



# User Manual

## Wireless N450 MediaBridge®/Access Point

DAP-1533

---

# 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	August 24, 2011	• Initial Release

## Trademarks

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

Copyright © 2011 by D-Link Systems, Inc.

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

---

# Table of Contents

<b>Preface.....</b>	<b>2</b>	LAN Setup.....	25
Manual Revisions.....	2	Dynamic IP .....	25
Trademarks .....	2	Static IP .....	26
<b>Product Overview.....</b>	<b>5</b>	LAN Setup.....	27
Package Contents.....	5	Static IPv6 .....	27
System Requirements .....	6	LAN Setup.....	28
Introduction .....	7	IPv6 - Auto-Configuration.....	28
Features.....	8	Advanced .....	29
Hardware Overview .....	9	MAC Address Filter .....	29
Connections .....	9	Advanced Wireless .....	30
LEDs .....	10	QoS.....	31
<b>Installation.....</b>	<b>11</b>	Wi-Fi Protected Setup .....	32
Wireless Installation Considerations.....	12	User Limit.....	33
<b>AP/Bridge Mode .....</b>	<b>13</b>	Maintenance .....	34
One Touch AP Configuration.....	15	Admin .....	34
<b>Configuration for AP Mode.....</b>	<b>16</b>	System .....	35
Web-based Configuration Utility.....	16	Language Pack.....	36
Setup Wizard .....	17	Firmware .....	36
Wireless Setup Wizard.....	18	Time .....	37
Manual Configuration.....	21	System Check.....	38
Wireless Setup.....	21	Schedules .....	39
Wireless Setup.....	22	Status .....	40
2.4GHz.....	22	Device Info .....	40
Wireless Setup.....	23	Logs .....	41
5GHz .....	23	Statistics .....	42
		Help .....	43

<b>Configuration for Bridge Mode .....</b>	<b>44</b>	What is WPA? .....	65
Web-based Configuration Utility .....	44	Configure WPA/WPA2 .....	66
Setup Wizard .....	45	<b>Connect to a Wireless Network.....</b>	<b>67</b>
Wireless Setup.....	50	Using Windows® 7 .....	67
2.4 GHz.....	50	Using Windows Vista® .....	70
Wireless Setup.....	51	Configure Security.....	72
5 GHz .....	51	Using Windows® XP .....	73
LAN Settings .....	53	Configure Security.....	74
Static.....	53	<b>Troubleshooting .....</b>	<b>76</b>
Dynamic .....	54	<b>Wireless Basics .....</b>	<b>78</b>
Advanced .....	55	What is Wireless?.....	79
Advanced Wireless .....	55	Tips.....	81
QoS.....	56	Wireless Modes.....	82
Maintenance .....	57	<b>Networking Basics .....</b>	<b>83</b>
Admin .....	57	Check your IP address.....	83
System .....	58	Statically Assign an IP address .....	84
Language Pack.....	59	<b>Technical Specifications .....</b>	<b>85</b>
Firmware .....	59	<b>Contacting Technical Support .....</b>	<b>86</b>
Time.....	60	<b>Warranty.....</b>	<b>87</b>
Status .....	61	<b>Registration .....</b>	<b>93</b>
Device Info .....	61		
Logs .....	62		
Statistics .....	63		
Help .....	64		
<b>Wireless Security .....</b>	<b>65</b>		



# Package Contents



D-Link DAP-1533 Wireless N450 MediaBridge®/Access Point



Ethernet Cable



Power Adapter



CD-ROM with User Manual

*Note: Using a power supply with a different voltage than the one included with the DAP-1533 will cause damage and void the warranty for this product.*

# System Requirements

<b>Network Requirements</b>	<ul style="list-style-type: none"><li>• An Ethernet-based Cable or DSL modem with a broadband router</li><li>• IEEE 802.11n/g/a wireless clients (AP and Bridge modes)</li><li>• IEEE 802.11n/g/a wireless router or access point (Bridge mode)</li><li>• 10/100/1000 Ethernet Devices</li></ul>
<b>Web-based Configuration Utility Requirements</b>	<p><b>Computer with the following:</b></p> <ul style="list-style-type: none"><li>• Windows®, Macintosh, or Linux-based operating system</li><li>• An installed Ethernet adapter</li></ul> <p><b>Browser Requirements:</b></p> <ul style="list-style-type: none"><li>• Microsoft® Internet Explorer® 6.0 or higher</li><li>• Google® Chrome 2.0 or higher</li><li>• Mozilla® Firefox® 3.0 or higher</li><li>• Apple Safari® 3.0 or higher</li></ul> <p><b>Windows® Users:</b> Make sure you have the latest version of Java installed. Visit <a href="http://www.java.com">www.java.com</a> to download the latest version.</p>

# Introduction

## **Wireless N450 MediaBridge®/Access Point - Flexible networking solutions**

Whether you're wanting to give high bandwidth to your Ethernet-ready devices in your entertainment system or you want to add wireless capability to your existing wired network, the Wireless N450 MediaBridge®/Access Point is perfect for you.

## **Wireless Bridge Mode - Great for connecting your entertainment system to your existing wireless network**

With 4 Gigabit ports, you can connect any Ethernet-enabled devices such as cable/satellite boxes, game consoles, Internet-ready TV or Network Attached Storage (NAS) to your existing wireless network for blazing wired speeds.

## **Access Point Mode - Extend your existing wired network**

Connect the Wireless N450 MediaBridge®/Access Point to an existing wired network to extend it wirelessly. Stream HD videos to the far corners of your home or play online games without any skipping or delays.

## **Dual Band - Great performance for everything you do**

The dual band technology in the Wireless N450 MediaBridge®/Access Point means you can select either 2.4GHz or 5GHz wireless signals to adjust for your different networking needs. You can do all you normally do with your network using the 2.4GHz band. The 5GHz band helps avoid interference by providing a clearer wireless band for HD signals.

## **Think green**

D-Link Green™ devices are about providing eco-friendly alternatives without compromising performance. They are designed to help conserve energy, protect our environment from harmful substances, and reduce waste by using recyclable packaging. Learn more, visit [www.dlinkgreen.com](http://www.dlinkgreen.com).

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

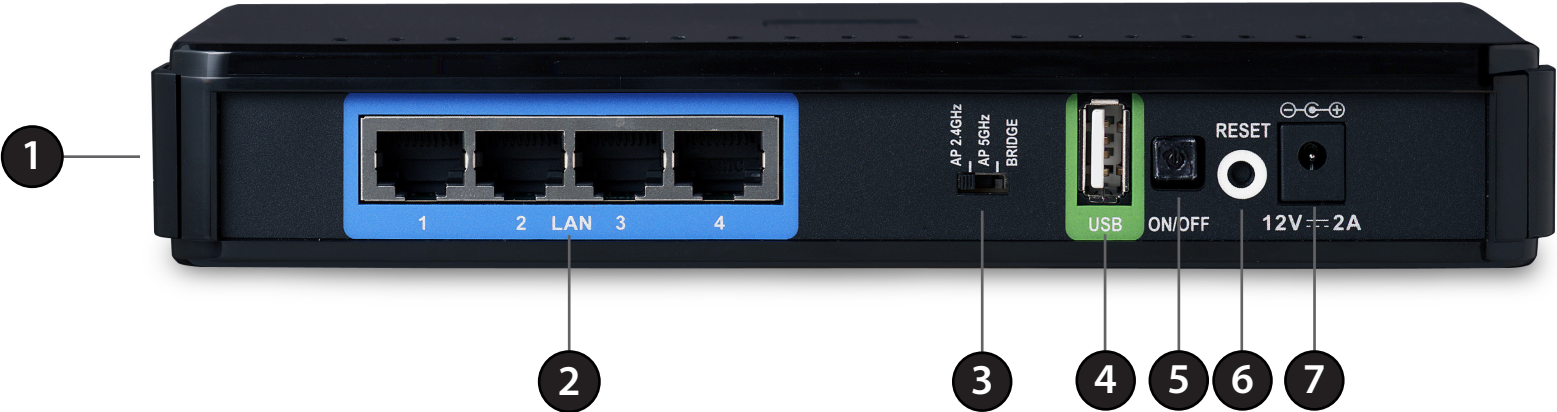
# Features

- **Faster Wireless Networking** - The DAP-1533 provides up to 450Mbps\* wireless connection with other 802.11n wireless clients. This capability allows users to participate in real-time activities online, such as video streaming, online gaming, and real-time audio. The performance of this 802.11n wireless access point gives you the freedom of wireless networking at speeds 13x faster than 802.11g.
- **Compatible with 802.11a and 802.11g Devices** - The DAP-1533 is still fully compatible with the IEEE 802.11a/g standard, so it can connect with existing 802.11a/g PCI, USB, and Cardbus adapters.
- **WPS PBC**- (Wi-Fi Protected Setup Push Button Configuration) Push Button Configuration is a button that can be pressed to add the device to an existing network or to create a new network. A virtual button can be used on the utility while a physical button is placed on the side of the device.

This easy setup method allows you to form a secured wireless link between the DAP-1533 and another WPS-enabled device. A PC is no longer needed to log into the Web-based interface.
- **Share Multifunction Printers and 3G Mobile Internet Connection** - Through the SharePort™ Plus Utility, you can connect multifunction printers to the USB ports to share printing and scanning functions among family members.
- **User-friendly Setup Wizard** - Through its easy-to-use Web-based user interface, the DAP-1533 lets you control what information is accessible to those on the wireless network, whether from the Internet or from your company's server. Configure your access point to your specific settings within minutes.

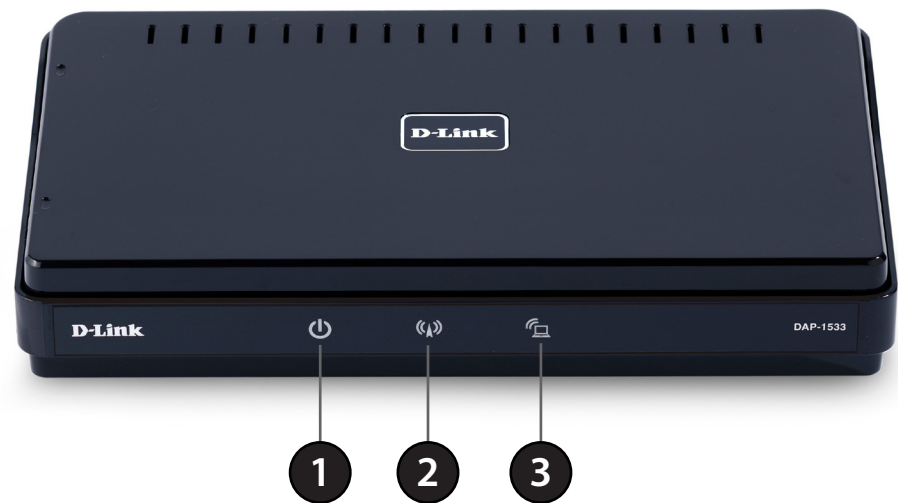
# Hardware Overview

## Connections



1	WPS Button	Press for 3 seconds to start the WPS process. After pressing, the AP or Bridge LED (depending what mode you have selected) will blink. Within 2 minutes, press the WPS button on the wireless device you want to connect to.
2	LAN Ports (1-4)	Connect 10/100/1000 Ethernet devices such as computers, switches, and NAS devices.
3	Mode Switch	Three-way switch used to select <b>AP 2.4GHz</b> , <b>AP 5GHz</b> or <b>Bridge</b> mode.
4	USB Port	Connect a multifunction printer and share printing and scanning functions to users on your network. You may also connect a USB thumb drive/external hard drive for WCN and sharing files.
5	ON/OFF Button	Press to power on and off your DAP-1533.
6	Reset Button	Pressing the Reset button restores the DAP-1533 to its original factory default settings.
7	Power Receptor	Receptor for the supplied power adapter.

# LEDs



1	Power LED	A solid green light indicates a proper connection to the power supply.
2	AP LED	A solid light indicates that the DAP-1533 is in AP mode. This LED will blink during the WPS connection process.
3	Bridge LED	A solid light indicates that the DAP-1533 is in bridge mode. This LED will blink during the WPS connection process.

# Installation

This section will walk you through the installation process. Placement of the DAP-1533 is very important. Do not place the DAP-1533 in an enclosed area such as a closet, cabinet, or in the attic or garage.

# 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, however, that the number, thickness and location of walls, ceilings, or other objects that the wireless signals must pass through, may limit the range. Typical ranges vary depending on the types of materials and background RF (radio frequency) noise in your home or business. The key to maximizing wireless range is to follow these basic guidelines:

1. Keep the number of walls and ceilings between the D-Link 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 X-10 (wireless products such as ceiling fans, lights, and home security systems), your wireless connection may degrade dramatically or drop completely. Make sure your 2.4GHz phone base is as far away from your wireless devices as possible. The base transmits a signal even if the phone is not in use.

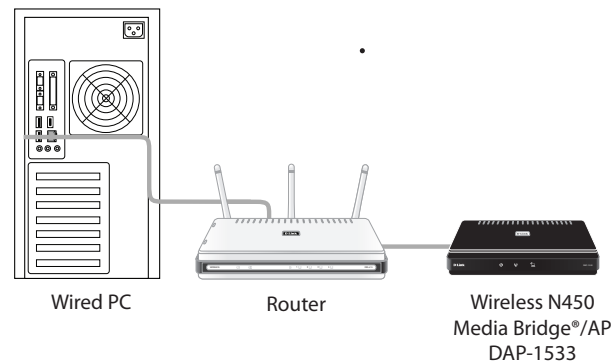


# AP/Bridge Mode

Depending on how you want to use your DAP-1533 will determine which mode you use. This section will help you figure out which setting works with your setup.

