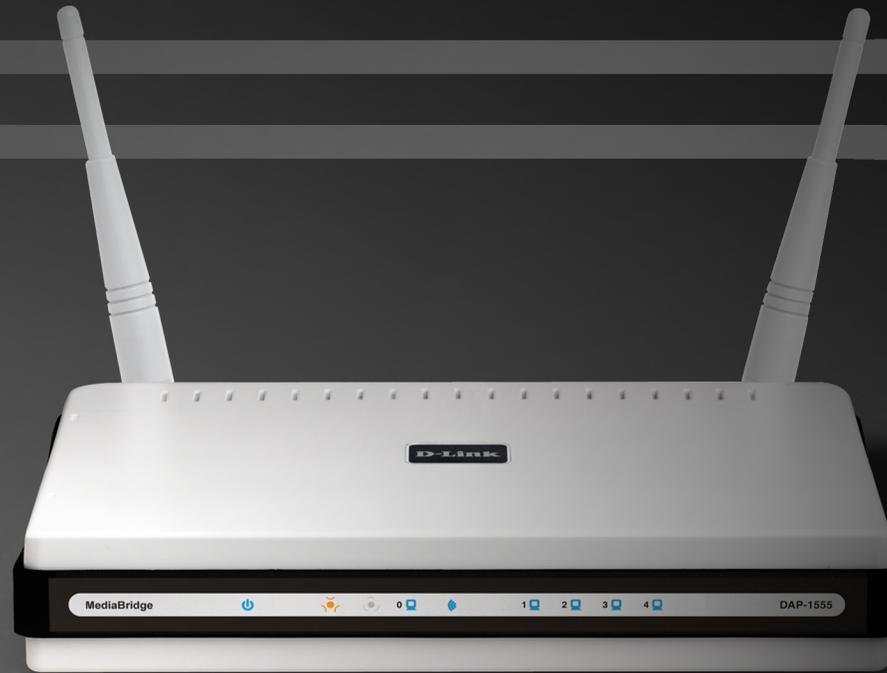


USER MANUAL

DAP-1555

VERSION 1.0



D-Link[®]

WIRELESS

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Package Contents

- D-Link DAP-1555 Wireless N Dualband MediaBridge
- 2 Detachable Antennas
- Power Adapter
- CAT5 Ethernet Cable
- Mounting Kit
- Rubber Feet
- CD-ROM with Installation Wizard, User Manual, and Special Offers

Note: Using a power supply with a different voltage rating than the one included with the DAP-1555 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, Mozilla 1.7.12 (5.0), or Firefox 1.5 and above (for configuration)

Introduction

TOTAL PERFORMANCE

Combines award winning access point features and Draft 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 Xtreme N™ MediaBridge (DAP-1555) is a draft 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 Xtreme N™ MediaBridge to router and share your high-speed Internet access with everyone on the network. In addition, this MediaBridge 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 Xtreme N™ technology, this high performance MediaBridge provides superior Whole Home Coverage while reducing dead spots. The Xtreme N™ MediaBridge is designed for use in bigger homes and for users who demand higher performance networking. Add a Xtreme N™ notebook or desktop adapter and stay connected to your network from virtually anywhere in your home.

TOTAL NETWORK SECURITY

The Xtreme N™ 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 802.11g, 802.11a and Draft 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.

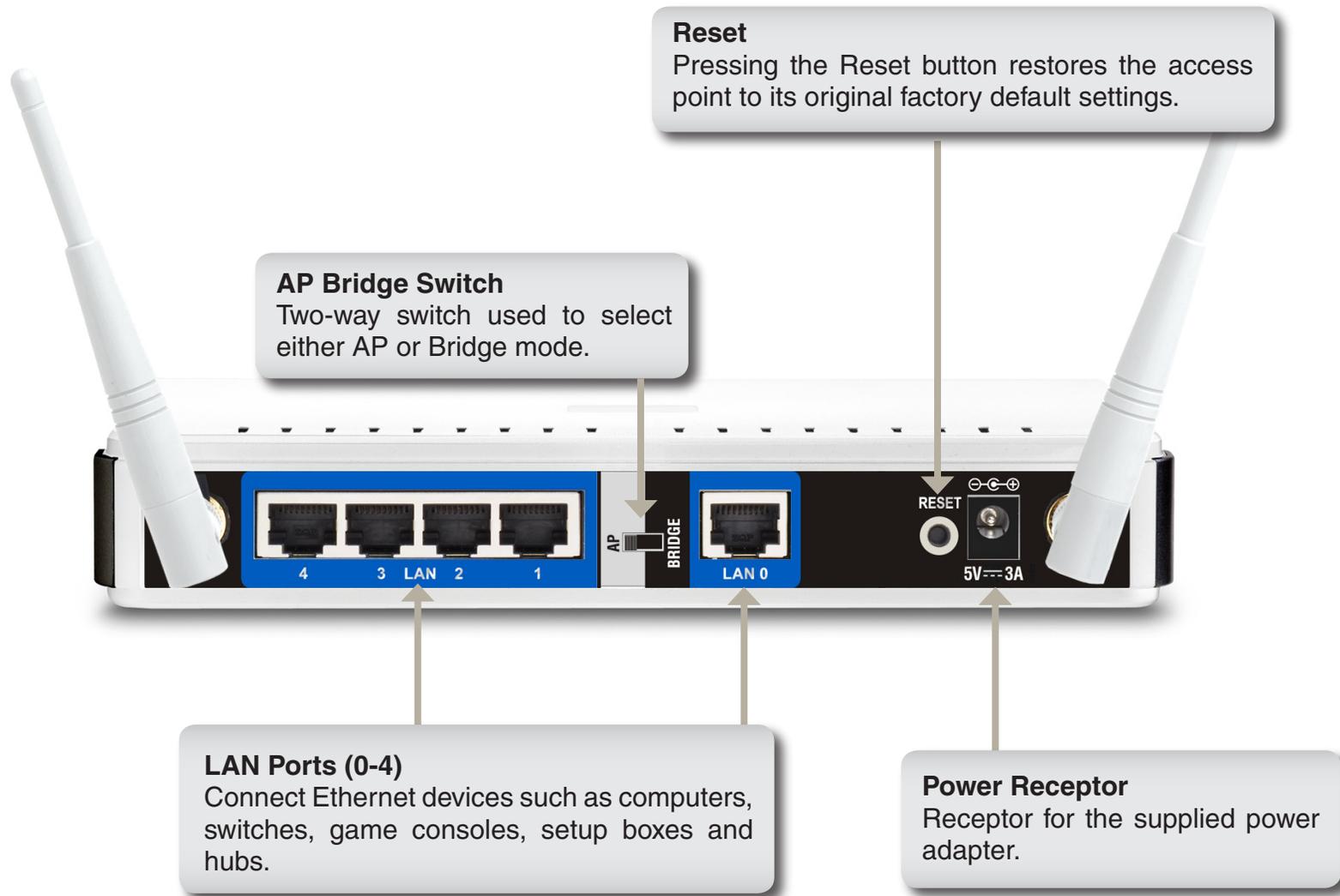
Features

- **Faster Wireless Networking** - The DAP-1555 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, 802.11b and 802.11g Devices** - The DAP-1555 is still fully compatible with the IEEE 802.11a/b/g standard, so it can connect with existing 802.11a/b/g PCI, USB and FireWire adapters.
- **Advanced Firewall Features** - The Web-based user interface displays advanced network management features including:
 - **Content Filtering** - Easily applied content filtering based on MAC Address.
- **User-friendly Setup Wizard** - Through its easy-to-use Web-based user interface, the DAP-1555 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.

* Maximum wireless signal rate derived from IEEE Standard 802.11g, 802.11a and Draft 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.

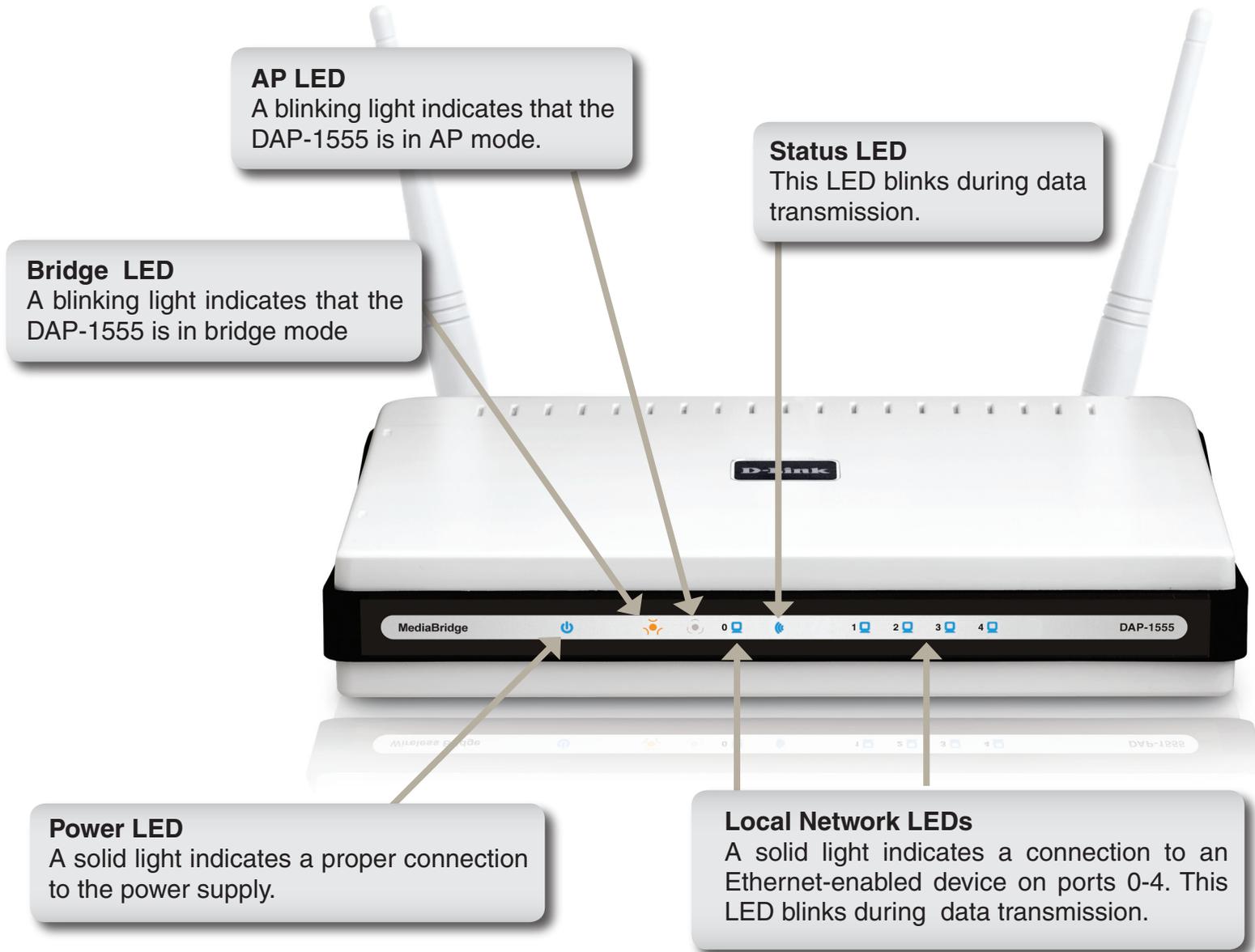
Hardware Overview

Connections



Hardware Overview

LEDs



Installation

This section will walk you through the installation process. Placement of the DAP-1555 is very important. Do not place the DAP-1555 in an enclosed area such as a closet, cabinet, or in the attic or garage.

Before you Begin

Please configure the MediaBridge 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 MediaBridge, then you must turn off your modem, disconnect the USB cable and connect an Ethernet cable to the Internet port on the MediaBridge, 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:

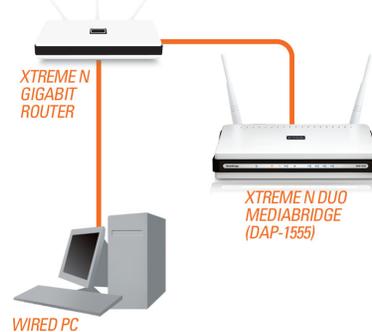
1. Keep the number of walls and ceilings between the D-Link access point and other network devices to a minimum - each wall or ceiling can reduce your adapter's range from 3-90 feet (1-30 meters.) Position your devices so that the number of walls or ceilings is minimized.
2. Be aware of the direct line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

Depending on how you want to use your DAP-1555 will determine which mode you use on the DAP-1555. This section will help you figure out which setting works with your setup.

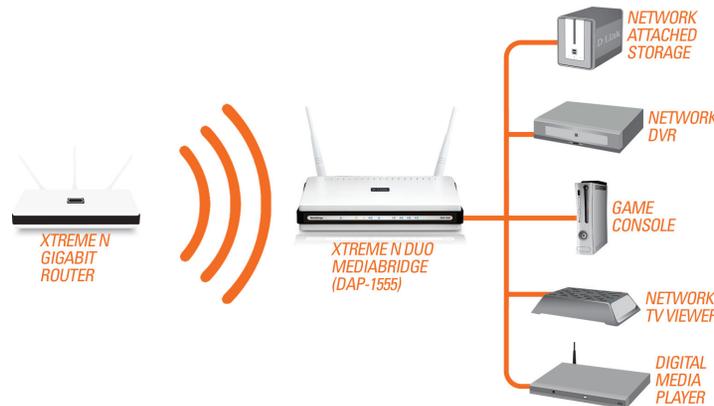
AP Mode

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-1555 to “AP”.



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-1555 to “BRIDGE”.



Create a Full MediaBand (5GHz wireless) Network

If you have two DAP-1555 devices and want to create a wireless network with full MediaBand technology you will need to connect one MediaBridge to your router and move the switch on the back panel to “AP”. The second MediaBridge 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”.

