



# User Manual

## PowerLine AV Wireless N Extender Starter Kit

DHP-W307AV

# 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	June 27, 2011	• Initial release

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# Package Contents



One D-Link DHP-306AV PowerLine AV Network Adapter



One D-Link DHP-W306AV PowerLine AV Wireless N Extender



Two CAT5 Ethernet Cables



CD-ROM with Software and User Manual

## System Requirements

### Network Requirements

- IEEE 802.11n or 802.11g wireless clients
- 10/100 Ethernet clients

### Browser Requirements

- Internet Explorer 6.0 or higher
- Firefox 3.0 or higher
- Safari 3.0 or higher
- Chrome 2.0 or higher

### CD Installation Wizard Requirements

- Windows® XP with Service Pack 3/ Vista® / Windows® 7
- An installed Ethernet adapter
- CD-ROM drive

# Introduction

The DHP-W307AV allows you to connect both wired and wireless computers, high-definition TVs, networking devices, and gaming consoles using the most pervasive medium in your home - the electrical wiring. Share Internet connections and experience smooth file transfers, streaming multimedia, online gaming and more. The PowerLine AV Wireless N Extender features easy plug-and-play installation and can be connected to any Ethernet-enabled device.

The PowerLine AV Wireless N Extender incorporates the latest technology to deliver up to 200 Mbps over a home's existing electrical wiring. This fast transmission speed provides ample bandwidth suitable for streaming high-quality video HDTV signals while simultaneously providing high-speed Internet access throughout the home. With Quality of Service (QoS) support, the performance of applications which require real-time communication, such as VoIP phonecalls and multiplayer online games, will not be compromised even while streaming Internet TV and music.

### **DATA TRANSMISSION OVER ELECTRICAL WIRING**

The D-Link DHP-W307AV PowerLine AV Wireless N Extender Starter Kit, compliant with the PowerLine AV standard, uses your home's existing electrical wiring to create a network or extend your existing network. It turns every power outlet into a possible network connection to access digital media devices, game consoles, print servers, computers, and network storage devices throughout your home. Additionally, Wireless N provides high speed transfers without the need for unsightly network cables.

### **FASTER WIRELESS SPEEDS & WIDER OPERATIONAL RANGE**

The Wireless N technology incorporated into the DHP-W307AV offers increased speed and range over standard 802.11g. Initial wireless setup can be accomplished quickly, thanks to a convenient WPS button atop the device. WEP, WPA, and WPA2 encryption keep your network traffic safe and secure.

### **IDEAL FOR BANDWIDTH-INTENSIVE APPLICATIONS**

The DHP-W307AV is capable of delivering data transfer rates of up to 200 Mbps<sup>2</sup>. This rapid transmission speed makes it ideal for bandwidth-intensive applications, guaranteeing smooth HD video streaming, VoIP calls, and lag-free online gaming experiences. In addition, it prioritizes Internet traffic, ensuring that multimedia applications do not experience glitches while web surfing and downloads are in progress. This device provides ample network bandwidth, enabling digital home consumers to tap into existing electrical wiring for high-quality multimedia streaming.

### **CONVENIENT SETUP AND SECURE OPERATION**

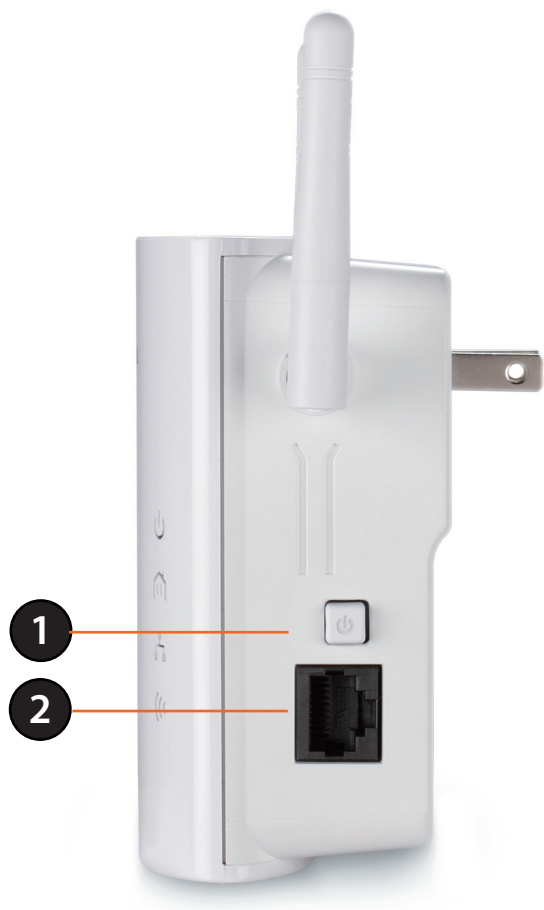
The DHP-W307AV plugs directly into a power outlet, and does not require any additional cables. Extend your home network by connecting multiple devices in the farthest corners of your home via Ethernet cable or Wireless N. For convenient setup, wired or wireless encryption keys can be quickly configured with the push of a button on top of the device. The adapter implements 128-bit AES data encryption to protect the network from unauthorized wiretapping. With hassle-free plug and play installation, the DHP-W307AV is an ideal solution to create a wall-to-wall home network.

<sup>1</sup> Power outlets and electrical wiring must all be part of the same electrical system. Certain electrical conditions in your home, such as wiring condition and configuration, may affect the performance of this product. Additional D-Link PowerLine AV adapters are required to add new devices to the network. A minimum of two D-Link PowerLine AV Network Adapters are required to create a network. Connecting this product to a power strip with a surge protector may adversely affect the performance of this product. For best results, plug the adapter directly into a wall outlet.

<sup>2</sup> Maximum throughput based on theoretical transmission PHY rate. Actual data throughput will vary. Network conditions and environmental factors, including volume of traffic and network overhead, may lower actual data throughput rate. Interference from devices that emit electrical noise, such as vacuum cleaners and hair dryers, may adversely affect the performance of this product. This product may interfere with devices such as lighting systems that have a dimmer switch or a touch-sensitive on/off feature, shortwave radios, or other PowerLine devices that do not follow the HomePlug standard.

# Hardware Overview

## Connections

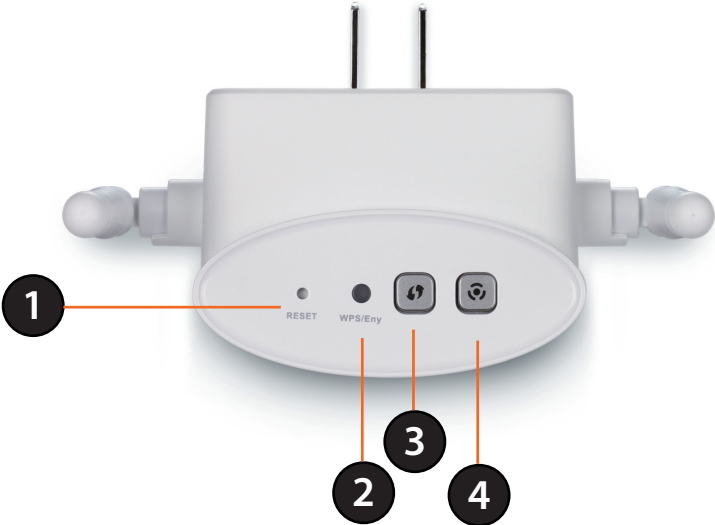


1	ON/OFF	Turns the device ON or OFF.
2	RJ-45 10/100BASE-TX Ethernet Port	Connects to Digital Media Devices, PCs, Game Consoles, Network Storage Devices



# Hardware Overview

## Side



1	Reset Button	Press and hold the button for 2 seconds to reset to factory default.
2	WPS/Simple Connect LED	When enabling WPS, the light will blink during broadcast. Once connected, the LED will remain lit 5 seconds and then will turn off. The LED will start blinking after the Encryption button is pushed. The LED will turn off once the PowerLine AV is connected to a PowerLine network.
3	WPS Button	Press to start the WPS process. You will have 120 seconds to start the WPS process on another wireless device. One Touch AP Configuration 1. Press the <b>WPS button</b> on your wireless router or access point. The WPS LED will flash on and off. 2. Press the <b>WPS button</b> on the DHP-W307AV and hold it for 5 seconds.
4	Simple Connect Button	Push this button to establish a secure Powerline network with other PowerLine AV devices.

# Hardware Overview

## LED's

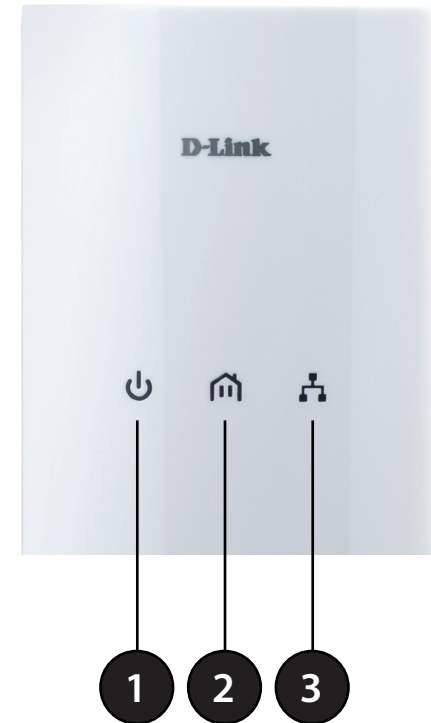


1	Power LED	A solid light indicates a proper connection to the power supply.
2	PowerLine LED	A solid light indicates that a Powerline connection is established. The LED will blink quickly when data is transmitted to or from another PowerLine unit.
3	Ethernet LED	A solid light indicates a connection to an Ethernet-enabled device. This LED blinks during data transmission.
4	Wireless LED	A solid light indicates that the wireless segment is ready. This LED blinks during wireless data transmission.

