



# User Manual

## DAP-1665 Wireless AC1200 Dual Band Access Point

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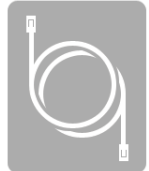
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# Product Overview

## Package Contents



DAP-1665 Wireless AC1200 Dual Band Access Point



Ethernet Cable



Two Detachable Antennas



Power Adapter



CD-ROM with Manual

**Note:** Using a power supply with a different voltage rating than the one included with the DAP-1665 will cause damage and void the warranty for this product.

# System Requirements

<p><b>Network Requirements</b></p>	<ul style="list-style-type: none"> <li>• An Ethernet-based Network</li> <li>• IEEE 802.11ac/n/g/b/a wireless clients (AP/Repeater Mode)</li> <li>• IEEE 802.11ac/n/g/b/a wireless network (Client/Bridge/Repeater Mode)</li> <li>• 10/100/1000 Ethernet</li> </ul>
<p><b>Web-based Configuration Utility Requirements</b></p>	<p><b>Computer with the following:</b></p> <ul style="list-style-type: none"> <li>• Windows®, Macintosh, or Linux-based operating system</li> <li>• An installed Ethernet adapter</li> </ul> <p><b>Browser Requirements:</b></p> <ul style="list-style-type: none"> <li>• Internet Explorer® 7.0 or higher</li> <li>• Mozilla Firefox 12.0 or higher</li> <li>• Google™ Chrome 20.0 or higher</li> <li>• Apple Safari 4.0 or higher</li> </ul> <p><b>Windows® Users:</b> Make sure you have the latest version of Java installed. Visit <a href="http://www.java.com">www.java.com</a> to download the latest version.</p>

# Introduction

D-Link, an industry leader in networking, introduces the new D-Link DAP-1665 Wireless AC1200 Dual Band Access Point. With the ability to transfer files with a maximum combined wireless signal rate of up to 1200 Mbps<sup>1</sup>, the DAP-1665 gives you high-speed wireless network access for your home or office.

The DAP-1665 is compliant with the latest draft IEEE 802.11ac standard, meaning that it can connect and inter-operate with other 802.11ac compatible wireless client devices. The DAP-1665 is also backwards compatible with 802.11b/g/n devices. It can be flexibly configured to operate in 5 different modes: **Access Point**, **Wireless Client**, **Bridge**, **Bridge with AP**, and **Repeater**. With its setup wizard, the DAP-1665 ensures that you will be up and running on a wireless network in just a matter of minutes.

The DAP-1665 features Wi-Fi Protected Access (WPA-PSK/WPA2-PSK) to provide an enhanced level of security for wireless data communications. The DAP-1665 also includes additional security features to keep your wireless connection safe from unauthorized access.

The DAP-1665 also supports Wi-Fi Protected Setup (WPS), repeater and wireless client operation modes each capable of being conveniently set up by using the PIN or Push Button methods.

<sup>1</sup> Maximum wireless signal rate derived from draft 802.11ac 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 factors will adversely affect wireless signal range. Wireless range and speed rates are D-Link RELATIVE performance measurements based on the wireless range and speed rates of a standard Wireless N product from D-Link.

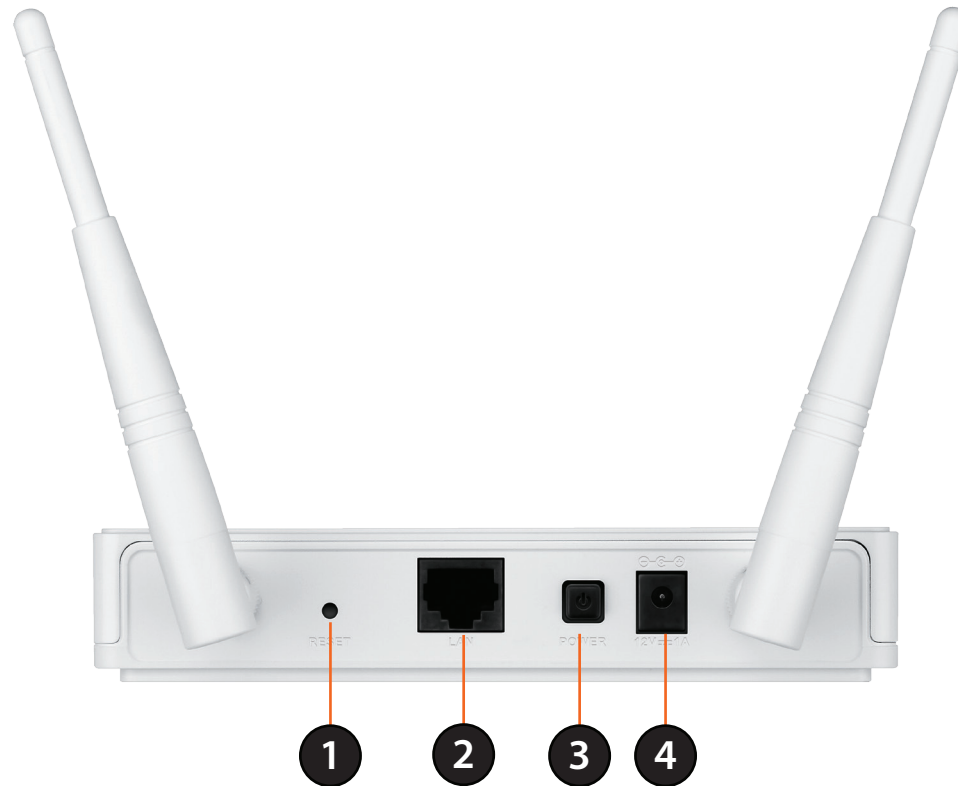
# Features

- **Faster Wireless Networking** - The DAP-1665 provides combined wireless speeds of up to 1200 Mbps<sup>1</sup>. This capability allows users to participate in real-time activities online, such as video streaming, online gaming, and real-time audio.
- **Flexible Operation Modes** - The DAP-1665 can operate as an Access Point, Repeater, Wireless Client, Bridge and Bridge with AP, meaning that you can customize its operation to suit your specific networking requirements.
- **Gigabit Ethernet Port** - The built-in Gigabit Ethernet port facilitates a wired connection of upto 1 Gbps, meaning that wired devices can also take advantage of the DAP-1665's high-speed wireless capabilities.
- **Compatible with IEEE 802.11n/g/b/a Devices** - The DAP-1665 is still fully compatible with the 802.11n/g/b/a standards, so it can connect with existing wireless adapters found on older devices.
- **Robust Security** - Use WPS (Wi-Fi Protected Setup) to create a secure connection to new devices in a matter of seconds by simply pushing a button or entering a PIN. There's also WPA/WPA2 security encryption, allowing you to customize your network's security.
- **User-friendly Setup Wizard** - Through its easy-to-use web-based user interface, the DAP-1665 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.

<sup>1</sup> Maximum wireless signal rate derived from draft 802.11ac 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 factors will adversely affect wireless signal range. Wireless range and speed rates are D-Link RELATIVE performance measurements based on the wireless range and speed rates of a standard Wireless N product from D-Link.

# Hardware Overview

## Connections



1	<b>Reset Button</b>	Pressing the Reset button restores the access point to its original factory default settings.
2	<b>LAN Port</b>	Connect 10/100/1000 Ethernet devices such as computers, switches, and hubs.
3	<b>Power Switch</b>	Press to turn power to the unit on or off.
4	<b>Power Receptor</b>	Receptor for the supplied power adapter.



# Hardware Overview

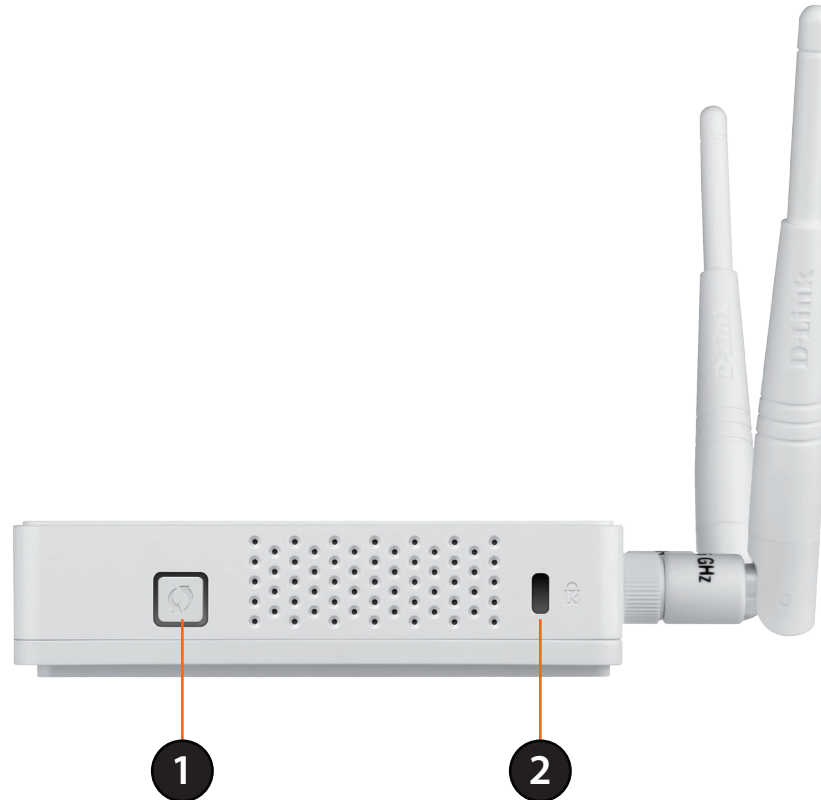
## LEDs



<b>1</b>	<b>Power LED</b>	A solid green light indicates a proper connection to the power supply.
<b>2</b>	<b>2.4 GHz Wireless</b>	A solid green light indicates that the 2.4 GHz wireless band is active.
<b>3</b>	<b>5 GHz Wireless</b>	A solid green light indicates that the 5 GHz wireless band is active.
<b>4</b>	<b>LAN LED</b>	A solid green light indicates the LAN port connection is active.

