USER MANUAL

DAP-1360

VERSION 1.0

D-Link®

WIRELESS

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Package Contents

- D-Link DAP-1360 Wireless N Access Point
- Power Supply
- Manual on CD
- Quick Installation Guide
- Ethernet Cable

Note: Using a power supply with a different voltage rating than the one included with the DAP-1360 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 or Netscape Navigator version 6.0 or above, with JavaScript enabled

Introduction

D-Link, an industry leader in networking, introduces the new D-Link Wireless N Access Point(DAP-1360). With the ability to transfer files with a maximum wireless signal rate of up to 300Mbps[1], the DAP-1360 gives you high-speed wireless network access for your home or office.

The DAP-1360 is Wi-Fi IEEE 802.11n compliant, meaning that it can connect and interoperate with other 802.11n compatible wireless client devices. The DAP-1360 is also backwards compatible with 802.11b/g. It can be flexibly configured to operate in 7 different modes Access Point, Wireless Client, Bridge, Bridge with AP, Repeater, WISP Client Router or WISP Repeater.With its Setup Wizard, the DAP-1360 Access Point ensures that you will be up and running on a wireless network in just a matter of minutes.

The DAP-1360 Access Point features Wi-Fi Protected Access (WPA-PSK/WPA2-PSK) and 64/128-bit WEP Encryption to provide an enhanced level of security for wireless data communications. The DAP-1360 also includes additional security features to keep your wireless connection safe from unauthorized access.

The DAP-1360 supports WPS on three operation modes,with each capable of being conveniently setup by using PIN method or Push Button.

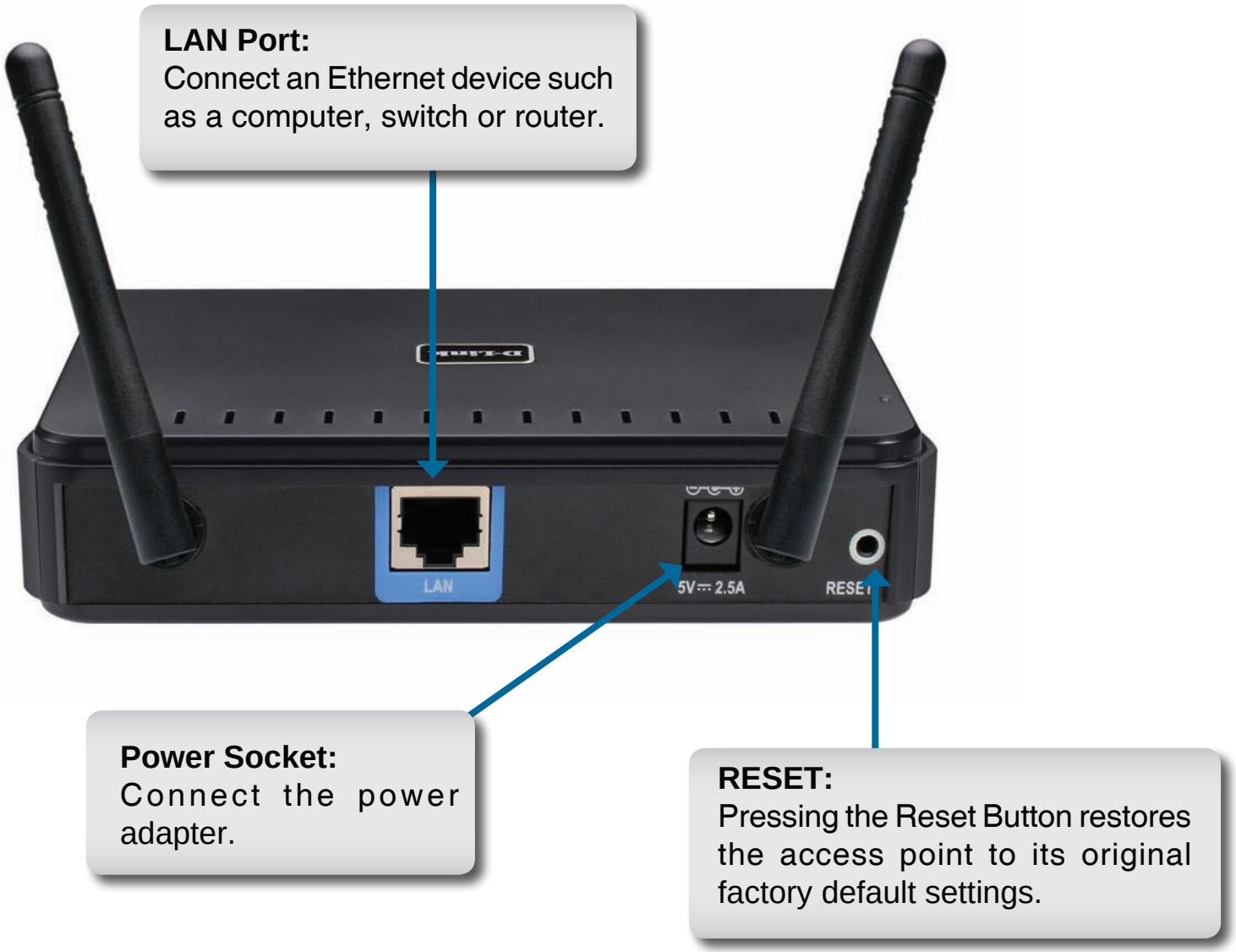
1 Maximum wireless signal rate based on IEEE Standard 802.11n specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate.

Features

- **Multiple operation modes –** Can be flexibly configured to operate as an Access Point, Wireless Client, Bridge, Bridge with AP, Repeater, WISP Client Router or WISP Repeater.
- **Total security –** Complete set of security features including WEP encryption and WPA/WPA2 to protect network against outside intruders.
- **Supports WPS(WiFi Protected Setup) in seven operation modes.**
- **Connect home and soho to a wireless network –** Create a wireless network for your home and office using the D-Link DAP-1360 as a 802.11n standard Wireless Access Point. Connect this Access Point to a broadband modem and let others wirelessly access your Internet connection. Enjoy surfing the web, checking e-mail, and chatting with family and friends online.
- **Protect wireless network and data –** The DAP-1360 provides 64/128-bit WEP encryption and WPA/WPA2 security to protect your network and wireless data. In addition, it also provides MAC address filtering and the Disable SSID Broadcast function to limit outsiders' access to your home and office network.
- **Flexibly configure your AP for different applications –** The DAP-1360 can be configured to operate as (1) an Access Point to act as a central hub for wireless users, (2) an Wireless Client to connect to another Access Point, (3) a Repeater to extend the wireless coverage to cover all "dead" spots".
- **Easy to install and use –** With D-Link's Setup Wizard, you can set up your wireless network in minutes. It configures your DAP-1360's operation mode, makes it easy to add new wireless devices onto the network, and helps you create a simple wireless network for your home and office.

1 Maximum wireless signal rate based on IEEE Standard 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.

Hardware Overview
Connections



Hardware Overview

LEDs

Power: Solid green light indicates connection to a power source

LAN:Blinking green light indicates activity;Solid green light indicates connection

WLAN: Blinking green light indicates wireless activity;solid green light indicates connection

Security: A solid green light indicates when wireless security is enabled.

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.

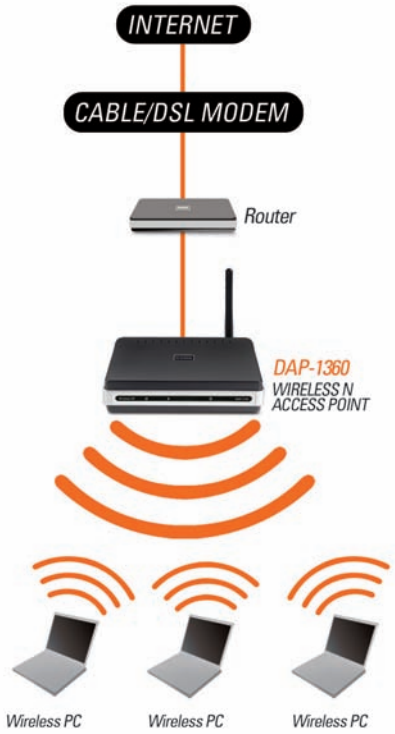
5. If you are using 2.4GHz cordless phones or X-10 (wireless products such as ceiling fans, lights, and home security systems), your wireless connection may degrade dramatically or drop completely. Make sure your 2.4GHz phone base is as far away from your wireless devices as possible. The base transmits a signal even if the phone in not in use.

AP/Repeater/Wireless Client Mode

How you use your DAP-1360 will determine which mode you choose on the DAP-1360. This section will help you figure out which setting works with your setup.

Access Point Mode

In Access Point mode, the DAP-1360 acts as a central connection point for any computer (client) that has a 802.11n or backward-compatible 802.11b/g wireless network adapter and is within range of the AP. Clients must use the same SSID (wireless network name) and channel as the AP in order to connect. If wireless security is enabled on the AP, the client will need to enter a password to connect to the AP. Multiple clients can connect to the AP at the same time in Access Point mode.



Wireless PCs Using the DAP-1360 as a Central Connection Point

Wireless Client Mode

In Wireless Client mode, the DAP-1360 acts as a wireless network adapter for your Ethernet-enabled device (such as a game console or a TV set-top box). Connect your Ethernet-enabled device to the AP using an Ethernet cable. AP Client mode can support multiple wired clients.

Ethernet-enabled Gaming Console Using the DAP-1360 as a Wireless Interface to Access the Internet

Repeater Mode

Repeater mode increases the range of your wireless network by extending the wireless coverage of another AP or wireless router. The APs and wireless router (if used) must be within range of each other. Make sure that all clients, APs, and the wireless router all use the same SSID (wireless network name) and channel.

Extending the Wireless Coverage of a Wireless Router Using the DAP-1360

Configuration

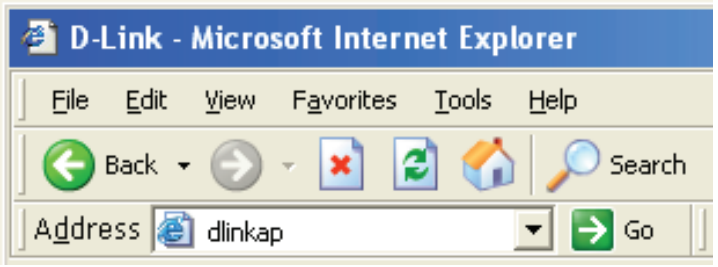
Web-based Configuration Utility

If you wish to change the default settings or optimize the performance of the DAP-1360, you may use the configuration utility that D-Link has included a configuration utility for this purpose.

After you have completed the initial installation, you can access the configuration menu, at any time, by opening the web-browser and typing in the device name of the DAP-1360. The DAP-1360's default device name is shown below:

1. Open the web browser

2. Type in the **device name** of the DAP-1360.(dlinkap)

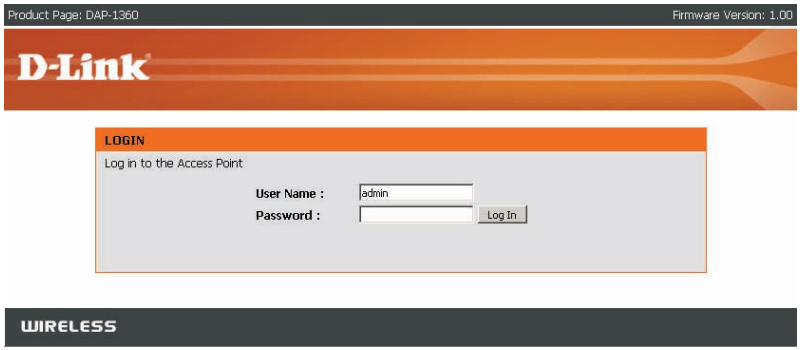


Note: If you have changed the default device name assigned to the DAP-1360, make sure to enter the correct device name.

3. Type **admin** in the **User Name** field

4. Leave the **Password** blank

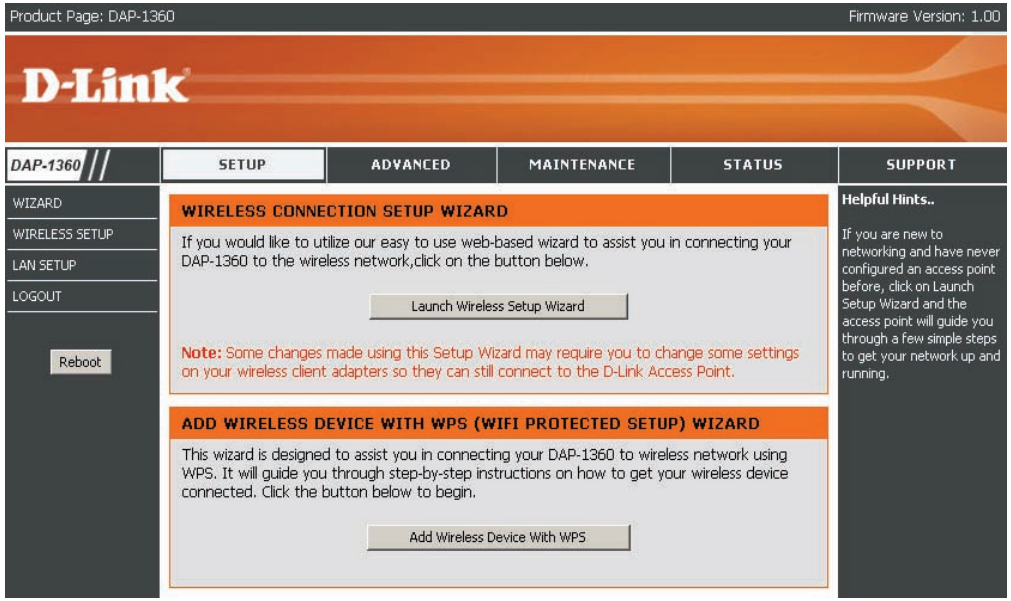
5. Click **OK**



Wireless Setup Wizard

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

To setup your wireless network using WPS, you can click **Add Wireless Device With WPS** and skip to page 37.