# Hardware Overview

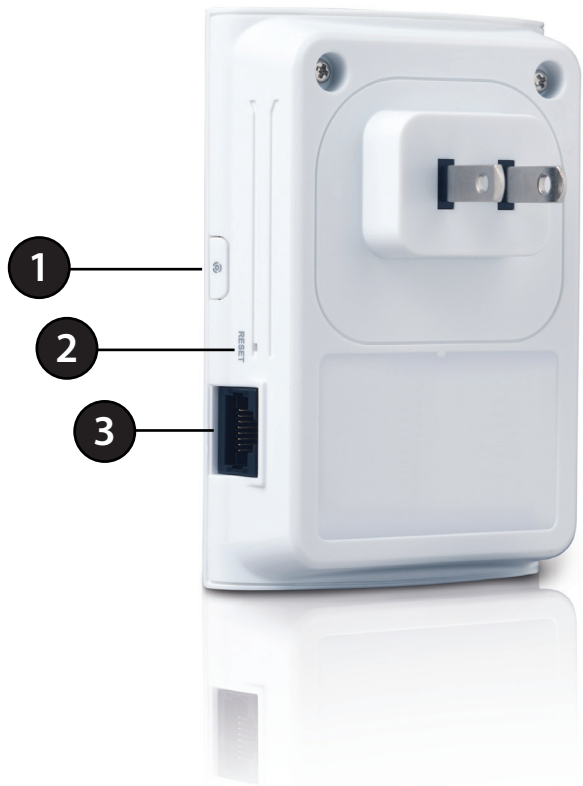
## LEDs

<b>1</b>	<b>Power LED</b>	<ul style="list-style-type: none"><li>• Solid - Indicates that the device is receiving electrical power.</li><li>• Blinking - Indicates that the device is setting itself up after reset or when the security button was pressed or power saving mode enabled.</li><li>• Off - The device is not receiving electrical power.</li></ul>
<b>2</b>	<b>PowerLine LED</b>	<ul style="list-style-type: none"><li>• Solid - The device is connected to a PowerLine network.</li><li>• Blinking - The device is transmitting data.</li><li>• Off - The device has not found any other compatible PowerLine devices using the same encryption key.</li></ul> <p><b><i>The color indicates the PowerLine link rate:</i></b></p> <ul style="list-style-type: none"><li>• Green - The PowerLine link rate is faster than 80 Mbps.</li><li>• Amber - The PowerLine link rate is between 50 Mbps and 80 Mbps.</li><li>• Red - The PowerLine link rate is less than 50 Mbps.</li></ul>
<b>3</b>	<b>Ethernet LED</b>	<ul style="list-style-type: none"><li>• Solid - The Ethernet port is linked but there is no data traffic.</li><li>• Blinking - The device is transmitting data.</li><li>• Off - There is no Ethernet connection.</li></ul>



# Hardware Overview

## Connection



1	Simple Connect Button	Press to secure your network. Refer to page 9 for more information.
2	Reset Button	Press and hold the button for 1 second to reset to factory default.
3	Ethernet Port	Connect the CAT5 Ethernet cable to the DHP-306AV Ethernet port.

# Wireless Installation Considerations

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

1. Keep the number of walls and ceilings between the D-Link access point 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 access points, 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 wireless products such as ceiling fans, lights, and home security systems, your wireless connection may degrade dramatically or drop completely. Make sure your 2.4GHz phone base is as far away from your wireless devices as possible. The base transmits a signal even if the phone is not in use.

# PowerLine Network Button Usage

The Simple Connect Button is used to add a PowerLine AV device to a PowerLine network. You can allow the DHP-W307AV to join a network by pressing the Simple Connect Button to toggle it to the Broadcast state or Join state.

The Simple Connect Button has 3 different trigger states:

**Broadcast state** - Enables the DHP-W307AV to provide information for another PowerLine AV device to join its PowerLine network (works even if it is the only device existing within the network group). The first PowerLine device will use this state when the Simple Connect Button is pressed.

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

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

# Hardware Installation - For Wireless Router

**Note:** A minimum of two PowerLine AV devices are required to create a network in order for your product to work properly.

## Step 1

Plug the DHP-306AV adapter into an AC wall outlet near your router. Connect the included Ethernet cable to the network cable connector located on the PowerLine AV Network Adapter and attach the other end of the Ethernet cable to the router.

**Note:** Power source is confirmed when the green LED Power Indicator on the PowerLine AV Network Adapter is illuminated.

## Step 2

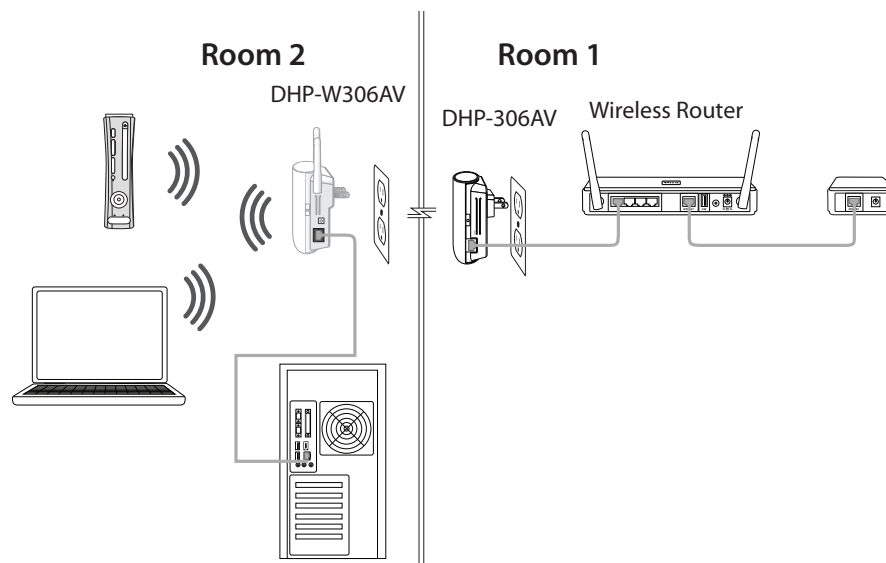
Plug the PowerLine AV Wireless N Extender (DHP-W306AV) into an AC wall outlet (Please do not plug to power strip or surge protector) in the same room in order to verify whether your home's electrical wiring is suitable for the PowerLine Network. Turn on the PowerLine AV Wireless N Extender (DHP-W306AV) by pushing the power button located on the side of PowerLine AV Wireless N Extender (DHP-W306AV).

**Note:** Power source is confirmed when the green LED Power Indicator on the PowerLine AV Wireless N Extender (DHP-W306AV) is illuminated. Network Connectivity is confirmed when the green LED PowerLine indicator on both DHP-W306AV and DHP-306AV are illuminated.

## Step 3

Connect the included Ethernet cable to the network cable connector located on the PowerLine AV Wireless N Extender (DHP-W306AV) and attach the other end of the Ethernet cable to the PC.

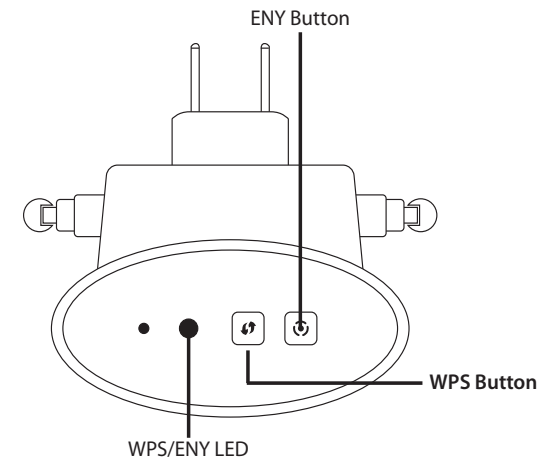
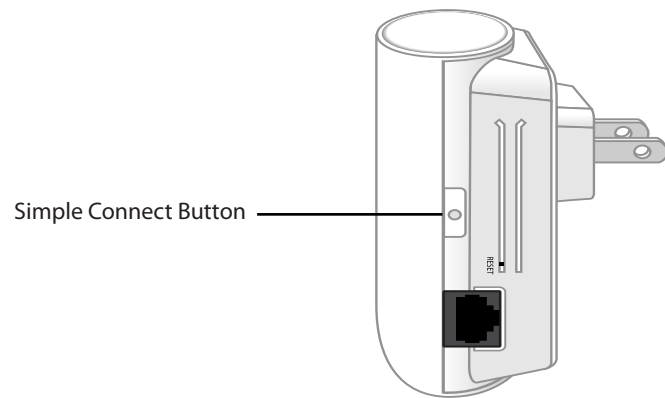
## Your Network Setup



**Note:** Connection to an Ethernet-enabled device is confirmed when the Ethernet LED indicator on DHP-W306AV is illuminated.

### Step 4

To secure the PowerLine Network from unauthorized users, press the **Simple Connect Button** on the PowerLine AV Wireless N Extender (DHP-W306AV) for 2 seconds. Then, press the **Simple Connect Button** on the PowerLine AV Network Adapter (DHP-306AV) for 2 seconds. This must be done within two minutes after pressing the **Simple Connect Button** on the PowerLine AV Wireless N Extender (DHP-W306AV). The PowerLine LED on both DHP-W306AV and DHP-306AV should blink. Network Connectivity is confirmed when the PowerLine LED indicator on both DHP-W306AV and DHP-306AV are illuminated.





### Step 5

**(One Touch AP Configuration: If you would like to apply the same wireless settings to the DHP-W306AV as your existing Wireless Router or Access Point)**

Press the WPS button on your existing Router or Access Point. The WPS LED will flash on and off. Then, press the **WPS Push Button** on the DHP-W306AV and hold it for 5 seconds.

***Note:** Both WPS buttons must be pressed within two minutes. When One click AP setup is complete, your DHP-W306AV will have the same wireless settings as your existing Router or Access Point.*

### Step 6

**(If you would like to use Wireless Settings for your PowerLine that are different from your Wireless Router or Access Point)**

To Configure the PowerLine AV Wireless N Extender (DHP-W306AV), open a web browser, enter **http://192.168.0.50** or **http://dlinkap** in the address field and then press **Enter**. When the login window appears, set the user name to Admin and leave the password box blank. Click **Log In** to continue the setup. Follow the wizard's instruction to assist you in securing your DHP-W306AV wireless network. Please refer to "Wireless Setup Wizard" in user manual for detailed installation information.

### Step 7

Once network connectivity is confirmed, you can place the DHP-W306AV PowerLine AV Wireless N Extender in a different room of your home. The DHP-W306AV will retain the security settings even if they are unplugged.

# Wireless

Connect an Ethernet cable from the Ethernet port on the DHP-W307AV to a computer for configuration.

