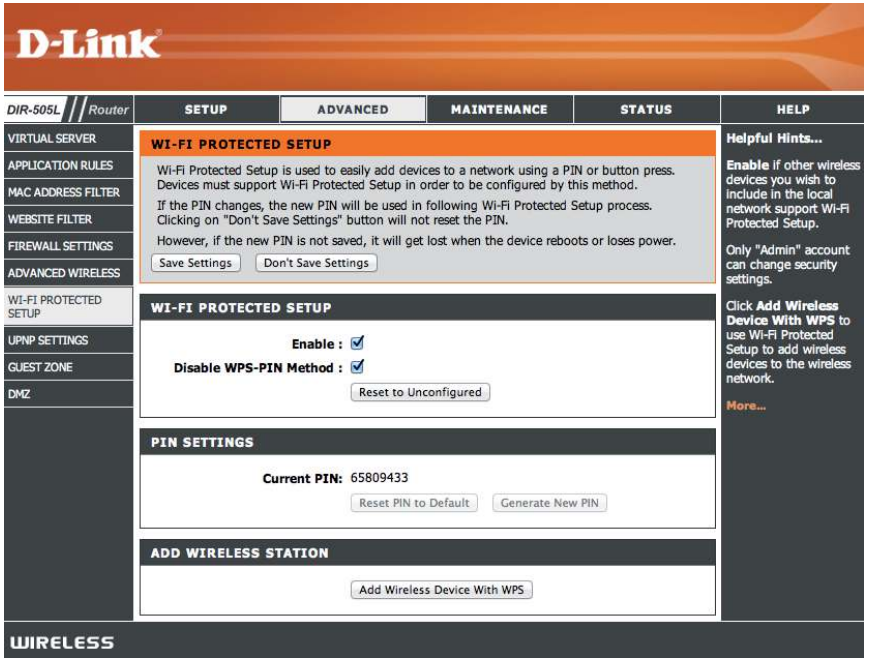
Wi-Fi Protected Setup (WPS) System is a simplified way to set up the basic settings of the DIR-505. It can also be used to automatically create a secure wireless connection to a wireless client. After making your changes, click the **Save Settings** button.

Enable: Check this box to enable the WPS functions of the DIR-505.

Disable WPS PIN Method: Disabling this will disable the WPS PIN method of connection and configuration. If you want to reconfigure the router using the WPS PIN method, click on the **Reset to Unconfigured** button. You will still be able to add wireless clients through WPS.

PIN Settings: Shows the router's current PIN. You can reset it to the default value by clicking on the **Reset PIN to Default** button, or you can create a new PIN number by clicking on the **Generate New PIN** button.

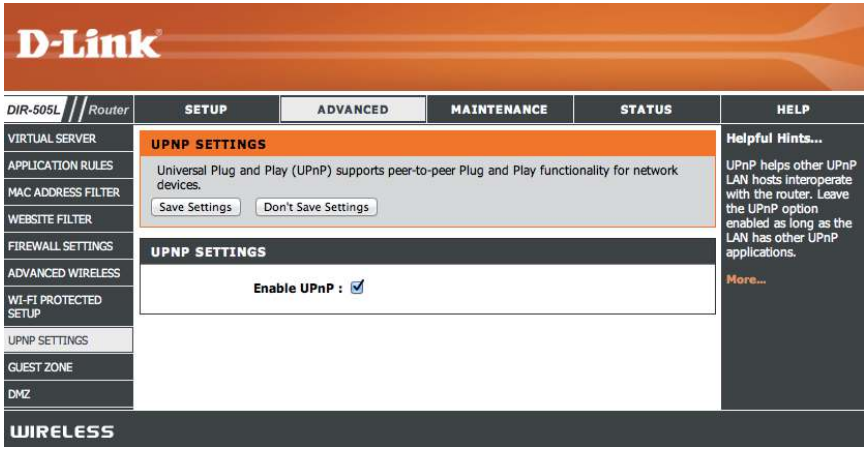
Add Wireless Station: Here, you can click on the **Add Wireless Device With WPS** button to go through a wizard that helps you connect other devices through WPS.



UPnP Settings

This page allows you to enable UPnP, which can help provide compatibility with some networking equipment, software, and peripherals. After making your changes, click the **Save Settings** button.

Enable UPnP: To use the Universal Plug and Play (UPnP™) feature tick the **Enabled** checkbox.



Guest Zone

The Guest Zone feature will allow you to create a separate wireless network that can be used by guests to access the Internet. These zones will be separate from your main wireless network, allowing you to share Internet access without allowing them to connect to your own devices. After making your changes, click the **Save Settings** button.

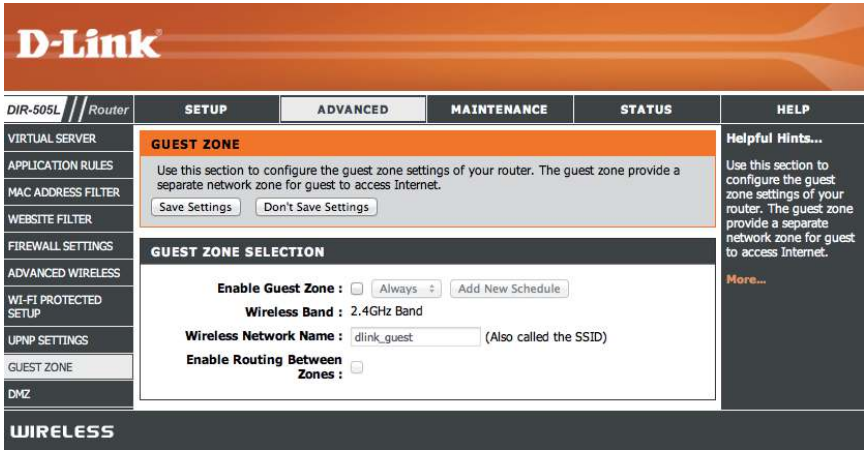
Enable Guest Zone: Check this box to enable the Guest Zone feature.

Add New Schedule: Select when the Guest Zone will be active. The schedule may be set to **Always**, which will allow the Guest Zone to be on at all times. You can select a schedule you created, or you can click the **Add New Schedule** button to create a schedule.

Wireless Network Name: Enter a wireless network name (SSID) for your guest zone. It should be different than the network name of your main wireless network.

Enable Routing Between Zones: Check to allow network connectivity between the Guest Zone and your main network.

Security Mode: Here, you can select between **None**, **WEP**, **WPA-Personal**, and **WPA-Enterprise**.

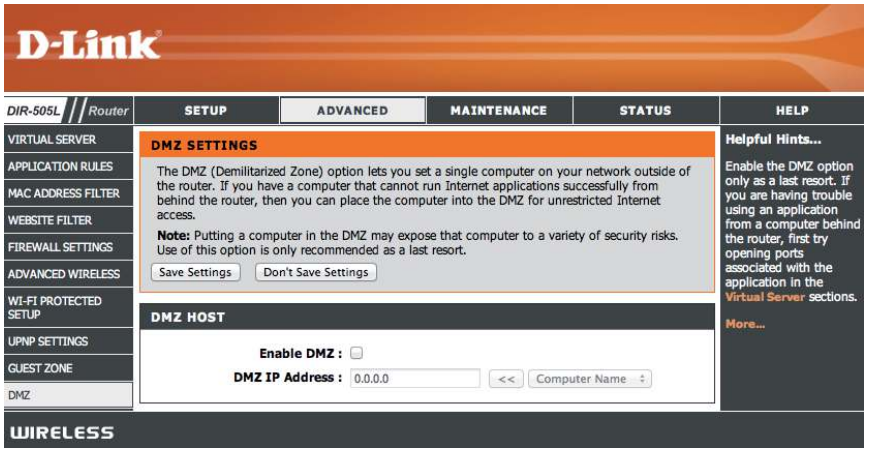


DMZ

Enabling DMZ allows you to set a single PC or network device to "be exposed" outside of the router and have unrestricted Internet access. It is not recommended for normal use, and should only be used if you need this feature for a specific reason. After making your changes, click the **Save Settings** button.

Enable DMZ: Check the box to enable DMZ.

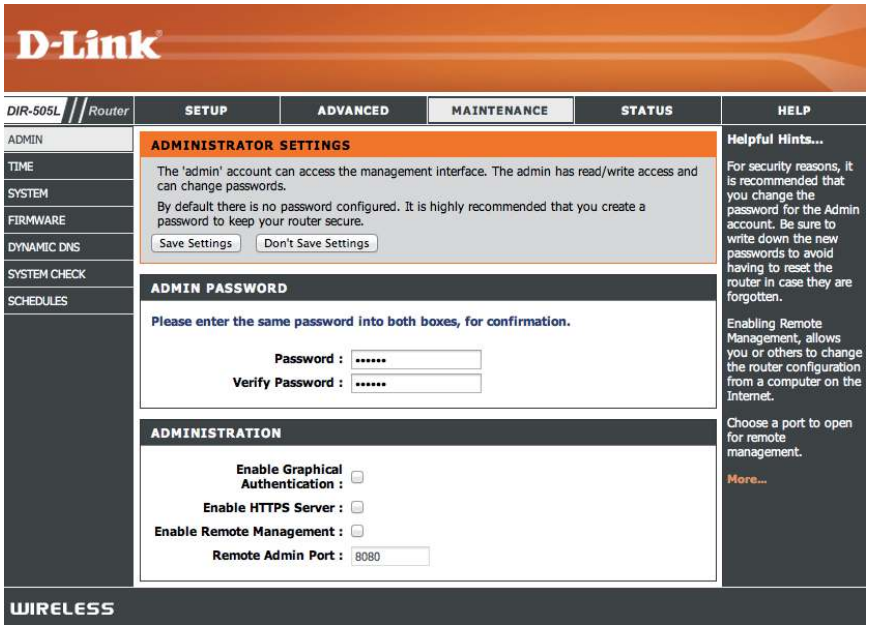
DMZ IP Address: Enter the IP address of the device on your network you want to place in the DMZ. You can use the dropdown box to select a device, then click the **<<** button to automatically fill in the IP address of that device.



Maintenance

Admin

This page will allow you to change the password for the administrator account for configuring the settings of the DIR-505. You can also turn on graphical authentication(CAPTCHA) on this page. After making your changes, click the **Save Settings** button.



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

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

Enable Graphical Authentication: Check to enable Graphical Authentication, or CAPTCHAs when logging in to the web UI of the DIR-505. This provides an extra layer of security by requiring you to enter a code that is displayed on-screen.

Enable HTTPS Server: Check to enable HTTPS when connecting to the router for configuration. When enabled, you will need to enter **https://** to connect to the DIR-505. For example: **https://dlinkrouter.local.**.

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

Remote Admin Port: This is the port that will be used to access the DIR-505 configuration interface when using remote management. You will need to add this port number after the IP address.

Example: **http://x.x.x.x:8080** where x.x.x.x is the IP address of the DIR-505 and 8080 is the remote admin port.

Time

The Time page 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. After making your changes, click the **Save Settings** button.

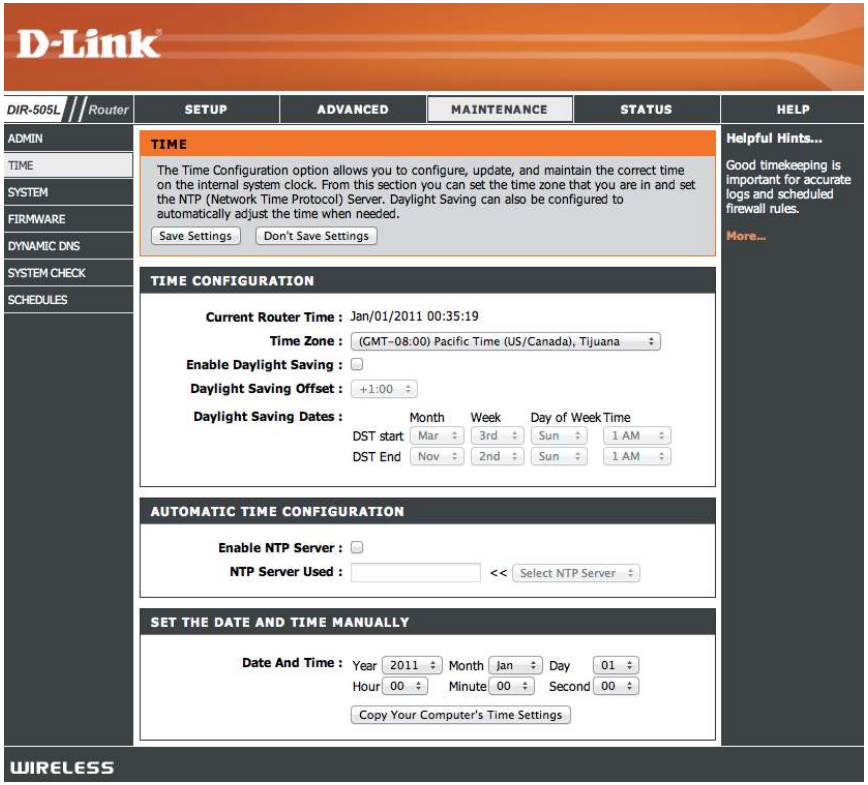
Time Zone: Select the Time Zone from the drop-down menu.

Enable 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.



System

This page allows you to save and restore your configuration, reset and reboot the DIR-505, and remove any added language packs.

Save Settings To Local Hard Drive: Clicking the **Save** button will allow you to save the current repeater configuration settings to a file on the hard disk of the computer you are using. You will then see a file dialog where you can select a location and file name for the settings.

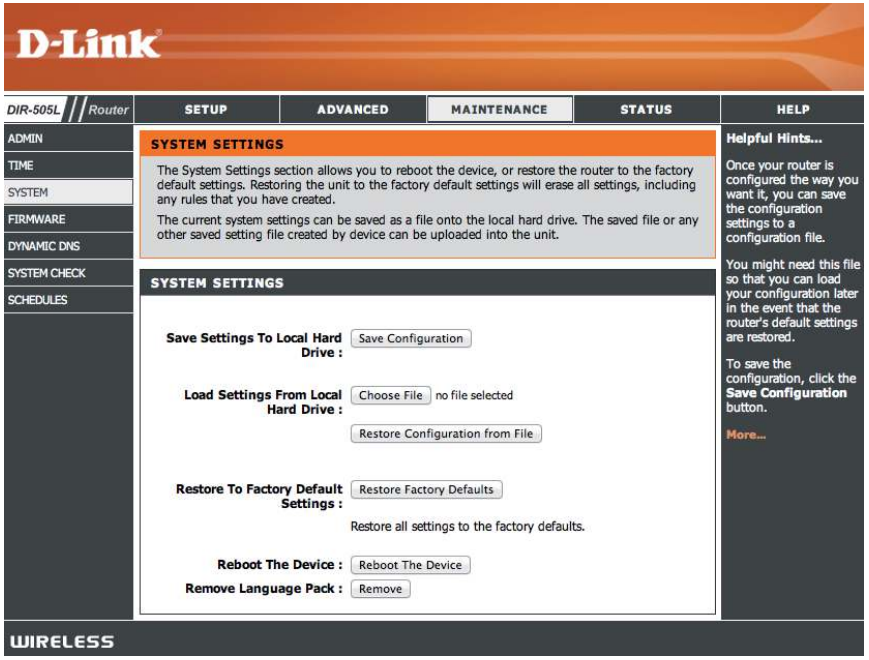
Load Settings From Local Hard Drive: Use this option to load previously saved configuration settings. Click **Browse** to find a previously saved configuration file. Then, click the **Upload Settings** button to transfer those settings to the DIR-505.

Restore to Factory Default Settings: This option will restore all configuration settings back to the factory default settings. Any settings that have not been saved will be lost, including any rules that you have created. If you want to save your current 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 the **Reboot** button to reboot the repeater.

Remove Language Pack: If you have previously installed a Language Pack, you can remove it by clicking the Remove button.



Firmware

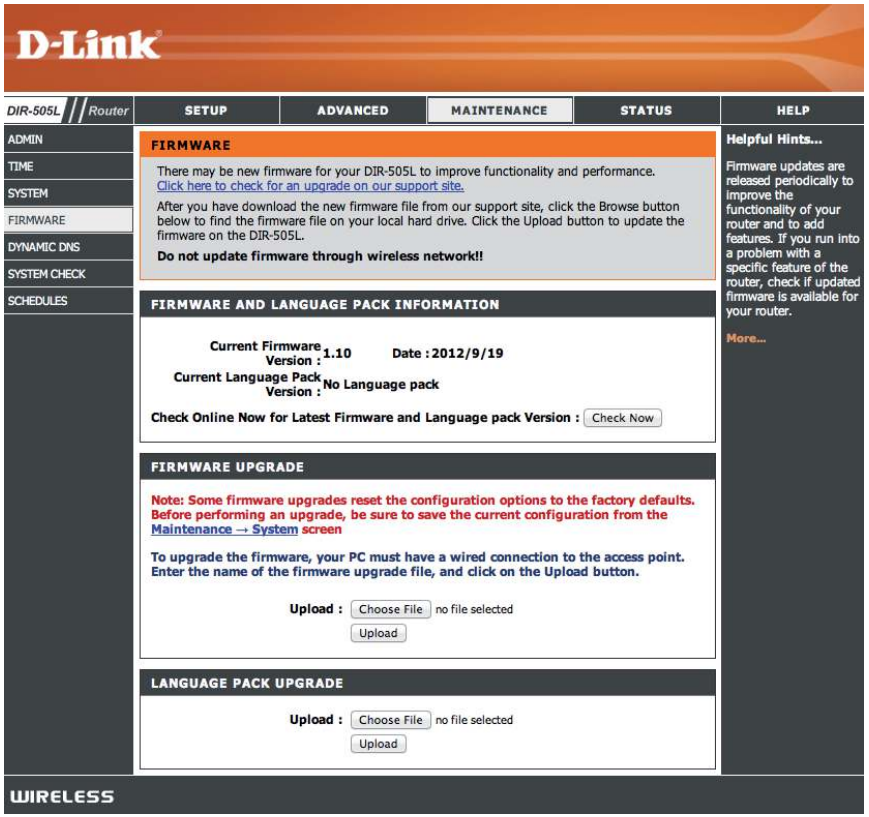
You can upgrade the firmware of the DIR-505 here. Make sure the firmware you want to use is on the local hard drive of the computer. Click on **Browse** to locate the firmware file to be used for the update. Please check the D-Link support website for firmware updates at **http://support.dlink.com**. 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.

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. Do not disconnect from the DIR-505 or power your computer or DIR-505 off during the upgrade process.

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

Browse: Download a language pack from the D-Link website. 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.



Dynamic DNS

The DDNS feature allows you to host a server (Web, FTP, Game Server, etc…) behind your DIR-505 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. After making your changes, click the **Save Settings** button.

Enable Dynamic DNS: Check the box to enable DDNS.

Server Address: Enter the DDNS server address, or select your DDNS service from the drop-down menu and click the << button to automatically fill in the address for the DDNS service.

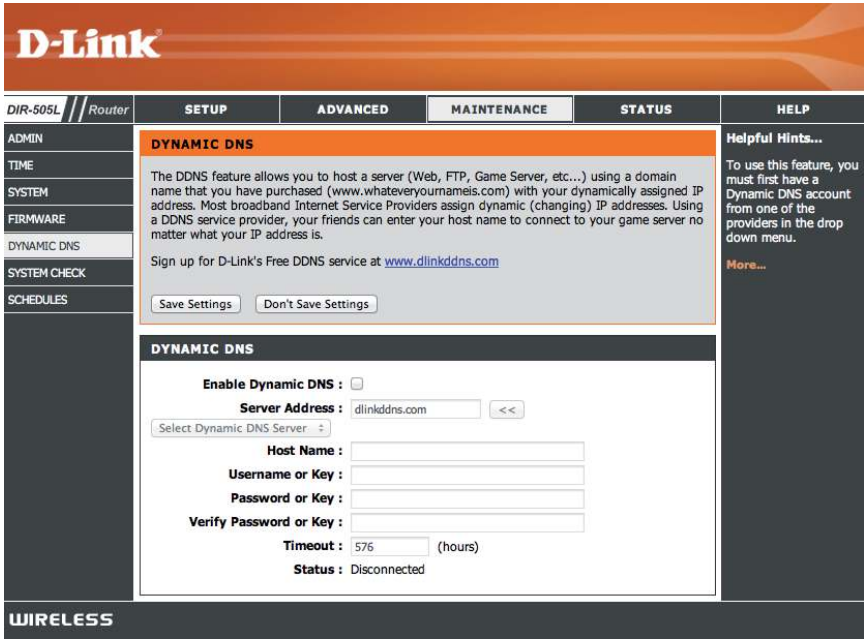
Host Name: Enter the Host Name that you registered with your DDNS service provider.

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: This displays the DDNS server update status.

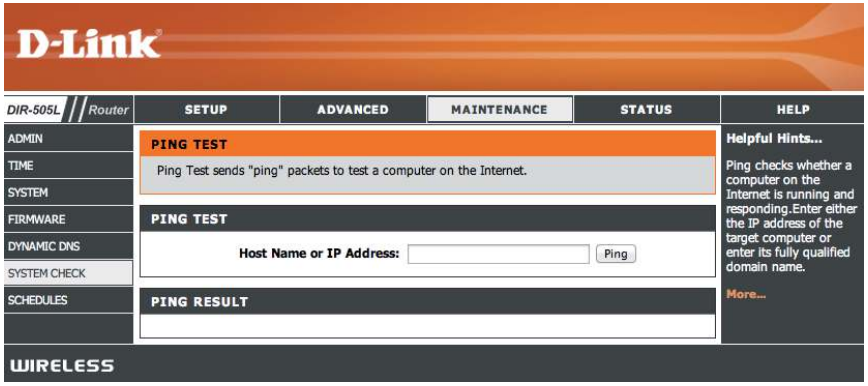


System Check

This page allows you to run a ping test to check your Internet connectivity.

Ping Test: The Ping Test is used to send ping packets to test if your DIR-505 is connected to the Internet. Enter the IP address that you wish to ping and click the **Ping** button.

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



Schedules

You can create schedules for use with some of the features of the DIR-505, which will allow those features to be active during certain times of the day or week.

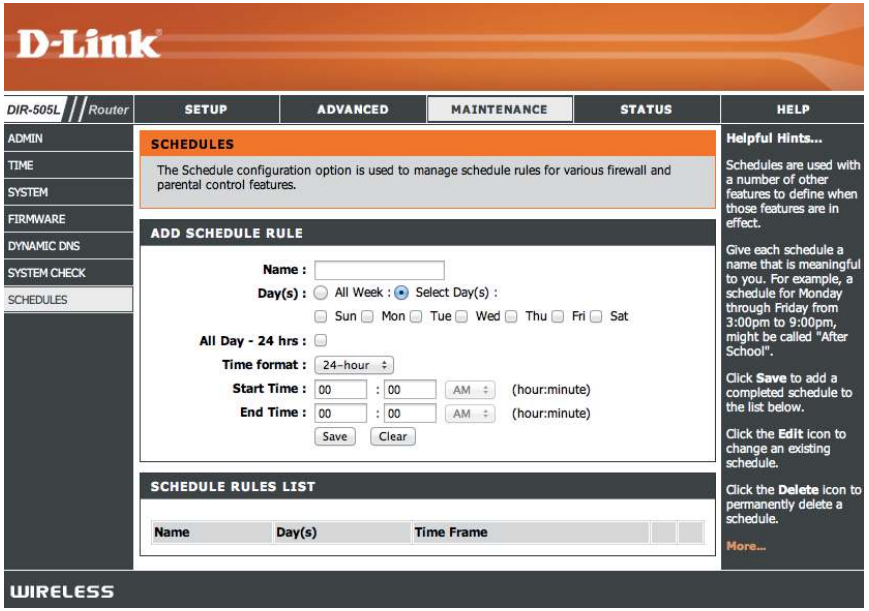
Name: Enter a name for your new schedule.

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

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

Save: After entering the details of your schedule, click the **Save** button to save your changes.

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



Status

Device Info

This page displays the current information for the DIR-505. It will display the LAN and wireless LAN information.

