



User Manual

amplifi Access Point/MediaBridge®

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Package Contents

- D-Link DAP-1525 Access Point/MediaBridge
- Power Adapter
- CAT5 Ethernet Cable
- CD-ROM with User Manual

Note: Using a power supply with a different voltage than the one included with the DAP-1525 will cause damage and void the warranty for this product.



System Requirements

- Computers with Windows[®], Macintosh[®], or Linux-based operating systems with an installed Ethernet adapter
- Internet Explorer Version 6.0 or higher, Firefox 3.0 or higher, Safari 3.0 or higher, or Chrome 2.0 or higher (for configuration)

Introduction

TOTAL PERFORMANCE

Combines award winning access point features and 802.11n wireless technology to provide the best wireless performance.

TOTAL SECURITY

The most complete set of security features including WPA2 and MAC Address Control to protect your network against outside intruders.

TOTAL COVERAGE

Provides greater wireless signal rates even at farther distances for best-in-class Whole Home Coverage.

ULTIMATE PERFORMANCE

The D-Link Access Point/MediaBridge (DAP-1525) is a 802.11n compliant device that delivers real world performance of up to 650% faster than an 802.11g wireless connection (also faster than a 100Mbps wired Ethernet connection). Create a secure wireless network to share photos, files, music, video, printers, and network storage throughout your home. Connect the Access Point/MediaBridge to router and share your high-speed Internet access with everyone on the network. In addition, this Wireless Bridge includes a Quality of Service (QoS) engine that keeps digital phone calls (VoIP) and online gaming smooth and responsive, providing a better Internet experience.

EXTENDED WHOLE HOME COVERAGE

Powered by smart beam technology, this high performance Wireless AP/Bridge provides superior Whole Home Coverage while reducing dead spots. The Access Point/MediaBridge is designed for use in bigger homes and for users who demand higher performance networking. Add an Xtreme N® Duo notebook or desktop adapter and stay connected to your network from virtually anywhere in your home.

TOTAL NETWORK SECURITY

The Access Point/MediaBridge 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 WEP 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 802.11a 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-1525 provides up to 300Mbps* wireless connection with other 802.11n wireless clients. This capability allows users to participate in real-time activities online, such as video streaming, online gaming, and real-time audio. The performance of this 802.11n wireless access point gives you the freedom of wireless networking at speeds 650% faster than 802.11g.
- Compatible with 802.11a and 802.11g Devices The DAP-1525 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.
- Advanced Firewall Features The Web-based user interface displays advanced network management features including Content Filtering, which allows easily applied content filtering based on MAC Address.
- **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-1525 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 access point to an existing network or to create a new network. The default PIN may be printed on the bottom of the access point. 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-1525 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	USB	Use this port to connect a USB 2.0 printer or a Storage Device
2	Mode Switch	Three-way switch used to select Bridge, AP 2.4GHz or AP 5GHz
3	LAN Ports (1-4)	Connect 10/100/1000 Ethernet devices such as computers, switches, and hubs
4	Power Receptor	Receptor for the supplied power adapter

LEDs



1	Wireless LED (AP Mode)	A solid green light will indicate that AP Mode is ON.
2	Wireless LED (Bridge Mode)	A solid green light indicates a link has been established. A blinking green indicates the device is fail to connect to the AP.
3	WPS Button	Press the WPS button for 1 second to initiate the WPS process. The button will flash green while a WPS connection is being established. The button will light green for 5 seconds if a successful WPS connection has been made.
4	Power LED/Button	A solid light indicates a proper connection to the power supply and also use this button to power on/power off the device.

Front View



1 Reset Button Press the button to restore the device to its original factory default settings.

Installation

This section will walk you through the installation process. Placement of the DAP-1525 is very important. Do not place the DAP-1525 in an enclosed area such as a closet, cabinet, or in the attic or garage.

Before you Begin

Please configure the Wireless Bridge with the computer that was last connected directly to your modem. Also, you can only use the Ethernet port on your modem. If you were using the USB connection before using the Wireless Bridge, then you must turn off your modem, disconnect the USB cable and connect an Ethernet cable to the Internet port on the Wireless Bridge, and then turn the modem back on. In some cases, you may need to call your ISP to change connection types (USB to Ethernet).

If you have DSL and are connecting via PPPoE, make sure you disable or uninstall any PPPoE software such as WinPoet, Broadjump, or Enternet 300 from your computer or you will not be able to connect to the Internet.

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.

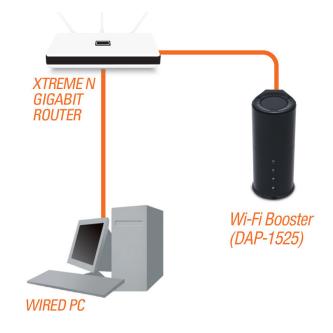
AP/Bridge

Depending on how you want to use your DAP-1525 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 a MediaBand (5GHz wireless), to your network, you will need to move the switch on the back panel of the DAP-1525 to "AP 5GHz".

- 1. Ensure you have a broadband Internet connector such as a cable or DSL client line that connects the
- 2. Internet to your home or office.
- 3. Connect the cable properly or install the modem.
- 4. Connect the cable or modem with the broadband Access Point.
- 5. Connect the DAP-1525's Ethernet port to your LAN.
- 6. Move the switch to wireless 2.4GHz AP, or 5GHz AP Mode.
- 7. Connect your PC or notebook to the DAP-1525 using the PC or notebook's wireless adapter.



Bridge Mode

If you want to wirelessly connect multiple Ethernet enabled devices such as game consoles, media players, or network attached storage devices you will need to move the switch on the back panel of the DAP-1525 to "Bridge".

To use the DAP-1525 in Bridge Mode, follow the steps below:

- 1. Ensure you have a broadband Internet connector, such as a cable or DSL client line that connects the Internet to your home or office.
- 2. Connect the cable properly or install the modem.
- 3. Connect the cable or modem with the broadband Access Point.
- 4. Move the switch to Bridge Mode.
- 5. Connect your PC or notebook to the DAP-1525 using the PC or notebook's wireless adapter.



Create a Full MediaBand (5GHz wireless) Network

If you have two DAP-1525 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". 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

This feature makes the Wireless Access Point to have the ability to exchange/learn the Wireless Profile from another Wireless Router/Access Point.

- 1. Press the WPS button on your existing Router or Access Point. WPS LED will flash on and off.
- 2. Press WPS Push Button on the DAP-1525 and hold it for 5 seconds.
- 3. When One click AP setup is complete, your DAP-1525 will have the same Wireless settings as your existing Router or AP.

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.



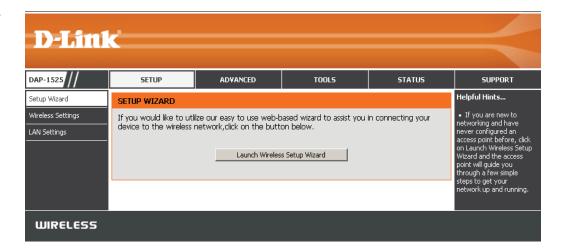
Select **Admin** from the drop-down menu and then enter your password. Leave the password blank by default.

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



Setup Wizard

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



A welcome window appears. Click the **Next** button to continue.



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.

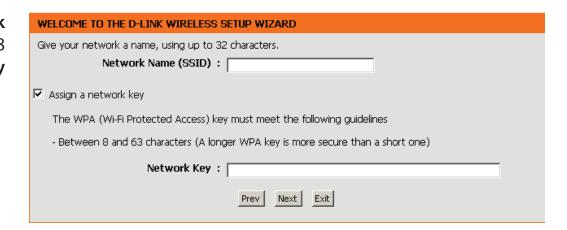
You may select either **WPS** or **Manual** for the configuration method. Select **Manual** as the configuration method to set up your network manually.

Refer to page 20 for **WPS** configuration.



Enter a network name (SSID). Tick the **Assign a network key** check box to manually enter a WPA key between 8 and 63 characters. Deselect the **Assign a network key** check box to automatically assign a network key.

Click Next to continue.



This window displays the settings.

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

SETUP COMPLETE!