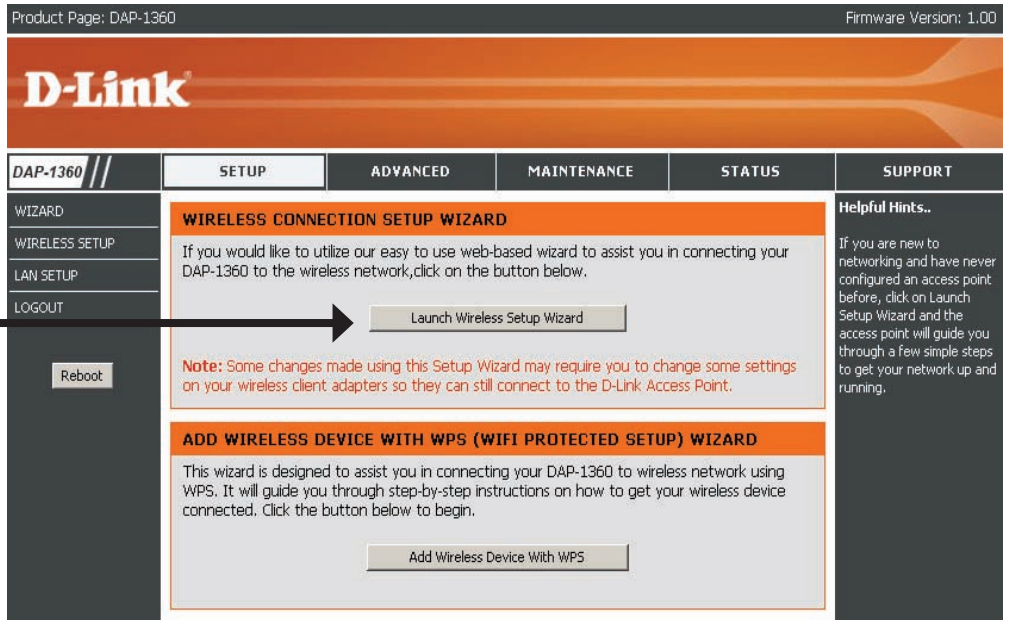


Wireless Setup Wizard For AP Mode

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.

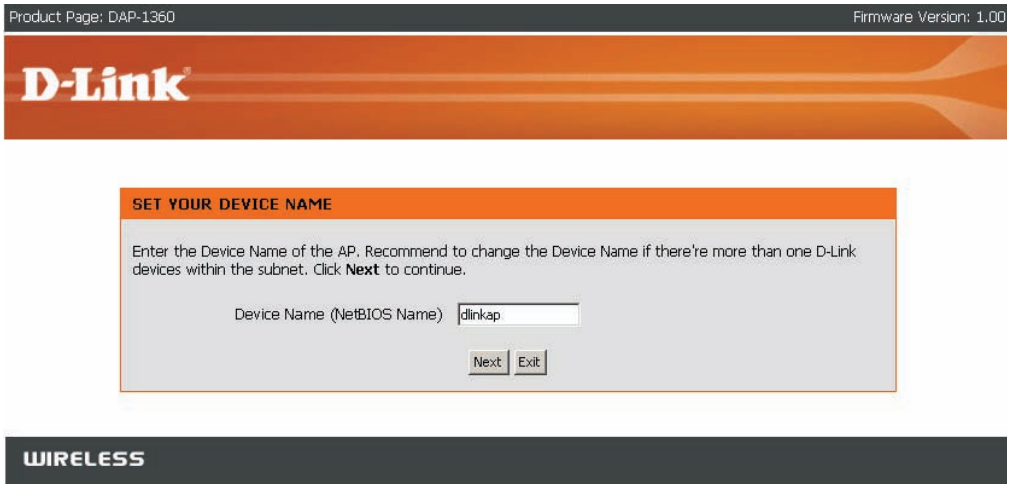
Click **Launch Wireless Setup Wizard** to begin.

Click **Launch Wireless Setup Wizard**

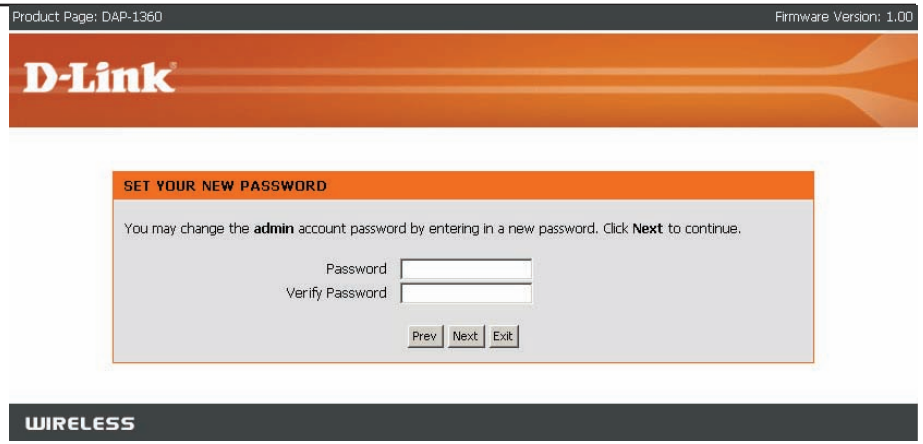


Select the wireless mode **Access Point**.

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.



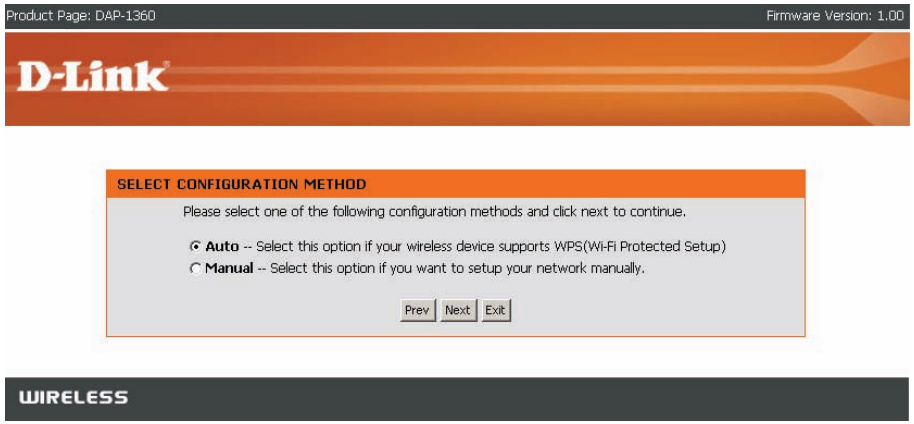
If you want to change the admin account password, enter a new password and click **Next**.



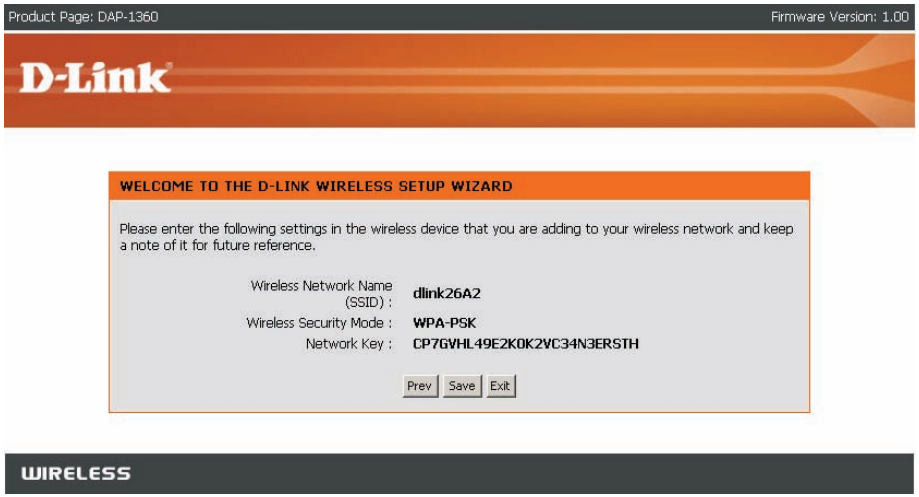
Select **Auto** as the configuration method only if your wireless device supports Wi-Fi Protected Setup.

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

Click **Next** to continue.

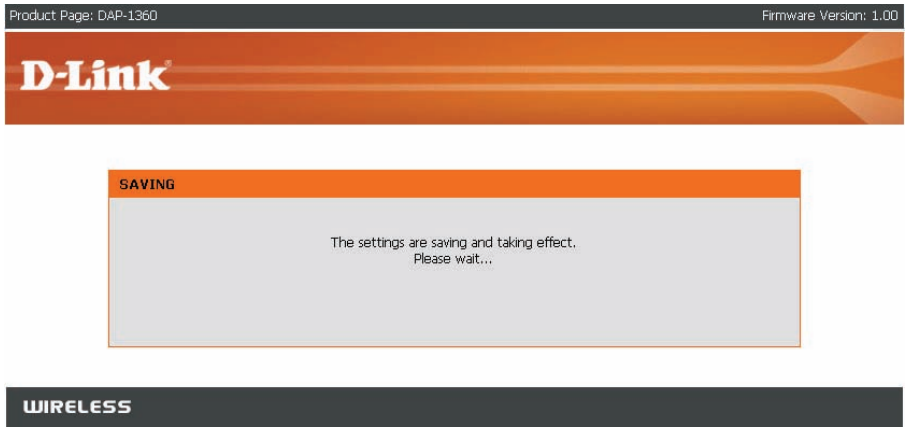


Click **Save** to save your network settings.



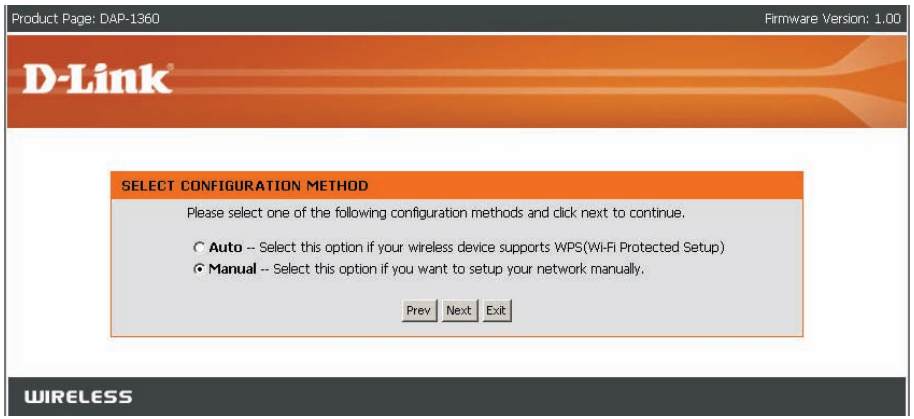
In order for your network settings to take effect AP will reboot automatically.

When the device has finished rebooting the main screen will display.



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

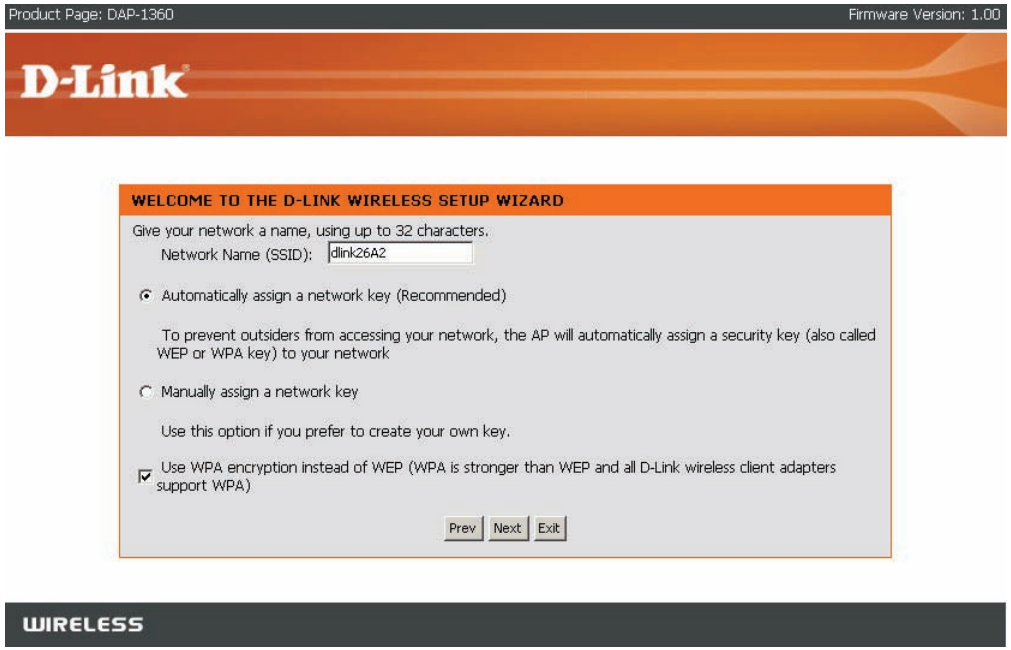
Click **Next** to continue.



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

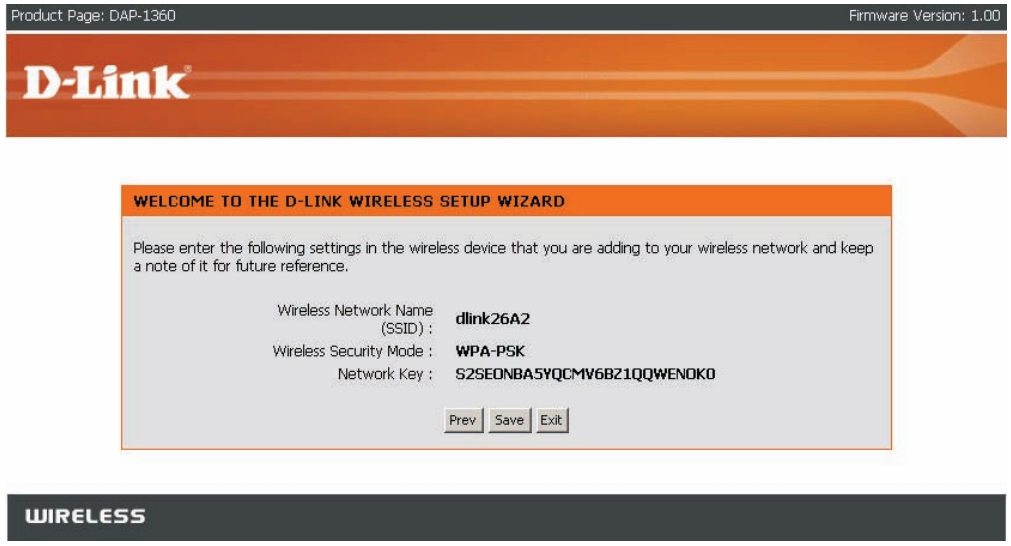
To Manually assign a network key, skip to page 19.

Click **Next** to continue.



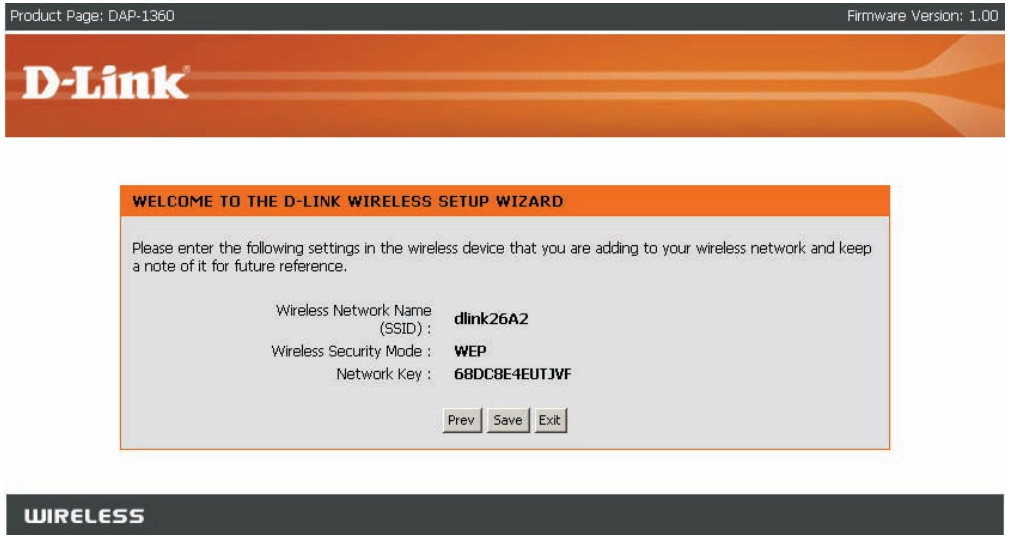
If you choose WPA-PSK encryption, the following screen will show you your Network Key to enter on your wireless clients.

