



User Manual

Wireless N Dual Band MediaBridge[®]

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Package Contents



DAP-1513 Wireless N Dual Band MediaBridge®



Ethernet Cable



Power Adapter



CD-ROM with Manual

Note: Using a power supply with a different voltage rating than the one included with the DAP-1513 will cause damage and void the warranty for this product.

System Requirements

Network Requirements	<ul style="list-style-type: none">• An Ethernet-based Network• IEEE 802.11n/g wireless MediaBridge® or wireless router• 10/100 Ethernet
Web-based Configuration Utility Requirements	<p>Computer with the following:</p> <ul style="list-style-type: none">• Windows®, Macintosh, or Linux-based operating system• An installed Ethernet adapter <p>Browser Requirements:</p> <ul style="list-style-type: none">• Internet Explorer® 6.0 and higher• Mozilla Firefox 3.0 and higher• Google™ Chrome 2.0 and higher• Apple Safari 3.0 and higher <p>Windows® Users: Make sure you have the latest version of Java installed. Visit www.java.com to download the latest version.</p>

Introduction

D-Link, an industry leader in networking, introduces the new D-Link DAP-1513 Wireless N Dual Band MediaBridge®. With the ability to transfer files with a maximum wireless signal rate of up to 300Mbps*, the DAP-1513 gives you high-speed wireless network access for your home or office.

The DAP-1513 is Wi-Fi IEEE 802.11n compliant, meaning that it can connect and interoperate with other 802.11n compatible wireless client devices. The DAP-1513 is also backwards compatible with 802.11b/g and offers dual band support for 802.11a. With its Setup Wizard, the DAP-1513 ensures that you will be up and running on a wireless network in just a matter of minutes.

The DAP-1513 features Wi-Fi Protected Access (WPA-PSK/WPA2-PSK) to provide an enhanced level of security for wireless data communications. The DAP-1513 also includes additional security features to keep your wireless connection safe from unauthorized access.

• 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.

TOTAL PERFORMANCE

Combines award winning MediaBridge® features and 802.11n wireless technology to provide the best wireless performance.

TOTAL SECURITY

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

TOTAL COVERAGE

Provides greater wireless signal rates even at farther distances for best-in-class home coverage.

TOTAL NETWORK SECURITY

The DAP-1513 supports all of the latest wireless security features to prevent unauthorized access, be it from over the wireless network or from the Internet. Support for WPA and WPA2 standards ensure that you'll be able to use the best possible encryption method, regardless of your client devices.

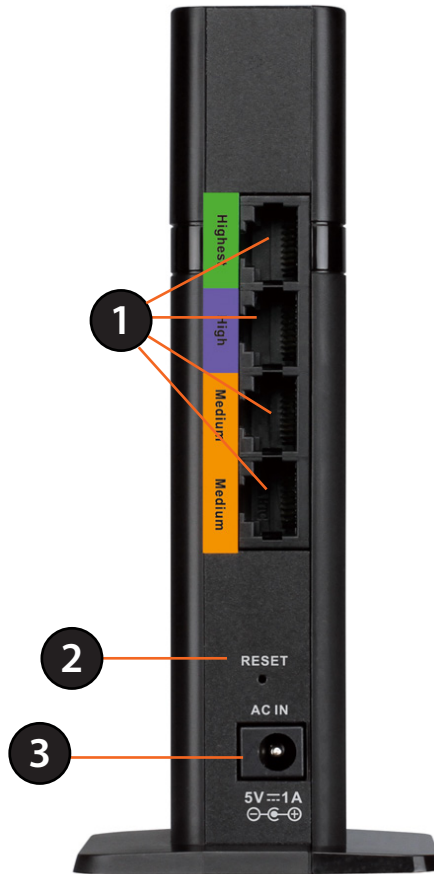
* Maximum wireless signal rate derived from IEEE Standard 802.11g and 802.11n specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate.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

Features

- **Faster Wireless Networking** - The DAP-1513 provides up to 300Mbps* wireless connection with other 802.11n wireless devices. This capability allows users to participate in real-time activities online, such as video streaming, online gaming, and real-time audio.
- **Compatible with IEEE 802.11g Devices** - The DAP-1513 is still fully compatible with the 802.11g standards, so it can connect with existing 802.11g PCI, USB, and FireWire 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-1513 and another WPS enabled device. A PC is no longer needed to log into the Web-based interface.
- **WPS PIN** - (Wi-Fi Protected Setup Personal Identification Number) A PIN is a unique number that can be used to add the MediaBridge® to an existing network or to create a new network. The default PIN may be printed on the bottom of the MediaBridge®
. For extra security, a new PIN can be generated. You can restore the default PIN at any time. Only the Administrator ("Admin" account) can change or reset the PIN.
- **User-friendly Setup Wizard** - Through its easy-to-use Web-based user interface, the DAP-1513 lets you configure your MediaBridge® to your specific settings within minutes.

Hardware Overview

Connections



1	LAN Ports (1-4)	Connect 10/100 Ethernet devices such as computers, cameras, and NAS (Network-Attached Storage).
2	Power Receptor	Receptor for the supplied power adapter.
3	Reset Button	Hold the reset button for at least 6 seconds to reset the device back to the factory default settings. All the LEDs will turn on for 2 second and then begin the reboot process.

Hardware Overview

LEDs



1	Power LED	A solid green light indicates a proper connection to the power supply.
2	Wireless LED	A static green light indicates a successful wireless connection. The light will blink fast when the WPS is associating. The light will be off during device reboot.