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

Wireless Network Name (SSID) : dlink

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

Network Key: 12345678

Prev Save Exit

The following screen opens to indicate that you have successfully saved your new settings.

SAVE SETTINGS SUCCEEDED

Saving Changes.

Add Wireless Device With WPS

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

Select WPS and click Next.



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

For **PBC** configuration, skip to page 18.

Click Connect to continue.

CONNECT TO WIRELESS DEVICE WITH WPS
There are two ways to add wireless device to your wireless network:
-PIN (Personal Identification Number)
-PBC (Push Button Configuration)
Please Enter the above PIN information into your Acces Point and click the below "Connect" button.
○ PBC
Please press the push button on your wireless device and press the "Connect" button below within 120 seconds.
Prev Connect Exit

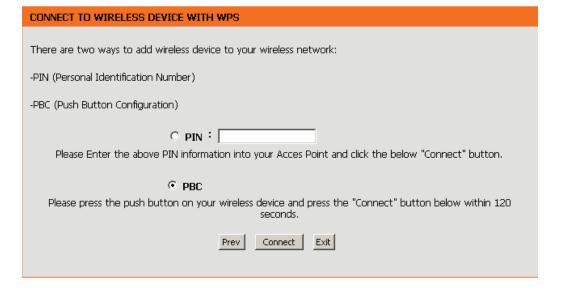
Start **WPS** on the wireless device you are adding to your wireless network to complete the setup.

USING PIN NUMBER

Please start WPS on the wireless device you are adding to your network within 118 seconds

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

Click **Connect** to continue.



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

VIRTUAL PUSH BUTTON

Please press down the Push Button (physical or virtual) on the wireless device you are adding to your wireless network within 117 second...

Manual Configuration Wireless Settings

Wireless Band: Displays the band you are using.

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 When you are browsing for available wireless networks, Network Name: 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.

Enable Auto The Auto Channel Scan setting can be selected to allow **Channel Scan:** the DAP-1525 to choose the channel with the least

amount of interference.

Wireless Indicates the channel setting for the DAP-1525. The

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

will be grayed out.

Transmission Select the transmit rate. It is strongly suggested to select

Rate: Best (automatic) for best performance.

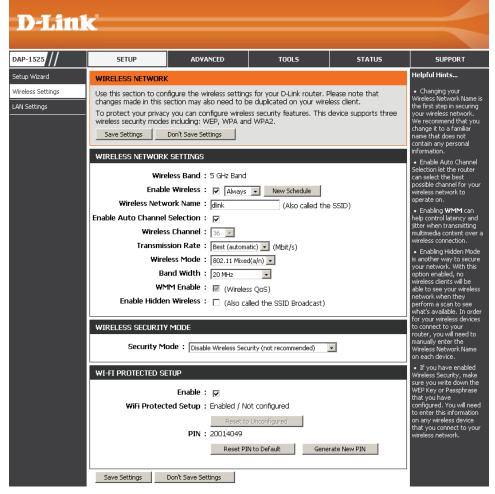
Wireless Mode: The current wireless mode is set to Access Point, it will

create a wireless infrastructure network.

Band Width: Select the Band 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.



Section 3 - Configuration

WMM Enable: WMM (Wi-Fi Multimedia) is QoS for your wireless network. Tick this box to improve the quality of video and voice applications

for your wireless clients. This feature is not available in 802.11n configurations.

Security Mode: Refer to page 69 for more information regarding the wireless security.

Enable: Enable the Wi-Fi Protected Setup feature.

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

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

PIN: of the user.

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

LAN Setup

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

Device Name: Enter the Device Name of the AP. It is recommended

to change the Device Name if there is more than one

D-Link device within the subnet.

LAN Connection Use the drop-down menu to select **Static IP**.

Type:

IPv4 Address: If you change the IP address, once you click Save

Settings, you will need to enter the new IP address in your browser to get back into the configuration

utility.

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

255.255.255.0.

Default Gateway: Enter the default gateway IP address.

Primary DNS Enter the primary DNS server IP address.

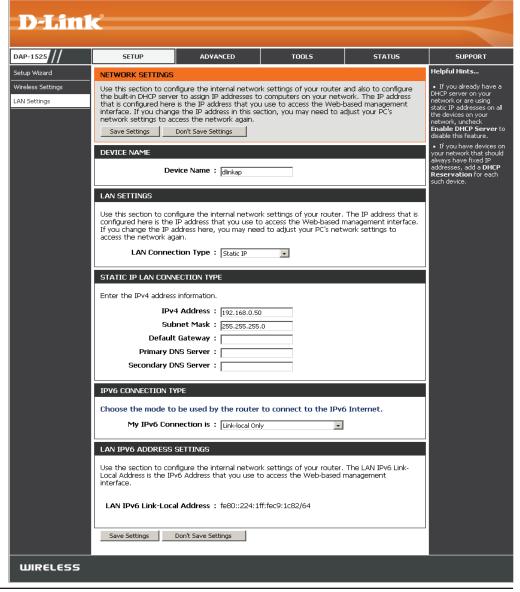
Server:

Secondary DNS Enter the secondary DNS server IP address.

Server:

My IPv6 Use the drop-down menu to select the IPv6 mode

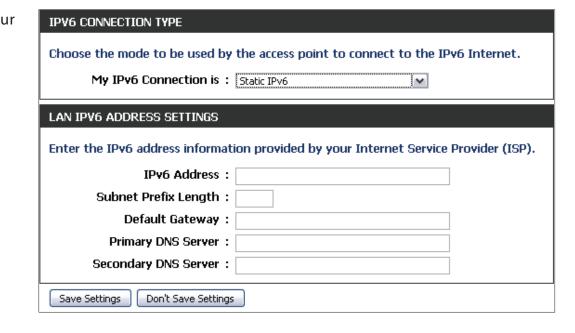
Connection is: connected to the IPv6 Internet.



LAN Setup Static IPv6

When using the My IPv6 Connection is drop-down menu to select the IPv6 mode, the LAN IPv6 Address Settings section will vary based on the selected mode. Select Static IPv6 to see the following configuration.

	Enter the staic IPv6 address provided by y Internet Service Provider.	
Length: Default	Enter the IPv6 subnet prefix length.	
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 Setup Auto-configuration

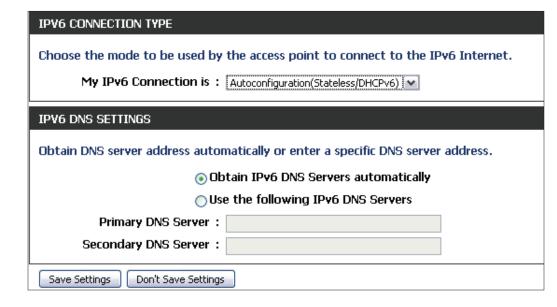
When using the My IPv6 Connection is drop-down menu to select the IPv6 mode, the LAN IPv6 Address Settings section will vary based on the selected mode. Select Autoconfiguration (Stateless/DHCPv6) to see the following configuration.

Obtain IPv6 Enter the staic IPv6 address provided by your DNS Servers Internet Service Provider. automatically:

Use the following Enter the IPv6 subnet prefix length. IPv6 DNS Servers:

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

Secondary DNS Enter the secondary DNS server IP address. **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 When Turn MAC Filtering OFF is selected, MAC MAC Filtering: 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.

Rules: Enter a description of the filtering rule in the Description field and enter the MAC address to add the rule. Click the corresponding clear button to delete the rule.



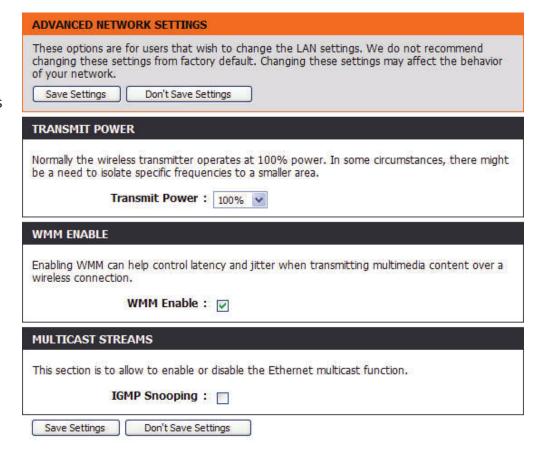
Advanced Network

This window is used to change the advanced LAN settings.