# Hardware Overview

## WPS Button



<b>1</b>	<b>WPS Button</b>	Press this button to use WPS to establish a secure connection with other wireless devices.
<b>2</b>	<b>Kensington Slot</b>	Connect a Kensington® lock device to protect your access point against theft.

# Installation

Please configure the DAP-1665 with a computer connected directly to the device. The following pages will explain the different operational modes you can use.

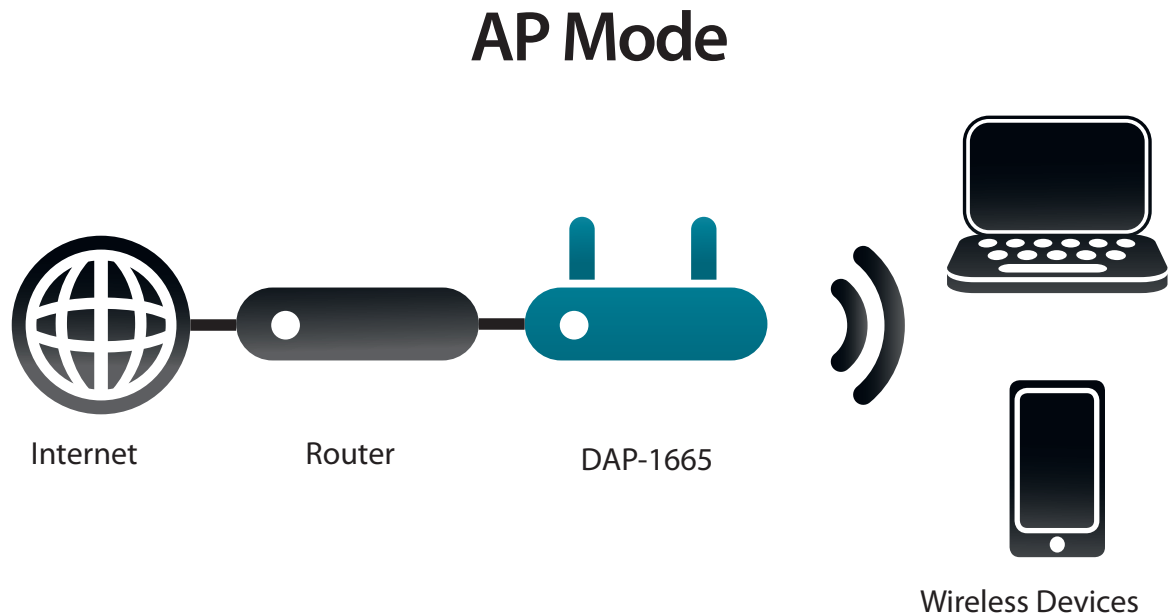
## Operation Modes

The DAP-1665 features a number of operation modes, enabling you to customize it to your networking requirements. Please refer to the following sections to determine which mode is most suitable for your network.

- Access Point mode - page 12
- Wireless Client mode - page 13
- Repeater mode - page 14
- Bridge mode - page 15
- Bridge with AP mode - page 16

## Access Point Mode

Access Point (AP) mode adds wireless capability to your existing wired network. The DAP-1665 acts as a central connection point for any computer (client) that has an 802.11ac or backwards compatible 802.11n/g/b/a wireless network interface and is within range of the access point. Clients must connect to the network name (SSID) broadcast by the access point in order to wirelessly access the network. If wireless security is enabled on the access point, the client will need to enter a password to connect. In Access Point mode, multiple clients can connect wirelessly to the network at the same time.



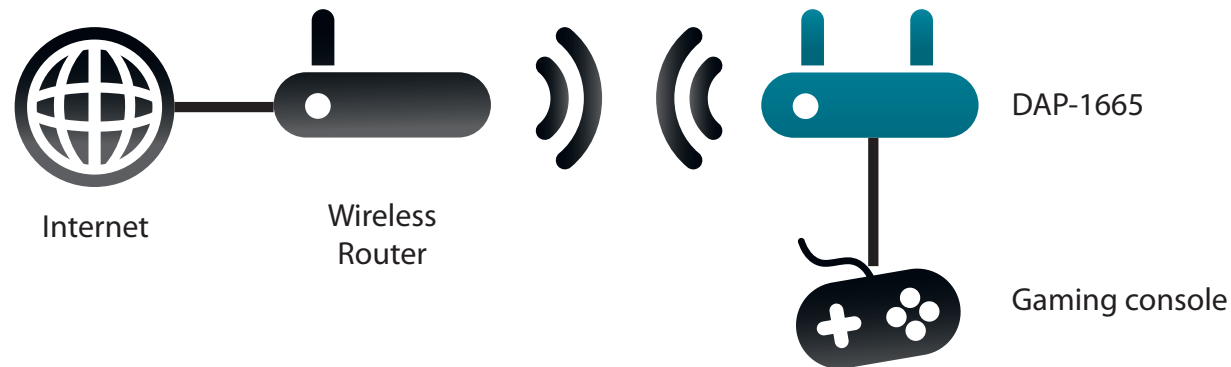
## Wireless Client Mode

In Wireless Client mode, the DAP-1665 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 access point using an Ethernet cable, and enjoy wired speeds of up to 1000 Mbps.

If you are going to connect several Ethernet-enabled devices to your DAP-1665, connect the LAN port of the DAP-1665 to an Ethernet switch, then connect your devices to this switch.

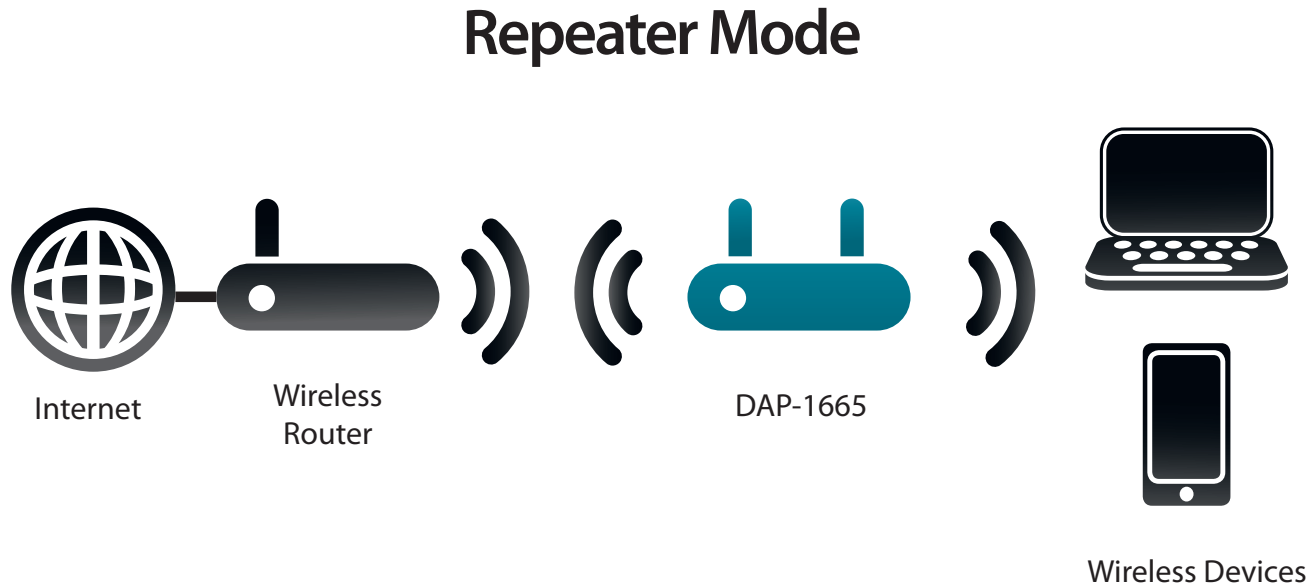
**Example:** Connect a gaming console using an Ethernet cable to the DAP-1665. The unit is set to Wireless Client mode which will wirelessly connect to a wireless router on your network.