Hardware Overview

WPS Button

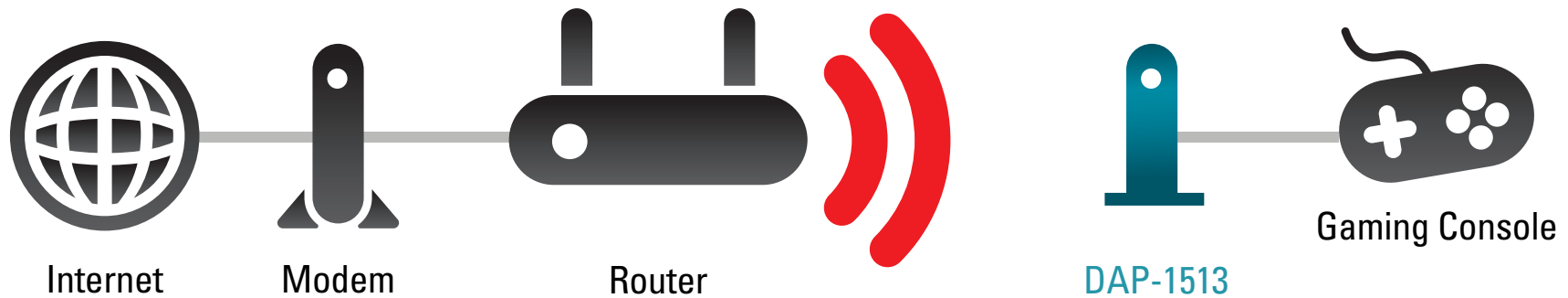


1	WPS/Button	Press the WPS button to start the process. You will have 120 seconds to start the WPS process on another wireless device. The Power LED will blink on and off when the WPS button is pressed.
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Installation

The DAP-1513 acts as a wireless network bridge for your Ethernet-enabled device (such as a game console or a TV set-top box). Connect your Ethernet-enabled device to the MediaBridge using Ethernet cables. The DAP-1513 MediaBridge can support up to 4 wired devices. Additional devices can be added by connecting an Ethernet switch.

Example: Connect a gaming console using an Ethernet cable to the DAP-1513. The unit is set to Wireless bridge which will wirelessly connect to a wireless router on your network.



Wireless Installation Considerations

The D-Link wireless MediaBridge® 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:

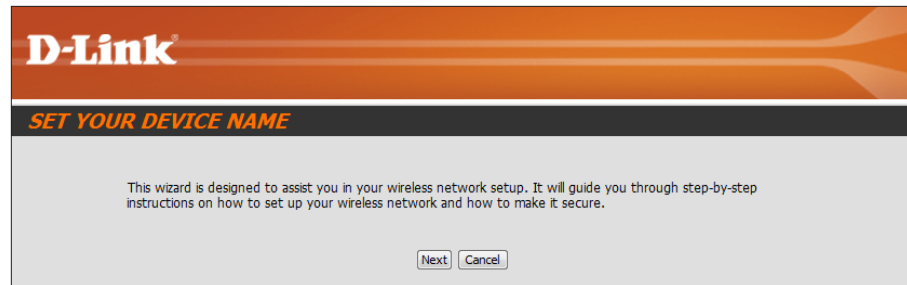
1. Keep the number of walls and ceilings between the D-Link MediaBridge® and other network devices to a minimum. Each wall or ceiling can reduce your adapter's range from 3-90 feet (1-30 meters.) Position your devices so that the number of walls or ceilings is minimized.
2. Be aware of the direct line 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 MediaBridge®, 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.

Configuration

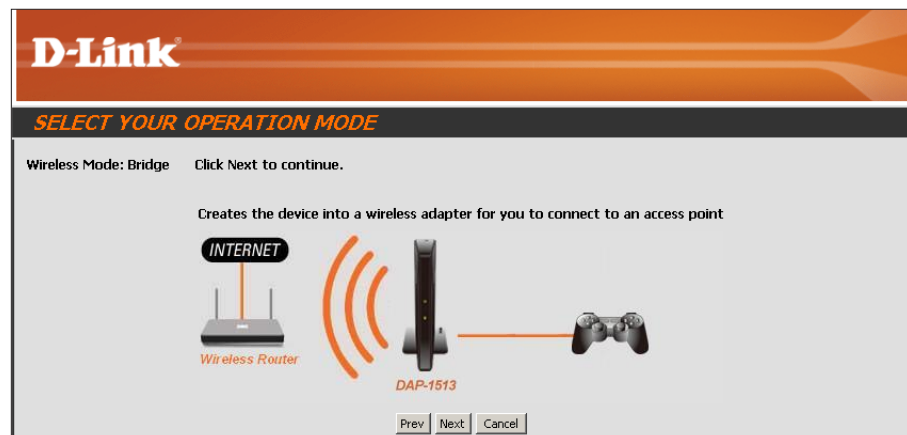
This section will show you how to configure your new D-Link wireless MediaBridge® using the web-based configuration utility.

First Time Setup

Click **Next** to continue.

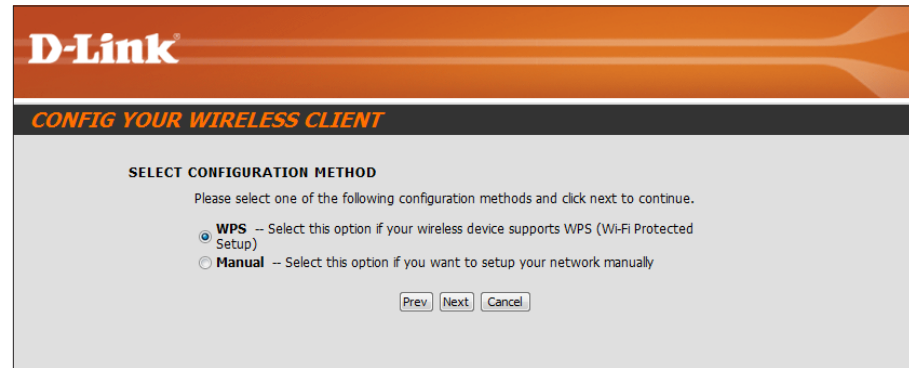


The DAP-1513 is in wireless bridge mode. Click **Next** to continue.