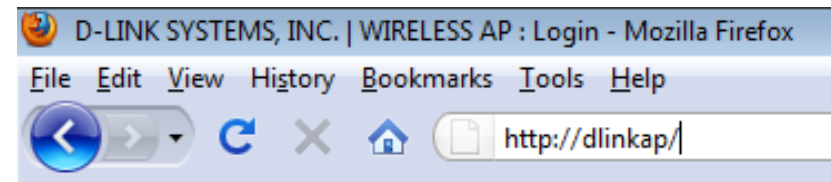
If you wish to change the default settings or optimize the performance of the DHP-W307AV, you may use the web-based configuration utility.

To access the configuration utility, open a web browser such as Internet Explorer and enter either **http://dlinkap** or **http://192.168.0.50** in the address field.

By default, **Admin** will be the User Name . Leave the password blank.

If you receive a "Page Cannot be Displayed" error, please refer to the Troubleshooting section on page **67** for assistance.

If this is your first time configuring the AP, the Wizard will assist you to configure your DHP-W307AV.

A screenshot of the login page for the DHP-W307AV. The page has an orange header with the word "LOGIN". Below the header, it says "Log in to the Access Point:". There are two input fields: "User Name" with a dropdown menu showing "Admin", and "Password" with a text box. A "Log In" button is at the bottom right.

## Wireless Setup Wizard

Click **Launch Wireless Setup Wizard** to configure your access point and skip to the next page.

To set up your wireless network, click **Add Wireless Device With WPS** and skip to page 35.

If you would like to enter your settings without running the wizard, click **Wireless Setup** on the left side and skip to page 21.



This Wizard is designed to assist you in configuring your DHP-W307AV as an access point.



## Section 3 - Configuration

---

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.

**SELECT CONFIGURATION METHOD**

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

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

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

Please press the **WPS Push Button** (physical or virtual) on the device you want to add to your wireless network to complete the setup. In order for your network settings to take effect the AP will reboot automatically.

When the device has finished rebooting the main screen will be displayed.

**VIRTUAL PUSH BUTTON**

Please press down the Push Button (physical or virtual) on the wireless device you are adding to your wireless network within **118** seconds...

## Section 3 - Configuration

Select Manual as the configuration method to setup your network manually.

Click **Next** to continue.

Enter a name for your wireless network (SSID).

Assign a network key as the configuration method, enter your network key. This key must be entered on your wireless clients.

Click **Next** to continue.

The following screen will show you the network key to enter on your wireless clients.

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

**SELECT CONFIGURATION METHOD**

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

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

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

Prev Next Exit

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

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

Network Name (SSID):

☒ Assign a network key

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

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

Network key :

Prev Next Cancel

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

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

Wireless Network Name (SSID) :	dlink
Wireless Security Mode :	Auto (WPA or WPA2) TKIP/AES
Network key :	dlinkdlink

Prev Save Cancel

# Wireless Setup

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

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

**Enable Auto Channel Scan :** The Auto Channel Scan setting can be selected to allow the DHP-W307AV to select the channel with the least amount of interference (during boot-up). Indicates the channel setting for the DHP-W307AV.

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

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

DHP-W306AV	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
SETUP WIZARD	WIRELESS SETUP				Helpful Hints...
WIRELESS SETUP	Use this section to configure the wireless settings for your D-Link Access Point. Please note that changes made on this section will also need to be duplicated to your wireless clients and PC.				Changing your Wireless Network Name is the first step in securing your wireless network. Change it to a familiar name that does not contain any personal information.  Enable Auto Channel Scan so that the Access Point can select the best possible channel for your wireless network to operate on.  Enabling Hidden Mode is another way to secure your network. With this option enabled, no wireless clients will be able to see your wireless network when they scan to see what's available. For your wireless devices to connect to your Access
LAN SETUP	Save Settings Don't Save Settings				
PLC SETTINGS					
WIRELESS NETWORK SETTINGS					
Enable Wireless : <input checked="" type="checkbox"/> Always <input type="checkbox"/> Add New Schedule					
Wireless Network Name : dlink (Also called the SSID)					
Wireless Mode : Mixed 802.11n, 802.11g and 802.11b					
Enable Auto Channel Scan : <input checked="" type="checkbox"/>					
Wireless Channel : 6 (Domain:United States)					
Channel Width : 20 MHz					
Visibility Status : <input checked="" type="radio"/> Visible <input type="radio"/> Invisible					
WIRELESS SECURITY MODE					
Security Mode : None					

**Channel Width:** Select the Channel Width:

Auto 20/40 - Select if you are using both 802.11n and non-802.11n wireless devices.

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

**Security Settings:** Locking the wireless security settings prevents the settings from being changed by any new external user using its PIN. Devices can still be added to the wireless network using Wi-Fi Protected Setup. It is still possible to change wireless network settings with Manual Wireless Network Setup, Wireless Network Setup Wizard, or an existing external WLAN Manager user. Please refer to page 47.

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

## LAN Setup - DHCP

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

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

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

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

DHP-W306AV	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
SETUP WIZARD WIRELESS SETUP LAN SETUP PLC SETTINGS	<b>NETWORK SETTINGS</b> Use this section to configure the internal network settings of your AP. Device Name allows you to configure this device more easily when your network using TCP/IP protocol. You can enter the device name of the AP into your web browser to access the instead of IP address for configuration. Recommend to change the device name if there're more than one D-Link devices within the subnet. <div>Save Settings    Don't Save Settings</div>				<b>Helpful Hints...</b> <b>Device Name:</b> Device Name allows you to configure this device more easily when your network using TCP/IP protocol. You can enter the device name of the AP into your web browser to access the device configuration. Recommend to change the device name if there're more than one D-Link devices within the network. <b>LAN Settings:</b> Also referred as private settings. LAN settings allow you to configure LAN interface of DHP-W306AV. LAN IP address is private to your internal network and is not visible to Internet. The factory default setting is Dynamic IP(DHCP).
<b>DEVICE NAME</b> Device Name allows you to configure this device more easily. You can enter "http://"device name" into your web browser instead of IP address for configuration. (Default: http://dlinkap) Device Name : <input type="text" value="dlinkap"/>					
<b>LAN IPV4 CONNECTION TYPE</b> Choose the IPv4 mode to be used by the Access Point. My LAN Connection is : <input type="text" value="Static IP"/>					
<b>STATIC IP ADDRESS LAN CONNECTION TYPE</b> Enter the static address Information. <div>             IPv4 Address : <input type="text" value="192.168.0.50"/>              Subnet Mask : <input type="text" value="255.255.255.0"/>              Gateway Address : <input type="text" value="0.0.0.0"/>              Primary DNS Server : <input type="text" value="0.0.0.0"/>              Secondary DNS Server : <input type="text" value="0.0.0.0"/> </div>					



# IPv6

## Link-Local Connectivity

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

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

LAN IPV6 CONNECTION TYPE

Choose the IPv6 mode to be used by the Access Point.

My IPv6 Connection is : 

Link-local only

LAN IPV6 ADDRESS SETTINGS

Use this section to configure the internal network settings of your AP. The LAN IPv6 Link-Local Address is the IPv6 Address that you use to access the web-based management interface.

LAN IPv6 Link-Local Address : fe80::1eaf:f7ff:fece:a2/64

## Static IPv6

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

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

LAN IPV6 CONNECTION TYPE
Choose the IPv6 mode to be used by the Access Point.
My IPv6 Connection is : <input type="text" value="Static IPv6"/>

LAN IPV6 ADDRESS SETTINGS
Enter the IPv6 address information.
IPv6 Address : <input type="text"/>
Subnet Prefix Length : <input type="text"/>
Default Gateway : <input type="text"/>
Primary IPv6 DNS Server : <input type="text"/>
Secondary IPv6 DNS Server : <input type="text"/>

## Autoconfiguration

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

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

### LAN IPV6 CONNECTION TYPE

Choose the IPv6 mode to be used by the Access Point.

My IPv6 Connection is : Autoconfiguration (SLAAC/DHCPv6) ▼

### IPV6 DNS SETTINGS

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

☒ Obtain IPv6 DNS server address automatically

☐ Use the following IPv6 DNS Servers

Primary IPv6 DNS Server :

Secondary IPv6 DNS Server :

## LAN Setup - Static IP

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

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

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

**Subnet Mask:** Enter the Subnet Mask.

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

**Device Name:** Enter the Device Name of the AP. It is recommended that you change the Device Name if there is more than one D-Link device within the subnet. You can enter the device name of the AP into your web browser to access it instead of IP address for configuration. If you are using the device name to connect, make sure that your PC and your DHP-W307AV are on the same network.

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

The screenshot shows the D-Link web interface for the DHP-W306AV device. The top navigation bar includes links for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains links for SETUP WIZARD, WIRELESS SETUP, LAN SETUP, and LOGOUT. The main content area is titled 'NETWORK SETTINGS' and contains the following sections:

- NETWORK SETTINGS:** A section with instructions on how to configure the internal network settings of the AP. It includes a 'Save Settings' button and a 'Don't Save Settings' button.
- LAN CONNECTION TYPE:** A section where the user can choose the mode to be used by the Access Point. The 'My LAN Connection is' dropdown menu is set to 'Static IP'.
- STATIC IP ADDRESS LAN CONNECTION TYPE:** A section where the user can enter the static address information. It includes input fields for 'IP Address' (192.168.0.50), 'Subnet Mask' (255.255.255.0), and 'Gateway Address' (0.0.0.0).
- DEVICE NAME(NETBIOS NAME):** A section where the user can enter the device name. The 'Device Name' input field contains 'dlinkap'.

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

**LAN Settings:** Also referred as private settings. LAN settings allow you to configure LAN interface of DAP-1350. LAN IP address is private to your internal network and is not visible to Internet. The factory default setting is Dynamic IP(DHCP).

**LAN Connection type:** The factory default setting is Dynamic IP(DHCP) to allow the DHCP host to automatically assign the Access Point an IP address that conforms to the applied local area network. Enable "Static IP" which allows the IP address of the DAP-1350 to be manually configured in accordance to the applied local area network.