### Client Mode



## Repeater Mode

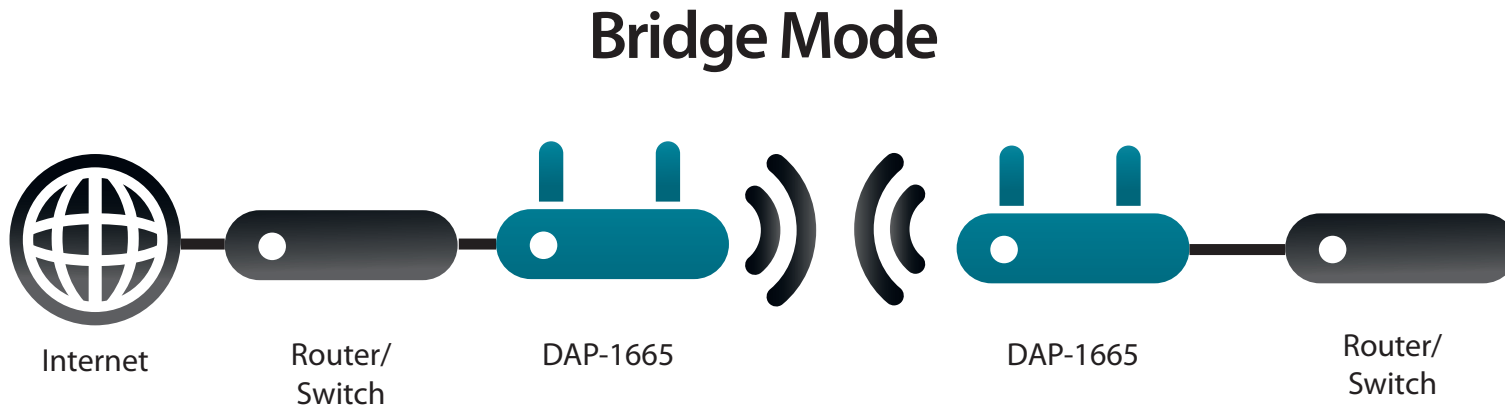
In Repeater mode, the DAP-1665 extends the range of your existing wireless network by repeating the wireless signal of another access point or wireless router. The DAP-1665 and wireless router (if used) must be within range of each other. The extended wireless network can use the same SSID and security settings as the existing network, or you can choose to specify a new network name and security method.



## Bridge Mode

In Bridge mode, the DAP-1665 creates a wireless link between two existing networks, enabling data to be shared between the two networks without the need for a physical connection. The two networks must be within wireless reach of one another in order for bridge mode to be effective.

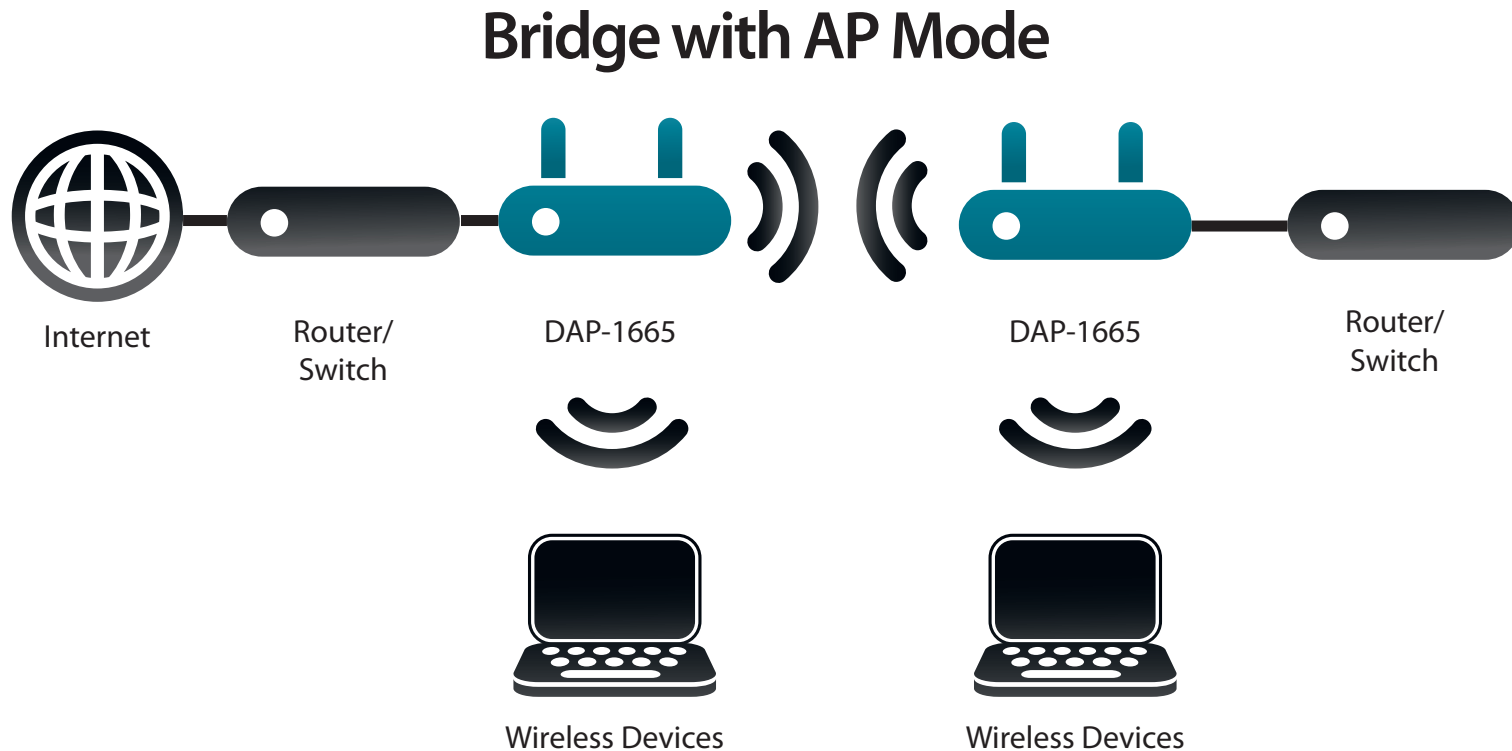
**Note:** Bridge mode is not specified in the Wi-Fi or IEEE standards. This mode will only work using two DAP-1665 units. Compatibility with other APs (even other D-Link APs) is not guaranteed.



## Bridge with AP Mode

Bridge with AP mode has the same features of Bridge mode, but adds the functionality of Access Point mode, meaning that wireless clients can connect to one of the DAP-1665s and have access to both networks via the wireless bridge.

**Note:** The Bridge with AP mode is not specified in the Wi-Fi or IEEE standards. This mode will only work using two DAP-1665 units. Compatibility with other APs (even other D-Link APs) is not guaranteed.





# Wireless Installation Considerations

The DAP-1665 wireless access point lets you access your network using a wireless connection from virtually anywhere within the operating range of the device. 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 appears 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 routers, 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 2.4 GHz cordless phones or X-10 (wireless products such as ceiling fans, lights, and home security systems), your wireless connection may also be affected. Make sure your 2.4 GHz phone base is as far away from your wireless devices as possible. The base transmits a signal even if the phone is not in use.

# Configuration

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

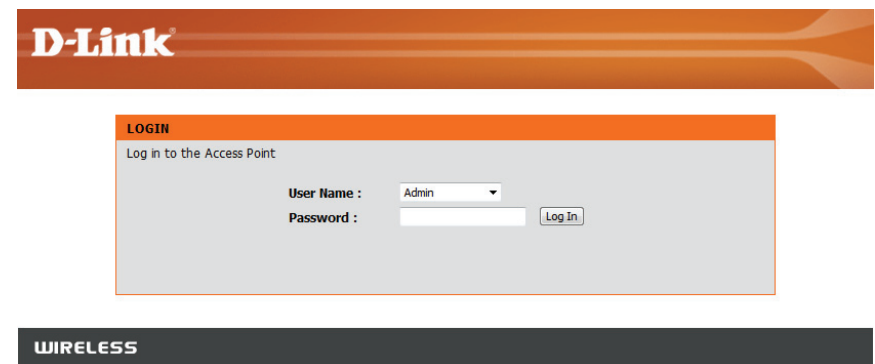
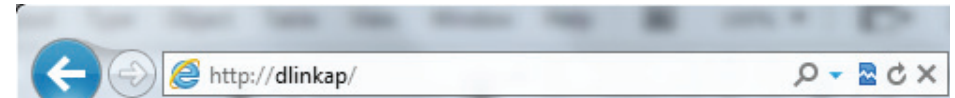
## Web-based Configuration Utility

If you wish to change the default settings or adjust the configuration of the DAP-1665, you may use the web-based configuration utility.

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

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

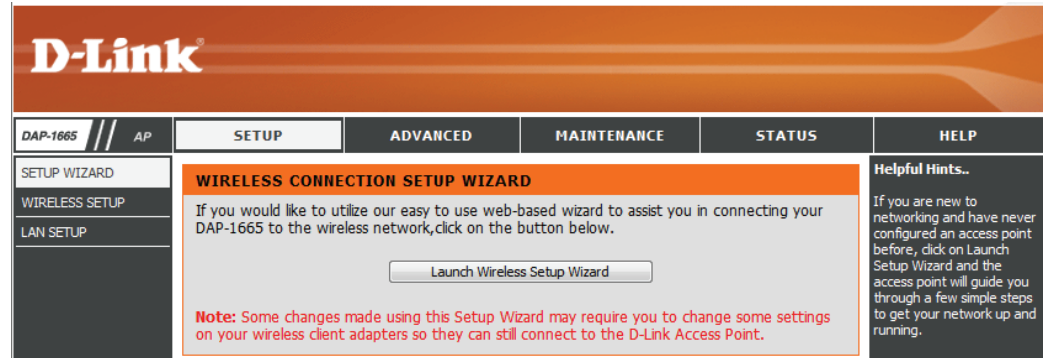
If you get a *Page Cannot be Displayed* error, please refer to "Troubleshooting" on page 90 for assistance.