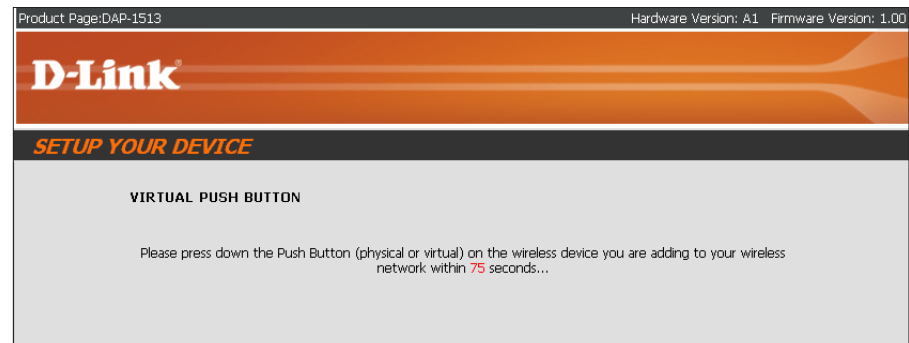


If you have a Wi-Fi Protected Setup (WPS)-enabled wireless router or Access Point, select **WPS** and click **Next** to continue.

If you want to manually enter the network settings, select **Manual** and click **Next** to continue. Skip to page 17.

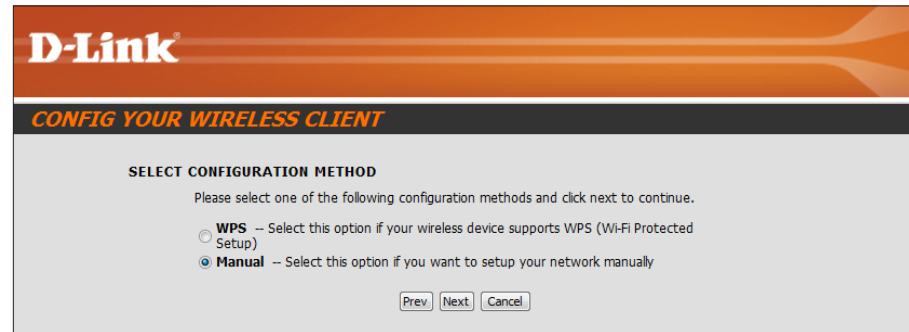


On the device you want to connect to, start the PBC process on the device. You will have 2 minutes to start the PBC process on both devices.



Select **Manual** configuration to setup your network manually.

Click **Next** to continue.



The screenshot shows the 'CONFIG YOUR WIRELESS CLIENT' screen with the 'SELECT CONFIGURATION METHOD' section. It includes instructions to select a method and two radio button options: 'WPS Setup' and 'Manual'. The 'Manual' option is selected. Navigation buttons 'Prev', 'Next', and 'Cancel' are at the bottom.

D-Link

CONFIG YOUR WIRELESS CLIENT

SELECT CONFIGURATION METHOD

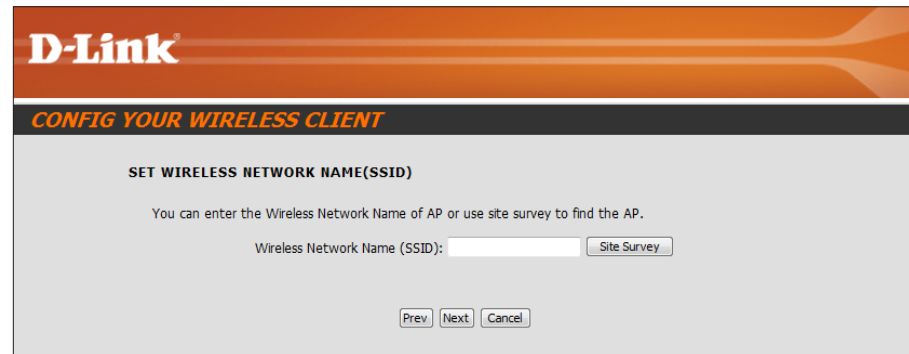
Please select one of the following configuration methods and click next to continue.

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

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

Prev Next Cancel

Enter the network name (SSID) of the network you want to connect to. If you do not know the exact name or would like to search for the wireless network, click **Site Survey**.



The screenshot shows the 'SET WIRELESS NETWORK NAME(SSID)' screen. It includes instructions to enter the SSID or use site survey. A text input field for 'Wireless Network Name (SSID):' and a 'Site Survey' button are present. Navigation buttons 'Prev', 'Next', and 'Cancel' are at the bottom.

D-Link

CONFIG YOUR WIRELESS CLIENT

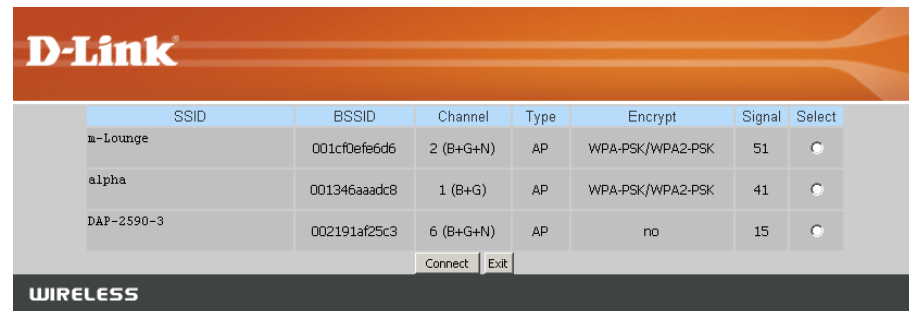
SET WIRELESS NETWORK NAME(SSID)

You can enter the Wireless Network Name of AP or use site survey to find the AP.