Transmit Power: User the drop-down menu to select 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.

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



Guest Zone

The Guest Zone feature will allow you to create temporary zones that can be used by guests to access the Internet. These zones will be separate from your main wireless network.

Enable Guest Check to enable the Guest Zone feature. Select Zone: the schedule of time when the Guest Zone will be active. The schedule may be set to Always, which will allow the particular service to always

be enabled. You can create your own times in the

Tools > **Schedules** section.

Wireless Band: Display the wireless band status.

Wireless Network Enter a wireless network name (SSID) that is

Name: different from your main wireless network.

Security Mode: Refer to Section 4 - Wireless Security for more

information regarding wireless security.

Enable Guest Tick the check box to prevent the guest clients **Zones Clients** from accessing other quests in the guest zone.

Isolation:

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



Schedule

This section allows you to manage schedule rules for Wireless Settings and Guest Zone.

Name: Enter a name for your new schedule.

Days: Select a day, a range of days, or All Week to include

every day.

All Day-24hrs: Check All Days or enter a start and end time for your

schedule.

Add: Click Add to save your schedule. You must click

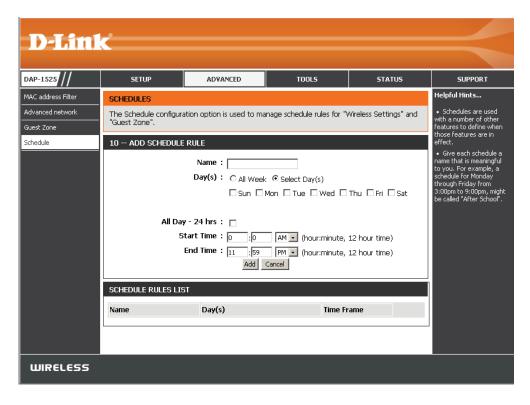
Save Settings at the top for your schedules to go

into effect.

Schedule Rules The list of schedules will be listed here. Click the

List: Edit icon to make changes or click the Delete icon

to remove the schedule.



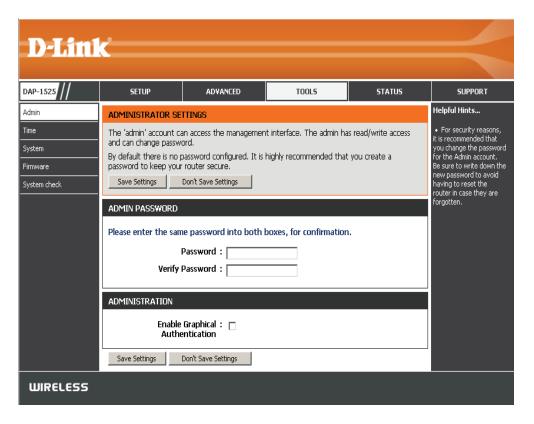
ToolsAdmin

The "admin" account has the read and write access right. You can also enable Remote Management.

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 Check to enable graphical authentication. **Authentication:**



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

Sync your Click this button to set the device's time the computer's same to local PC.

time
settings:

Automatically Click the check box to enable the device to automatically **synchronize** synchronize with a D-Link NTP Server. NTP stands for **with D-Link's** Network Time Protocol.

Internet time NTP synchronizes computer clock times in a network server: of computers. This will only connect to a server on the

Internet, not a local server.

NTP Server Select one of the D-Link NTP Servers from the Used: drop-down menu. The DAP-1525 will then synchronize its clock to be the same time as the D-Link Internet time server. Click the Update Now button to synchronize with the D-Link Internet time server immediately.



Set the Time To manually input the time, use the drop-down menus to enter the values in these fields for the Year, Month, Day, Hour, and Date Minute, and Second.

Manually:

Manual: Click the Save Settings button to save any changes made.

System

Save Settings Use this option to save the current access point to Local configuration settings to a file on the hard disk of the Hard Drive: 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.

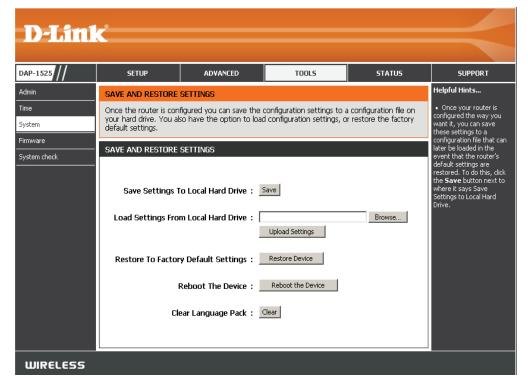
Load Settings Use this option to load previously saved access point from Local configuration settings. First, use the Browse control **Hard Drive:** to find a previously save file of configuration settings. Then, click the **Load** button to transfer those settings to the access point.

Restore This option will restore all configuration settings back to Factory to the settings that were in effect at the time the access **Default** point was shipped from the factory. Any settings that Settings: 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 Click to reboot the access point. Device:

Clear Click to clear the language pack. This will put the web Language UI back to English. Pack:



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.

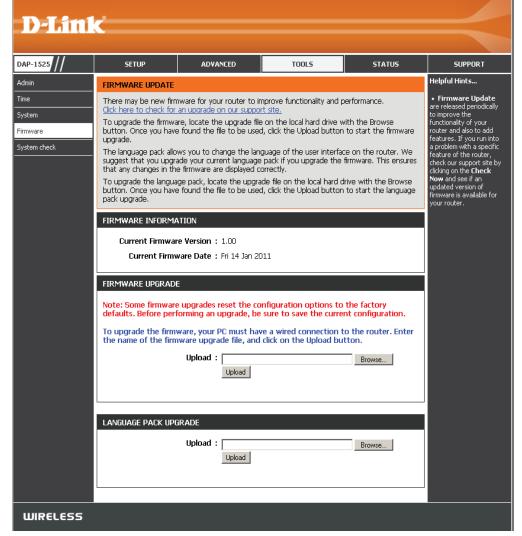
Browse: After you have downloaded the new firmware, click Browse to locate the firmware update on your hard drive. Click **Upload** to complete the firmware upgrade.

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.

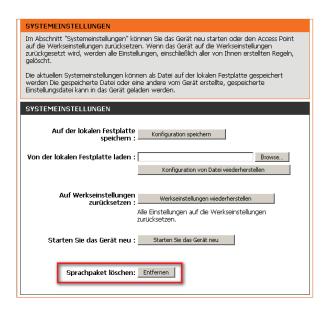
Language Pack Upgrade

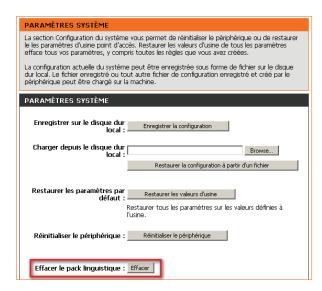
You can change the language of the web UI by uploading available language packs.

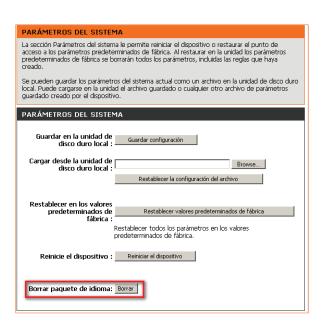
Browse: After you have downloaded the new language pack, click **Browse** to locate the language pack file on your hard drive. Click **Upload** to complete the language pack upgrade.