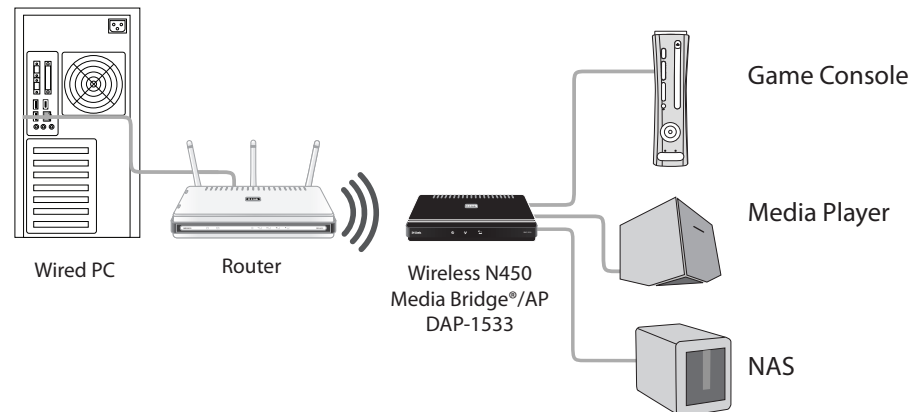
## AP Mode

If you already have a wired or wireless router, and want to add an access point to connect your wireless clients to your network, you will need to move the switch on the back panel of the DAP-1533 to “AP2.4GHz” (for 2.4GHz) or “AP 5GHz” (for 5GHz).



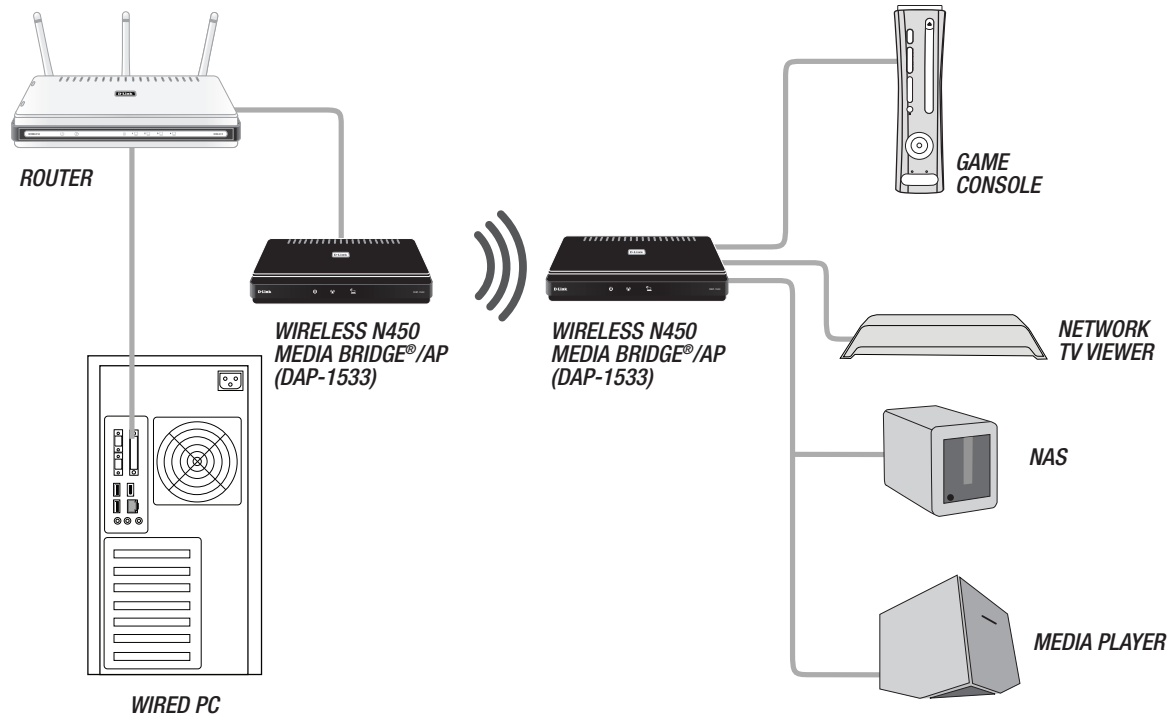
## Bridge Mode

If you want to connect multiple Ethernet-enabled devices such as game consoles, media players, or network attached storage devices wirelessly to your wireless router or AP device, you will need to move the switch on the back panel of the DAP-1533 to “Bridge”.



## Create a Full MediaBand (5GHz wireless) Network

If you have two DAP-1533 devices and want to create a wireless network with full MediaBand technology you will need to connect one Wireless Bridge to your router and move the switch on the back panel to “AP 5GHz”. The second Wireless Bridge will need to be placed next to your Ethernet-enabled devices and you will need to move the switch on the back panel to “Bridge”.



# One Touch AP Configuration

One Touch AP Configuration works like WPS but can transfer the wireless settings from an existing access point or wireless router to the DAP-1533 in access point mode. This is best used if you are using the DAP-1533 to replace an existing access point or wireless router. If you want to connect your DAP-1533 to your wireless clients, or using Bridge mode, refer to WPS.

1. Select **AP 2.4GHz or AP 5GHz Mode** located on the back of the device. Then, Insert the power adapter into the power receptacle located on the rear panel of the DAP-1533 and plug the adapter into a suitable nearby power source. Press the power button to turn the device on.
2. Press the WPS button on your Router or Access Point. The AP LED will flash on and off.
3. Press the WPS Push Button on the DAP-1533 and **hold it for 5 seconds**.
4. When One click AP setup is complete, your DAP-1533 will have the same Wireless settings as your existing Router or AP.
5. Connect an Ethernet cable from one of the LAN ports on the DAP-1533 and connect it to an Ethernet port on your existing AP or wireless router.

**Note:** Since the DAP-1533 and your existing access point or wireless router will have the same wireless settings, you will need to make sure they are out of range with each other. If they are within range, this may cause interference. It is strongly recommended to disable the wireless function on your existing access point or wireless router.

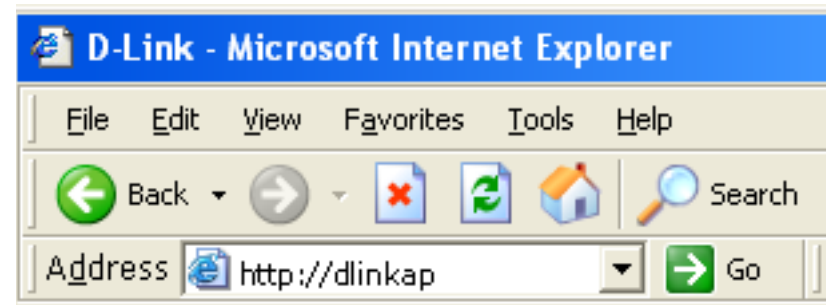
# Configuration for AP Mode

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

## Web-based Configuration Utility

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

**Note:** You must include **http://** in order to connect to the web browser.



Enter **Admin** for the user name and then enter your password. Leave the password blank by default.

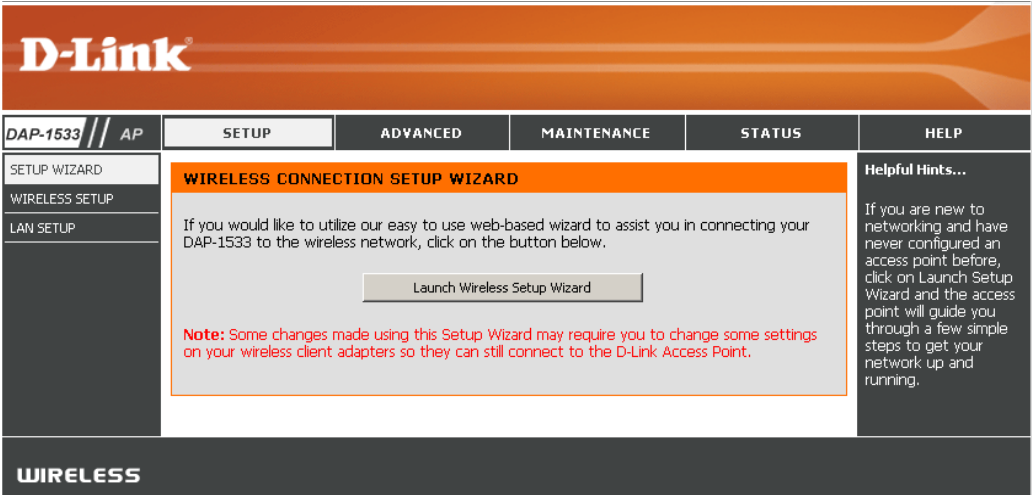
A screenshot of the D-Link web-based configuration utility's login page. The page has an orange header with the word "LOGIN" in white. Below the header, it says "Log in to the Access Point". There are two labels: "User Name :" and "Password :". The "User Name" field is a dropdown menu with "Admin" selected. The "Password" field is a text input box. Below these fields is a "Login" button.

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

# Setup Wizard

Click **Launch Wireless Setup Wizard** to quickly configure your access point.

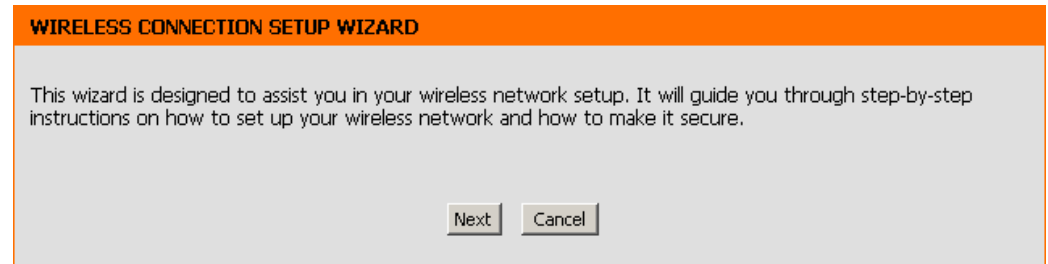
If you want to enter your settings without running the wizard, click **Wireless Settings** (on the left side) and skip to page 21.



## Wireless Setup Wizard

This Wizard is designed to assist you in connecting your wireless device to your access point. It will guide you through step-by-step instructions on how to get your wireless device connected.

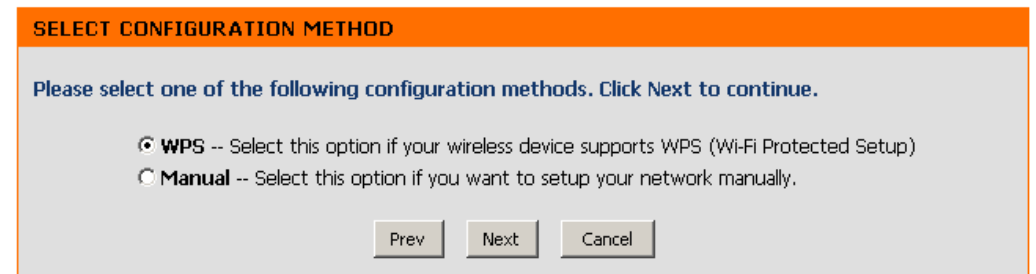
Click **Next** to continue.



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

Skip to page 20 for Manual configuration.

Click **Next** to continue.



### VIRTUAL PUSH BUTTON

Please press down the Push Button (physical or virtual) on the wireless device you are adding to your wireless network within **115** seconds ...

Click **Next** to continue.

### ADD WIRELESS DEVICE WITH WPS

You have succeeded to add the wireless device to your wireless network.

Next

Click **End** to complete the setup.

### CONNECT TO WIRELESS DEVICE

The wireless setup wizard has completed.

Finish

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

Click **Next** to continue.



**SELECT CONFIGURATION METHOD**

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

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

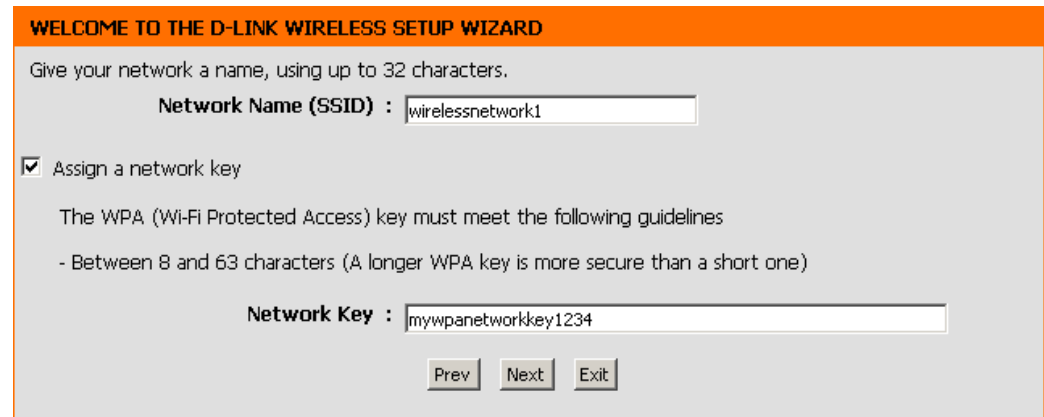
☒ **Manual** -- Select this option if you want to setup your network manually

Prev Next Cancel

Enter a network name (SSID) and uncheck **Assign a network key** to automatically create a network key.

To Manually assign a network key, check **Assign a network key** and enter a key in the box.

Click **Next** to continue.