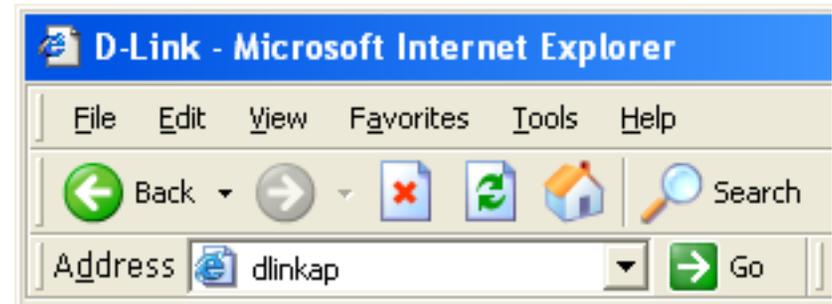


Configuration for AP Mode

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

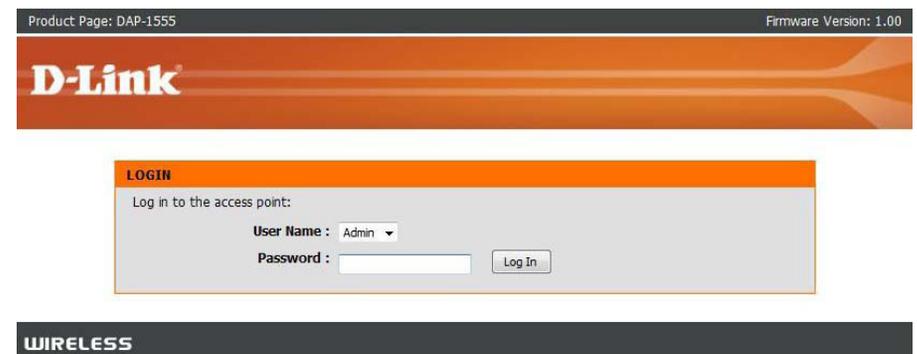
Web-based Configuration Utility

To access the configuration utility, open a web-browser such as Internet Explorer and enter the friendly address for AP mode (dlinkap).



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.

To setup your wireless network click **Add Wireless Device With WPS** and skip to page 22.

If you want to enter your settings without running the wizard, click **Manual Wireless Network Setup** and skip to page 24.

D-Link

DAP-1555 // SETUP ADVANCED MAINTENANCE STATUS HELP

WIRELESS SETTINGS

WIRELESS SETTINGS

The following Web-based wizards are designed to assist you in your wireless network setup and wireless device connection.
Before launching these wizards, please make sure you have followed all steps outlined in the Quick Installation Guide included in the package.

WIRELESS CONNECTION SETUP WIZARD

If you would like to utilize easy to use web-based wizard to assist you in connecting your DAP-1555 to the wireless network, click on the button below.

Launch Wireless Setup Wizard

Note: Some changes made using this setup wizard may require you to change some settings on your wireless client adapters so they can still connect to the D-Link Access Point.

MANUAL WIRELESS NETWORK SETUP

If your wireless network is already set up with Wi-Fi Protected Setup, manual configuration of the wireless network will destroy the existing wireless network. If you would like to configure the wireless settings of your new access point manually, then click on the Manual Wireless Network Setup button below.

Manual Wireless Network Setup

ADD WIRELESS DEVICE WITH WPS (WIFI PROTECTED SETUP) WIZARD

This wizard is designed to assist you in connecting your DAP-1555 to wireless network using WPS. It will guide you through step-by-step instructions on how to get your wireless device connected. Click the button below to begin.

Add Wireless Device With WPS

Helpful Hints...

If you already have a wireless network setup with Wi-Fi Protected Setup, click on **Add Wireless Device Wizard** to add new device to your wireless network.

If you are new to wireless networking and have never configured a wireless router before, click on **Wireless Network Setup Wizard** and the router will guide you through a few simple steps to get your wireless network up and running.

If you consider yourself an advanced user and have configured a wireless router before, click **Manual Wireless Network Setup** to input all the settings manually.

More...

WIRELESS

Wireless Setup Wizard

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

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.



SET YOUR DEVICE NAME

Enter the Device Name of the AP. Recommend to change the Device Name if there're more than one D-Link devices within the subnet. Click **Next** to continue.

Device Name (NetBIOS Name)

WIRELESS

If you want to change the admin account password, enter a new password and click **Next**.



SET YOUR NEW PASSWORD

You may change the **admin** account password by entering in a new password. Click **Next** to continue.

Password

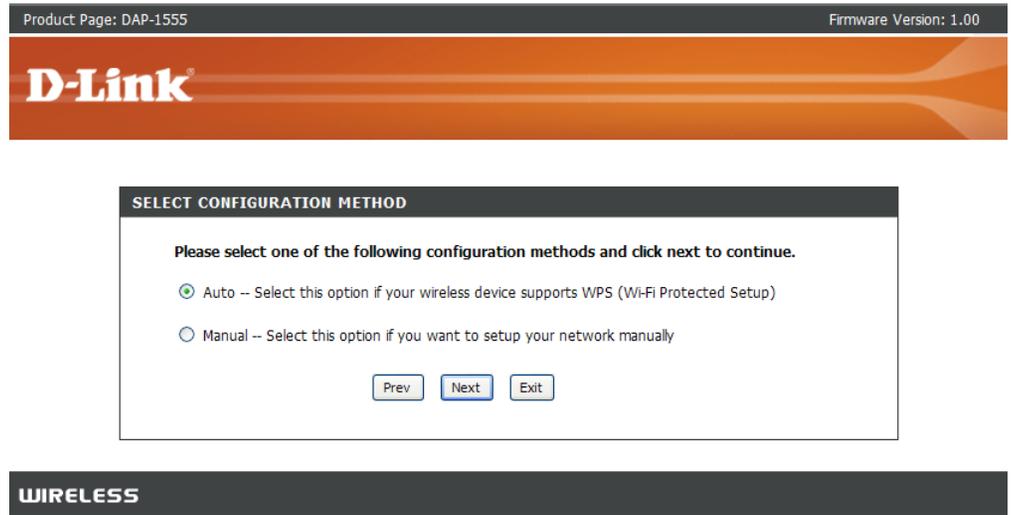
Verify Password

WIRELESS

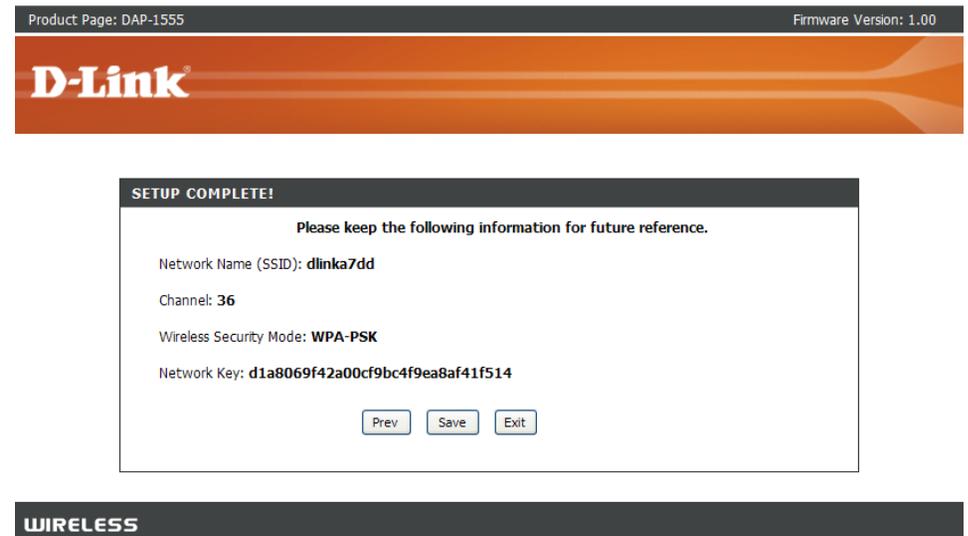
Select **Auto** as the configuration method only if your wireless device supports Wi-Fi Protected Setup.

Skip to page 17 for **Manual** configuration.

Click **Next** to continue.



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

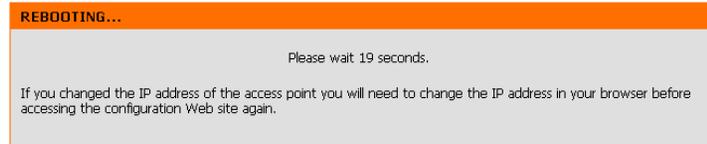


In order for your network settings to take effect you must reboot the access point by clicking **Reboot Now**.

Choose **Reboot Later** to make other changes and reboot later.

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

Click **Next** to continue.



Enter a network name and choose Automatically assign a network key.

To Manually assign a network key, skip to page 19.

Click **Next** to continue.



WELCOME TO THE D-LINK WIRELESS SETUP WIZARD

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

Network Name (SSID) :

Automatically assign a network key (Recommended)

To prevent outsiders from accessing your network, the AP will automatically assign a security key (also called WEP or WPA key) to your network.

Manually assign a network key

Use this option if your prefer to create your own key.

Use WPA encryption instead of WEP (WPA is stronger than WEP and all D-Link wireless client adapters support WPA).



If you choose WPA-PSK encryption, the following screen will show you your Network Key to enter on your wireless clients.

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



SETUP COMPLETE!

Please keep the following information for future reference.

Network Name (SSID): **dlink**

Channel: **36**

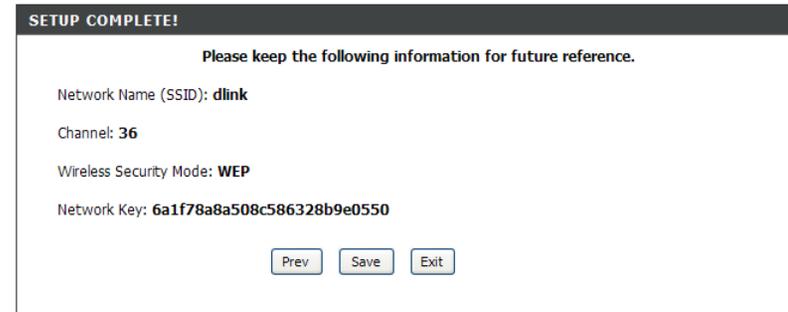
Wireless Security Mode: **WPA-PSK**

Network Key: **96325008af747165ec8522d6278c1b7e**



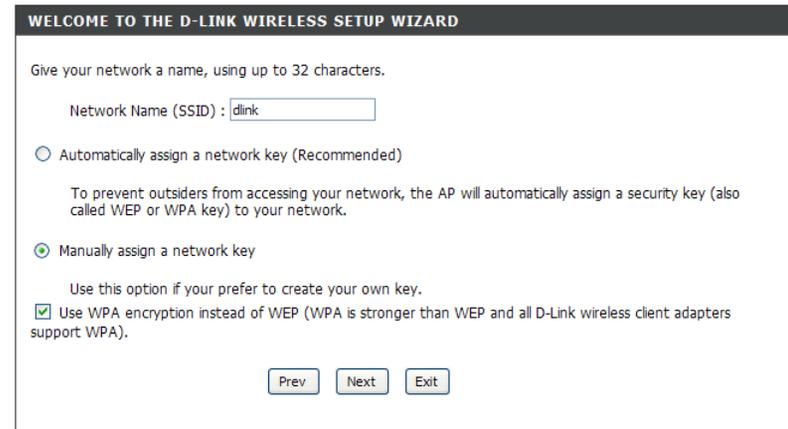
If you choose WEP encryption, the following screen will show you your Network Key to enter on your wireless clients.

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



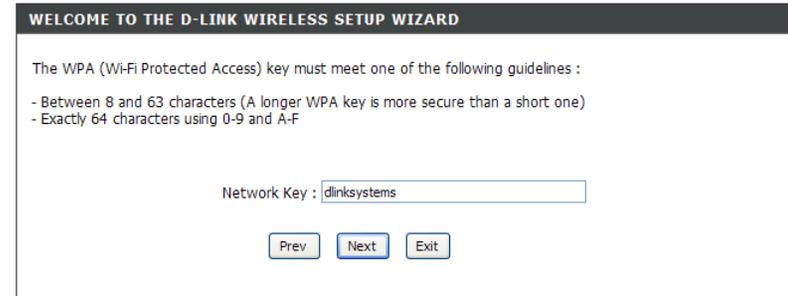
Choose **Manually assign a network key** to create your own key.

Click **Next** to continue.



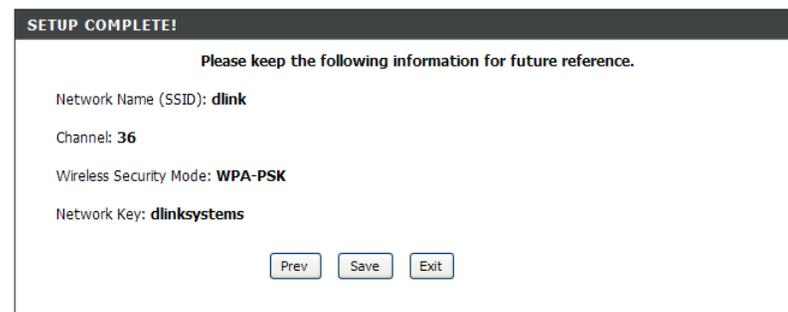
For **WPA** encryption, enter a Network Key between 8 and 63 characters long or enter exactly 64 characters using 0-9 and A-F.

Click **Next** to continue.



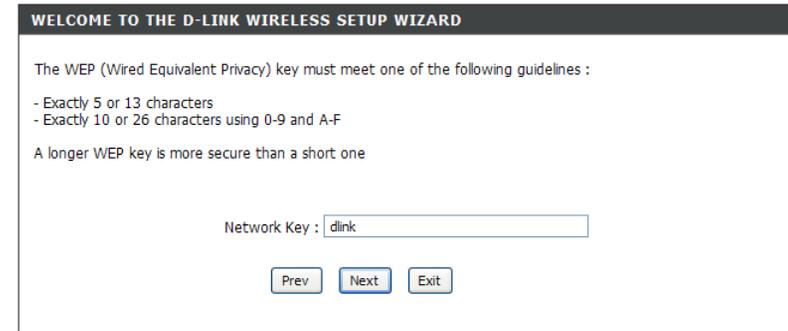
If you select **WPA** encryption, the following screen will show you your network key to enter on your wireless clients.

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



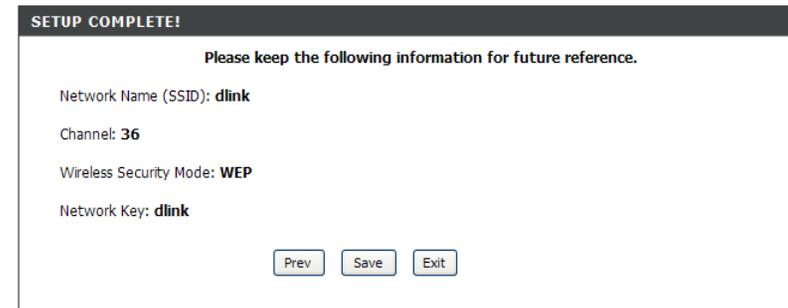
For **WEP** encryption, enter a Network Key exactly 5 or 13 characters long or exactly 10 or 26 characters using 0-9 and A-F.

Click **Next** to continue.



If you select **WEP** encryption, the following screen will show you your network key to enter on your wireless clients.