If you load a language pack and would like to go back to English, click **Tools** > **System** and click on **Clear** next to **Clear Language Pack**.







predefinite del punto di accesso. Il ri	sente di riavviare il dispositivo o di ripristinare le mpostazioni ipristino delle impostazioni predefinite comporta la i precedenti, incluse eventuali regole create dall'utente.
	istema correnti in un file del disco fisso locale Il file salvato d ato creato dal dispositivo può quindi essere caricato nell'unit
IMPOSTAZIONI SISTEMA	
Salva su Disco fisso locale	e : Salva configurazione
Carica da disco fisso locale	Browse Ripristina configurazione da file
Ripristina impostazio predefinite	
Riavvio del dispositivo	a : Riavvio del dispositivo
Cancella Language Pac	k: Cancella

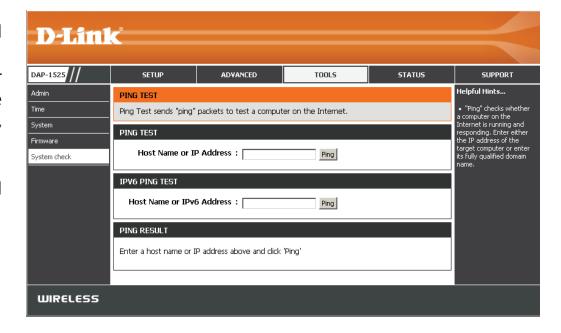
System Check

This sections 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 IPv6 Ping Test: to

send 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.



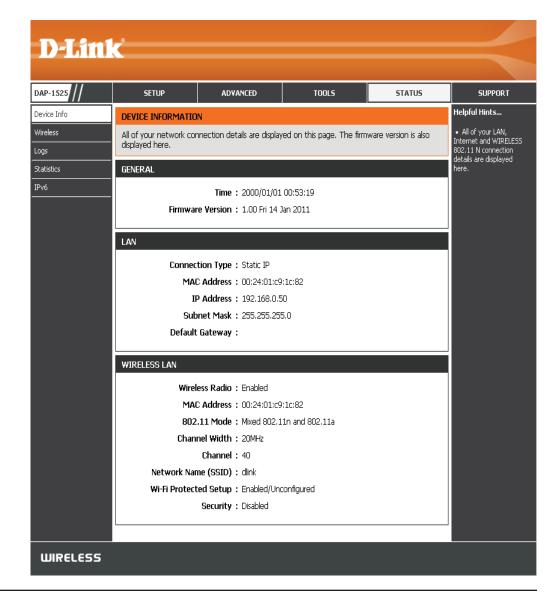
Status Device Info

This page displays the current information for the DAP-1525. 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.



Wireless

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

SSID: Displays the name of the device connected to your network.

MAC Address: Will display the Ethernet ID (MAC address) of the wireless client.

UpTime: Displays the amount of time the wireless client has been connected to the access point.

Mode: The transmission standard being used by the client. Values are 11a, 11g, 11ng or 11na for 802.11a, 802.11g or 802.11n respectively.



Rssi: This is a relative measure of signal quality. The value is expressed as a percentage of theoretical best quality. Signal quality can be reduced by distance, by interference from other radio frequency sources (such as cordless telephones or neighboring wireless networks), and by obstacles between the access point and the wireless device.

Logs

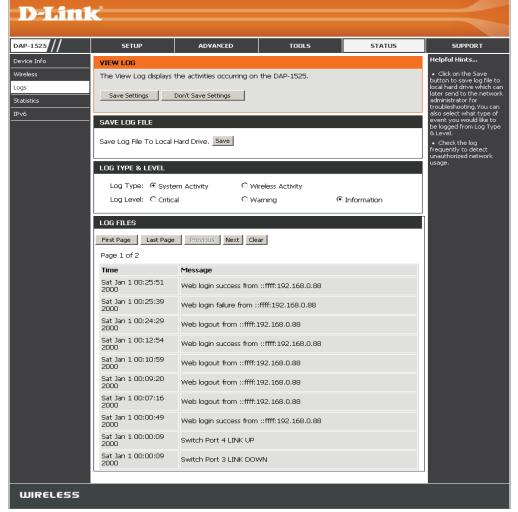
The access point automatically logs (records) events of possible interest in its internal memory. If there isn't enough internal memory for all events, logs of older events are deleted, but logs of the latest events are retained. The Logs option allows you to view the access point logs. You can define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

Save log: This option will save the access point to a log file on your computer

Log Type & Click the corresponding check box for the type(s) that Level: you want displayed in the log.

Use the radio buttons to select Log type and level.

Log Files: Displays log events. Click the **Clear** button to delete all the records.



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

resource limitations.

RX Packets Displays the number of packets that were dropped

Dropped: while receiving, due to errors, collisions, or access point

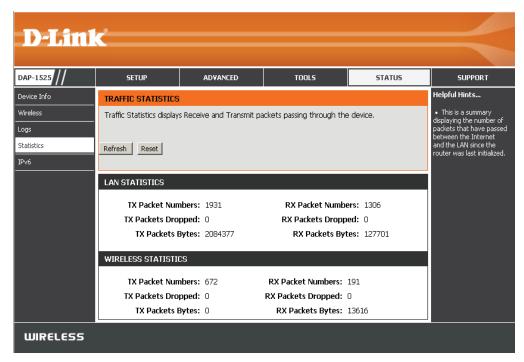
resource limitations.

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.



IPV6

This page will display the IPv6 stats.

IPv6 Connection Displays IPv6 connection mode.

Type:

LAN IPv6 Address: Displays LAN IPv6 address.

IPv6 Default Displays the IPv6 address of the default

Gateway: gateway.

LAN IPv6 Link- Displays the LAN IPv6 link-local address.

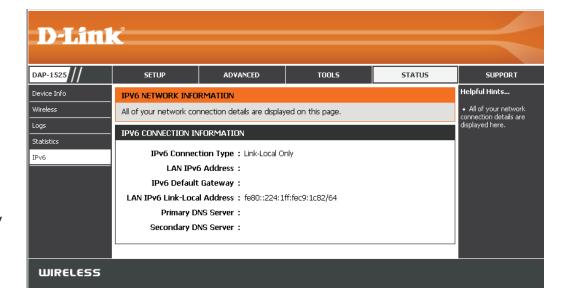
Local Address:

Primary DNS Displays the IPv6 address of the primary

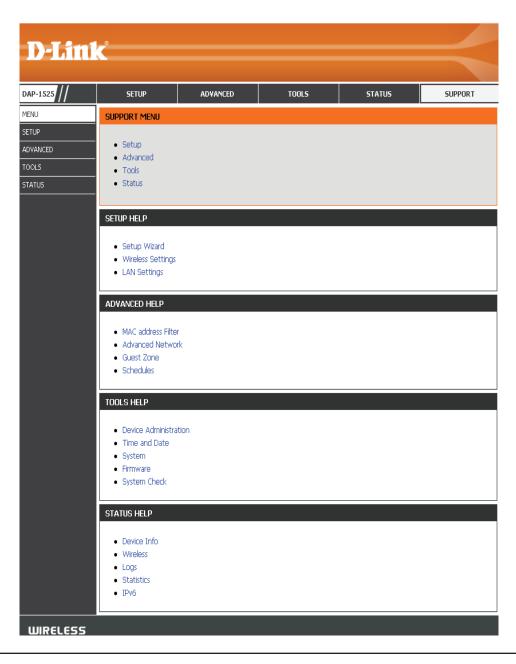
Server: DNS server.

Secondary DNS Displays the IPv6 address of the secondary

Server: DNS server.



Support



Configuration for Bridge Mode

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

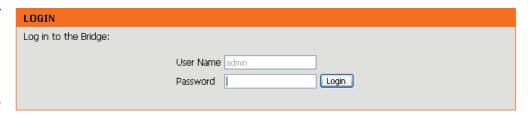
Web-based Configuration Utility

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



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.



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 **Next** to continue.



Click the **WPS** radio button if your wireless device supports Wi-Fi Protected Setup. Click the **Manual** radio button if you want to configure the network manually. For **Manual** configuration, skip to page 38.

Click the Next button 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

ev Next Cance

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

VIRTUAL PUSH BUTTON

Please press down the Push Button (physical or virtual) on the wireless device you are adding to your wireless network within 119 second...

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

Click **Next** to continue.