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



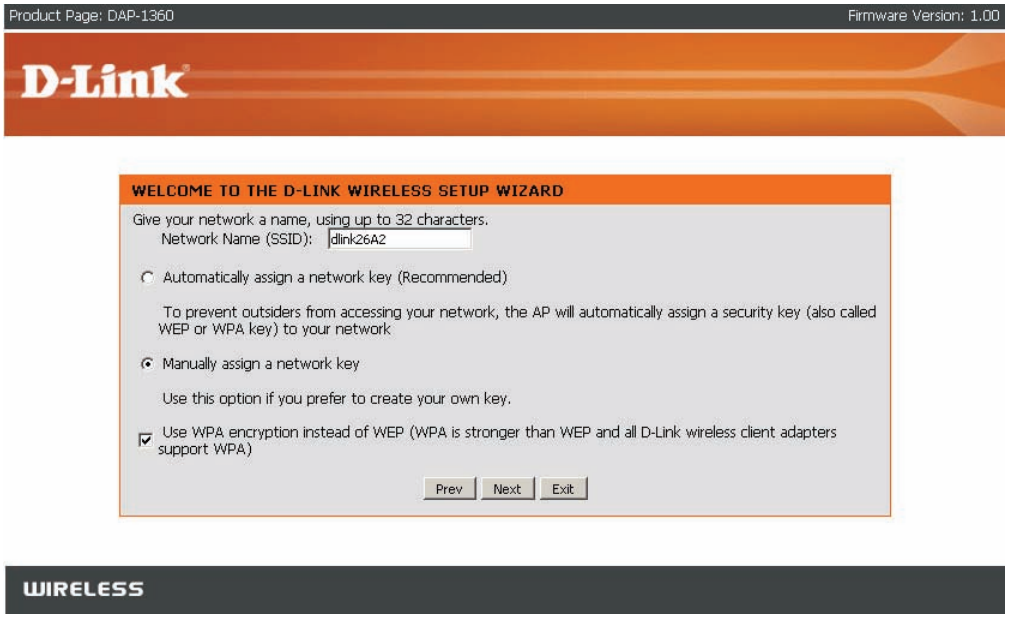
If you choose WEP encryption, the following screen will show you your Network Key to enter on your wireless clients.

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



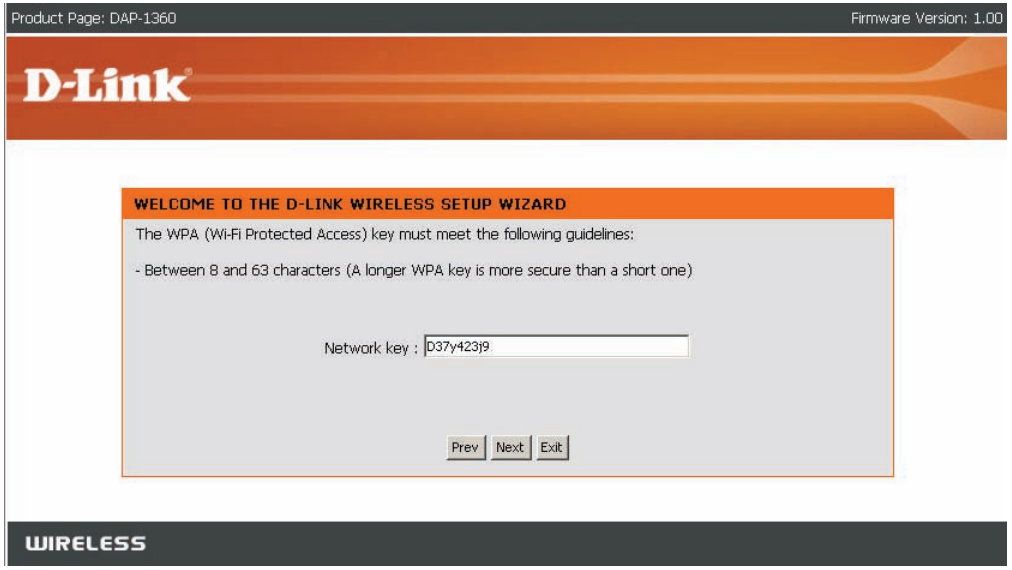
Choose **Manually assign a network key** to create your own key.

Click **Next** to continue.



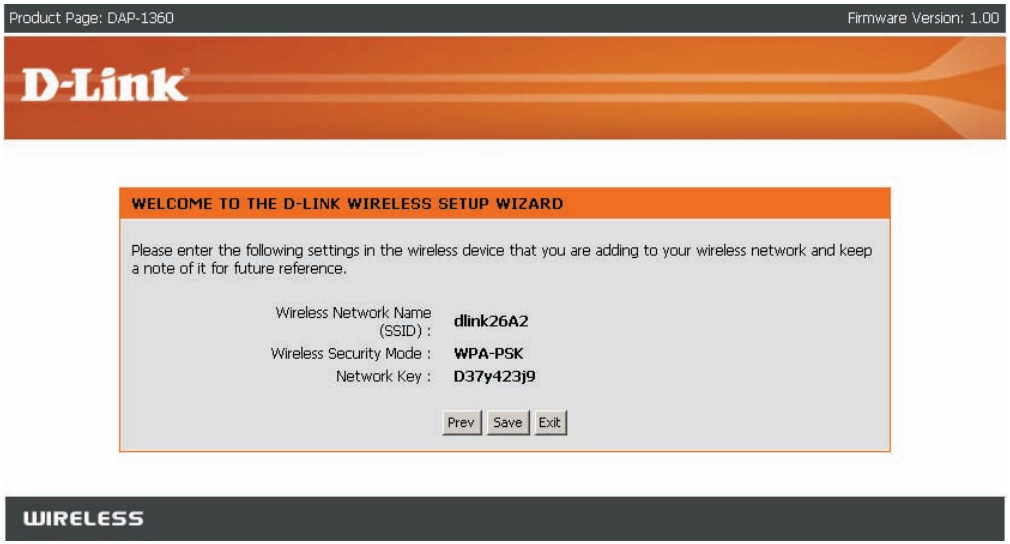
For **WPA** encryption, enter a Network Key between 8 and 63 characters long or enter exactly 64 characters using 0-9 and A-F.

Click **Next** to continue.



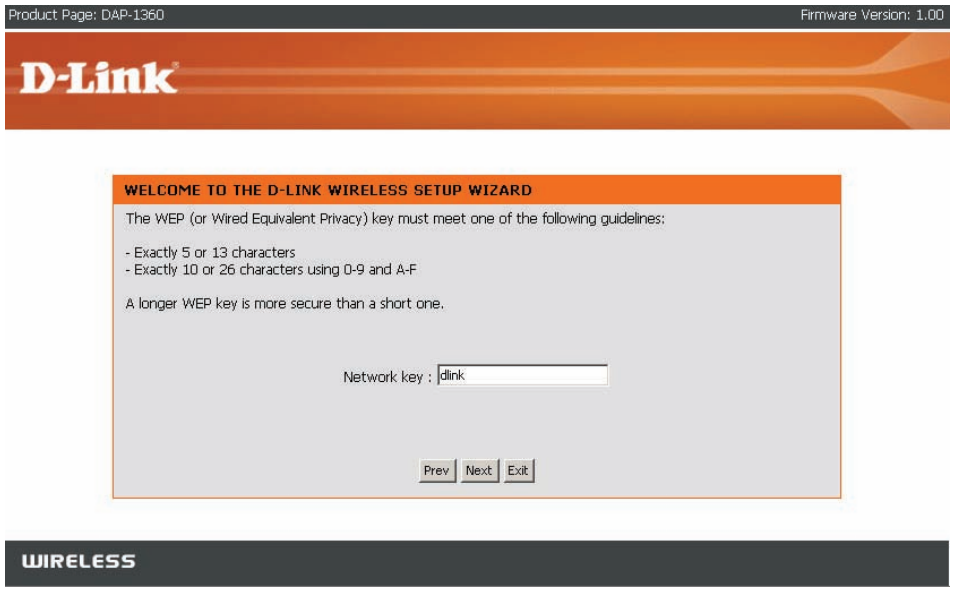
If you select **WPA** encryption, the following screen will show you your network key to enter on your wireless clients.

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



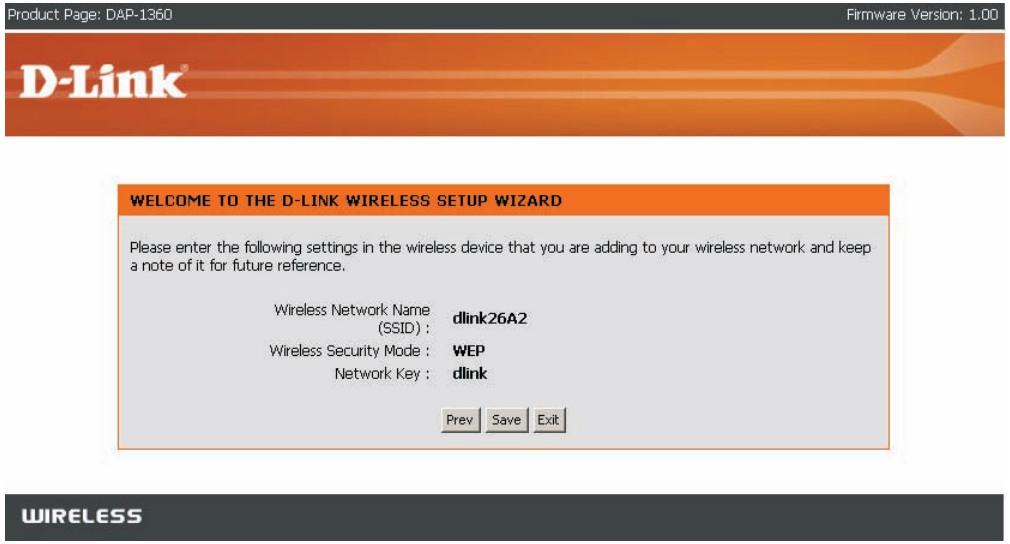
For **WEP** encryption, enter a Network Key exactly 5 or 13 characters long or exactly 10 or 26 characters using 0-9 and A-F.

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.



Setup Wizard For Repeater Mode

This wizard is designed to assist you in configuring the wireless settings for your DAP-1360 with repeater mode. It will guide you through step-by-step instructions on how to setup your wireless network. You can click launch wireless setup wizard to quickly configure your access point. If DAP-1360 successfully connect to the AP or Wireless router with repeater mode, you can also click add wireless device with WPS to setup your wireless network using WPS.

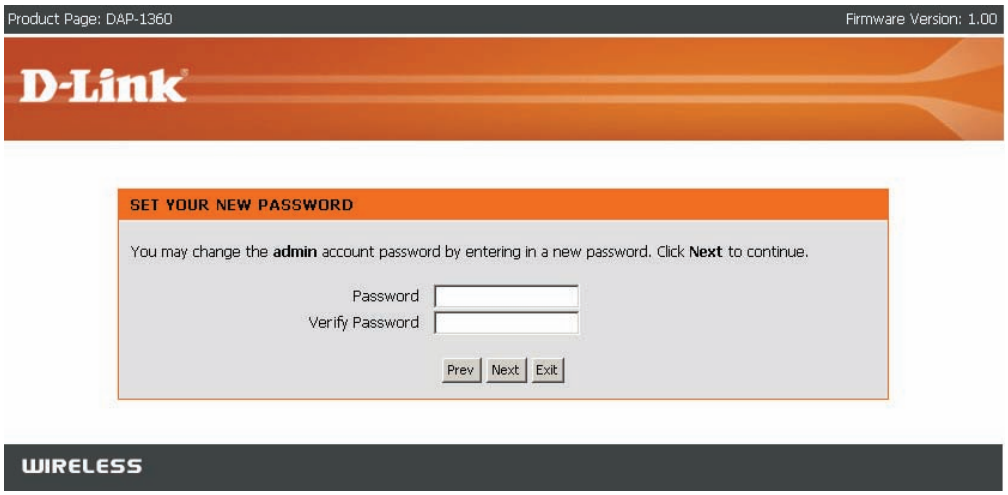
Click **Launch Wireless Setup Wizard** to begin.

Click **Launch Wireless Setup Wizard**

Select the wireless mode **Repeater**.

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.

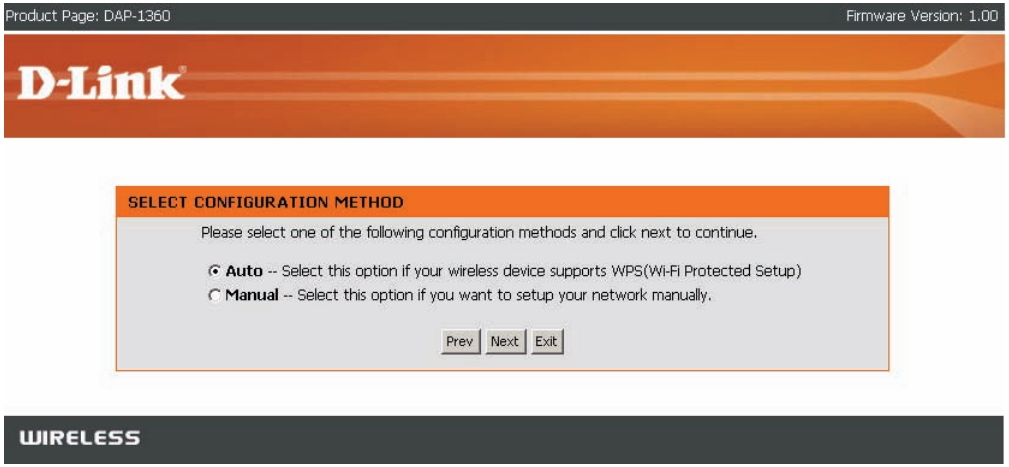
If you want to change the admin account password, enter a new password and click **Next**.



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

If you want to setup your network manually, skip to page 26.