Wireless Network Name (SSID): Site Survey

Prev Next Cancel

Find your wireless router or access point from the list, click the radio button in the right column, and click **Connect**.



The screenshot shows the 'WIRELESS' screen with a table of detected wireless networks. Each row includes SSID, BSSID, Channel, Type, Encrypt, Signal, and a radio button in the 'Select' column. 'm-Lounge' is selected. 'Connect' and 'Exit' buttons are at the bottom.


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SSID	BSSID	Channel	Type	Encrypt	Signal	Select
m-Lounge	001cf0efe6d6	2 (B+G+N)	AP	WPA-PSK/WPA2-PSK	51	<input checked="" type="radio"/>
alpha	001346aaadc8	1 (B+G)	AP	WPA-PSK/WPA2-PSK	41	<input type="radio"/>
DAP-2590-3	002191af25c3	6 (B+G+N)	AP	no	15	<input type="radio"/>

Connect Exit

WIRELESS

Select the wireless security mode you would like to use.



Product Page: DAP-1513 Hardware Version: A1 Firmware Version: 1.00

D-Link

SELECT WIRELESS SECURITY MODE

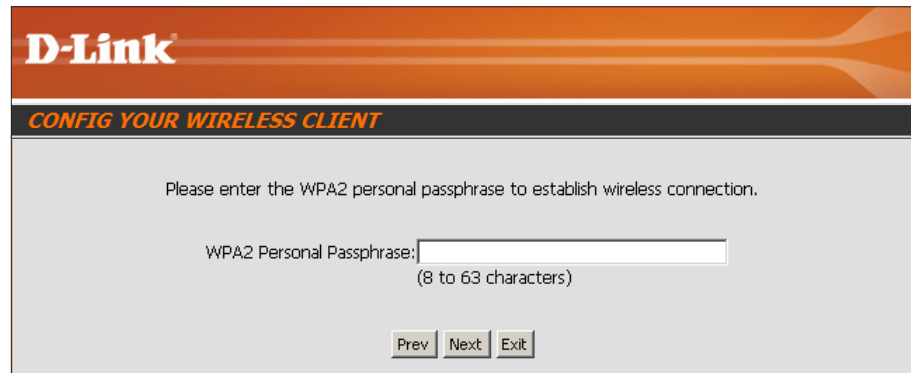
Please select the wireless security mode.

- None
- WEP
- Auto(WPA or WPA2)

Prev Next Cancel

If you select **WPA** or **WPA2**, enter the wireless security password. Click **Next** to complete the Setup Wizard.

The Setup Wizard is complete. Click **Finish** to reboot the device.



D-Link

CONFIG YOUR WIRELESS CLIENT

Please enter the WPA2 personal passphrase to establish wireless connection.

WPA2 Personal Passphrase:
(8 to 63 characters)

Prev Next Exit

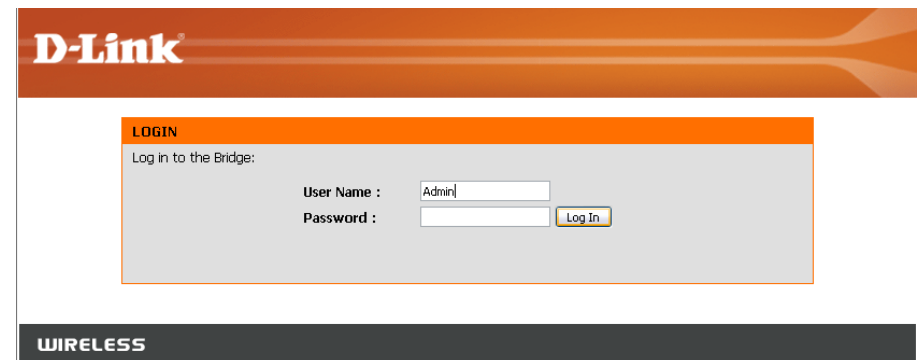
Web-based Configuration Utility

If you wish to change the default settings or optimize the performance of the DAP-1513, you may use the 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.

Type **Admin** 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.



Wireless Setup Wizard

Click **Launch Wireless Setup Wizard** to configure your wireless bridge. Refer to the **First Time Setup** section for the Wireless Setup Wizard.

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

The screenshot displays the D-Link DAP-1513 web interface. At the top, it shows 'Product Page: DAP-1513' and 'Hardware Version: A1 Firmware Version: 1.00'. The D-Link logo is prominently displayed. Below the logo is a navigation menu with tabs for 'DAP-1513', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'SETUP' tab is selected. On the left side, there is a sidebar with options: 'WIZARD', 'WIRELESS SETUP', and 'LAN SETUP'. The main content area is titled 'WIRELESS CONNECTION SETUP WIZARD' and contains the following text: 'If you would like to utilize our easy to use web-based wizard to assist you in connecting your DAP-1513 to the wireless network, click on the button below.' Below this text is a button labeled 'Launch Wireless Setup Wizard'. A red-bordered note box contains the text: 'Note: Some changes made using this Setup Wizard may require you to change some settings on your bridge adapters so they can still connect to the D-Link Access Point.' On the right side, there is a 'Helpful Hints..' section with text: 'If you are new to networking and have never configured an access point before, click on Launch Setup Wizard and the access point will guide you through a few simple steps to get your network up and running.'

Manual Configuration

Wireless Setup

Wireless Mode: Bridge Mode only.

Site Survey: Click **Site Survey** to display a list of wireless networks in your area. You may select the wireless router or access point to connect to.

Wireless Network Name: Enter the SSID of the access point or wireless router you want to connect to. If you do not know for sure, click **Site Survey** and select it from the list, if available.

Wireless Channel: The channel will automatically change to the channel of the AP you are connected to.

802.11 Mode: Select the appropriate 802.11 mode based on the wireless clients in your network. The drop-down menu options are **802.11g Only**, **Mixed 802.11b/g**, **802.11b Only**, **802.11n Only**, or **Mixed 802.11b/g/n**.