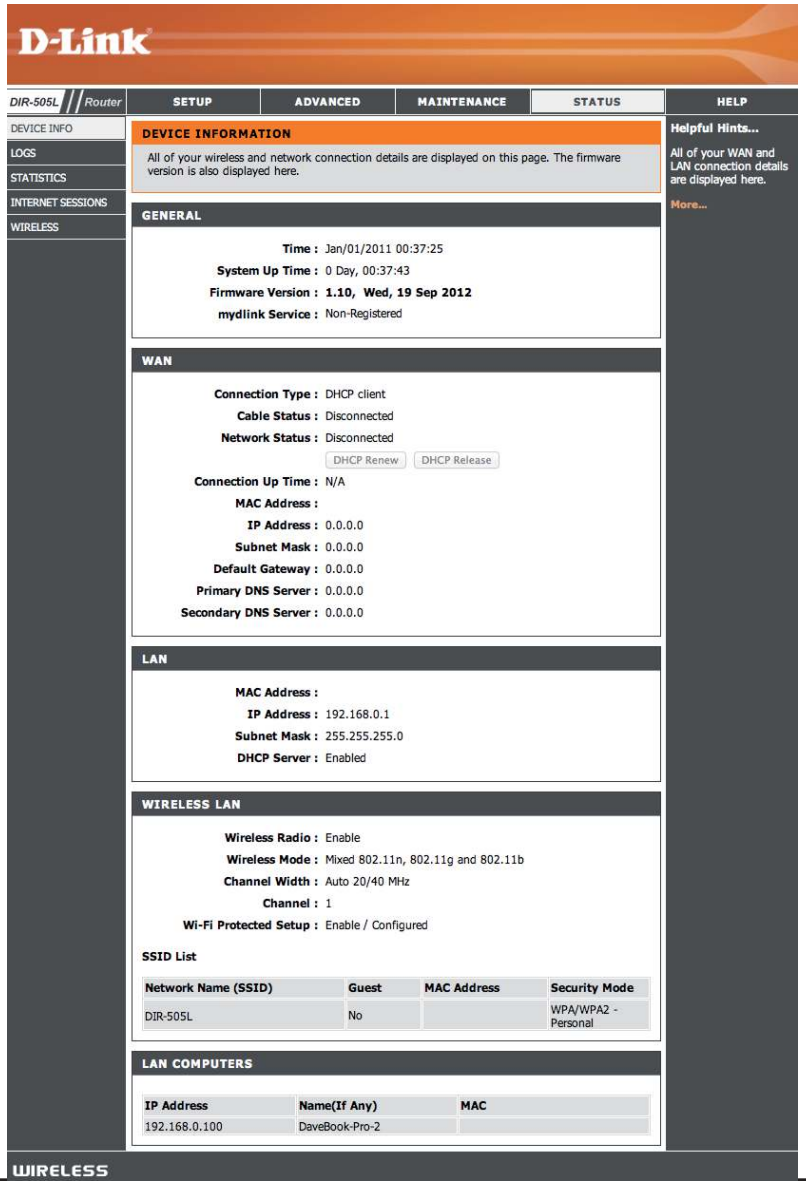
General: Displays the time and firmware version.

WAN Displays information about the connection to your modem or Internet connection.

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.

LAN Computers: Displays information about the devices on your local network.



Logs

The DIR-505 keeps a running log of events and activities occurring on the DIR-505. If the DIR-505 is rebooted, the logs are automatically cleared.

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

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

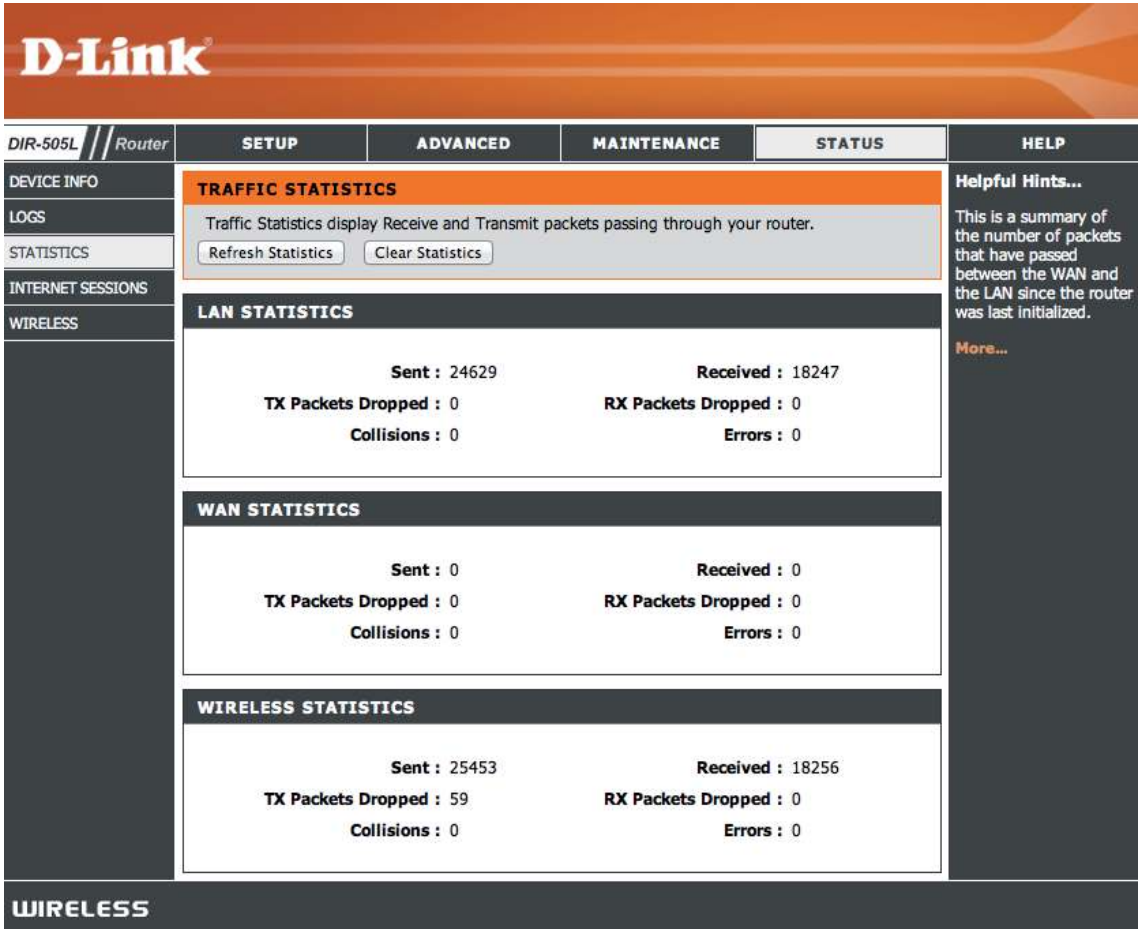
Clear: This button clears all current log content.

Save Log: This button opens dialog where you can save the current log to your hard drive.

Refresh: This button refreshes the log.

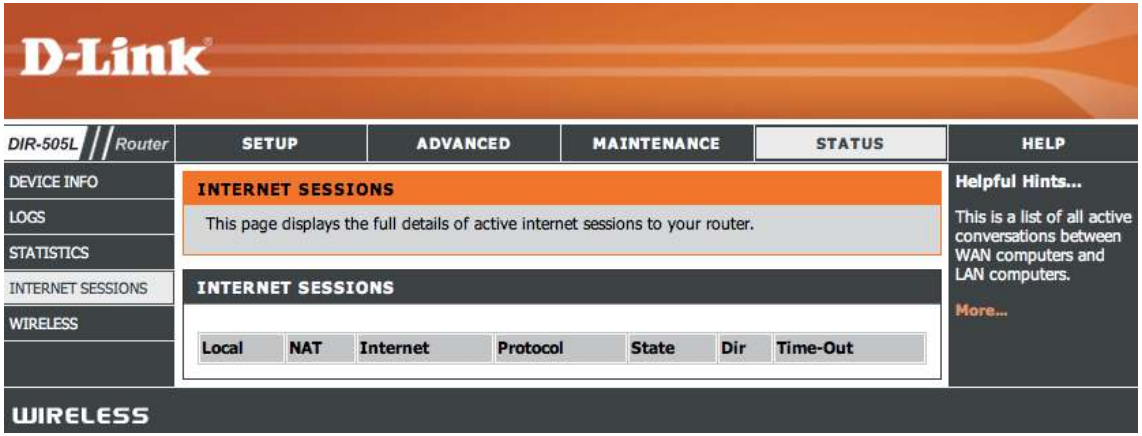
Statistics

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. Click the **Refresh Statistics** button to update the information, or click the **Clear Statistics** button to reset all statistics. The traffic counter will reset if the DIR-505 is rebooted.



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.

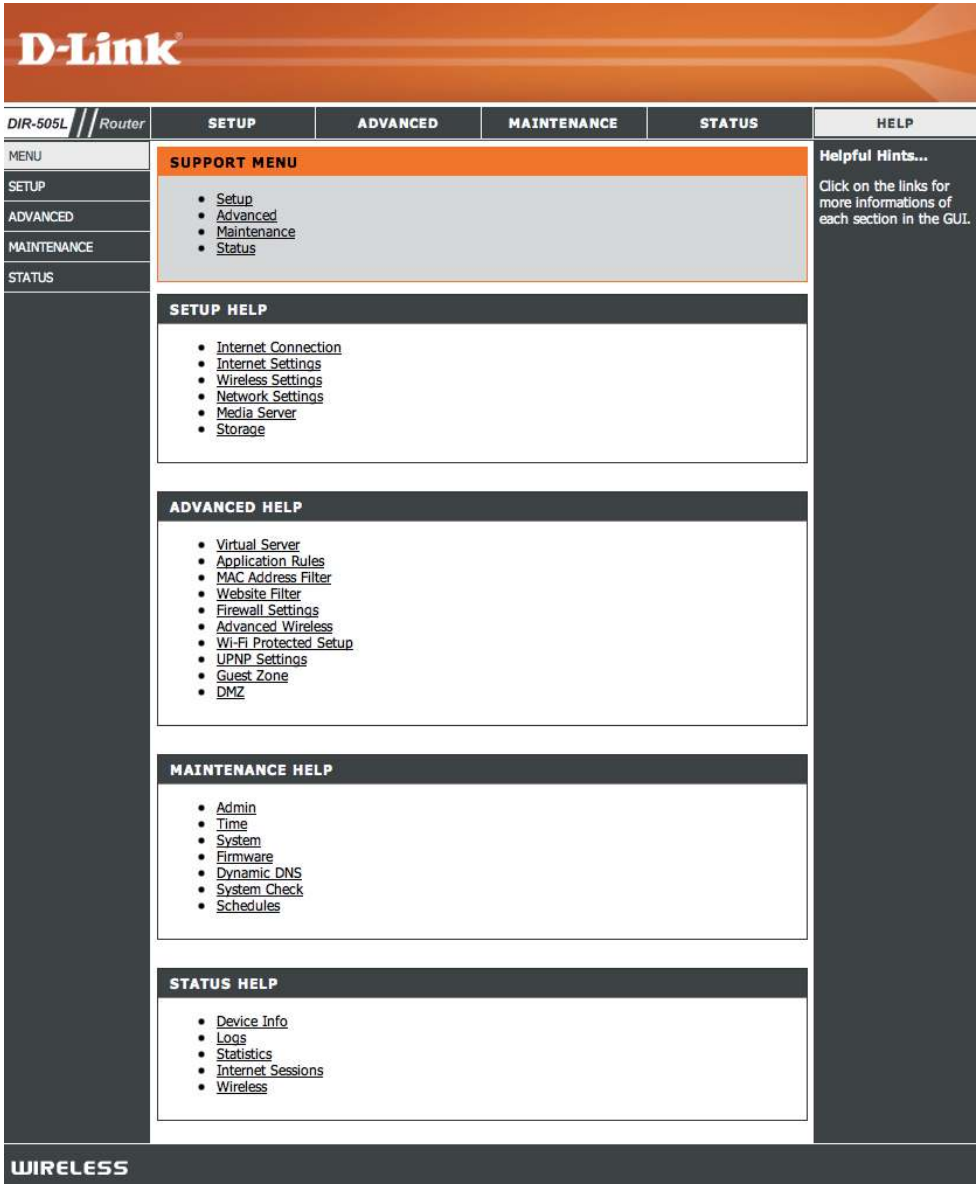


Wireless

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.

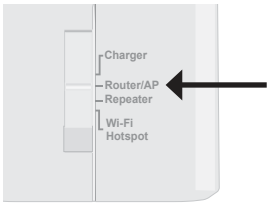
Help

This screen gives you more information about the various parts of the configuration interface. Click on a link to learn more about that topic.

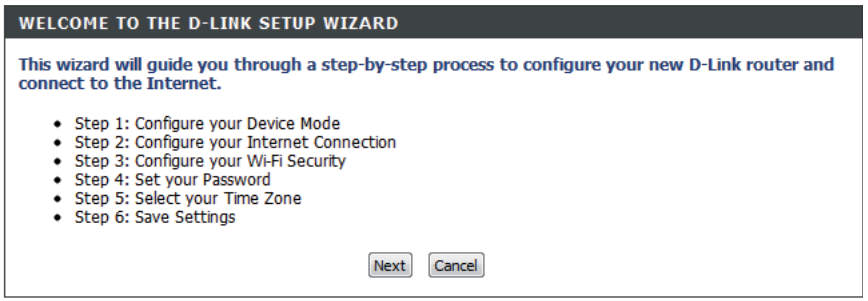


Access Point Mode

This section describes the configuration interface for Access Point mode. Make sure that the mode selector switch is in the Router/AP position on your DIR-505.

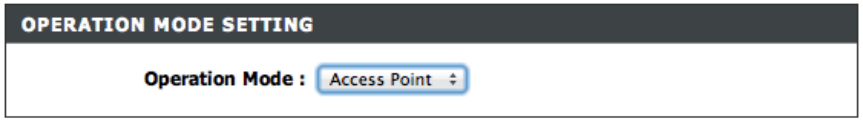


If this is your first time configuring the DIR-505, open your web browser and type **http://dlinkrouter.local.** in the address bar. You will automatically be directed to the **Wizard Setup Screen**. For more information, refer to "Initial Setup Wizard (Router/AP Mode)" on page 19.



If the Setup Wizard does not appear, type **http://dlinkrouter.local.** in the address bar.

Otherwise, the main configuration screen will appear. If the DIR-505 is in Router mode, you will need to click on **Manual Internet Connection Setup**, select **Access Point** for your **Operation Mode**, then click the **Save Settings** button to switch to Access Point mode.

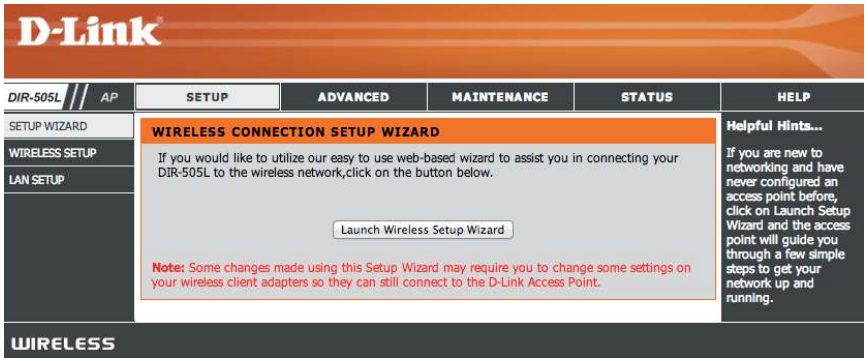


Setup

Setup Wizard

If you want to configure the Access Point Mode of the DIR-505 using a wizard, click **Launch Wireless Setup Wizard**. For more details on the setup wizard, refer to "Initial Setup Wizard (Router/ AP Mode)" on page 19.

To configure your DIR-505 manually, click **Wireless Setup** to configure your wireless connection or click **LAN Setup** to configure the LAN options. Each section is detailed in the following pages.



Wireless Setup

Here, you can configure the wireless network settings of the DIR-505. After making your changes, click the **Save Settings** button.

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.

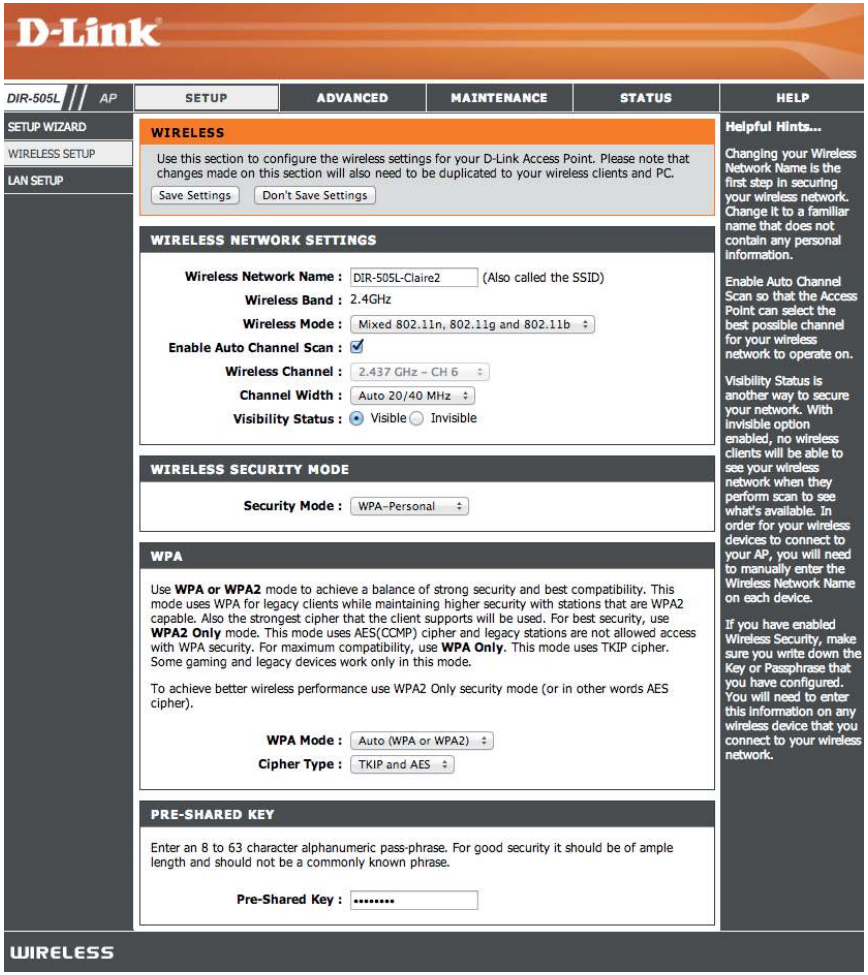
Wireless Mode: Select one of the following based on your needs:

- **802.11b Only**: Select this if you are only using 802.11b wireless clients.
- **802.11g Only**: Select this if you are only using 802.11g wireless clients.
- **802.11n Only**: Select this if you are only using 802.11n wireless clients.
- **Mixed 802.11g and 802.11b:** Select this if you are using a mix of 802.11g and 11b wireless clients.
- **Mixed 802.11n and 802.11g**: Select this if you are using a mix of 802.11n and 11g wireless clients.
- **Mixed 802.11n, 802.11g and 802.11b**: Select this if you are using a mix of 802.11n, 11g, and 11b wireless clients.

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.

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.

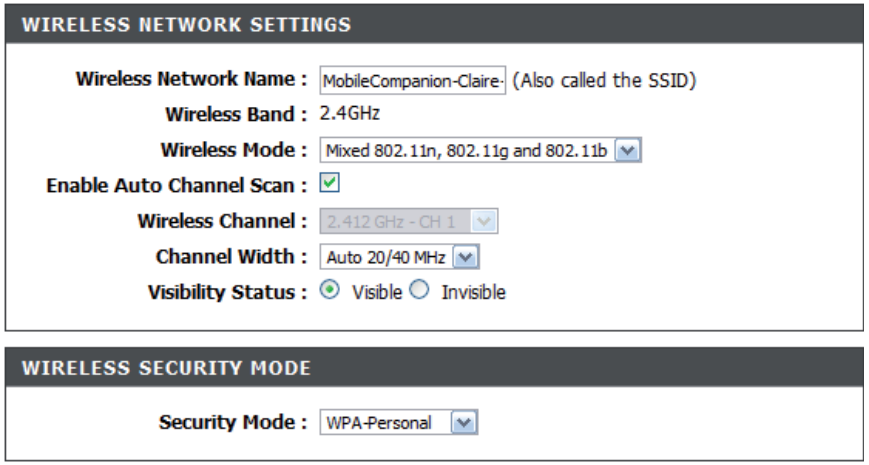
Channel Select whether to use **Auto 20/40 MHz** or **20 MHz** for the



Width: channel width. Normally, this should be left on **Auto 20/40 MHz**. If you are not using any 802.11n wireless clients, you can set this to **20 MHz**.

Visibility Status: This setting controls whether the router's wireless network name(SSID) will be broadcast so that wireless devices can scan for it. If you set it to **Invisible**, all wireless clients will need to enter the network name and security settings of your wireless network manually.

Wireless Security Mode: Here, you can select between **None**, **WEP**, **WPA-Personal**, and **WPA-Enterprise**. Refer to the following pages for details on configuring the different security modes.

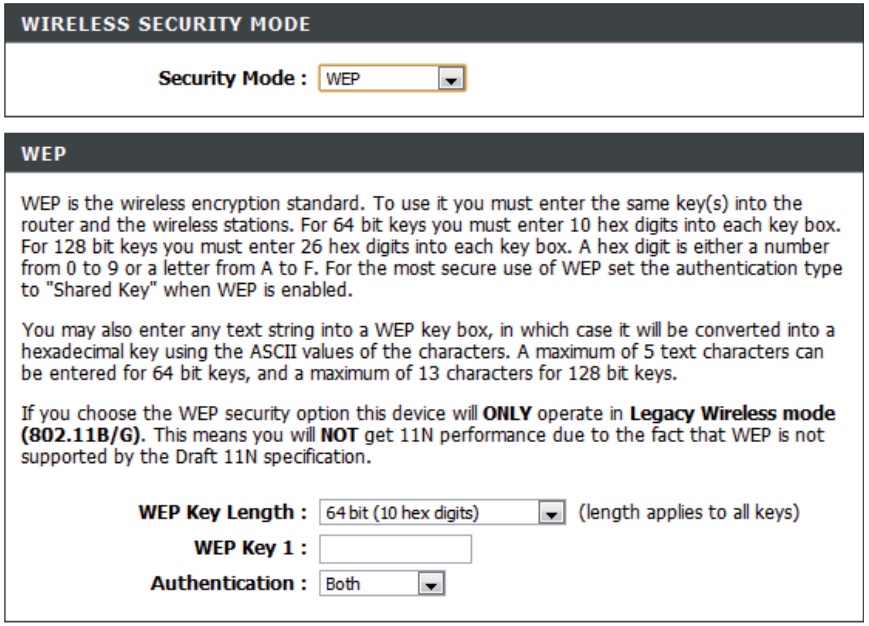


If you select **WEP** as your Security Mode:

WEP Key Length: Select an encryption level and key length to use. This will also set the type and length of the key you will need to enter.

WEP Key: Enter the password(key) for your wireless network. It will need to match the requirements for the WEP Key Length selected above.

Authentication: Choose what Authentication type to use.

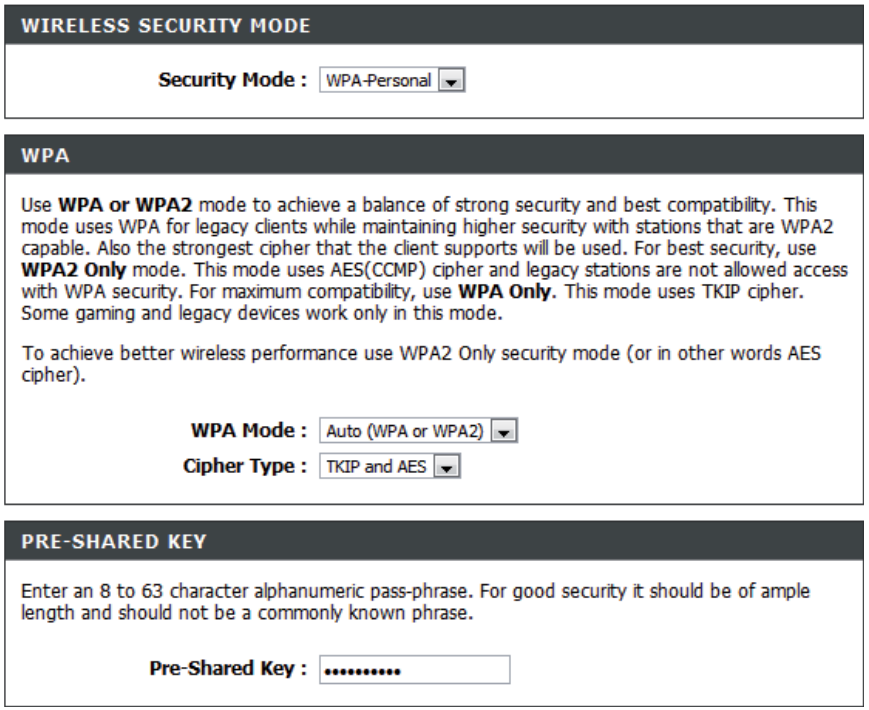


If you select **WPA-Personal** as your Security Mode:

WPA Mode: Select whether to use **WPA**, **WPA2**, or both **WPA and WPA2** for your wireless network..

Cipher Type: Choose whether to use **TKIP**, **AES**, or both **TKIP and AES** ciphers for your wireless network.

Pre-Shared Key: Enter the password(key) for your wireless network.



If you select **WPA-Enterprise** as your Security Mode:

WPA Mode: Select whether to use **WPA**, **WPA2**, or both **WPA and WPA2** for your wireless network..