**IP Address:** The default IP address is 192.168.0.50. It can

# Configuration PLC Settings

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

DHP-W306AV

SETUP WIZARD

WIRELESS SETUP

LAN SETUP

PLC SETTINGS

SETUP

ADVANCED

MAINTENANCE

STATUS

HELP

POWER LINE SETTINGS

Using this section to configure the power line settings and Qos settings for your D-Link device

Save Settings

Don't Save Settings

NETWORK NAME

Public, Network Name is HomePlugAV

Private, Network Name is

ADD MEMBER

Device Name

MAC Address

Link Rate(Mbps)

Scan

MANUAL ADD MEMBER

Device Name

Password

Add

Clear

MEMBER LIST

Device Name

MAC Address

Link Rate(Mbps)

Status

QOS SETTINGS

Name	MAC Address	Priority	
		Highest	Clear
		Highest	Clear
		Highest	Clear
		Highest	Clear
		Highest	Clear
		Highest	Clear

Helpful Hints...

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

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

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

**Scan:** Scan for new PowerLine devices.

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

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

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

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

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

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

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

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

- NETWORK NAME:** Contains two radio buttons. The first is "Public, Network Name is HomePlugAV" (selected). The second is "Private, Network Name is" followed by a text input field.
- ADD MEMBER:** Features a table with columns "Device Name", "MAC Address", and "Link Rate(Mbps)". Below the table is a "Scan" button.
- MANUAL ADD MEMBER:** Includes input fields for "Device Name" and "Password" (split into four characters). To the right are "Add" and "Clear" buttons.
- MEMBER LIST:** Shows a table with columns "Device Name", "MAC Address", "Link Rate(Mbps)", and "Status".

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

QOS SETTINGS

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

# MAC Address Filter

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

**MAC Address Filter:** Select **Allow** or **Deny** from the drop-down menu.

**Clear:** Click to restore the default settings.

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

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

**Wireless Client:** Displays the list of clients in the filter list.

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

DHP-W306AV	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP																																				
MAC ADDRESS FILTER	<b>MAC ADDRESS FILTER</b>				<b>Helpful Hints...</b>  Create a list of MAC address that you would either like to allow or deny access to your network.  Select a MAC address from the drop down menu, then click the arrow to add that MAC address to the list.  Click the Clear button to remove the MAC address from the MAC Filtering list.																																				
ADVANCED WIRELESS	The MAC (Media Access Controller) Address filter option is used to control network access based on the MAC Address of the network adapter. A MAC address is a unique ID assigned by the manufacturer of the network adapter. This feature can be configured to ALLOW or DENY network/Internet access. <div>Save Settings    Don't Save Settings</div>																																								
WI-FI PROTECTED SETUP	<b>WIRELESS ACCESS SETTINGS</b>																																								
USER LIMIT	Configure MAC Filtering below: Turn MAC Filtering ON and ALLOW computers listed to access the network																																								
	<table><thead><tr><th>MAC Address</th><th></th><th>Wireless Client List</th><th></th></tr></thead><tbody><tr><td>00:00:00:00:00:00</td><td>&lt;&lt;</td><td>MAC Address</td><td>Clear</td></tr><tr><td>00:00:00:00:00:00</td><td>&lt;&lt;</td><td>MAC Address</td><td>Clear</td></tr><tr><td>00:00:00:00:00:00</td><td>&lt;&lt;</td><td>MAC Address</td><td>Clear</td></tr><tr><td>00:00:00:00:00:00</td><td>&lt;&lt;</td><td>MAC Address</td><td>Clear</td></tr><tr><td>00:00:00:00:00:00</td><td>&lt;&lt;</td><td>MAC Address</td><td>Clear</td></tr><tr><td>00:00:00:00:00:00</td><td>&lt;&lt;</td><td>MAC Address</td><td>Clear</td></tr><tr><td>00:00:00:00:00:00</td><td>&lt;&lt;</td><td>MAC Address</td><td>Clear</td></tr><tr><td>00:00:00:00:00:00</td><td>&lt;&lt;</td><td>MAC Address</td><td>Clear</td></tr></tbody></table>				MAC Address		Wireless Client List		00:00:00:00:00:00	<<	MAC Address	Clear	00:00:00:00:00:00	<<	MAC Address	Clear	00:00:00:00:00:00	<<	MAC Address	Clear	00:00:00:00:00:00	<<	MAC Address	Clear	00:00:00:00:00:00	<<	MAC Address	Clear	00:00:00:00:00:00	<<	MAC Address	Clear	00:00:00:00:00:00	<<	MAC Address	Clear	00:00:00:00:00:00	<<	MAC Address	Clear	
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00:00:00:00:00:00	<<	MAC Address	Clear																																						
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# Advanced Wireless

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

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

**WMM Enable:** WMM is a Quality of Service (QoS) system for your wireless network. Enabling this feature 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 setting less reliable and may create higher data loss.

**IGMP Snooping:** Select this checkbox to enable IGMP snooping. IGMP snooping is a layer 2 feature which enables the device to learn Multicast group membership based on IGMP messages passing through the built-in switch. Because the switch learns the IGMP messages and knows which clients are involved in the multicast group membership, it is able to forward multicast traffic only to the ports that requested for it (based on their membership).

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

DHP-W306AV	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
MAC ADDRESS FILTER	<b>ADVANCED WIRELESS</b>				<b>Helpful Hints...</b>  <b>Advanced Wireless:</b> It is recommended that you leave these options at their default values. Adjusting them could negatively impact the performance of your wireless network. The options on this page should be changed by advanced users or if you are instructed to by one of our support personnel, as they can negatively affect the performance of your Access Point if configured improperly.  <b>Transmit Power:</b> You can lower the output power of the DHP-W306AV by selecting lower percentage Transmit Power values from the drop down. Your choices are: 100%, 50%, 25%, and 12.5%.  Enabling <b>WMM</b> can help control latency and jitter when transmitting multimedia content over a wireless connection.
ADVANCED WIRELESS	These options are for users that wish to change the behaviour of their 802.11n wireless radio from the standard setting. D-link does not recommend changing these settings from the factory default. Incorrect settings may impair the performance of your wireless radio. The default settings should provide the best wireless radio performance in most environments.  <div>Save Settings    Don't Save Settings</div>				
WI-FI PROTECTED SETUP	<b>ADVANCED WIRELESS SETTINGS</b>  Transmit Power : 100% ▾ WMM Enable : <input checked="" type="checkbox"/> Short GI : <input checked="" type="checkbox"/> IGMP Snooping : <input checked="" type="checkbox"/> WLAN Partition : <input type="checkbox"/>				
USER LIMIT					

# Wi-Fi Protect Setup

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

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

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

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

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

**Add Device with WPS:** Please refer to page 35.

DHP-W306AV	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
MAC ADDRESS FILTER	<b>WI-FI PROTECTED SETUP</b>				<b>Helpful Hints...</b> Enable if other wireless devices you wish to include in the local network support Wi-Fi Protected Setup. Click <b>Add Wireless Device Wizard</b> to use Wi-Fi Protected Setup to add wireless devices to the wireless network.
ADVANCED WIRELESS	Wi-Fi Protected Setup is used to easily add devices to a network using a PIN or button press. Devices must support Wi-Fi Protected Setup in order to be configured by this method. If the PIN changes, the new PIN will be used in following Wi-Fi Protected Setup process. Clicking on "Don't Save Settings" button will not reset the PIN. However, if the new PIN is not saved, it will get lost when the device reboots or loses power.				
WI-FI PROTECTED SETUP	<div> <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/> </div>				
USER LIMIT	<b>WI-FI PROTECTED SETUP</b> Enable : <input checked="" type="checkbox"/> Lock Wireless Security Settings : <input type="checkbox"/> <input type="button" value="Reset to Unconfigured"/>				
	<b>PIN SETTINGS</b> Current PIN: 55232074 <input type="button" value="Reset PIN to Default"/> <input type="button" value="Generate New PIN"/>				
	<b>ADD WIRELESS STATION</b> <input type="button" value="Add Wireless Device With WPS"/>				

# Add Wireless Device with WPS

You will be directed to the page below when clicking **Add Wireless Device with WPS** from the Wi-Fi protected Setup page.

## Adding a Wireless Device Using the PIN Method

Select PIN to use your PIN number from your wireless device to connect to your network.

Click **Connect** to continue. Start WPS on the wireless device you are adding to you wireless network to complete the setup

**ADD WIRELESS DEVICE WITH WPS (WIFI PROTECTED SETUP) WIZARD**

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

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

☒ **PIN :**

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

☐ **PBC**

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

## Adding a Wireless Device Using the PBC Method

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

Click **Connect** to continue.

**ADD WIRELESS DEVICE WITH WPS (WIFI PROTECTED SETUP) WIZARD**

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

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

☐ **PIN :**

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

☒ **PBC**

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

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

**VIRTUAL PUSH BUTTON**

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

# User Limit

Enter the maximum number of wireless clients that can connect at one time to your access point

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

**User Limit:** Enter the maximum number of clients, between 1 and 32.

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

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

# Admin

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

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

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

**Enable Graphical:** Enables a challenge-response test which will require users to type letters or numbers from a distorted image displayed on the screen to prevent online hackers and unauthorized users from gaining access to your device's configuration. This feature is disabled by default.

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

DHP-W306AV	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
ADMIN	<b>ADMINISTRATOR SETTINGS</b>				<b>Helpful Hints...</b> <b>Passwords:</b> For security reasons, it is recommended that you change the Password for the Administrator accounts. Be sure to write down the Passwords to avoid having to reset the AP in the event that they are forgotten.
SYSTEM	Enter the new password in the "New Password" field and again in the next field to confirm. Click on "Save Settings" to execute the password change. The Password is case-sensitive, and can be made up of any keyboard characters. The new password must be between 0 and 15 characters in length.				
FIRMWARE	<input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
TIME					
SYSTEM CHECK	<b>PASSWORD</b>				
SCHEDULES	Please enter the same password into both boxes, for confirmation.				
	New Password : <input type="text"/> Verify Password : <input type="text"/>				
	<b>ADMINISTRATION</b>				
	Enable Graphical Authentication : <input type="checkbox"/>				

# System

- Save to Local Hard Drive:

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

Use this option to load previously saved access point configuration settings. Click Browse to find a previously saved configuration file. Then, click the Upload Settings button to transfer those settings to the access point.
- Restore to Factory Default:

This option will restore all configuration settings back to the settings that were in effect at the time the access point was shipped from the factory. Any settings that have not been saved will be lost, including any rules that you have created. If you would like to save the current access point configuration settings, use the Save button above.
- Reboot the Device:

Click to reboot the access point.