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

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

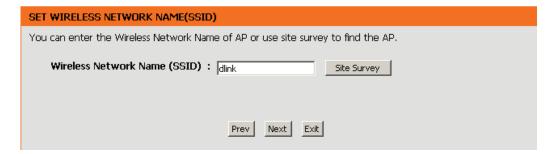
Manual -- Select this option if you want to setup your network manually

Prev Next Cancel

SELECT CONFIGURATION METHOD

Choose Manually assign a network key to create your own key.

Click **Next** to continue.



Select the wireless security mode you wold like to use. Select **Auto** and click Next.

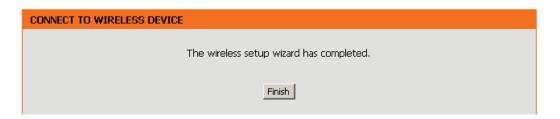


Enter the WP2-Auto personal passphrase to establish wireless connection.

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



The wireless setup wizard is now completed click **Finish.**



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

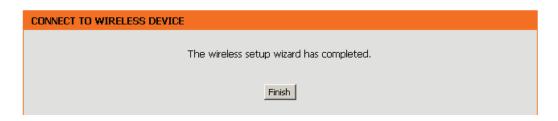


If you choose **Auto (WPA or WPA2)**, enter the **WPA2-Auto Personal Passphrase** and click **Next** to complete the Setup Wizard.



This screen will appear once the wireless setup wizard is complete.

Click Finish.



Wireless

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

Wireless Service Set Identifier (SSID) is the name of your wireless network. **Network** Create a name using up to 32 characters. The SSID is case **Name:** sensitive.

Band Width: Select the Band 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.

Enable: Enable the Wi-Fi Protected Setup feature.

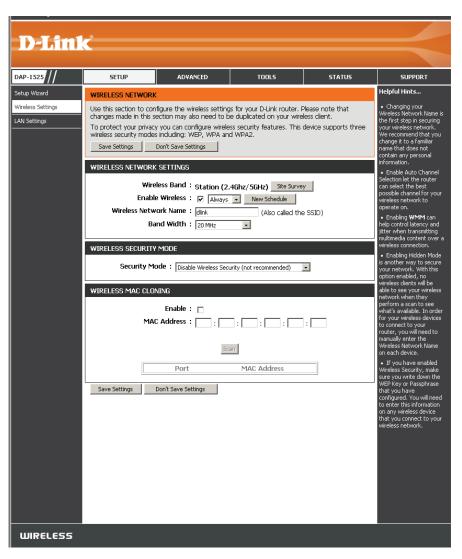
Security Refer to page 64 for more information regarding wireless **Mode:** security.

Wireless MAC Cloning

Enabling this option allows the user to manually assign the source MAC address to packets forwarded by the DAP-1525. If not manually assigned, the packet's source MAC address field will be automatically selected as the DAP-1525's MAC address.

MAC Address: Enter the desired MAC address connected to your DAP-1525 to enable the clone function.

Scan: Click the Scan button to search for all available devices connected to your DAP-1525's Ethernet ports



Lan Setup

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 Use the drop-down menu to select **Static IP** if your ISP **Connection** assigned you the IP address, subnet mask, gateway,

Type: 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 IP address assigned by your ISP.

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

Default Enter the Gateway assigned by your ISP.

Gateway:

Primary DNS Enter the primary DNS server IP address.

Server:

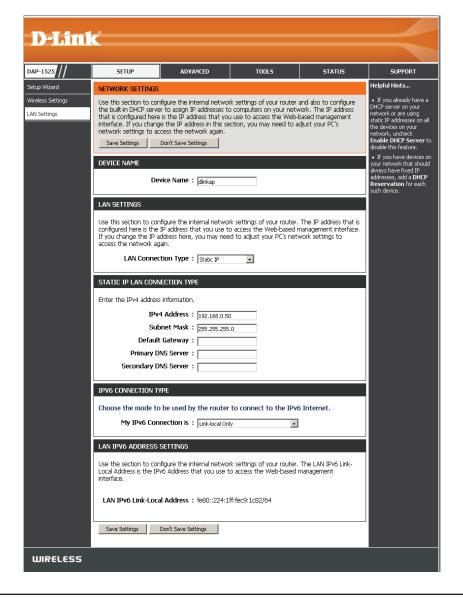
Secondary DNS Enter the secondary DNS server IP address.

Server:

My IPv6 Select the mode you would like the router to use to

Connection: connect to the IPv6 Internet from the drop-down

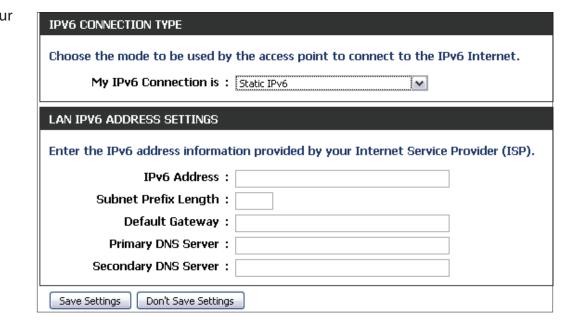
menu.



Lan Setup Static IPv6

When using the **My IPv6 Connection** is drop-down menu to select the IPv6 mode, the LAN IPv6 Address Settings section will vary based on the selected mode. Select **Static IPv6** to see the following configuration.

Enter the staic IPv6 address provided by you Internet Service Provider.
Enter the IPv6 subnet prefix length.
Enter the default gateway IP address.
Enter the primary DNS server IP address.
Enter the secondary DNS server IP address.



Lan Setup Auto-configuration

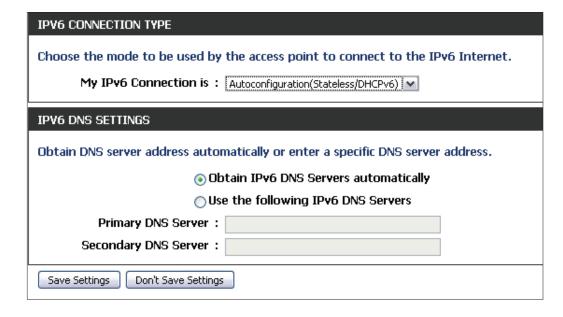
When using the My IPv6 Connection is drop-down menu to select the IPv6 mode, the LAN IPv6 Address Settings section will vary based on the selected mode. Select Autoconfiguration (Stateless/DHCPv6) to see the following configuration.

Obtain IPv6
DNS Servers
Internet Service Provider.

Use the following
IPv6 DNS
Servers:

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

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



Advanced Schedule

This section allows you to manage schedule rules for Wireless Settings and Guest Zone.

Name: Enter a name for your new schedule.

Days: Select a day, a range of days, or All Week to include

every day.

All Day- 24 Time: Check All Days or enter a start and end time for your

schedule.

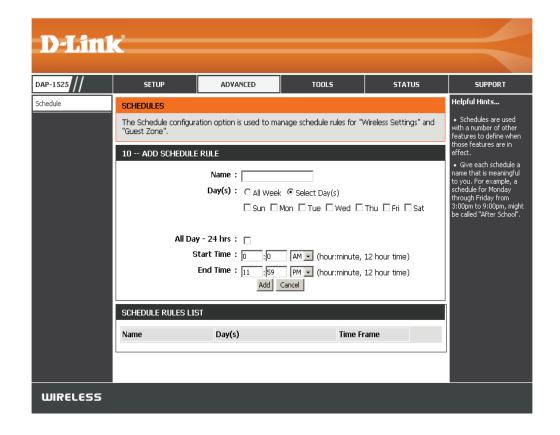
Add: Click Add to save your schedule. You must click Save Settings at the top for your schedules to go

into effect.

Schedule Rules The list of schedules will be listed here. Click the

List: Edit icon to make changes or click the Delete icon

to remove the schedule.



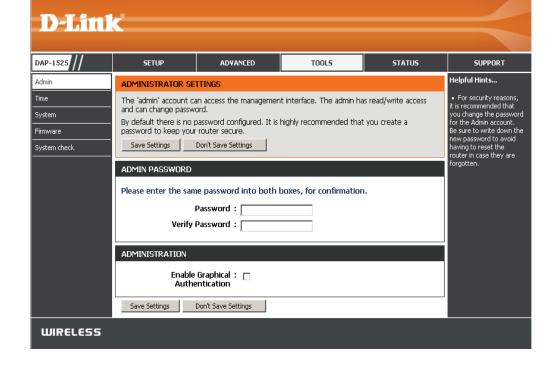
Tools Admin

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

Enable Click the check box to enable Graphical **Graphical** Authentication. **Authentication:**



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.