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

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

**Network Name (SSID) :** wirelessnetwork1

☒ **Assign a network key**

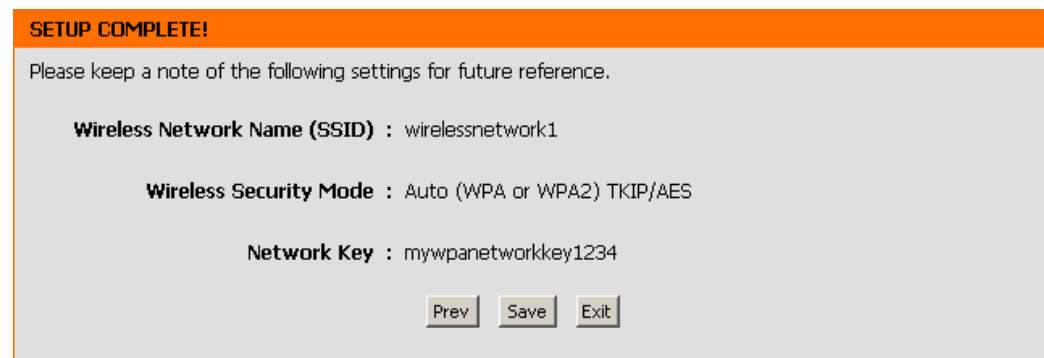
The WPA (Wi-Fi Protected Access) key must meet the following guidelines

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

**Network Key :** mywpanetworkkey1234

Prev Next Exit

Click **Save** to save your network settings.



**SETUP COMPLETE!**

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

**Wireless Network Name (SSID) :** wirelessnetwork1

**Wireless Security Mode :** Auto (WPA or WPA2) TKIP/AES

**Network Key :** mywpanetworkkey1234

Prev Save Exit



# Manual Configuration

## Wireless Setup

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

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

**Wireless Band:** Displays either 2.4GHz or 5.0GHz.

**Wireless Mode:** Choose the wireless mode you would like to use.

**Enable Auto Channel Scan:** Select to enable auto channel scan.

**Wireless Channel:** The Auto Channel Scan setting can be selected to allow the DAP-1533 to choose the channel with the least amount of interference.

**Channel Width:** Operating frequency band. Choose 2.4GHz for visibility to legacy devices and for longer range. Choose 5GHz for least interference.

**Visibility Status:** Select Invisible if you do not want the SSID of your wireless network to be broadcasted by the DAP-1533. If checked, the SSID of the DAP-1533 will not be seen by Site Survey utilities so your wireless clients will have to know the SSID of your DAP-1533 in order to connect to it.

**WIRELESS NETWORK SETTINGS**

**Enable Wireless :** ☒ Always ☐ Add New Schedule

**Wireless Network Name :**  (Also called the SSID)

**Band :**

**Wireless Mode :**

**Enable Auto Channel Scan :** ☒

**Wireless Channel :**  (Domain:US)

**Channel Width :**

**Visibility Status:** ☒ Visible ☐ Invisible

**WIRELESS SECURITY MODE**

**Security Mode :**

**WPA**

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

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

**WPA Mode :**

**Cipher Type :**

**PRE-SHARED KEY**

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

**Pre-Shared Key :**

# Wireless Setup

## 2.4GHz

**Enable Wireless:** Check the box to enable the wireless function. If you do not want to use wireless, uncheck the box to disable all the wireless functions. 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, it is highly recommended to change from the pre-configured network name.

**Wireless Band:** Displays the band you are using.

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

**Enable Auto Channel Scan:** Click the **Scan** button to search for all available devices connected to your DAP-1533's Ethernet ports

**Wireless Channel:** The **Auto Channel Scan** setting can be selected to allow the DAP-1533 to choose the channel with the least amount of interference.

The screenshot shows the D-Link configuration interface for a DAP-1533 Access Point. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar shows a menu with SETUP WIZARD, WIRELESS SETUP (selected), and LAN SETUP. The main content area is titled 'WIRELESS' and contains instructions: 'Use this section to configure the wireless settings for your D-Link Access Point. Please note that changes made on this section may also need to be duplicated on your wireless clients and PC.' Below this are 'Save Settings' and 'Don't Save Settings' buttons. The 'WIRELESS NETWORK SETTINGS' section includes: 'Enable Wireless' (checked, Always), 'Wireless Network Name' (dlink), 'Wireless Band' (2.4GHz), 'Wireless Mode' (Mixed 802.11n, 802.11g and 802.11b), 'Enable Auto Channel Scan' (checked), 'Wireless Channel' (1), 'Channel Width' (Auto 20/40 MHz), and 'Visibility Status' (Visible). The 'WIRELESS SECURITY MODE' section shows 'Security Mode' set to None. A 'Helpful Hints...' sidebar on the right provides additional guidance on network naming, channel selection, and visibility status.

# Wireless Setup

## 5GHz

**Enable Wireless:** Check the box to enable the wireless function. If you do not want to use wireless, uncheck the box to disable all the wireless functions. You may also set up a specific time range (schedule). Select a schedule from the drop down menu or click **Add New 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, it is highly recommended to change from the pre-configured network name.

**Wireless Band:** Displays the band you are using.

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

**Enable Auto Channel Scan:** Click the **Scan** button to search for all available devices connected to your DAP-1533's Ethernet ports

**Wireless Channel:** The **Auto Channel Scan** setting can be selected to allow the DAP-1533 to choose the channel with the least amount of interference.

The screenshot shows the D-Link configuration interface for the DAP-1533 Access Point. The 'WIRELESS' tab is selected in the top navigation bar. The left sidebar shows 'WIRELESS SETUP' as the active section. The main content area is titled 'WIRELESS' and contains the following settings:

- Enable Wireless:** Checked, with a dropdown set to 'Always' and an 'Add New Schedule' button.
- Wireless Network Name:** 'dlink\_media' (Also called the SSID).
- Wireless Band:** '5GHz'.
- Wireless Mode:** 'Mixed 802.11n and 802.11a'.
- Enable Auto Channel Scan:** Checked.
- Wireless Channel:** '36' (Domain:US).
- Channel Width:** 'Auto 20/40 MHz'.
- Visibility Status:** 'Visible' (radio button selected), 'Invisible' (radio button unselected).
- WIRELESS SECURITY MODE:** 'Security Mode' dropdown set to 'None'.

On the right side, there is a 'Helpful Hints...' section with text explaining the importance of the Network Name and the Auto Channel Scan feature.

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

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

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

**Visibility Status:** Select Invisible if you do not want the SSID of your wireless network to be broadcasted by the DAP-1533. If checked, the SSID of the DAP-1533 will not be seen by Site Survey utilities so your wireless clients will have to know the SSID of your DAP-1533 in order to connect to it.

**Security Mode:** 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 . In order for your wireless devices to connect to your Access Point, you will need to manually enter the Wireless Network Name on each device.

# LAN Setup

## Dynamic IP

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

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

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

The screenshot shows the D-Link configuration web interface for a DAP-1533 AP. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar shows a menu with SETUP WIZARD, WIRELESS SETUP, and LAN SETUP (which is currently selected). The main content area is titled 'NETWORK SETTINGS' and contains several sections:

- DEVICE NAME:** A text box labeled 'Device Name' with the value 'dlinkap'. A note explains that this allows for easier access to the web browser configuration page.
- LAN IPV4 CONNECTION TYPE:** A dropdown menu labeled 'My LAN Connection is' set to 'Dynamic IP (DHCP)'.
- DYNAMIC IP(DHCP) LAN CONNECTION TYPE:** A section for entering IPv4 address information, including fields for IP Address (192.168.0.50), Subnet Mask (255.255.255.0), Gateway Address (0.0.0.0), Primary DNS Server (0.0.0.0), and Secondary DNS Server (0.0.0.0).
- LAN IPV6 CONNECTION TYPE:** A dropdown menu labeled 'My IPv6 Connection is' set to 'Link-local only'.
- LAN IPV6 ADDRESS SETTINGS:** A section for configuring IPv6 settings, showing the 'LAN IPv6 Link-Local Address' as 'FE80::218:E7FF:FE95:5E7C/64'.

On the right side of the interface, there is a 'Helpful Hints...' section with additional information about the Device Name and LAN settings.

## Static IP

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

**IPv4 Connection Type:** Use the drop-down menu to select **Static IP**.

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

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

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

The screenshot shows the D-Link configuration utility for a DAP-1533 AP. The interface has a top navigation bar with tabs: SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains links: SETUP WIZARD, WIRELESS SETUP, and LAN SETUP. The main content area is titled 'NETWORK SETTINGS' and contains the following sections:

- DEVICE NAME:** A text field with the value 'dlinkap'. A note states: '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)'. Buttons for 'Save Settings', 'Don't Save Settings', and 'Reboot Now' are present.
- LAN IPV4 CONNECTION TYPE:** A dropdown menu labeled 'My LAN Connection is:' with 'Static IP' selected.
- STATIC IP ADDRESS LAN CONNECTION TYPE:** A section titled 'Enter the static address Information' with input fields for:
  - IP Address: 192.168.0.50
  - Subnet Mask: 255.255.255.0
  - Gateway Address: 0.0.0.0
  - Primary DNS Server: 0.0.0.0
  - Secondary DNS Server: 0.0.0.0
- LAN IPV6 CONNECTION TYPE:** A dropdown menu labeled 'My IPv6 Connection is:' with 'Link-local only' selected.
- LAN IPV6 ADDRESS SETTINGS:** A section titled '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.' with a text field showing 'LAN IPv6 Link-Local Address : FE80::218:E7FF:FE95:5E7C/64'.

On the right side of the configuration utility, there is a 'Helpful Hints...' section with additional information about Device Name and LAN Settings.

# LAN Setup

## Static IPv6

- IPv6 Address:** Enter the static IPv6 address provided by your Internet Service Provider.
- Subnet Prefix Length:** Enter the IPv6 subnet prefix length.
- Default Gateway:** Enter the default gateway IP address.
- Primary DNS Server:** Enter the primary DNS server IP address.
- Secondary DNS Server:** Enter the secondary DNS server IP address.

LAN IPv6 CONNECTION TYPE

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

My IPv6 Connection is : Static IPv6

LAN IPv6 ADDRESS SETTINGS

Enter the IPv6 address information.

IPv6 Address :

Subnet Prefix Length :

Default Gateway :

Primary DNS Server :

Secondary DNS Server :

# LAN Setup

## IPv6 - Auto-Configuration

**Obtain IPv6 DNS Servers automatically:** Select to obtain IPv6 DNS Servers automatically.

**Use the following IPv6 DNS Servers:** Enter a specific DNS server address.

**Primary DNS Server:** Enter the primary DNS server IP address.

**Secondary DNS Server:** Enter the secondary DNS server IP 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 servers automatically

☐ Use the following IPv6 DNS servers

Primary DNS Server :

Secondary DNS Server :



# Advanced MAC Address Filter

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

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

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

**D-Link**

DAP-1533 // AP

SETUP ADVANCED MAINTENANCE STATUS HELP

MAC ADDRESS FILTER

ADVANCED WIRELESS

QOS

WI-FI PROTECTED SETUP

USER LIMIT

**MAC ADDRESS FILTER**

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

Save Settings Don't Save Settings Reboot Now

**WIRELESS ACCESS SETTINGS**

Configure MAC Filtering below:

Turn MAC Filtering OFF

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
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

**Helpful Hints...**

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

Select a MAC address from the drop down menu, then click the arrow to add that MAC address to the list.

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

# Advanced Wireless

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

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

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

**IGMP Snooping:** This enables IGMP snooping for the wireless connection. We recommend enabling this if you often use multicast services such as video conferencing and streaming audio/video.

**WLAN Partition:** Select to enable this feature.

**HT20/40 Coexistence:** You may choose to Enable or Disable this feature. Enabling this feature allows two “channels,” or paths on which data can travel to be combined to increase performance in some environments.

**D-Link**

DAP-1533 // AP

SETUP ADVANCED MAINTENANCE STATUS HELP

MAC ADDRESS FILTER

ADVANCED WIRELESS

QOS

WIFI PROTECTED SETUP

USER LIMIT

**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.

Save Settings Don't Save Settings Reboot Now

**ADVANCED WIRELESS SETTINGS**

Transmit Power : 100%

WMM Enable : ☒

Short GI : ☒

IGMP Snooping : ☒

WLAN Partition : ☐

HT20/40 Coexistence : ☒ Enable ☐ Disable

**Helpful Hints...**

**Advanced Wireless:**  
It is recommended that you leave these options at their default values. Adjusting them could negatively impact the performance of your wireless network. The options on this page should be changed by advanced users or if you are instructed to by one of our support personnel, as they can negatively affect the performance of your Access Point if configured improperly.

## QoS

The Quality of Service (QoS) feature regulates the flow of data through the access point by assigning a priority to each packet. It enhances your experience of wireless network usage by prioritizing the traffic of different applications. Enabling this option allows the AP to prioritize traffic.

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

**Priority by LAN Port:** There are four priority levels for all LAN ports. The priority level values assigned are LAN Port 1 for Background, LAN Port 2 for Best Effort, LAN Port 3 for Video, and LAN Port 4 for Voice (Voice is the highest level and Background is the lowest level) at a normal priority. Select from the drop-down options.

**D-Link**

DAP-1533 // AP

SETUP ADVANCED MAINTENANCE STATUS HELP

MAC ADDRESS FILTER

ADVANCED WIRELESS

QoS

WI-FI PROTECTED SETUP

USER LIMIT

**QoS**

QoS stands for Quality of Service for Wireless Intelligent Stream Handling, a technology developed to enhance the experience of using a wireless network by prioritizing the traffic of different application. The DAP-1533 supports four priority levels.

Save Settings Don't Save Settings Reboot Now

**ENABLE QoS**

Enable QoS : ☐

**PORT PRIORITY**

Lan Port 1 : Voice

Lan Port 2 : Voice

Lan Port 3 : Voice

Lan Port 4 : Voice

**WIRELESS**

# Wi-Fi Protected Setup

This feature allows you to add devices to your network using a PIN or button Press. Your devices must support Wi-Fi Protected Setup in order to be configured by this method.

**Enable:** Select to Enable this feature and add devices to your network.

DAP-1533 AP

MAC ADDRESS FILTER

ADVANCED WIRELESS

QOS

WI-FI PROTECTED SETUP

USER LIMIT

SETUP

ADVANCED

MAINTENANCE

STATUS

HELP

WI-FI PROTECTED SETUP

Wi-Fi Protected Setup is used to easily add devices to a network using a PIN or button press. Devices must support Wi-Fi Protected Setup in order to be configured by this method.