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



Add Wireless Device With WPS

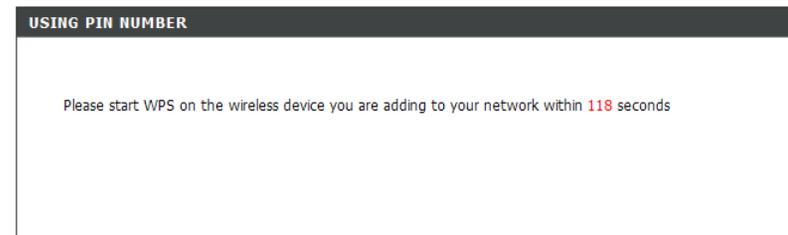
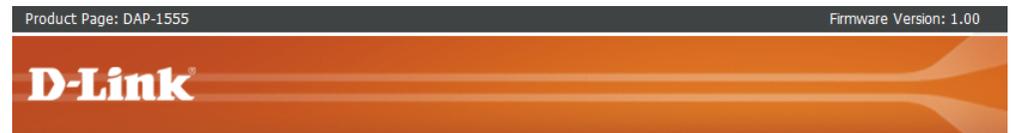
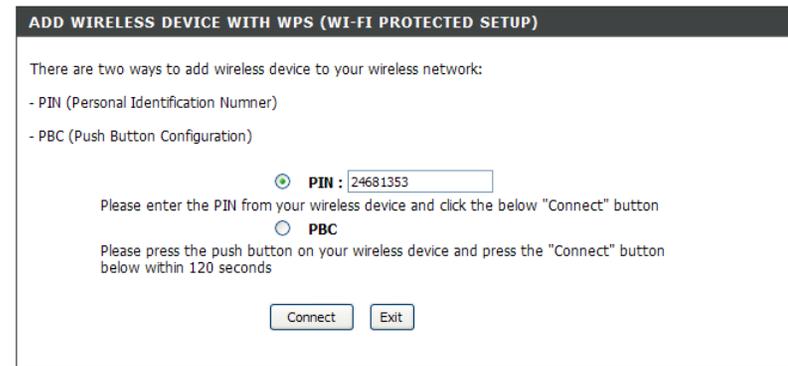
This Wizard is designed to assist you in your wireless network setup. It will guide you through step-by-step instructions on how to set up your wireless network and how to make it secure.

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

For **PBC** configuration, skip to page 23.

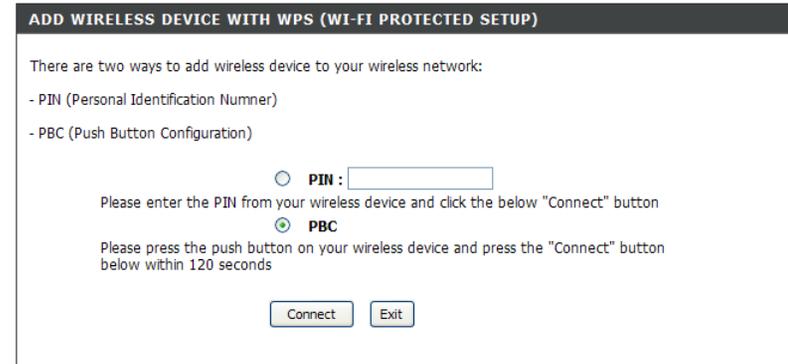
Click **Connect** to continue.

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

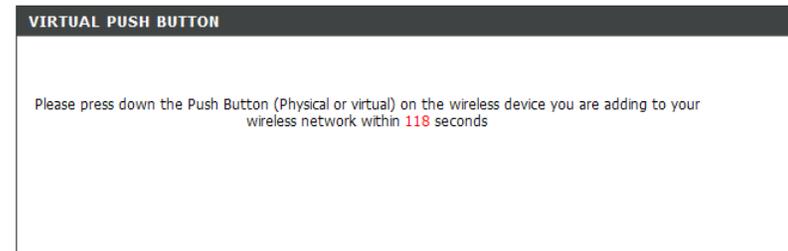


Select **PBC** to use the Push Button Configuration to connect to your network.

Click **Connect** to continue.



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



Manual Configuration

Wireless Settings

Wireless Mode: The current wireless mode is set to Access Point, it will create a wireless infrastructure network.

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

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

802.11 Band: Operating frequency band. Choose 2.4GHz for visibility to legacy devices and for longer range. Choose 5GHz for least interference.

802.11 Mode: If you choose 2.4GHz band, than select one of the following:

802.11b Only - Select if all of your wireless clients are 802.11b.

802.11g Only - Select if all of your wireless clients are 802.11g.

802.11n Only - Select only if all of your wireless clients are 802.11n.

Mixed 802.11g and 802.11b - Select if you are using both 802.11b and 802.11g wireless clients.

Mixed 802.11n and 802.11g - Select if you are using both 802.11n and 802.11g wireless clients.

Mixed 802.11n, 802.11b, and 802.11g - Select if you are using a mix of 802.11n, 11g, and 11b wireless clients. If you choose 5GHz band, then select either **802.11a only**, **802.11n only**, or **Mixed 802.11n and 802.11a**.

D-Link

DAP-1555 // SETUP ADVANCED MAINTENANCE STATUS HELP

WIRELESS SETTINGS
NETWORK SETTINGS

WIRELESS

Use this section to configure the wireless settings for your access point. Please note that changes made on this section may also need to be duplicated on your Wireless Client.

Save Settings Don't Save Settings

WIRELESS NETWORK SETTINGS

Wireless Mode : Access Point

Enable Wireless :

Wireless Network Name : dlink (Also called the SSID)

802.11 Band : 2.4GHz 5GHz

802.11 Mode : Mixed 802.11n and 802.11a

Enable Auto Channel Scan :

Wireless Channel : 5.180 GHz - CH 36

Transmission Rate : Best (automatic) (Mbit/s)

Channel Width : 20 MHz

Visibility Status : Visible Invisible

WIRELESS SECURITY MODE

Security Mode : Disable Wireless Security (not recommended)

WI-FI PROTECTED SETUP (ALSO CALLED WCN 2.0 IN WINDOWS VISTA)

Enable :

Lock Wireless Security Settings :

Current PIN : 48275590

Generate New PIN Reset PIN to Default

Wi-Fi Protected Status : Enabled / Not Configured

Reset to Unconfigured

WIRELESS

Helpful Hints...

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

Auto Channel Scan is set by default. It automatically finds the least loaded channel for interference-free communication.

Enabling Hidden Mode is another way to secure your network. With this option enabled, no wireless clients will be able to see your wireless network when they scan to see what's available. For your wireless devices to connect to your access point, you will need manually enter the Wireless Network Name on each device.

If you have enabled Wireless Security, make sure you write down the 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.

More...

Enable Auto Channel Scan: The Auto Channel Scan setting can be selected to allow the DAP-1555 to choose the channel with the least amount of interference.

Wireless Channel: Indicates the channel setting for the DAP-1555. By default the channel is set to 6 for 2.4GHz band. The Channel can be changed to fit the channel setting for an existing wireless network or to customize the wireless network. If you enable Auto Channel Scan, this option will be greyed out.

Transmission Rate: Select the transmit rate. It is strongly suggested to select **Best (Auto)** for best performance.

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

Visibility Status: Select **Invisible** if you do not want the SSID of your wireless network to be broadcasted by the DAP-1555. If Invisible is selected, the SSID of the DAP-1555 will not be seen by Site Survey utilities so your wireless clients will have to know the SSID of your DAP-1555 in order to connect to it.

Security Mode: Refer to page 65 for more information regarding the wireless security.

Enable: Enable the Wi-Fi Protected Setup feature.

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

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

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

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

Reset to Unconfigured: Resets Wi-Fi Protected Status to Not Configured. Vista WPS icon will only be displayed when the Wi-Fi Protected Status is Not Configured.

Network Settings

DHCP

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

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

The screenshot shows the D-Link web interface for the DAP-1555. The top navigation bar includes 'D-Link' and tabs for 'DAP-1555', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'DAP-1555' tab is selected, and the 'NETWORK SETTINGS' page is displayed. The page is divided into three main sections:

- NETWORK SETTINGS:** Contains instructions on configuring internal network settings and a DHCP server. It includes 'Save Settings' and 'Don't Save Settings' buttons.
- ACCESS POINT SETTINGS:** Contains instructions on configuring the internal network settings. The 'LAN Connection Type' is set to 'Dynamic IP (DHCP)'.
- DEVICE NAME (NETBIOS NAME):** Contains a text input field for the device name, which is currently set to 'dlinkap'.

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

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 Access point will not accept the IP address if it is not in this format.

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

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

Default Gateway: Enter the Gateway assigned by your ISP.

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.

D-Link

DAP-1555 //

WIRELESS SETTINGS

NETWORK SETTINGS

NETWORK SETTINGS

Use this section to configure the internal network settings of your access point 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

ACCESS POINT SETTINGS

Use this section to configure the internal network settings of your access point. 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.

LAN Connection Type : Static IP

Access Point IP Address: 192.168.0.50

Subnet Mask: 255.255.255.0

Default Gateway: 0.0.0.0

DEVICE NAME (NETBIOS NAME)

Device Name: dlinkap

Helpful Hints...

Also referred as private settings; LAN settings allow you to configure LAN interface of DAP-1555. LAN IP address is private to your internal network and is not visible to internet. The default IP address is 192.168.0.50 with subnet mask as 255.255.255.0.

LAN Connection-The factory default setting is "Dynamic IP (DHCP)" to allow the DHCP host to automatically assign the Access Point an IP address that conforms to the applied local area network. Enable "Static IP" to allow the IP Address of the DAP-1555.

WIRELESS

Advanced MAC Address Filter

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

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

D-Link

DAP-1555 // SETUP ADVANCED MAINTENANCE STATUS HELP

MAC ADDRESS FILTER

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

Save Settings Don't Save Settings

MAC FILTERING SETUP

Configure MAC Filtering below:
Turn MAC Filtering OFF

Helpful Hints...

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

Computers that have obtained an IP address from the access point's DHCP server will be the DHCP Client. Select a device from the drop-down menu, then click the arrow to add that device's MAC address to the list.

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

[More...](#)

WIRELESS

Advanced Wireless

Transmit Power: Set the transmit power of the antennas.

Beacon Period: Beacons are packets sent by an Access Point to synchronize a wireless network. Specify a value. 100 is the default setting and is recommended.

RTS Threshold: This value should remain at its default setting of 2346. If inconsistent data flow is a problem, only a minor modification should be made.

Fragmentation Threshold: The fragmentation threshold, which is specified in bytes, determines whether packets will be fragmented. Packets exceeding the 2346 byte setting will be fragmented before transmission. 2346 is the default setting.

DTIM Interval: (Delivery Traffic Indication Message) 1 is the default setting. A DTIM is a countdown informing clients of the next window for listening to broadcast and multicast messages.

802.11d Enable*: This enables 802.11d operation. 802.11d is a wireless specification developed to allow implementation of wireless networks in countries that cannot use the 802.11 standard. This feature should only be enabled if you are in a country that requires it.

L2 Isolation: Enabling L2 (Layer 2) Isolation prevents associated wireless clients from communicating with each other.

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

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

The screenshot shows the D-Link DAP-1555 configuration interface. The 'ADVANCED WIRELESS' tab is selected. The settings are as follows:

Setting	Value	Range
Transmit Power	High	
Beacon Period	100	(20..1000)
RTS Threshold	2346	(0..2347)
Fragmentation Threshold	2346	(256..2346)
DTIM Interval	1	(1..255)
802.11d Enable	<input type="checkbox"/>	
L2 Isolation	<input type="checkbox"/>	
WMM Enable	<input checked="" type="checkbox"/>	
Short GI	<input checked="" type="checkbox"/>	

Helpful Hints... It is recommended that you leave these parameters at their default values. Adjusting them could limit the performance of your wireless network. Use 802.11d only for countries where it is required. Enabling WMM can help control latency and jitter when transmitting multimedia content over a wireless connection. More...

***Note:** Transmit power is regulated by international standards and users are forbidden to change its maximum limit. Regarding the frequency of 802.11d, every country limits the frequency range used within its territory. Consumers are only allowed to purchase products that operates with the country regulated frequency.

WISH

WISH is short for Wireless Intelligent Stream Handling, a technology developed to enhance your experience of using a wireless network by prioritizing the traffic of different applications.

Enable WISH: Enable this option if you want to allow WISH to prioritize your traffic.

HTTP: Allows the access point to recognize HTTP transfers for many common audio and video streams and prioritize them above other traffic. Such streams are frequently used by digital media players.

Windows Media Center: Enables the access point to recognize certain audio and video streams generated by a Windows Media Center PC and to prioritize these above other traffic. Such streams are used by systems known as Windows Media Extenders, such as the Xbox 360.

Automatic: When enabled, this option allows the access point to automatically attempt to prioritize traffic streams that it doesn't otherwise recognize, based on the behavior that the streams exhibit. This acts to de-prioritize streams that exhibit bulk transfer characteristics, such as file transfers, while leaving interactive traffic, such as gaming or VoIP, running at a normal priority.

WISH Rule: A WISH Rule identifies a specific message flow and assigns a priority to that flow. For most applications, the priority classifiers ensure the right priorities and specific WISH Rules are not required. WISH supports overlaps between rules. If more than one rule matches for a specific message flow, the rule with the highest priority will be used.

D-Link

DAP-1555 // SETUP ADVANCED MAINTENANCE STATUS HELP

MAC ADDRESS FILTER

ADVANCED WIRELESS

WISH

WISH

WISH (Wireless Intelligent Stream Handling) prioritizes the traffic of various wireless applications.

Save Settings Don't Save Settings

WISH

Enable WISH :

PRIORITY CLASSIFIERS

HTTP :

Windows Media Center :

Automatic : (default if not matched by anything else)

ADD WISH RULE

Enable:

Name:

Priority: Background (BK)

Protocol: Other

Host 1 IP Range: -

Host 1 Port Range: -

Host 2 IP Range: -

Host 2 Port Range: -

Add Clear

WISH RULES

Name	Priority	Host 1 IP Range	Host 2 IP Range	Protocol / Ports

WIRELESS

Helpful Hints...

Enable this option if you want to allow WISH to prioritize wireless traffic.

For most applications, the priority classifiers ensure the right priorities, and specific WISH Rules are not required.

[More...](#)

Enable: Enable this option if you want to allow WISH to prioritize your traffic.

Name: Create a name for the rule that is meaningful to you.

Priority: The priority of the message flow is entered here. The four priorities are defined as:

BK: Background (least urgent)

BE: Best Effort

VI: Video

VO: Voice (most urgent)

Protocol: The protocol used by the messages.