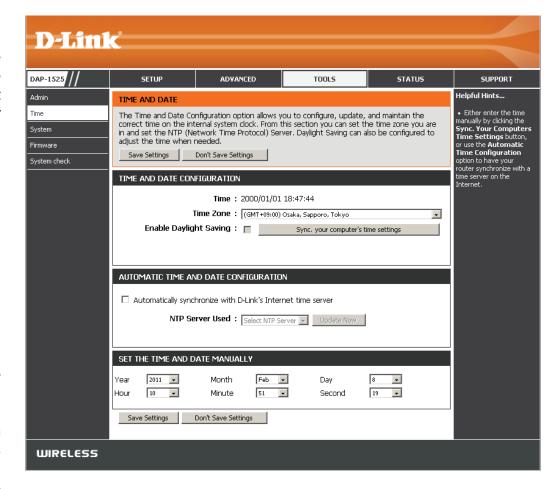
Enable Daylight To select Daylight Saving time manually, click the **Saving: Enable Daylight Saving** check box. Next use the drop-down menu to select a Daylight Saving Offset and then enter a start date and an end date for daylight saving time.

Sync your Click this button to set the device's time the computer's time same to local PC. settings:

Automatically Click the check box to enable the device to synchronize automatically synchronize with a D-Link NTP with D-Link's Server. NTP stands for Network Time Protocol. Internet time NTP synchronizes computer clock times in a server: 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.

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



System

Save To Local Hard Use this option to save the current access point **Drive:** 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 Use this option to load previously saved access **Drive:** 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 This option will restore all configuration settings **Default:** 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.

D-Link DAP-1525 SETUP ADVANCED TOOLS STATUS SUPPORT Admin Helpful Hints... SAVE AND RESTORE SETTINGS Once the router is configured you can save the configuration settings to a configuration file on configured the way you your hard drive. You also have the option to load configuration settings, or restore the factory System default settings. hese settings to a onfiguration file that car later be loaded in the SAVE AND RESTORE SETTINGS system check event that the router's estored. To do this, clid he **Save** button next to vhere it savs Save Save Settings To Local Hard Drive: Save ettings to Local Hard Load Settings From Local Hard Drive: Browse... Upload Settings Restore To Factory Default Settings: Restore Device Reboot The Device : Reboot the Device Clear Language Pack: Clear **WIRELESS**

Reboot The Device: Click to reboot the bridge.

Clear Language Pack: Click to clear the language pack. This will put the web UI back to English.

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.

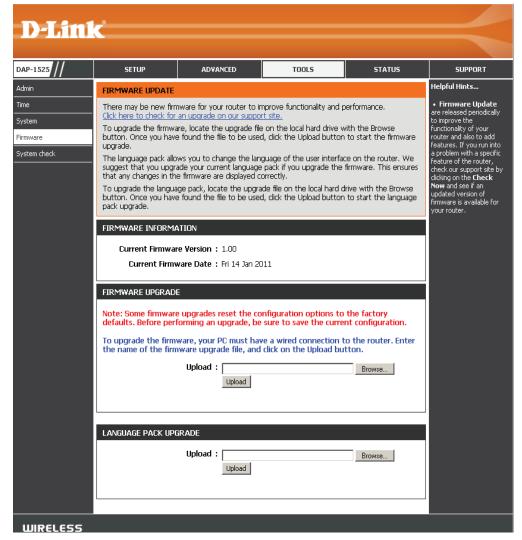
Browse: After you have downloaded the new firmware, click **Browse** to locate the firmware update on your hard drive. Click **Upload** to complete the firmware upgrade.

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.

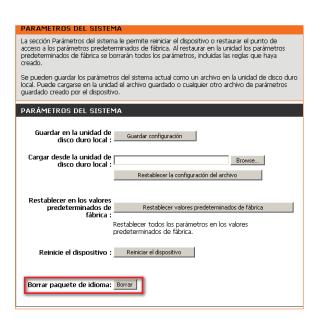
Browse: After you have downloaded the new language pack, click **Browse** to locate the language pack file on your hard drive. Click **Upload** to complete the language pack upgrade.



If you load a language pack and would like to go back to English, click **Tools** > **System** and click on **Clear** next to **Clear Language Pack**.







OSTAZIONI SISTEMA
rione Impostazioni sistema consente di riavviare il dispositivo o di ripristinare le mpostazioni firrite del punto di accesso. Il ripristino delle impostazioni predefirite comporta la llazione di tutte le impostazioni precedenti, incluse eventuali regole create dall'utente.
sibile salvare le impostazioni di sistema correnti in un file del disco fisso locale Il file salvato o asi altro file di impostazioni salvato creato dal dispositivo può quindi essere caricato nell'unità
OSTAZIONI SISTEMA
Salva su Disco fisso locale : Salva configurazione
Carica da disco fisso locale : Ripristina configurazione da file
Ripristina impostazioni predefinite : Ripristina impostazioni predefinite : Ripristina tutte le impostazioni predefinite.
Riavvio del dispositivo : Riavvio del dispositivo
Cancella Language Pack: Cancella

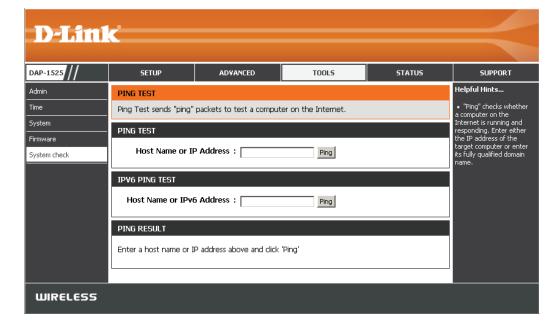
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Ping Result: The results of your ping attempts will be displayed here.



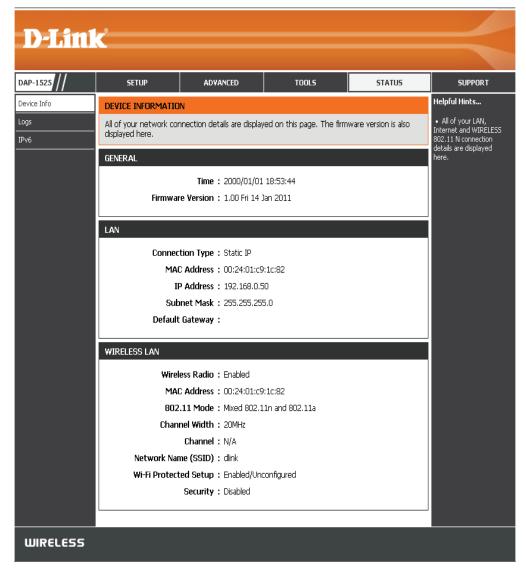
Status Device Info

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

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



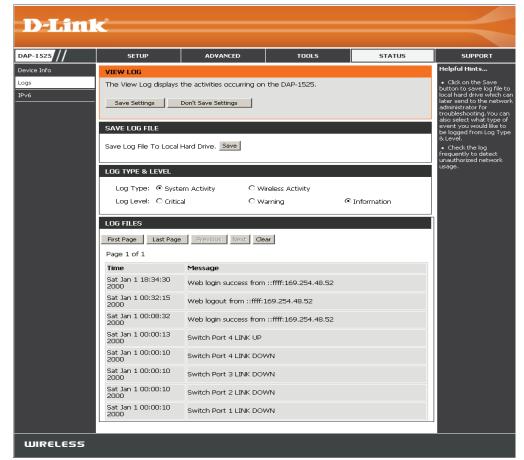
Logs

The 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.

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

Log Type & Level: Use the radio buttons to select Log type and level.

Log Files: Displays log events. Click the **Clear** button to delete all the records.



IPv6

This page will display all your network connection details.