If the PIN changes, the new PIN will be used in following Wi-Fi Protected Setup process. Clicking on "Don't Save Settings" button will not reset the PIN.

However, if the new PIN is not saved, it will get lost when the device reboots or loses power.

Save Settings

Don't Save Settings

Reboot Now

WI-FI PROTECTED SETUP

Enable : ☒

Reset to Unconfigured

PIN SETTINGS

Current PIN : 47505049

Generate New PIN

Reset PIN to Default

ADD WIRELESS STATION

Add Wireless Device with WPS

Helpful Hints...

Enable if other wireless devices you wish to include in the local network support Wi-Fi Protected Setup.

Click **Add Wireless Device Wizard** to use Wi-Fi Protected Setup to add wireless devices to the wireless network.

# User Limit

The User Limit section allows you to set a maximum number of wireless clients that can connect to the access point.

- Enable User Limit:

Check the box to enable.
- User Limit (1-32):

Enter the maximum number of clients allowed to connect to the access point.

D-Link

DAP-1533 // AP

SETUP

ADVANCED

MAINTENANCE

STATUS

HELP

MAC ADDRESS FILTER

ADVANCED WIRELESS

QOS

WI-FI PROTECTED SETUP

USER LIMIT

USER LIMIT SETTINGS

Please Apply the settings to limit how many wireless stations connecting to AP.

Save Settings

Don't Save Settings

Reboot Now

USER LIMIT SETTINGS

Enable User Limit : ☐

User Limit(1 - 32) :

Helpful Hints...

User Limit can set a limit upon the number of wireless clients. Using user limit, you can prevent scenarios where the DAP-1533 in your network shows performance degradation because it is handling heavy wireless traffic.

WIRELESS

# Maintenance Admin

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

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

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

**D-Link**

DAP-1533 // AP    SETUP    ADVANCED    **MAINTENANCE**    STATUS    HELP

**ADMIN**

**ADMINISTRATOR SETTINGS**

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.

Save Settings    Don't Save Settings    Reboot Now

**PASSWORD**

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

Password :

Verify Password :

**ADMINISTRATION**

Enable Graphical Authentication : ☒

**Helpful Hints...**

**Passwords:**  
For security reasons, it is recommended that you change the Password for the Administrator accounts. Be sure to write down the Passwords to avoid having to reset the AP in the event that they are forgotten.

**LOGIN**

Log in to the Access Point

User Name : Admin

Password :

Enter the correct password above and then type the characters you see in the picture below.

F H S A B    Regenerate

Login

# System

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

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

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

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

**Reboot the Device:** Click to reboot the access point.

The screenshot shows the D-Link web interface for a DAP-1533 AP. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE (selected), STATUS, and HELP. A left sidebar lists menu items: ADMIN, SYSTEM, FIRMWARE, TIME, SYSTEM CHECK, and SCHEDULES. The main content area is titled 'SAVE AND RESTORE' and contains the following text and buttons:

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 DAP-1533.

**SAVE AND RESTORE**

Save Settings To Local Hard Drive:

Load Settings From Local Hard Drive:

Restore To Factory Default Settings:

Reboots The Device:

On the right side, under 'Helpful Hints...', there is a section titled 'Saving System Settings:' which explains that once the AP is configured, users can save settings to a file for later use to restore default settings.

The bottom of the interface has a 'WIRELESS' tab.

# Firmware

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

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

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

## Language Pack

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

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

The screenshot shows the D-Link web interface for a DAP-1533 access point. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar lists various system settings like ADMIN, SYSTEM, FIRMWARE, TIME, SYSTEM CHECK, and SCHEDULES. The main content area is divided into two primary sections: FIRMWARE and LANGUAGE PACK UPGRADE.

**FIRMWARE SECTION:**

- FIRMWARE INFORMATION:** Displays the current firmware version (1.00) and date (Mon, 22 Aug 2011). It also shows the current language pack version (No Language Pack) and provides a 'Remove Language Pack' button. A 'Check Online Now for Latest Firmware Version' button is also present.
- FIRMWARE UPGRADE:** Contains a note stating that some firmware upgrades reset configuration options to factory defaults. It instructs users to save current configuration from the Maintenance -> System screen. Below the note, there is an 'Upload' button and a 'Browse...' button to select a firmware file.

**LANGUAGE PACK UPGRADE SECTION:**

- Similar to the firmware section, it includes an 'Upload' button and a 'Browse...' button for selecting a language pack file.

**WIRELESS SECTION:**

At the bottom of the interface, there is a 'WIRELESS' section, which is partially visible.



# 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 your Time Zone from the drop-down menu.

**Daylight Saving:** To select Daylight Saving time manually, click the **Enable Daylight Saving** check box.

**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:** Select the NTP server from the drop-down menu and then click **Update Now**.

**Set the Time and Date Manually:** 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.

The screenshot shows the D-Link DAP-1533 AP web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar lists menu items: ADMIN, SYSTEM, FIRMWARE, TIME (selected), SYSTEM CHECK, and SCHEDULES. The main content area is titled 'TIME' and contains the following sections:

- TIME CONFIGURATION:**
  - Time: Tuesday, July 19, 2011 3:59:37 AM
  - Time Zone: (GMT-08:00) Pacific Time (US/Canada), Tijuana
  - Enable Daylight Saving: ☐
  - Daylight Saving Offset: +1:00
  - Daylight Saving Dates: DST Start (Mar 3rd Sun 1 am) and DST End (Nov 2nd Sun 1 am)
- AUTOMATIC TIME CONFIGURATION:**
  - Enable NTP Server: ☐
  - NTP Server Used: < Select NTP Server
- SET THE DATE AND TIME MANUALLY:**
  - Date And Time: Year (2011), Month (Jan), Day (19), Hour (03), Minute (59), Second (19), AM
  - Copy Your Computer's Time Settings button

At the bottom of the interface, there is a 'WIRELESS' section. On the right side, there is a 'Helpful Hints...' section titled 'System Time Settings' which states: 'This section allows admins to configure, update, and maintain the correct time on the Access Point's internal system clock.'

# System Check

This section Ping Tests by sending ping packets to test if a computer on the internet is running and responding.

**Ping Test /** The Ping Test / IPv6 Ping Test is used to send  
**IPv6 Ping Test:** Ping packets to test if a computer is on the Internet. Enter the host name or IP/IPv6 address that you wish to Ping, and click **Ping**.

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

D-Link

DAP-1533 // AP

SETUP

ADVANCED

MAINTENANCE

STATUS

HELP

ADMIN

SYSTEM

FIRMWARE

TIME

SYSTEM CHECK

SCHEDULES

PING TEST

Ping Test sends "ping" packets to test a computer on the Internet.

PING TEST

Host Name or IP Address :  ping

IPv6 PING TEST

Host Name or IPv6 Address:  ping

PING RESULT

Enter a host name or IP address above and click "Ping"

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.

WIRELESS

# Schedules

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

DAP-1533 // AP

ADMIN

SYSTEM

FIRMWARE

TIME

SYSTEM CHECK

SCHEDULES

SETUP

ADVANCED

MAINTENANCE

STATUS

HELP

SCHEDULES

The Schedule configuration option is used to manage schedule rules for wireless Lan control features.

ADD SCHEDULE RULE

Name :

Day(s) :  
☒ All Week ☐ Select Day(s)  
☐ Sun ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat

All Day - 24 hrs : ☐

Time format : 24-hour

Start Time : 00 : 00 AM (hour:minute)

End Time : 00 : 00 AM (hour:minute)

Save Clear

SCHEDULE RULES LIST :

Name	Day(s)	Time Frame		
------	--------	------------	--	--

Helpful Hints...  
  
Schedules are used with a number of other features to define when those features are in effect.  
  
Give each schedule a name that is meaningful to you. For example, a schedule for Monday through Friday from 3:00pm to 9:00pm, might be called "After School".  
  
Click **Save** to add a completed schedule to the list below.  
  
Click **Edit** icon to change an existing schedule.  
  
Click **Delete** icon to permanently delete a schedule.

WIRELESS

# Status

## Device Info

This page displays the current information for the DAP-1533. 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.

The screenshot shows the D-Link DAP-1533 AP web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS (selected), and HELP. The left sidebar contains links for DEVICE INFO (selected), LOGS, and STATISTICS. The main content area displays the following information:

DEVICE INFORMATION	
All of your Internet and network connection details are displayed on this page. The firmware version is also displayed here.	
GENERAL	
Time :	Tuesday, July 19, 2011 2:17:12 AM
Firmware Version :	1.00 , 22, Jul, 2011
LAN	
MAC Address :	00:18:E7:95:5E:7C
Connection :	Dynamic IP
IP Address :	192.168.0.101
Subnet Mask :	255.255.255.0
Gateway Address :	192.168.0.1
WIRELESS LAN	
MAC Address :	00:18:E7:95:5E:7C
Network Name (SSID) :	dlink
Channel :	1
Security Mode :	Disable

Helpful Hints... All of your LAN and Wireless connection details are displayed here.

# Logs

The access point automatically logs (records) events of possible interest in its internal memory. If there isn't enough internal memory for all events, logs of older events are deleted, but logs of the latest events are retained. The Logs option allows you to view the access point logs.

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

**Apply Log Settings now:** Click to apply the log type settings you chose.

**First Page:** Click to view the first page.

**Last Page:** Click to view the last page.

**Previous:** Click to view the previous page.

**Next:** Click to view the next page.

**Clear:** Delete all of the log content.

**Save Log:** Click the **Save** button to save the access point log file to your computer.

**Refresh:** Click to refresh the information on this page.

The screenshot shows the D-Link DAP-1533 AP web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar shows a menu with DEVICE INFO, LOGS (selected), and STATISTICS. The main content area is titled 'LOGS' and contains the following sections:

- LOGS:** A description stating 'Use this option to view the device logs. You can define what types of events you want to view and the event levels to view.'
- LOG OPTIONS:** A section for configuring log types. It includes checkboxes for 'System Activity' (checked), 'Debug Information' (unchecked), 'Attacks' (checked), 'Dropped Packets' (unchecked), and 'Notice' (checked). An 'Apply Log Settings Now' button is located below these options.
- LOG DETAILS:** A section displaying a list of log entries. It includes navigation buttons (First Page, Last Page, Previous, Next, Clear, Save Log) and a 'Refresh' button. The log entries are displayed in a table with columns for 'Time' and 'Message'.

The log entries shown are:

Time	Message
Jul 19 02:15:12	klogd started: BusyBox v1.01 (2011.07.14-09:06+0000)
Jul 19 02:15:02	Lease of 192.168.0.101 obtained, lease time 604800
Jul 19 02:15:02	Sending discover...
Jul 19 02:15:02	DHCP client start.
Jul 19 02:15:02	[Initialized, firmware version: 1.00NA ]
Jul 19 02:15:00	Bridge firewalling registered
Jul 19 02:15:00	
Jul 19 02:15:00	0x0000007e0000-0x0000007f0000 : MAC
Jul 19 02:15:00	0x0000007b0000-0x0000007e0000 : LANG
Jul 19 02:15:00	0x000000030000-0x0000007b0000 : linux4

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

# Statistics

The Statistics page displays all of the LAN and Wireless packets transmit and receive statistics.

**TX Packets:** The total number of packets sent from the access point.

**RX Packets:** The total number of packets received by the access point.

**TX Packets Dropped:** Displays the number of packets that were dropped while sending, due to errors, collisions, or access point resource limitations.

**RX Packets Dropped:** Displays the number of packets that were dropped while receiving, due to errors, collisions, or access point resource limitations.

**TX Bytes:** Displays the number of bytes that were sent from the access point.

**RX Bytes:** Displays the number of bytes that were received by the access point.

The screenshot shows the D-Link DAP-1533 AP web interface. The top navigation bar includes links for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains links for DEVICE INFO, LOGS, and STATISTICS. The main content area is titled 'TRAFFIC STATISTICS' and includes a description: 'Traffic Statistics display Receive and Transmit packets passing through your router.' Below this are two buttons: 'Refresh Statistics' and 'Clear Statistics'. The 'LAN STATISTICS' section shows the following data:

LAN STATISTICS	
Sent : 6210	Received : 3627
TX Packets Dropped : 0	RX Packets Dropped : 0
Collisions : 0	Errors : 0

The 'WIRELESS STATISTICS' section shows the following data:

WIRELESS STATISTICS	
Sent : 1391	Received : 0
TX Packets Dropped : 0	RX Packets Dropped : 0
Collisions : 0	Errors : 0

On the right side of the interface, there is a 'Helpful Hints...' section with the text: 'This is a summary of the number of packets that have passed between the Wireless and the LAN since the Access Point was last initialized.'