Host 1 IP Range: The rule applies to a flow of messages for which one computer's IP address falls within the range set here.

Host 1 Port Range: The rule applies to a flow of messages for which host 1's port number is within the range set here.

Host 2 IP Range: The rule applies to a flow of messages for which the other computer's IP address falls within the range set here.

Host 2 Port Range: The rule applies to a flow of messages for which host 2's port number is within the range set here.

WISH Rules: This section is where you define WISH Rules. Enable or disable defined rules with the check boxes at the left.

Tools

Admin

This page will allow you to change the Administrator and User passwords. You can also enable Remote Management. There are two accounts that can access the management interface through the web browser. The accounts are admin and user. Admin has read/write access while user has read-only access. User can only view the settings but cannot make any changes. Only the admin account has the ability to change both admin and user account passwords.

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

User Password: Enter the new password for the User login. If you login as the User, you can only see the settings, but cannot change them.

The screenshot shows the D-Link web interface for the DAP-1555 device. The top navigation bar includes 'D-Link', 'DAP-1555', and tabs for 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar lists 'ADMIN', 'TIME', 'SYSTEM', and 'FIRMWARE'. The main content area is titled 'ADMINISTRATOR SETTINGS' and contains the following text: 'The 'admin' and 'user' accounts can access the management interface. The admin has read/write access and can change passwords, while the user has read-only access. By default there is no password configured. It is highly recommended that you create a password to keep your access point secure.' Below this text are two buttons: 'Save Settings' and 'Don't Save Settings'. The 'ADMIN PASSWORD' section prompts the user to 'Please enter the same password into both boxes, for confirmation.' and provides two input fields for 'Password' and 'Verify Password'. The 'USER PASSWORD' section also prompts the user to 'Please enter the same password into both boxes, for confirmation.' and provides two input fields for 'Password' and 'Verify Password'. On the right side, there is a 'Helpful Hints...' section with text: 'For security reasons, it is recommended that you change the password for the Admin and User accounts. Be sure to write down the new and passwords to avoid having to reset the access point in case they are forgotten.' and a 'More...' link. The bottom of the interface features a 'WIRELESS' tab.

Time

The Time Configuration option allows you to configure, update, and maintain the correct time on the internal system clock. From this section you can set the time zone that you are in and set the Time Server. 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, select enabled or disabled, and enter a start date and an end date for daylight saving time.

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

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

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 **Copy Your Computer's Time Settings**.

D-Link

DAP-1555 // SETUP ADVANCED MAINTENANCE STATUS HELP

ADMIN
TIME
SYSTEM
FIRMWARE

TIME

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

Save Settings Don't Save Settings

TIME CONFIGURATION

Current Time : Saturday, January 31, 2004 11:25:38 AM

Time Zone : (GMT-08:00) Pacific Time (US/Canada), Tijuana

Enable Daylight Saving :

Daylight Saving Offset : +1:00

Daylight Saving Dates :

	Month	Week	Day of Week	Time
DST Start	Apr	1st	Sun	2 am
DST End	Oct	5th	Sun	2 am

AUTOMATIC TIME CONFIGURATION

Enable NTP Server :

NTP Server Used : << Select NTP Server

SET THE DATE AND TIME MANUALLY

Date And Time : Year 2004 Month Jan Day 31

Hour 11 Minute 25 Second 31 AM

Copy Your Computer's Time Settings

WIRELESS

Helpful Hints...
Good timekeeping is important for accurate logs and scheduled firewall rules.
More...

System

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

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

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

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

Reboot Device: Click to reboot the access point.

The screenshot shows the D-Link web interface for a DAP-1555 device. The top navigation bar includes tabs for ADMIN, TIME, SYSTEM, and FIRMWARE. The main content area is titled 'SYSTEM SETTINGS' and contains the following sections:

- Save To Local Hard Drive:** A button labeled 'Save Configuration'.
- Load From Local Hard Drive:** A text input field followed by a 'Browse...' button and a 'Restore Configuration from File' button.
- Restore To Factory Default:** A button labeled 'Restore Factory Defaults' with the text 'Restore all settings to the factory defaults.' below it.
- Reboot The Device:** A button labeled 'Reboot the Device'.

On the right side, there is a 'Helpful Hints...' section with text explaining that saving the configuration allows for restoration of settings if needed, and a 'More...' link.

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.

The screenshot displays the D-Link web interface for the DAP-1555 access point. The top navigation bar includes 'DAP-1555', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'MAINTENANCE' tab is selected, and the 'FIRMWARE' sub-tab is active. The main content area is divided into three sections: 'FIRMWARE INFORMATION' showing 'Current Firmware Version : 1.0' and 'Current Firmware Date : 16 Aug 2007'; 'FIRMWARE UPGRADE' with a red note stating 'Some firmware upgrades reset the configuration options to the factory defaults. Before performing an upgrade, be sure to save the current configuration from the Maintenance -> Admin screen.' and instructions to connect via a wired PC; and an 'Upload' section with a file name input field, a 'Browse...' button, and an 'Upload' button. A sidebar on the right contains 'Helpful Hints...' and 'More...'. The bottom of the page features a 'WIRELESS' logo.

Status

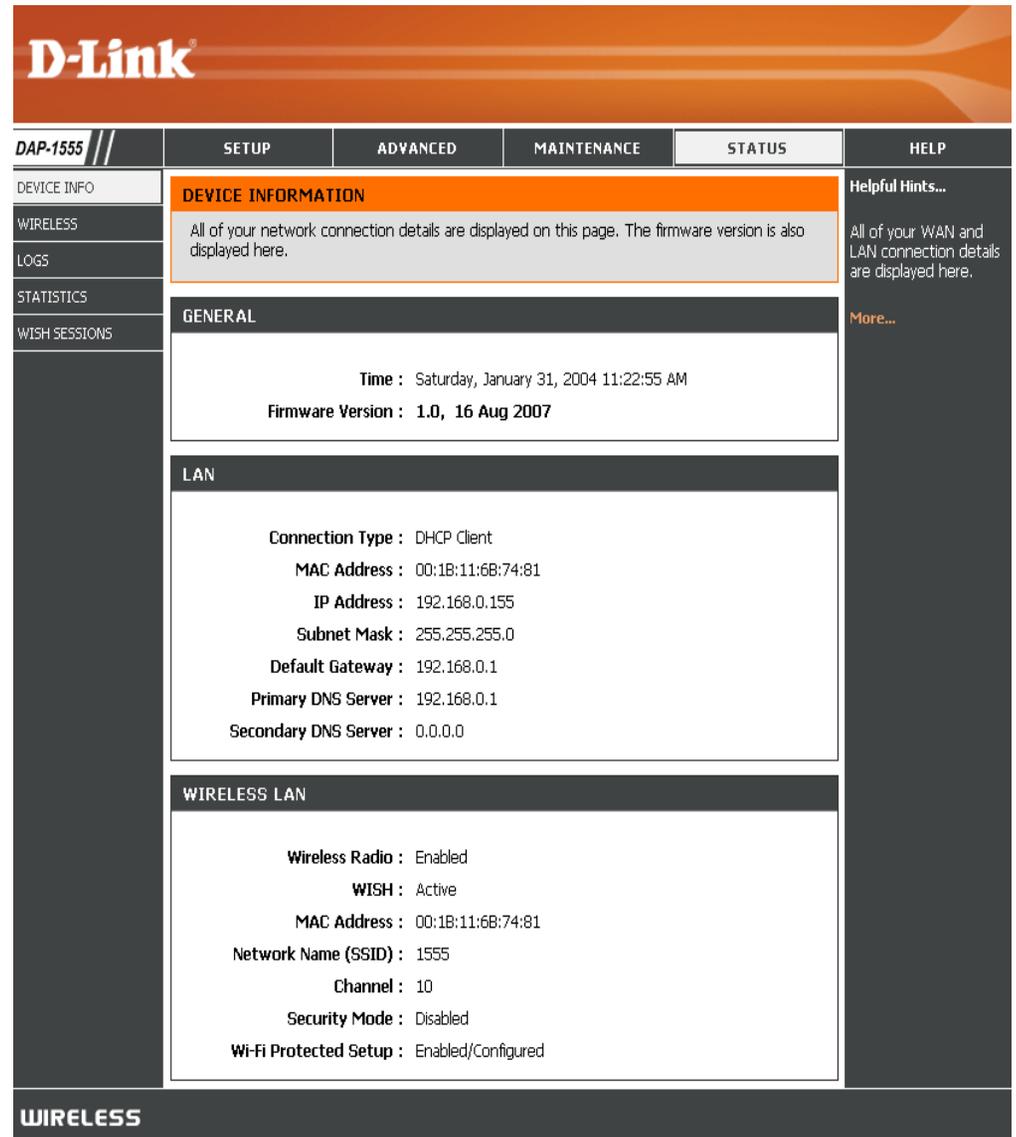
Device Info

This page displays the current information for the DAP-1555. It will display the LAN and Wireless information.

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

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

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



The screenshot shows the D-Link web interface for the DAP-1555. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS (selected), and HELP. The left sidebar contains links for DEVICE INFO, WIRELESS, LOGS, STATISTICS, and WISH SESSIONS. The main content area is titled 'DEVICE INFORMATION' and is divided into three sections: GENERAL, LAN, and WIRELESS LAN. The GENERAL section shows the time as Saturday, January 31, 2004 11:22:55 AM and the firmware version as 1.0, 16 Aug 2007. The LAN section shows the connection type as DHCP Client, MAC Address as 00:1B:11:68:74:81, IP Address as 192.168.0.155, Subnet Mask as 255.255.255.0, Default Gateway as 192.168.0.1, Primary DNS Server as 192.168.0.1, and Secondary DNS Server as 0.0.0.0. The WIRELESS LAN section shows the wireless radio as Enabled, WISH as Active, MAC Address as 00:1B:11:68:74:81, Network Name (SSID) as 1555, Channel as 10, Security Mode as Disabled, and Wi-Fi Protected Setup as Enabled/Configured. A 'Helpful Hints...' section on the right side of the main content area provides additional information about WAN and LAN connection details.

D-Link	
DAP-1555	SETUP ADVANCED MAINTENANCE STATUS HELP
DEVICE INFO	DEVICE INFORMATION
WIRELESS	All of your network connection details are displayed on this page. The firmware version is also displayed here.
LOGS	
STATISTICS	GENERAL
WISH SESSIONS	Time : Saturday, January 31, 2004 11:22:55 AM Firmware Version : 1.0, 16 Aug 2007
	LAN
	Connection Type : DHCP Client MAC Address : 00:1B:11:68:74:81 IP Address : 192.168.0.155 Subnet Mask : 255.255.255.0 Default Gateway : 192.168.0.1 Primary DNS Server : 192.168.0.1 Secondary DNS Server : 0.0.0.0
	WIRELESS LAN
	Wireless Radio : Enabled WISH : Active MAC Address : 00:1B:11:68:74:81 Network Name (SSID) : 1555 Channel : 10 Security Mode : Disabled Wi-Fi Protected Setup : Enabled/Configured
	WIRELESS

Wireless

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

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

IP Address: The LAN-side IP address of the client.

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

Rate: Displays the actual transmission rate of the client in megabits per second.

Signal: 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.

The screenshot displays the D-Link web interface for the DAP-1555. The top navigation bar includes 'DAP-1555 //', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar lists 'DEVICE INFO', 'WIRELESS', 'LOGS', 'STATISTICS', and 'WISH SESSIONS'. The main content area is titled 'WIRELESS' and contains the text: 'View the wireless clients that are connected to your access point.' Below this, it states 'NUMBER OF WIRELESS CLIENTS : 0'. A table with the following headers is visible: 'MAC Address', 'IP Address', 'Mode', 'Rate', and 'Signal (%)'. On the right side, there is a 'Helpful Hints...' section with the text: 'This is a list of all wireless clients that are currently connected to your access point.' and a 'More...' link. The bottom of the interface has a 'WIRELESS' label.

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

View Levels: There are three levels of message importance: Informational, Warning, and Critical. Select the levels that you want displayed in the log.

Apply Log Settings: Will filter the log results so that only the selected options appear.

Refresh: Updates the log details on the screen so it displays any recent activity.

Clear: Clears all of the log contents.

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

D-Link

DAP-1555 //

SETUP ADVANCED MAINTENANCE STATUS HELP

LOGS

View the logs. You can define the event levels to view.

LOG OPTIONS

View Levels : Critical Warning Informational

Apply Log Settings Now

LOG DETAILS

Refresh Clear Save Log

16 Log Entries:

Priority	Time	Message
[INFO]	Sat Jan 31 13:37:13 2004	Allowed configuration authentication by IP address 192.168.0.103
[INFO]	Sat Jan 31 13:18:29 2004	Above message repeated 1 times
[INFO]	Sat Jan 31 13:17:01 2004	Allowed configuration authentication by IP address 192.168.0.48
[INFO]	Sat Jan 31 13:07:09 2004	Allowed configuration authentication by IP address 192.168.0.103
[INFO]	Sat Jan 31 13:06:27 2004	Administrator logout
[INFO]	Sat Jan 31 12:51:22 2004	Allowed configuration authentication by IP address 192.168.0.103
[INFO]	Sat Jan 31 12:11:03 2004	Administrator logout
[INFO]	Sat Jan 31 11:25:35 2004	Allowed configuration authentication by IP address 192.168.0.103
[INFO]	Sat Jan 31 11:19:58 2004	LAN interface is up
[INFO]	Sat Jan 31 11:19:58 2004	Obtained IP Address using DHCP. IP address is 192.168.0.155
[INFO]	Sat Jan 31 11:19:56 2004	LAN Ethernet Carrier Detected
[INFO]	Sat Jan 31 11:19:56 2004	Device initialized
[INFO]	Sat Jan 31 11:19:56 2004	Wireless Link is up
[INFO]	Sat Jan 31 11:19:56 2004	Stored configuration to non-volatile memory
[INFO]	Sat Jan 31 11:19:54 2004	Unlock AP setup
[INFO]	Wed Dec 31 16:00:00 1999	Loaded configuration from non-volatile memory

WIRELESS

Helpful Hints...
Check the log frequently to detect unauthorized network usage.
[More...](#)

Statistics

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

Sent: The number of packets sent from the access point.

Received: The number of packets received by the access point.

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

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

Collisions: Displays the number of packets that were dropped due to Ethernet collisions (two or more devices attempting to use an Ethernet circuit at the same time).

Errors: The number of transmission failures that cause loss of a packet. A noisy radio-frequency environment can cause a high error rate on the wireless LAN.