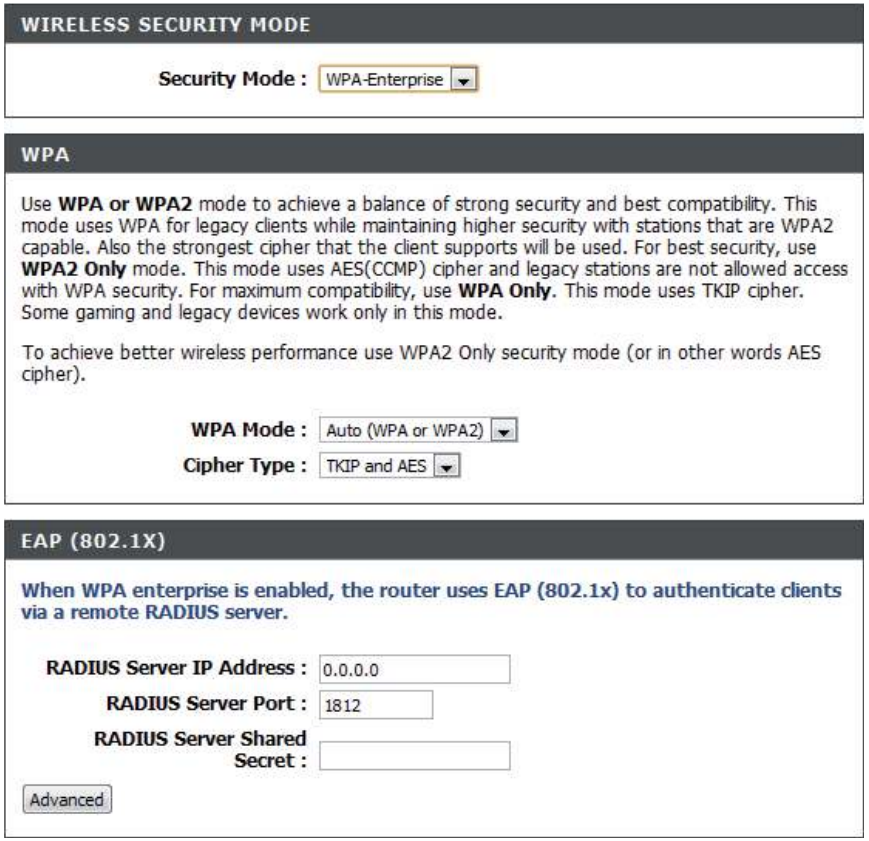
Cipher Type: Choose whether to use **TKIP**, **AES**, or both **TKIP and AES** ciphers for your wireless network.

Pre-Shared Key: Enter the password(key) for your wireless network.

RADIUS Server IP Address: Enter your RADIUS server IP address.

RADIUS Server Port: Enter your RADIUS server port.

RADIUS Server Shared Secret: Enter your RADIUS server shared secret.



LAN Setup

Here, you can configure the network settings of the DIR-505. After making your changes, click the **Save Settings** button.

Operation Mode: This should be set to **Access Point** mode. If you want to use Router mode, select **Router** mode and click the **Save Settings** button to switch to the Router configuration interface. For more information, refer to "Router Mode" on page 27.

Device Name: Enter a name for the DIR-505.

My LAN Connection is: Select whether you want to connect your DIR-505 to your network through **Dynamic IP (DHCP)** or **Static IP**.

If you selected **Static IP**, fill in the **IP Address**, **Subnet Mask**, **Gateway Address**, and **Primary** and **Secondary DNS Server** addresses. If you are not sure what settings to use, please contact your network administrator or Internet service provider.

Advanced
MAC Address Filter

Use MAC (Media Access Control) Filters to control access to your network based on the MAC addresses of connected clients. You can set MAC address filtering to only allow the listed MAC addresses to connect, or block access to all listed MAC addresses. After making your changes, click the **Save Settings** button.

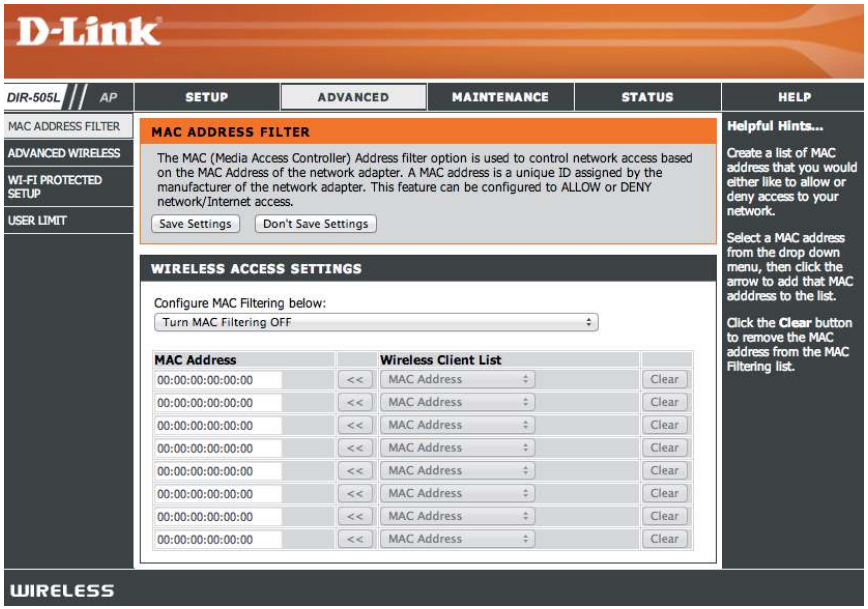
Wireless Access Settings: Configure how MAC filtering works by using the dropdown box to select an option:

Turn MAC Filtering OFF: This disables MAC filtering.

Turn MAC Filtering ON and ALLOW computers listed to access the network: When this option is selected, only PCs and devices with MAC addresses in the MAC Address List are granted network access. All other devices will be blocked.

Turn MAC Filtering ON and DENY computers listed to access the network: When this option is selected, all PCs and devices with MAC addresses in the MAC Address List will be refused access to your network. All other devices will be allowed access.

MAC Address: Enter the MAC addresses you would like to filter. You can select a client currently connected to your access point from the **Wireless Client List** drop-down menu and then click the corresponding **<<** button fill in the MAC address automatically. Click the Clear button to remove any entered MAC address.



Advanced Wireless

This screen allows you to set various advanced wireless settings of your DIR-505. Unless you are experiencing specific problems, it is recommended that you leave these settings at their default values. After making your changes, click the **Save Settings** button.

Transmit Power: Use the dropdown box to set the transmit power of the antennas.

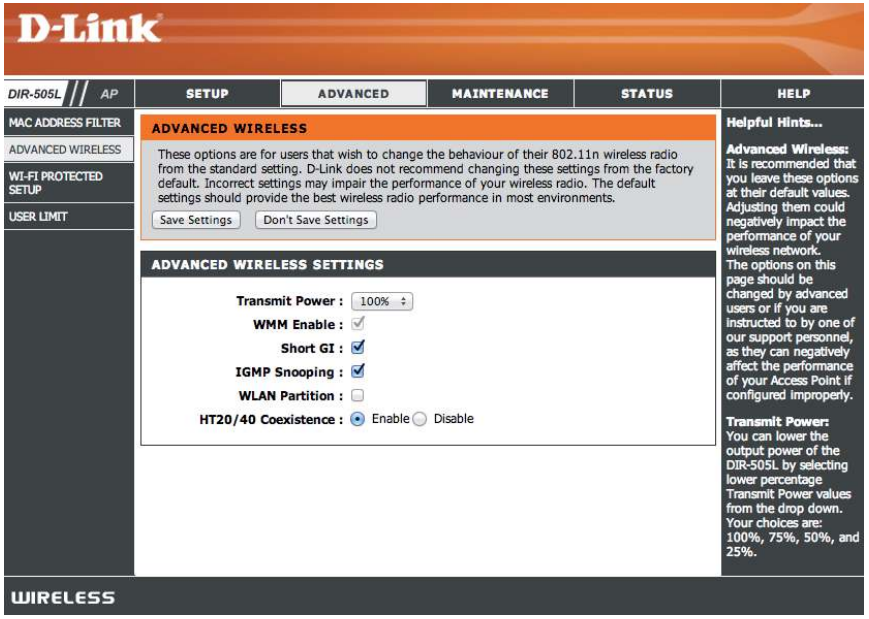
WMM Enable: WMM is Quality of Service(QoS) for your wireless network. This will improve the quality of video and voice applications for your wireless clients.

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

IGMP Snooping: Tick this checkbox 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.

HT 20/40 Coexistence: Tick this checkbox to enable this feature.



Wi-Fi Protected Setup (WPS)

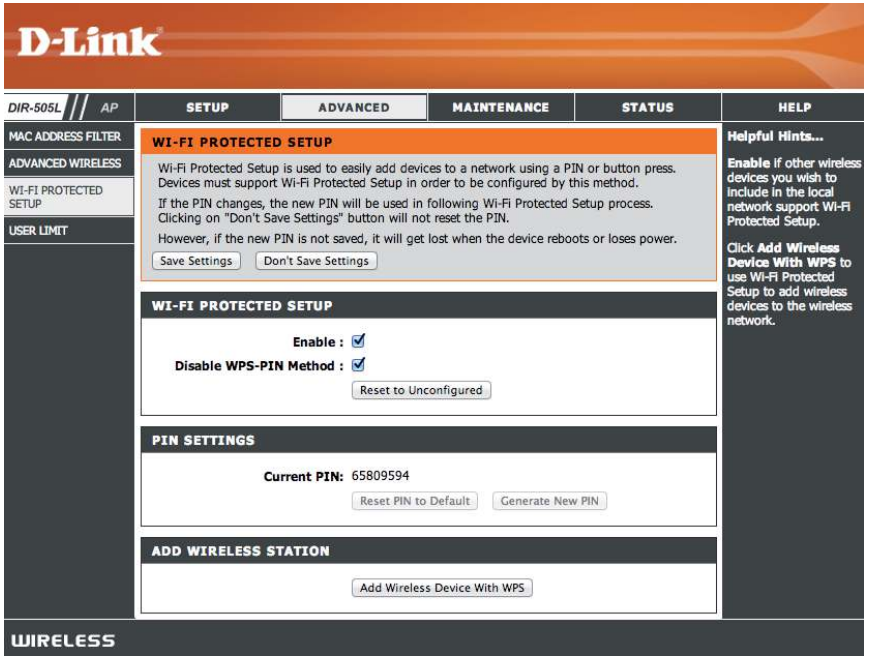
Wi-Fi Protected Setup (WPS) System is a simplified way to set up the basic settings of the DIR-505. It can also be used to automatically create a secure wireless connection to a wireless client. After making your changes, click the **Save Settings** button.

Enable: Check this box to enable the WPS functions of the DIR-505.

Disable WPS PIN Method: Disabling this will disable the WPS PIN method of connection and configuration. If you want to reconfigure the router using the WPS PIN method, click on the **Reset to Unconfigured** button. You will still be able to add wireless clients through WPS.

PIN Settings: Shows the router's current PIN. You can reset it to the default value by clicking on the **Reset PIN to Default** button, or you can create a new PIN number by clicking on the **Generate New PIN** button.

Add Wireless Station: Here, you can click on the **Add Wireless Device With WPS** button to go through a wizard that helps you connect other devices through WPS.

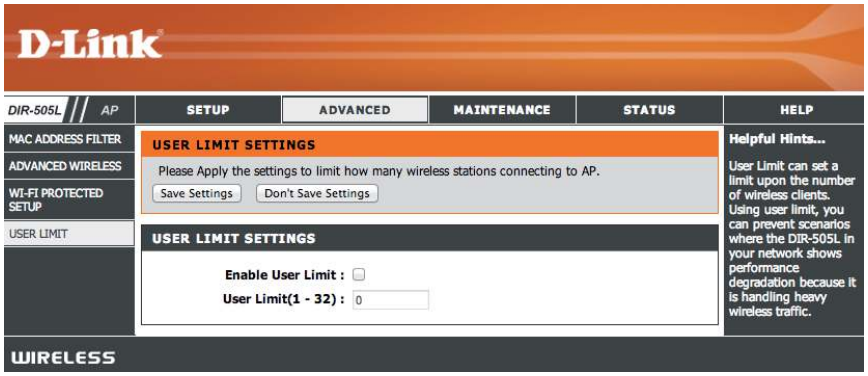


User Limit

You can limit the number of wireless clients that can connect to your wireless network. Doing so can help prevent the DIR-505 from being overloaded trying to provide service to too many clients, and helps ensure your wireless network runs smoothly. After making your changes, click the **Save Settings** button.

Enable User Limit: Check this box to enable the User Limit feature.

User Limit (1-32): After enabling User Limits, enter the maximum number of wireless clients that can be connected to your wireless network. You can enter a number from 1 to 32.



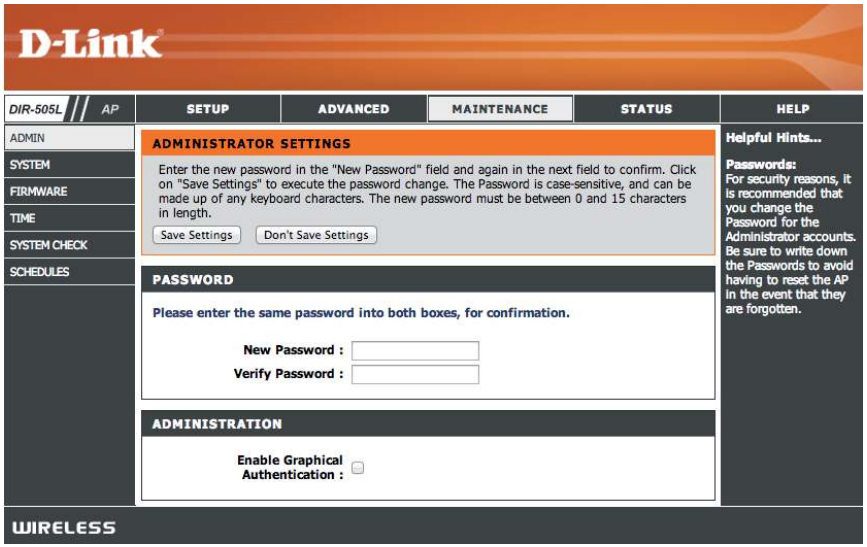
Maintenance
Admin

This page will allow you to change the password for the administrator account for configuring the settings of the DIR-505. You can also turn on graphical authentication(CAPTCHA) on this page. After making your changes, click the **Save Settings** button.

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

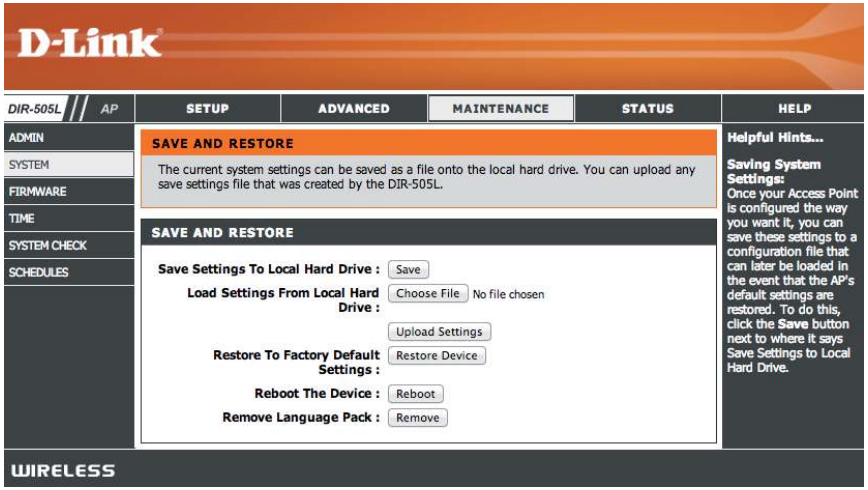
Verify Password: Enter the same password that you entered in the previous textbox in order to confirm its accuracy.

Enable Graphical Authentication: Check to enable Graphical Authentication, or CAPTCHAs when logging in to the web UI of the DIR-505. This provides an extra layer of security by requiring you to enter a code that is displayed on-screen.



System

This page allows you to save and restore your configuration, reset and reboot the DIR-505, and remove any added language packs.



Save Settings To Local Hard Drive: Clicking the **Save** button will allow you to save the current repeater configuration settings to a file on the hard disk of the computer you are using. You will then see a file dialog where you can select a location and file name for the settings.

Load Settings From Local Hard Drive: Use this option to load previously saved configuration settings. Click **Browse** to find a previously saved configuration file. Then, click the **Upload Settings** button to transfer those settings to the DIR-505.

Restore to Factory Default Settings: This option will restore all configuration settings back to the factory default settings. Any settings that have not been saved will be lost, including any rules that you have created. If you want to save your current 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 the **Reboot** button to reboot the repeater.

Remove Language Pack: If you have previously installed a Language Pack, you can remove it by clicking the Remove button.

Firmware

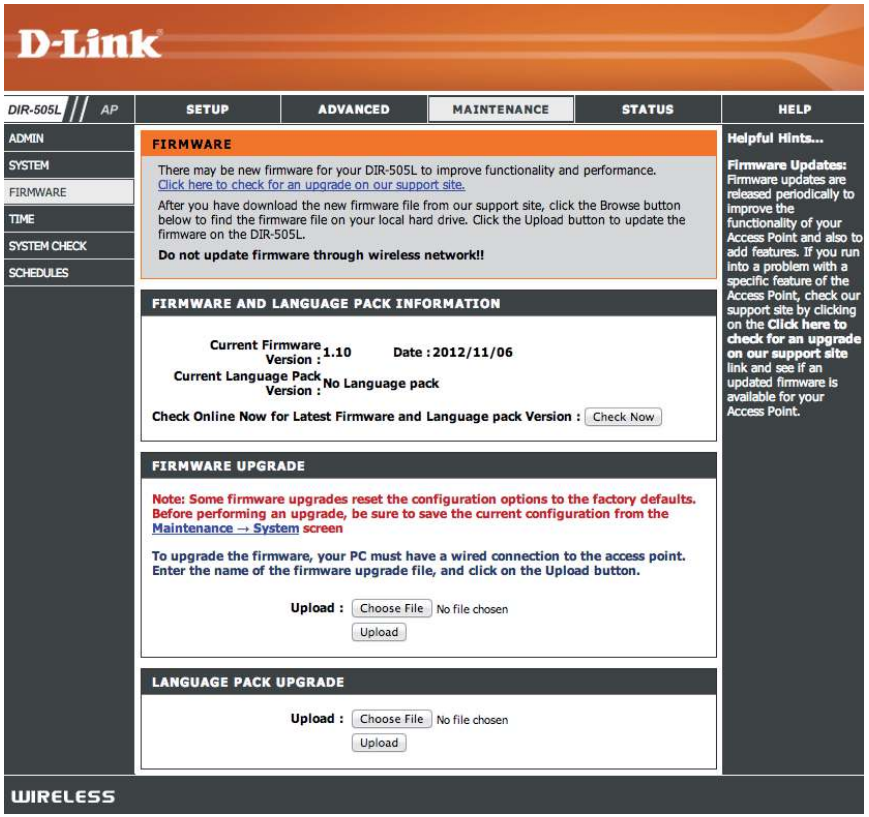
You can upgrade the firmware of the DIR-505 here. Make sure the firmware you want to use is on the local hard drive of the computer. Click on **Browse** to locate the firmware file to be used for the update. Please check the D-Link support website for firmware updates at **http://support.dlink.com**. 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.

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. Do not disconnect from the DIR-505 or power your computer or DIR-505 off during the upgrade process.

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

Browse: Download a language pack from the D-Link website. 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.



Time

The Time page 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. After making your changes, click the **Save Settings** button.

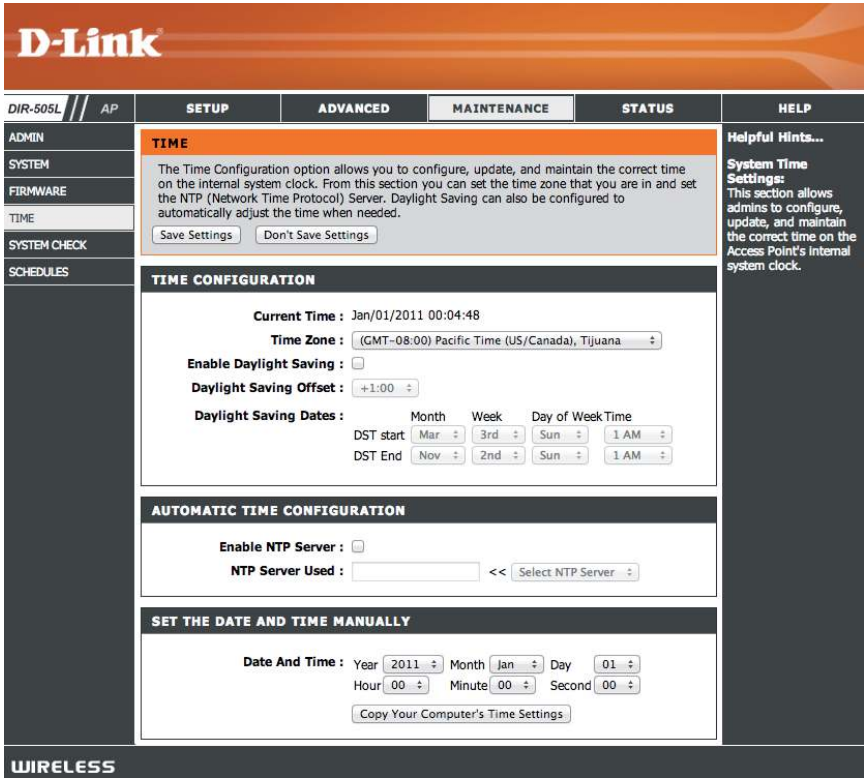
Time Zone: Select the Time Zone from the drop-down menu.

Enable 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.

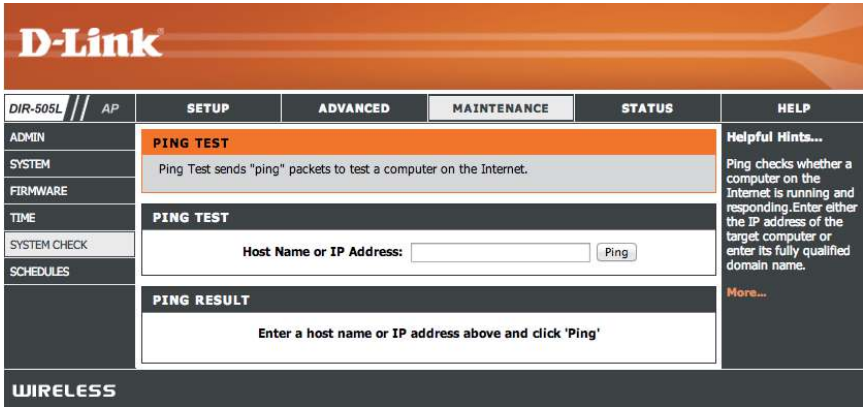


System Check

This page allows you to run a ping test to check your Internet connectivity.

The Ping Test is used to send ping packets to test if your DIR-505 is connected to the Internet. Enter the IP address that you wish to ping and click the **Ping** button.

The results of your ping attempts will be displayed here.



Schedules

You can create schedules for use with some of the features of the DIR-505, which will allow those features to be active during certain times of the day or week.

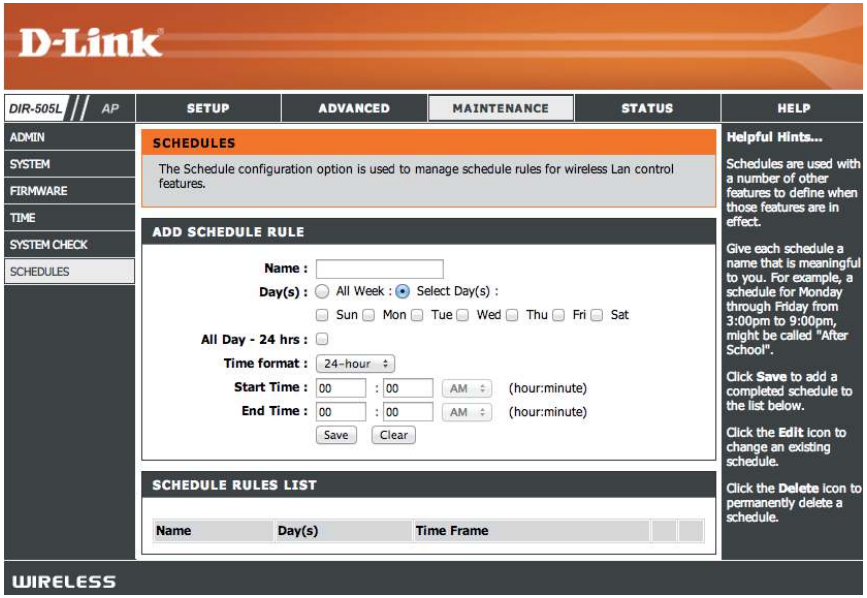
Name: Enter a name for your new schedule.

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

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

Save: After entering the details of your schedule, click the **Save** button to save your changes.