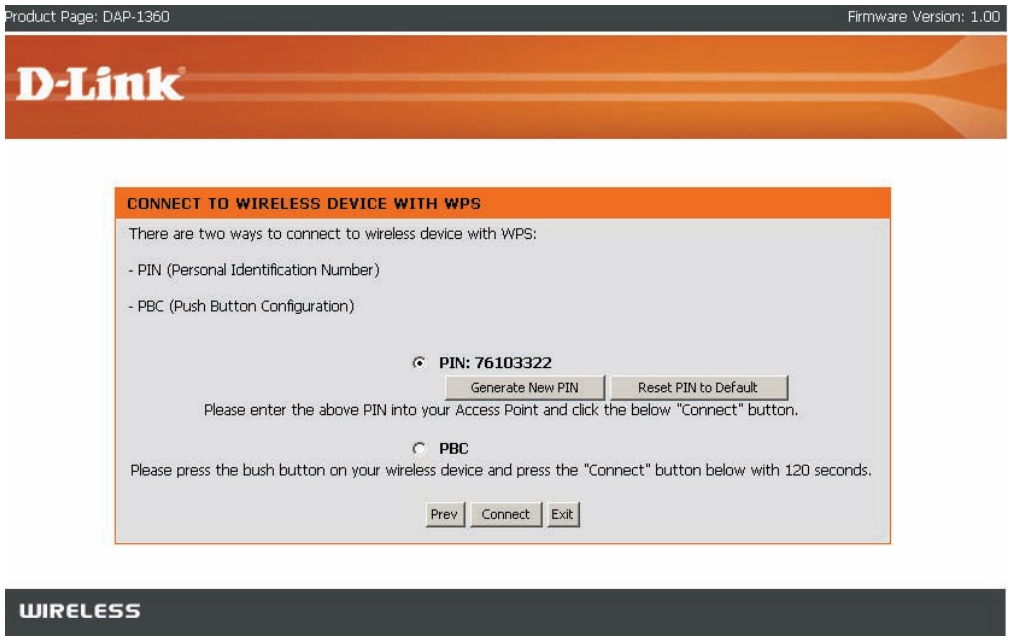
Click **Next** to continue.



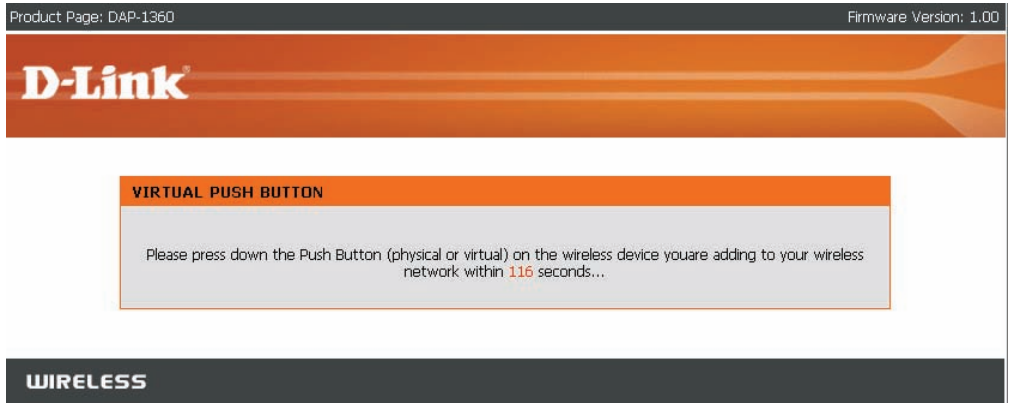
Select **PIN** to connect your wireless device with WPS.

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

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

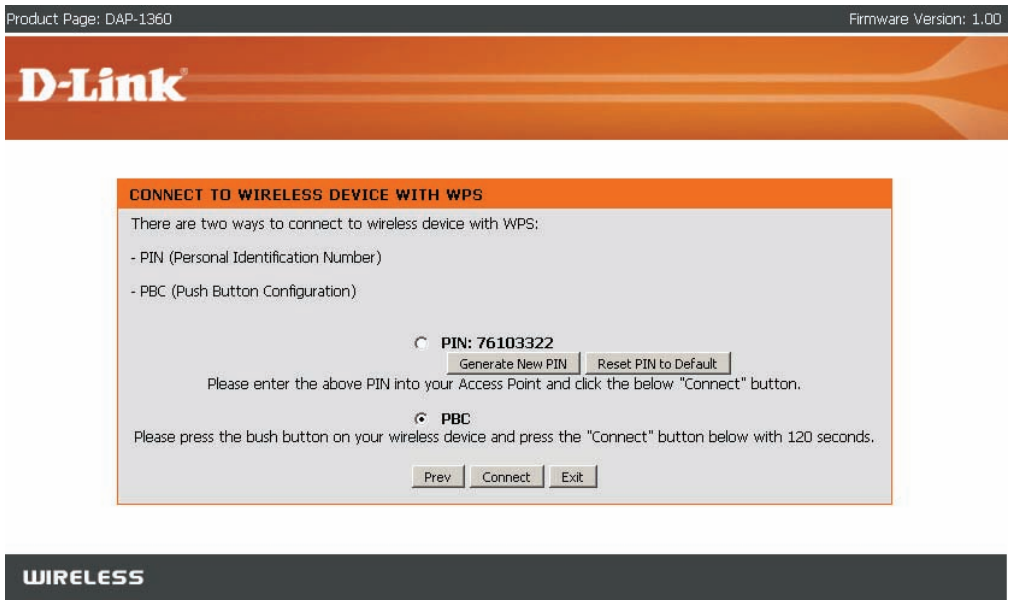


Start WPS on the wireless device you are adding to your wireless network to complete the setup.

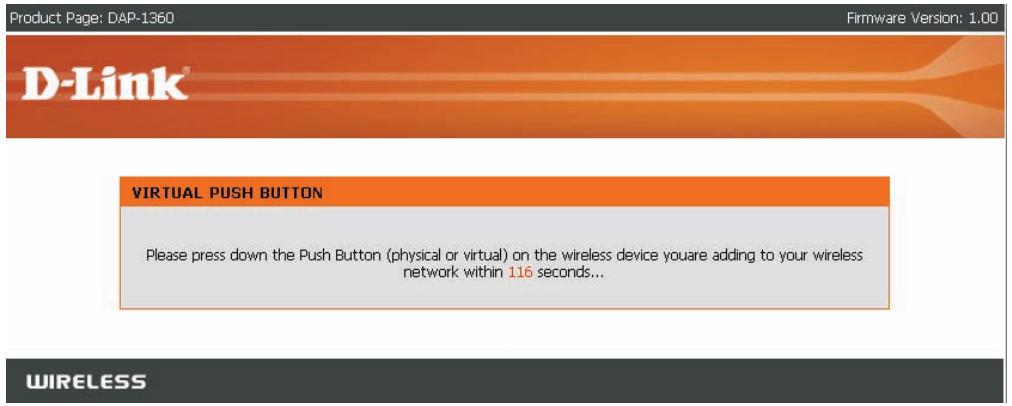


Select **PBC** to use the Push Button Configuration to connect to your network.

Click **Connect** to continue.

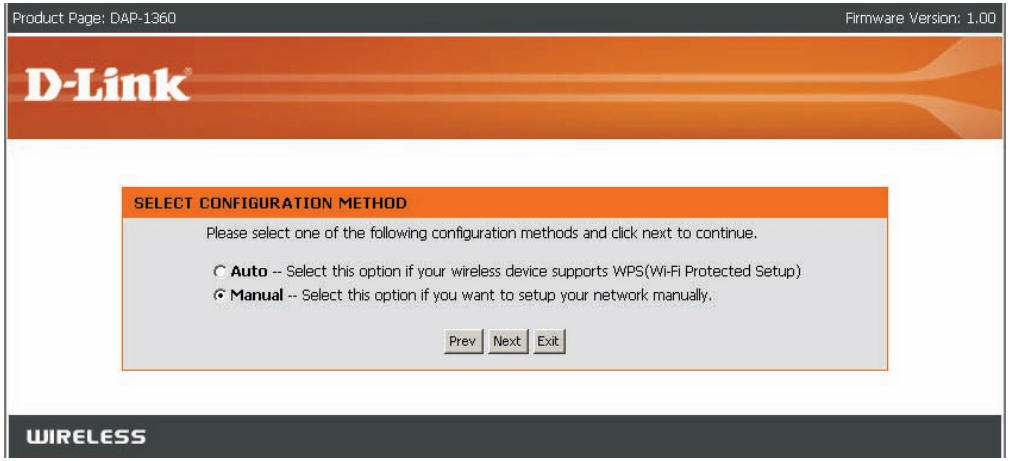


Press down the Push Button on the wireless device you are adding to your network to complete the setup.



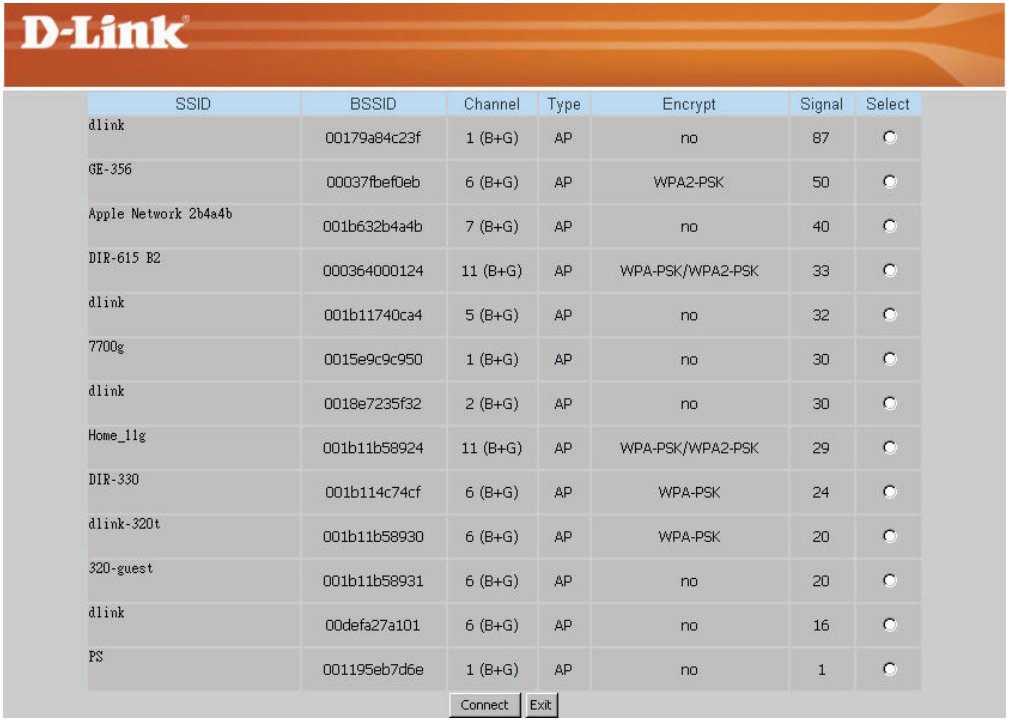
Select **Manual** configuration to setup your network manually.

Click **Next** to continue.

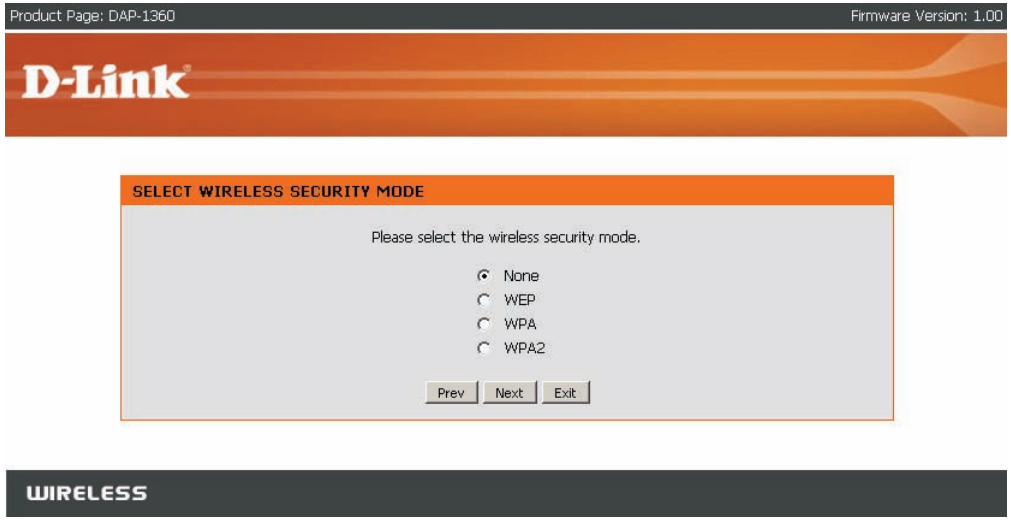


If you clicked on **Site Survey** to following screen will be displayed.

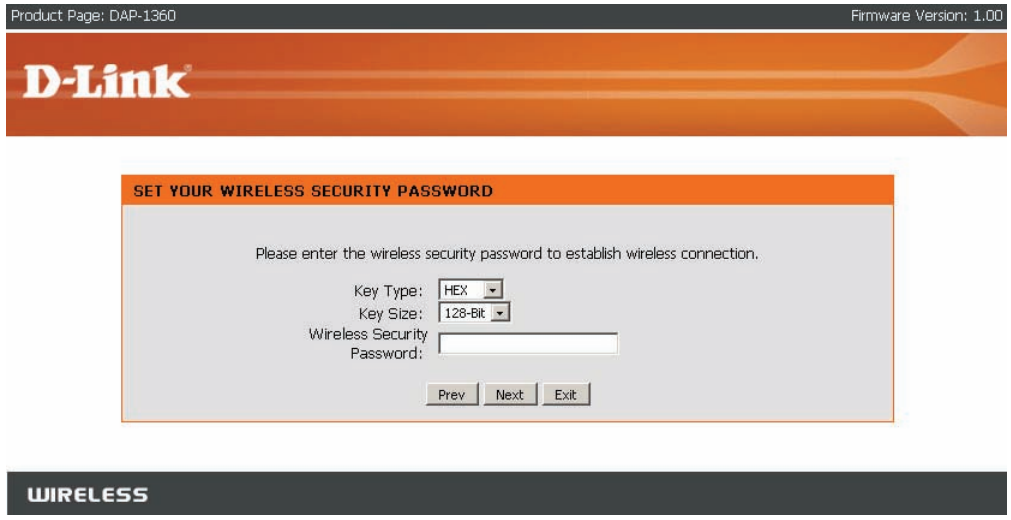
Find your access point from the list and click **Connect** to complete the Setup Wizard.



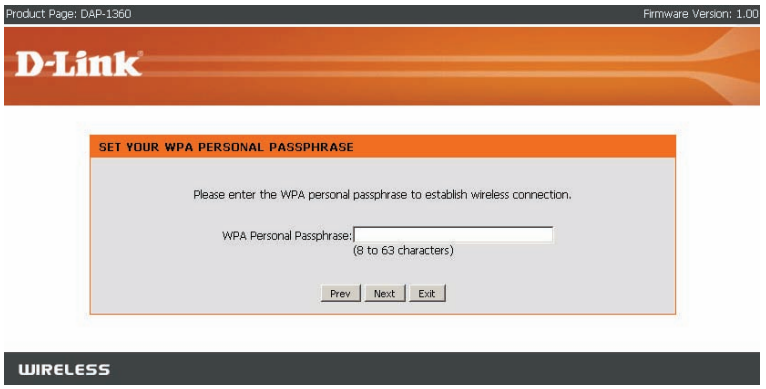
Choose which Security Mode you want to use and click **Next** to continue.