The screenshot shows the D-Link DAP-1555 web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains links for DEVICE INFO, WIRELESS, LOGS, STATISTICS, and WISH SESSIONS. The main content area is titled 'TRAFFIC STATISTICS' and includes a description: 'Traffic Statistics display receive and transmit packets passing through your access point.' Below this are two buttons: 'Refresh Statistics' and 'Clear Statistics'.

The 'LAN STATISTICS' section displays the following data:

Sent : 4017	Received : 13056
TX Packets Dropped : 1	RX Packets Dropped : 0
Collisions : 0	Errors : 0

The 'WIRELESS STATISTICS' section displays the following data:

Sent : 2035	Received : 0
TX Packets Dropped : 0	RX Packets Dropped : 0
	Errors : 0

On the right side, there is a 'Helpful Hints...' section with the text: 'This is a summary of the number of packets that have passed between the WAN and the LAN since the access point was last initialized.' Below this is a 'More...' link.

Wish Sessions

The WISH Sessions page displays full details of active local wireless sessions through your access point when WISH has been enabled. A WISH session is a conversation between a program or application on a wirelessly connected LAN-side computer and another computer, however connected.

Originator: The IP address and, where appropriate, port number of the computer that originated a network connection.

Target: The IP address and, where appropriate, port number of the computer to which a network connection has been made.

Protocol: The communications protocol used for the conversation.

State: State for sessions that use the TCP protocol.

- NO: None -- This entry is used as a placeholder for a future connection that may occur.
- SS: SYN Sent -- One of the systems is attempting to start a connection.
- EST: Established -- the connection is passing data.
- FW: FIN Wait -- The client system has requested that the connection be stopped.
- CW: Close Wait -- the server system has requested that the connection be stopped.
- TW: Time Wait -- Waiting for a short time while a connection that was in FIN Wait is fully closed.
- LA: Last ACK -- Waiting for a short time while a connection that was in Close Wait is fully closed.
- CL: Closed -- The connection is no longer active but the session is being tracked in case there are any retransmitted packets still pending.

Priority: The priority given to packets sent wirelessly over this conversation by the WISH logic. The priorities are:

- BK: Background (least urgent)
- BE: Best Effort
- VI: Video
- VO: Voice (most urgent)

The screenshot shows the D-Link web interface for a DAP-1555 device. The top navigation bar includes 'D-Link', 'DAP-1555', and tabs for 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'STATUS' tab is selected, and the 'WISH SESSIONS' page is displayed. The page contains a description of WISH sessions and a table with the following columns: Originator, Target, Protocol, State, Priority, and Time Out. A 'Helpful Hints...' section on the right provides additional information about the feature.

Time out: The number of seconds of idle time until the access point considers the session terminated. The initial value of Time Out depends on the type and state of the connection.

300 seconds

UDP connections.

240 seconds

Reset or closed TCP connections. The connection does not close instantly so that lingering packets can pass or the connection can be re-established.

7800 seconds

Established or closing TCP connections.

Help

The screenshot shows the D-Link DAP-1555 web interface. At the top left is the D-Link logo. Below it is a navigation bar with tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The HELP tab is selected. On the left side, there is a vertical menu with options: MENU, SETUP, ADVANCED, MAINTENANCE, STATUS, and GLOSSARY. The main content area is titled 'SUPPORT MENU' and contains several sections of help links:

- SUPPORT MENU**
 - [Setup](#)
 - [Advanced](#)
 - [Maintenance](#)
 - [Status](#)
 - [Glossary](#)
- SETUP HELP**
 - [Wizard](#)
 - [Network Settings](#)
 - [Wireless](#)
- ADVANCED HELP**
 - [Advanced Wireless](#)
- MAINTENANCE HELP**
 - [Admin](#)
 - [System](#)
 - [Firmware](#)
- STATUS HELP**
 - [Device Info](#)
 - [Logs](#)

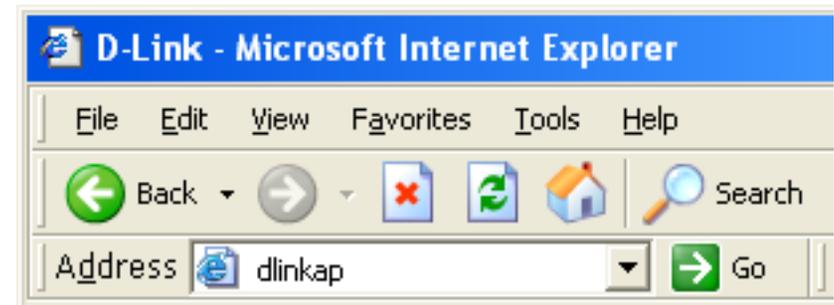
At the bottom of the page, there is a 'WIRELESS' section header.

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 the friendly address for Bridge mode (dlinkap).



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



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

A screenshot of the LOGIN form on the D-Link website. The form has an orange header with the word "LOGIN" in white. Below the header, it says "Log in to the bridge:". There are two input fields: "User Name" with a dropdown menu showing "Admin" and "Password" with a text box. A "Log In" button is located to the right of the password field.

Setup Wizard

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

Click **Launch Wireless Setup Wizard** to begin.

Click **Launch Wireless Setup Wizard**

D-Link

DAP-1555 // SETUP ADVANCED MAINTENANCE STATUS HELP

WIZARD

WIRELESS

NETWORK SETTINGS

WIZARD

The following Web-based wizards is designed to assist you in your wireless network setup. This Setup Wizard will guide you through step-by-step instructions on how to setup your wireless network and how to make it secure.

Launch Wireless Setup Wizard

Note: Some changes made using this setup wizard may require you to change some settings on your wireless client adapters so they can still connect to the D-Link Access Point.

Helpful Hints...

If you are new to wireless networking and have never configured a wireless bridge before, click on Wireless Setup Wizard and the bridge will guide you through a few simple steps to setup your wireless network.

More...

WIRELESS

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.

Product Page: DAP-1555 Firmware Version: 1.00

D-Link

SET YOUR DEVICE NAME

Enter the Device Name of the AP. Recommend to change the Device Name if there're more than one D-Link devices within the subnet. Click **Next** to continue.

Device Name (NetBIOS Name)

Next **Exit**

WIRELESS

If you want to change the admin account password, enter a new password and click **Next**.



SET YOUR NEW PASSWORD

You may change the **admin** account password by entering in a new password. Click **Next** to continue.

Password

Verify Password

WIRELESS

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

If you want to setup your network manually, skip to page 50.

Click **Next** to continue.



SELECT CONFIGURATION METHOD

Please select configuration method to setup your wireless network and click **Next** to continue.

Auto (Select this option if you want to use Wi-Fi Protected Setup)

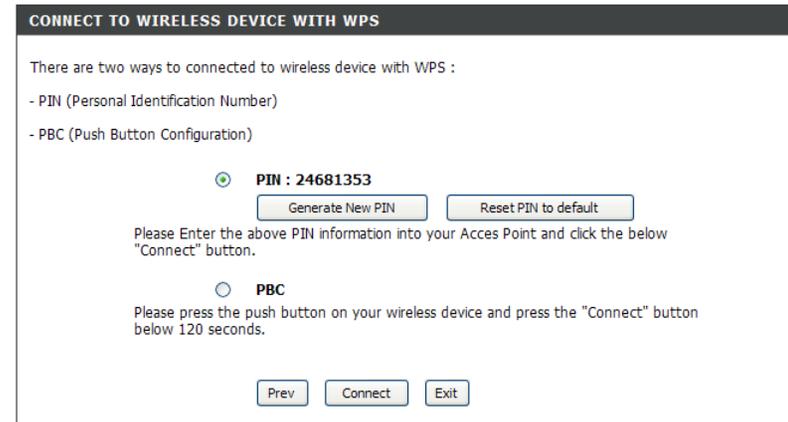
Manual (Select this option if you want to setup your network manually)

WIRELESS

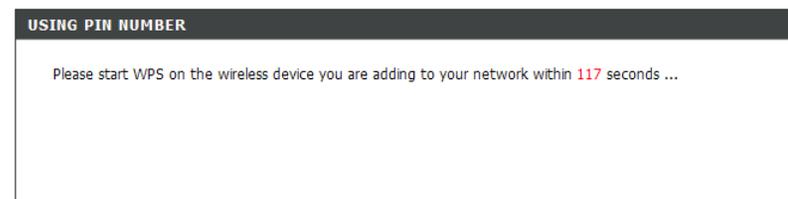
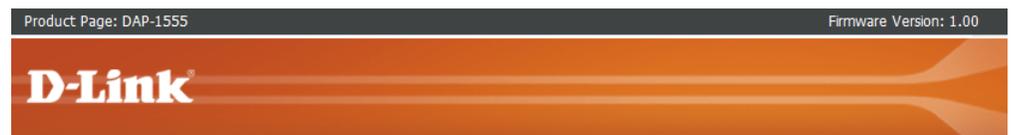
Select **PIN** to connect your wireless device with WPS.

For **PBC** configuration, skip to page 49.

Enter the PIN number used into you access point and click **Connect**.

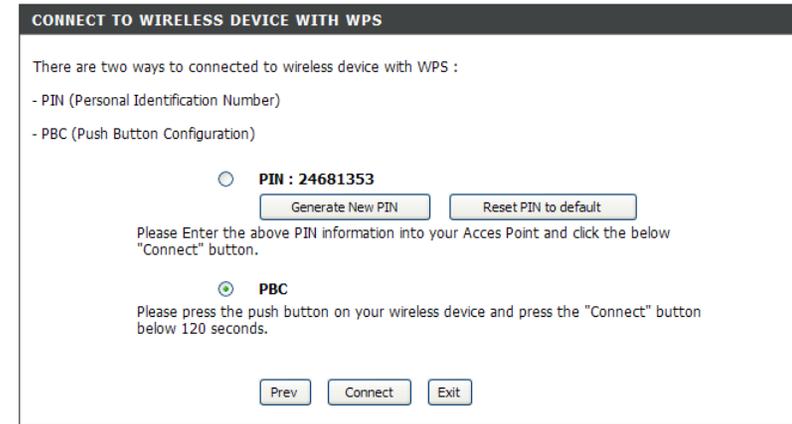
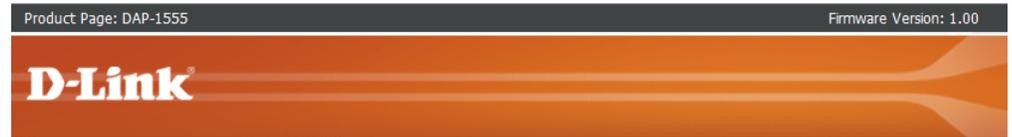


Start WPS on the wireless device you are adding to you wireless network to complete the setup.

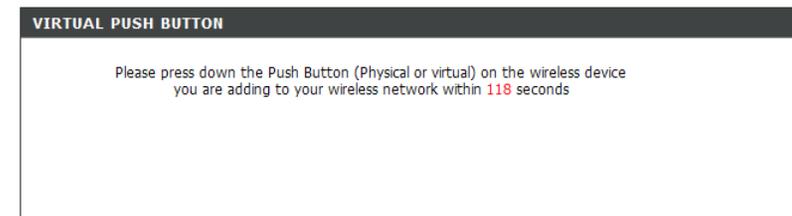
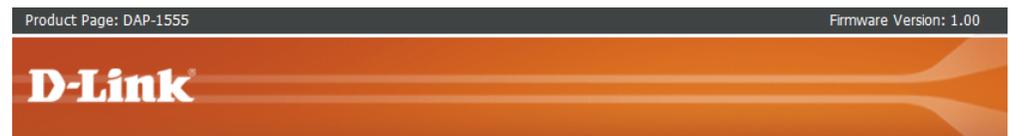


Select **PBC** to use the Push Button Configuration to connect to your network.

Click **Connect** to continue.



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



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

Click **Next** to continue.

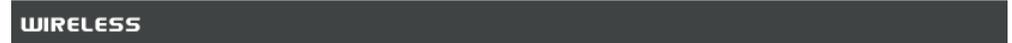


SELECT CONFIGURATION METHOD

Please select configuration method to setup your wireless network and click **Next** to continue.

Auto (Select this option if you want to use Wi-Fi Protected Setup)

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



Enter the Wireless Network Name of the AP or use site survey to find the AP.

Click **Next** to continue on to page 52.



SET WIRELESS NETWORK NAME

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

Wireless Network Name (SSID)



If you clicked on **Site Survey** to following screen will be displayed.

Find your access point from the list and click **Connect** to complete the Setup Wizard.

Product Page: DAP-1555 Firmware Version: 1.00

D-Link

SITE SURVEY PAGE

SSID	BSSID	Channel	Encrypt	Signal	Select
Candy	00195b2902b0	1 (G)	yes	60	<input type="radio"/>
KAK	001346c91c2a	6 (G)	yes	22	<input type="radio"/>
AV_Room_2	00195b0b6772	11 (G)	yes	36	<input type="radio"/>
projector-0	0013d37889c6	11 (G)	no	12	<input type="radio"/>
openrg	3472ed57dab4	11 (G)	no	4	<input type="radio"/>
m-Lounge	001b11547863	3 (N+G)	yes	58	<input type="radio"/>
KR1	0015e9746bbb	4 (G)	yes	10	<input type="radio"/>
cdouble	001485e3d636	2 (G)	yes	10	<input type="radio"/>
dwlB220_mktg_lab	001195e0fd60	48 (A)	yes	6	<input type="radio"/>
dlink	00179a293762	1 (G)	no	0	<input type="radio"/>
bigbear	000d88aca8d4	6 (G)	yes	0	<input type="radio"/>

WIRELESS

Choose which Security Mode you want to use and click **Next** to continue.



SELECT WIRELESS SECURITY MODE

Please select the wireless security mode.

None
 WEP
 WPA
 WPA2

Prev Next Exit



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



SET YOUR WIRELESS SECURITY PASSWORD

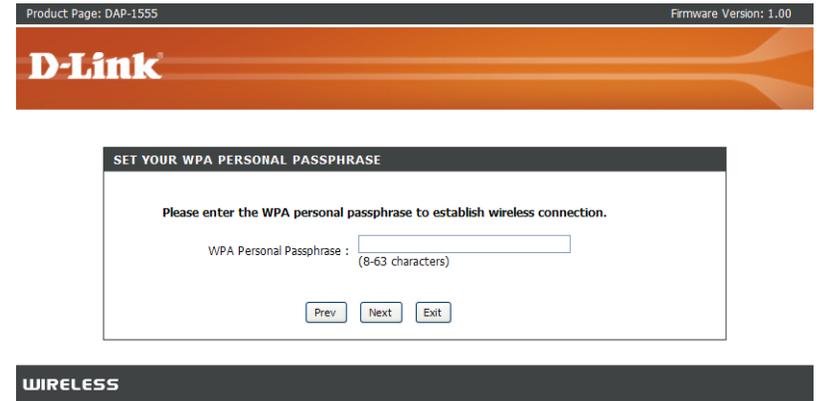
Please enter the wireless security password to establish wireless connection.