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



Status

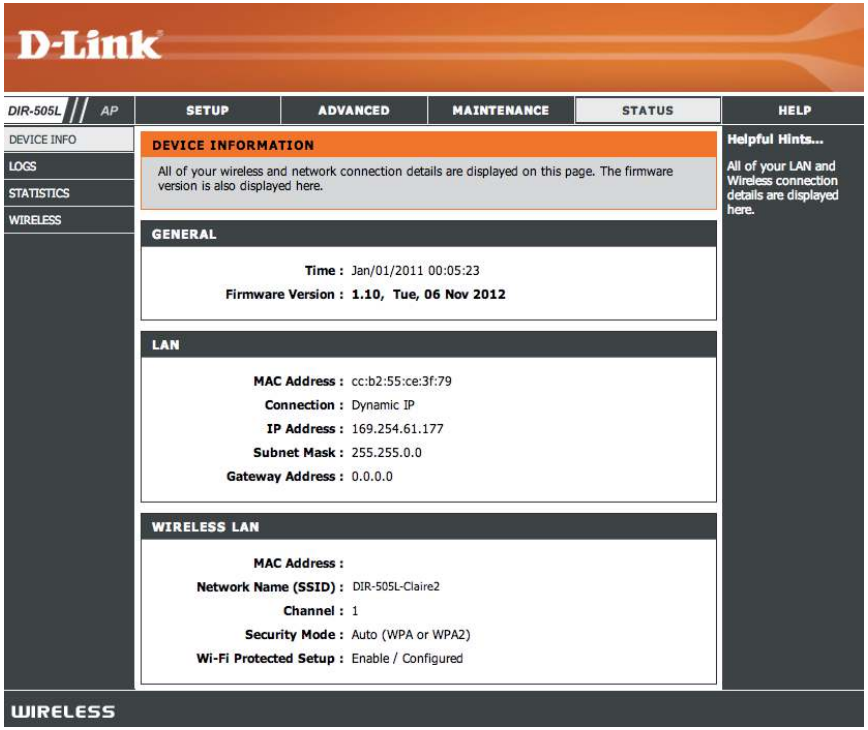
Device Info

This page displays the current information for the DIR-505. It will display the LAN and wireless LAN information.

General: Displays the 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.



Logs

The DIR-505 keeps a running log of events and activities occurring on the DIR-505. If the DIR-505 is rebooted, the logs are automatically cleared.

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.

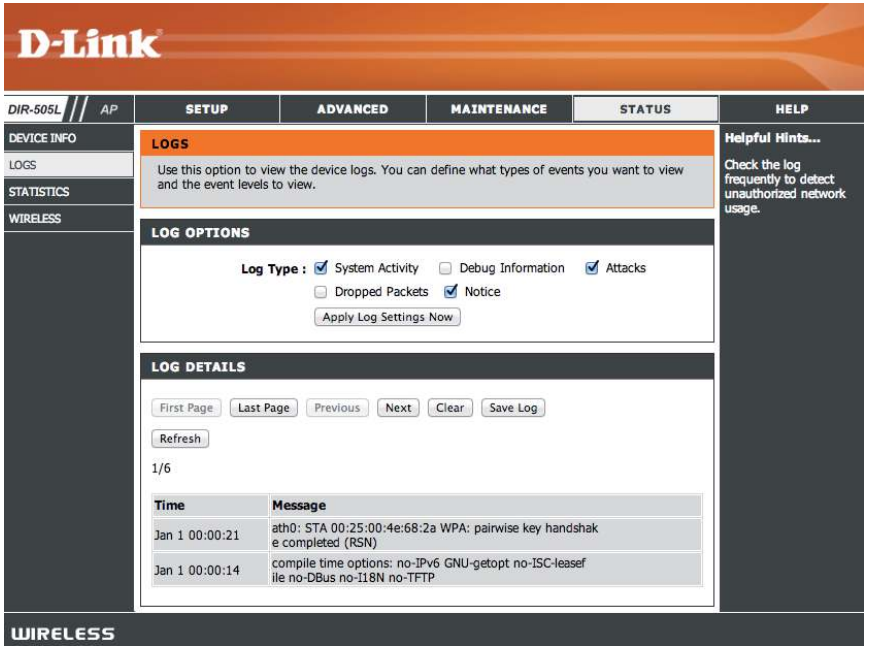
Previous: This button directs you to the previous page of the log.

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

Clear: This button clears all current log content.

Save Log: This button opens dialog where you can save the current log to your hard drive.

Refresh: This button refreshes the log.



Statistics

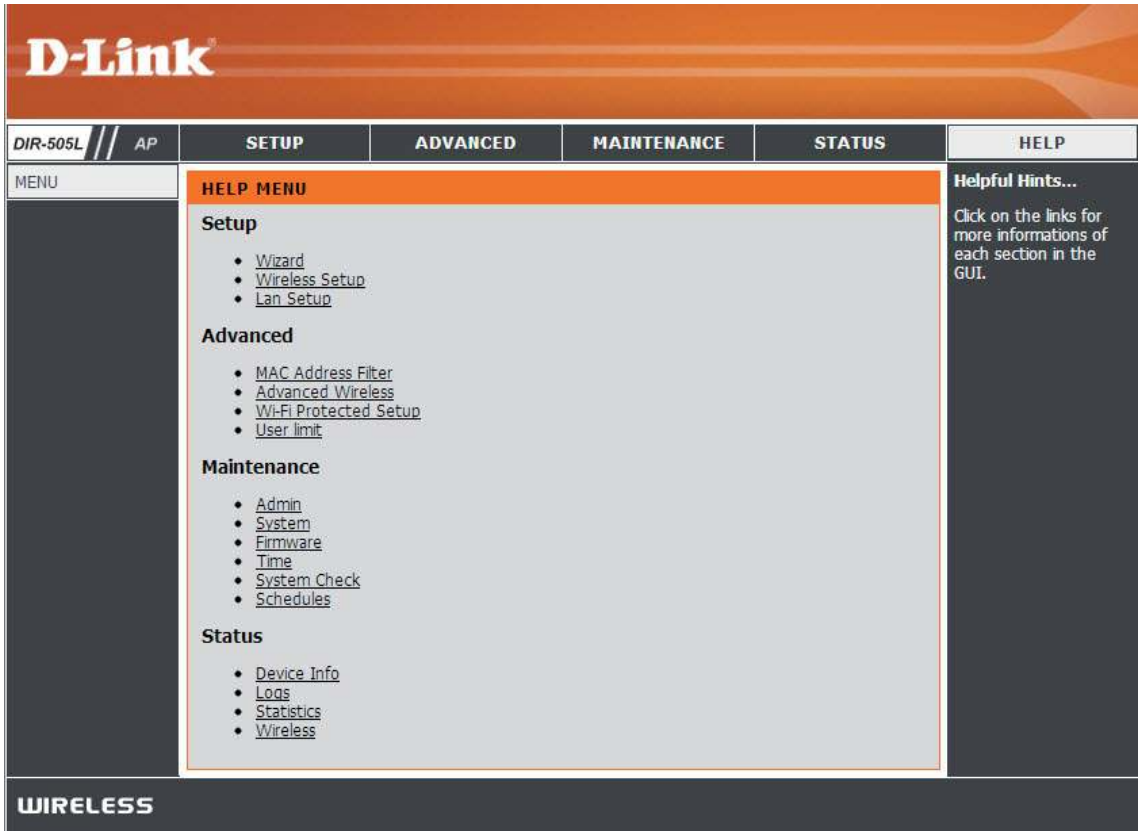
The DIR-505 keeps statistics of the traffic that passes through it. You can view the amount of packets that pass through the LAN and wireless portions of the network. Click the **Refresh Statistics** button to update the information, or click the **Clear Statistics** button to reset all statistics. The traffic counter will reset if the DIR-505 is rebooted.

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.

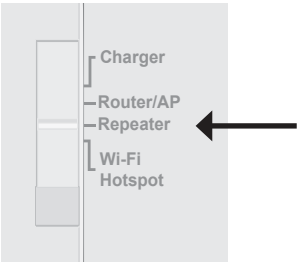
Help

This screen gives you more information about the various parts of the configuration interface. Click on a link to learn more about that topic.



Repeater Mode

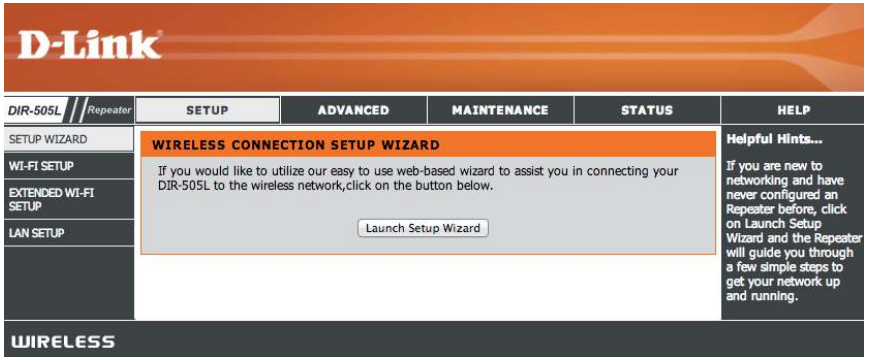
This section describes the configuration interface for Repeater mode. Make sure that the mode selector switch is in the Repeater position on your DIR-505.



Setup Wizard

If you want to configure the Repeater Mode of the DIR-505 using a wizard, click **Launch Setup Wizard**.

To configure your DIR-505 manually, click **Wireless Setup** to configure your wireless connection or click **LAN Setup** to configure the LAN options.

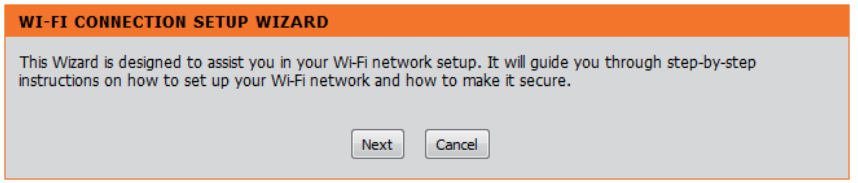


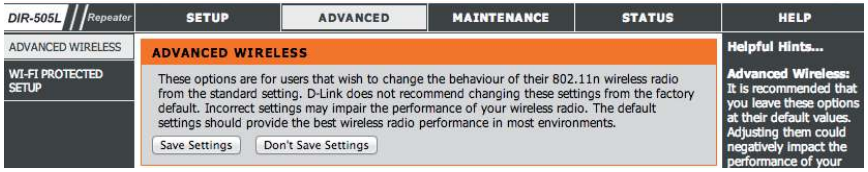
Setup Wizard

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

If this is the first time configuring your DIR-505, click **Next** to start the Setup Wizard.

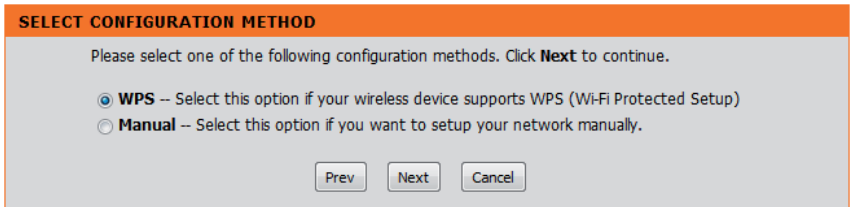
Otherwise, click **Launch Wireless Setup Wizard** from the main menu.



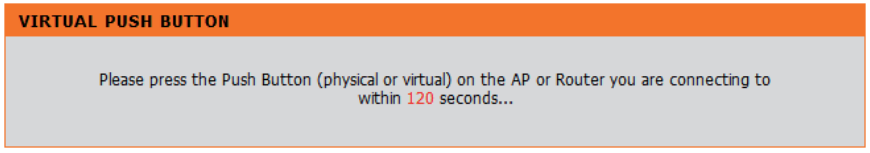


Select **WPS** as the configuration method only if your wireless device supports Wi-Fi Protected Setup (WPS). For **Manual** setup, skip to the next page.

Click **Next** to continue.

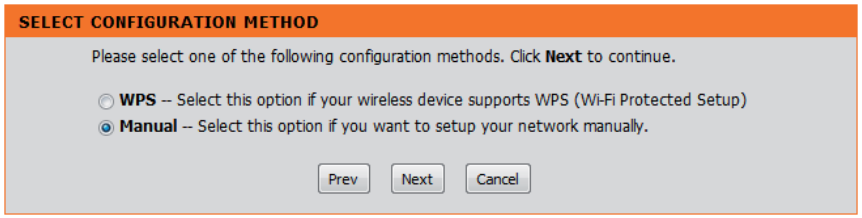


Press the **WPS button** on the wireless device you are adding to your wireless network.

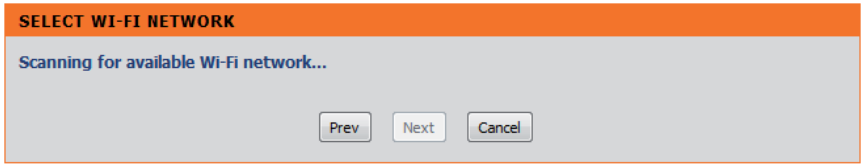


Select **Manual** as the configuration method to set up your network manually.

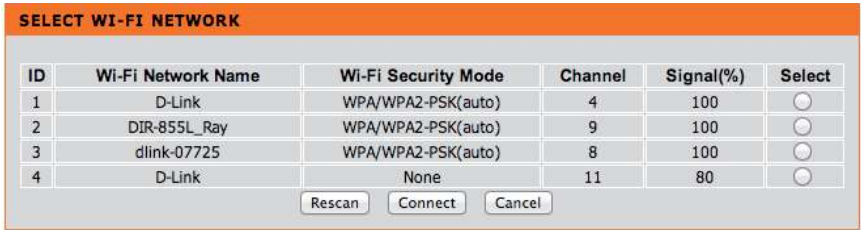
Click **Next** to continue.



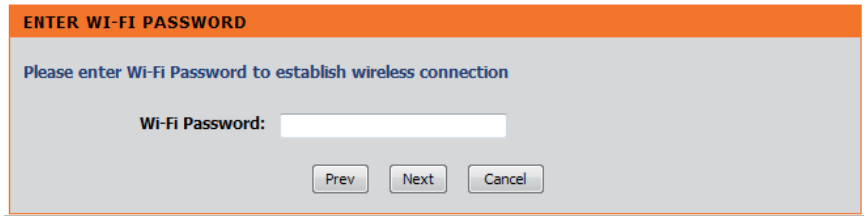
Please wait while your device scans for available Wi-Fi networks.



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

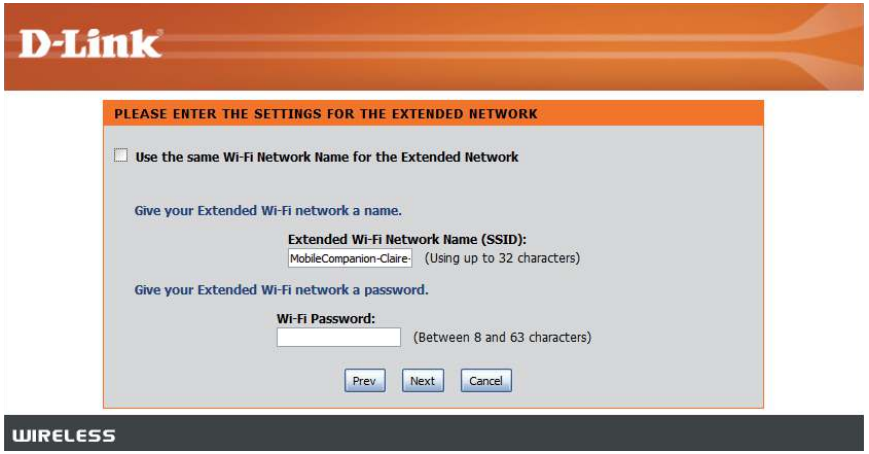


If the Wi-Fi network requires a password, enter it when prompted and click **Next** to continue.



You can choose to use the same Wi-Fi network name for your extended network, which allows you to use the same Wi-Fi login and password throughout your home. Alternatively, you can use a different Wi-Fi network name for the extended network by unchecking the on-screen checkbox.

If you choose to use a different Wi-Fi network name, uncheck the on-screen checkbox and enter a Wi-Fi network name and password to use, then click **Next**.



Click **Save** to save your changes and reboot the DIR-505.

Wireless Setup

Use this section to manually configure the settings for your DIR-505's wireless connection to your router, or the wireless network you want to extend. After making your changes, click the **Save Settings** button.

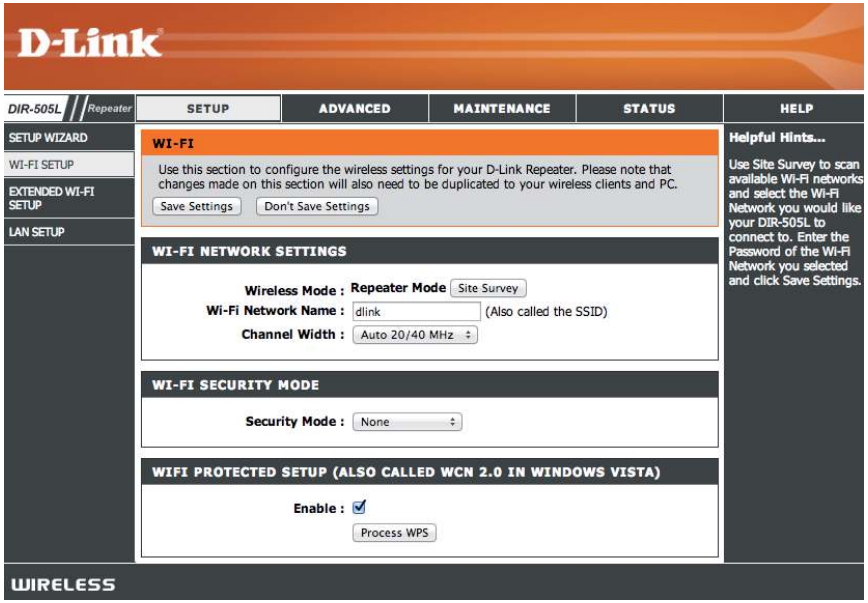
Wireless Mode: This will state **Repeater Mode** when in Repeater Mode. You can click the **Site Survey** button to look for available wireless networks to extend. Selecting a wireless network from the list that appears will automatically fill in the settings below.

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 **None**, **WEP,** or **WPA-Personal**. For security purposes, it is highly recommended that you set this to WPA-Personal.

Wi-Fi Protected Setup: Wi-Fi Protected Setup, or WCN, allows you to configure the basic settings of the DIR-505 through Windows. To enable this feature, check the **Enable** checkbox.

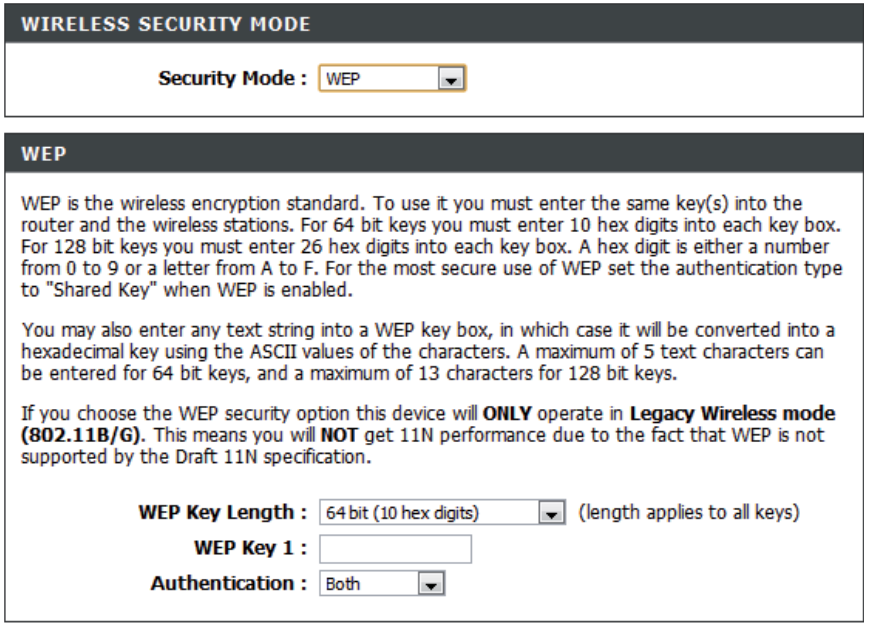


If you select **WEP** as your Security Mode:

WEP Key Length: Select an encryption level and key length to use. This will also set the type and length of the key you will need to enter.

WEP Key: Enter the password(key) for your wireless network. It will need to match the requirements for the WEP Key Length selected above.

Authentication: Choose what Authentication type to use.

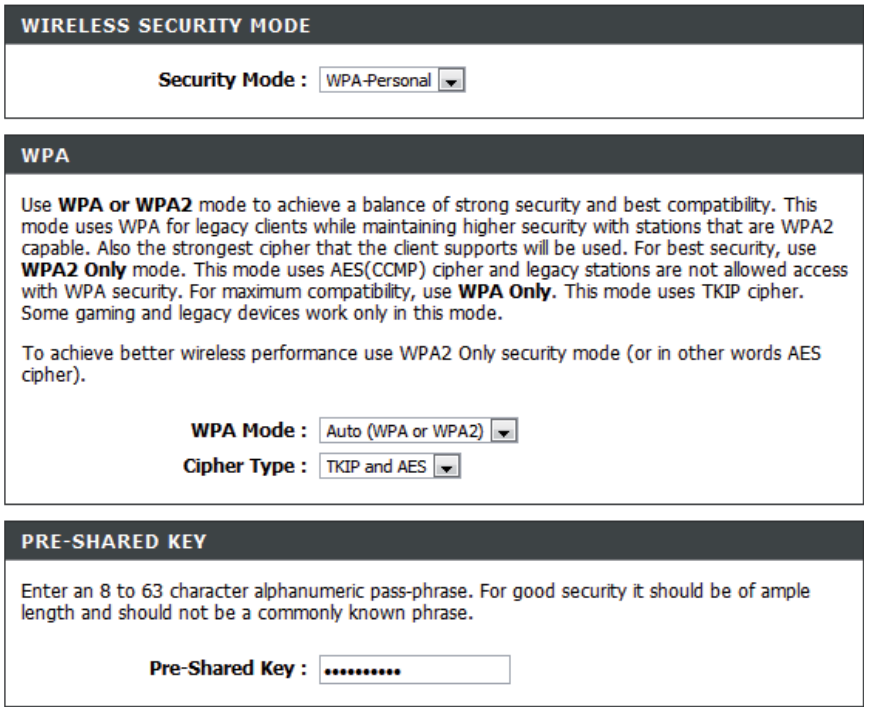


If you select **WPA-Personal** as your Security Mode:

WPA Mode: Select whether to use **WPA**, **WPA2**, or both **WPA and WPA2** for your wireless network..

Cipher Type: Choose whether to use **TKIP**, **AES**, or both **TKIP and AES** ciphers for your wireless network.

Pre-Shared Key: Enter the password(key) for your wireless network.



Extend Wi-Fi Setup

Use this section to manually configure the wireless settings for your DIR-505's wireless extended network that connect your devices to. After making your changes, click the **Save Settings** button.

Wi-Fi Network Name: This shows the name of the Wi-Fi network that the DIR-505 is extending.

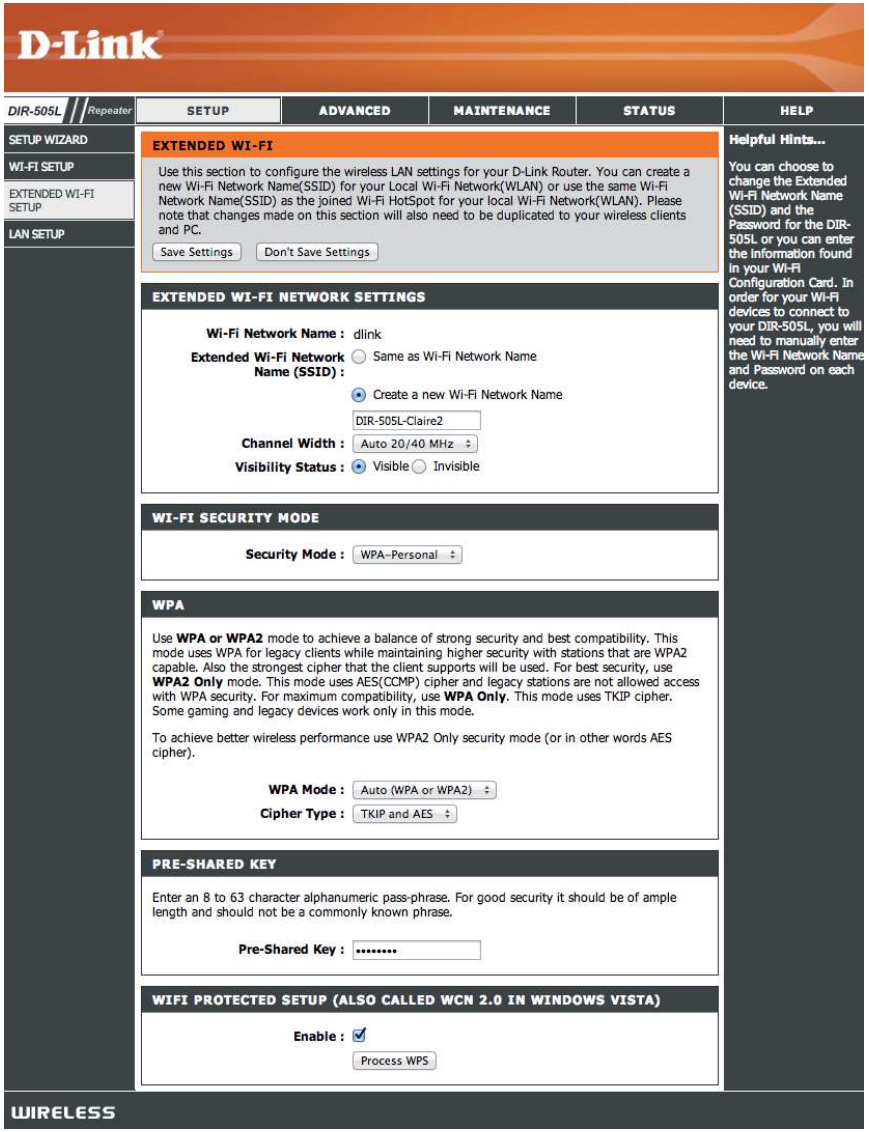
Extended Wi-Fi Network Name (SSID): You can choose whether to use the same Wi-Fi network name as the one the DIR-505 is extending, or to create a new one. If you create a new one, enter the name for your extended Wi-Fi network.