IPv6 Connection Displays IPv6 connection mode. **Type:**

LAN IPv6 Address: Displays LAN IPv6 address.

IPv6 Default Displays the IPv6 address of the default

Gateway: gateway.

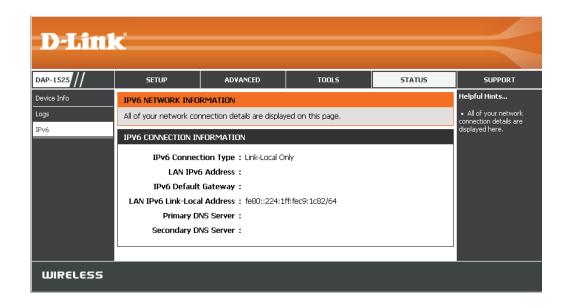
LAN IPv6 Link- Displays the LAN IPv6 link-local address. Local Address:

Primary DNS Displays the IPv6 address of the primary DNS

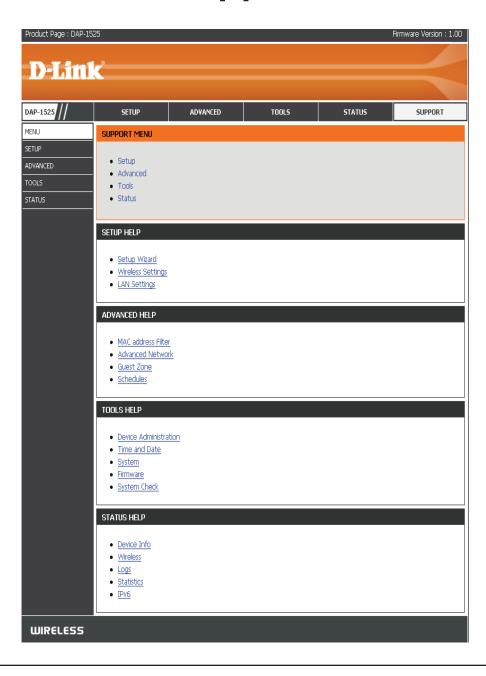
Server: server.

Secondary DNS Displays the IPv6 address of the secondary

Server: DNS server.



Support



Wireless Security

This section will show you the different levels of security you can use to protect your data from intruders. The DAP-1525 offers the following types of security:

• WEP (Wireless Security Basic)

WPA2(Wireless Security enhanced)

WPA (Wi-Fi Protected Access)

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.

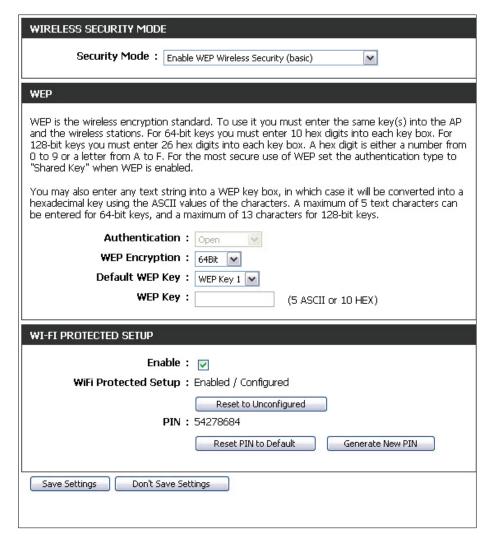
WPA-PSK/WPA2-PSK uses a passphrase or key to authenticate your wireless connection. The key is an alpha-numeric password between 8 and 63 characters long. The password can include symbols (!?*&_) and spaces. This key must be the exact same key entered on your wireless bridge or access point.

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 WEP (AP Mode)

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.

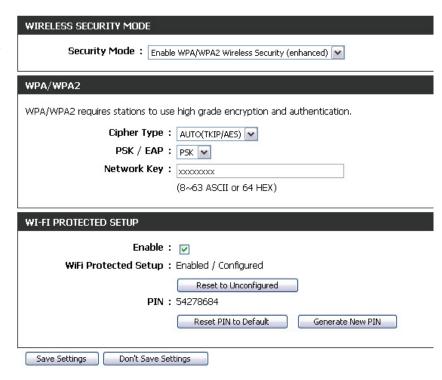
- 1. Log into the web-based configuration by opening a web browser and entering the IP address of the access point (192.168.0.50). Click **Setup** and then **Wireless Settings** on the left side.
- 2. Select **Enable WEP Wireless Security (basic)** in the Security Mode drop-down menu in the **Wireless Security Mode** section.
- 3. Next to **WEP Encryption** in the WEP section, select the level of encryption (64-bit or 128-bit). Hex (recommended) Letters A-F and numbers 0-9 are valid.
- 4. Next to Default WEP Key and the first selection in the drop-down menu, WEP Key 1. Enter a WEP key that you create in the WEP Key value and Verify WEP Key value fields. Make sure you enter this key exactly on all your wireless devices. You may enter up to 4 different keys using the Default WEP Key drop-down menu.
- 5. Select **Open** or **Shared Key** from the Authentication drop-down menu.
- 6. Click **Save Settings** to save your settings. If you are configuring the access point with a wireless adapter, you will lose connectivity until you enable WEP on your adapter and enter the same WEP key as you did on the access point.



Configure WPA-Personal (AP Mode)

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. Select **Enable WPA/WPA2 Wireless Security (enhanced)** from the Security Mode drop-down menu.
- 3. Select **Auto(TKIP/AES), TKIP, or AES** from the **Cipher Type** dropdown menu. If you have wireless clients that use both types, use **TKIP/AES**.
- 5. Select either **PSK or EAP** from the drop-down menu.
- 6. Enter your Network key in the **Network Key** section. The key is entered as a pass-phrase in either ASCII or HEX format. If using ASCII format the pass-phrase must be between 8-63 characters. If using HEX format the pass-phrase must be 64 characters. The ASCII or HEX pass-phrase must be the same at both ends of the wireless connection.
- 7. Click on **Enable** to enable the Wi-Fi Protected Setup.
- 8. Click **Save Settings** at the top of the window to save your settings.



Configure WPA-Enterprise (AP Mode)

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 bridge (192.168.0.50). Click on **Setup** and then click **Wireless Settings** on the left side.
- 2. Next to Security Mode in the Wireless Security Mode section, select **Enable WPA/WPA2 Wireless Security.**
- 3. Select **Auto(TKIP/AES), TKIP, or AES** from the Cipher Type drop-down menu. If you have wireless clients that use both types, use TKIP/AES.
- 4. Select EAP from the PSK / EAP drop-down menu
- 5. Enter the IP Address of your RADIUS server in the RADIUS Server IP Address field.
- 6. Enter the port you are using with your RADIUS server in the **Port** field.
- 7. Enter the security key in the **Shared Secret** field.
- 8. 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 on your adapter and enter the same passphrase as you did on the access point.



Configure WEP (Bridge Mode)

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 **Setup** and then **Wireless Settings** on the left side.
- 2. Select **Enable WEP Wireless Security (basic)** in the Security Mode drop-down menu in the Wireless Security Mode section.
- 3. Next to **WEP Encryption** in the WEP section, select the level of encryption (64-bit or 128-bit). Hex (recommended) Letters A-F and numbers 0-9 are valid.
- 4. Next to **Default WEP** Key and the first selection in the dropdown menu, WEP Key 1. Enter a WEP key that you create in the WEP Key value and Verify WEP Key value fields. Make sure you enter this key exactly on all your wireless devices. You may enter up to 4 different keys using the Default WEP Key drop-down menu.
- 5. Select **Open or Shared Key** from the Authentication drop-down menu.
- 6. Click **Save Settings** to save your settings. If you are configuring the access point with a wireless adapter, you will lose connectivity until you enable WEP on your adapter and enter the same WEP key as you did on the access point.