Key Type: HEX
Key Size: 64-Bit
Wireless Security Password: _____

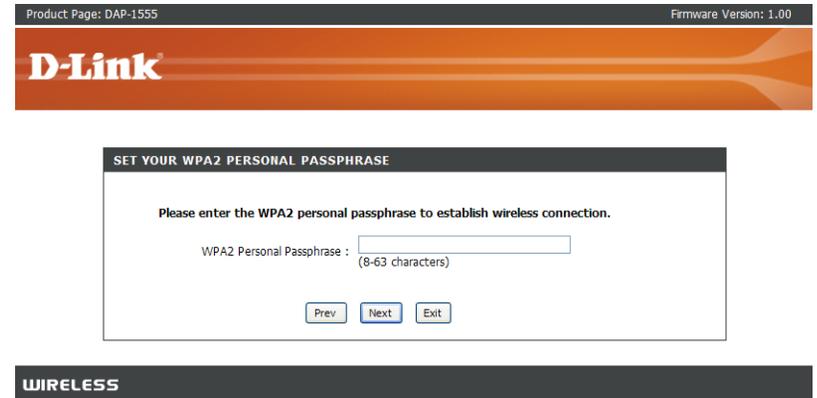
Prev Next Exit



If you choose **WPA**, enter the WPA Personal Passphrase and click **Next** to complete the Setup Wizard.

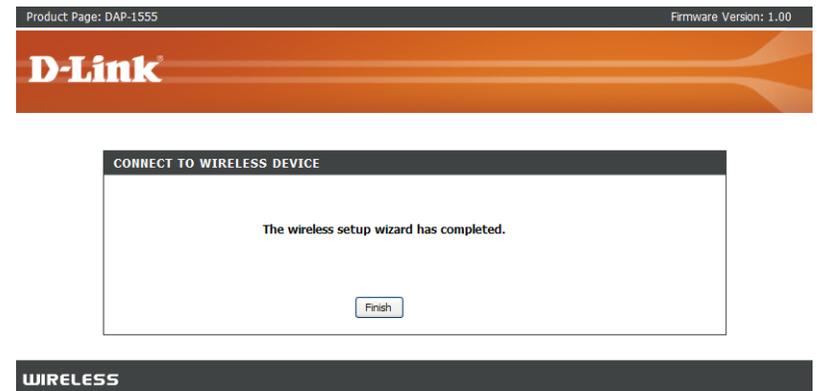


If you choose **WPA2**, enter the WPA2 Personal Passphrase and click **Next** to complete the Setup Wizard.



The Wireless Setup Wizard is complete.

Click **Finish** to reboot the device.



Wireless

Wireless Mode: Select Infrastructure to connect to a wireless (AP) Access Point, select Ad-hoc to connect to another bridge or wireless station.

Site Survey: A function that looks for available wireless networks.

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

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

Enable Auto Channel Scan: The **Auto Channel Scan** setting can be selected to allow the DAP-1555 to choose the channel with the least amount of interference.

Wireless Channel: Indicates the channel setting for the DAP-1555. By default the channel is set to 6. The Channel can be changed to fit the channel setting for an existing wireless network or to customize the wireless network. If you enable **Auto Channel Scan**, this option will be greyed out.

802.11 Mode: If all of the wireless devices in your wireless network can connect in the same transmission mode, you can improve performance slightly by choosing the appropriate “Only” mode. If you have some devices that use a different transmission mode, choose the appropriate “Mixed” mode.

Mixed 802.11a and 802.11g - Select this so the bridge can site survey to 802.11a and 802.11g networks.

Mixed 802.11a, 802.11g and 802.11b - Select this so the bridge can site survey to 802.11a, 802.11g and 802.11b networks.

Mixed 802.11a, 802.11g and 802.11ng - Select this so the bridge can site survey to 802.11a, 802.11g and 802.11ng networks. 802.11ng means it's 802.11n operated in 2.4GHz band.

Mixed 802.11a, 802.11g, 802.11ng and 802.11b - Select this so the bridge can site survey to 802.11a, 802.11g, 802.11ng and 802.11b networks.

Mixed 802.11na, 802.11a, 802.11g - Select this so the bridge can site survey to 802.11na, 802.11a and 802.11g networks. 802.11na means it's 802.11n operated in 5GHz band.

D-Link

DAP-1555 // SETUP ADVANCED MAINTENANCE STATUS HELP

WIRELESS

WIRELESS NETWORK SETTINGS

Wireless Network Settings

Use this section to configure the wireless settings for your wireless bridge. Please note that changes made on this section may also need to be duplicated on your Wireless Client.

Save Settings Don't Save Settings

WIRELESS NETWORK SETTINGS

Wireless Mode : AP Client

Enable Wireless :

Wireless Network Name : dlink (Also called the SSID)

Enable Auto Channel Scan :

Wireless Channel : 2.437 GHz - CH 6

802.11 Mode : Mixed 802.11na, 802.11a, 802.11ng, 802.11g and 802.11b

Transmission Rate : Best (automatic) (Mbit/s)

Channel Width : Auto 20/40 MHz

WIRELESS SECURITY MODE

Security Mode : Disable Wireless Security

WI-FI PROTECTED SETUP (ALSO CALLED WCN 2.0 IN WINDOWS VISTA)

Enable :

WIRELESS

Helpful Hints...

Changing your Wireless Network Name (SSID) is the first step to connect to the wireless network. You must know the SSID to join a wireless network.

The channel number is selected automatically to match the channel used by the Access point.

If you have enabled Wireless Security, make sure you write down the 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.

If you have enabled "WPA-Enterprise" for the Wireless Security, you will need a RADIUS server behind the wireless device (such as AP) for the authentication. The RADIUS must be configured to support your Wireless Security configuration.

[More...](#)

Mixed 802.11na, 802.11a, 802.11g and 802.11b - Select this so the bridge can site survey to 802.11na, 802.11a, 802.11g, and 802.11b networks.

Mixed 802.11na, 802.11a, 802.11ng and 802.11g - Select this so the bridge can site survey to 802.11na, 802.11a, 802.11ng and 802.11g networks.

Mixed 802.11na, 802.11a, 802.11ng, 802.11g and 802.11b - Select this so the bridge can site survey to 802.11na, 802.11a, 802.11ng, 802.11g and 802.11b networks.

Transmission Rate: Select the transmit rate. It is strongly suggested to select **Best (Auto)** for best performance.

Channel Width: Select the Channel Width:

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

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

Security Mode: Refer to page 65 for more information regarding wireless security.

Enable: Enable the Wi-Fi Protected Setup feature.

Network Settings

Static

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

IP Address Mode: Select Static if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. Select DHCP to automatically assign an IP address to the computers on the LAN/private network.

IP Address: Enter the IP address assigned by your ISP.

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

Default Gateway: Enter the Gateway assigned by your ISP.

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.

The screenshot shows the D-Link DAP-1555 web interface. The top navigation bar includes 'D-Link', 'DAP-1555', and tabs for 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'NETWORK SETTINGS' section is active, displaying instructions for configuring the internal network. Below this, the 'LAN SETTINGS' section is visible, where 'LAN Connection Type' is set to 'Static IP'. The 'IP Address' is 192.168.0.50, 'Subnet Mask' is 255.255.255.0, and 'Default Gateway' is 192.168.0.1. The 'DEVICE NAME (NETBIOS NAME)' section shows the 'Device Name' as 'dlinkap'. A 'WIRELESS' section is partially visible at the bottom.

WIZARD	NETWORK SETTINGS	Helpful Hints...
WIRELESS	<p>Use this section to configure the internal network settings of your bridge 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.</p> <p>Save Settings Don't Save Settings</p>	<p>If you have a DHCP server on your network, you can select DHCP to get the IP address from a DHCP server.</p> <p>More...</p>
NETWORK SETTINGS	<p>Use this section to configure the internal network settings of your bridge. 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.</p> <p>LAN Connection Type : <input type="text" value="Static IP"/></p> <p>IP Address: <input type="text" value="192.168.0.50"/></p> <p>Subnet Mask: <input type="text" value="255.255.255.0"/></p> <p>Default Gateway: <input type="text" value="192.168.0.1"/></p>	
<p>DEVICE NAME (NETBIOS NAME)</p> <p>Device Name: <input type="text" value="dlinkap"/></p>		

DHCP

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

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.

D-Link

DAP-1555 //

SETUP ADVANCED MAINTENANCE STATUS HELP

WIZARD

WIRELESS

NETWORK SETTINGS

NETWORK SETTINGS

Use this section to configure the internal network settings of your bridge 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 SETTINGS

Use this section to configure the internal network settings of your bridge. 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.

LAN Connection Type : Dynamic IP (DHCP)

DEVICE NAME (NETBIOS NAME)

Device Name: dlinkap

WIRELESS

Helpful Hints...

If you have a DHCP server on your network, you can select DHCP to get the IP address from a DHCP server.

More...

Advanced

Advanced Wireless

MAC Cloning Mode: This feature controls the MAC Address of the Bridge as seen by other devices (wired or wireless).

WLAN Card: If set to **Ethernet Client**, the MAC Address from the first Ethernet client that transmits data through the Bridge will be used. This setting is useful when connected to an Xbox or if there is only one Ethernet device connected to the Bridge. When multiple Ethernet devices are connected to the Bridge, it may not be obvious which MAC Address is being used.

Ethernet Client: If set to **WLAN Card**, the MAC Address of the WLAN Card (typically written on the back of the card) will be used. When multiple Ethernet devices are connected to the Bridge, the MAC Address of the Bridge will not change.

Transmit Power: Set the transmit power of the antennas.

RTS Threshold: This value should remain at its default setting of 2346. If inconsistent data flow is a problem, only a minor modification should be made.

Fragmentation Threshold: The fragmentation threshold, which is specified in bytes, determines whether packets will be fragmented. Packets exceeding the 2346 byte setting will be fragmented before transmission. 2346 is the default setting.

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

The screenshot shows the D-Link DAP-1555 configuration interface. The top navigation bar includes 'D-Link', 'DAP-1555', and tabs for 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'ADVANCED' tab is selected, and the 'ADVANCED WIRELESS' sub-tab is active. The main content area is divided into three sections:

- ADVANCED WIRELESS:** 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 the message are two buttons: "Save Settings" and "Don't Save Settings".
- WIRELESS MAC CLONING:** A section titled "Cloning Mode" with two radio buttons: "WLAN Card" (selected) and "Ethernet Client".
- ADVANCED WIRELESS SETTINGS:** A section containing several settings:
 - Transmit Power:** A dropdown menu set to "High".
 - RTS Threshold:** A text input field containing "2346" with a range "(0..2347)" to its right.
 - Fragmentation Threshold:** A text input field containing "2346" with a range "(256..2346)" to its right.
 - Short GI:** A checked checkbox.

On the right side of the page, there is a "Helpful Hints..." section with text: "It is recommended that you leave these parameters at their default values. Adjusting them could limit the performance of your wireless network." and a "More..." link.

Tools

Admin

This page will allow you to change the Administrator and User passwords. You can also enable Remote Management. There are two accounts that can access the management interface through the web browser. The accounts are admin and user. Admin has read/write access while user has read-only access. User can only view the settings but cannot make any changes. Only the admin account has the ability to change both admin and user account passwords.

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

User Password: Enter the new password for the User login. If you login as the User, you can only see the settings, but cannot change them.

Web Idle Timeout: Enter a maximum idle time in which the internet connection is maintained during inactivity.

D-Link

DAP-1555 // SETUP ADVANCED MAINTENANCE STATUS HELP

ADMIN SYSTEM FIRMWARE

ADMINISTRATOR SETTINGS

The 'admin' and 'user' accounts can access the management interface. The admin has read/write access and can change passwords, while the user has read-only access. By default there is no password configured. It is highly recommended that you create a password to keep your bridge secure.

Save Settings Don't Save Settings

ADMIN PASSWORD

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

Password :

Verify Password :

USER PASSWORD

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

Password :

Verify Password :

ADMINISTRATION

Web Idle Timeout :

WIRELESS

Helpful Hints...
For security reasons, it is recommended that you change the password for the Admin and User accounts. Be sure to write down the passwords to avoid having to reset the bridge in case they are forgotten.
More...

System

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

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

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

Reboot The Device: Click to reboot the bridge.

The screenshot shows the D-Link DAP-1555 web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains links for ADMIN, SYSTEM, and FIRMWARE. The main content area is titled 'SYSTEM SETTINGS' and contains the following options:

- Save To Local Hard Drive:** A button labeled 'Save Configuration'.
- Load From Local Hard Drive:** A text input field followed by a 'Browse...' button, and a button labeled 'Restore Configuration from File'.
- Restore To Factory Default:** A button labeled 'Restore Factory Defaults' with the text 'Restore all settings to the factory defaults.' below it.
- Reboot The Device:** A button labeled 'Reboot the Device'.

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

Once your bridge is configured the way you want it, you can save the configuration settings to a configuration file.

You might need this file so that you can load your configuration later in the event that the bridge's default settings are restored.

To save the configuration, click the **Save Configuration** button.

[More...](#)

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

Firmware

You can upgrade the firmware of the Access point here. Make sure the firmware you want to use is on the local hard drive of the computer. Click on **Browse** to locate the firmware file to be used for the update. Please check the D-Link support 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.

The screenshot displays the D-Link web interface for the DAP-1555 device. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar shows a menu with ADMIN, SYSTEM, and FIRMWARE. The main content area is titled 'FIRMWARE' and contains the following sections:

- FIRMWARE:** A header section with a description: 'The Firmware section can be used to update to the latest firmware code to improve functionality and performance.' Below this are two buttons: 'Save Settings' and 'Don't Save Settings'.
- FIRMWARE INFORMATION:** A section showing 'Current Firmware Version : 1.0' and 'Current Firmware Date : 16 Aug 2007'.
- FIRMWARE UPGRADE:** A section containing a red note: 'Note: Some firmware upgrades reset the configuration options to the factory defaults. Before performing an upgrade, be sure to save the current configuration from the Maintenance → System screen.' Below the note, it states: 'To upgrade the firmware, your PC must have a wired connection to the bridge. Enter the name of the firmware upgrade file, and click on the Upload button.' At the bottom of this section, there is an 'Upload' label, a text input field, a 'Browse...' button, and an 'Upload' button.