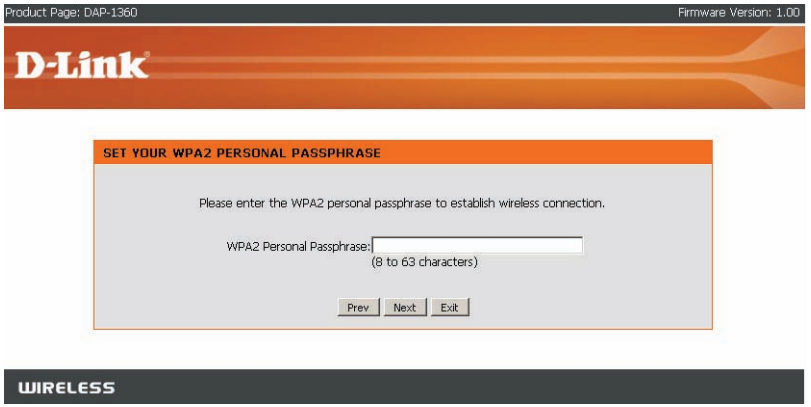
If you choose **WEP**, enter the wireless security password and click **Next** to complete the Setup Wizard.



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

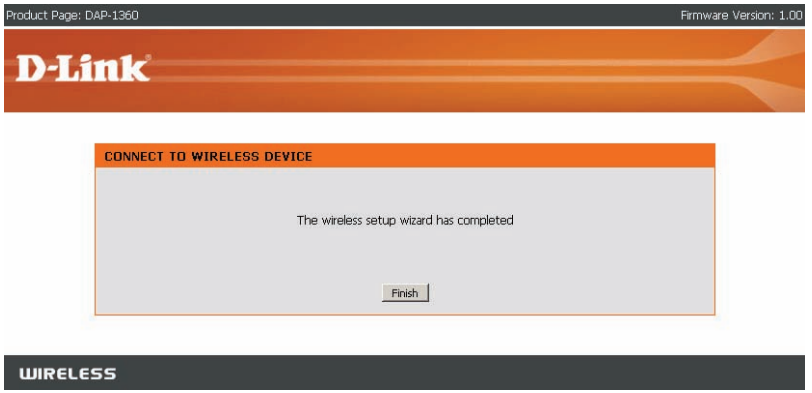


If you choose **WPA2**, enter the WPA2 Personal Passphrase and click **Next** to complete the Setup Wizard.



The Wireless Setup Wizard is complete.

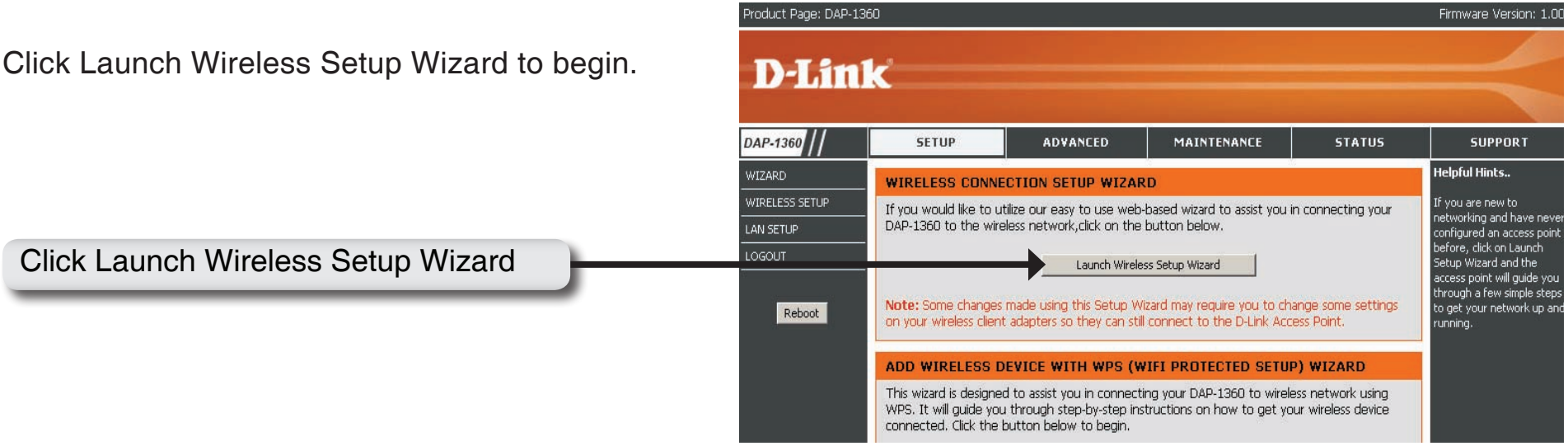
Click **Finish** to reboot the device.



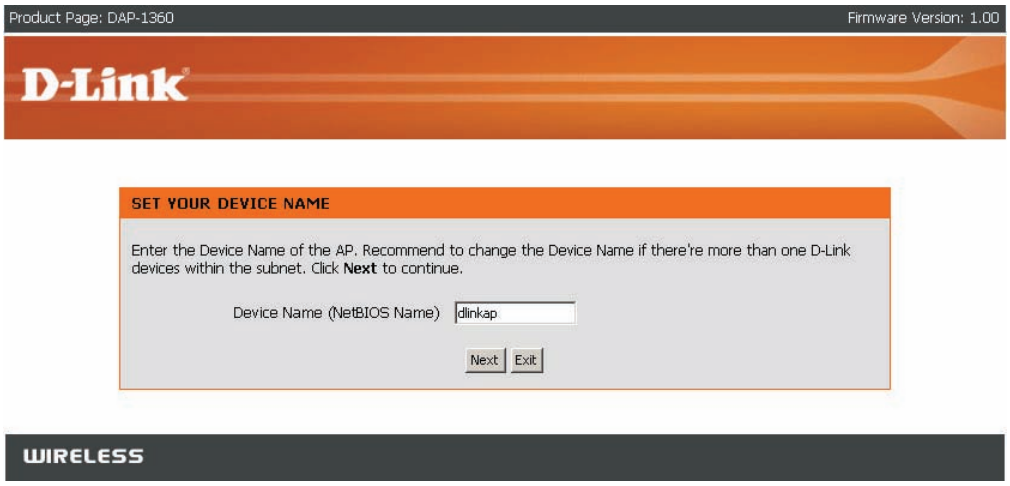
Setup Wizard For Wireless Client Mode

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

Click Launch Wireless Setup Wizard to begin.

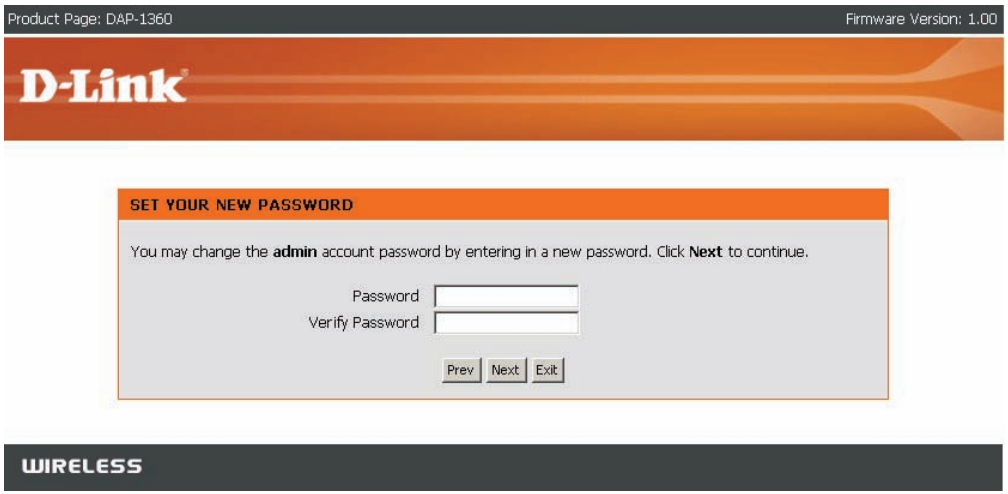


Select the wireless mode **Wireless Client**.



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.

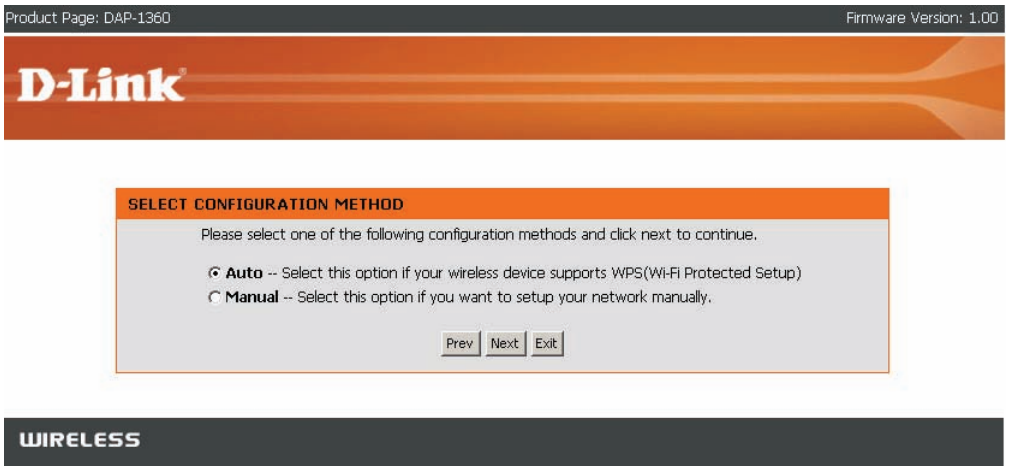
If you want to change the admin account password, enter a new password and click Next.



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

If you want to setup your network manually, skip to page 33.

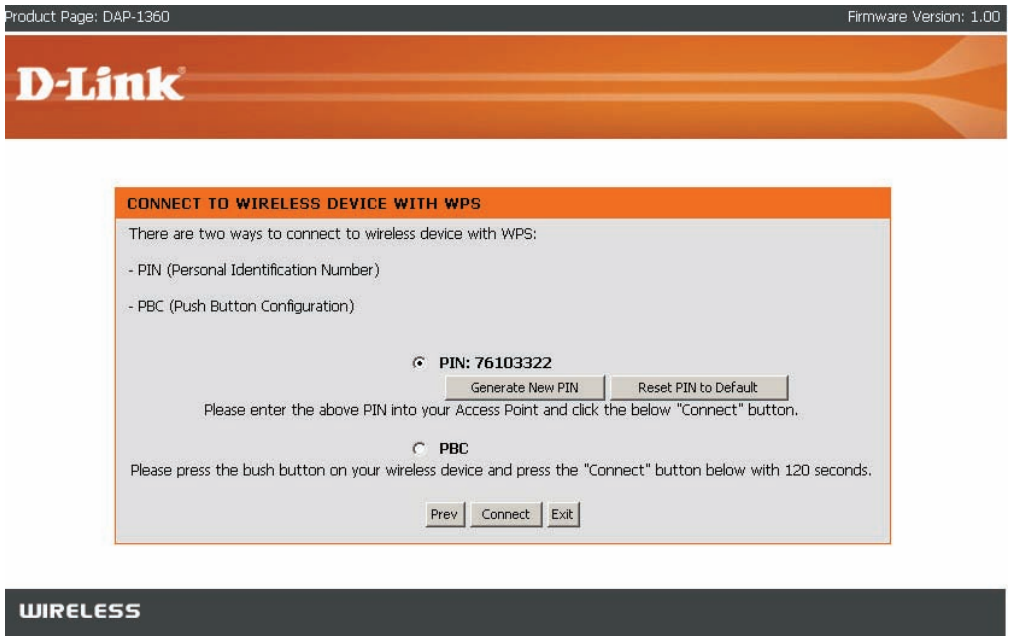
Click Next to continue.



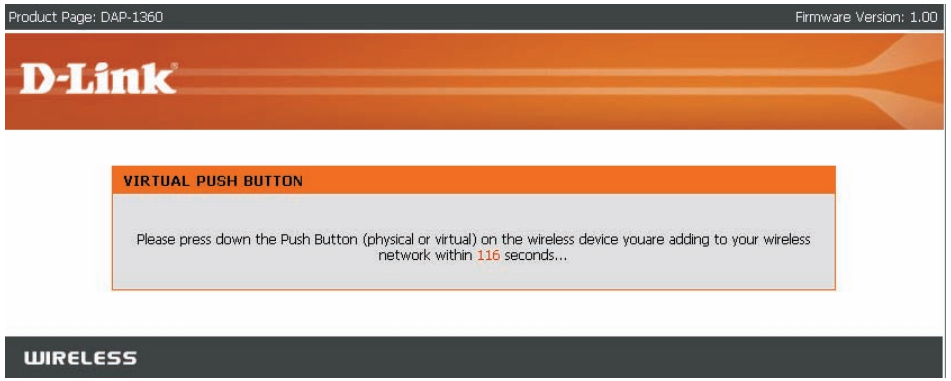
Select PIN to connect your wireless device with WPS.

For PBC configuration, skip to next page.

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

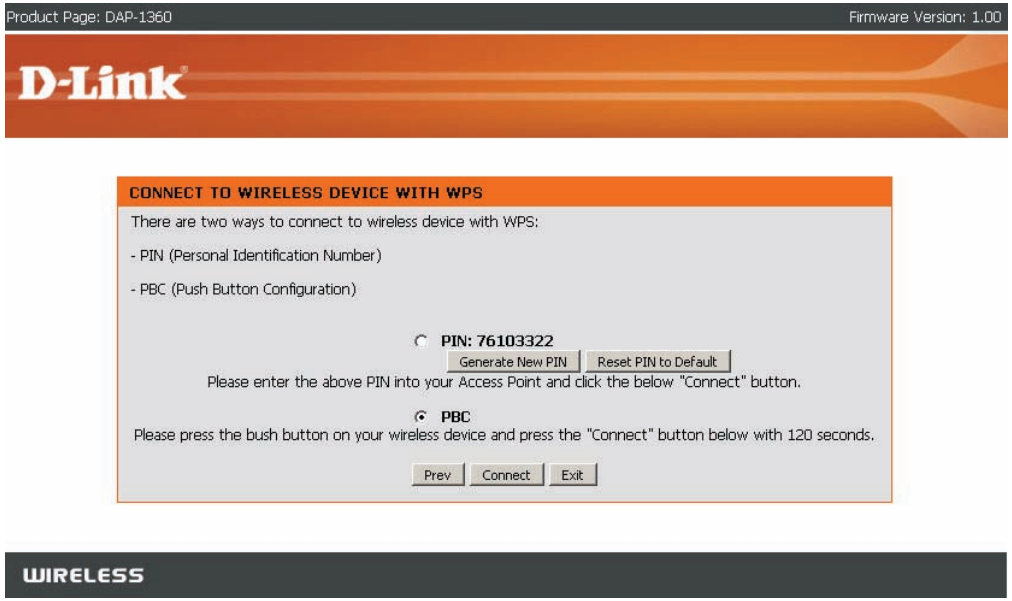


Start WPS on the wireless device you are adding to you wireless network to complete the setup.