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

DHP-W306AV	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
ADMIN	SAVE AND RESTORE				Helpful Hints...  <b>Saving System Settings:</b> Once your Access Point is configured the way you want it, you can save these settings to a configuration file that can later be loaded in the event that the AP's default settings are restored. To do this, click the Save button next to where it says Save Settings to Local Hard Drive.
SYSTEM	The current system settings can be saved as a file onto the local hard drive. You can upload any save settings file that was created by the DHP-W306AV.				
FIRMWARE	SAVE AND RESTORE				
TIME	Save Settings To Local Hard Drive : <input type="button" value="Save"/>				
SYSTEM CHECK	Load Settings From Local Hard Drive : <input type="text"/> <input type="button" value="Browse..."/>				
SCHEDULES	<div>Upload Settings</div> <div>Restore To Factory Default Settings : <input type="button" value="Restore Device"/></div> <div>Reboot The Device : <input type="button" value="Reboot"/></div>				

# Firmware

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

**Firmware Information:** Click on the **Check Now** button to find out if there is an updated firmware or language pack version. If a new version exists, download the new firmware to your hard drive.

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

**Language Pack Upgrade:** To upgrade the language pack, follow these steps:

1. Click the **Browse** button to locate the D-Link language pack upgrade file on your computer. Note: Language pack file extension will be \*.LNG
2. Once you have found the file, click the **Upload** button to begin the language pack upgrade process. This can take a minute or more.
3. Wait for the device to reboot. This process can take about 75 seconds.

DHP-W306AV	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
ADMIN	<b>FIRMWARE</b>				<b>Helpful Hints...</b>  <b>Firmware Updates:</b> Firmware updates are released periodically to improve the functionality of your Access Point and also to add features. If you run into a problem with a specific feature of the Access Point, check our support site by clicking on the <a href="#">Click here to check for an upgrade on our support site</a> link and see if an updated firmware is available for your Access Point.
SYSTEM	There may be new firmware for your DHP-W306AV to improve functionality and performance. <a href="#">Click here to check for an upgrade on our support site.</a>  To upgrade the firmware, locate the upgrade file on the local hard drive with Browse button. Once you have found the file to be used, click the Upload button to start the firmware upgrade.				
FIRMWARE	The language pack allows you to change the language of the user interface on the DHP-W306AV. We suggest that you upgrade your current language pack if you upgrade the firmware. This ensures that any changes in the firmware are display correctly.  To upgrade the language pack, locate the upgrade file on the local hard drive with Browse button. Once you have found the file to be used, click the Upload button to start the language pack upgrade.				
TIME	<b>FIRMWARE AND LANGUAGE PACK INFORMATION</b>  Current Firmware Version : 1.02      Date : 2011/5/27 Current Language Pack Version : No Language pack Check Online Now for Latest Firmware and Language pack Version : <a href="#">Check Now</a>				
SYSTEM CHECK	<b>FIRMWARE UPGRADE</b>  <b>Note: Some firmware upgrades reset the configuration options to the factory defaults. Before performing an upgrade, be sure to save the current configuration.</b>  To upgrade the firmware, your PC must have a wired connection to the Access Point. Enter the name of the firmware upgrade file, and click on the Upload button.				
SCHEDULES	Upload : <input type="text"/> <a href="#">Browse...</a> <input type="button" value="Upload"/>				
<b>LANGUAGE PACK UPGRADE</b>  Upload : <input type="text"/> <a href="#">Browse...</a> <input type="button" value="Upload"/>					



# Time

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

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

**Daylight Saving:** To select Daylight Saving time manually, click the Enable Daylight Saving check box. Next use the drop-down menu to select a Daylight Saving Offset and then enter a start date and an end date for daylight saving time.

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

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

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

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

DHP-W306AV	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP															
ADMIN	<b>TIME</b>				<b>Helpful Hints...</b> <b>System Time Settings:</b> This section allows admins to configure, update, and maintain the correct time on the Access Point's internal system clock.															
SYSTEM	The Time Configuration option allows you to configure, update, and maintain the correct time on the internal system clock. From this section you can set the time zone that you are in and set the NTP (Network Time Protocol) Server. Daylight Saving can also be configured to automatically adjust the time when needed.																			
FIRMWARE	<input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>																			
TIME	<b>TIME CONFIGURATION</b> Current Time : Jan/01/2008 00:10:48 Time Zone : (GMT-08:00) Pacific Time (US/Canada), Tijuana Enable Daylight Saving : <input type="checkbox"/> Daylight Saving Offset : +1:00 Daylight Saving Dates : <table border="1"> <thead> <tr> <th></th> <th>Month</th> <th>Week</th> <th>Day of Week</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>DST start</td> <td>Mar</td> <td>3rd</td> <td>Sun</td> <td>2 am</td> </tr> <tr> <td>DST End</td> <td>Nov</td> <td>2nd</td> <td>Sun</td> <td>2 am</td> </tr> </tbody> </table>						Month	Week	Day of Week	Time	DST start	Mar	3rd	Sun	2 am	DST End	Nov	2nd	Sun	2 am
	Month	Week	Day of Week	Time																
DST start	Mar	3rd	Sun	2 am																
DST End	Nov	2nd	Sun	2 am																
SYSTEM CHECK	<b>AUTOMATIC TIME CONFIGURATION</b> Enable NTP Server : <input type="checkbox"/> NTP Server Used : << Select NTP Server																			
SCHEDULES	<b>SET THE DATE AND TIME MANUALLY</b> Date And Time : Year 2008 Month Jan Day 01 Hour 00 Minute 00 Second 00 <input type="button" value="Copy Your Computer's Time Settings"/>																			

# System Check

Ping Test sends “Ping” packets to test a computer on the Internet.

Enter a host name or IP address and click **Ping**.

DHP-W306AV	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
ADMIN	PING TEST				Helpful Hints... "Ping" checks whether a computer on the Internet is running and responding. Enter either the IP address of the target computer or enter its fully qualified domain name.
SYSTEM	Ping Test sends "ping" packets to test a computer on the Internet.				
FIRMWARE	PING TEST				
TIME	Host Name or IP Address: <input type="text"/> <input type="button" value="Ping"/>				
SYSTEM CHECK	IPv6 PING TEST				
SCHEDULES	Host Name or IPv6 Address: <input type="text"/> <input type="button" value="Ping"/>				
	PING RESULT				
	Enter a host name or IP address above and click 'Ping'				

# Schedules

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

- Name:** Enter a name for your new schedule.
- Days:** Select a day, a range of days, or All Week to include every day.
- Time:** Check All Days or enter a start and end time for your schedule.
- Add:** After making your changes, click **Save** to save the schedule rule.
- List:** The list of schedules will be listed here. Click the **Edit** icon to make changes or click the **Delete** icon to remove the schedule.

DHP-W306AV	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP				
ADMIN	SCHEDULES				<b>Helpful Hints...</b>  Schedules are used with a number of other features to define when those features are in effect.  Give each schedule a name that is meaningful to you. For example, a schedule for Monday through Friday from 3:00pm to 9:00pm, might be called "After School".  Click <b>Save</b> to add a completed schedule to the list below.  Click the <b>Edit</b> icon to change an existing schedule.  Click the <b>Delete</b> icon to permanently delete a schedule.				
SYSTEM	The Schedule configuration option is used to manage schedule rules for wireless Lan control features.								
FIRMWARE	ADD SCHEDULE RULE								
TIME	<div>Name : <input type="text"/></div> <div>Day(s) : <input type="radio"/> All Week : <input checked="" type="radio"/> Select Day(s) : <input type="checkbox"/> Sun <input type="checkbox"/> Mon <input type="checkbox"/> Tue <input type="checkbox"/> Wed <input type="checkbox"/> Thu <input type="checkbox"/> Fri <input type="checkbox"/> Sat</div> <div>All Day - 24 hrs : <input type="checkbox"/></div> <div>Time format : 24-hour</div> <div>Start Time : <input type="text"/> : <input type="text"/> AM (hour minute)</div> <div>End Time : <input type="text"/> : <input type="text"/> AM (hour minute)</div> <div><input type="button" value="Save"/> <input type="button" value="Clear"/></div>								
SYSTEM CHECK	SCHEDULE RULES LIST								
SCHEDULES	<table><thead><tr><th>Name</th><th>Day(s)</th><th>Time Frame</th><th></th><th></th></tr></thead><tbody></tbody></table>				Name	Day(s)	Time Frame		
Name	Day(s)	Time Frame							

# Device Info

This page displays the current information for the DHP-W307AV. It will display the LAN and wireless LAN information.

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

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

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

DHP-W306AV	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
DEVICE INFO	<b>DEVICE INFORMATION</b>				<b>Helpful Hints...</b>  All of your LAN and Wireless connection details are displayed here.
LOGS	All of your wireless and network connection details are displayed on this page. The firmware version is also displayed here.				
STATISTICS					
WIRELESS	<b>GENERAL</b>				
IPV6	Time : Aug/12/2010 10:54:57 Firmware Version : 1.01, Thu, 5 Jul 2010				
LOGOUT					
	<b>LAN</b>				
	MAC Address : 1c:af:f7:ce:00:6a Connection : Static IP IP Address : 192.168.0.50 Subnet Mask : 255.255.255.0 Gateway Address : 0.0.0.0				
	<b>WIRELESS LAN</b>				
	MAC Address : 1c:af:f7:ce:00:6a Network Name (SSID) : dlink Channel : 7 Security Mode : Disable Wi-Fi Protected Setup : Enable / Not Configured				

# Logs

The DHP-W307AV keeps a running log of events and activities occurring on the AP. If the AP is rebooted, the logs are automatically cleared. You can save the log files under Log Settings.

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

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

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

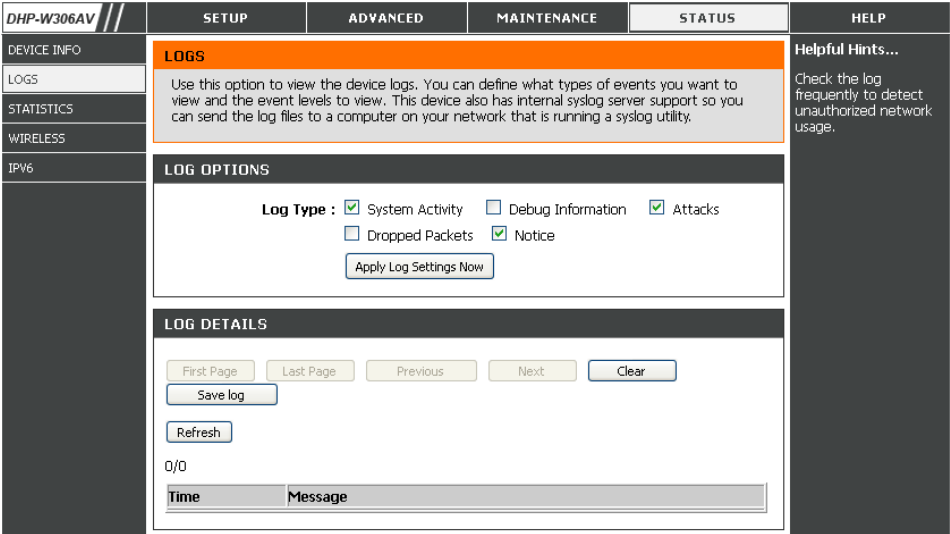
**Previous:** This button directs you to the previous page of the log.