On the right side of the interface, there is a 'Helpful Hints...' section with text explaining that firmware updates are released periodically to improve functionality and add features. It also includes a 'More...' link.

Status

Device Info

This page displays the current information for the DAP-1555. It will display the LAN and Wireless information.

D-Link	
DAP-1555	SETUP ADVANCED MAINTENANCE STATUS HELP
DEVICE INFO	DEVICE INFORMATION All of your Internet and network connection details are displayed on this page. The firmware version is also displayed here.
LOGS	GENERAL Firmware Version : 1.0, 16 Aug 2007
	LAN MAC Address : 00:1B:11:68:74:81 IP Address : 192.168.0.155 Subnet Mask : 255.255.255.0 Default Gateway : 192.168.0.1
	WIRELESS LAN Wireless Radio : Enabled Status : Doing WPS registration MAC Address : 00:1B:11:68:74:81 Network Name (SSID) : dlink Channel : 120 Wi-Fi Protected Setup : Enabled/Not Configured Security Mode : Disabled
	Helpful Hints... All of your LAN connection details are displayed here. More...
WIRELESS	

Logs

The bridge automatically logs (records) events of possible interest in its internal memory. If there is not 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 bridge logs. You can define what types of events you want to view and the level of events to view. This bridge 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.

What to View: You can select the types of messages that you want to display from the log.

View Levels: There are three levels of message importance: Informational, Warning, and Critical. Select the levels that you want displayed in the log.

Apply Log Settings Now: Will filter the log results so that only the selected options appear.

Refresh: Clicking this button refreshes the display of log entries. There may be new events since the last time you accessed the log.

Clear: Clicking this button erases all log entries.

Save Log: Select this option to save the bridge log to a file on your computer.

D-Link

DAP-1555

SETUP ADVANCED MAINTENANCE STATUS HELP

DEVICE INFO

LOGS

LOGS

System Logs

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

LOG OPTIONS

What to View : System Status

View Levels : Critical Warning Informational

Apply Log Settings Now

LOG DETAILS

Refresh Clear Save Log

33 Log Entries:

Priority	Relative Time	Message
[INFO]	0001-01-01T00:00:27	WPS requested active scan
[INFO]	0001-01-01T00:00:27	WPS ended registration with Teh Gate
[INFO]	0001-01-01T00:00:01	WPS requested active scan
[INFO]	0001-01-01T00:00:01	WPS ended registration with
[INFO]	0001-01-01T00:00:01	Stored configuration to non-volatile memory
[INFO]	0001-01-01T00:00:00	Loaded configuration from non-volatile memory

WIRELESS

Helpful Hints...
Check the log frequently to detect unauthorized network usage.
More...

Help



DAP-1555 //	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
MENU	MAINTENANCE HELP				
SETUP	<ul style="list-style-type: none"> • Admin • System • Firmware 				
ADVANCED					
MAINTENANCE					
STATUS					
GLOSSARY					
ADMIN	<p>The Admin option is used to set a password for access to the Web-based management. By default, there is no password configured. It is highly recommended that you create a password to keep your new bridge secure.</p> <p>Admin Password Enter a password for the user admin, who will have full access to the Web-based management interface.</p> <p>User Password Enter a password for the user user, who will have read-only access to the Web-based management interface.</p> <p>Web Idle Timeout The maximum number of minutes that the web administration can be inactive before the administrator is automatically logged out.</p>				
SYSTEM	<p>This section allows you to manage the bridge's configuration settings, reboot the bridge, and restore the bridge to the factory default settings. Restoring the unit to the factory default settings will erase all settings, including any rules that you've created.</p> <p>Save To Local Hard Drive This option allows you to save the bridge's configuration to a file on your computer. Be sure to save the configuration before performing a firmware upgrade.</p> <p>Load From Local Hard Drive Use this option to restore previously saved bridge configuration settings.</p> <p>Restore To Factory Default This option restores all configuration settings back to the settings that were in effect at the time the bridge was shipped from the factory. Any settings that have not been saved will be lost. If you want to save your bridge configuration settings, use the Save Settings option above.</p> <p>Reboot The Device This restarts the bridge. Useful for restarting when you are not near the device.</p>				
FIRMWARE	<p>The Firmware section can be used to update to the latest firmware code to improve functionality and performance.</p> <p>To upgrade the firmware, follow these steps:</p> <ol style="list-style-type: none"> 1. Click the Browse button to locate the upgrade file on your computer. 2. Once you have found the file to be used, click the Upload button below to start the firmware upgrade process. This can take a minute or more. 3. Wait for the bridge to reboot. This can take another minute or more. 4. Confirm updated firmware revision on status page. <p>Firmware Information Here are displayed the version numbers of the firmware currently installed in your bridge and the most recent upgrade that is available.</p> <p>Firmware Upgrade Note: Firmware upgrade cannot be performed from a wireless device. To perform an upgrade, ensure that you are using a PC that is connected to the bridge by wire. Note: Some firmware upgrades reset the configuration options to the factory defaults. Before performing an upgrade, be sure to save the current configuration from the Maintenance → System screen.</p> <p>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.</p>				
WIRELESS					

Wireless Security

This section will show you the different levels of security you can use to protect your data from intruders. The DAP-1555 offers the following types of security:

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

What is WEP?

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

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

What is 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 In 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. Next to *Security Mode*, select **WEP**.
3. Next to *WEP Key Length*, select the level of encryption (64 or 128-bit).
Hex - (recommended) Letters A-F and numbers 0-9 are valid.
4. Next to *WEP Key 1*, enter a WEP key that you create. Make sure you enter this key exactly on all your wireless devices. You may enter up to 4 different keys.
5. Next to *Authentication*, select **Open or Shared Key**.
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.

WIRELESS SECURITY MODE

To protect your privacy you can configure wireless security features. This device supports two wireless security modes including: WPA-Personal, and WPA-Enterprise. WPA provides a higher level of security. WPA-Personal does not require an authentication server. The WPA-Enterprise option requires an external RADIUS server.

Security Mode :

WEP

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

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

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

WEP Key Length : (length applies to all keys)

WEP Key 1 :

WEP Key 2 :

WEP Key 3 :

WEP Key 4 :

Default WEP Key :

Authentication :

Configure WPA-Personal (PSK) In 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. Next to *Security Mode*, select **WPA-Personal**.
3. Next to *WPA Mode*, select **Auto**, **WPA2 Only**, or **WPA Only**. Use **Auto** if you have wireless clients using both WPA and WPA2.
4. Next to *Cipher Type*, select TKIP, AES, or TKIP and AES.
5. Next to *Group Key Update Interval*, enter the amount of time before the group key used for broadcast and multicast data is changed (3600 is default).
6. Next to *Pre-Shared Key*, enter a key (passphrase). The key is entered as a pass-phrase in ASCII format at both ends of the wireless connection. The pass-phrase must be between 8-63 characters.
7. 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.

WIRELESS SECURITY MODE

To protect your privacy you can configure wireless security features. This device supports two wireless security modes including: WPA-Personal, and WPA-Enterprise. WPA provides a higher level of security. WPA-Personal does not require an authentication server. The WPA-Enterprise option requires an external RADIUS server.

Security Mode :

WPA

WPA requires stations to use high grade encryption and authentication. For legacy compatibility, use **WPA or WPA2** mode. This mode uses WPA for legacy clients while maintaining higher security with stations that are WPA2 capable. The strongest cipher that the client supports will be used. For best security, use **WPA2 Only** mode. In this mode, legacy stations are not allowed access with WPA security. The AES cipher will be used across the wireless network to ensure best security.

WPA Mode :

Cipher Type :

Group Key Update Interval : (seconds)

PRE-SHARED KEY

Pre-Shared Key :

Configure WPA-Enterprise (RADIUS) In 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. Next to *Security Mode*, select **WPA-Enterprise**.
3. Next to *WPA Mode*, select **Auto WPA or WPA2, WPA2 Only, or WPA Only**. Use **Auto** if you have wireless clients using both WPA and WPA2.
4. Next to *Cipher Type*, select TKIP, AES or TKIP and AES
5. Next to *Group Key Update Interval*, enter the amount of time before the group key used for broadcast and multicast data is changed (3600 is default).
6. Next to *Authentication Timeout*, enter the amount of time before a client is required to re-authenticate (60 minutes is default).
7. Next to *RADIUS Server IP Address* enter the IP Address of your RADIUS server.
8. Next to *RADIUS Server Port*, enter the port you are using with

WIRELESS SECURITY MODE

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Security Mode :

WPA

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WPA Mode :

Cipher Type :

Group Key Update Interval : (seconds)

EAP (802.1X)

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

Authentication Timeout : (minutes)

RADIUS server IP Address :

RADIUS server Port :

RADIUS server Shared Secret :

MAC Address Authentication :

- your RADIUS server. 1812 is the default port.
8. Next to *RADIUS Server Shared Secret*, enter the security key.
 9. If the *MAC Address Authentication* box is selected then the user will need to connect from the same computer whenever logging into the wireless network.
 10. Click **Advanced** to enter settings for a secondary RADIUS Server.
 11. Click **Apply Settings** to save your settings.

EAP (802.1X)

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

Authentication Timeout : (minutes)

RADIUS server IP Address :

RADIUS server Port :

RADIUS server Shared Secret :

MAC Address Authentication :

Optional backup RADIUS server:

Second RADIUS server IP Address :

Second RADIUS server Port :

Second RADIUS server Shared Secret :

Second MAC Address Authentication :

Configure WEP In 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 bridge (192.168.0.35). Click on **Setup** and then click **Wireless Settings** on the left side.
2. Next to *Security Mode*, select **WEP**.
3. Next to *WEP Key Length*, select the level of encryption (64 or 128-bit).
Hex - (recommended) Letters A-F and numbers 0-9 are valid.
4. Next to *WEP Key*, enter a WEP key that you create. Make sure you enter this key exactly on all your wireless devices.
5. Next to *Authentication*, select **Open or Shared Key**.
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.

WIRELESS SECURITY MODE

To protect your privacy you can configure wireless security features. This device supports two wireless security modes including: WPA-Personal, and WPA-Enterprise. WPA provides a higher level of security. WPA-Personal does not require an authentication server. The WPA-Enterprise option requires an external RADIUS server.

Security Mode :

WEP

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

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

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

WEP Key Length : (length applies to all keys)

WEP Key :

Default WEP Key :

Authentication :

Configure WPA-Personal (PSK) In 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 bridge (192.168.0.35). Click on **Setup** and then click **Wireless Settings** on the left side.
2. Next to *Security Mode*, select **WPA-Personal**.
3. Next to *WPA Mode*, select **Auto WPA or WPA2, WPA2 Only**, or **WPA Only**. Use **Auto** if you have wireless clients using both WPA and WPA2.
4. Next to *Cipher Type*, select TKIP, AES, or TKIP and AES.
5. Next to *Pre-Shared Key*, enter a key (passphrase). The key is entered as a pass-phrase in ASCII format at both ends of the wireless connection. The pass-phrase must be between 8-63 characters.
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.

The screenshot displays the wireless security configuration interface. It is divided into three main sections: WIRELESS SECURITY MODE, WPA, and PRE-SHARED KEY. The WIRELESS SECURITY MODE section has a title bar and a text area explaining security options, with a dropdown menu for Security Mode set to WPA-Personal. The WPA section has a title bar and a text area explaining WPA modes, with dropdown menus for WPA Mode (set to Auto (WPA or WPA2)) and Cipher Type (set to TKIP and AES). The PRE-SHARED KEY section has a title bar and a text input field for the key, which is currently masked with dots.

WIRELESS SECURITY MODE

To protect your privacy you can configure wireless security features. This device supports two wireless security modes including: WPA-Personal, and WPA-Enterprise. WPA provides a higher level of security. WPA-Personal does not require an authentication server. The WPA-Enterprise option requires an external RADIUS server.

Security Mode :

WPA

WPA requires stations to use high grade encryption and authentication. For legacy compatibility, use **WPA or WPA2** mode. This mode uses WPA for legacy clients while maintaining higher security with stations that are WPA2 capable. The strongest cipher that the client supports will be used. For best security, use **WPA2 Only** mode. In this mode, legacy APs are not allowed access with WPA security. The AES cipher will be used across the wireless network to ensure best security.

WPA Mode :

Cipher Type :

PRE-SHARED KEY

Pre-Shared Key :

Configure WPA-Enterprise (RADIUS) In 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 bridge (192.168.0.35). Click on **Setup** and then click **Wireless Settings** on the left side.
2. Next to *Security Mode*, select **WPA-Enterprise**.
3. Next to *WPA Mode*, select **Auto WPA or WPA2, WPA2 Only**, or **WPA Only**. Use **Auto** if you have wireless clients using both WPA and WPA2.
4. Next to Cipher Type, select **TKIP, AES** or **TKIP and AES**.
5. Next to EAP type, select **EAP-TLS, EAP-TTLS**, or **PEAP** that will be used for authentication.
6. Next to EAP Username, enter the username of the wireless client for the tunnel establishment and the inner authentication method.
7. Next to EAP Password, enter the password of the wireless client for **EAP-MD5** or the inner authentication methods of **PEAP** and **EAP-TTLS**.
8. Next to EAP Certificate Password, enter the password of the user certificate.

WIRELESS SECURITY MODE

To protect your privacy you can configure wireless security features. This device supports two wireless security modes including: WPA-Personal, and WPA-Enterprise. WPA provides a higher level of security. WPA-Personal does not require an authentication server. The WPA-Enterprise option requires an external RADIUS server.

Security Mode :

WPA

WPA requires stations to use high grade encryption and authentication. For legacy compatibility, use **WPA** or **WPA2** mode. This mode uses WPA for legacy clients while maintaining higher security with stations that are WPA2 capable. The strongest cipher that the client supports will be used. For best security, use **WPA2 Only** mode. In this mode, legacy APs are not allowed access with WPA security. The AES cipher will be used across the wireless network to ensure best security.

WPA Mode :

Cipher Type :

EAP (802.1X)

TLS based authentication methods (TLS, TTLS, PEAP) require certificates to be provided.

EAP Type :

EAP Username :

EAP CERTIFICATES

EAP Authentication requires certificate(s) to be provided. Please upload the appropriate certificates. The User Certificate should be in PKCS #12 format and the Root Certificate should be in DER/x509 format.

EAP Certificate Password :

EAP User Certificate :

The User Certificate (PKCS #12 format) is required.

EAP Root Certificate :

The Root Certificate (DER/x509 format) is required.

9. Next to EAP User Certificate, click Browse to locate the user certificate file. It is optional for **EAP-TLS**, but mandatory for **PEAP** and **EAP-TTLS**.

10. Next to EAP Root Certificate, click Browse to locate the Root Certificate file. It is mandatory to upload a root certificate to be able to authenticate the server certificate.