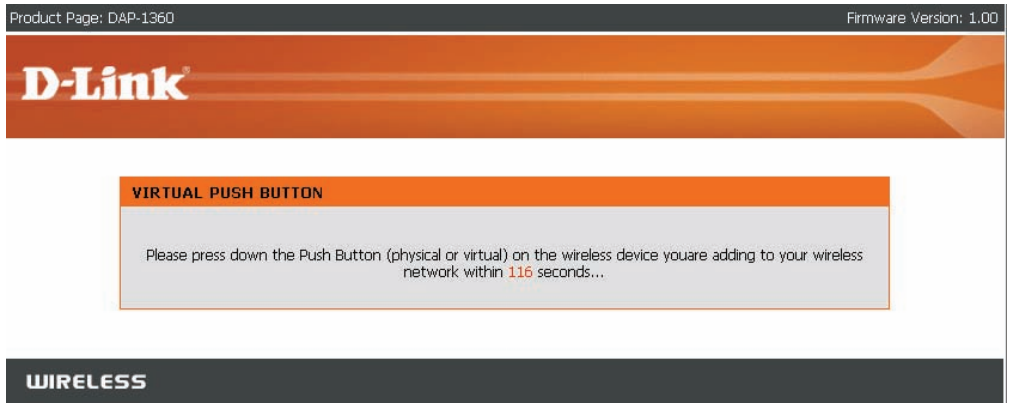


Select **PBC** to use the Push Button Configuration to connect to your network.

Click **Connect** to continue.

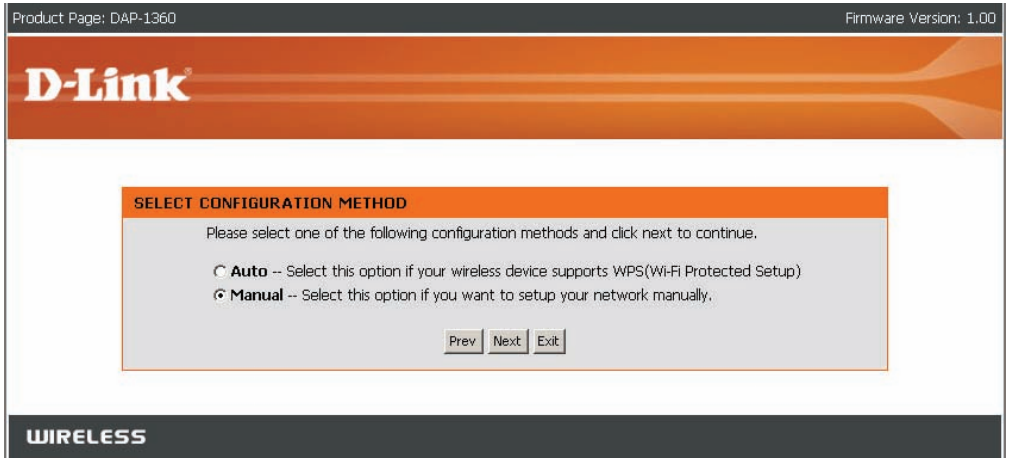


Press down the Push Button on the wireless device you are adding to your network to complete the setup.



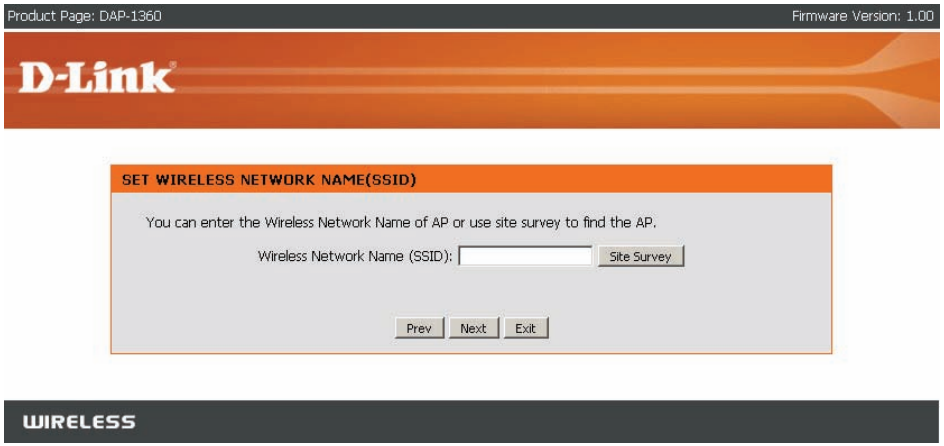
Select Manual configuration to setup your network manually.

Click **Next** to continue.



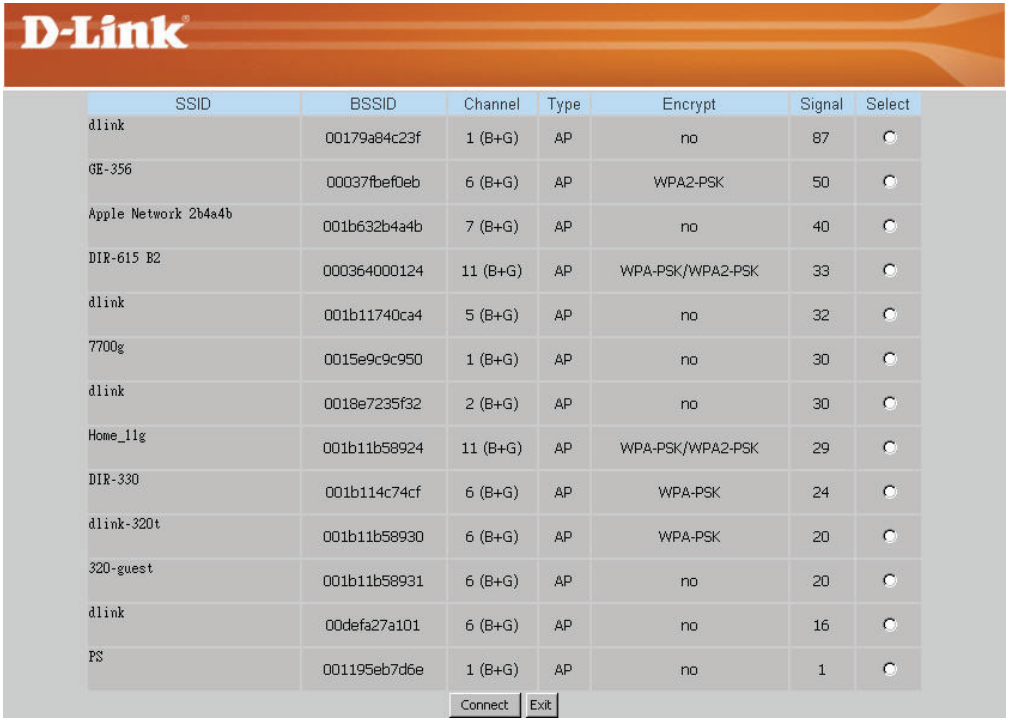
Enter the Wireless Network Name of the AP or use site survey to find the AP.

Click **Next** to continue.

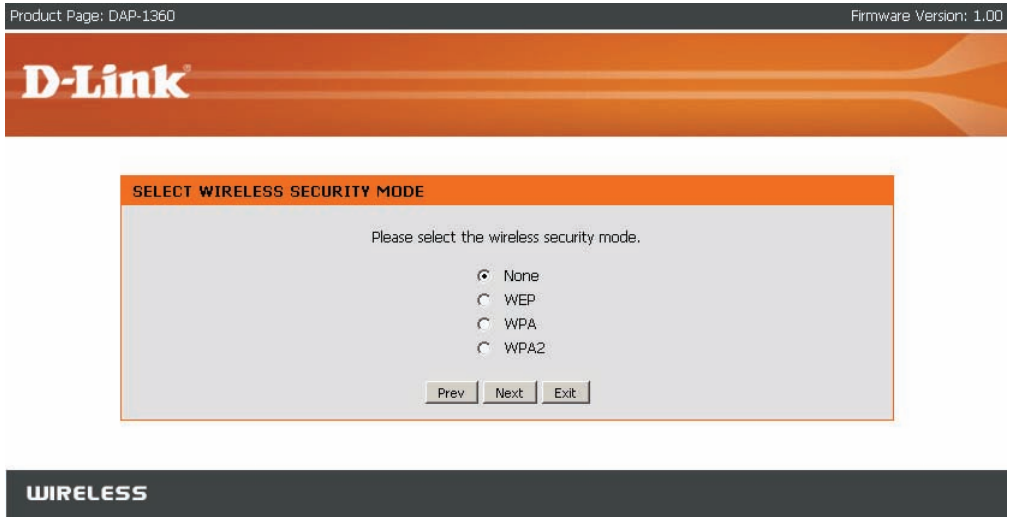


If you clicked on Site Survey to following screen will be displayed.

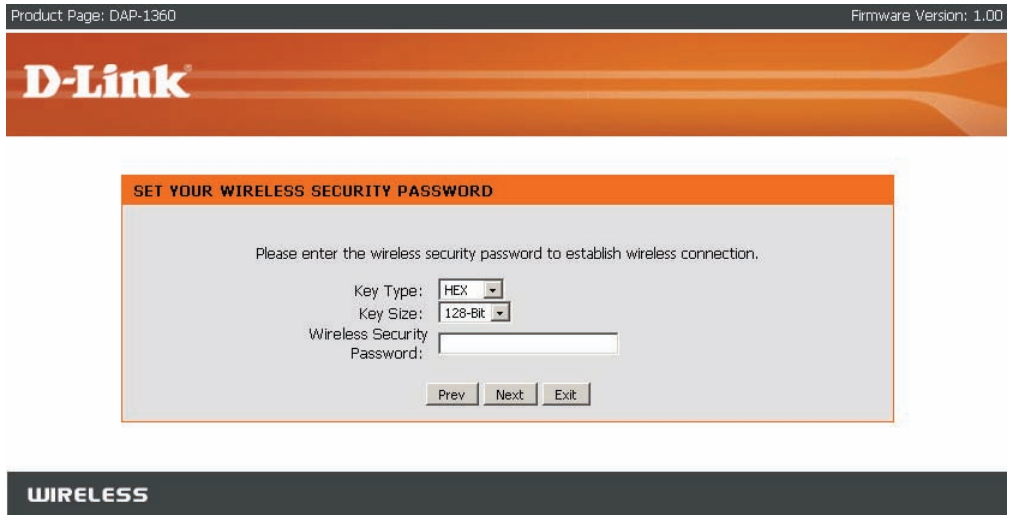
Find your access point from the list and click Connect to complete the Setup Wizard.



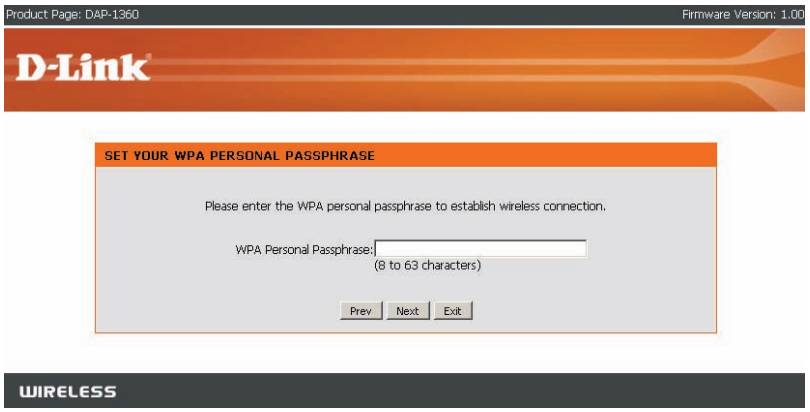
Choose which Security Mode you want to use and click **Next** to continue.



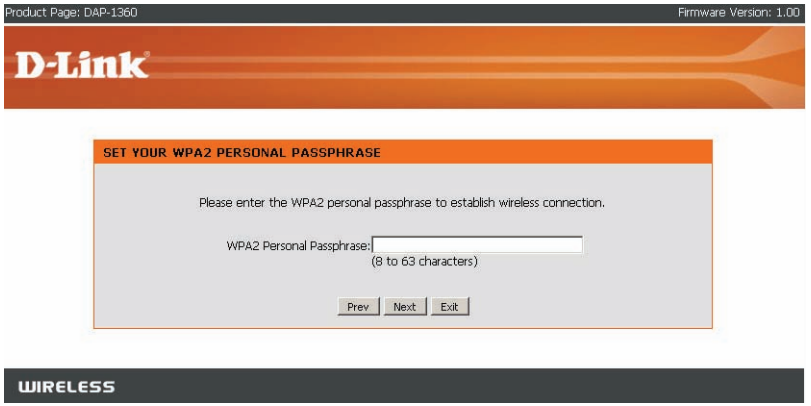
If you choose WEP, enter the wireless security password and click **Next** to complete the Setup Wizard.



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

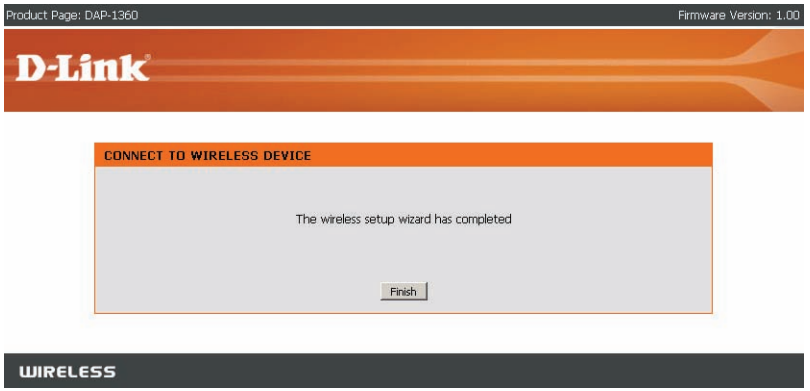


If you choose WPA2, enter the WPA2 Personal Passphrase and click **Next** to complete the Setup Wizard.



The Wireless Setup Wizard is complete.

Click **Finish** to reboot the device.