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

Visibility Status: This setting controls whether the router's wireless network name(SSID) will be broadcast so that wireless devices can scan for it. If you set it to **Invisible**, all wireless clients will need to enter the network name and security settings of your wireless network manually.

Security Mode: Select **None**, **WEP,** or **WPA-Personal**; the relevant settings for the security mode you choose will appear. For security purposes, it is highly recommended that you set this to WPA-Personal. For more details, refer to the previous page.

Wi-Fi Protected Setup: Wi-Fi Protected Setup, or WCN, allows you to configure the basic settings of the DIR-505 through Windows. To enable this feature, check the **Enable** checkbox.



LAN Setup

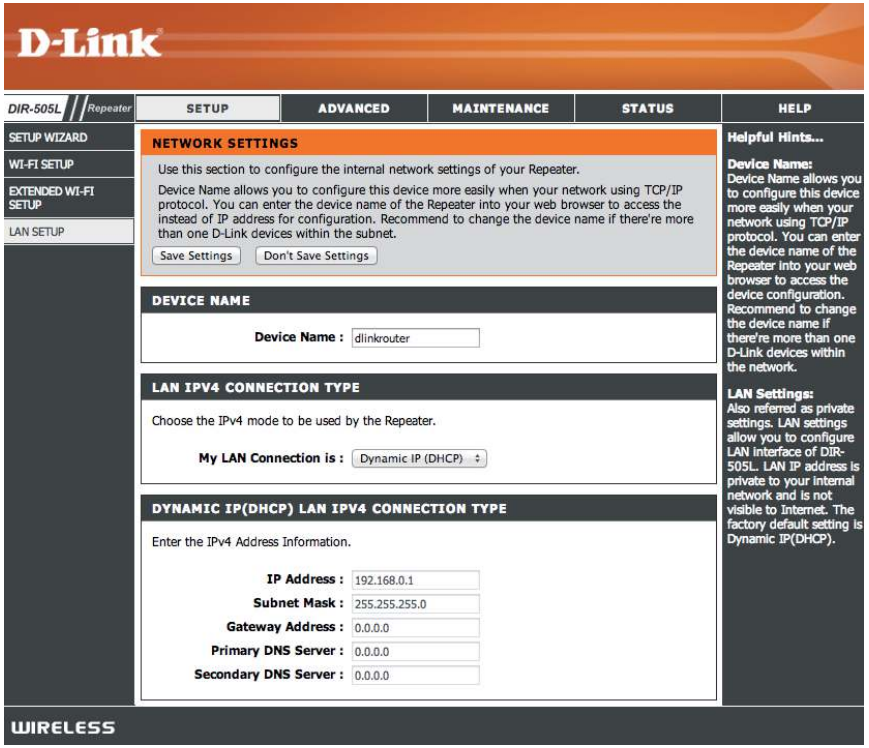
This section will allow you to change the local network settings of the DIR-505. After making your changes, click the **Save Settings** button.

Device Name: Enter the Device Name of the DIR-505. It is recommended that you change the Device Name if there is more than one D-Link device in your subnet.

LAN Connection Type: Use the drop-down menu to select the LAN Connection Type to use.

Select Dynamic IP (DHCP) to automatically obtain an IP address on the LAN/private network.

Select Static IP Address if all the Internet port's IP information is provided to you by your ISP.



If you choose DHCP as your connection type:

IP Address: Enter the IP address of the access point. The default IP address is 192.168.0.1. If you change the IP address, once you click **Apply**, you will need to enter the new IP address in your browser to 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.

If you choose Static IP as your connection type:

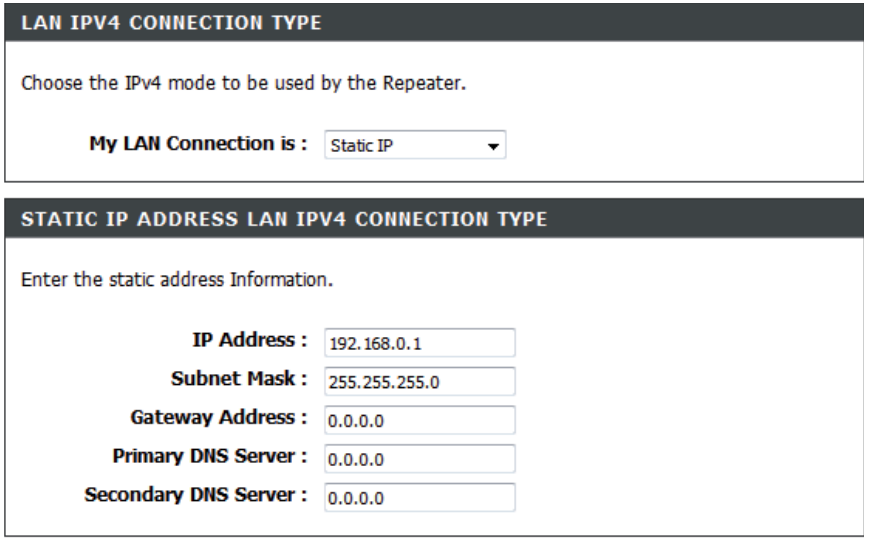
IP Address: Enter the IP address the DIR-505 should use. The default IP address is 192.168.0.1. If you change the IP address, once you click **Apply**, you will need to enter the new IP address in your browser to get back into the configuration utility.

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

Gateway Address: Enter the Gateway assigned by your ISP.

Primary DNS Server: Enter the Primary DNS Server's IP address assigned by your ISP.

Secondary DNS Server: Enter the Secondary DNS Server's IP address assigned by your ISP.

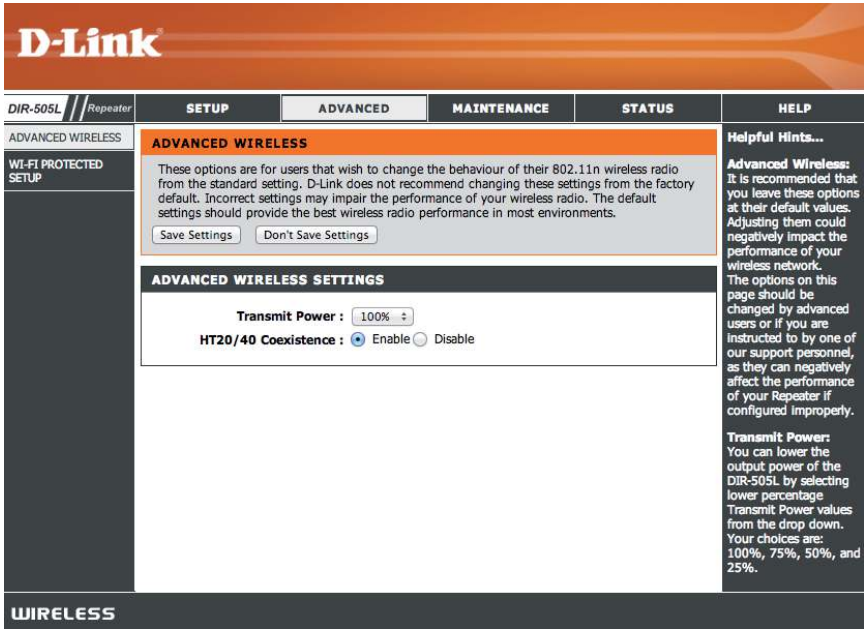


Advanced
Advanced Wireless

This screen allows you to set various advanced wireless settings of your DIR-505. Unless you are experiencing specific problems, it is recommended that you leave these settings at their default values. After making your changes, click the **Save Settings** button.

Transmit Power: Sets the transmit power of the antennas.

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



Wi-Fi Protected Setup

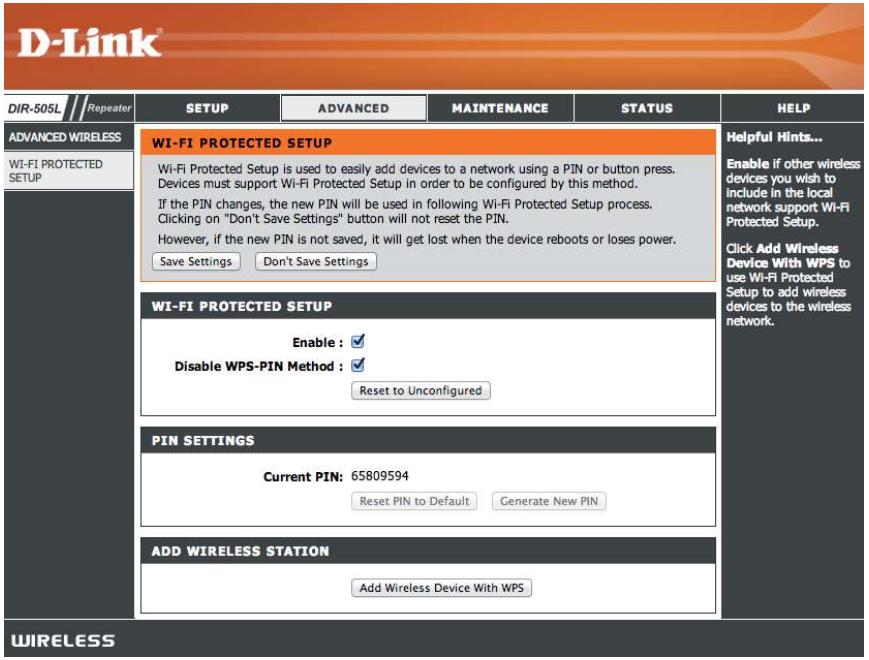
Wi-Fi Protected Setup (WPS) System is a simplified way to set up the basic settings of the DIR-505. It can also be used to automatically create a secure wireless connection to a wireless client. After making your changes, click the **Save Settings** button.

Enable: Check this box to enable the WPS functions of the DIR-505.

Disable WPS PIN Method: Disabling this will disable the WPS PIN method of connection and configuration. If you want to reconfigure the router using the WPS PIN method, click on the **Reset to Unconfigured** button. You will still be able to add wireless clients through WPS.

PIN Settings: Shows the router's current PIN. You can reset it to the default value by clicking on the **Reset PIN to Default** button, or you can create a new PIN number by clicking on the **Generate New PIN** button.

Add Wireless Station: Here, you can click on the **Add Wireless Device With WPS** button to go through a wizard that helps you connect other devices through WPS.



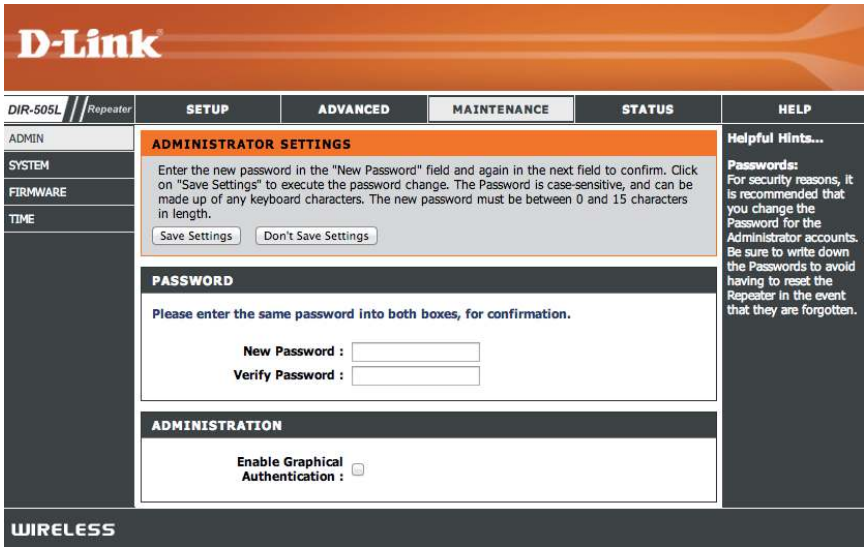
Maintenance
Admin

This page will allow you to change the password for the administrator account for configuring the settings of the DIR-505. You can also turn on graphical authentication(CAPTCHA) on this page. After making your changes, click the **Save Settings** button.

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

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

Enable Graphical Authentication: Check to enable Graphical Authentication, or CAPTCHAs when logging in to the web UI of the DIR-505. This provides an extra layer of security by requiring you to enter a code that is displayed on-screen.



System

This page allows you to save and restore your configuration, reset and reboot the DIR-505, and remove any added language packs.

Save Settings To Local Hard Drive: Clicking the **Save** button will allow you to save the current repeater configuration settings to a file on the hard disk of the computer you are using. You will then see a file dialog where you can select a location and file name for the settings.

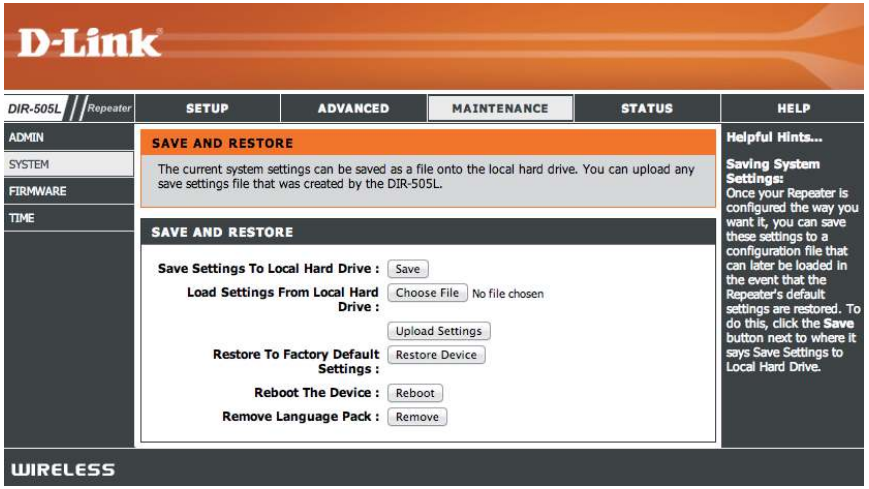
Load Settings From Local Hard Drive: Use this option to load previously saved configuration settings. Click **Browse** to find a previously saved configuration file. Then, click the **Upload Settings** button to transfer those settings to the DIR-505.

Restore to Factory Default Settings: This option will restore all configuration settings back to the factory default settings. Any settings that have not been saved will be lost, including any rules that you have created. If you want to save your current 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 the **Reboot** button to reboot the repeater.

Remove Language Pack: If you have previously installed a Language Pack, you can remove it by clicking the Remove button.



Firmware

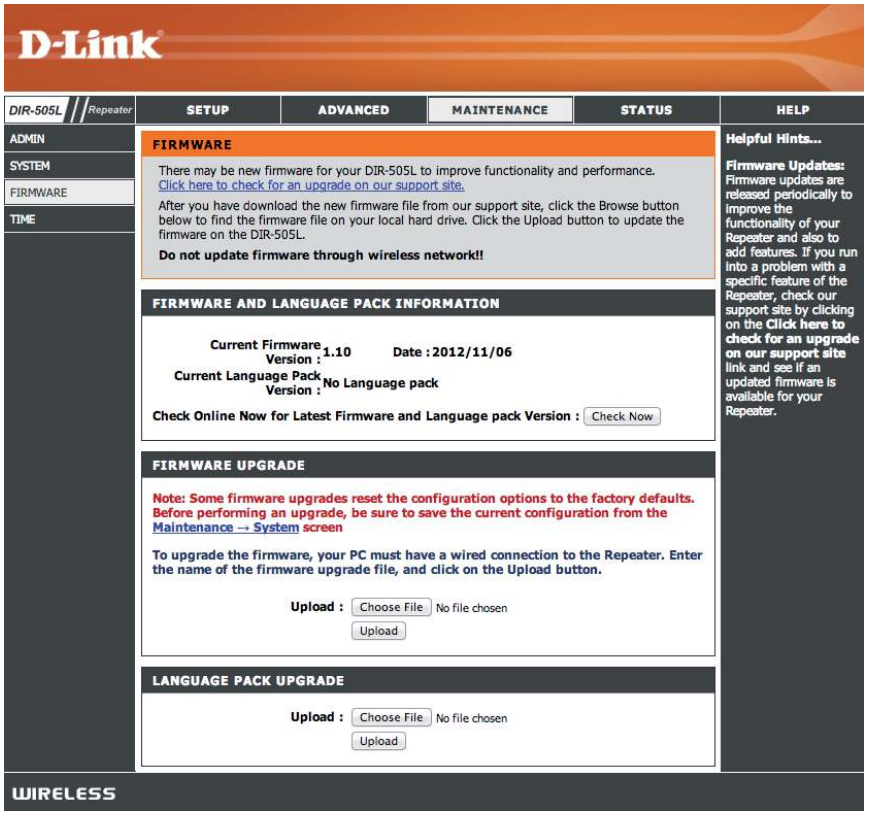
You can upgrade the firmware of the DIR-505 here. Make sure the firmware you want to use is on the local hard drive of the computer. Click on **Browse** to locate the firmware file to be used for the update. Please check the D-Link support website for firmware updates at **http://support.dlink.com**. 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.

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. Do not disconnect from the DIR-505 or power your computer or DIR-505 off during the upgrade process.

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

Browse: Download a language pack from the D-Link website. 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.



Time

The Time page 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. After making your changes, click the **Save Settings** button.

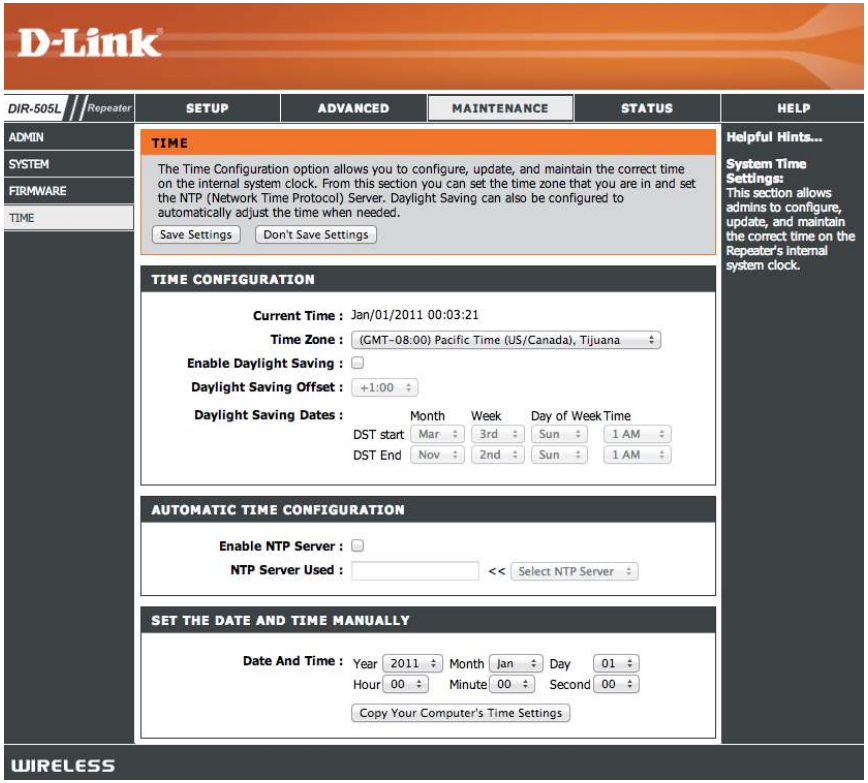
Time Zone: Select the Time Zone from the drop-down menu.

Enable 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.



Status

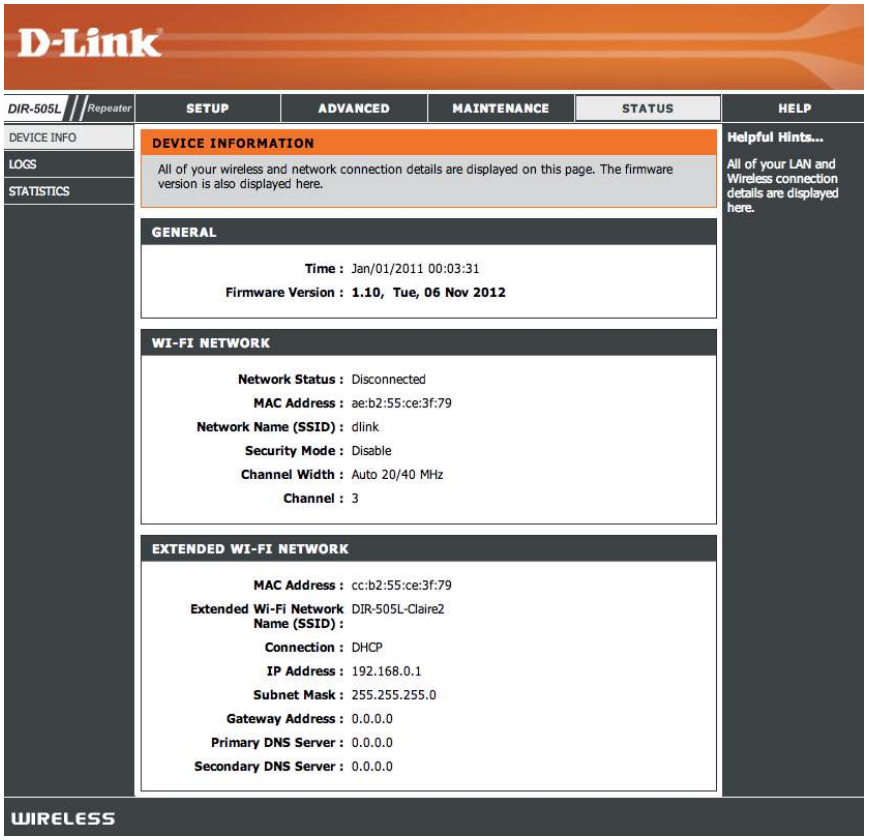
Device Info

This page displays the current information for the DIR-505. It will display the LAN and wireless LAN information.

General: Displays the time and firmware version.

Wi-Fi Network: Displays information about the Wi-Fi network and connection that the DIR-505 is extending.

Extended Wi-Fi Network: Displays information about the extended Wi-Fi network created by the DIR-505.



Logs

The DIR-505 keeps a running log of events and activities occurring on the DIR-505. If the DIR-505 is rebooted, the logs are automatically cleared.

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.

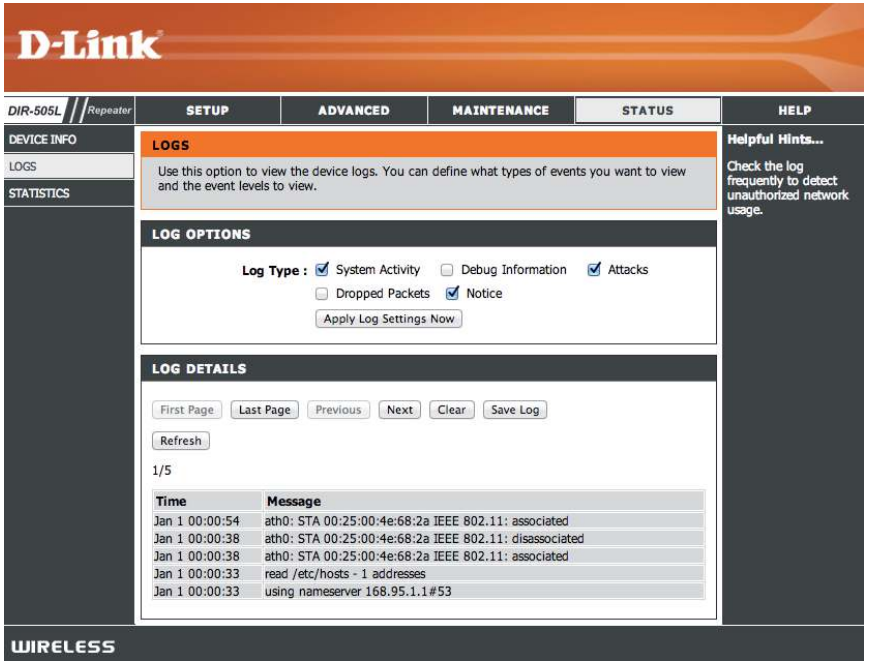
Previous: This button directs you to the previous page of the log.

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

Clear: This button clears all current log content.

Save Log: This button opens dialog where you can save the current log to your hard drive.

Refresh: This button refreshes the log.