# Wireless Setup Wizard

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

If you want to configure the access point manually without running the wizard, skip to "Manual Configuration" on page 30.



The screenshot shows the D-Link web interface for the DAP-1665 AP. The top navigation bar includes 'D-Link', 'DAP-1665 // AP', and tabs for 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'SETUP' tab is active, and the 'WIRELESS CONNECTION SETUP WIZARD' is selected in the left sidebar. The main content area features an orange header for the wizard, followed by introductory text and a 'Launch Wireless Setup Wizard' button. A red note below the button states: '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.' A 'Helpful Hints...' section on the right provides additional guidance for new users.

Click **Next** to continue.



The screenshot shows the 'WI-FI CONNECTION SETUP WIZARD' screen. It features a dark header with the title. The main text reads: 'This wizard is designed to assist you in your Wi-Fi network setup. It will guide you through step-by-step instructions on how to set up your Wi-Fi network and how to make it secure.' At the bottom, there are two buttons: 'Next' and 'Cancel'.

## Access Point Mode

This wizard is designed to assist you in configuring your DAP-1665 as an access point.


Select **Access Point** from the drop-down menu. Then, click **Next** to continue.

**SELECT YOUR OPERATION MODE**

Please select wireless mode. Click Next to continue.

Wireless Mode: Access Point ▼

Access Point allows the device to act as the wireless transmitter for your router or become a separate Access Point



Router

DAP-1665  
in Access Point Mode

Wireless PC

Wireless PC

Prev
Next
Cancel

This screen will help you to set a network name (SSID) and security password for your wireless network. Specify an SSID for both the 2.4 GHz and 5 GHz bands (these names must not be the same). If you wish to use the same wireless security password for both networks, check the box and enter your desired password in the field provided. If you wish to use a different password for each network, uncheck the box and enter the desired passwords in the **2.4 GHz Wi-Fi Password** and **5 GHz Wi-Fi Password** fields.

Click **Next** to continue.

**WELCOME TO THE D-LINK WI-FI SETUP WIZARD**

Give your Wi-Fi network a name.

**2.4GHz Wi-Fi Network Name (SSID):**  
 (using up to 32 characters)

**5GHz Wi-Fi Network Name (SSID):**  
 (using up to 32 characters)

Give your Wi-Fi network a password.

Use the same Wireless Security Password on both 2.4GHz and 5GHz band

**2.4GHz Wi-Fi Password:**  
 (Between 8 and 63 characters)

**5GHz Wi-Fi Password:**  
 (Between 8 and 63 characters)

Prev
Next
Cancel

## Section 3 - Configuration

A summary page will be displayed, showing the current settings for your 2.4 GHz and 5 GHz wireless networks. It is recommended that you make a note of this information for future reference.

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

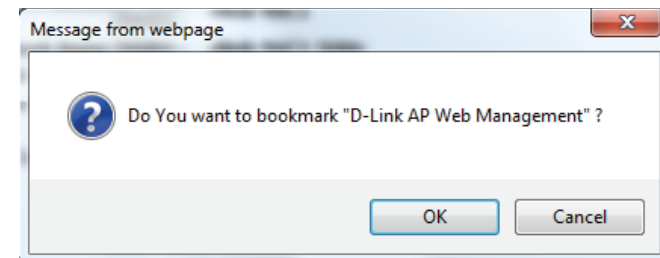
In order for your network settings to take effect AP will reboot automatically.

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

A dialog box will appear asking if you wish to save the address for the web-based configuration utility in your browser's bookmarks. Click **OK** to save and you will be taken to your browser's bookmark settings to save the address. Click **Cancel** to continue without saving a bookmark.

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

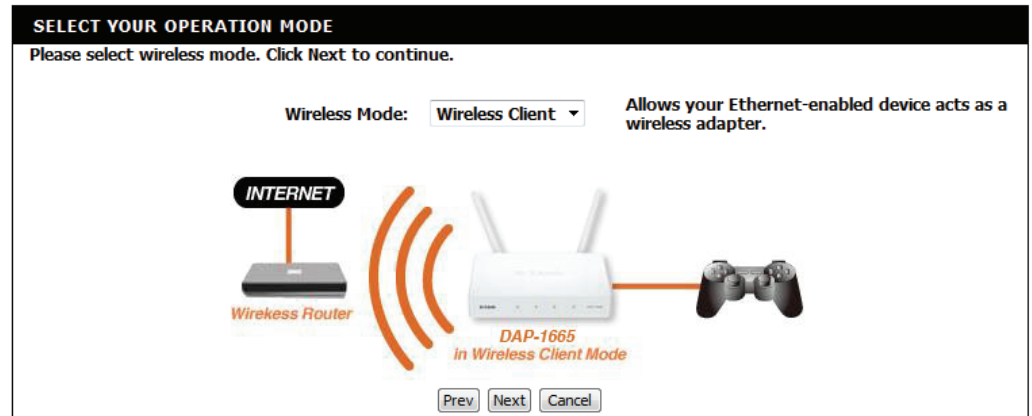
When the device has finished rebooting the main screen will display.



## Wireless Client Mode

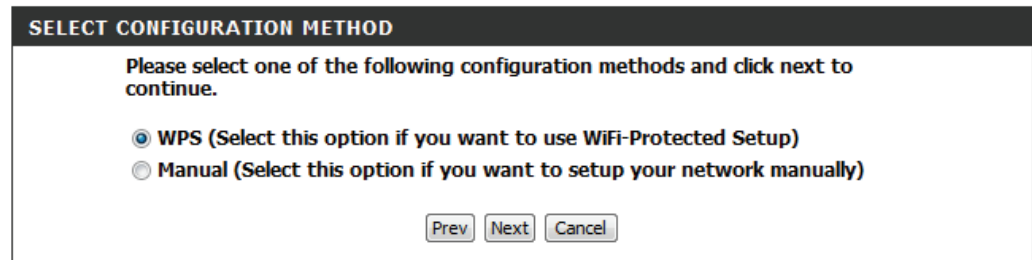
This wizard is designed to assist you in configuring your DAP-1665 as a wireless client.

Select **Wireless Client** from the drop-down menu.

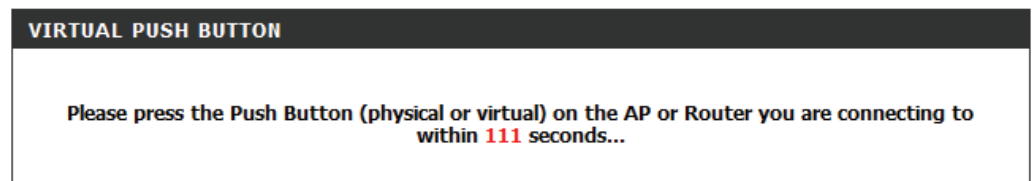


Select **WPS** as the configuration method only if your wireless device supports Wi-Fi Protected Setup (WPS). For **Manual** setup, skip to page 24.

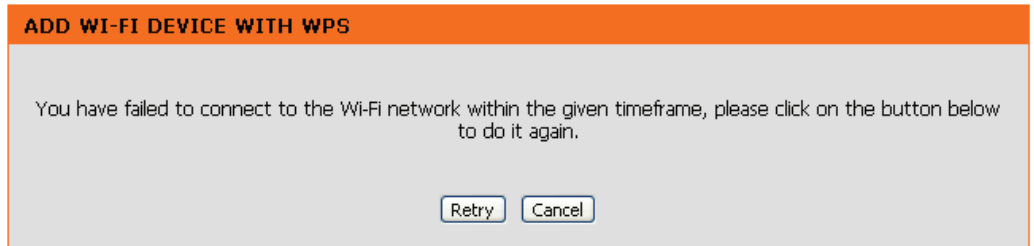
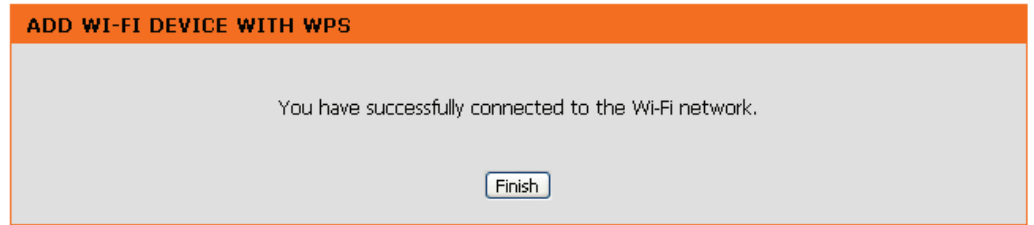
Click **Next** to continue.



Press the WPS Push Button on your existing wireless router with 120 seconds to complete the WPS setup process.



If a connection has been successfully made, click **Finish** on the following screen to complete the setup process. If the connection was not successful, click **Retry** to try again, or **Cancel** to abort the setup process.



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

Click **Next** to continue.

Locate the SSID of the wireless network that you wish to connect to from the list. Select it by clicking on the radio button in the far right column. Click **Connect** at the bottom of the page to continue.

If you do not see your network in the list, click **Rescan** to search again.

If the existing wireless network uses wireless security, enter the Wi-Fi Password in the field provided.

Click **Next** to continue.