# Help

D-Link

DAP-1533

AP

SETUP

ADVANCED

MAINTENANCE

STATUS

HELP

MENU

SETUP

ADVANCED

MAINTENANCE

STATUS

SUPPORT MENU

- Setup
- Advanced
- Maintenance
- Status

SETUP

- Setup Wizard
- Wireless Setup
- Lan Setup

ADVANCED

- MAC Address Filter
- Advanced Wireless
- Wi-Fi Protected Setup
- User Limit

MAINTENANCE

- Admin
- System
- Firmware
- Time
- Schedules

STATUS

- Device Info
- Logs
- Statistics
- Wireless
- IPv6

WIRELESS

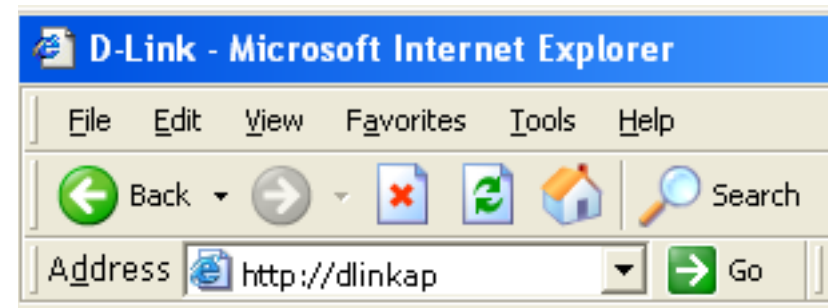
# Configuration for Bridge Mode

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

## Web-based Configuration Utility

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

**Note:** You must include **http://** in order to connect to the web browser.



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

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

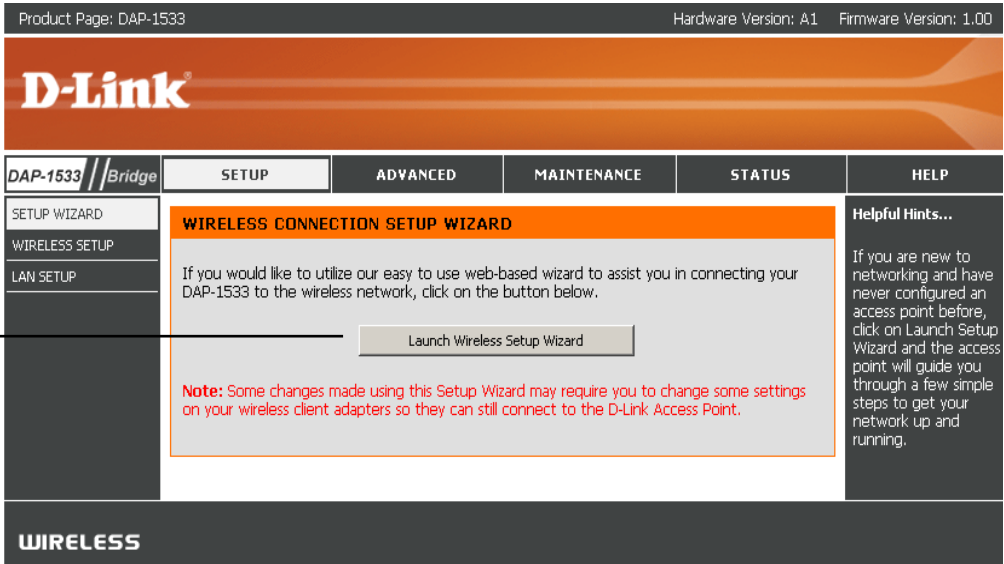
A screenshot of the D-Link web-based configuration utility login page. The page has an orange header with the word "LOGIN" in white. Below the header, the text "Log in to the Bridge" is displayed. There are two input fields: "User Name :" with a dropdown menu showing "Admin" and "Password :". Below these fields is a "Login" button.



# Setup Wizard

This wizard is designed to assist you in configuring the wireless settings for your bridge. It will guide you through step-by-step instructions on how to setup your wireless network.

Click **Launch Wireless Setup Wizard**



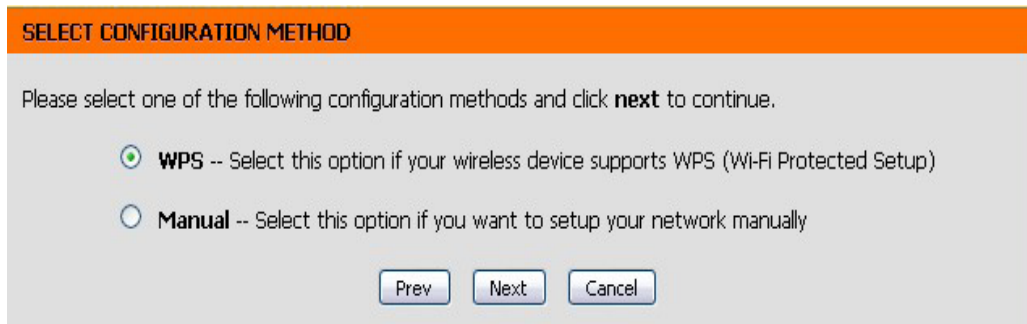
Click **Next** to continue with the wizard setup.



Select **WPS** configuration if you want to use Wi-Fi Protected Setup.

If you want to set up your network manually, skip to page 47.

Click **Next** to continue.



**SELECT CONFIGURATION METHOD**

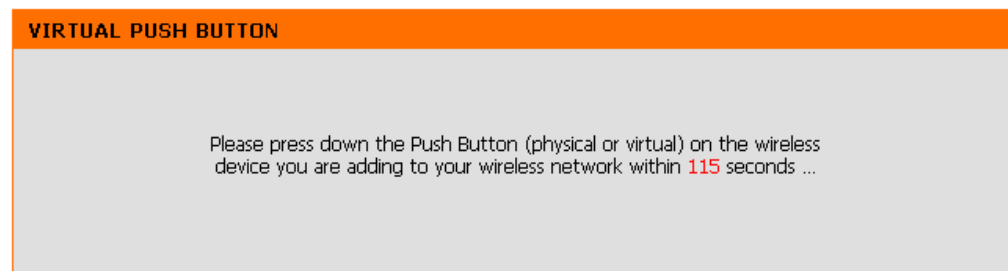
Please select one of the following configuration methods and click **next** to continue.

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

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

Prev Next Cancel

Press down the WPS Button on the wireless device 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 **115** seconds ...

Select **Manual** configuration to set up your network manually.

Click **Next** to continue.

SELECT CONFIGURATION METHOD

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

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

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

Prev

Next

Cancel

Please wait while your device scans for an available Network.

SCANNING AVAILABLE NETWORK...

Scanning Available Network...

If you clicked on Site Survey, the following screen will be displayed.

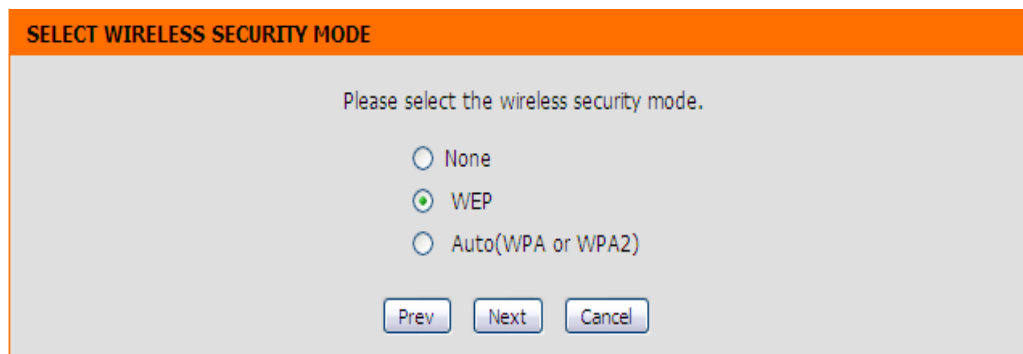
Select your wireless router or access point from the list and click **Connect** to complete the Setup Wizard.

D-Link

	SSID	BSSID	Channel	Type	Encrypt	Signal	Select
	vanilla	5C:D9:98:30:9F:51	1(B+G+N)	AP	WEP/OPEN	94	<input type="radio"/>
	vanilla	00:24:01:AB:CD:E9	1(B+G)	AP	WEP/OPEN	91	<input type="radio"/>
	vanilla	00:24:01:AB:C7:C9	1(B+G)	AP	WEP/OPEN	94	<input type="radio"/>
	Chocolate	06:1C:F0:6B:AF:24	2(B+G+N)	AP	NONE/OPEN	94	<input type="radio"/>
	wishfi	00:24:01:7A:B7:4A	6(B+G+N)	AP	WEP/OPEN	47	<input type="radio"/>
	vanilla	00:24:01:AB:CE:09	6(B+G)	AP	WEP/OPEN	94	<input type="radio"/>

Based on the wireless router or AP device you are connecting to, select the Security Mode which applies.

Click **Next** to continue.



**SELECT WIRELESS SECURITY MODE**

Please select the wireless security mode.

☐ None

☒ WEP

☐ Auto(WPA or WPA2)

Prev Next Cancel

If you choose **WEP**, enter the wireless security password and click **Next** to complete the Setup Wizard.



**SET YOUR WIRELESS SECURITY PASSWORD**

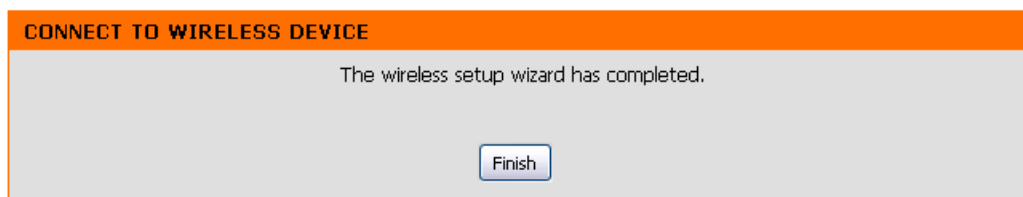
Please enter the wireless password to establish wireless connection.

Password Type: 64Bit (10 hex digits)

Password:

Prev Next Exit

Click **Finish** to connect to the wireless device.

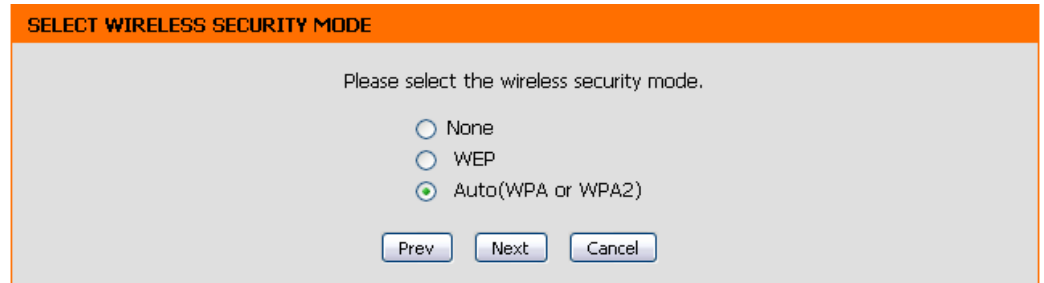


**CONNECT TO WIRELESS DEVICE**

The wireless setup wizard has completed.

Finish

Select **Auto (WPA or WPA2)** and click **Next** to continue.



**SELECT WIRELESS SECURITY MODE**

Please select the wireless security mode.

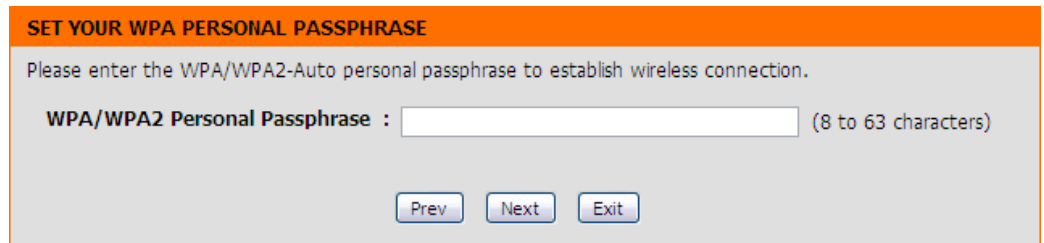
☐ None

☐ WEP

☒ Auto(WPA or WPA2)

Prev Next Cancel

Enter the **WPA/WPA2 Personal Passphrase** and click **Next** to establish wireless connection.



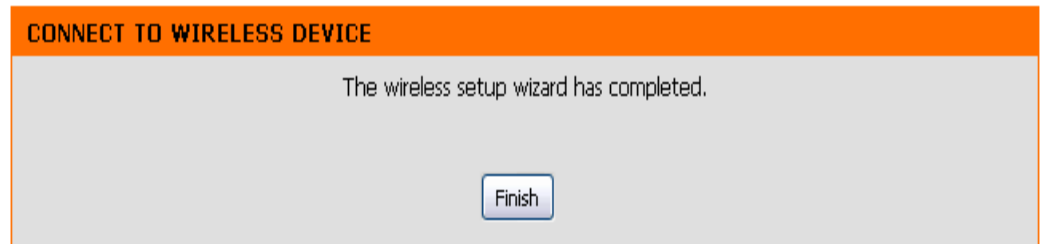
**SET YOUR WPA PERSONAL PASSPHRASE**

Please enter the WPA/WPA2-Auto personal passphrase to establish wireless connection.

WPA/WPA2 Personal Passphrase :  (8 to 63 characters)

Prev Next Exit

Click **Finish** to complete the setup.



**CONNECT TO WIRELESS DEVICE**

The wireless setup wizard has completed.

Finish

# Wireless Setup

## 2.4 GHz

**Wireless Type:** Select **Infrastructure** or **Ad-Hoc** from the drop-down menu.

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

**Wireless Band:** Displays 2.4GHz.

**Wireless Mode:** Choose the wireless mode you would like to use.

**Wireless Channel:** The Auto Channel Scan setting can be selected to allow the DAP-1533 to choose the channel with the least amount of interference.

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

**Wireless MAC Clone:** This feature allows you to clone the wireless MAC address to connect the device.

**Enable:** Select to enable Wireless Mac Clone.

**MAC Address:** Enter the desired MAC address connected to your bridge to enable the clone function.

The screenshot shows the D-Link configuration interface for the DAP-1533 Bridge. The 'WIRELESS' tab is selected, and the 'WIRELESS NETWORK SETTINGS' section is visible. The settings are as follows:

- Wireless Type:** Infrastructure (dropdown menu)
- Wireless Network Name:** dlink (text field, also called the SSID)
- Band:** 2.4 GHz (dropdown menu)
- Wireless Mode:** Mixed 802.11n, 802.11g and 802.11b (dropdown menu)
- Wireless Channel:** 1 (dropdown menu)
- Channel Width:** Auto 20/40 MHz (dropdown menu)

Below the network settings, there is a 'WIRELESS MAC CLONE' section with an 'Enable' checkbox (unchecked), a 'MAC Source' dropdown menu (set to Auto), and a 'MAC Address' text field.