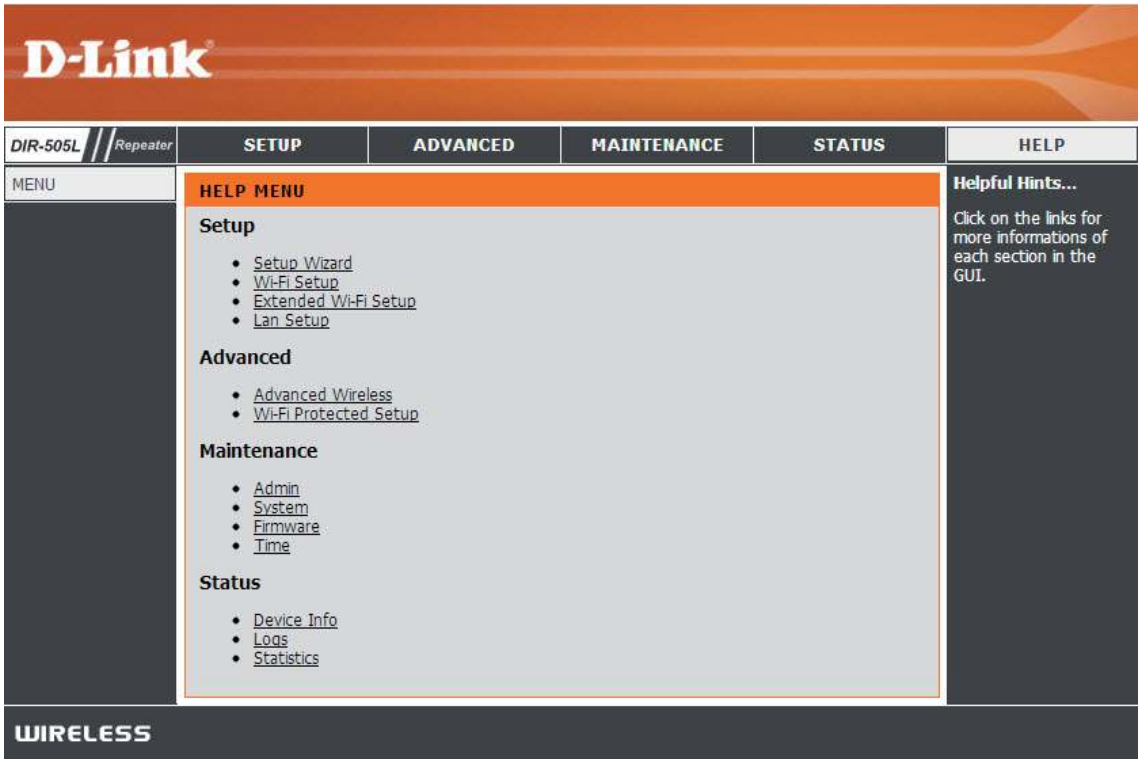


Statistics

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. Click the **Refresh Statistics** button to update the information, or click the **Clear Statistics** button to reset all statistics. The traffic counter will reset if the DIR-505 is rebooted.

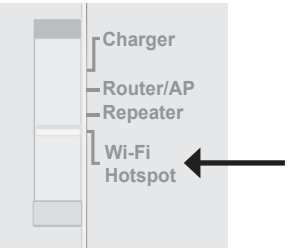
Help

This screen gives you more information about the various parts of the configuration interface. Click on a link to learn more about that topic.



Wi-Fi Hot Spot Mode

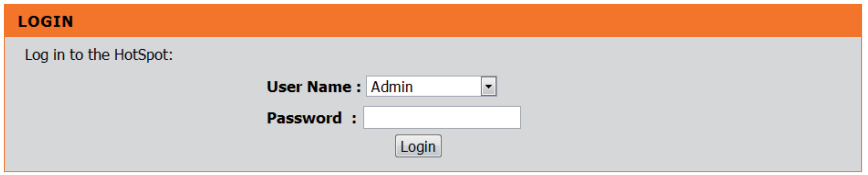
This section describes the configuration interface for Wi-Fi Hot Spot mode. Make sure that the mode selector switch is in the Wi-Fi Hot Spot position on your DIR-505.



Setup

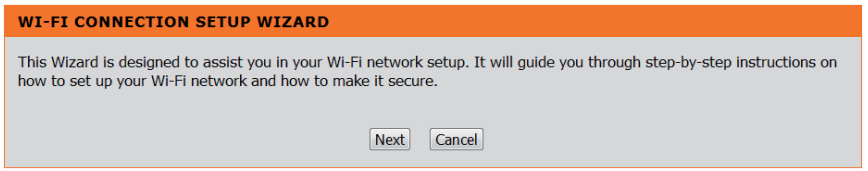
Quick Setup Wizard

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 the next page.

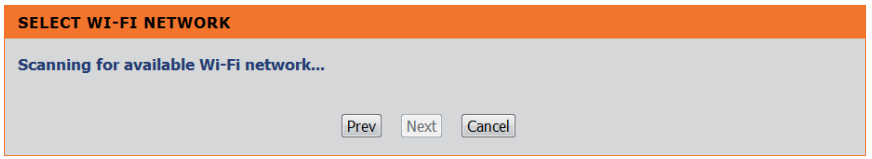


Enter **Admin** in the User Name field. Leave the password blank by default.

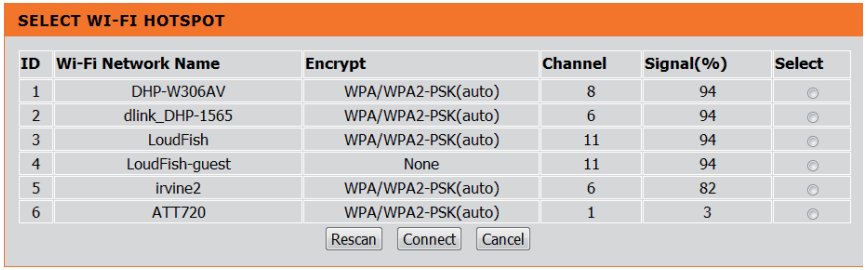
Click **Next** to continue.



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



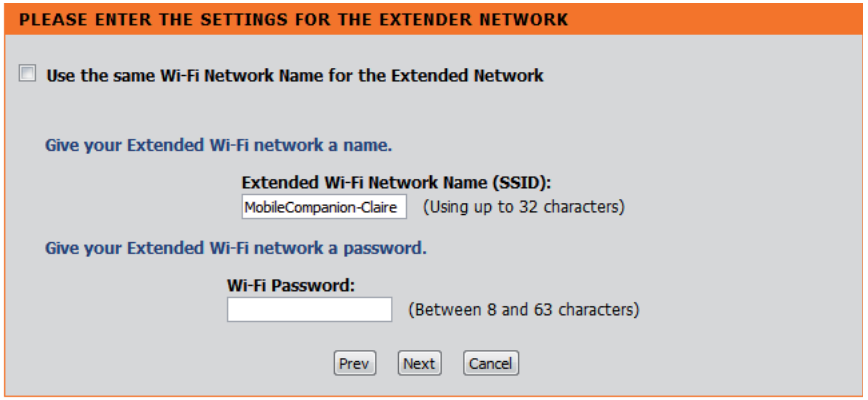
Select the Network you would like your device to connect to and click **Connect**.



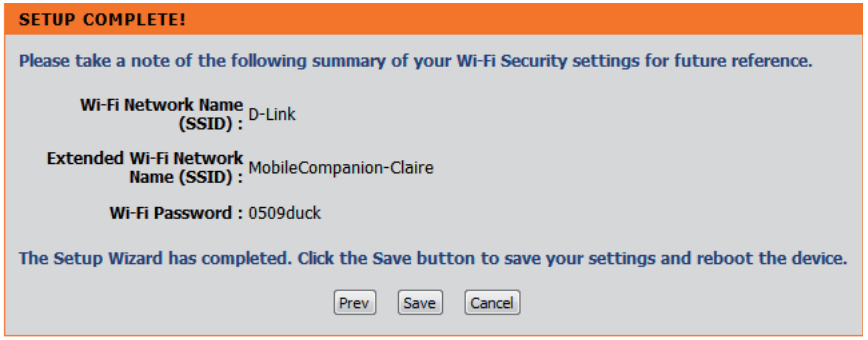
Enter the Wi-Fi password and click **Next** to continue.

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

If you want to use a different wireless network name and password, untick the checkbox and enter the network name and password you want to use.



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



Wi-Fi Hotspot Setup

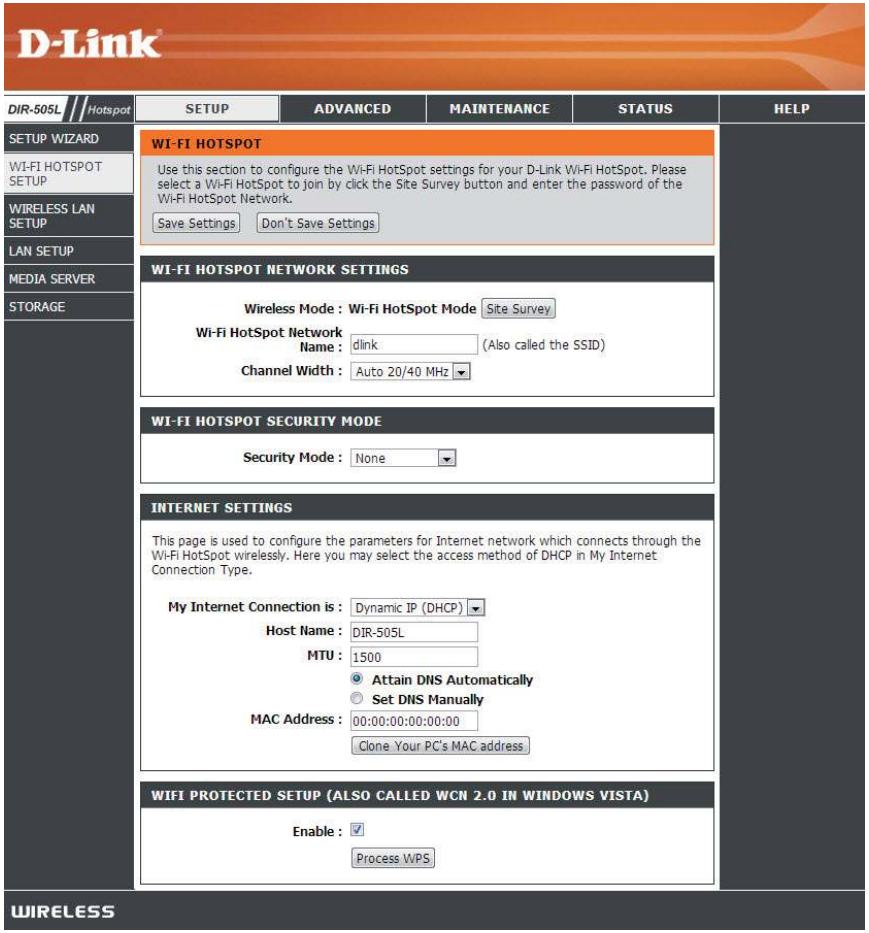
The Wi-Fi Hotspot Setup page allows you to enter the settings of the Wi-Fi hotspot that the DIR-505 will connect to and share access to. Please note that this is different from the wireless network created by the DIR-505 that you will connect your devices to. After making your changes, click the **Save Settings** button.

Wireless Mode: This will state **Wi-Fi Hot Spot Mode** when in Wi-Fi Hot Spot Mode. You can click the **Site Survey** button to look for available hotspots to connect to. Selecting a wireless network from the list that appears will automatically fill in the settings below.

Wi-Fi HotSpot Network Name: Enter the name of the Wi-Fi hotspot wireless network you want to connect the DIR-505 to. You can use the **Site Survey** button to fill this in automatically.

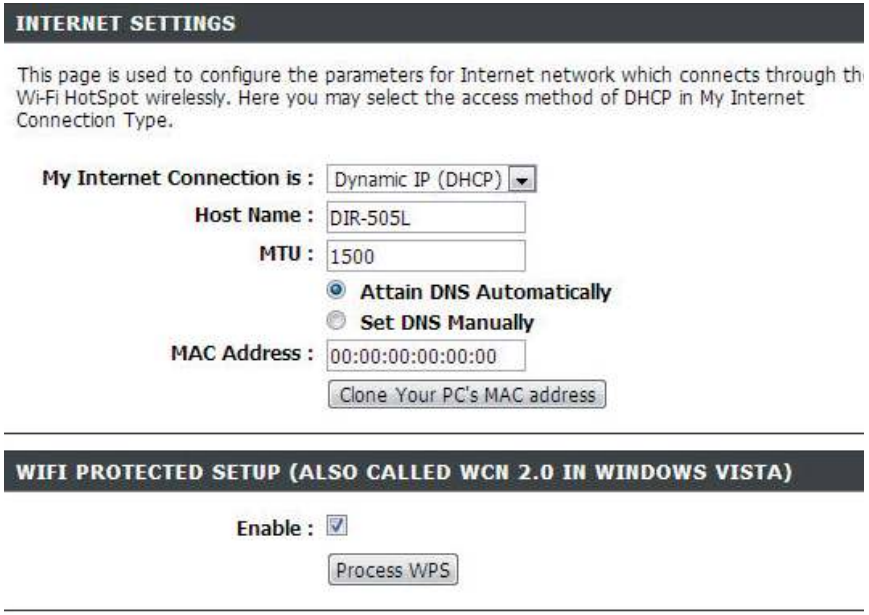
Channel Width: Select the appropriate channel width to use from the dropdown box. If you are not sure what to use, leave the setting on **Auto**.

Security Mode: Select the wireless encryption used by the Wi-Fi hotspot you are connecting to. You can use the **Site Survey** button to fill in most of the information automatically; you can then just enter the password(WEP Key or Pre-Shared Key) for the Wi-Fi hotspot.



Internet Settings Here, you can set the connection settings for the Wi-Fi hotspot. In most cases, you should not need to change any of the values from their default settings.

Wi-Fi Protected Setup: Tick this checkbox to enable connecting to a Wi-Fi hotspot through WPS. To use WPS to connect, click the **Process WPS** button, then press the WPS button on the Wi-Fi hotspot's router.



Wireless LAN Setup

Use this section to configure the Wireless LAN settings for your D-Link router. This will configure the wireless network you will connect to with your PCs and devices. You can create a new Wi-Fi network name (SSID) for your local Wi-Fi network (WLAN), or use the same wireless network name(SSID) as the Wi-Fi hotspot the router is connecting to. After making your changes, click the **Save Settings** button.

Local Wi-Fi Network Name: Set whether you want to use the same network name as the Wi-Fi hotspot the router is connected to(**Same as Wi-Fi HotSpot Network Name**), or if you want to create a new network name to use(**Create a new Wi-Fi Network Name**).

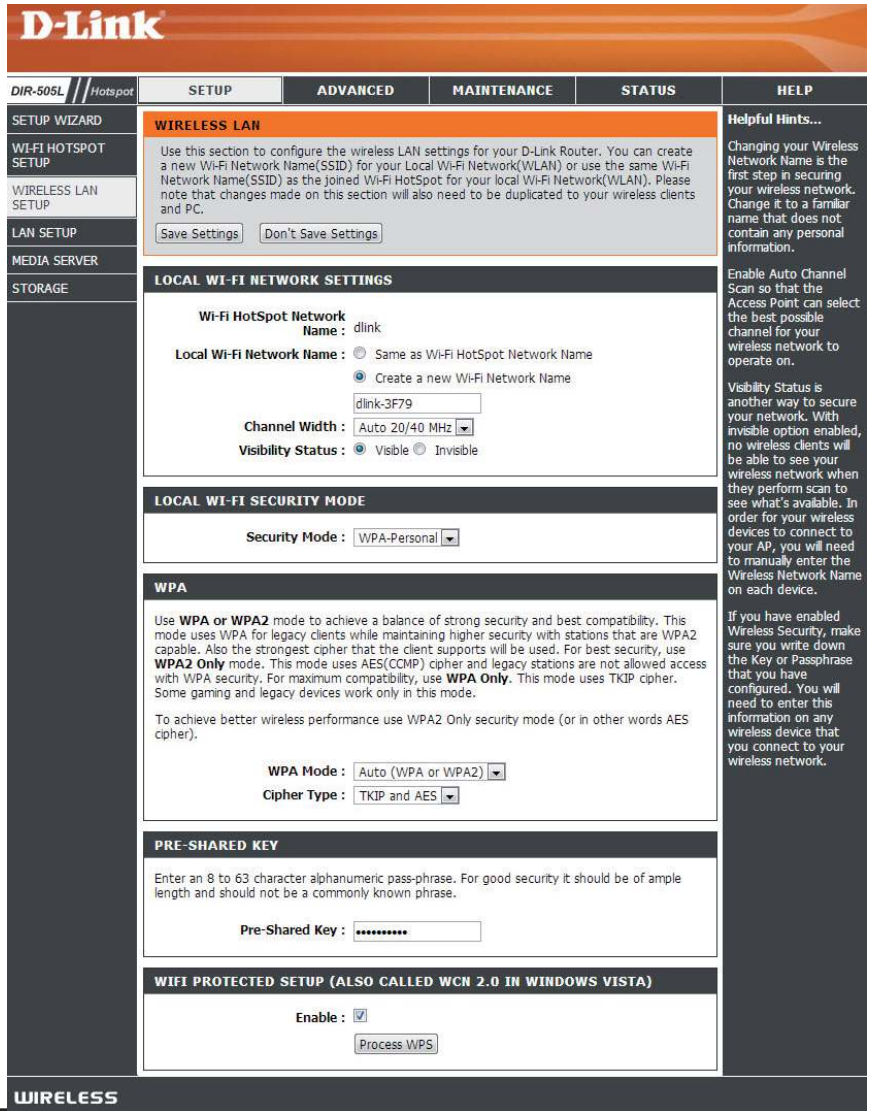
Channel Width: Select whether to use **Auto 20/40 MHz** or **20 MHz** for the channel width. Normally, this should be left on **Auto 20/40 MHz**. If you are not using any 802.11n wireless clients, you can set this to **20 MHz**.

Visibility Status: This setting controls whether the router's wireless network name(SSID) will be broadcast so that wireless devices can scan for it. If you set it to **Invisible**, all wireless clients will need to enter the network name and security settings of your wireless network manually.

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

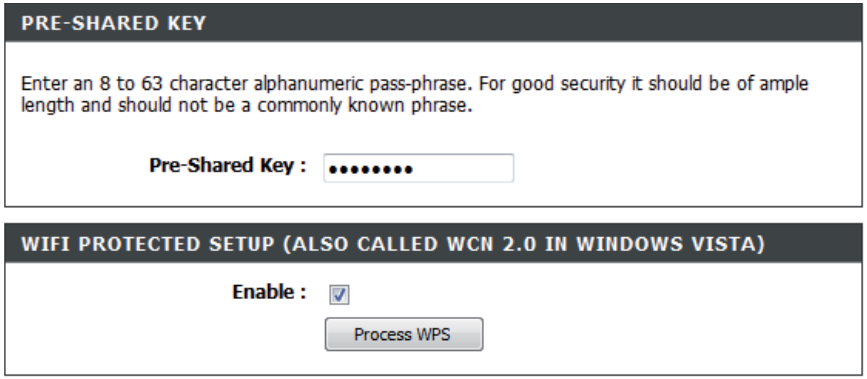
WPA Mode: Select **Auto**, **WPA2 Only**, or **WPA Only**. Use **Auto** if you have wireless clients using both WPA and WPA2.

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



Pre-Shared Key: Enter a password to use for your wireless network.

Wi-Fi Protected Setup: Tick the Enable checkbox to enable use of WPS for wireless clients. You can then click the **Process WPS** button and the press the WPS button on your client to set up a connection.



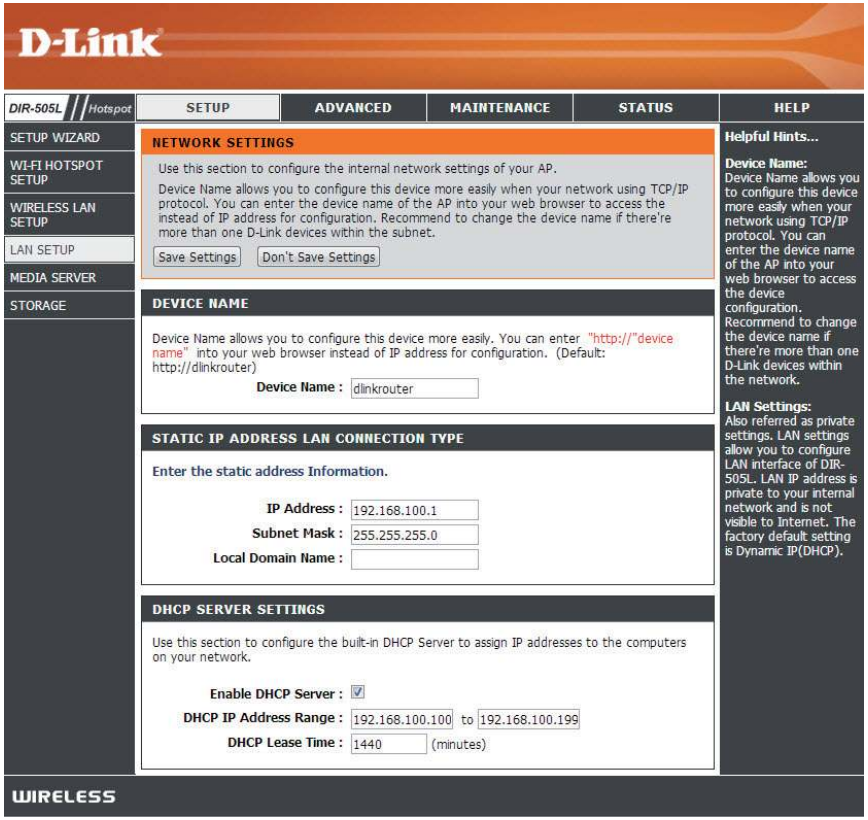
LAN Setup

This section will allow you to change the local network settings of the DIR-505 and to configure the DHCP settings. After making your changes, click the **Save Settings** button.

Device Name: Enter the Device Name of the DIR-505. It is recommended that you change the Device Name if there is more than one D-Link device in your subnet.

Dynamic IP (DHCP) LAN Connection Type: Here, you can edit the **IP Address**, **Subnet Mask**, and **Local Domain Name** for the DIR-505 to use.

DHCP Server Settings: Ticking the **Enable DHCP Server** checkbox allows the DIR-505 to assign IP addresses to the devices on your network. by using DHCP. You can set the range of allowable IP addresses using the **DHCP IP Address Range** text boxes, and you can set the **DHCP Lease Time** with the corresponding text box.

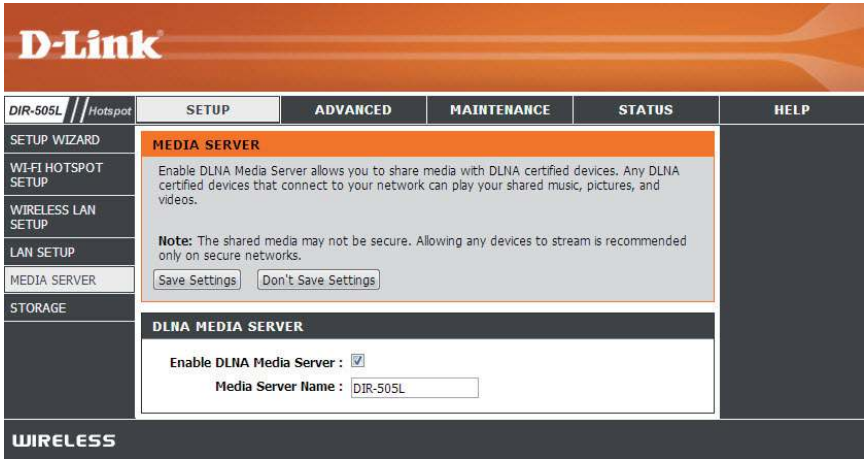


Media Server

This feature allows you to share music, pictures and videos with any devices connected to your network. After making your changes, click the **Save Settings** button.

Enable Media Server: Check this box to enable the media server feature.

Computer Name: Enter the media server's name.



Storage

This page will allow you to access files from a USB external hard drive or thumb drive that is plugged into the DIR-505 from your local network or from the Internet using either a web browser or the SharePort Mobile app for your smartphone or tablet. You can create users to customize access rights to the files stored on the USB drive. After making your changes, click the **Save Settings** button.

Enable SharePort Web Access: Tick this checkbox to enable sharing files stored on a USB storage drive connected to the DIR-505.