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.

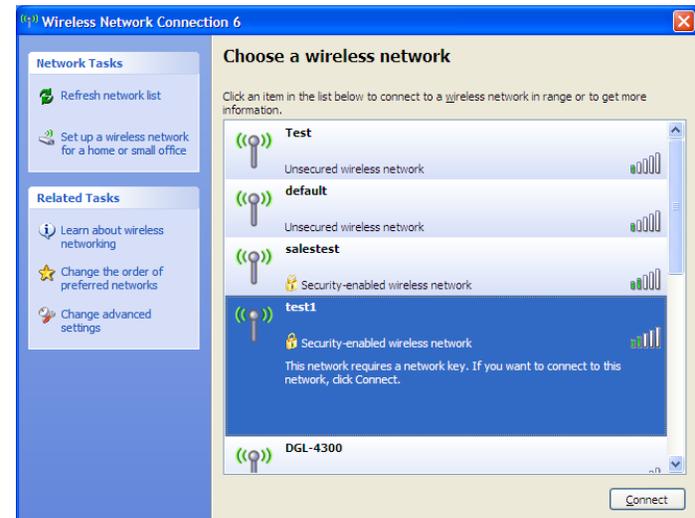
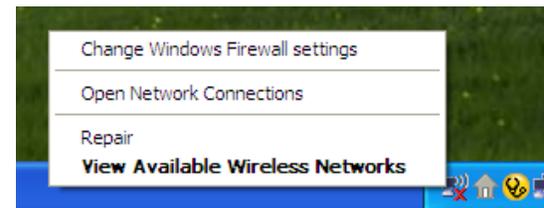
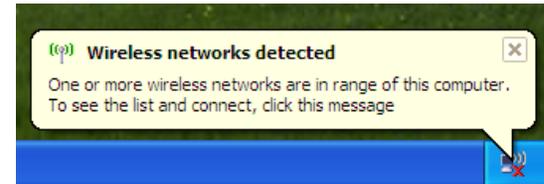
If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

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.

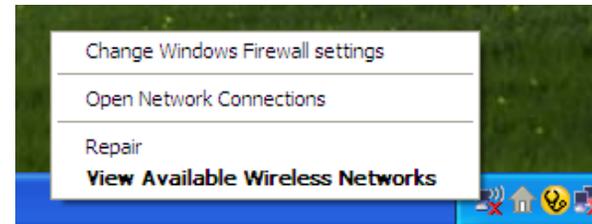
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



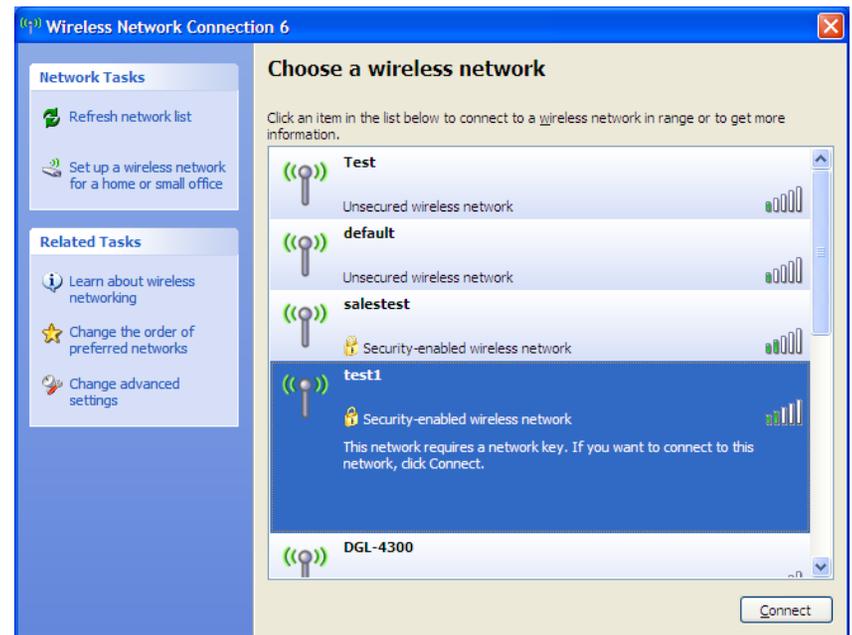
Configure WEP

It is recommended to enable WEP 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 WEP 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 same WEP key that is on your access point and click **Connect**.

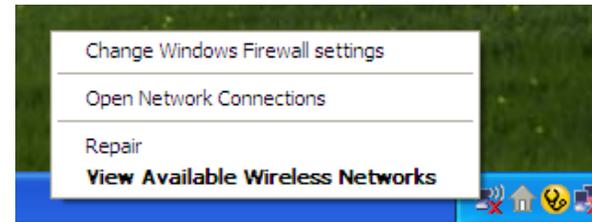
It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the WEP settings are correct. The WEP key must be exactly the same as on the wireless access point.



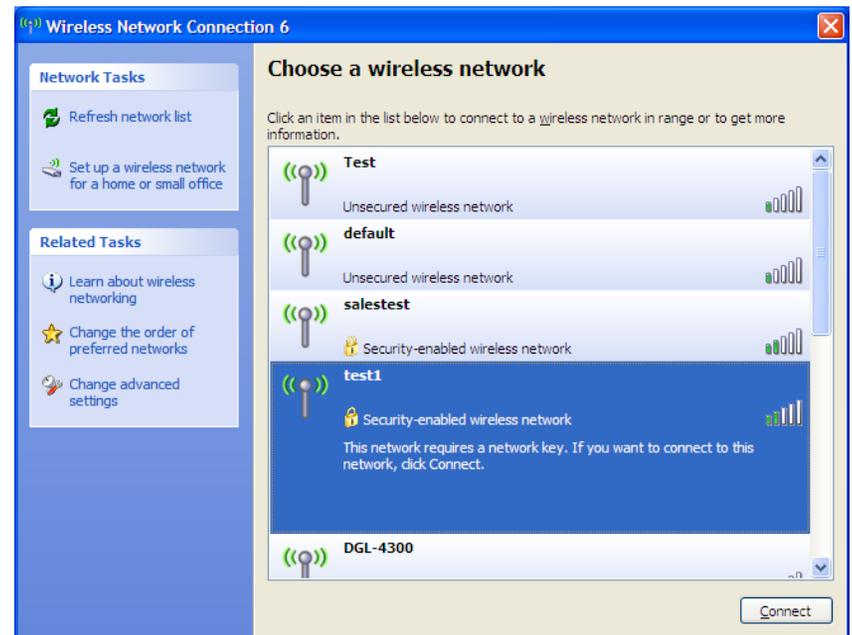
Configure WPA-PSK

It is recommended to enable WEP 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 WEP key being used.

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

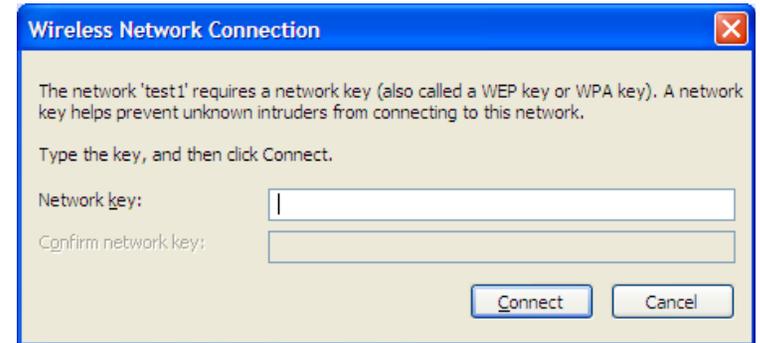


2. Highlight the wireless network (SSID) you would like to connect to and click **Connect**.



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

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



Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DAP-1555. 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:
 - Internet Explorer 6.0 or higher
 - Netscape 8 or higher
 - Mozilla 1.7.12 (5.0) or higher
 - Opera 8.5 or higher
 - Safari 1.2 or higher (with Java 1.3.1 or higher)
 - Camino 0.8.4 or higher
 - Firefox 1.5 or 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 192.168.0.1. When logging in, the username is **admin** and leave the password box empty.

3. Why can't I connect to certain sites or send and receive emails when connecting through my 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 press **Enter** (or click **OK**).
- Once the window opens, you'll need to do a special ping. Use the following syntax:

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

Example: **ping yahoo.com -f -l 1472**

```
C:\>ping yahoo.com -f -l 1482
Pinging yahoo.com [66.94.234.13] with 1482 bytes of data:
Packet needs to be fragmented but DF set.

Ping statistics for 66.94.234.13:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping yahoo.com -f -l 1472
Pinging yahoo.com [66.94.234.13] with 1472 bytes of data:
Reply from 66.94.234.13: bytes=1472 time=93ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=109ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=125ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=203ms TTL=52

Ping statistics for 66.94.234.13:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 93ms, Maximum = 203ms, Average = 132ms

C:\>
```

You should start at 1472 and work your way down by 10 each time. Once you get a reply, go up by 2 until you get a fragmented packet. Take that value and add 28 to the value to account for the various TCP/IP headers. For example, let's 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 network.

Why D-Link Wireless?

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

How does wireless work?

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

Wireless Local Area Network (WLAN)

In a wireless local area network, a device called an Access Point (AP) connects computers to the network. The access point has a small antenna attached to it, which allows it to transmit data back and forth over radio signals. With an indoor access point as seen in the picture, the signal can travel up to 300 feet. With an outdoor access point the signal can reach out up to 30 miles to serve places like manufacturing plants, industrial locations, college and high school campuses, airports, golf courses, and many other outdoor venues.

Wireless Personal Area Network (WPAN)

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

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

Who uses wireless?

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

Home

- Gives everyone at home broadband access
- Surf the web, check email, instant message, and 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, 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 DAP-1555 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

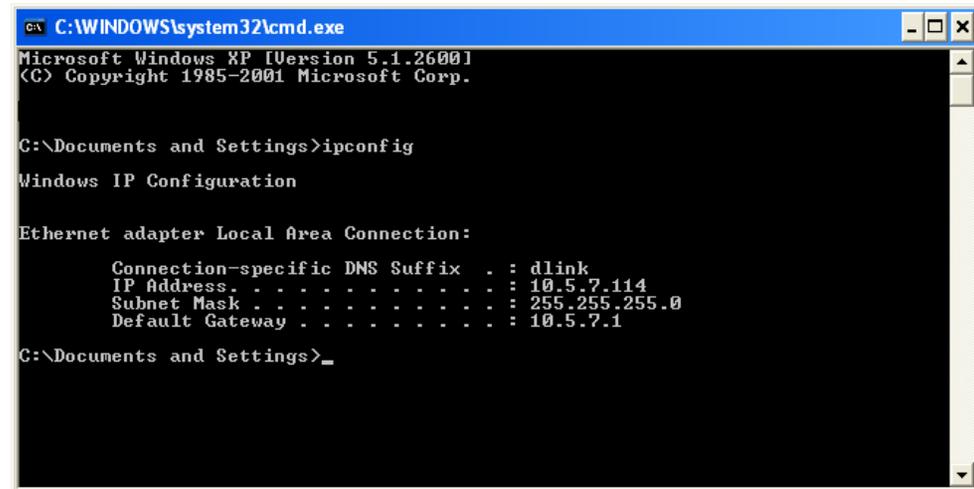
After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

Click on **Start > Run**. In the run box type *cmd* and click **OK**.

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.



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

C:\Documents and Settings>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

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

C:\Documents and Settings>_
```

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/access point, or you need to assign a static IP address, please follow the steps below:

Step 1

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

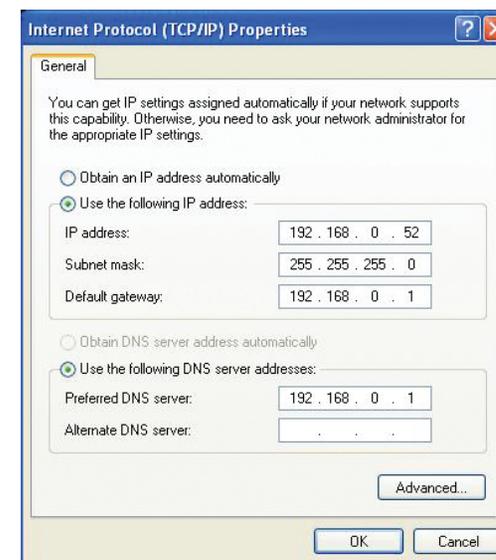
Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your access point.

Example: If the access point'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 access point (192.168.0.1).

Set Primary DNS the same as the LAN IP address of your access point (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 (draft)
- IEEE 802.11a
- IEEE 802.11g
- IEEE 802.11b
- IEEE 802.3
- IEEE 802.3u

Security

- WPA-Personal
- WPA2-Personal
- WPA-Enterprise
- WPA2-Enterprise
- 64/128-bit WEP

Wireless Signal Rates¹

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

Maximum Operating Voltage

3.3V

Maximum Power Consumption

1435 mA

Modulation

- 11b: DQPSK, DBPSK and CCK
- 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

External Antenna Type

Two (2) detachable reverse SMA Antennas

LEDs

- Power
- Bridge
- AP
- WLAN
- LAN (10/100)

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 = 7.75 inches
- W = 4.75 inches
- H = 1.25 inches

Warranty

1 Year

¹Maximum wireless signal rate derived from IEEE Standard 802.11g, 802.11a and Draft 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-1555 doesn't include 5.25-5.35GHz & 5.47~5.725GHz.

Contacting Technical Support

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

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

- Model number of the product (e.g. DAP-1555)
- Hardware Revision (located on the label on the bottom of the access point (e.g. rev A1))
- Serial Number (s/n number located on the label on the bottom of the access point).

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

For customers within the United States:

Phone Support:
(877) 453-5465

Internet Support:
<http://support.dlink.com>

For customers within Canada:

Phone Support:
(800) 361-5265

Internet Support:
<http://support.dlink.com>

Warranty

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

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

Limited Warranty:

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

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

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

Limited Software Warranty:

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

Non-Applicability of Warranty:

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

Submitting A Claim:

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

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

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

What Is Not Covered:

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

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

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

Disclaimer of Other Warranties:

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

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

Limitation of Liability:

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

Governing Law:

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

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CE Mark Warning:

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

FCC Statement:

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

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

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 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.

If this device is going to be operated in 5.15 ~ 5.25GHz frequency range, then it is restricted in indoor environment only.

IMPORTANT NOTICE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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

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

Industry Canada Notice:

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.

IMPORTANT NOTE:

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.

This device has been designed to operate with an antenna having a maximum gain of 2 dB. Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50 ohms.

Registration



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

Version 1.0
July 26, 2007