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

**Clear:** This button clears all current log content.

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

**Refresh:** This button refreshes the log.



# Statistics

The DHP-W307AV keeps statistics of the traffic that passes through it. You can view the amount of packets that pass through the LAN and wireless portions of the network. The traffic counter will reset if the access point is rebooted.

DHP-W306AV

DEVICE INFO

LOGS

STATISTICS

WIRELESS

IPv6

SETUP

ADVANCED

MAINTENANCE

STATUS

HELP

TRAFFIC STATISTICS

Traffic Statistics display Receive and Transmit packets passing through your Access Point.

Refresh Statistics

Clear Statistics

LAN STATISTICS

Sent : 704	Received : 569
TX Packets Dropped : 0	RX Packets Dropped : 0
Collisions : 0	Errors : 0

WIRELESS STATISTICS

Sent : 480	Received : 7250
TX Packets Dropped : 0	RX Packets Dropped : 0
Collisions : 0	Errors : 0

Helpful Hints...

This is a summary of the number of packets that have passed between the Wireless and the LAN since the device was last initialized.

# Wireless

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

**Connection Time:** Displays the amount of time the wireless client has been connected to the access point.

**MAC Address:** Displays the Ethernet ID (MAC address) of the wireless client.

DHP-W306AV

DEVICE INFO

LOGS

STATISTICS

WIRELESS

IPv6

SETUP

ADVANCED

MAINTENANCE

STATUS

HELP

WIRELESS

The Wireless Client table below displays Wireless clients connected to the AP (Access Point). In Wireless Client mode it displays the connected AP's MAC address and connected Time.

NUMBER OF WIRELESS CLIENTS : 0

Connected Time

MAC Address

Helpful Hints...

**Wireless**  
Displays connected client station main parameters, such as Connect Time and station MAC address. In AP Client mode it displays the connected AP's MAC address and connected Time.

# IPv6

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

DHP-W306AV	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
DEVICE INFO	IPv6 NETWORK INFORMATION				Helpful Hints... All of your IPv6 LAN details are displayed here.
LOGS	All of your IPv6 network connection details are displayed on this page.				
STATISTICS					
WIRELESS	IPv6 CONNETCION INFORMATION				
IPv6	LAN IPv6 Link-Local Address : fe80::1eaf:f7ff:fece:a2/64				



# Help

Click on the links below for more information on each section in the GUI.

DHP-W306AV	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
MENU	<div>HELP MENU</div> <div><div>Setup</div><ul style="list-style-type: none"><li>Setup Wizard</li><li>Wireless Setup</li><li>Lan Setup</li><li>PLC Settings</li></ul><div>Advanced</div><ul style="list-style-type: none"><li>MAC Address Filter</li><li>Advanced Wireless</li><li>Wi-Fi Protected Setup</li><li>User Limit</li></ul><div>Maintenance</div><ul style="list-style-type: none"><li>Admin</li><li>System</li><li>Firmware</li><li>Time</li><li>Schedules</li></ul><div>Status</div><ul style="list-style-type: none"><li>Device Info</li><li>Logs</li><li>Statistics</li><li>Wireless</li></ul></div>				<div>Helpful Hints...</div> <div>Click on the links for more informations of each section in the GUI.</div>

# Wireless Security

This section will show you the different levels of security you can use to protect your data from intruders. The DHP-W307AV offers the following types of security:

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

## What is WEP?

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

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

# What is the WPA?

WPA, or Wi-Fi Protected Access, is a Wi-Fi standard that was designed to improve the security features of WEP (Wired Equivalent Privacy). The 2 major improvements over WEP:

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

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

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

# Configure WEP

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

1. Log into the web-based configuration by opening a web browser and entering the IP address of the access point (192.168.0.50). Click on **Setup** and then click **Wireless Settings** on the left side.
2. Next to Security Mode in the Wireless Security Mode section, select **WEP Mode**.
3. Next to WEP Encryption, select **64-bit** or **128-bit** encryption.
4. Next to WEP Key 1, enter a WEP key that you create. Make sure you enter this key exactly on all your wireless devices.
5. Next to Authentication, select **Both** or **Shared Key**.

**WIRELESS SECURITY MODE**

Security Mode :

**WEP**

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

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

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

WEP Key Length :  (length applies to all keys)

WEP Key 1 :

Authentication :

# Configure WPA/WPA2 Personal

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

1. Log into the web-based configuration by opening a web browser and entering the IP address of the access point (192.168.0.50). Click on Setup and then click **Wireless Settings** on the left side.
2. For **Security Mode**, select **WPA Personal**.
3. For **WPA Mode**, you can select **Auto (WPA or WPA2)**, **WPA2 only** or **WPA Only**.
4. For **Cipher Type**, select **TKIP and AES** or **TKIP** or **AES**.
5. For **Pre-Shared Key**, enter a key. The **Pre-Shared Key** must be between 8-63 characters.
6. Click **Save Settings** at the top of the window to save your settings. If you are configuring the access point with a wireless adapter, you will lose connectivity until you enable WPA-PSK on your adapter and enter the same passphrase as you did on the access point.

WIRELESS SECURITY MODE	
Security Mode :	WPA-Personal ▼

WPA	
Use <b>WPA</b> or <b>WPA2</b> mode to achieve a balance of strong security and best compatibility. This mode uses WPA for legacy clients while maintaining higher security with stations that are WPA2 capable. Also the strongest cipher that the client supports will be used. For best security, use <b>WPA2 Only</b> mode. This mode uses AES(CCMP) cipher and legacy stations are not allowed access with WPA security. For maximum compatibility, use <b>WPA Only</b> . This mode uses TKIP cipher. Some gaming and legacy devices work only in this mode.	
To achieve better wireless performance use WPA2 Only security mode (or in other words AES cipher).	
WPA Mode :	Auto (WPA or WPA2) ▼
Cipher Type :	TKIP and AES ▼

PRE-SHARED KEY	
Enter an 8- to 63-character alphanumeric pass-phrase. For good security it should be of ample length and should not be a commonly known phrase.	
Pre-Shared Key :	<input type="text"/>

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

1. Log into the web-based configuration by opening a web browser and entering the IP address of the access point (192.168.0.50). Click on **Setup** and then click **Wireless Settings** on the left side.
2. For **Security Mode**, select **WPA-Enterprise**.
3. For **WPA Mode**, you can select **Auto (WPA or WPA2)**, **WPA2 only** or **WPA Only**.
4. For **Cipher Type**, select **TKIP** or **AES**.
5. Next to **RADIUS Server**, enter the IP Address of your RADIUS server.
6. For **Port**, enter the port you are using with your RADIUS server. 1812 is the default port.
7. Next to **Shared Secret**, enter the security key.
8. Click **Save Settings** to save your settings.

**WIRELESS SECURITY MODE**

**Security Mode :** WPA-Enterprise ▼

**WPA**

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

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

**WPA Mode :** Auto (WPA or WPA2) ▼

**Cipher Type :** TKIP and AES ▼

**EAP (802.1X)**

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

**RADIUS server IP Address :** 0.0.0.0

**RADIUS server Port :** 1812

**RADIUS server Shared Secret :**

**Advanced**

**Optional backup RADIUS server :**

**Second RADIUS server IP Address :** 0.0.0.0

**Second RADIUS server Port :** 1812

**Second RADIUS server Shared Secret :**

# Connect to a Wireless Network Using Windows® 7

It is recommended to enable wireless security (WPA/WPA2) on your 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.



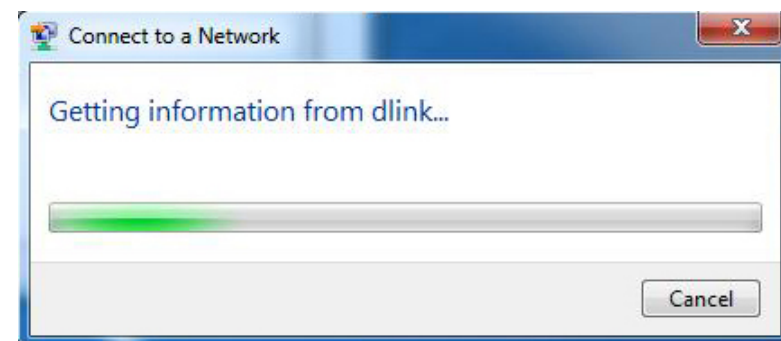
## Section 3 - Configuration

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.

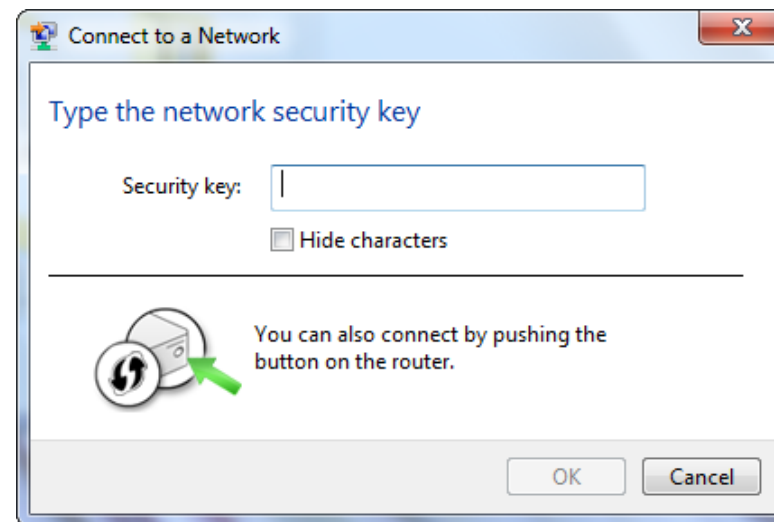




## Section 3 - Configuration

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

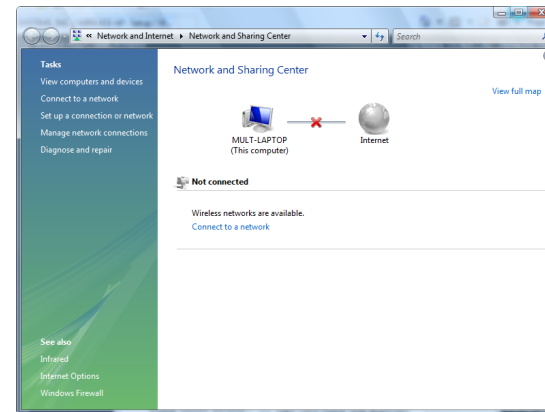
It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the security settings are correct. The key or passphrase must be exactly the same as on the wireless router.