On the right side of the page, there is a 'Helpful Hints...' section with text about changing the network name and enabling wireless security.

# Wireless Setup

## 5 GHz

**Wireless Type:** Select **Infrastructure** or **Ad-Hoc** from the drop-down menu.

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

**Wireless Band:** Displays 5 GHz.

**Wireless Mode:** Choose the wireless mode you would like to use.

**Wireless Channel:** The Auto Channel Scan setting can be selected to allow the DAP-1533 to choose the channel with the least amount of interference.

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

**Auto 20/40** - A feature that enables Wi-Fi CERTIFIED n products that operate with 40 MHz channels in the 2.4 GHz frequency band to sense other Wi-Fi devices in the channel and coordinate a switch to the default mode of 20 MHz channels. Wi-Fi CERTIFIED n devices that support 40 MHz channels in 2.4GHz must include support for this optional feature.

**40MHz** - A mode of operation in which two "channels," or paths on which data can travel, are combined to increase performance in some environments. In the 2.4 GHz frequency band, Wi-Fi CERTIFIED n products are configured to operate using 20 MHz channels by default, and must employ coexistence mechanisms to help ensure that the device defaults to 20 MHz operation when sharing the frequency with other Wi-Fi networks. In the 5 GHz frequency band, interference is not an issue, so coexistence mechanisms are not required.

**D-Link**

DAP-1533 // Bridge

SETUP ADVANCED MAINTENANCE STATUS HELP

SETUP WIZARD  
WIRELESS SETUP  
LAN SETUP

**WIRELESS**

Use this section to configure the wireless settings for your D-Link Access Point. Please note that changes made on this section may also need to be duplicated on your wireless clients and PC.

Save Settings Don't Save Settings

**WIRELESS NETWORK SETTINGS**

Wireless Type: Infrastructure Site Survey

Wireless Network Name : dlink (Also called the SSID)

Band : 5 GHz

Wireless Mode : Mixed 802.11n and 802.11a

Wireless Channel : 36

Channel Width : Auto 20/40 MHz

**WIRELESS MAC CLONE**

Enable: ☐

MAC Source: Auto

MAC Address:

Scan

**Helpful Hints...**

Changing your Wireless Network Name is the first step in securing your wireless network. Change it to a familiar name that does not contain any personal information.

If you have enabled Wireless Security, make sure you write down the Key or Passphrase that you have configured. You will need to enter this information on any wireless device that you connect to your wireless network.

Wi-Fi Protected Setup provides a more intuitive way of setting up wireless security between the AP and the wireless client. Make sure the wireless

**Wireless MAC Clone:** This feature allows you to clone the wireless MAC address to connect the device.

**Enable:** Select to enable Wireless Mac Clone.

**MAC Address:** Enter the desired MAC address connected to your bridge to enable the clone function.



# LAN Settings

## Static

This section will allow you to change the local network settings of the bridge and to configure the Static settings.

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

**LAN Connection** Use the drop-down menu to select **Static IP** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. Select **Dynamic IP (DHCP)** to automatically assign an IP address to the computers on the LAN/private network.

**IPv4 Address:** Enter the IPv4 address assigned by your ISP.

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

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

**Primary DNS Server:** Enter the primary DNS server IP address.

**Secondary DNS Server:** Enter the secondary DNS server IP address.

**My IPv6 Connection:** Select the mode you would like the router to use to connect to the IPv6 Internet from the drop-down menu.

**D-Link**

DAP-1533 // Bridge

SETUP ADVANCED MAINTENANCE STATUS HELP

SETUP WIZARD  
WIRELESS SETUP  
LAN SETUP

**NETWORK SETTINGS**

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.

Save Settings Don't Save Settings

**DEVICE NAME**

Device Name allows you to configure this device more easily. You can enter "http://device name" into your web browser instead of IP address for configuration. (Default: http://dlinkap)

Device Name : dlinkap

**LAN IPv4 CONNECTION TYPE**

Choose the IPv4 mode to be used by the Access Point.

My LAN Connection is : Static IP

**STATIC IP ADDRESS LAN CONNECTION TYPE**

Enter the static address information

IP Address : 192.168.0.50  
Subnet Mask : 255.255.255.0  
Gateway Address : 0.0.0.0  
Primary DNS Server : 0.0.0.0  
Secondary DNS Server : 0.0.0.0

**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::218:E7FF:FE95:5E7C/64

**WIRELESS**

**Helpful Hints...**

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

**LAN Settings:** Also referred as private settings. LAN settings allow you to configure LAN interface of DAP-1533. LAN IP address is private to your internal network and is not visible to Internet. The factory default setting is Dynamic IP (DHCP).

## Dynamic

**LAN Connection Type:** Select DHCP to automatically obtain an IP address on the LAN/private network.

### NETWORK SETTINGS

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.

### DEVICE NAME

Device Name allows you to configure this device more easily. You can enter "**http://device name**" into your web browser instead of IP address for configuration. (Default: http://dlinkap)

Device Name :

### LAN IPV4 CONNECTION TYPE

Choose the IPv4 mode to be used by the Access Point.

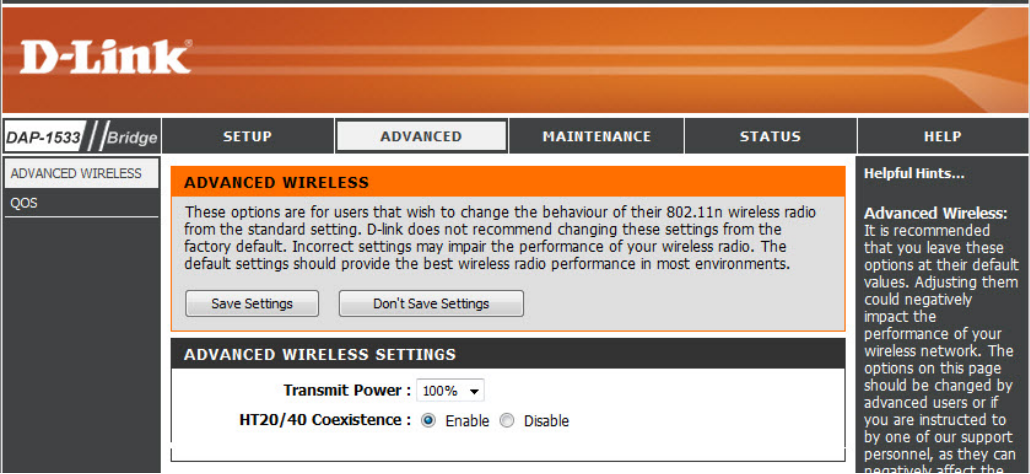
My LAN Connection is :

# Advanced

## Advanced Wireless

This section allows users to change the LAN Settings. We do not recommend changing these settings from the factory default.

**HT20/40 Coexistence:** You may choose to Enable or Disable this feature. Enabling this feature allows two “channels,” or paths on which data can travel to be combined to increase performance in some environments.



## QoS

The Quality of Service (QoS) feature regulates the flow of data through the access point by assigning a priority to each packet. It enhances your experience of wireless network usage by prioritizing the traffic of different applications. Enabling this option allows the AP to prioritize traffic.

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

**Priority by LAN Port:** There are four priority levels for all LAN ports. The priority level values assigned are LAN Port 1 for Background, LAN Port 2 for Best Effort, LAN Port 3 for Video, and LAN Port 4 for Voice (Voice is the highest level and Background is the lowest level) at a normal priority. Select from the drop-down options.

**D-Link**

DAP-1533 // Bridge

SETUP ADVANCED MAINTENANCE STATUS HELP

ADVANCED WIRELESS

QoS

QoS stands for Quality of Service for Wireless Intelligent Stream Handling, a technology developed to enhance the experience of using a wireless network by prioritizing the traffic of different application. The DAP-1533 supports four priority levels.

Save Settings Don't Save Settings

**ENABLE QoS**

Enable QoS : ☐

**PORT PRIORITY**

Lan Port 1 : Voice

Lan Port 2 : Voice

Lan Port 3 : Voice

Lan Port 4 : Voice

WIRELESS

# Maintenance Admin

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

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

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

**D-Link**

DAP-1533 // Bridge

SETUP ADVANCED **MAINTENANCE** STATUS HELP

ADMIN  
SYSTEM  
FIRMWARE  
TIME

**ADMINISTRATOR SETTINGS**

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.

Save Settings Don't Save Settings

**PASSWORD**

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

Password :

Verify Password :

**ADMINISTRATION**

Enable Graphical Authentication : ☐

**Helpful Hints...**

**Passwords:**  
For security reasons, it is recommended that you change the Password for the Administrator accounts. Be sure to write down the Passwords to avoid having to reset the AP in the event that they are forgotten.

# System

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

**Load From Local Hard Drive:** Use this option to load previously saved access point configuration settings. First, use the Browse control to find a previously save file of configuration settings. Then, click the **Load** button to transfer those settings to the access point.

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

**Reboot The Device:** Click to reboot the bridge.

Product Page: DAP-1533 Hardware Version: A1 Firmware Version: 1.00

**D-Link**

DAP-1533 // Bridge

SETUP ADVANCED MAINTENANCE STATUS HELP

ADMIN  
SYSTEM  
FIRMWARE  
TIME

**SAVE AND RESTORE**

The current system settings can be saved as a file onto the local hard drive. You can upload any save settings file that was created by the DAP-1533.

**SAVE AND RESTORE**

Save Settings To Local Hard Drive:

Load Settings From Local Hard Drive:

Restore To Factory Default Settings:

Reboots The Device:

**Helpful Hints...**

**Saving System Settings:**  
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.

# Firmware

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

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

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

## Language Pack

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

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

The screenshot shows the D-Link DAP-1533 web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar lists ADMIN, SYSTEM, FIRMWARE, and TIME. The main content area is titled 'FIRMWARE' and contains the following sections:

- FIRMWARE INFORMATION:** Displays 'Current Firmware Version : 1.00', 'Date: Mon, 22 Aug 2011', and 'Current Language Pack Version: No Language Pack'. It includes a 'Remove Language Pack' button and a 'Check Online Now for Latest Firmware Version' button.
- FIRMWARE UPGRADE:** Contains a note about factory defaults and a section for uploading a new firmware file with 'Upload' and 'Browse...' buttons.
- LANGUAGE PACK UPGRADE:** Contains a section for uploading a new language pack file with 'Upload' and 'Browse...' buttons.

A 'Helpful Hints...' sidebar on the right provides additional information about firmware updates.

# 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.

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

**Automatic Time Configuration:** Click the check box to enable the device to automatically synchronize with a D-Link NTP Server. NTP stands for Network Time Protocol. NTP synchronizes computer clock times in a network of computers. 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.

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

**D-Link**

DAP-1533 // Bridge

SETUP ADVANCED MAINTENANCE STATUS HELP

ADMIN  
SYSTEM  
FIRMWARE  
TIME

**TIME**

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

Save Settings Don't Save Settings

**TIME CONFIGURATION**

Time : Tuesday, July 19, 2011 2:41:09 AM  
Time Zone : (GMT-08:00) Pacific Time (US/Canada), Tijuana

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

Month Week Day of Week Time  
Daylight Saving Dates : DST Start Mar 3rd Sun 1 am  
DST End Nov 2nd Sun 1 am

**AUTOMATIC TIME CONFIGURATION**

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

**SET THE DATE AND TIME MANUALLY**

Date And Time : Year 2011 Month Jan Day 19  
Hour 02 Minute 41 Second 04 AM

Copy Your Computer's Time Settings

**WIRELESS**

**Helpful Hints...**

**System Time Settings:**  
This section allows admins to configure, update, and maintain the correct time on the Access Point's internal system clock.



# Status

## Device Info

This page displays the current information for the DAP-1533. 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.

**D-Link**

DAP-1533 // Bridge    SETUP    ADVANCED    MAINTENANCE    **STATUS**    HELP

**DEVICE INFO**

LOGS

STATISTICS

**DEVICE INFORMATION**

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

**GENERAL**

Time : Tuesday, July 19, 2011 2:41:51 AM  
Firmware Version : 1.00 , 22, Jul, 2011

**LAN**

MAC Address : 00:18:E7:95:5E:7C  
Connection : Dynamic IP  
IP Address : 192.168.0.101  
Subnet Mask : 255.255.255.0  
Gateway Address : 192.168.0.1

**WIRELESS LAN**

MAC Address : 00:18:E7:95:5E:7C  
Network Name (SSID) : dlink  
Channel : 4  
Security Mode : Disable

**Helpful Hints...**

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

**WIRELESS**

# Logs

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

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

**Apply Log Settings now:** Click to apply the log type settings you chose.

**First Page:** Click to view the first page.

**Last Page:** Click to view the last page.

**Previous:** Click to view the previous page.

**Next:** Click to view the next page.

**Clear:** Delete all of the log content.

**Save Log:** Click the **Save** button to save the access point log file to your computer.

**Refresh:** Click to refresh the information on this page.

**D-Link**

DAP-1533 // Bridge

SETUP ADVANCED MAINTENANCE STATUS HELP

**LOGS**

Use this option to view the device logs. You can define what types of events you want to view and the event levels to view.

**LOG OPTIONS**

Log Type : ☒ System Activity ☐ Debug Information ☒ Attacks  
☐ Dropped Packets ☒ Notice

Apply Log Settings Now

**LOG DETAILS**

First Page Last Page Previous Next Clear Save Log

Refresh

1/2

Time	Message
Jul 19 02:15:12	klogd started: BusyBox v1.01 (2011.07.14-09:06+0000)
Jul 19 02:15:04	Lease of 192.168.0.101 obtained, lease time 604800
Jul 19 02:15:04	Sending discover...
Jul 19 02:15:02	Sending discover...

**Helpful Hints...**

Check the log frequently to detect unauthorized network usage.