### SELECT CONFIGURATION METHOD

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

WPS (Select this option if you want to use WiFi-Protected Setup)

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

### SELECT WI-FI NETWORK

SSID	BSSID	Channel	Type	Encrypt	Signal	Select
07869-5	00:18:e7:95:68:ab	48 (A+N)	AP	WPA-PSK (aes/tkip)/WPA2-PSK(aes/tkip)	100	<input type="radio"/>
D-Link	1c:bd:b9:c3:8f:40	149 (A+N)	AP	no	71	<input type="radio"/>
SWSWSW	00:94:e4:cd:d8:06	157 (A+N)	AP	WPA-PSK (aes/tkip)/WPA2-PSK(aes/tkip)	67	<input type="radio"/>
dlink1	fc:75:16:76:73:00	149 (A+N)	AP	no	65	<input type="radio"/>
dlink2	fc:75:16:76:73:01	149 (A+N)	AP	no	63	<input type="radio"/>

### ENTER WI-FI PASSWORD

Please enter Wi-Fi Password to establish wireless connection.

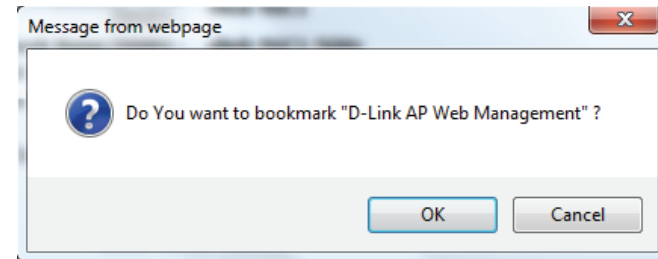
Wi-Fi Password:



A dialog box will appear asking if you wish to save the address for the web-based configuration utility in your browser's bookmarks. Click **OK** to save and you will be taken to your browser's bookmark settings to save the address. Click **Cancel** to continue without saving a bookmark.

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

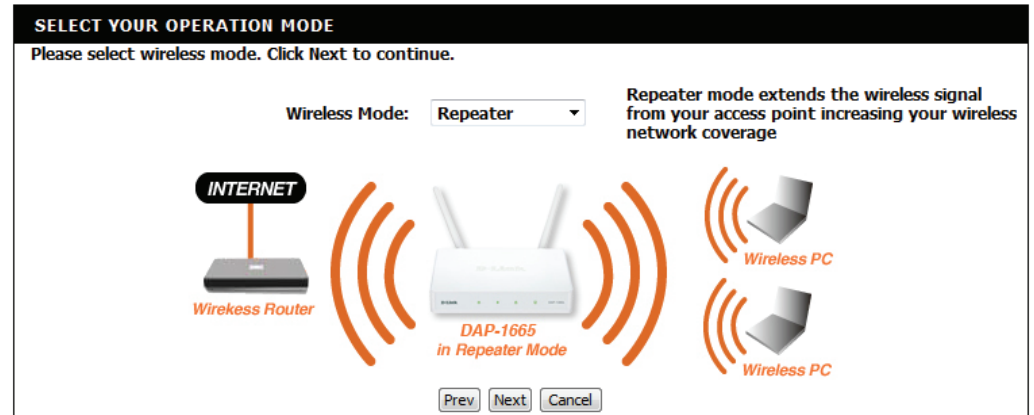
When the device has finished rebooting the main screen will display.



## Repeater Mode

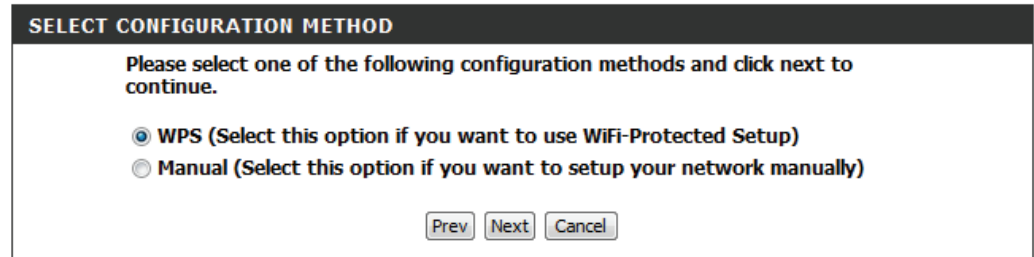
This wizard is designed to assist you in configuring your DAP-1665 as a repeater to extend the range of your existing wireless network.

Select **Repeater** from the drop-down menu.

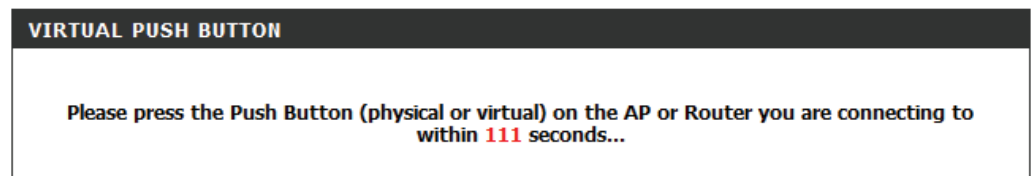


Select **WPS** as the configuration method only if your wireless device supports Wi-Fi Protected Setup (WPS). For **Manual** setup, skip to page 28.

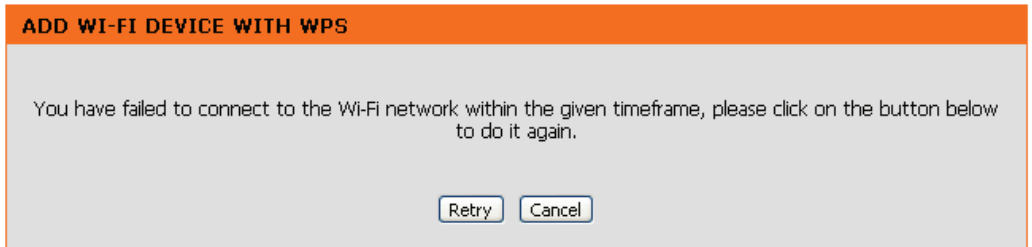
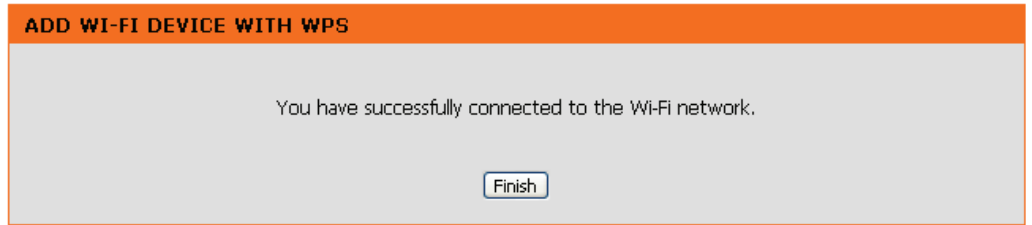
Click **Next** to continue.



Press the WPS Push Button on your existing wireless router with 120 seconds to complete the WPS setup process.



If a connection has been successfully made, click **Finish** on the following screen to complete the setup process. If the connection was not successful, click **Retry** to try again, or **Cancel** to abort the setup process.



## Section 3 - Configuration

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

Click **Next** to continue.

### SELECT CONFIGURATION METHOD

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

WPS (Select this option if you want to use WiFi-Protected Setup)

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

The wizard will then scan for available wireless networks within range of the DAP-1665. Find the SSID of the router or access point you wish to extend and click the radio button in the **Select** column.

Click **Connect** at the bottom of the page to continue.

If you do not see your network in the list, click **Rescan** to search again.

### SELECT WI-FI NETWORK

SSID	BSSID	Channel	Type	Encrypt	Signal	Select
07869-5	00:18:e7:95:68:ab	48 (A+N)	AP	WPA-PSK (aes/kip)/WPA2-PSK(aes/kip)	100	<input type="radio"/>
D-Link	1c:bd:b9:c3:8f:40	149 (A+N)	AP	no	71	<input type="radio"/>
SWSWSW	00:94:e4:cd:d8:06	157 (A+N)	AP	WPA-PSK (aes/kip)/WPA2-PSK(aes/kip)	67	<input type="radio"/>
dlink1	fc:75:16:76:73:00	149 (A+N)	AP	no	65	<input type="radio"/>
dlink2	fc:75:16:76:73:01	149 (A+N)	AP	no	63	<input type="radio"/>

If the existing wireless network uses wireless security, enter the Wi-Fi Password in the field provided.

Click **Next** to continue.

### ENTER WI-FI PASSWORD

Please enter Wi-Fi Password to establish wireless connection.

Wi-Fi Password:

By default, the **Wireless Network Name (SSID)** field will display the same network name as the source network. If you wish to specify a different name for the extended network, enter it in the field provided. If you wish to use the same network name, check the box below. The security password will be the same as that of the source network, regardless of whether the network name is the same or not.

Click **Next** to continue.

A summary page will be displayed showing the network name and Wi-Fi password for the extended network. It is recommended that you make a record of this information for future reference.

Click **Save** to save the configuration.

**PLEASE ENTER THE SETTINGS FOR THE EXTENDED NETWORK**

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

**Wireless Network Name (SSID):**

**Use the same security and passphrase as those for the existing network**

**SETUP COMPLETE!**

Please take a note of the following summary of your Wi-Fi security settings for future reference.