# Connect to a Wireless Network Using Windows Vista®

Windows Vista® users may use the convenient, built-in wireless utility. Follow these instructions:

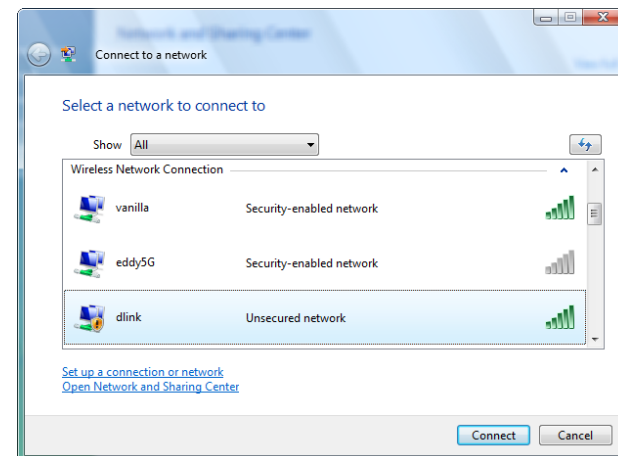
From the **Start menu**, go to **Control Panel**, and then click on Network and Sharing Center.



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.

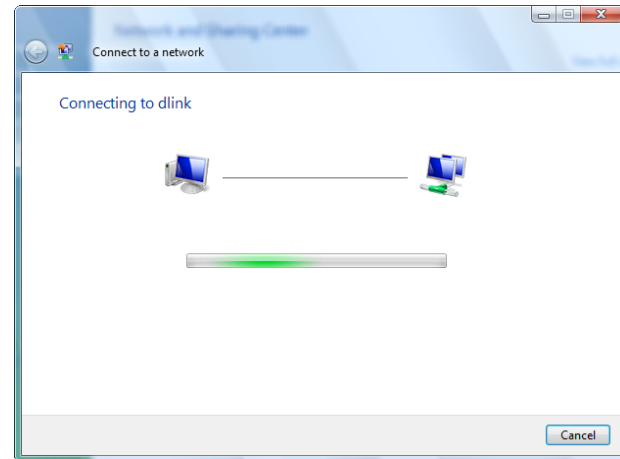
Click **Connect Anyway** to continue.



## Section 3 - Configuration

---

The utility will display the following window to indicate a connection is being made.



The final window indicates the establishment of a successful connection.

The next two pages display the windows used to connect to either a WEP or a WPA-PSK wireless network.

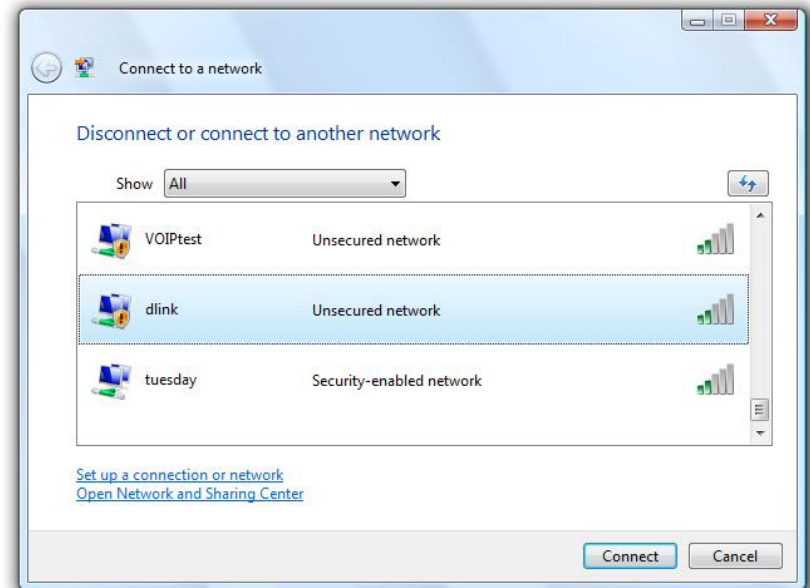
# Configure Wireless Security

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

1. Open the Windows Vista® Wireless Utility by right-clicking on the wireless computer icon in your system tray (lower right corner of screen). Select **Connect to a network**.



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



3. Enter the same security key or passphrase that is on your router and click **Connect**.

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



# Connect to a Wireless Network Using Windows® XP

Windows XP users may use the built-in wireless utility (Zero Configuration Utility). The following instructions are for Service Pack 2 users. If you are using another company's utility or Windows 2000, please refer to the user manual of your wireless adapter for help with connecting to a wireless network. Most utilities will have a "site survey" option similar to the Windows XP utility as seen below.

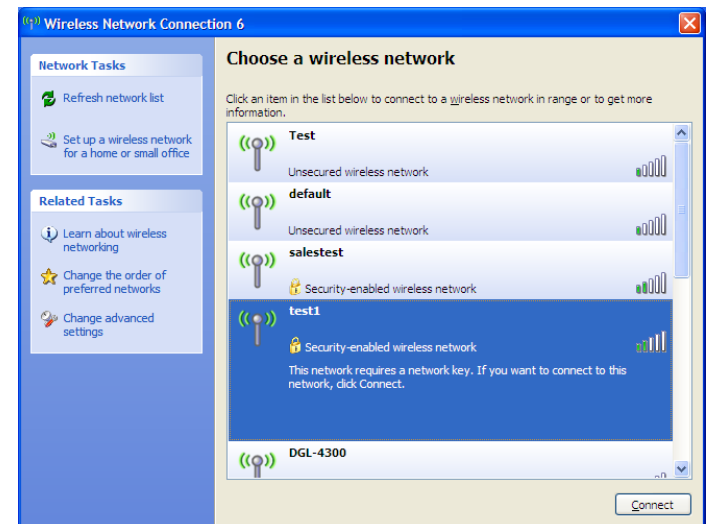
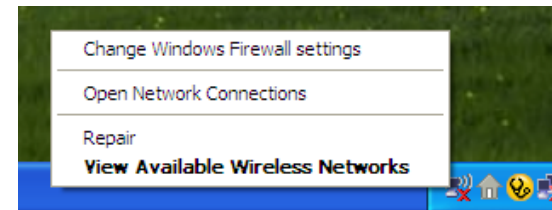
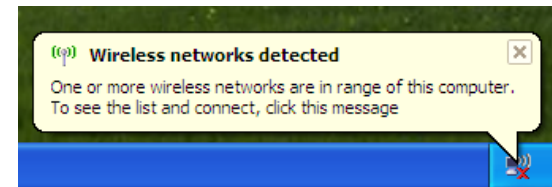
If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

or

Right-click on the wireless computer icon in your system tray (lower right corner next to the time). Select **View Available Wireless Networks**.

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

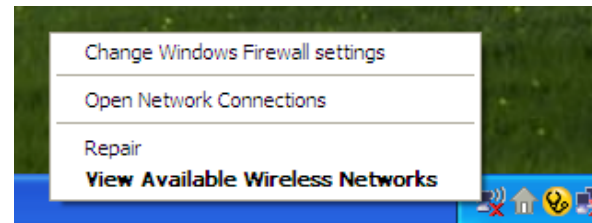
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



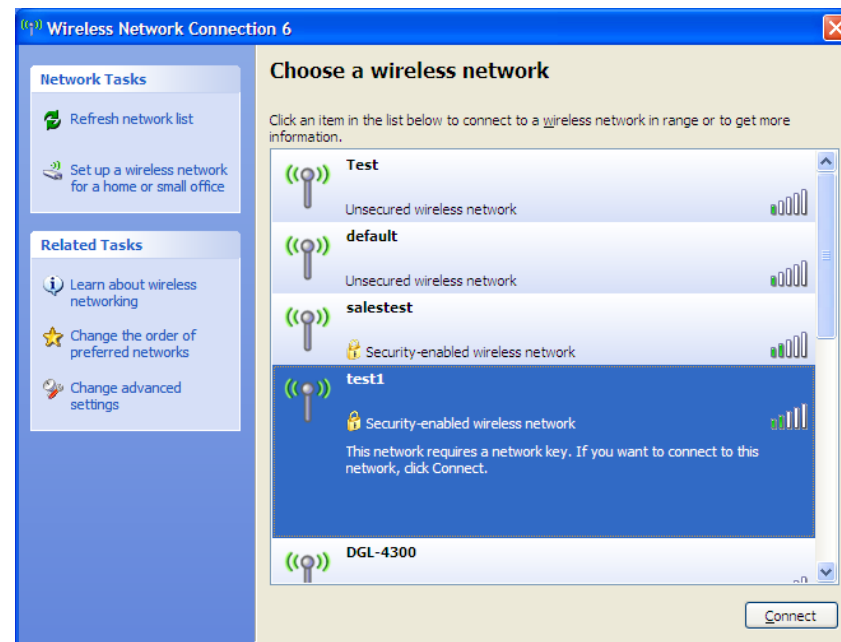
# Configure WPA-PSK

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

1. Open the Windows® XP Wireless Utility by right-clicking on the wireless computer icon in your system tray (lower-right corner of screen). Select **View Available Wireless Networks**.