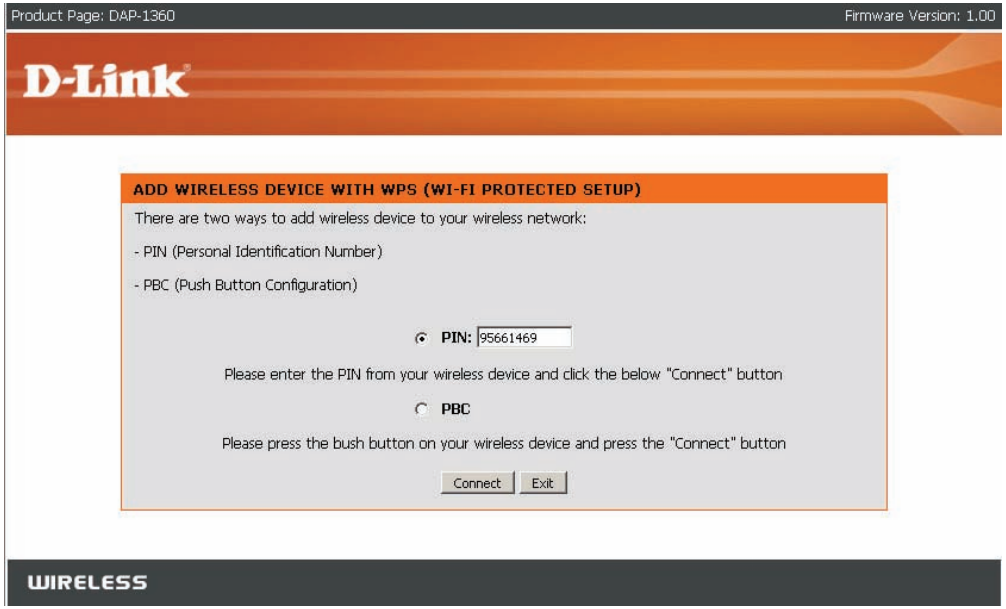
Add Wireless Device With WPS

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.

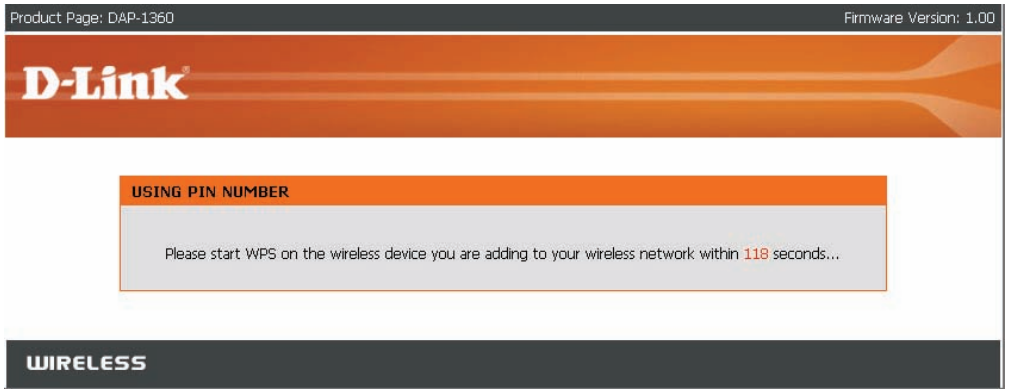
Select **PIN** to use your PIN number from your wireless device to connect to your network.

For PBC configuration, skip to next page.

Click Connect to continue.

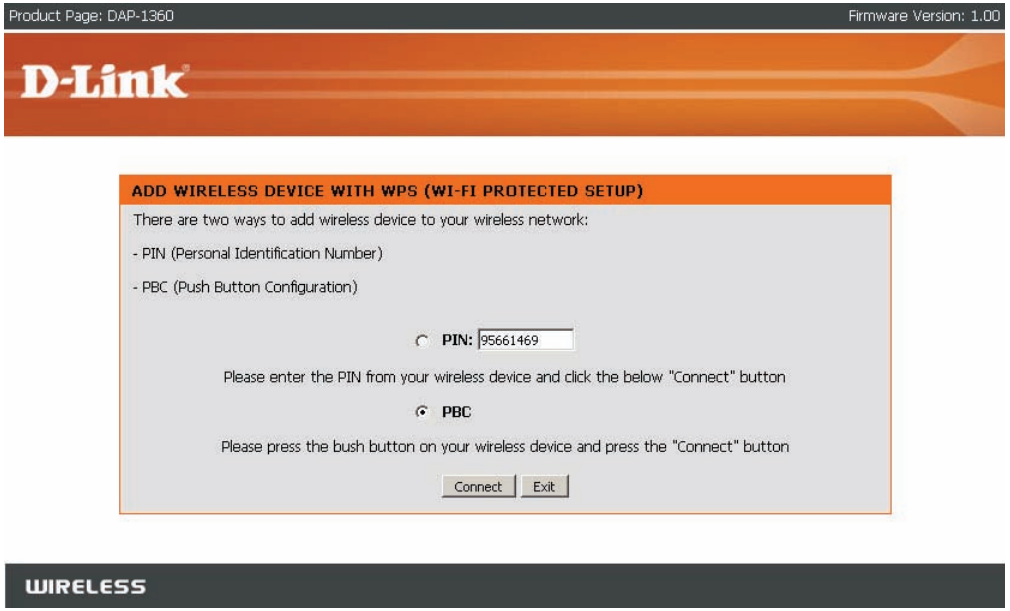


Start WPS on the wireless device you are adding to you wireless network to complete the setup.



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

Click **Connect** to continue.

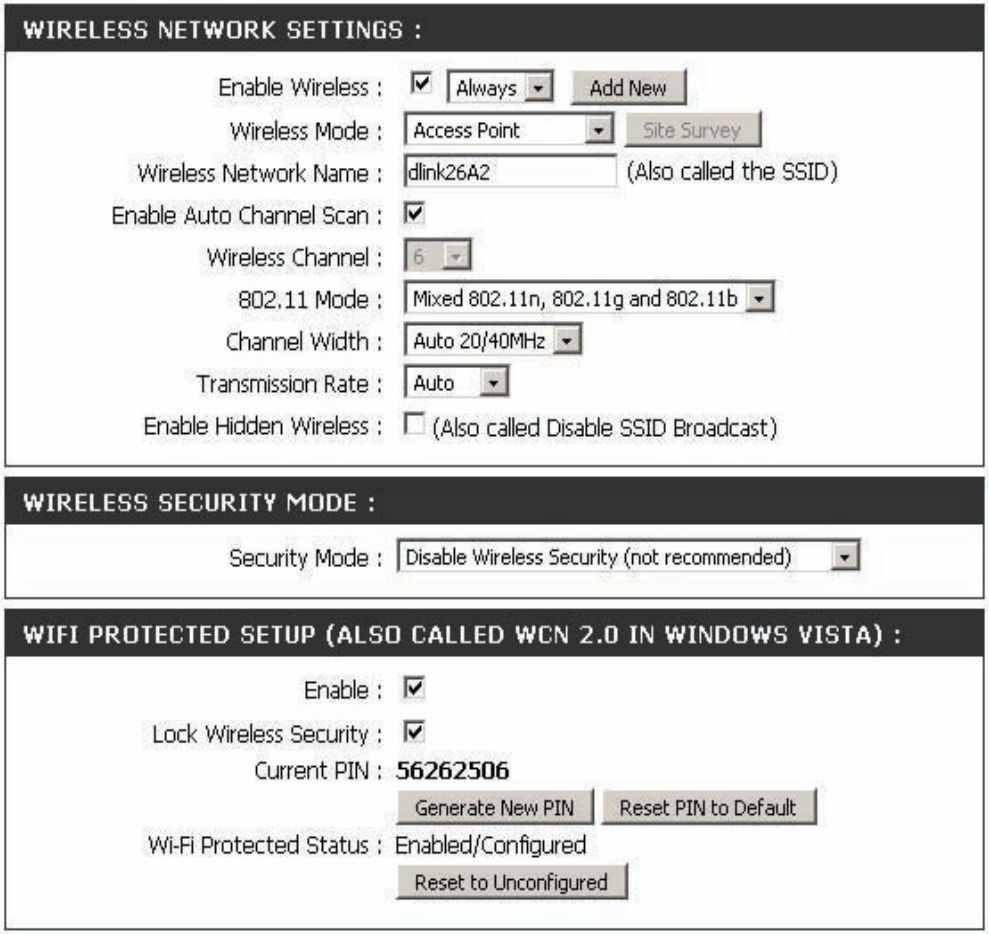


Press down the Push Button on the wireless device you are adding to your network to complete the setup.

Wireless Setup

Access Point

In AP mode, the DAP-1360 acts as a central connection point for any computer (client) that has an 802.11n or backward-compatible 802.11b/g wireless network adapter and is within range of the AP.



Enable Wireless: Select this to turn Wi-Fi on and off. Use the drop-down box to select if you want to use a schedule. Click **Add New** to add or change a schedule.

Wireless Mode: Select the wireless mode from Access Point, Wireless Client, Repeater, Bridge, Bridge with AP mode, WISP Client Router and WISP Repeater.

Wireless Network Name (also called the SSID): The Wireless Network Name is a unique name that identifies a network. All devices on a network must share the same wireless network name in order to communicate on the network. If you decide to change the wireless network name from the default setting, enter your new wireless network name in this field.

Enable Auto Channel Scan: Check the box to enable Auto Channel Scan. Enable this feature to auto-select the channel for the best wireless performance.

Wireless Channel: Auto channel selection is the default setting. First disable Auto Channel Scan (see below) and you will be able to select a wireless channel.

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

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

Transmission Rate: Select the transmission rate. It is strongly suggested to use the **Best** setting for optimal performance.

Enable Hidden Wireless: Check the box if you do not want the SSID to be broadcast by the DAP-1360. This prevents the SSID from being seen by site survey utilities, so any wireless clients will have to be pre-configured with the SSID of the DAP-1360 in order to connect to it.

Wireless Security Mode: Select a wireless security setting. Options are **None**, **WEP**, **WPA**, **WPA2,** or **WPA2-Auto**. See p.53 of this manual for a detailed explanation of the wireless security options.

Wi-Fi Protected Setup: Enable or disable the Wi-Fi protected setup feature.

Lock Wireless Security: Locking the wireless security prevents the settings from being changed by any new external registar 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 Registar.

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.

Repeater

Wireless repeater mode extends the wireless coverage of another wireless AP or wireless router.

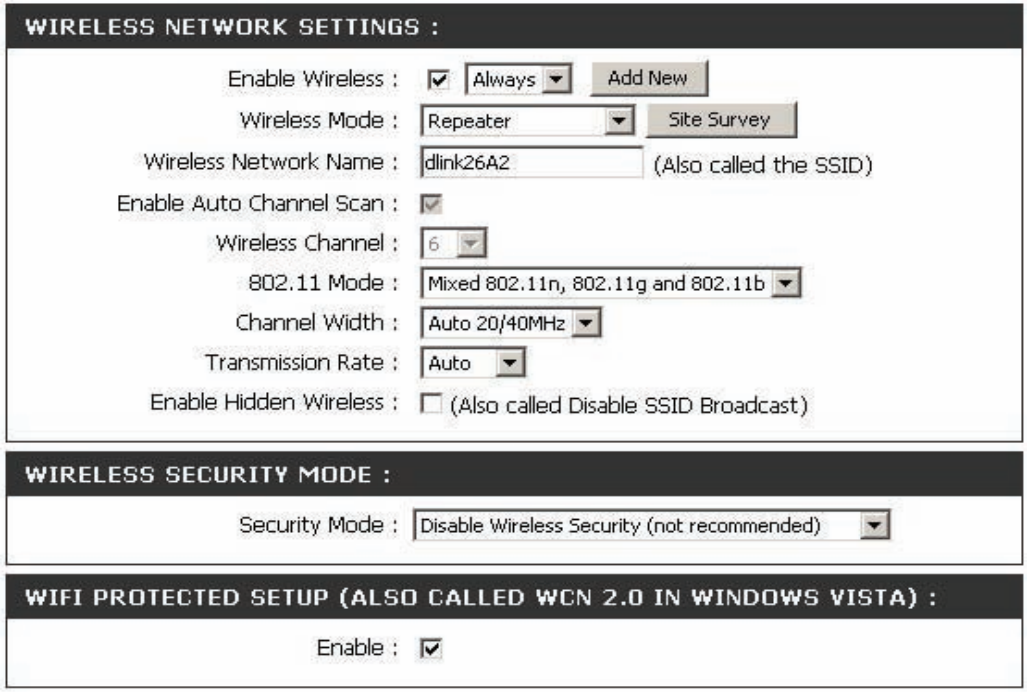
Enable Wireless: Select this to turn Wi-Fi on and off. Use the drop-down box to select if you want to use a schedule. Click **Add New** to add or change a schedule.

Wireless Mode: Select the wireless mode from Access Point, Wireless Client, Repeater, Bridge, Bridge with AP mode, WISP Client Router and WISP Repeater.

Site Survey: Click this button to choose the root AP from an available connection list.

Wireless Network Name (also called the SSID): The Wireless Network Name is a unique name that identifies a network. All devices on a network must share the same wireless network name in order to communicate on the network. If you decide to change the wireless network name from the default setting, enter your new wireless network name in this field.

Wireless Channel: The channel will follow the root AP. The channel used will be displayed.



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

Enable Hidden Wireless: This option is unavailable in Repeater mode.

Wireless Security Mode: Select a wireless security setting. Options are **None**, **WEP**, **WPA**, or **WPA2**. See p.53 of this manual for a detailed explanation of the wireless security options.

Wi-Fi Protected Setup: Select enable if you want to configure 1360 with WPS.

Wireless Client

In wireless client mode, the DAP-1360 acts as a wireless network adapter for your Ethernet-enabled device (such as a game console or a TV set-top box).

Wireless Network Name (also called the SSID): You can input the wireless network name of the root AP or click the **Site Survey** button to find the root AP.

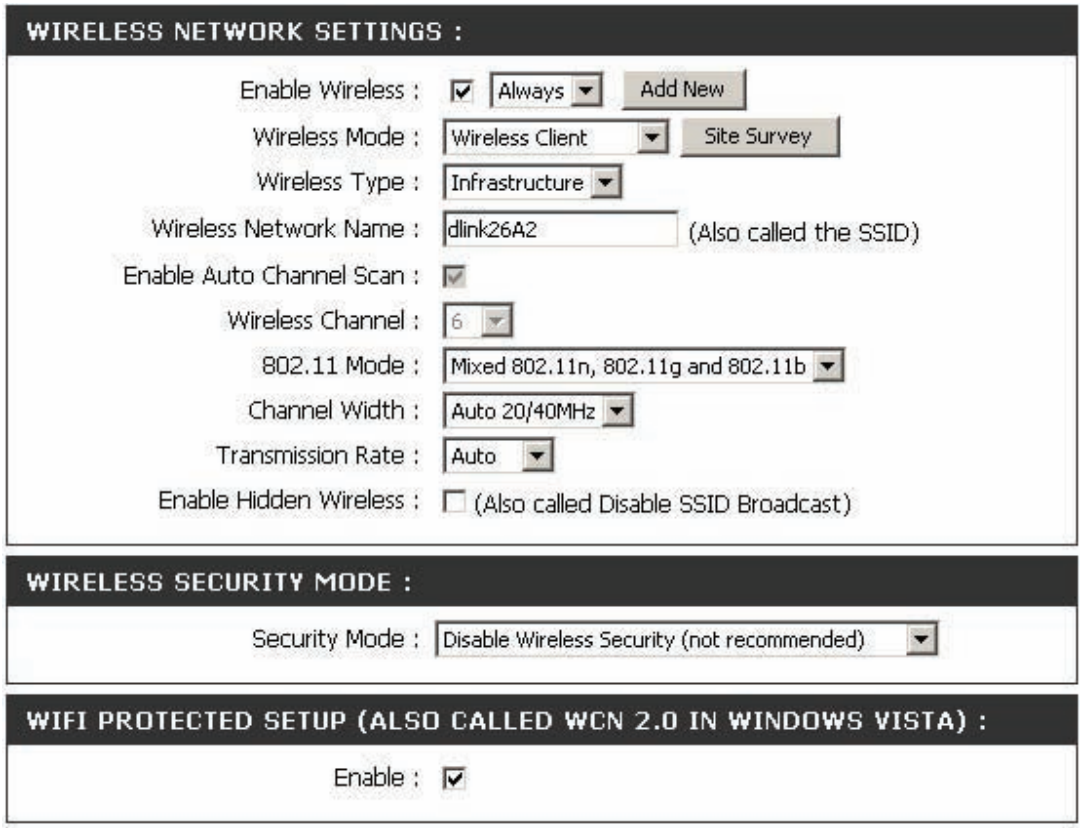
Site Survey: Click this button to choose the root AP from an available connection list.