**Repeater Network Name :** **DIR626L**  
**Wi-Fi Password :** **11111111**

The Setup Wizard has completed. Click the Save button to save your settings and reboot the device.

# Manual Configuration

## Wireless Settings

You may also manually configure your DAP-1665 instead of running the setup wizard. Please refer to the following pages for detailed instructions on how to manually configure the DAP-1665 for your desired operation mode.

Access Point mode - page 31

Wireless Client mode - page 34

Bridge mode - page 35

Bridge with AP mode - page 36

Repeater mode - page 40

## Access Point Mode

### 2.4 GHz Band

**Wireless Mode:** Select **Access Point** from the drop-down menu.

**Enable Wireless:** Check the box to enable the wireless function for the **2.4 GHz** band. If you do not want to use wireless, uncheck the box to disable all wireless functions. You may also set up a specific time range (schedule). Select a schedule from the drop-down menu or click **Add New** to create a new schedule. By default, the schedule is set to **Always**.

**Wireless Network Name:** Specify a network name (SSID) to identify the 2.4 GHz network. This is the network name that wireless clients will search for when connecting to your wireless network.

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

**Wireless Channel:** Indicates the channel setting for the DAP-1665. The Channel can be changed to fit the channel setting for an existing wireless network or to reduce interference in congested areas. If you enable Auto Channel Scan, this option will not be available.

**Enable Auto Channel Scan:** The **Auto Channel Scan** setting can be selected to allow the DAP-1665 to automatically choose the channel with the least amount of interference.

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

WIRELESS MODE :	
Wireless Mode :	Access Point <input type="button" value="Site Survey"/>
2.4GHZ WIRELESS NETWORK SETTINGS :	
Enable Wireless :	<input checked="" type="checkbox"/> Always <input type="button" value="Add New"/>
Wireless Network Name :	dlink-96C1 (Also called the SSID)
802.11 Mode :	Mixed 802.11n, 802.11g and 802.11b
Wireless Channel :	6
Enable Auto Channel Scan :	<input checked="" type="checkbox"/>
Channel Width :	Auto 20/40MHz
Visibility Status :	<input checked="" type="radio"/> Visible <input type="radio"/> Invisible
2.4GHZ WIRELESS SECURITY SETTING :	
Security Mode :	None

**Visibility Status:** Select whether you would like the network name (SSID) of your wireless network to be **Visible** or **Invisible** to wireless clients. If **Invisible**, the SSID of the DAP-1665 will not be seen by site survey utilities, so wireless clients will have to manually enter the SSID of your wireless network in order to connect to it.

**Security Mode:** For information on how to set up wireless security, please refer to "Configuring Wireless Security" on page 45.

**2.4GHZ WIRELESS NETWORK SETTINGS :**

**Enable Wireless :**  Always   
**Wireless Network Name :**  (Also called the SSID)  
**802.11 Mode :**   
**Wireless Channel :**   
**Enable Auto Channel Scan :**   
**Channel Width :**   
**Visibility Status :**  Visible  Invisible

---

**2.4GHZ WIRELESS SECURITY SETTING :**

**Security Mode :**

## 5 GHz Band

**Enable Wireless:** Check the box to enable the wireless function for the **5 GHz** band. If you do not want to use wireless, uncheck the box to disable all wireless functions. You may also set up a specific time range (schedule). Select a schedule from the drop-down menu or click **Add New** to create a new schedule. By default, the schedule is set to **Always**.

**Wireless Network Name:** Specify a network name (SSID) to identify the 5 GHz network. This is the network name that wireless clients will search for when connecting to your wireless network. This name should be different to that of the 2.4 GHz network configured above.

**5GHZ WIRELESS NETWORK SETTINGS :**

**Enable Wireless :**  Always   
**Wireless Network Name :**  (Also called the SSID)  
**802.11 Mode :**   
**Wireless Channel :**   
**Enable Auto Channel Scan :**   
**Channel Width :**   
**Visibility Status :**  Visible  Invisible

---

**5GHZ WIRELESS SECURITY SETTING :**

**Security Mode :**



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

**Wireless Channel:** Indicates the channel setting for the DAP-1665. The channel can be changed to fit the channel setting for an existing wireless network or to reduce interference in congested areas. If you enable Auto Channel Scan, this option will not be available.

**Enable Auto Channel Scan:** The **Auto Channel Scan** setting can be selected to allow the DAP-1665 to automatically choose the channel with the least amount of interference.

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

- Auto 20/40/80** - Select this option if you are using a combination of 802.11ac, 802.11n, and other wireless devices.
- Auto 20/40** - Select if you are using both 802.11n and non-802.11n wireless devices.
- 20 MHz** - Select if you are not using any 802.11n wireless clients.

**Visibility Status:** Select whether you would like the network name (SSID) of your wireless network to be **Visible** or **Invisible** to wireless clients. If **Invisible**, the SSID of the DAP-1665 will not be seen by site survey utilities, so wireless clients will have to manually enter the SSID of your wireless network in order to connect to it.

Click **Save Settings** at the top of the page to save the current configuration.

**5GHZ WIRELESS NETWORK SETTINGS :**

**Enable Wireless :**  Always  Add New

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

**802.11 Mode :** Mixed 802.11ac, 802.11n and 802.11a

**Wireless Channel :** 36

**Enable Auto Channel Scan :**

**Channel Width :** Auto 20/40/80MHz

**Visibility Status :**  Visible  Invisible

---

**5GHZ WIRELESS SECURITY SETTING :**

**Security Mode :** None

## Wireless Client Mode

**Wireless Mode:** Select **Wireless Client Mode** from the drop-down menu.

**Site Survey:** Click **Site Survey** to display a list of wireless networks in your area. To select a wireless network, click the radio button in the far right column of the scan page. Click **Connect** at the bottom of the scan page to confirm the selection. The wireless network name will automatically appear in the Wireless Network Name field below.

**Wireless Network Name:** Enter the SSID of the wireless network that you wish to connect to. If you do not know for sure, click **Site Survey** and select it from the list, if available.

**802.11 Band:** Select the wireless band of the wireless network that you wish to connect to. You can only be connected to one wireless band at any one time.

**Channel Width:** Select the channel width that you wish to use when connecting to the wireless network.

**Security Mode:** Select the wireless security mode and relevant settings used by the network you are connecting to. For more information regarding wireless security, please refer to "Configuring Wireless Security" on page 45.

**Wireless MAC Clone:** Check **Enable** to enable the cloning of another device's MAC address by the DAP-1665.

**Wi-Fi Protected Setup:** Check **Enable** if you wish to enable the use of the PIN method for Wi-Fi Protected Setup (WPS).

**Current PIN:** Displays the current PIN which can be used to connect to the router using the WPS-PIN method.

Click **Reset PIN to Default** to reset the PIN number to the factory default setting. Click **Generate New PIN** to randomly generate a new PIN for WPS connection. Click **Process WPS** to commence the WPS Push-Button setup process.

Click **Save Settings** to save the current configuration.

<b>WIRELESS MODE :</b>	
Wireless Mode :	Wireless Client <input type="button" value="Site Survey"/>
<b>2.4GHZ WIRELESS NETWORK SETTINGS :</b>	
Wireless Network Name :	d-link-07725 (Also called the SSID)
802.11 Band :	<input checked="" type="radio"/> 2.4GHz <input type="radio"/> 5GHz
Channel Width :	Auto 20/40MHz
<b>2.4GHZ WIRELESS SECURITY SETTING :</b>	
Security Mode :	WPA-Personal
WPA Mode :	AUTO(WPA or WPA2)
Cipher Type :	TKIP and AES
Pre-Shared Key :	password
<b>WIRELESS MAC CLONE :</b>	
Enable :	<input checked="" type="checkbox"/>
MAC Source :	Auto
MAC Address :	
	<input type="button" value="Scan"/>
<b>WIFI PROTECTED SETUP (ALSO CALLED WCN 2.0 IN WINDOWS VISTA) :</b>	
Enable :	<input checked="" type="checkbox"/>
Current PIN :	26018539
	<input type="button" value="Reset PIN to Default"/> <input type="button" value="Generate New PIN"/> <input type="button" value="Process WPS"/>

## Bridge Mode

**Wireless Mode:** Select **Bridge** from the drop-down menu.

**WDS Band:** Select the wireless band that you wish to use for the wireless bridge:  
**2.4 GHz** - The bridge can function using 802.11n, 802.11g, or 802.11g.  
**5 GHz** - The bridge can function using 802.11ac, 802.11n, or 802.11a.

**802.11 Mode:** Select the appropriate 802.11 mode depending on which 802.11 standard you want the bridge to use.

**Wireless Channel:** Select the wireless channel that you want the bridge to use. All APs on the bridge must be using the same wireless channel.

**Channel Width:** Select the appropriate channel width between **20MHz** or **Auto 20/40MHz** from the drop-down menu. If you are using the 5 GHz band, an additional **Auto 20/40/80** option will be available.

**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 the desired wireless security method from the drop-down menu. If you select **WEP**, you should also select an encryption method from the subsequent drop-down menu, and enter the WEP key in the field provided. If you select **WPA**, you should enter a pre-shared key (password) in the field provided. Regardless of the security mode selected, the settings should be the same on all access points within the bridge. For further information regarding wireless security, please refer to "Configuring Wireless Security" on page 45.

Click **Save Settings** at the top of the page to save the current configuration.