HTTP Access Port: Enter a port to use for HTTP web access to your files (8181 is the default). You will have to add this port to the IP address of the DIR-505 when connecting. For example: http://192.168.0.1:8181

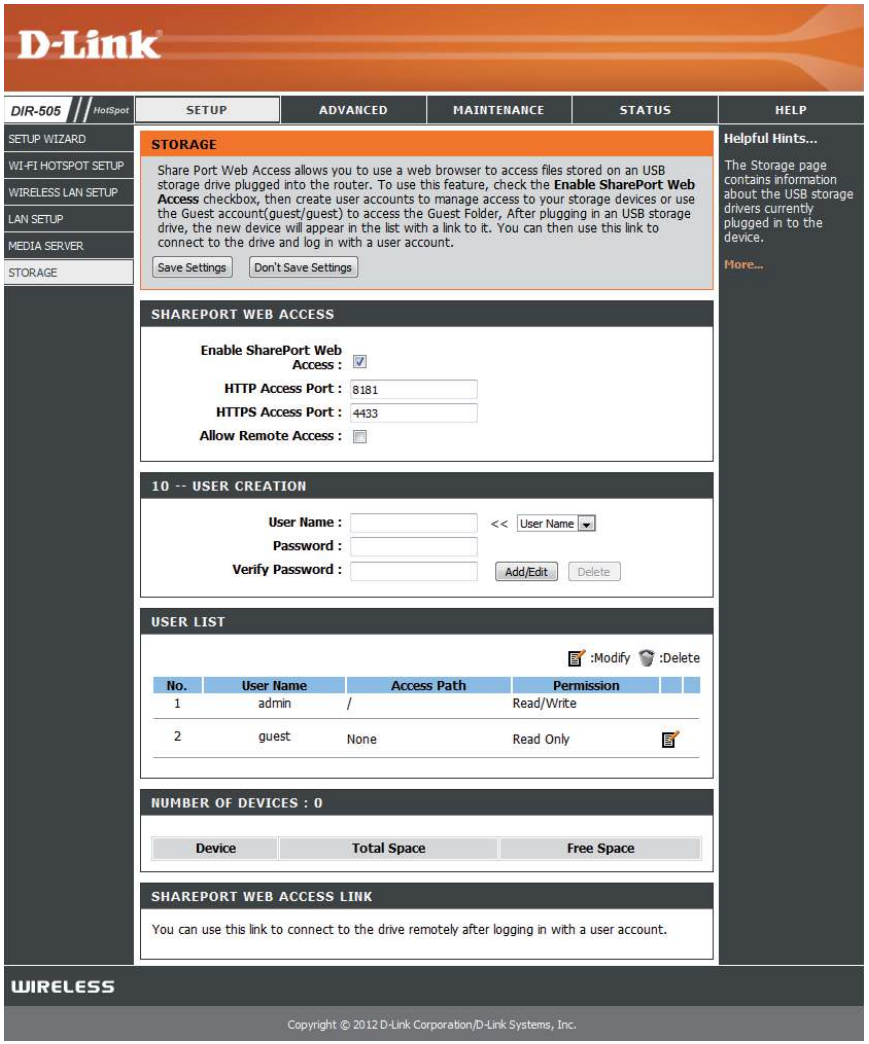
HTTPS Access Port: Enter a port to use for HTTPS secure access to your files (4433 is the default). You will have to add this port to the IP address of the DIR-505 when connecting. For example: https://192.168.0.1:4433

Allow Remote Access: Check to enable remote access to your router's storage.

User Name: To create a new user, enter a user name. To edit an existing user, use the dropdown box to the right.

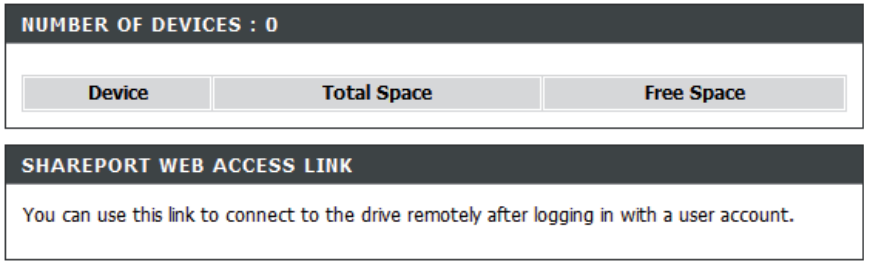
Password/ Verify Password: Enter a password you want to use for the account, re-enter the password in the **Verify Password** text box, then click **Add/Edit** to save your changes.

User List: This section shows existing user accounts. There are **admin** and **guest** accounts by default.



Number of Devices: This section shows you information about the USB storage device plugged into the router.

SharePort Web Access Link This will give you a direct link to the web access interface that you can click on or copy and paste.



Advanced
MAC Address Filter

Use MAC (Media Access Control) Filters to control access to your network based on the MAC addresses of connected clients. You can set MAC address filtering to only allow the listed MAC addresses to connect, or block access to all listed MAC addresses. After making your changes, click the **Save Settings** button.

Note: Any wired devices connected to the Ethernet port on the DIR-505 will always have access to the network.

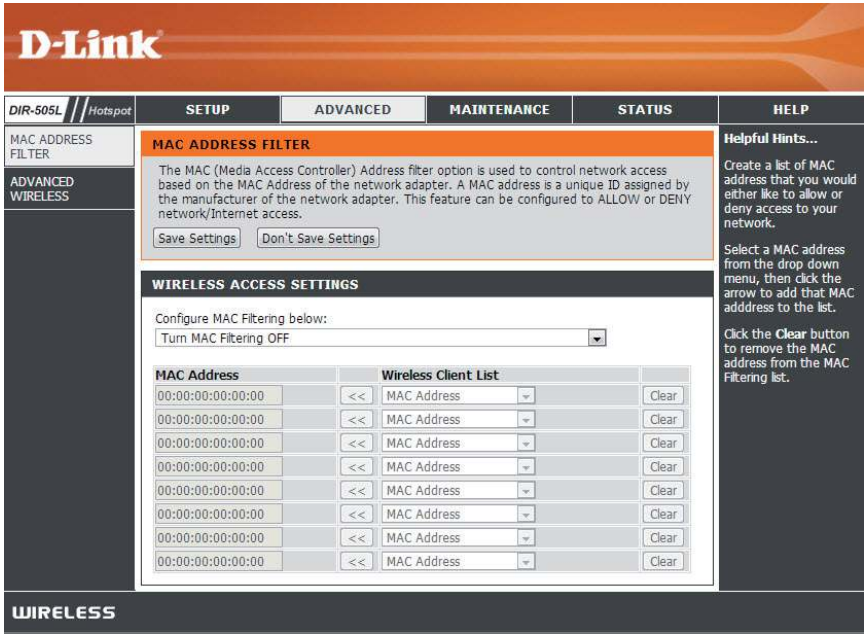
Wireless Access Settings: Configure how MAC filtering works by using the dropdown box to select an option:

Turn MAC Filtering OFF: This disables MAC filtering.

Turn MAC Filtering ON and ALLOW computers listed to access the network: When this option is selected, only PCs and devices with MAC addresses in the MAC Address List are granted network access. All other devices will be blocked.

Turn MAC Filtering ON and DENY computers listed to access the network: When this option is selected, all PCs and devices with MAC addresses in the MAC Address List will be refused access to your network. All other devices will be allowed access.

MAC Address: Enter the MAC addresses you would like to filter. You can select a client currently connected to your access point from the **Wireless Client List** drop-down menu and then click the corresponding **<<** button fill in the MAC address automatically. Click the Clear button to remove any entered MAC address.

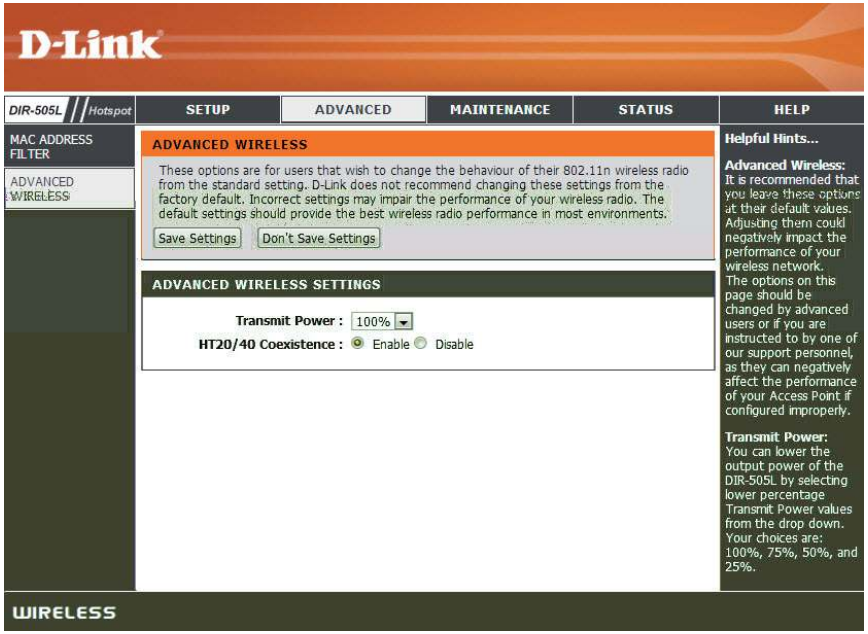


Advanced Wireless

This screen allows you to set various advanced wireless settings of your DIR-505. Unless you are experiencing specific problems, it is recommended that you leave these settings at their default values. After making your changes, click the **Save Settings** button.

Transmit Power: Sets the transmit power of the antennas.

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



Maintenance

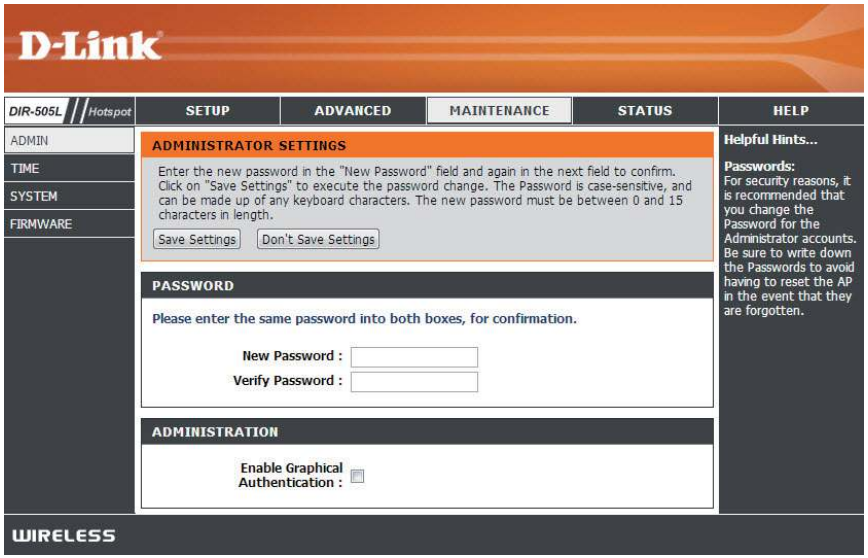
Admin

This page will allow you to change the password for the administrator account for configuring the settings of the DIR-505. You can also turn on graphical authentication(CAPTCHA) on this page. After making your changes, click the **Save Settings** button.

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

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

Enable Graphical Authentication: Check to enable Graphical Authentication, or CAPTCHAs when logging in to the web UI of the DIR-505. This provides an extra layer of security by requiring you to enter a code that is displayed on-screen.



Time

The Time page 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. After making your changes, click the **Save Settings** button.

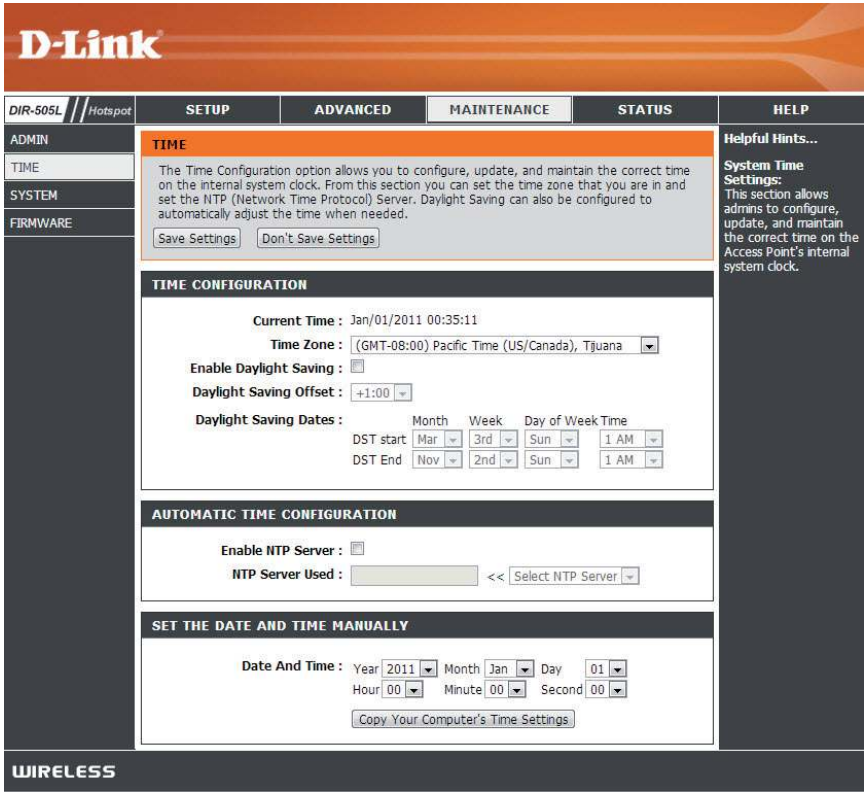
Time Zone: Select the Time Zone from the drop-down menu.

Enable 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.



System

This page allows you to save and restore your configuration, reset and reboot the DIR-505, and remove any added language packs.

Save Settings To Local Hard Drive: Clicking the **Save** button will allow you to save the current repeater configuration settings to a file on the hard disk of the computer you are using. You will then see a file dialog where you can select a location and file name for the settings.

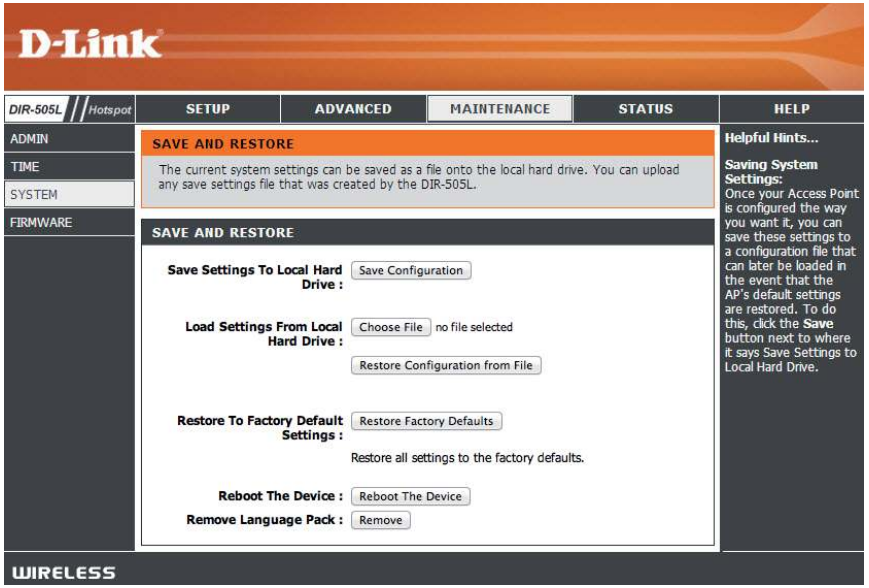
Load Settings From Local Hard Drive: Use this option to load previously saved configuration settings. Click **Browse** to find a previously saved configuration file. Then, click the **Upload Settings** button to transfer those settings to the DIR-505.

Restore to Factory Default Settings: This option will restore all configuration settings back to the factory default settings. Any settings that have not been saved will be lost, including any rules that you have created. If you want to save your current 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 the **Reboot** button to reboot the repeater.

Remove Language Pack: If you have previously installed a Language Pack, you can remove it by clicking the Remove button.



Firmware

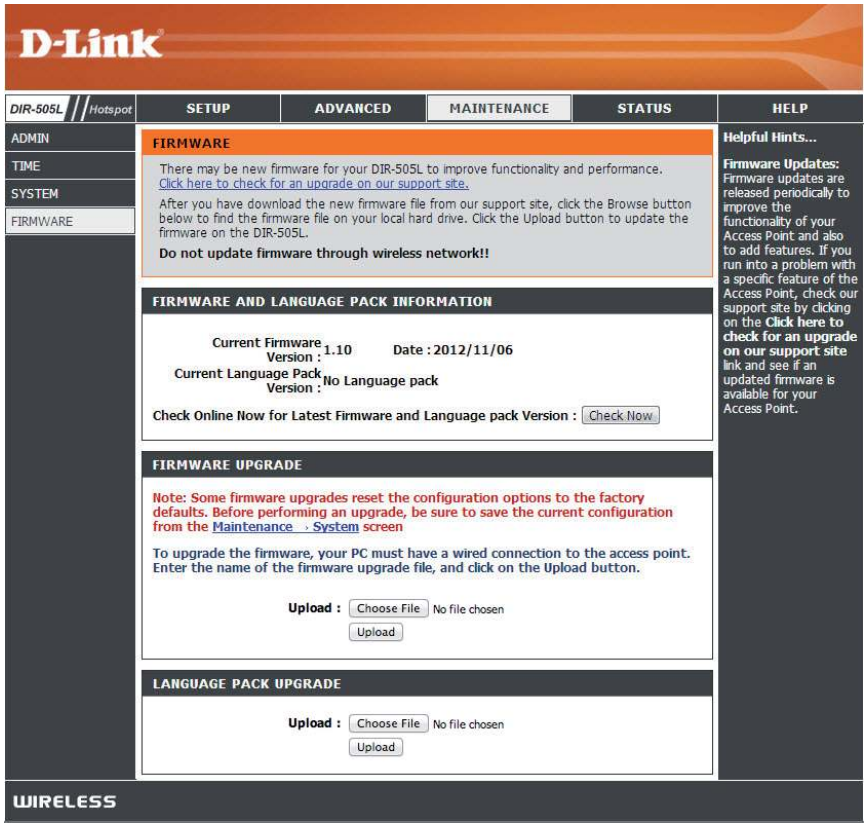
You can upgrade the firmware of the DIR-505 here. Make sure the firmware you want to use is on the local hard drive of the computer. Click on **Browse** to locate the firmware file to be used for the update. Please check the D-Link support website for firmware updates at **http://support.dlink.com**. 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.

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. Do not disconnect from the DIR-505 or power your computer or DIR-505 off during the upgrade process.

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

Browse: Download a language pack from the D-Link website. 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.



Status

Device Info

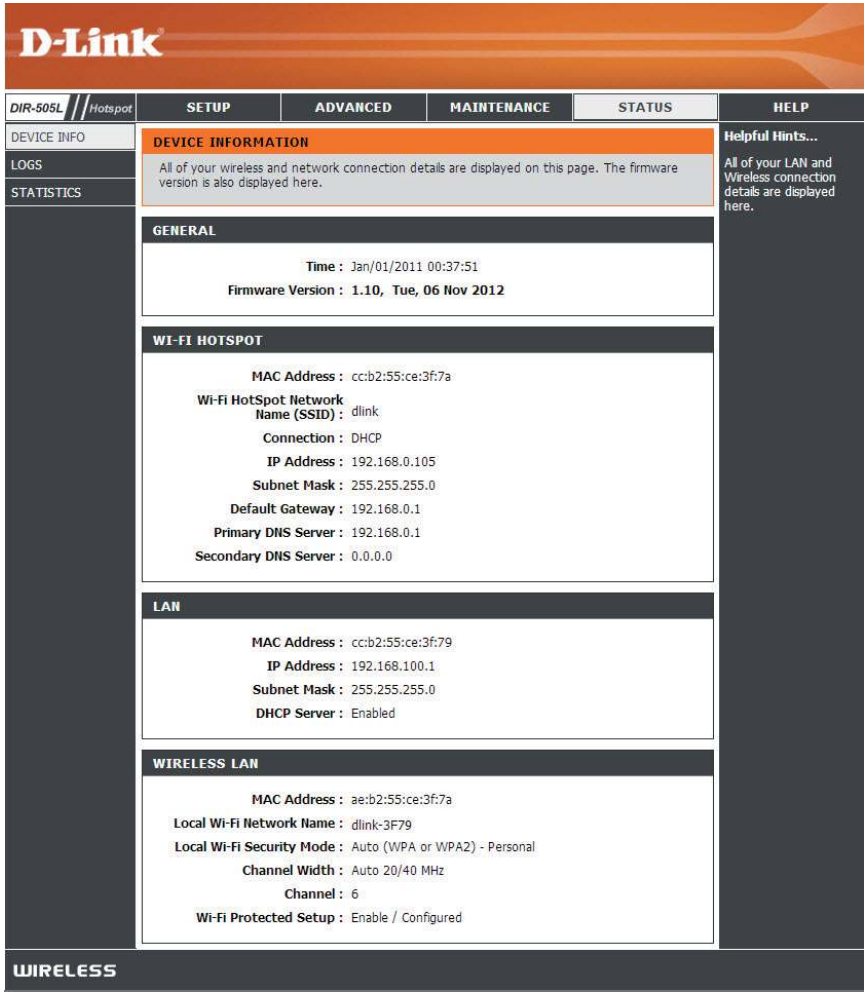
This page displays the current information for the DIR-505. It will display the LAN and wireless LAN information.

General: Displays the time and firmware version.

Wi-Fi Hotspot Displays information about the connection to the Wi-Fi hotspot.

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.



Logs

The DIR-505 keeps a running log of events and activities occurring on the DIR-505. If the DIR-505 is rebooted, the logs are automatically cleared.

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.

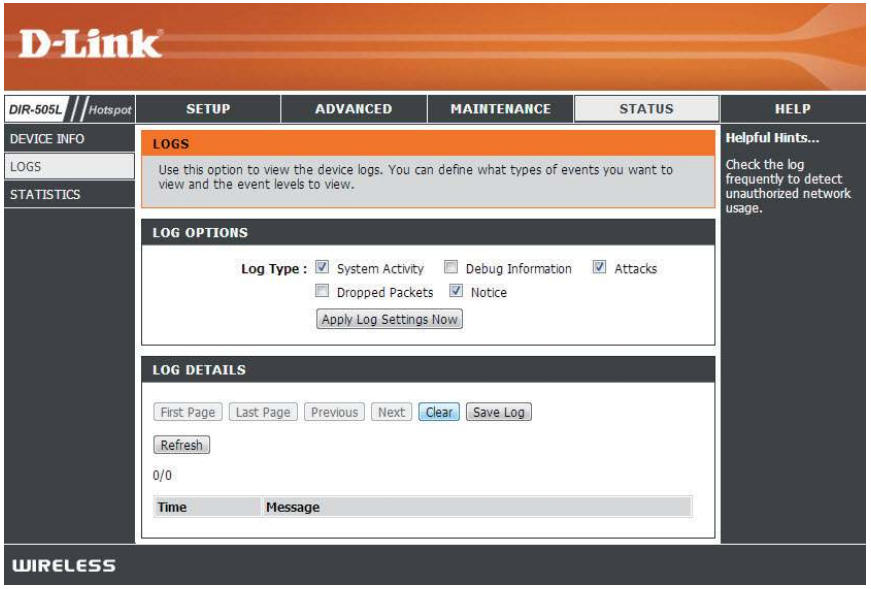
Previous: This button directs you to the previous page of the log.

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

Clear: This button clears all current log content.

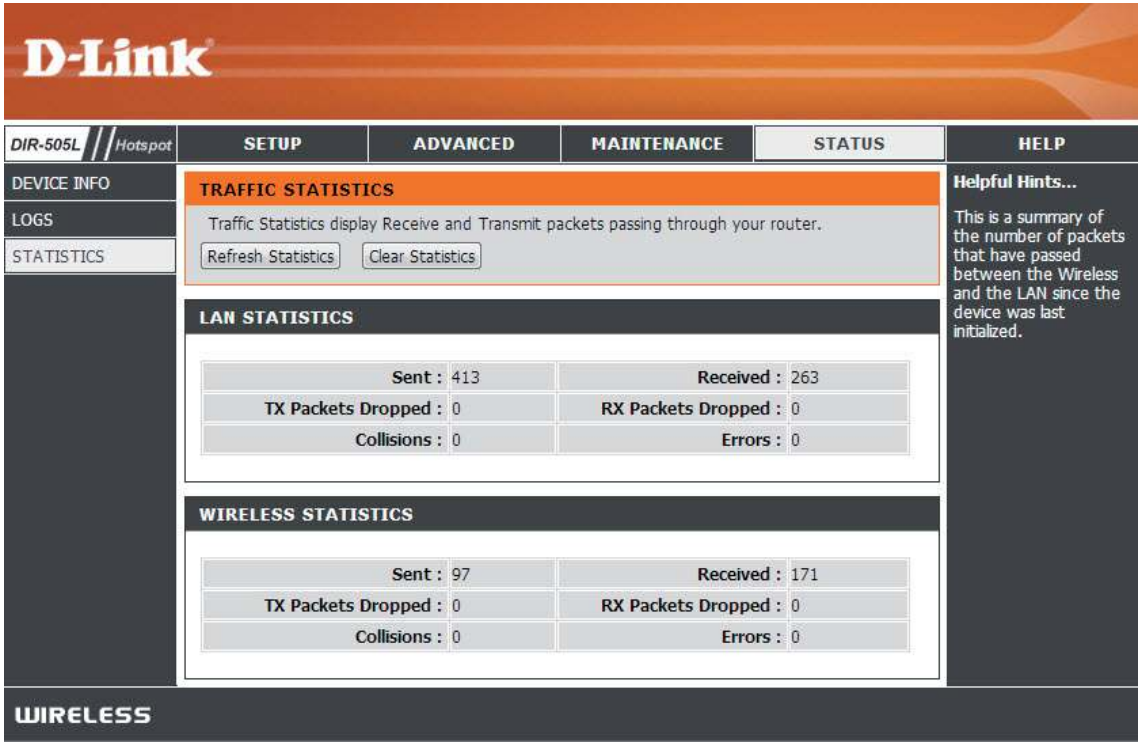
Save Log: This button opens dialog where you can save the current log to your hard drive.

Refresh: This button refreshes the log.