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

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

Authentication:

Open

WEP Encryption: 64Bit

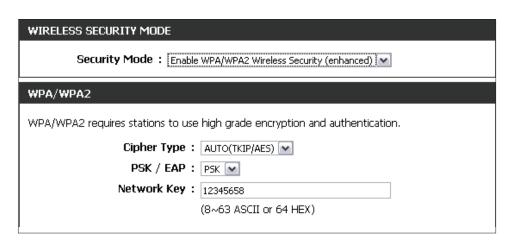
WEP Key: WEP Key 1

WEP Key: (5 ASCII or 10 HEX)

Configure WPA-Personal (Bridge Mode)

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 **Setup** and then **Wireless Settings** on the left side.
- 2. Select **Enable WPA/WPA2 Wireless Security (enhanced)** from the **Security Mode** drop-down menu.
- 3. Select **TKIP**, or **AES** from the **Cipher Type** drop-down menu.
- 4. Select **PSK** from the **PSK / EAP** drop-down menu.
- 5. Enter a key (passphrase) in the **Network Key** field. The key is entered as a pass-phrase in either ASCII or HEX format. If using ASCII format the pass-phrase must be between 8-63 characters. If using HEX format the pass-phrase must be 64 characters. The ASCII or HEX pass-phrase must be the same at both ends of the wireless connection.
- 6. Click **Save Settings** 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.



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).



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

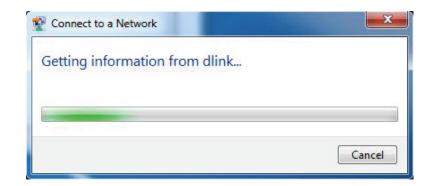


3. Highlight the wireless network (SSID) you would like to connect to and click the **Connect** button.

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.



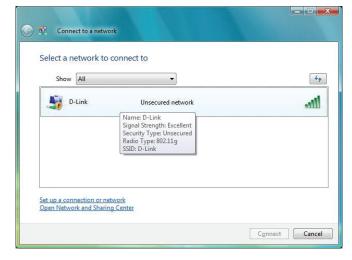
Connect to a Wireless Network Using Windows Vista®

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.

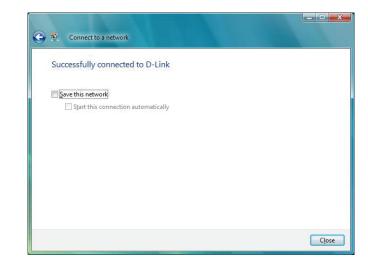
The utility will display the following window to indicate a connection is being made.

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.

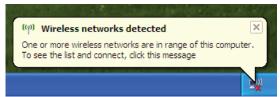
If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

or

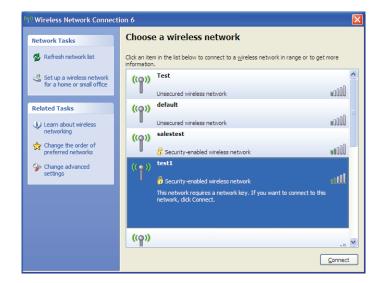
Right-click on the wireless computer icon in your system tray (lower-right corner next to the time). Select **View Available Wireless Networks**.

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.







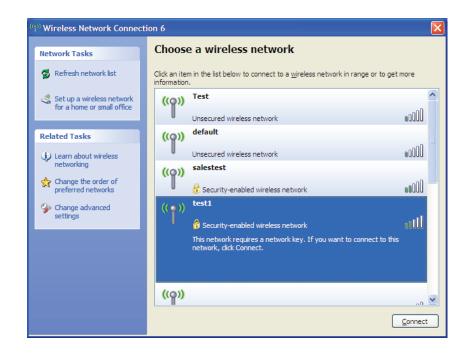
Configure Security

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-1525. 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.

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

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

Note: AOL DSL+ users must use MTU of 1400.

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

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

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

Example: ping yahoo.com -f -l 1472

You should start at 1472 and work your way down by 10 each time.

```
C:\>ping yahoo.com -f -1 1482
Pinging yahoo.com [66.94.234.13] with 1482 bytes of data:
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
 Packet needs to be fragmented but DF set.
 Packet needs to be fragmented but DF set.
Ping statistics for 66.94.234.13:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss)
Approximate round trip times in milli-seconds:
     Minimum = Oms, Maximum = Oms, Average =
C:∖>ping yahoo.com -f -l 1472
Pinging yahoo.com [66.94.234.13] with 1472 bytes of data:
Reply from 66.94.234.13: bytes=1472 time=93ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=109ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=203ms
Ping statistics for 66.94.234.13:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli—seconds:
     Minimum = 93ms, Maximum =
                                      203ms, Average =
c:\>
```

Section 6 - Troubleshooting

Once you get a reply, go up by 2 until you get a fragmented packet. Take that value and add 28 to the value to account for the various TCP/IP headers. For example, lets say that 1452 was the proper value, the actual MTU size would be 1480, which is the optimum for the network we're working with (1452+28=1480).

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

To change the MTU rate on your access point follow the steps below:

- Open your browser, enter the IP address of your access point (192.168.0.50) and click OK.
- Enter your username (admin) and password (blank by default). Click **OK** to enter the web configuration page for the device.
- Click on **Setup** and then click **Manual Configure**.
- To change the MTU enter the number in the MTU field and click **Save Settings** to save your settings.
- Test your email. If changing the MTU does not resolve the problem, continue changing the MTU in increments of ten.

Wireless Basics

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

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

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

Under many circumstances, it may be desirable for mobile network devices to link to a conventional Ethernet LAN in order to use servers, printers or an Internet connection supplied through the wired LAN. A Wireless 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 as become so popular in recent years that almost everyone is using it, whether it's for home, office, business, D-Link has a wireless solution for it.

Home

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

Small Office and Home Office

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

Where is wireless used?

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

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

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

Tips

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

Centralize your 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.

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

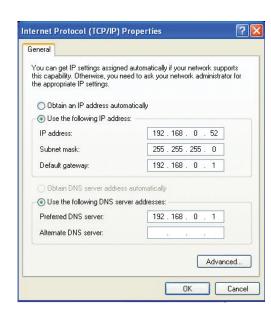
Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your router.

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
- IEEE 802.3ab

Security

- WPA-Personal
- WPA2-Personal
- WPA-Enterprise
- WPA2-Enterprise

Wireless Signal Rates¹

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

Modulation

- 11a/g: BPSK, QPSK, 16QAM, 64QAM, OFDM
- 11n: BPSK, QPSK, 16QAM, 64QAM, OFDM, MCS

Frequency Range²

• 2.4GHz to 2.483GHz • 5.15GHz~5.825GHz³

LEDs

PowerWPSAP

Operating Temperature

• 32°F to 104°F (0°C to 40°C)

Humidity

• 90% maximum (non-condensing)

Safety & Emissions

- •FCC •CE
- IC C-Tick

Dimensions

- L = 4.53 inches
- W = 3.74 inches
- H = 7.5 inches

¹Maximum 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.

²Range varies depending on country's regulation.

³The DAP-1525 doesn't include 5.25-5.35GHz & 5.47~5.725GHz.

Federal Communication Commission Interference Statement

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

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

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

FCC Caution:

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

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

For operation within $5.15 \sim 5.25 \, \text{GHz} / 5.47 \sim 5.725 \, \text{GHz}$ frequency range, it is restricted to indoor environment. The band from $5600-5650 \, \text{MHz}$ will be disabled by the software during the manufacturing and cannot be changed by the end user. This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.

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.96 D-Link

Industry Canada Statement

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

Caution:

- (i) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
- (ii) the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall comply with the e.i.r.p. limit; and
- (iii) the maximum antenna gain permitted for devices in the band 5725-5825 MHz shall comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate.
- (iv) Users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

Radiation Exposure Statement:

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

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

Avertissement:

Le guide d'utilisation des dispositifs pour réseaux locaux doit inclure des instructions précises sur les restrictions susmentionnées, notamment :

- (i) les dispositifs fonctionnant dans la bande 5 150-5 250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;
- (ii) le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5250-5350 MHz et 5470-5725 MHz doit se conformer à la limite de p.i.r.e.;
- (iii) le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5 725-5 825 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas. Appendix E Warranty
- (iv) De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs

principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250-5350 MHz et 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

Déclaration d'exposition aux radiations:

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

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。

在5.25-5.35秭赫(GHz)頻帶內操作之無線資訊傳輸設備,限於室內使用。