**WIRELESS MODE :**

Wireless Mode : Bridge Site Survey

**BRIDGE SETTING :**

WDS BAND :  2.4GHz  5GHz

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

Wireless Channel : 1

Channel Width : Auto 20/40MHz

Remote AP Mac: 1.  2.

3.  4.

5.  6.

7.  8.

Bridge Security : none

WEP Key : ASCII

Pre-Shared Key :

(8~63 char.)

**Note:** The Bridge mode is not completely specified in the Wi-Fi or IEEE standards. This mode will work with other DAP-1665 units. Communication with other APs (even other D-Link APs) is not guaranteed.

## Bridge with AP Mode

**Wireless Mode:** Select **Bridge** from the drop-down menu.

**WDS Band:** Select the wireless band that you wish to use for the wireless bridge:

**2.4 GHz** - The bridge can function using 802.11n, 802.11g, or 802.11g.

**5 GHz** - The bridge can function using 802.11ac, 802.11n, or 802.11a.

**802.11 Mode:** Select the appropriate 802.11 mode depending on which 802.11 standard you want the bridge to use.

**Wireless Channel:** Select the wireless channel that you want the bridge to use. All APs on the bridge must be using the same wireless channel.

**Channel Width:** Select the appropriate channel width between **20MHz** or **Auto 20/40MHz** from the drop-down menu. If you are using the 5 GHz band, an additional **Auto 20/40/80** option will be available.

**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 the desired wireless security method from the drop-down menu. If you select **WEP**, you should also select an encryption method from the subsequent drop-down menu, and enter the WEP key in the field provided. If you select **WPA**, you should enter a pre-shared key (password) in the field provided. Regardless of the security mode selected, the settings should be the same on all access points within the bridge. For further information regarding wireless security, please refer to "Configuring Wireless Security" on page 45.

Click **Save Settings** at the top of the page to save the current configuration.

**WIRELESS MODE :**

Wireless Mode : Bridge with AP Site Survey

**BRIDGE SETTING :**

WDS BAND :  2.4GHz  5GHz

802.11 Mode : Mixed 802.11ac, 802.11n and 802.11a

Wireless Channel : 36

Channel Width : Auto 20/40/80MHz

Remote AP Mac: 1.  2.

3.  4.

5.  6.

7.  8.

Bridge Security : none

ASCII ▼

WEP Key :

Pre-Shared Key :   
(8~63 char.)

**Note:** The Bridge with AP mode is not completely specified in the Wi-Fi or IEEE standards. This mode will work with other DAP-1665 units. Communication with other APs (even other D-Link APs) is not guaranteed.

## 2.4 GHz Band

**Enable Wireless:** Check the box to enable the wireless function for the **2.4 GHz** band. If you do not want to use wireless, uncheck the box to disable all wireless functions. You may also set up a specific time range (schedule). Select a schedule from the drop-down menu or click **Add New** to create a new schedule. By default, the schedule is set to **Always**.

**Wireless Network Name:** Specify a network name (SSID) to identify the 2.4 GHz network. This is the network name that wireless clients will search for when connecting to your wireless network.

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

**Wireless Channel:** Indicates the channel setting for the DAP-1665. The Channel can be changed to fit the channel setting for an existing wireless network or to reduce interference in congested areas. If you enable Auto Channel Scan, this option will not be available.

**Enable Auto Channel Scan:** The **Auto Channel Scan** setting can be selected to allow the DAP-1665 to automatically choose the channel with the least amount of interference.

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

**Visibility Status:** Select whether you would like the network name (SSID) of your wireless network to be **Visible** or **Invisible** to wireless clients. If **Invisible**, the SSID of the DAP-1665 will not be seen by site survey utilities, so wireless clients will have to manually enter the SSID of your wireless network in order to connect to it.

**WIRELESS MODE :**

Wireless Mode : Access Point Site Survey

---

**2.4GHZ WIRELESS NETWORK SETTINGS :**

Enable Wireless :  Always Add New

Wireless Network Name : DIR626L-dan (Also called the SSID)

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

Wireless Channel : 6

Enable Auto Channel Scan :

Channel Width : Auto 20/40MHz

Visibility Status :  **Visible**  **Invisible**

---

**2.4GHZ WIRELESS SECURITY SETTING :**

Security Mode : WPA-Personal

WPA Mode : WPA2 only

Cipher Type : TKIP

Pre-Shared Key : 11111111

**Security Mode:** For information on how to set up wireless security, please refer to “Configuring Wireless Security” on page 45.

Click **Save Settings** at the top of the page to save the current configuration.

**2.4GHZ WIRELESS NETWORK SETTINGS :**

Enable Wireless :  Always

Wireless Network Name : DIR626L-dan (Also called the SSID)

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

Wireless Channel : 6

Enable Auto Channel Scan :

Channel Width : Auto 20/40MHz

Visibility Status :  Visible  Invisible

**2.4GHZ WIRELESS SECURITY SETTING :**

Security Mode : WPA-Personal

WPA Mode : WPA2 only

Cipher Type : TKIP

Pre-Shared Key : 11111111

## 5 GHz Band

**Enable Wireless:** Check the box to enable the wireless function for the **5 GHz** band. If you do not want to use wireless, uncheck the box to disable all wireless functions. You may also set up a specific time range (schedule). Select a schedule from the drop-down menu or click **Add New** to create a new schedule. By default, the schedule is set to **Always**.

**Wireless Network Name:** Specify a network name (SSID) to identify the 5 GHz network. This is the network name that wireless clients will search for when connecting to your wireless network. This name should be different to that of the 2.4 GHz network configured above.

**5GHZ WIRELESS NETWORK SETTINGS :**

Enable Wireless :  Always

Wireless Network Name : (Also called the SSID)

802.11 Mode : Mixed 802.11ac, 802.11n and 802.11a

Wireless Channel : 36

Enable Auto Channel Scan :

Channel Width : Auto 20/40/80MHz

Visibility Status :  Visible  Invisible

**5GHZ WIRELESS SECURITY SETTING :**

Security Mode : WPA-Personal

WPA Mode : WPA2 only

Cipher Type : TKIP

Pre-Shared Key : undefined

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

**Wireless Channel:** Indicates the channel setting for the DAP-1665. The Channel can be changed to fit the channel setting for an existing wireless network or to reduce interference in congested areas. If you enable Auto Channel Scan, this option will not be available.

**Enable Auto Channel Scan:** The **Auto Channel Scan** setting can be selected to allow the DAP-1665 to automatically choose the channel with the least amount of interference.

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

- Auto 20/40/80 MHz** - Select this option if you are using a combination of 802.11ac, 802.11n, and other wireless devices.
- Auto 20/40 MHz** - Select if you are using both 802.11n and non-802.11n wireless devices.
- 20 MHz** - Select if you are not using any 802.11n wireless clients.

**Visibility Status:** Select whether you would like the network name (SSID) of your wireless network to be **Visible** or **Invisible** to wireless clients. If **Invisible**, the SSID of the DAP-1665 will not be seen by site survey utilities, so wireless clients will have to manually enter the SSID of your wireless network in order to connect to it.

**Security Mode:** For information on how to set up wireless security, please refer to "Configuring Wireless Security" on page 45.

Click **Save Settings** at the top of the page to save the current configuration.

**5GHZ WIRELESS NETWORK SETTINGS :**

Enable Wireless :  Always

Wireless Network Name :  (Also called the SSID)

802.11 Mode : Mixed 802.11ac, 802.11n and 802.11a

Wireless Channel : 36

Enable Auto Channel Scan :

Channel Width : Auto 20/40/80MHz

Visibility Status :  Visible  Invisible

**5GHZ WIRELESS SECURITY SETTING :**

Security Mode : WPA-Personal

WPA Mode : WPA2 only

Cipher Type : TKIP

Pre-Shared Key :

## Repeater Mode

Repeater mode re-broadcasts the wireless signal of an existing network to increase coverage. The existing wireless signal can be repeated by the DAP-1665 using both the 2.4 GHz and 5 GHz bands.

### 2.4 GHz Band

**Wireless Mode:** Select **Repeater** from the drop-down menu.

**Site Survey:** Click **Site Survey** to display a list of wireless networks in your area. To select a wireless network, click on the radio button in the far right column, and click **Connect** at the bottom of the page to continue. The wireless network name will automatically appear in the Repeater Network Name field below, and the Repeater Network Band and Channel Width will automatically be detected.

**Repeater Network Name:** If you have not used the **Site Survey** button above, enter the SSID of the access point you want to repeat the signal of.

**Repeater Network Band:** If you have not used the **Site Survey** button above, select the wireless band of the repeater network.

**Channel Width:** If you have not used the **Site Survey** button above, select the channel width to be used for communication with the repeater network.

**Enable Wireless:** Check the box to enable the **2.4 GHz** wireless band. By default, the schedule is set to **Always**, however you can select a schedule from the drop-down menu, or click **Add New** to create a new schedule.

**Repeater Network Name:** Displays the name of the network to be repeated.

**Local Wi-Fi Network Name:** Choose how you would like to name the DAP-1665's extended network using the radio buttons:  
**Same as Repeater Name** - The extended network will have the same name (SSID) as the repeater network.  
**Create a New Wi-Fi Network Name** - Enter a new name (SSID) for the extended network in the field below.