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

Wireless MAC Clone:

Wireless Security Mode: You can clone the wireless MAC address to connect the device.

WPS: Select a wireless security setting. Options are **None**, **WEP**, **WPA**, or **WPA2**. See the Wireless Security section in this manual for a detailed explanation of the wireless security options.

Select enable if you want to configure the DAP-1513 with Wi-Fi Protection setup.

D-Link

DAP-1513 // SETUP ADVANCED MAINTENANCE STATUS HELP

WIZARD
WIRELESS SETUP
LAN SETUP

WIRELESS NETWORK

Function wireless mode include Bridge. Function Bridge is designed to support bridge infrastructure and Ad-hoc mode.

To protect your privacy you can configure wireless security features. This device supports three wireless security modes including: WEP or WPA and WPA2.

Save Settings Don't Save Settings

WIRELESS NETWORK SETTINGS :

Wireless Type : Infrastructure

Wireless Network Name : dlink (Also called the SSID)

Band : 2.4GHz 5GHz

802.11 Mode : Mixed 802.11n, 802.11g and 802.11b

Wireless Channel : 1

Channel Width : 20MHz

WIRELESS MAC CLONE :

Enable :

MAC Source : Auto

MAC Address :

Scan

MAC Address

WIRELESS SECURITY MODE :

Security Mode : None

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

Enable :

Current PIN : 15739513

Generate New PIN Reset PIN to Default

Helpful Hints..

Wireless Mode :
Function wireless mode include Bridge. Function Bridge is designed to support bridge infrastructure and Ad-hoc mode.

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

Hidden Wireless :
Enabling Hidden Mode is another way to secure your network. With this option enabled, no bridges will be able to see your wireless network when they perform scan to see what's available. In order for your wireless devices to connect to your AP, you will need to manually enter the Wireless Network Name on each device.

Security Keys :
If you have enabled Wireless Security, make sure you write down WEP 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.

Bridge setting :
If you want to bridge with the other Bridge AP, please write down the MAC address of the Bridge AP. Besides, you also need to write down the MAC address of your Bridge AP to the other one.

Bridge Security :
If you have enabled the Bridge Security, make sure you write down WEP Key or Passphrase that you have configured. You will need to enter this information on any Bridge AP that you want to bridge with.

[Back](#)

WIRELESS

LAN Settings

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

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

Device Name: Enter the Device Name of the DAP-1513. It is recommended to change the Device Name if there is more than one D-Link device within the subnet.

D-Link

DAP-1513 //

WIZARD
WIRELESS SETUP
LAN SETUP

SETUP **ADVANCED** **MAINTENANCE** **STATUS** **HELP**

NETWORK SETTINGS :

Use this section to configure the internal network settings of your AP and also to configure the built-in DHCP Server to assign IP addresses to the computers on your network. The IP Address that is configured here is the IP Address that you use to access the Web-based management interface. If you change the IP Address here, you may need to adjust your PC's network settings to access the network again.

Save Settings Don't Save Settings

LAN CONNECTION TYPE :

Choose the mode to be used by the Access Point.

My LAN Connection is :

DYNAMIC IP (DHCP) LAN CONNECTION TYPE :

IP Address Information.

IP Address :

Subnet Mask :

Gateway Address :

DEVICE NAME (NETBIOS NAME) :

Device Name :

Helpful Hints..

LAN Settings :

LAN Connection type :
The Factory default setting is "Static IP" which allows the IP address of the DAP-1355 to be manually configured in accordance to the applied local area network. Enable Dynamic (DHCP) to allow the DHCP host to automatically assign the Access Point an IP address that conforms to the applied local area network.

IP Address :
The default IP address is 192.168.0.50. It can be modified to conform to an existing local area network. Please note that the IP address of each device in the wireless local area network must be within the same IP address range and subnet mask. Take default DAP-1355 IP address as an example, each station associated to the AP must be configured with a unique IP address falling in the range of 192.168.0.*. **n** ranges from 1 to 254 but 50 in this case.

Static IP

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

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

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

Subnet Mask: Enter in the Subnet Mask.

Default Gateway: Enter the Gateway.

Device Name: Enter the Device Name of the DAP-1513. It is recommended to change the Device Name if there is more than one D-Link device within the subnet. You can enter the device name of the AP into your web browser to access the instead of IP address for configuration. If you are using the device name to connect, ensure that your PC and your DAP-1513 are on the same network.

D-Link

DAP-1513 // SETUP ADVANCED MAINTENANCE STATUS HELP

WIZARD
WIRELESS SETUP
LAN SETUP

NETWORK SETTINGS :

Use this section to configure the internal network settings of your AP and also to configure the built-in DHCP Server to assign IP addresses to the computers on your network. The IP Address that is configured here is the IP Address that you use to access the Web-based management interface. If you change the IP Address here, you may need to adjust your PC's network settings to access the network again.

Save Settings Don't Save Settings

LAN CONNECTION TYPE :

Choose the 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

DEVICE NAME (NETBIOS NAME) :

Device Name : dlinkap

Helpful Hints..

LAN Settings :

LAN Connection type :
The factory default setting is "Static IP" which allows the IP address of the DAP-1355 to be manually configured in accordance to the applied local area network. Enable Dynamic (DHCP) to allow the DHCP host to automatically assign the Access Point an IP address that conforms to the applied local area network.

IP Address :
The default IP address is 192.168.0.50. It can be modified to conform to an existing local area network. Please note that the IP address of each device in the wireless local area network must be within the same IP address range and subnet mask. Take default DAP-1355 IP address as an example, each station associated to the AP must be configured with a unique IP address falling in the range of 192.168.0.*. ** ranges from 1 to 254 but

Advanced Advanced Wireless

Transmit Power: Sets the transmit power of the antennas.