# Statistics

The Statistics page displays all of the LAN and Wireless packets transmit and receive statistics.

**TX Packets:** The total number of packets sent from the access point.

**RX Packets:** The total number of packets received by the access point.

**TX Packets Dropped:** Displays the number of packets that were dropped while sending, due to errors, collisions, or access point resource limitations.

**RX Packets Dropped:** Displays the number of packets that were dropped while receiving, due to errors, collisions, or access point resource limitations.

**TX Bytes:** Displays the number of bytes that were sent from the access point.

**RX Bytes:** Displays the number of bytes that were received by the access point.

The screenshot shows the D-Link DAP-1533 Bridge web interface. The top navigation bar includes links for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains links for DEVICE INFO, LOGS, and STATISTICS. The main content area is titled 'TRAFFIC STATISTICS' and includes a description: 'Traffic Statistics display Receive and Transmit packets passing through your router.' Below this are two buttons: 'Refresh Statistics' and 'Clear Statistics'. The 'LAN STATISTICS' section shows the following data:

Sent :	10841	Received :	7168
TX Packets Dropped :	0	RX Packets Dropped :	0
Collisions :	0	Errors :	0

The 'WIRELESS STATISTICS' section shows the following data:

Sent :	6369	Received :	0
TX Packets Dropped :	0	RX Packets Dropped :	0
Collisions :	0	Errors :	0

On the right side of the interface, there is a 'Helpful Hints...' section with the text: 'This is a summary of the number of packets that have passed between the Wireless and the LAN since the Access Point was last initialized.'

# Help

D-Link®

DAP-1533 // Bridge

SETUP

ADVANCED

MAINTENANCE

STATUS

HELP

MENU

SETUP

ADVANCED

MAINTENANCE

STATUS

SUPPORT MENU

- [Setup](#)
- [Advanced](#)
- [Maintenance](#)
- [Status](#)

SETUP

- [Setup Wizard](#)
- [Wireless Setup](#)
- [Lan Setup](#)

ADVANCED

- [MAC Address Filter](#)
- [Advanced Wireless](#)
- [Wi-Fi Protected Setup](#)
- [User Limit](#)

MAINTENANCE

- [Admin](#)
- [System](#)
- [Firmware](#)
- [Time](#)
- [Schedules](#)

STATUS

- [Device Info](#)
- [Logs](#)
- [Statistics](#)
- [Wireless](#)
- [IPv6](#)

WIRELESS

# Wireless Security

This section will show you the different levels of security you can use to protect your data from intruders. The DAP-1533 offers the following types of security:

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

## What is WPA?

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

The 2 major improvements over WEP:

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

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

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* section, select **Enable WPA Wireless Security (enhanced)** from the drop-down menu.
3. Next to *Cipher Type*, select **TKIP**, **AES**, or **Auto (TKIP/AES)**.
4. Next to *PSK/EAP*, select either **PSK** or **EAP**.
5. Next to *Network Key*, enter a key. The key is entered as a passphrase in ASCII format at both ends of the wireless connection. The passphrase must be between 8-63 characters.
6. Click **Save Settings** at the top of the window to save your settings. If you are configuring the access point with a wireless adapter, you will lose connectivity until you enable WPA-PSK on your adapter and enter the same passphrase as you did on the access point.

WIRELESS SECURITY MODE

Security Mode :
Enable WPA Wireless Security (enhanced)

WPA/WPA2

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

Cipher Type :
AUTO(TKIP/AES)

PSK / EAP :
PSK

Network Key :
  
(8~63 ASCII or 64 HEX)

WI-FI PROTECTED SETUP

Enable :
☒

WiFi Protected Setup : Enabled / Not configured
  
Reset to Unconfigured

PIN : 17616478
  
Reset PIN to Default
Generate New PIN

Save Settings
Don't Save Settings

# 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.

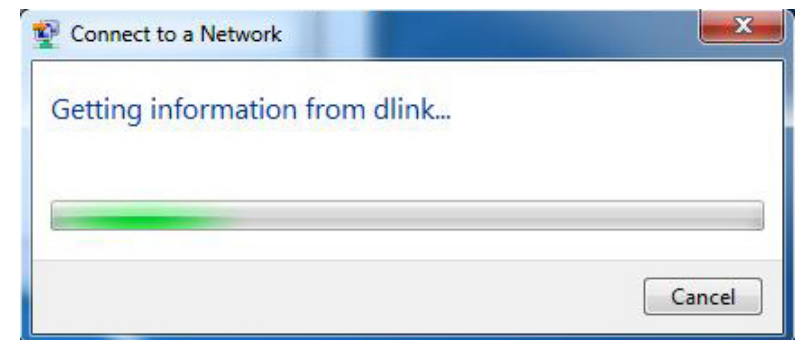


3. Highlight the wireless network (SSID) you would like to connect to and click the **Connect** button.

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



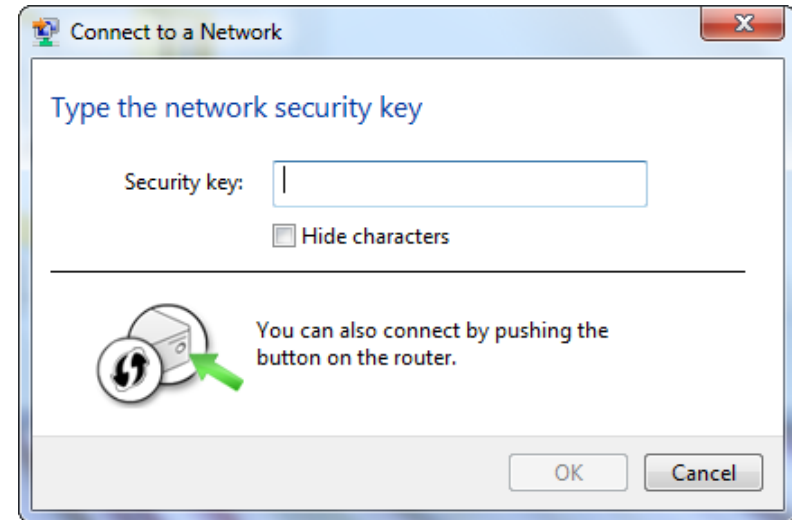
4. The following window appears while your computer tries to connect to the router.





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

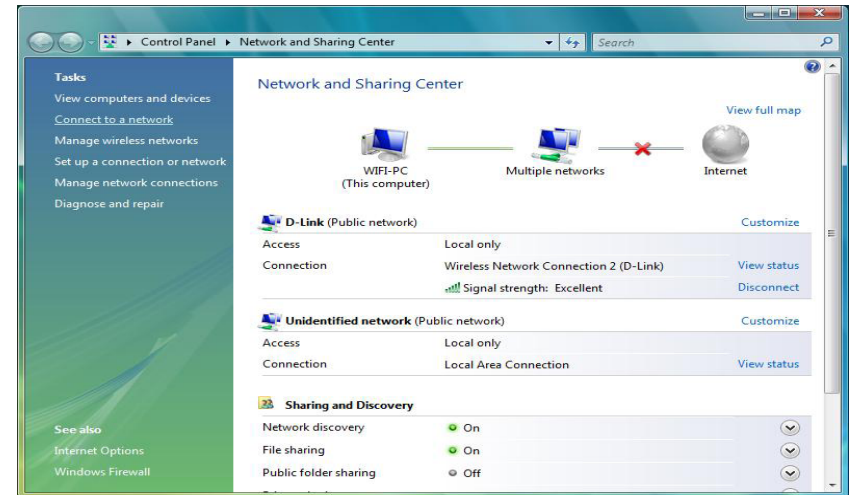
It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the security settings are correct. The key or passphrase must be exactly the same as on the wireless router.



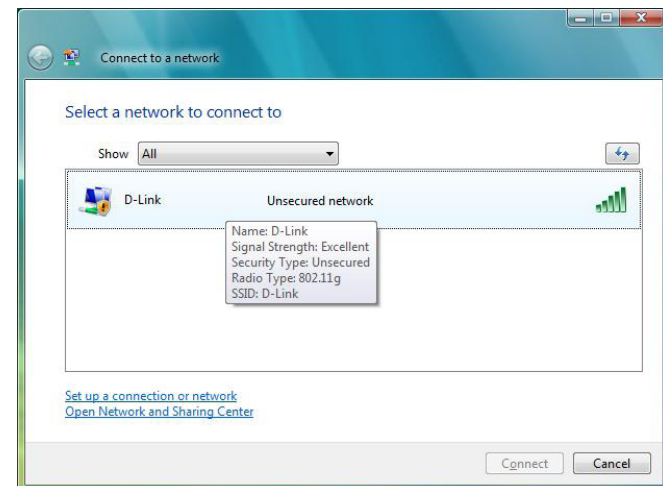
# Connect to a Wireless Network Using Windows Vista®

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

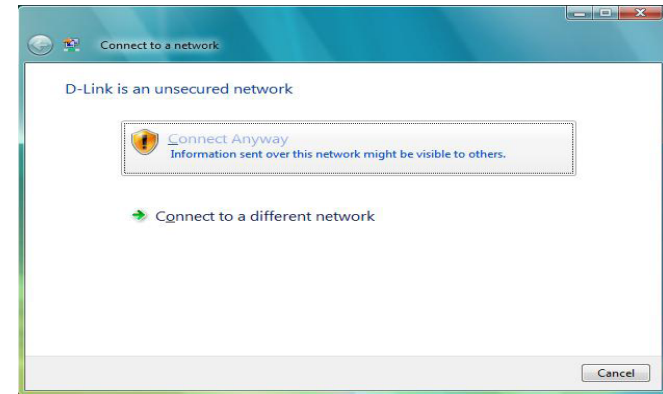
From the Start menu, go to Control Panel, and then click on **Network and Sharing Center**.



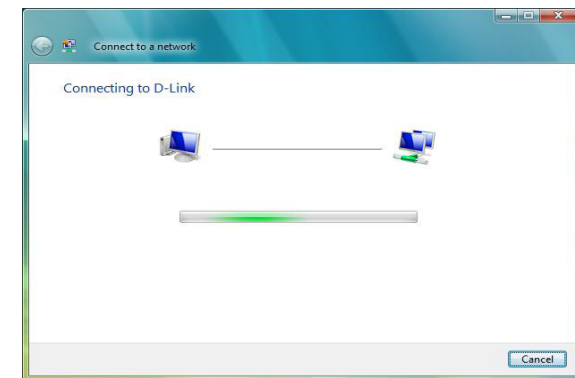
The utility will display any available wireless networks in your area. Click on a network (displayed using the SSID) under Select a network to connect to and then click the **Connect** button.



Click **Connect Anyway** to continue.

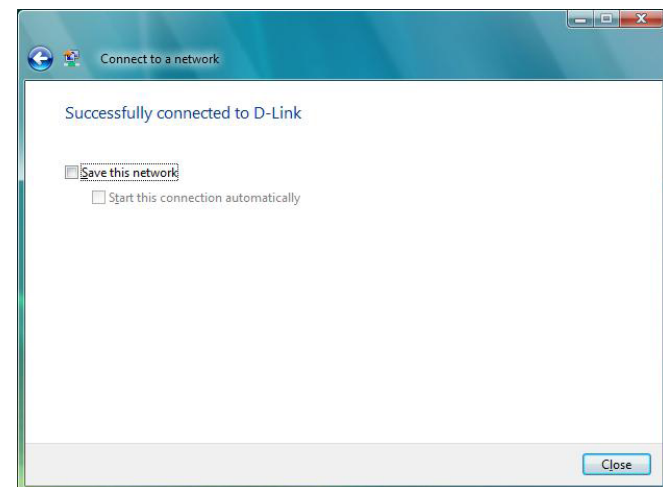


The utility will display the following window to indicate a connection is being made.



The final window indicates the establishment of a successful connection.

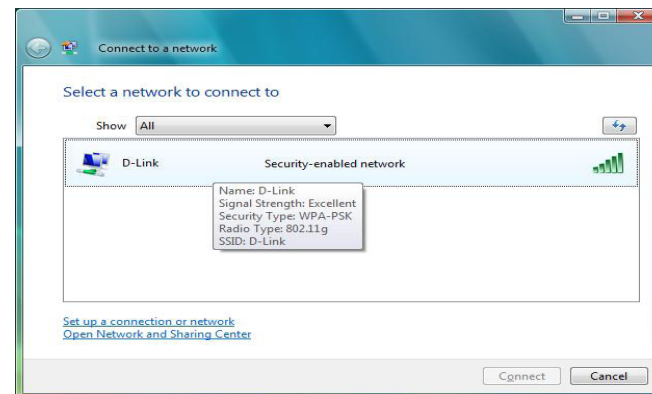
The next two pages display the windows used to connect to either a WEP or a WPA-PSK wireless network.



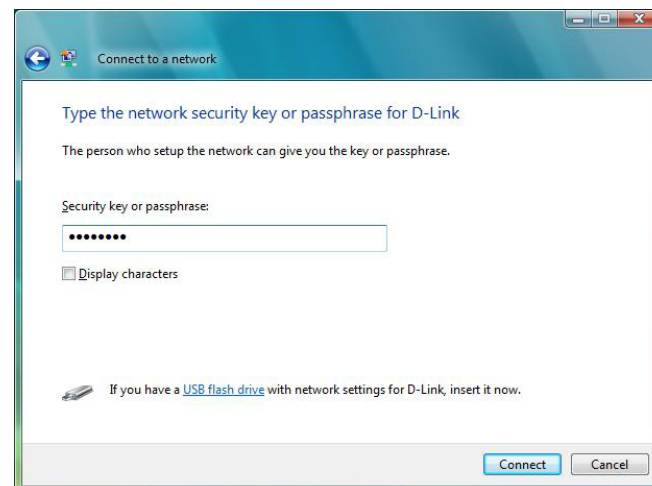
## Configure Security

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

Select a network to connect to and then click the **Connect** button.