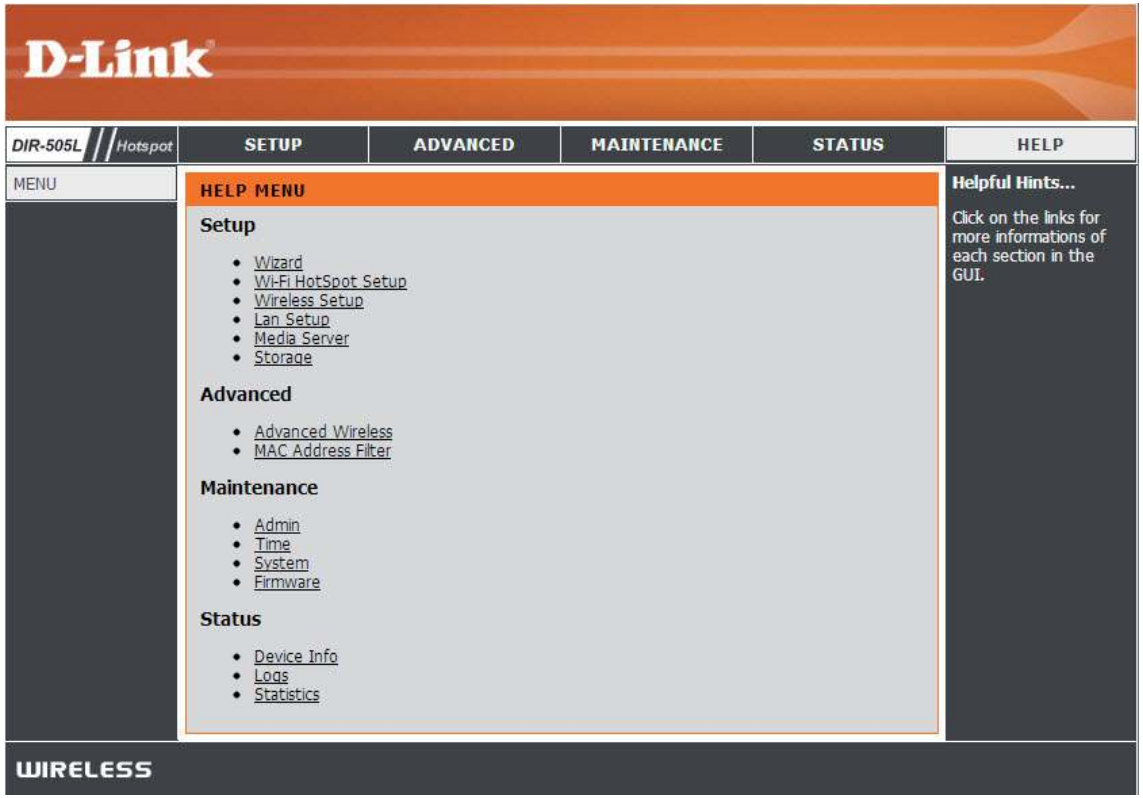
Statistics

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 DIR-505 is rebooted.



Help

This screen gives you more information about the various parts of the configuration interface. Click on a link to learn more about that topic.



Connecting a Wireless Client

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).

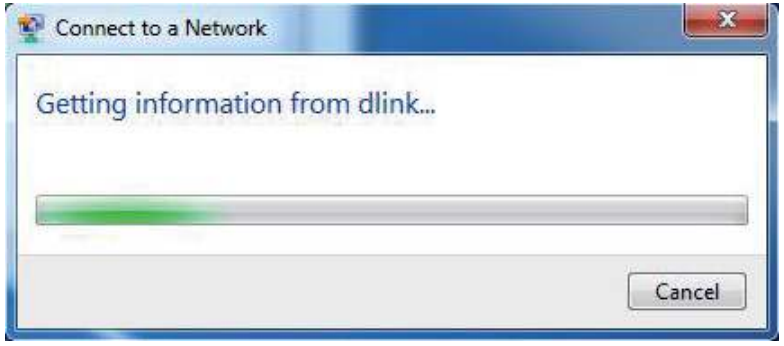
Wireless Icon

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.



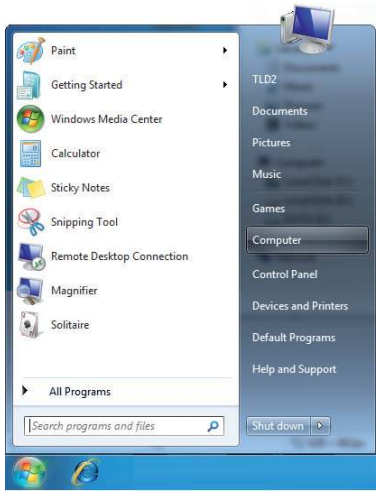
5. Enter the same security key or passphrase that is on your router and click **Connect**. You can also connect by pushing the WPS button on the router.

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.

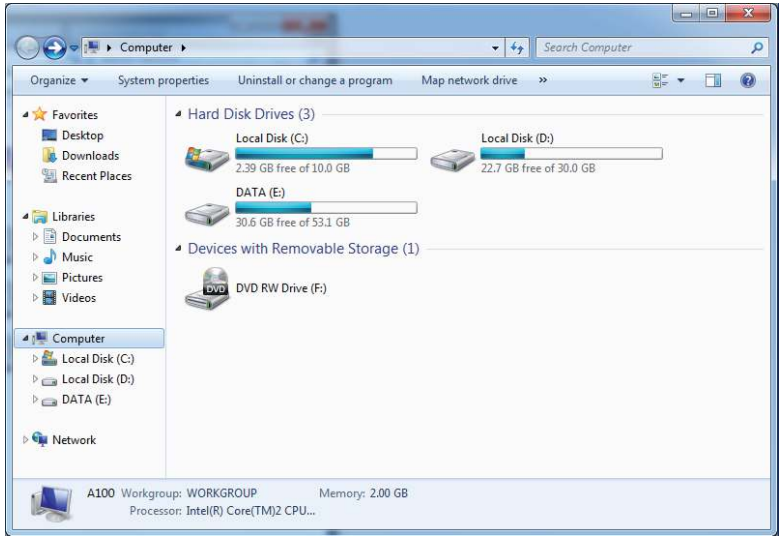
WPS

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:

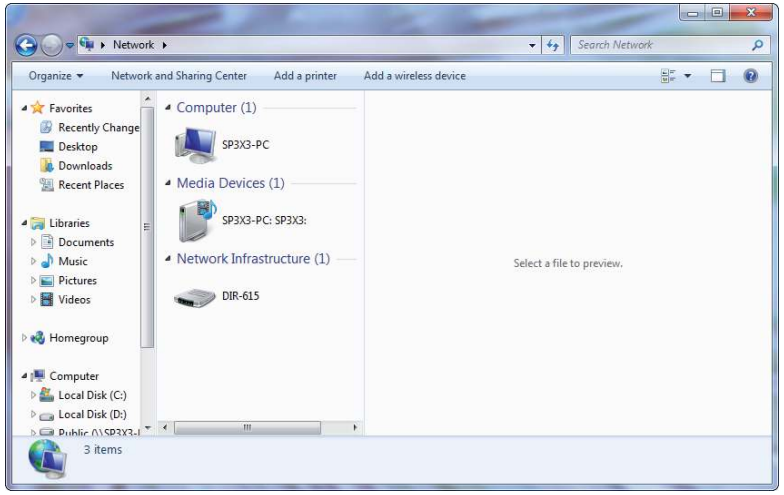
1. Click the **Start** button and select **Computer** from the Start menu.



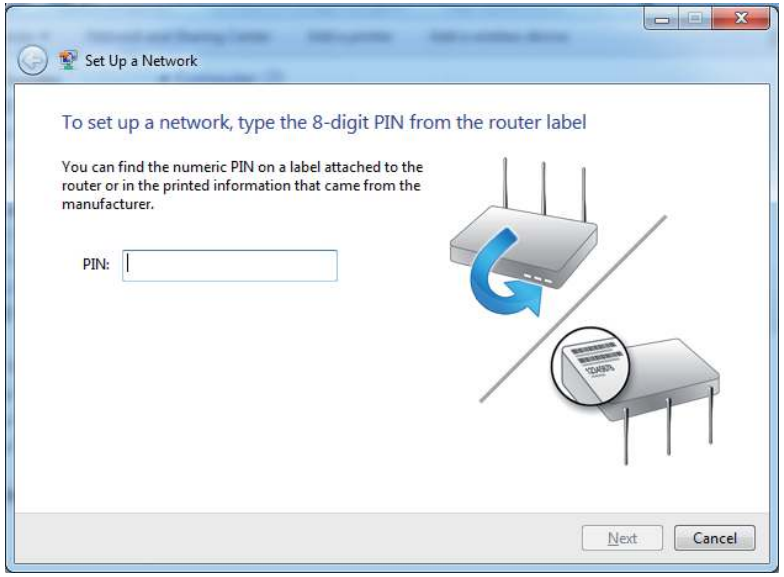
2. Click **Network** on the left side.



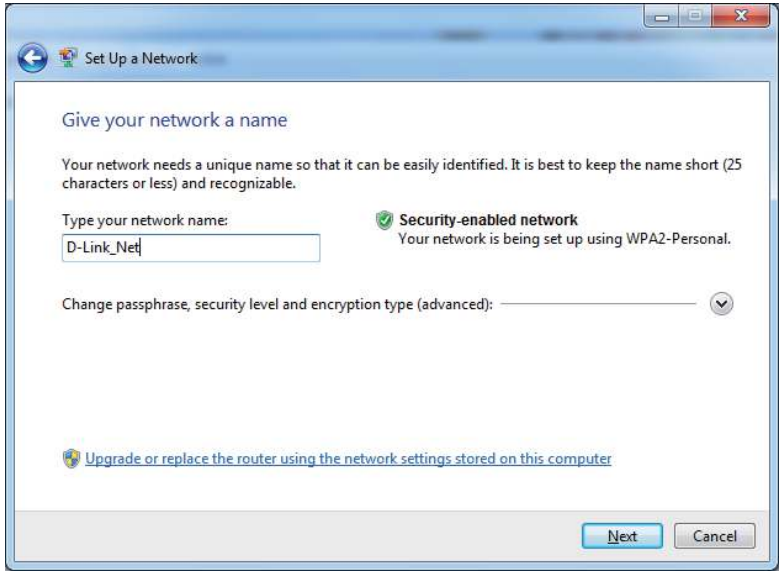
3. Double-click the DIR-505.



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**.

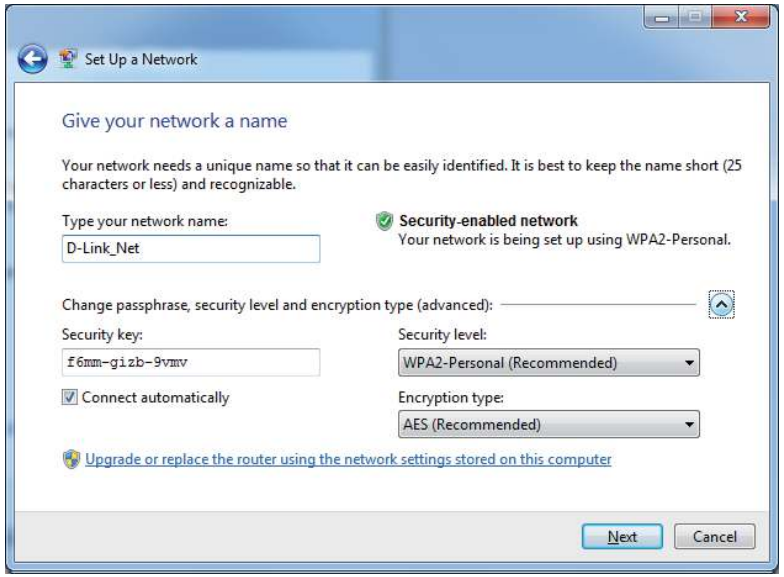


5. Type a name to identify the network.



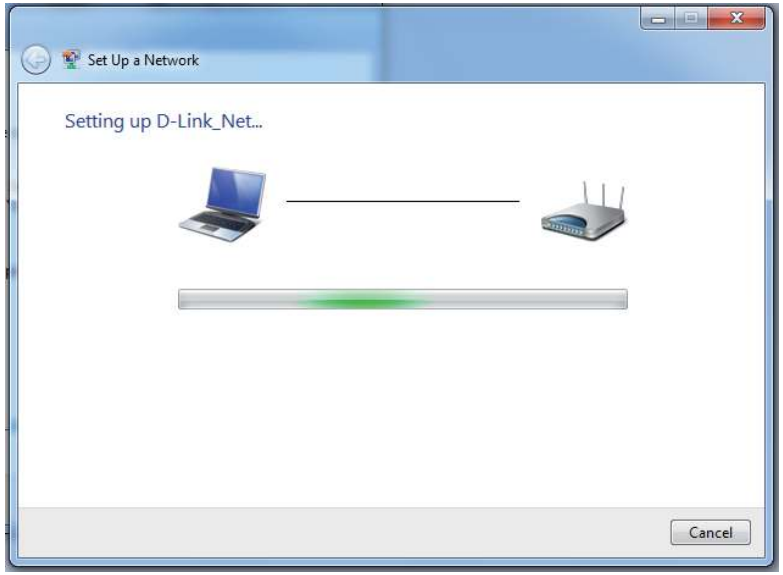
6. To configure advanced settings, click the icon.

Click **Next** to continue.



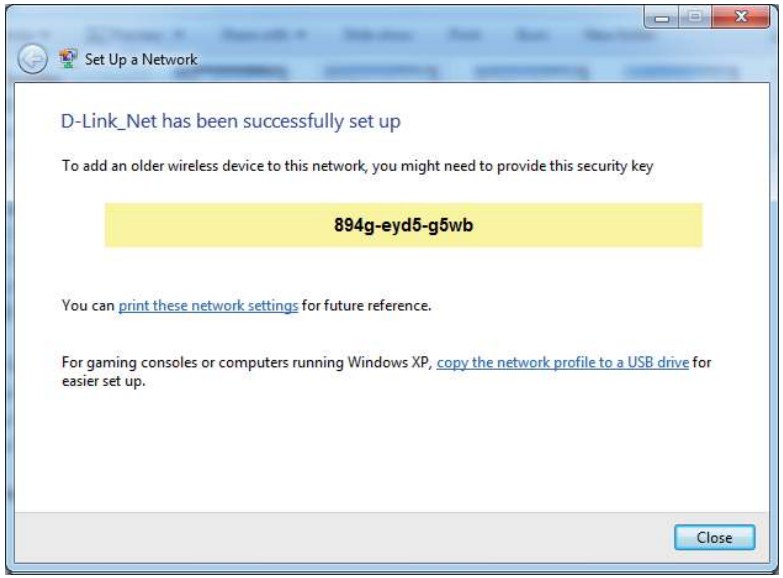
7. The following window appears while the Router is being configured.

   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**.

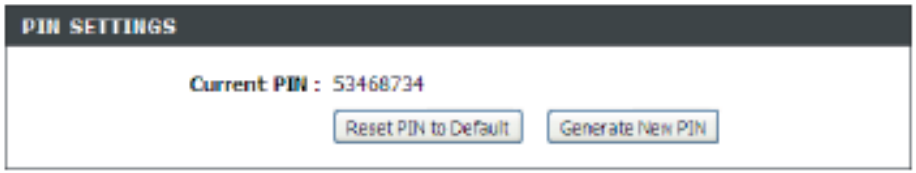
It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the security settings are correct. The key or passphrase must be exactly the same as on the wireless router.

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.

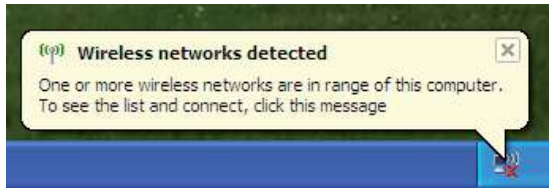


If you are using third party software to set up Wi-Fi Protection, carefully follow the directions. When you are finished, proceed to the next section to set up the newly-configured router.

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.

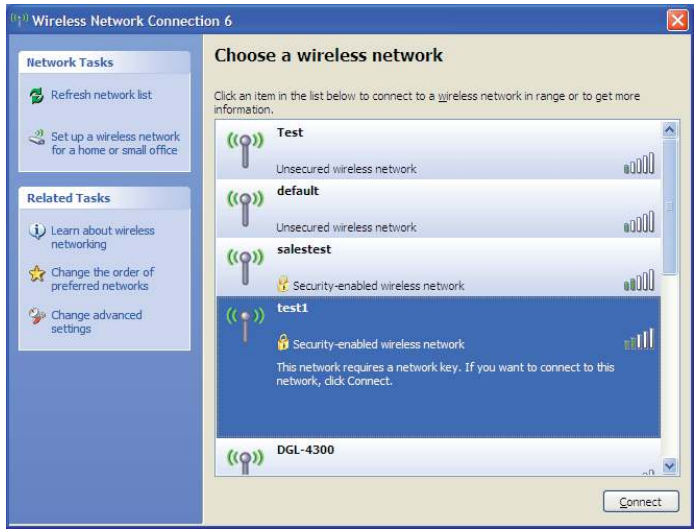


or

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.

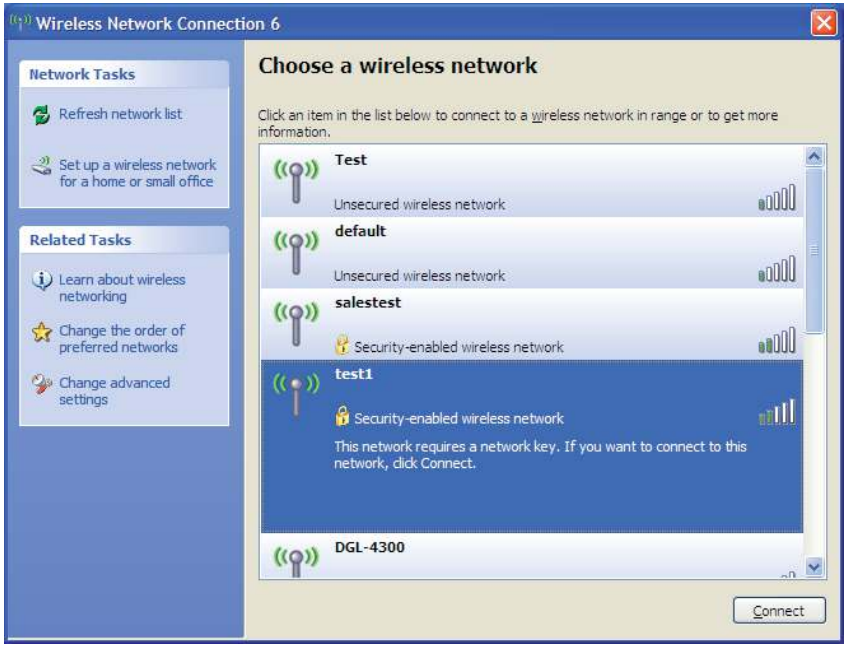


WPA/WPA2

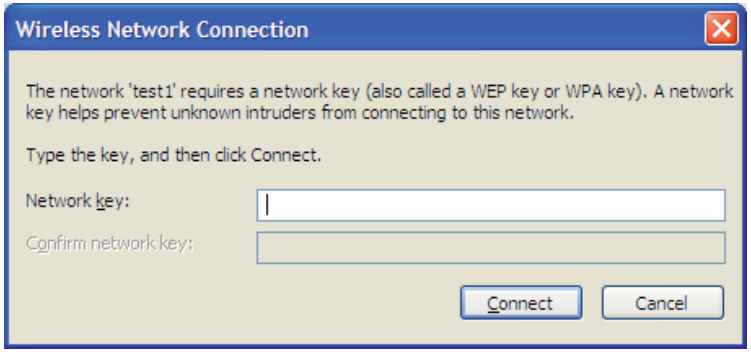
It is recommended to enable WPA on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the WPA key being used.

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

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

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

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

Wireless Basics

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

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

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

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

What is Wireless?

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

Why D-Link Wireless?

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

How does wireless work?

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

Wireless Local Area Network (WLAN)

In a wireless local area network, a device called an Access Point (AP) connects computers to the network. The access point has a small antenna attached to it, which allows it to transmit data back and forth over radio signals. With an indoor access point 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 as become so popular in recent years that almost everyone is using it, whether it's for home, office, business, D-Link has a wireless solution for it.

Home

- Gives everyone at home broadband access
- Surf the web, check email, instant message, etc.
- Gets rid of the cables around the house
- Simple and easy to use

Small Office and Home Office

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

Where is wireless used?

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

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

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

Tips

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

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

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

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

Networking Basics

Check your IP address

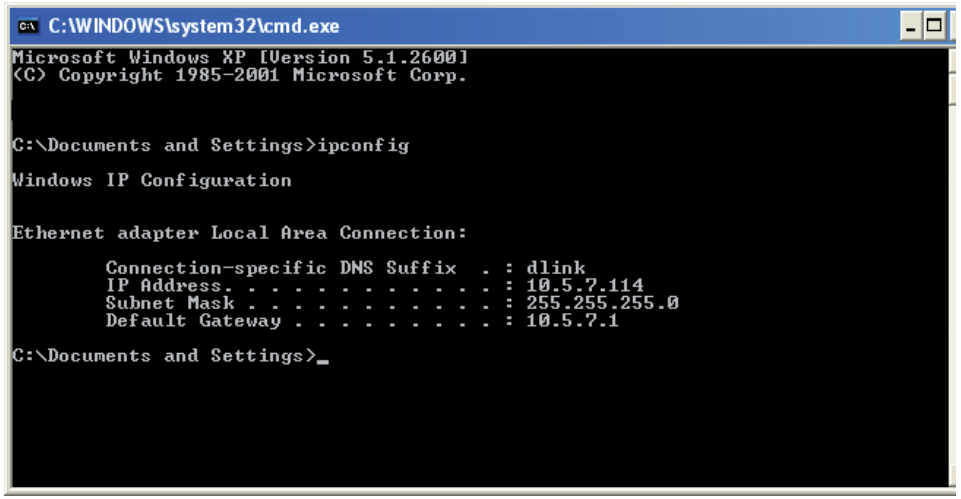
After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

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.



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

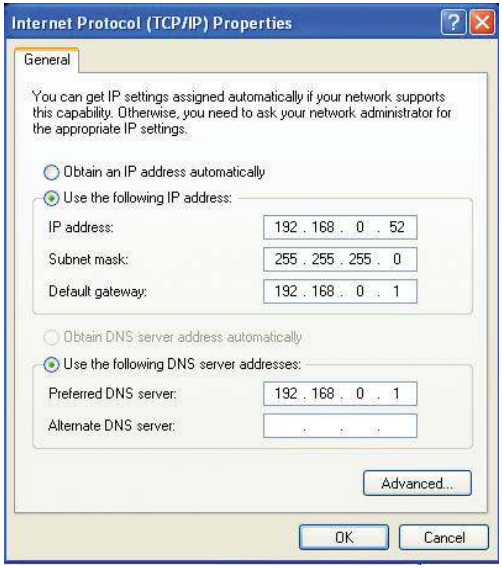
Right-click on the **Local Area Connection** which represents your network adapter and select **Properties**.

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 802.11g, compatible with 802.11n devices
- IEEE 802.3
- IEEE 802.3u

Wireless Modes
- Router/AP Mode
- Repeater Mode
- Wi-Fi Hot Spot Mode

Wireless Frequency Range [1]
- 2.4 GHz to 2.4835 GHz

Antennas
- Internal Antenna

Security
- Wi-Fi Protected Access (WPA/WPA2)
- WPS™ (PBC)

Advanced Features
- SharePort™ Mobile app for iOS and Android
- QRS Mobile setup app for iOS [2]
- VPN pass-through
- Guest Zone Support
- UPnP™ Support
- SharePort Web Access Support
- Wi-Fi WMM Quality of Service

Advanced Firewall Features
- Stateful Packet Inspection (SPI)
- MAC Address Filtering
- DMZ Support

Device Management
- Web UI

Diagnostic LEDs
- Power/WPS

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

Operating Humidity
- 0% to 90% non-condensing

Certifications
- CE
- Wi-Fi Certified
- FCC
- IC
- DLNA

Dimensions
- 68 x 42 x 51 mm (2.68 x 1.65 x 2 inches)

Weight
- 113.4 grams (0.25 lb)

[1] Frequency Range varies depending on local regulations

[2] QRS Mobile app is for Router mode setup only.

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If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liability accompanies a copy of the Program in return for a fee.

Safety Statements

CE Mark Warning:

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

FCC Statement:

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

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

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

FCC Caution:

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

Operations in the 5.15-5.25GHz / 5.470 ~ 5.725GHz band are restricted to indoor usage only.

IMPORTANT NOTICE:

FCC Radiation Exposure Statement:

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

If this device is going to be operated in 5.15 ~ 5.25GHz frequency range, then it is restricted in indoor environment only. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

ICC Notice:

Operation is subject to the following two conditions:

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

IMPORTANT NOTE:
IC Radiation Exposure Statement:

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

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

(i) The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems;
(ii) The maximum antenna gain (2dBi) permitted (for devices in the band 5725-5825 MHz) to comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate, as stated in section A9.2(3).

In addition, users should also be cautioned to take note that high-power radars are allocated as primary users (meaning they have priority) of the bands 5250-5350 MHz and 5650-5850 MHz and these radars could cause interference and/or damage to LE-LAN devices.

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.