The screenshot shows the D-Link configuration interface for the DAP-1513. The top navigation bar includes 'DAP-1513 //', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'ADVANCED WIRELESS' section is active, displaying 'ADVANCED WIRELESS SETTINGS :'. A warning message states: 'If you are not familiar with these Advanced Wireless settings, please read the help section before attempting to modify these settings.' Below this are 'Save Settings' and 'Don't Save Settings' buttons. The 'Transmit Power' is set to 100% via a dropdown menu. A 'Helpful Hints..' section on the right contains the following text:

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.

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 textbox in order to confirm its accuracy.

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

The screenshot shows the D-Link web interface for the DAP-1513 router. The top navigation bar includes 'DAP-1513 //', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'MAINTENANCE' tab is selected. The main content area is titled 'DEVICE ADMINISTRATION :'. It contains the following text: '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.' Below this text are two buttons: 'Save Settings' and 'Don't Save Settings'. The 'PASSWORD :' section has two input fields: 'New Password : *****' and 'Confirm Password : *****'. The 'ADMINISTRATION :' section has a checkbox for 'Enable Graphical Authentication :'. On the right side, there is a 'Helpful Hints..' section with the following text: '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 to Local Hard Drive: Use this option to save the current MediaBridge® configuration settings to a file on the hard disk of the computer you are using. Click the **Save** button. You will then see a file dialog where you can select a location and file name for the settings.

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

Restore to Factory Default: This option will restore all configuration settings back to the settings that were in effect at the time the MediaBridge® 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 MediaBridge® 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 DAP-1513.

The screenshot shows the D-Link web interface for the DAP-1513. The top navigation bar includes 'DAP-1513 //', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'MAINTENANCE' tab is selected, and the 'SAVE AND RESTORE' section is active. The interface contains the following elements:

- SAVE AND RESTORE :** A header section with a warning message: "The current system settings can be saved as a file onto the local hard drive. You can upload any saved settings file that was created by the DAP-1513."
- SAVE AND RESTORE :** A sub-section with four options:
 - Save Settings To Local Hard Drive :
 - Load Settings From Local Hard Drive :
 - Restore To Factory Default Settings :
 - Reboot The Device :
- Helpful Hints..** A sidebar on the right with the title "Saving System Settings:" and text: "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 MediaBridge® 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 MediaBridge®.

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-1513 web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains menu items for ADMIN, SYSTEM, FIRMWARE, and TIME. The main content area is divided into several sections:

- FIRMWARE UPDATE :** A notice about new firmware for DAP-1513, with a link to the support site. It includes instructions on how to upgrade and a warning not to update through a wireless network.
- FIRMWARE INFORMATION :** Displays current firmware and language pack versions, along with buttons to remove the current language pack and check for the latest firmware online.
- FIRMWARE UPGRADE :** A section with a note that some firmware upgrades reset configuration to factory defaults. It provides instructions for upgrading and includes an 'Upload' button with a 'Browse...' file selection option.
- LANGUAGE PACKAGE INFORMATION :** A section with a note that updating the language pack changes the web page language. It provides instructions for upgrading and includes an 'Upload' button with a 'Browse...' file selection option.

On the right side, there is a 'Helpful Hints...' section with 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.

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

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

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

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

The screenshot shows the D-Link DAP-1513 web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar lists menu items: ADMIN, SYSTEM, FIRMWARE, and TIME. The main content area is titled "TIME" and contains the following sections:

- Time Configuration:** Includes a description of the Time Configuration option, a "Save Settings" button, and a "Don't Save Settings" button.
- TIME CONFIGURATION:** Contains fields for:
 - Time: (displayed as (GMT-08:00) Pacific Time (US & Canada); Tijuana)
 - Enable Daylight Saving:
 - Daylight Saving Offset: -2:00
 - Daylight Saving Dates: DST Start (Month: Jan, Week: 1st, Day of Week: Sun, Time: 12 am) and DST End (Month: Jan, Week: 1st, Day of Week: Sun, Time: 12 am)
- AUTOMATIC TIME CONFIGURATION:** Contains:
 - Enable NTP server:
 - NTP Server Used: [Text Field] <<< Select NTP Server
- SET THE DATE AND TIME MANUALLY:** Contains:
 - Current DAP-1355 Time: Year, Month, Day, Hour, Minute, Second (all dropdown menus)
 - Copy Your Computer's Time Settings button

On the right side of the interface, there is a "Helpful Hints.." section titled "System Time Settings:" which provides instructions on how to save settings to a configuration file and restore default settings.

Status

Device Info

This page displays the current information for the DAP-1513. It will display the LAN and wireless LAN information.

General: Displays the MediaBridge® time and firmware version.

LAN: Displays the MAC address and the private (local) IP settings for the MediaBridge®.

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

D-Link	
DAP-1513 //	SETUP ADVANCED MAINTENANCE STATUS HELP
DEVICE INFO LOGS STATISTICS	<div style="border: 1px solid black; padding: 5px;"> <p>DEVICE INFORMATION :</p> <p>All of your Internet and network connection details are displayed on this page. The firmware version is also displayed here.</p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>GENERAL</p> <p style="text-align: center;">Time : 2011/01/05 Firmware Version : 1.00</p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>LAN</p> <p style="text-align: center;">MAC Address : 00:E0:4C:81:96:99 Connection : Dynamic IP IP Address : 192.168.0.50 Subnet Mask : 255.255.255.0 Default Gateway : 0.0.0.0</p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>WIRELESS LAN</p> <p style="text-align: center;">MAC Address : 00:E0:4C:81:98:C1 Network Name(SSID) : Channel : 100 Security Type : Open / Disabled</p> </div>
	<p>Helpful Hints..</p> <p>Device Information: This page displays the current information of the DAP-1355. The page will show the firmware currently loaded, wired and wireless settings applied on the unit.</p> <p>LAN: The MAC address of the Ethernet LAN connection, Connection Type being used (DHCP or Static), Subnet Mask and Default Gateway are displayed in this section.</p> <p>WAN: The MAC address of the WAN connection, Connection Type being used (DHCP, Static, PPPoE or PPTP), Subnet Mask and Default Gateway are displayed in this section.</p> <p>WIRELESS LAN: The Wireless MAC address, Wireless Network Name (SSID), Wireless Channel and Wireless Security Type are displayed in this section.</p>

Logs

The DAP-1513 keeps a running log of events and activities occurring on the AP. If the AP is rebooted, the logs are automatically cleared. You can save the log files under Log Setting.