Wireless Channel: The channel used will be displayed. The channel will follow the root AP.

Enable Auto Channel scan: This option is unavailable in AP Client mode.

Enable Hidden Wireless: This option is unavailable in AP Client mode.

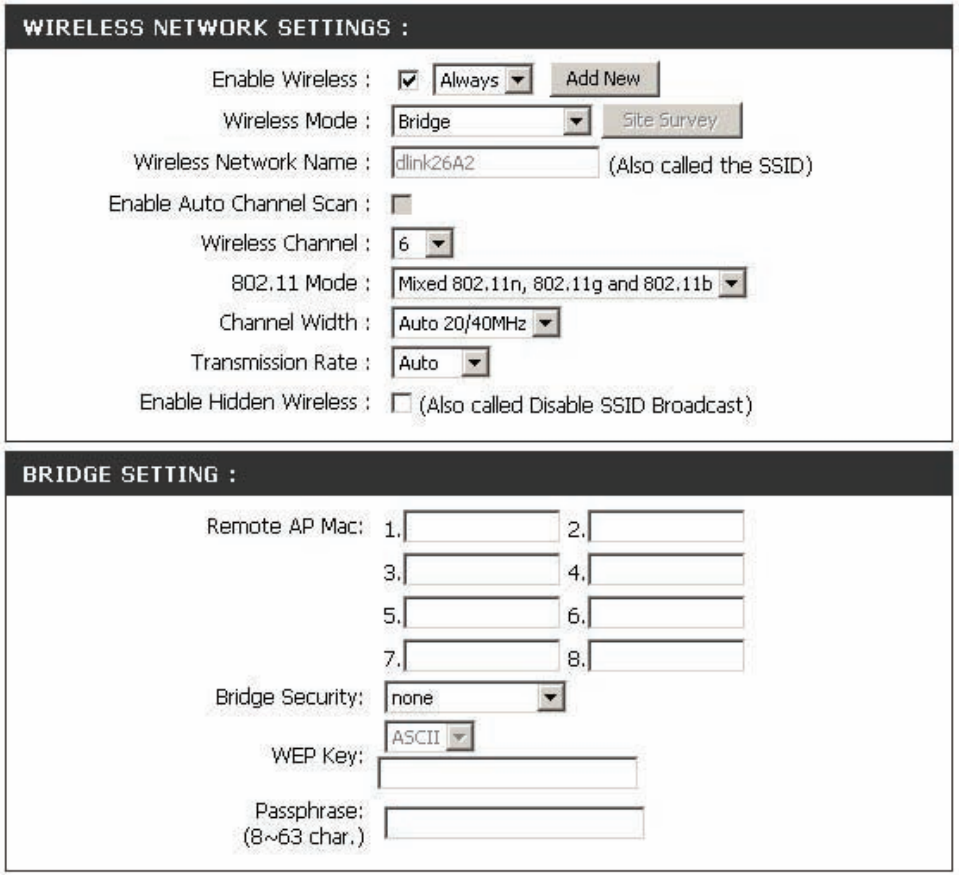
Wireless Security Mode: Select a wireless security setting. Options are **None**, **WEP**, **WPA**, or **WPA2**. See p.53 of this manual for a detailed explanation of the wireless security options.



Wi-Fi Protected Setup: Select enable if you want to configure 1360 with WPS.

Bridge

Bridge wireless mode connects 2 LANs together.



Wireless Network Name (also called the SSID): The Wireless Network Name is a unique name that identifies a network. All devices on a network must share the same wireless network name in order to communicate on the network. If you decide to change the wireless network name from the default setting, enter your new wireless network name in this field.

Site Survey: This button is unavailable in Bridge mode.

Wireless Channel: All devices on the network must share the same channel.

Enable Auto Channel scan: This option is unavailable in Bridge mode.

Enable Hidden Wireless: This option is unavailable in Bridge mode.

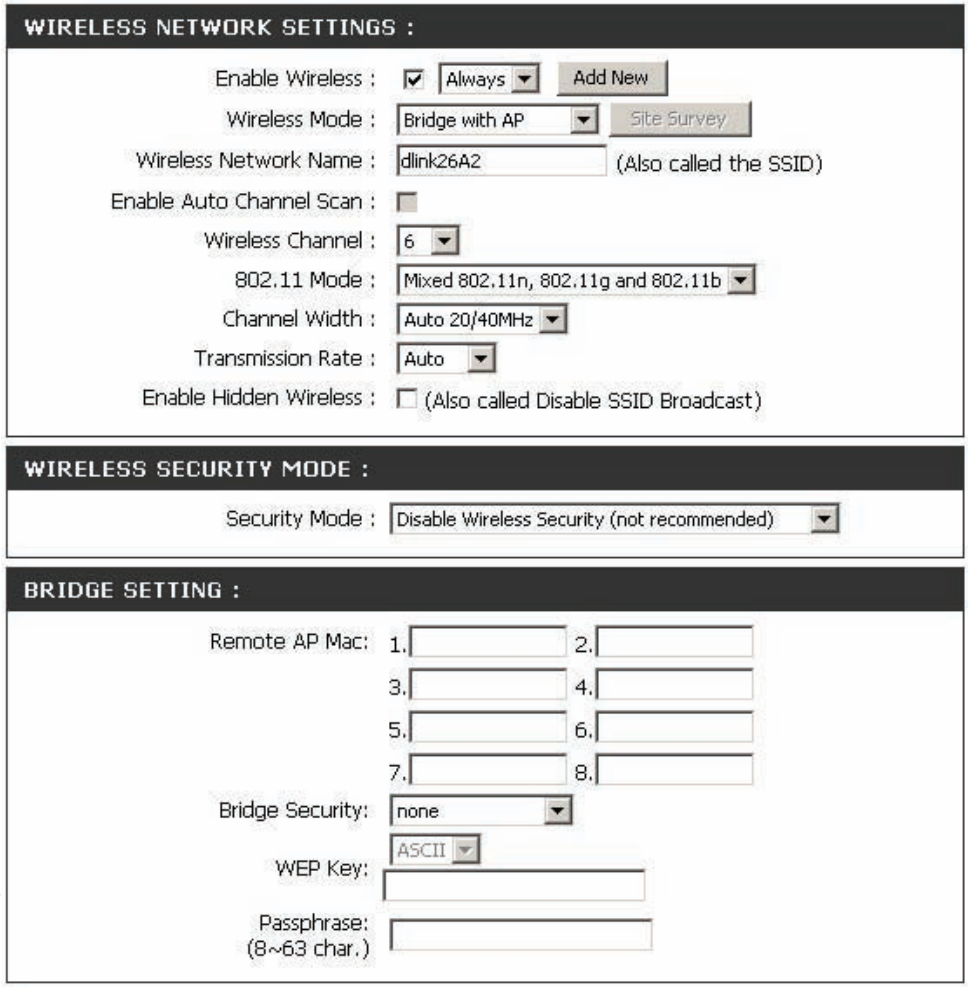
Remote AP MAC: Enter the MAC addresses of the APs in your network that will serve as bridges to wirelessly connect multiple networks.

Bridge Security: Select **None** to disable encryption to across the network. Select **WEP 64bits** or **WEP 128bits** to limit communication to only those devices that share the same WEP settings. Select **WPA-PSK** or **WPA2-PSK** to secure your network using a password and dynamic key changes (No RADIUS server required).

Note: Bridge Mode is not completely specified in WiFi or IEEE standards. It can work with other DAP-1160 units. Communication with other APs (even other D-Link APs) is not guaranteed.

Bridge with AP

Bridge with AP wireless mode connects 2 LANs, while still functioning as a wireless AP for local wireless clients.



Wireless Network Name (also called the SSID): The Wireless Network Name is a unique name that identifies a network. All devices on a network must share the same wireless network name in order to communicate on the network. If you decide to change the wireless network name from the default setting, enter your new wireless network name in this field.

Site Survey: This button is unavailable in Bridge with AP mode.

Wireless Channel: Input a new number if you want to change the default setting. All devices on the network must be set to the same channel to communicate on the network.

Enable Auto Channel scan: This option is unavailable in Bridge mode.

Enable Hidden Wireless: Check the box if you do not want the SSID to be broadcast by the DAP-1160. This prevents the SSID from being seen by Site Survey utilities, so any wireless clients will have to be pre-configured with the SSID of the DAP-1160 in order to connect to it.

Wireless Security Mode: Select a wireless security setting. Options are **None**, **WEP**, **WPA**, **WPA2,** or **WPA2-Auto**. See p.34 of this manual for a detailed explanation of the wireless security options.

Remote AP Mac : Enter the MAC addresses of the APs in your network that will serve as bridges to wirelessly connect multiple networks.

Bridge Security: Select **None** to disable encryption to across the network. Select **WEP 64bits** or **WEP 128bits** to limit communication to only those devices that share the same WEP settings. Select **WPA-PSK** or **WPA2-PSK** to secure your network using a password and dynamic key changes (No RADIUS server required).

Note: Bridge with AP mode is not completely specified in WiFi or IEEE standards. It can work with other DAP-1160 units. Communication with other APs (even other D-Link APs) is not guaranteed.

WISP Client Router and WISP Repeater

In WISP Router Client mode, the DAP-1360 wirelessly connects to a WISP (Wireless Internet Service Provider) AP. In this mode, the DAP-1360 also acts as a router for wired clients on your LAN and provides NAT (Network Address Translation) and a DHCP server to generate IP addresses for wired clients. NAT and the DHCP server allow many computers to share the same wireless Internet connection.

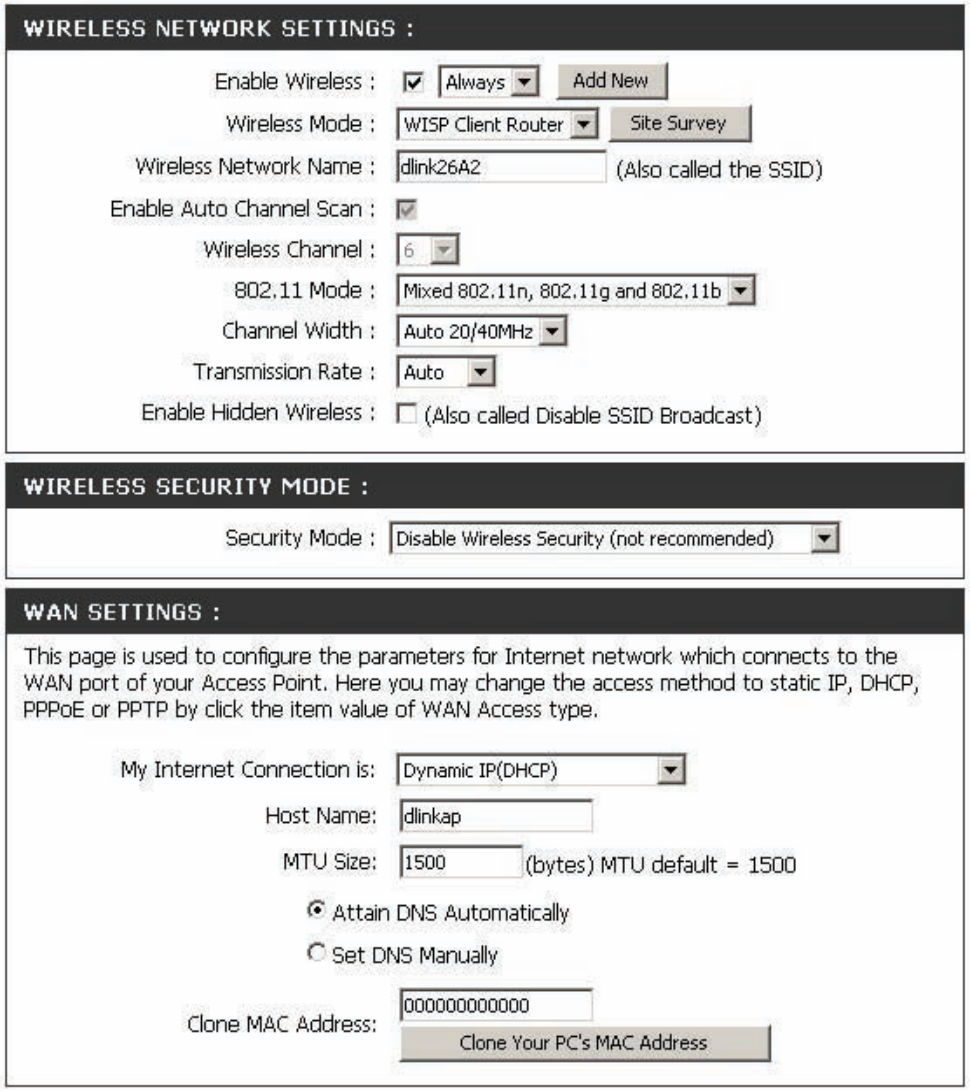
WISP Repeater wireless mode acts the same as WISP Client Router wireless mode, with the addition of a wireless signal for any wireless clients on the LAN.

Wireless Network Name: You can input the wireless network name of the root AP or click the **Site Survey** button to find the root AP.

Site Survey: Click this button to choose the root AP from an available connection list. If the root AP has wireless encryption, you have to use the same wireless security mode to connect the root AP.

Wireless Channel: The channel used will be displayed. The channel will follow the root AP.

Enable Auto Channel Scan: This option is unavailable in WISP Client Router and WISP Repeater mode.

Enable Hidden Wireless: This option is unavailable in WISP Client Router and WISP Repeater mode.

Wireless Security Mode: Select a wireless security setting. Options are **None**, **WEP**, **WPA**, or **WPA2**. See p.38 of this manual for a detailed explanation of the wireless security options.