Enter the appropriate security key or passphrase in the field provided and then click the **Connect** button.



# 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.

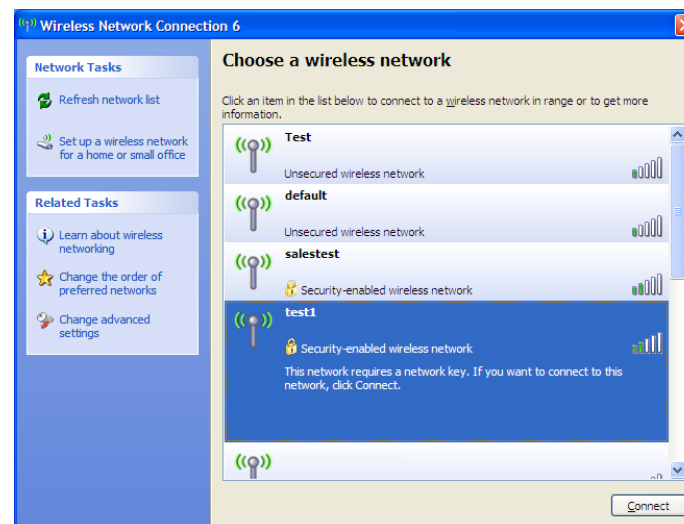
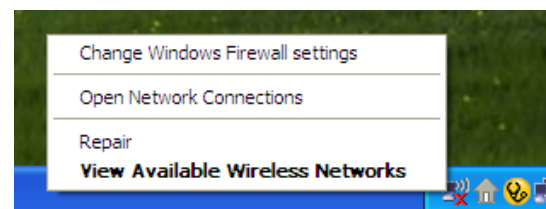
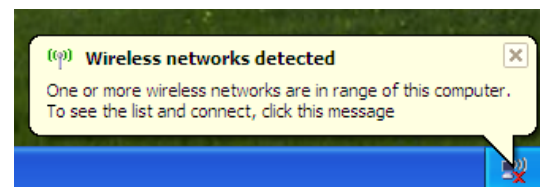
If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

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.

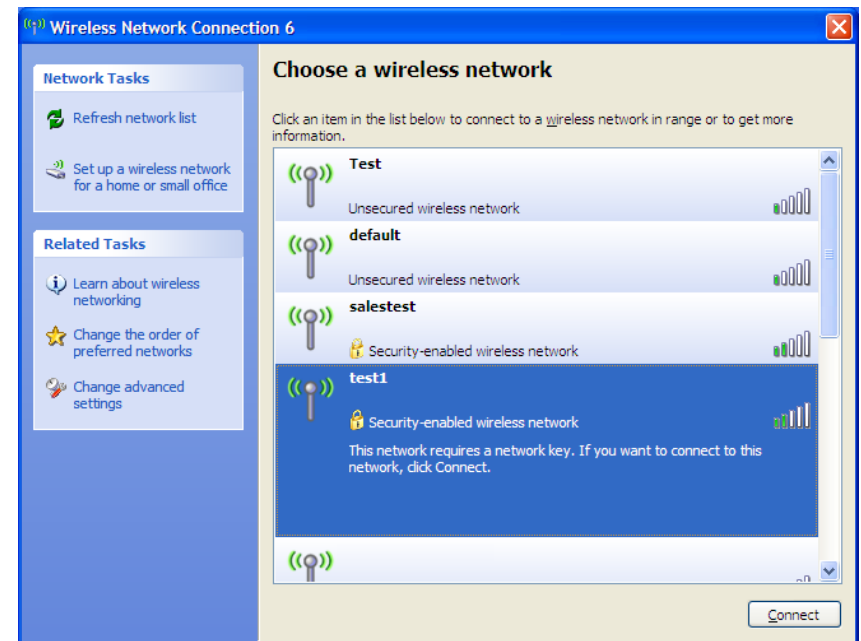
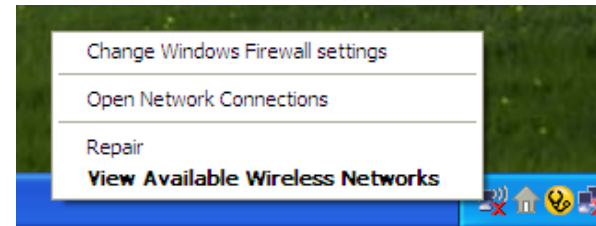
If you get a good signal, but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



## Configure Security

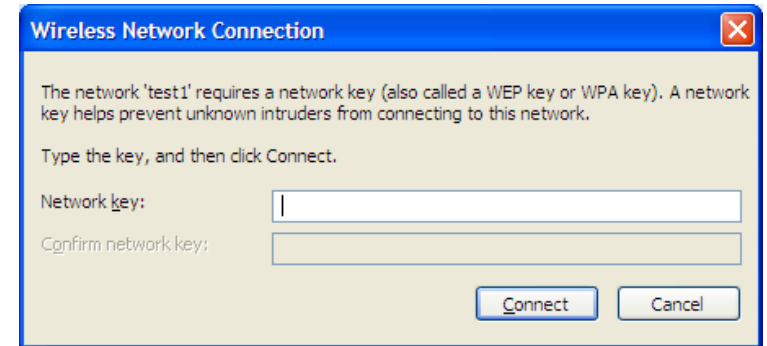
It is recommended to enable wireless security on your wireless bridge or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the security key being used.

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



3. The **Wireless Network Connection** box will appear. Enter the security passphrase 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 WPA-PSK passphrase must be exactly the same as on the wireless access point.



# Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DAP-1533. Read the following descriptions if you are having problems. (The examples below are illustrated in Windows® XP. If you have a different operating system, the screenshots on your computer will look similar to the following examples.)

## 1. Why can't I access the web-based configuration utility?

When entering the IP address of the D-Link 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 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 10 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.

# 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.

## **Wireless Personal Area Network (WPAN)**

Bluetooth is the industry standard wireless technology used for WPAN. Bluetooth devices in WPAN operate in a range up to 30 feet away.

Compared to WLAN the speed and wireless operation range are both less than WLAN, but in return it doesn't use nearly as much power which makes it ideal for personal devices, such as mobile phones, PDAs, headphones, laptops, speakers, and other devices that operate on batteries.

## **Who uses wireless?**

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

### **Home**

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

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

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

## **Where is wireless used?**

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

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

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

## **Tips**

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

### **Centralize your 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 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.

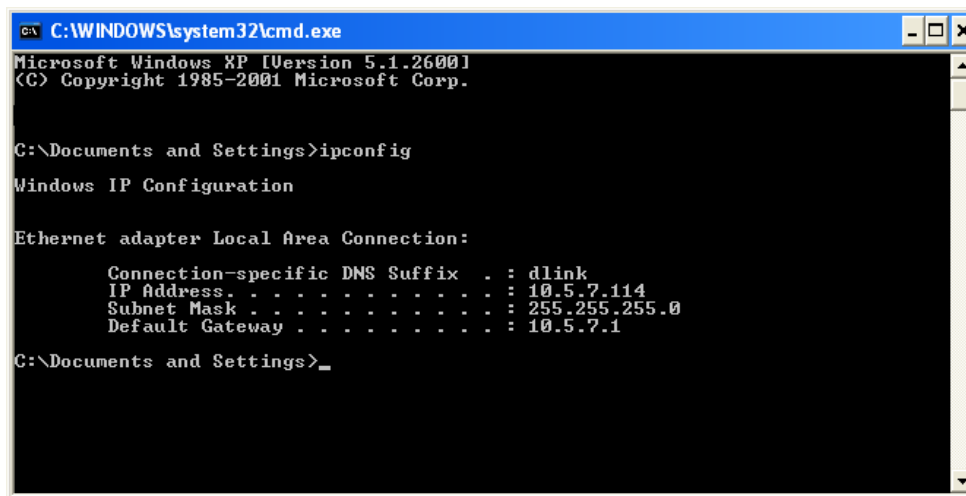
Click on **Start > Run**. In the run box type **cmd** and click **OK**. (Windows® 7/Vista® users type **cmd** in the **Start Search** box.)

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 5.1.2600.1]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

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

C:\Documents and Settings>
```

## Statically Assign an IP address

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

### Step 1

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

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

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

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

### Step 2

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

### Step 3

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

### Step 4

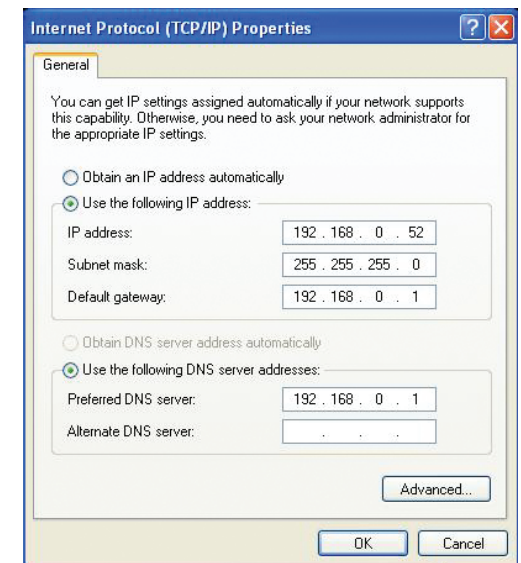
Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your router.

**Example:** If the router's LAN IP address is 192.168.0.1, make your IP address 192.168.0.X where X is a number between 2 and 99. Make sure that the number you choose is not in use on the network. Set Default Gateway the same as the LAN IP address of your router (192.168.0.1).

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

### Step 5

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





# Technical Specifications

## Standards

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

## Security

- WPA-Personal
- WPA2-Personal

## Wireless Signal Rates<sup>1</sup>

- 300Mbps
- 54Mbps
- 36Mbps
- 18Mbps
- 11Mbps
- 6Mbps
- 2Mbps
- 108Mbps
- 48Mbps
- 24Mbps
- 12Mbps
- 9Mbps
- 5.5Mbps
- 1Mbps

## Maximum Operating Voltage

- 5V

## Maximum Operating Current

- 725 mA

## Modulation

- 11b: DQPSK, DBPSK and CCK
- 11a/g: BPSK, QPSK, 16QAM, 64QAM, OFDM
- 11n: BPSK, QPSK, 16QAM, 64QAM, OFDM, MCS

## Frequency Range<sup>2</sup>

- 2.4GHz to 2.483GHz • 5.15GHz~5.825GHz<sup>3</sup>

## LEDs

- Power
- Bridge
- AP

## Operating Temperature

- 32°F to 104°F ( 0°C to 40°C)

## Humidity

- 90% maximum (non-condensing)

## Safety & Emissions

- FCC
- IC

## Dimensions

- L = 5.75 inches
- W = 4.5 inches
- H = 1.25 inches

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

<sup>2</sup>Range varies depending on country's regulation.

<sup>3</sup>The DAP-1533 doesn't include 5.25-5.35GHz & 5.47~5.725GHz.

# 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. DAP-1533)
- Hardware Revision (located on the label on the bottom of the access point (e.g. rev A1))
- Serial Number (s/n number located on the label on the bottom of the access point).

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 D-Link to confirm the same, along with proof of purchase of the product (such as a copy of the dated purchase invoice for the product) if the product is not registered.
- The customer must obtain a Case ID Number from D-Link Technical Support (USA 1-877-453-5465 or Canada 1-800-361-5265), who will attempt to assist the customer in resolving any suspected defects with the product. If the product is considered defective, the customer must obtain a Return Material Authorization ("RMA") number by completing the RMA form. Enter the assigned Case ID Number at <https://rma.dlink.com/> (USA only) or <https://rma.dlink.ca> (Canada only).

- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the product and will not ship back any accessories.
- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery ("COD") is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer and shipped to D-Link Systems, Inc.
- **USA residents** send to 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.
- **Canadian residents** send to D-Link Networks, Inc., 2525 Meadowvale Boulevard Mississauga, Ontario, L5N 5S2 Canada. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via Purolator Canada or any common carrier selected by D-Link. Return shipping charges shall be prepaid by D-Link if you use an address in Canada, otherwise we will ship the product to you freight collect. Expedited shipping is available upon request and provided shipping charges are prepaid by the customer. D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming. RMA phone number: 1-800-361-5265 Hours of Operation: Monday-Friday, 9:00AM – 9:00PM EST

### What Is Not Covered:

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

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

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

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

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

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

### **Limitation of Liability:**

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

### **Governing Law:**

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

### **Trademarks:**

D-Link is a registered trademark of D-Link Corporation/D-Link Systems, Inc. Other trademarks or registered trademarks are the property of their respective owners.

### **Copyright Statement:**

No part of this publication or documentation accompanying this product may be reproduced in any form or by any means or used to make any derivative such as translation, transformation, or adaptation without permission from D-Link Corporation/D-Link Systems, Inc., as stipulated by the United States Copyright Act of 1976 and any amendments thereto. Contents are subject to change without prior notice.

Copyright ©2011 by D-Link Corporation/D-Link Systems, Inc. All rights reserved.

### **CE Mark Warning:**

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

### **Federal Communication Commission Interference Statement**

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

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

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

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

For operation within 5.15 ~ 5.25GHz frequency range, it is restricted to indoor environment.

IEEE 802.11b or 802.11g operation of this product in the U.S.A. is firmware-limited to channels 1 through 11.

### **IMPORTANT NOTE:**

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

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

### **Industry Canada Statement**

This device complies with RSS-210 of the Industry Canada Rules. Operation is subject to the following two conditions:

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

This device has been designed to operate with an antenna having a maximum gain of 2dBi.

Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50ohms.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the EIRP is not more than required for successful communication.

### **Caution:**

The device for the band 5.150-5.250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems.

Because high power radars are allocated as primary users (meaning they have priority) in 5250-5350 MHz and 5650-5850 MHz, these radars could cause interference and/or damage to license exempt LAN devices.

### **IMPORTANT NOTE:**

IC Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

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

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



# 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  
August 24, 2011