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

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

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

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

Clear Log: This button clears all current log content.

Save Log: This option will save the MediaBridge® to a log file on your computer.

Refresh: This button refreshes the log.

D-Link

DAP-1513 // SETUP ADVANCED MAINTENANCE STATUS HELP

DEVICE INFO
LOGS
STATISTICS

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 Page Next Page Clear Log Save log
Refresh

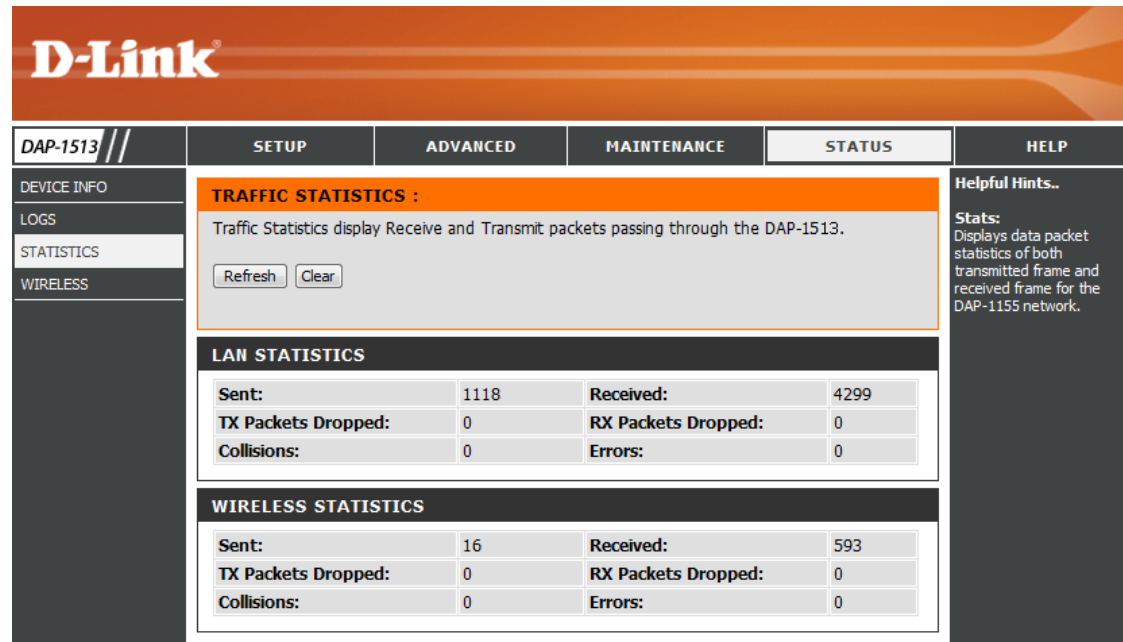
page 2 of 23

Time	Message
Jan 20 12:18:27	NET: Registered protocol family 2
Jan 20 12:18:27	IP route cache hash table entries: 1024 (order: 0, 4096 bytes)
Jan 20 12:18:27	TCP established hash table entries: 512 (order: 0, 4096 bytes)
Jan 20 12:18:27	TCP bind hash table entries: 512 (order: -1, 2048 bytes)
Jan 20 12:18:27	TCP: Hash tables configured (established 512 bind 512)
Jan 20 12:18:27	TCP reno registered
Jan 20 12:18:27	NET: Registered protocol family 1
Jan 20 12:18:27	squashfs: version 4.0 (2009/01/31) Phillip Lougher
Jan 20 12:18:27	io scheduler noop registered
Jan 20 12:18:27	io scheduler cfq registered (default)

Helpful Hints...
First Page
The first page of the log.
Last Page
The last page of the log.
Previous Page
Moves back one log page.
Next Page
Moves forward one log page.
Clear Log
Clears the logs completely.

Statistics

The DAP-1513 keeps statistics of the traffic that passes through it. You can view the amount of packets that pass through the LAN and wireless portions of the network. The traffic counter will reset if the MediaBridge® is rebooted.



The screenshot shows the D-Link web interface for the DAP-1513. The top navigation bar includes 'DAP-1513 //', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar contains 'DEVICE INFO', 'LOGS', 'STATISTICS', and 'WIRELESS'. The main content area is titled 'TRAFFIC STATISTICS :'. Below this, there is a description: 'Traffic Statistics display Receive and Transmit packets passing through the DAP-1513.' and two buttons: 'Refresh' and 'Clear'. The 'LAN STATISTICS' section shows the following data:

LAN STATISTICS			
Sent:	1118	Received:	4299
TX Packets Dropped:	0	RX Packets Dropped:	0
Collisions:	0	Errors:	0

The 'WIRELESS STATISTICS' section shows the following data:

WIRELESS STATISTICS			
Sent:	16	Received:	593
TX Packets Dropped:	0	RX Packets Dropped:	0
Collisions:	0	Errors:	0

On the right side, under 'Helpful Hints..', there is a note: 'Stats: Displays data packet statistics of both transmitted frame and received frame for the DAP-1155 network.'