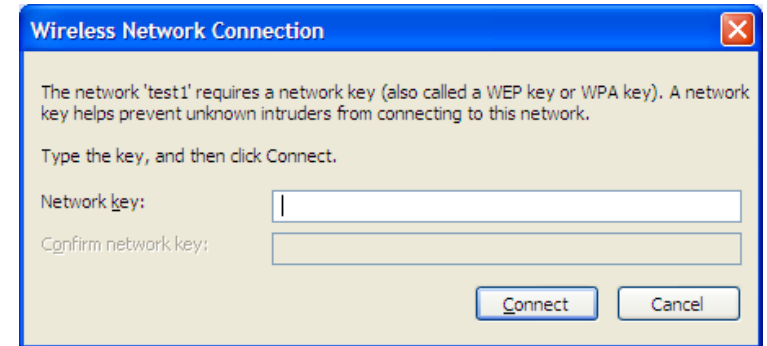


2. Highlight the wireless network (SSID) you would like to connect to and click **Connect**. The default SSID for DHP-W307AV is **dlink**.



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

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





# Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DHP-W307AV. 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 am I unable to access the web-based configuration utility?

When entering the IP address of the D-Link access point (192.168.0.50 for example), you are not connecting to a website on the Internet or have to be connected to the Internet. The device has the utility built-in to a ROM chip in the device itself. Your computer must be on the same IP subnet to connect to the web-based utility.

- Make sure you have an updated Java-enabled web browser. We recommend the following:
  - 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 Reset... 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 access point in the address bar. This should open the login page for your the web management.
- If you still cannot access the configuration, unplug the power to the access point 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 access point. Unfortunately this process will change all your settings back to the factory defaults. To reset the access point, locate the reset button (hole) on the rear panel of the unit. With the access point powered on, use a paperclip to hold the button down for 5 seconds. Release the button and the access point will go through its reboot process. Wait about 30 seconds to access the access point. The default IP address is 192.168.0.50. When logging in, the username is Admin and leave the password box empty

### 3. Why can't my PowerLine AV device detect my other PowerLine AV devices.

This may due to the accidental change of the device password. Use the web-based configuration utility and select **Setup > PLC SETTINGS**. Fill in the password in the blank. Then repeat the same procedure to the other PowerLine AV device via web-based configuration utility.

### 4. I cannot start my PowerLine AV device.

Please check your power supply is working. PowerLine AV device operates from the power supplied by the home electrical wiring and can not operate without a working power supply.

# 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 Access point 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.

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.

### **Who uses wireless?**

Wireless technology has become so popular in recent years that almost everyone is using it, whether it's for home, office, business, D-Link has a wireless solution for it.

### **Home**

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

### **Small Office and Home Office**

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

### **Where is wireless used?**

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

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

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

### **Tips**

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

### **Centralize your access point or Access Point**

Make sure you place the bridge/access point in a centralized location within your network for the best performance. Try to place the bridge/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, wireless speakers, and televisions as far away as possible from the bridge/access point. This would significantly reduce any interference that the appliances might cause since they operate on same frequency.

### **Security**

Don't let your next-door neighbors or intruders connect to your wireless network. Secure your wireless network by turning on the WPA, WPA2, or WEP security feature on the access point. Refer to product manual for detail information on how to set it up.

## Wireless Modes

There are basically two modes of networking:

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

An Infrastructure network contains an Access Point or wireless bridge. All the wireless devices, or clients, will connect to the wireless bridge or access point.

An Ad-Hoc network contains only clients, such as laptops with wireless cardbus adapters. All the adapters must be in Ad-Hoc mode to communicate.

# Networking Basics

## Check your IP address

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

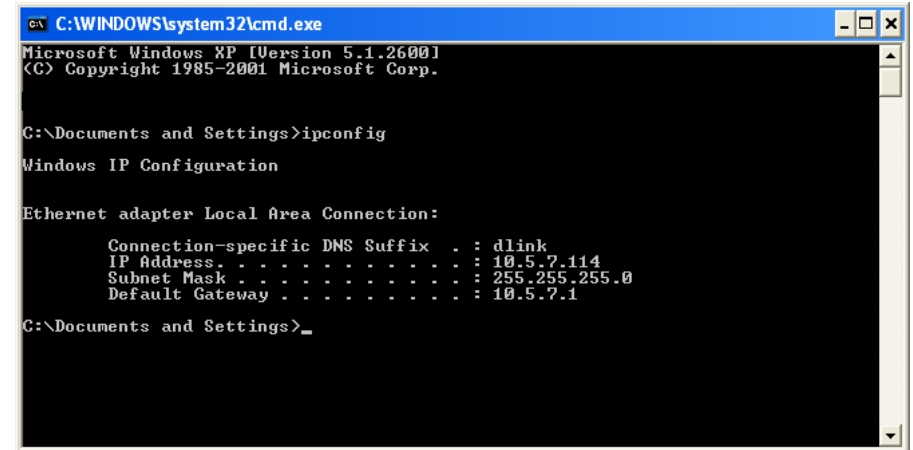
Click on **Start > Run**. In the run box type **cmd** and click **OK**. (Windows® 7/ Vista® users type **cmd** in the Start Search box.)

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

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

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

If you are connecting to a wireless network at a hotspot (e.g. hotel, coffee shop, airport), please contact an employee or administrator to verify their wireless network settings.



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

C:\Documents and Settings>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

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

C:\Documents and Settings>
```



# Statically Assign an IP address

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

### Step 1

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

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

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

### Step 2

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

### Step 3

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

### Step 4

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

Example: If the AP's LAN IP address is 192.168.0.50, make your IP address 192.168.0.X where X is a number between 2 and 99 (excluding the number 50).

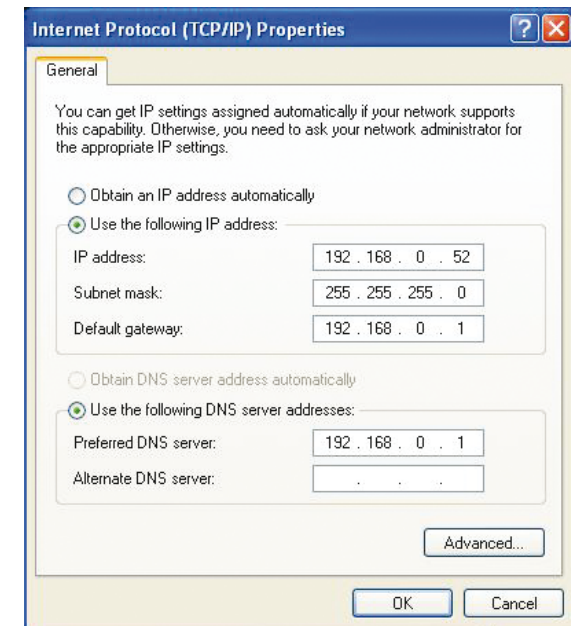
Make sure that the number you choose is not in use on the network. Set Default Gateway the same as the LAN IP address of your router (192.168.0.1).

Set Primary DNS the same as the LAN IP address of your router (192.168.0.1).

The Secondary DNS is not needed or you may enter a DNS server from your ISP.

### Step 5

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



# Technical Specifications

## DHP-306AV

### Standards

- HomePlug AV

### Network Ports

- One 10/100 Ethernet port
- RJ-45 Connector

### EMC

- FCC
- CE Class B
- C-Tick

### AC Input

- 100 ~ 240VAC, 50/60Hz

### Safety

- UL
- CE LVD

### PowerLine Modulation Scheme

- OFDM Symbol Modulation

### PowerLine Frequency Band

- 2 MHz to 30 MHz

### Power Savings

- Power savings mode supported
- Compliant with European Energy Using Product Directive (EuP)

### Encryption

- 128-bit AES

### Operation Temperature

- 0°C ~ 40°C

### Storage Temperature

- -10°C ~ 70°C

### Humidity

- Operation: 10% ~ 90% RH
- Storage: 5% ~ 90% RH

# Technical Specifications

## DHP-W306AV

### Standards

- IEEE 802.11b
- IEEE 802.11n
- IEEE 802.11g
- IEEE 802.3
- IEEE 802.3u
- HomePlug AV

### Powerline Interface

- Power plug (country- dependent)

### Ethernet Interface

- 10/100BASE-TX Ethernet Port with auto MDI/MDIX
- RJ-45 Connector

### PowerLine Modulation Scheme

- OFDM Symbol Modulation

### PowerLine Frequency Band

- 2 MHz to 30 MHz

### Data Rate

- Wireless: Speeds up to 300Mbps
- PowerLine: Up to 200 Mbps (PHY rate)
- Ethernet: 10/100 Mbps (autonegotiation)

### QoS

- Integrated QoS prioritizes media and data

### Wireless Frequency Range

- 2.4 GHz to 2.497 GHz

### Antennas

- Two fixed external 2dBi omni-direction antennas

### Security

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

### LEDs

- Power
- PowerLine
- Ethernet
- WLAN

### Power Input

- 100-240 V. AC, 50/60Hz

### Power Savings

- Power savings mode supported
- Compliant with European Energy Using Product Directive (EuP)

### Dimensions

- 105 x 70 x 52 mm (4.1 x 2.8 x 2.0 inches)

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

### **Weight**

- 208 g (0.46 lb)

### **Operation Temperature**

- 30°F to 104°F (0°C to 40°C)

### **Operating Humidity**

- 10% ~ 95% non condensing
- Storage: 5% ~ 90% RH

### **EMC Certification**

- CE Class B
- FCC

### **Safety Certification**

- UL
- CE LVD

# Contacting Technical Support

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

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

- Model number of the product (e.g. DHP-W307AV)
- Hardware Revision (located on the label on the bottom of the product (e.g. rev A1))
- Serial Number (s/n number located on the label on the bottom of the product).

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

## For customers within the United States:

### Phone Support:

(877) 453-5465

### Internet Support:

<http://support.dlink.com>

## For customers within Canada:

### Phone Support:

(800) 361-5265

### Internet Support:

<http://support.dlink.ca>

# Warranty

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

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

## **Limited Warranty:**

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

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

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

### **Limited Software Warranty:**

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

### **Non-Applicability of Warranty:**

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

### **Submitting A Claim:**

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

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

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

### **What Is Not Covered:**

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

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

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

### **Disclaimer of Other Warranties:**

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

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



**Limitation of Liability:**

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

**Governing Law:**

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

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**CE Mark Warning:**

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

**FCC Statement:**

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

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

For detailed warranty information applicable to products purchased outside the United States, please contact the corresponding local D-Link office.

# Registration

Register your product online at [registration.dlink.com](http://registration.dlink.com)



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

Version 1.0  
June 27, 2011