Help

The screenshot shows the D-Link web interface for the DAP-1513 device. At the top, there is an orange header with the D-Link logo. Below the header is a navigation bar with tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The HELP tab is selected. The main content area is divided into two columns. The left column contains a 'HELP MENU' with the following sections and links:

- Setup**
 - [Wizard](#)
 - [Wireless Setup](#)
 - [LAN Setup](#)
- Advanced**
 - [Advanced Wireless](#)
- Maintenance**
 - [Device Administration](#)
 - [Save and Restore](#)
 - [Firmware Update](#)
 - [Time](#)
- Status**
 - [Device Info](#)
 - [Log](#)
 - [Statistics](#)

The right column contains a 'Helpful Hints..' section with the text: 'Click on the links for more informations of each section in the GUI.'

Wireless Security

This section will show you the different levels of security you can use to protect your data from intruders. The DAP-1513 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 MediaBridge®

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 Personal

It is recommended to enable encryption on your wireless MediaBridge® 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 MediaBridge®(192.168.0.50). Click on **Setup** and then click **Wireless Setup** on the left side.
2. Next to *Security Mode*, select **WPA Personal**.
3. Next to *WPA Mode*, select **Auto WPA** or **WPA2**.
4. Next to *Cipher Type*, select **TKIP** or **AES**.
5. Next to *Pre-Shared 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 MediaBridge® 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 MediaBridge®.

WIRELESS SECURITY MODE :

Security Mode :

WPA :

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

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

WPA Mode :

Cipher Type :

PRE-SHARED KEY:

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

Pre-Shared Key :

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

Enable :

Current PIN : **65695944**

Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DAP-1513. 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 MediaBridge® (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 MediaBridge® 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 MediaBridge® 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 MediaBridge®. Unfortunately this process will change all your settings back to the factory defaults.

To reset the MediaBridge®, locate the reset button (hole) on the rear panel of the unit. With the MediaBridge® powered on, use a paperclip to hold the button down for 10 seconds. Release the button and the MediaBridge® will go through its reboot process. Wait about 30 seconds to access the MediaBridge®. The default IP address is 192.168.0.50. When logging in, the username is Admin and leave the password box empty.

Networking Basics

Check your IP address

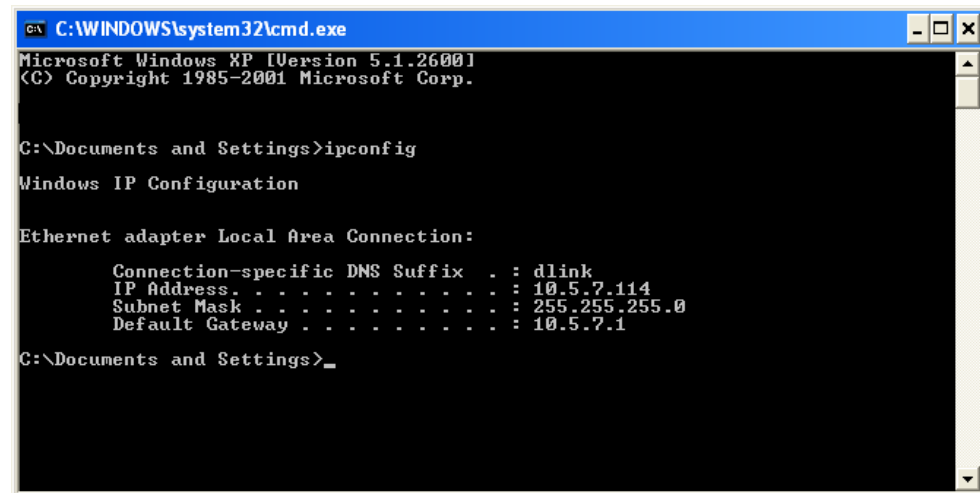
After you install your adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

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

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

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

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



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600.1
(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 > Change Adapter Setting.**

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

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

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

Step 2

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

Step 3

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

Step 4

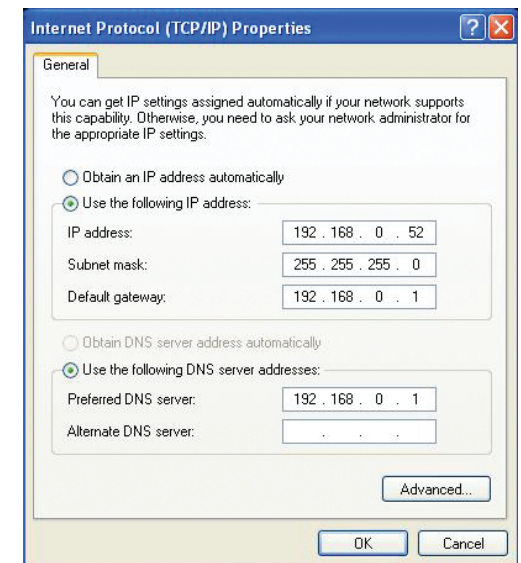
Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your router.

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

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

Step 5

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



Technical Specifications

Standards

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

Security

- WEP
- WPA/WPA2-Personal
- Wi-Fi Protected Setup (WPS PBC/PIN)

Wireless Signal Rates¹

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

Maximum Operating Voltage

- 3.3V

Maximum Power Consumption

- 950 mA

Modulation

- DQPSK
- DBPSK
- CCK
- OFDM

Frequency Range²

- 2.4GHz to 2.483GHz
- 5.15GHz to 5.825GHz

LEDs

- Power
- Wireless

Operating Temperature

- 32°F to 131°F (0°C to 55°C)

Humidity

- 90% maximum (non-condensing)

Safety & Emissions

- FCC
- IC
- CE
- C-Tick

Dimensions

- 142 (W) x 122 (D) x 29 (H) mm (5.6 x 4.8 x 1.14 inches)

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

²Range varies depending on country's regulation.

Warranty

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.

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 50 ohms.

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 5150-5250 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.

以下警語適用台灣地區

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。