**WIRELESS MODE :**

Wireless Mode : Repeater Site Survey

**WIRELESS SETTING :**

Repeater Network Name :  (Also called the SSID)

Repeater Network Band :  2.4GHz  5GHz

Channel Width : Auto 20/40MHz

**2.4GHZ WIRELESS NETWORK SETTINGS :**

Enable Wireless :  Always Add New

Repeater Network Name : **RTK 11n AP RPT1**

Local Wi-Fi Network Name :  Same as Repeater Name  
 Create a New Wi-Fi Network Name  
 (Also called the SSID)

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

Wireless Channel : 6

Enable Auto Channel Scan :

Channel Width : Auto 20/40MHz

Visibility Status :  Visible  Invisible



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

**Wireless Channel:** Indicates the channel setting for the DAP-1665. The channel can be changed to fit the channel setting for an existing wireless network or to reduce interference in congested areas. If you enable Auto Channel Scan, this option will not be available.

**Enable Auto Channel Scan:** The **Auto Channel Scan** setting can be selected to allow the DAP-1665 to automatically choose the channel with the least amount of interference.

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

**Visibility Status:** Select whether you want the wireless network name (SSID) of the 2.4 GHz band to be **Visible** or **Invisible**. If **Invisible**, the SSID of the DAP-1665 will not be seen by site survey utilities, so wireless clients will have to manually enter the SSID of your wireless network in order to connect to it.

**Security Mode:** For information on how to set up wireless security, please refer to "Configuring Wireless Security" on page 45.

**2.4GHZ WIRELESS NETWORK SETTINGS :**

Enable Wireless :  Always  Add New

Repeater Network Name : RTK 11n AP RPT1

Local Wi-Fi Network Name :  Same as Repeater Name  
 Create a New Wi-Fi Network Name  
 (Also called the SSID)

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

Wireless Channel : 6

Enable Auto Channel Scan :

Channel Width : Auto 20/40MHz

Visibility Status :  Visible  Invisible

---

**2.4GHZ WIRELESS SECURITY SETTING :**

Security Mode : WPA-Personal

WPA Mode : WPA2 only

Cipher Type : TKIP

Pre-Shared Key : 11111111

## 5 GHz Band

**Enable Wireless:** Check the box to enable the **5 GHz** wireless band. If you do not want to use wireless, uncheck the box to disable all wireless functions. You may also set up a specific time range (schedule). Select a schedule from the drop-down menu or click **Add New** to create a new schedule. By default, the schedule is set to **Always**.

**Repeater Network Name:** Displays the name of the network which is to be repeated.

**Local Wi-Fi Network Name:** Choose how you would like to name the DAP-1665's extended network using the radio buttons:  
**Same as Repeater Name** - The extended network will have the same name (SSID) as the repeater network.  
**Create a New Wi-Fi Network Name** - Enter a new name (SSID) for the extended network in the field below.

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

**Wireless Channel:** Indicates the channel setting for the DAP-1665. The channel can be changed to fit the channel setting for an existing wireless network or to reduce interference in congested areas. If you enable Auto Channel Scan, this option will not be available.

**Enable Auto Channel Scan:** The **Auto Channel Scan** setting can be selected to allow the DAP-1665 to automatically choose the channel with the least amount of interference.

**5GHZ WIRELESS NETWORK SETTINGS :**

**Enable Wireless :**  Always Add New

**Repeater Network Name :** RTK 11n AP RPT1

**Local Wi-Fi Network Name :**  Same as Repeater Name  
 Create a New Wi-Fi Network Name  
 (Also called the SSID)

**802.11 Mode :** Mixed 802.11ac, 802.11n and 802.11a

**Wireless Channel :** 36

**Enable Auto Channel Scan :**

**Channel Width :** Auto 20/40/80MHz

**Visibility Status :**  Visible  Invisible

**5GHZ WIRELESS SECURITY SETTING :**

**Security Mode :** WPA-Personal

**WPA Mode :** WPA2 only

**Cipher Type :** TKIP

**Pre-Shared Key :**

**Channel Width:** Select the Channel Width:  
**Auto 20/40/80 MHz** - Select this option if you are using a combination of 802.11ac, 802.11n, and other wireless devices.  
**Auto 20/40 MHz** - Select if you are using both 802.11n and non-802.11n wireless devices.  
**20 MHz** - Select if you are not using any 802.11n wireless clients.

**Visibility Status:** Select whether you want the wireless network name (SSID) of the 2.4 GHz band to be **Visible** or **Invisible**. If **Invisible**, the SSID of the DAP-1665 will not be seen by site survey utilities, so wireless clients will have to manually enter the SSID of your wireless network in order to connect to it.

**Security Mode:** For information on how to set up wireless security, please refer to "Configuring Wireless Security" on page 45.

Click **Save Settings** at the top of the page to save the current configuration.

**5GHZ WIRELESS NETWORK SETTINGS :**

Enable Wireless :  Always

Repeater Network Name : RTK 11n AP RPT1

Local Wi-Fi Network Name :  Same as Repeater Name  
 Create a New Wi-Fi Network Name  
 (Also called the SSID)

802.11 Mode : Mixed 802.11ac, 802.11n and 802.11a

Wireless Channel : 36

Enable Auto Channel Scan :

Channel Width : Auto 20/40/80MHz

Visibility Status :  Visible  Invisible

---

**5GHZ WIRELESS SECURITY SETTING :**

Security Mode : WPA-Personal

WPA Mode : WPA2 only

Cipher Type : TKIP

Pre-Shared Key : undefined

## Using WPS

**Enable:** Check the box to enable wireless devices to connect to the access point using WPS.

**Current PIN:** Displays the current PIN to be used by clients connecting using the WPS-PIN method.

**Reset PIN to Default:** Click to reset the access point's WPS PIN to the factory default.

**Generate New PIN:** Click to generate a new WPS PIN.

**Process WPS:** Click to commence the WPS-PBC (Push Button) setup process.



## Configuring Wireless Security

Wireless security encryption prevents unauthorized users from accessing your wireless network. The DAP-1665 features two methods of wireless security encryption: Wired Equivalent Privacy (WEP), and Wi-Fi Protected Access (WPA). It is recommended that you use WPA security if your wireless devices support this standard, as it is more secure than the older WEP standard. For more details of wireless security standards, please refer to “Wireless Security” on page 76.

**Note:** Unless otherwise specified, the security configuration process is the same for both the 2.4 GHz and 5 GHz bands.

### WEP

**Security Mode:** Select **WEP** from the drop-down menu.

**WEP Encryption:** The WEP standard offers two levels of encryption: 64-bit and 128-bit. Each level has the option of a key (password) consisting of either HEX digits or ASCII characters:

**64Bit (10 hex digits)** - Uses a key consisting of 10 hex digits (0-9, A-F).

**64Bit (5 ascii characters)** - Uses a key consisting of 5 ASCII characters (0-9, A-Z, plus symbols).

**128Bit (26 hex digits)** - Uses a key consisting of 26 hex digits (0-9, A-F).

**128bit (13 ascii characters)** - Uses a key consisting of 13 ASCII characters (0-9, A-Z, plus symbols).

**WEP Key 1:** Enter the desired WEP key (password) for your wireless network. The key should adhere to the requirements of WEP Encryption method specified above.

**Authentication:** Select an authentication method from the drop-down menu

Click **Save Settings** at the top of the page to save the current configuration.

2.4GHZ WIRELESS SECURITY SETTING :	
Security Mode :	WEP
WEP Encryption :	64Bit(10 hex digits)
WEP Key 1 :	<input type="text"/>
Authentication :	Both

## WPA-Personal

**Security Mode:** Select **WPA-Personal** from the drop-down menu.

**WPA Mode:** There are two versions of WPA supported by the DAP-1665: **WPA** and **WPA2**. It is recommended that you use **Auto(WPA or WPA2)** so that the WPA2 version will be used if connecting wireless clients support it.

**Cipher Type:** Choose a cipher type from the drop-down menu.

**Pre-Shared Key:** Enter the desired pre-shared key (password) for the wireless network. Wireless clients will need this key in order to connect to your wireless network.

Click **Save Settings** at the top of the page to save the current configuration.

**2.4GHZ WIRELESS SECURITY SETTING :**

Security Mode : WPA-Personal ▼

WPA Mode : AUTO(WPA or WPA2) ▼

Cipher Type : TKIP and AES ▼

Pre-Shared Key :

## WPA-Enterprise

WPA-Enterprise uses a RADIUS authentication server to provide centralized authentication for wireless access. If you are missing any of the information required for this setup, please contact your network administrator.

**Security Mode:** Select **WPA-Enterprise** from the drop-down menu.

**WPA Mode:** There are two versions of WPA supported by the DAP-1665: **WPA** and **WPA2**. It is recommended that you use **Auto(WPA or WPA2)** so that the WPA2 version will be used if connecting wireless clients support it.

**Cipher Type:** Choose a cipher type from the drop-down menu.

**RADIUS Server IP Address:** Enter the IP address for your network's RADIUS authentication server.

**Pre-Shared Key:** Enter the port for the RADIUS authentication server.

**Radius Server Shared Secret:** Enter the shared secret required by the RADIUS authentication server.

**2.4GHZ WIRELESS SECURITY SETTING :**

Security Mode : WPA-Enterprise ▼

WPA Mode : AUTO(WPA or WPA2) ▼

Cipher Type : TKIP and AES ▼

RADIUS Server IP Address :

RADIUS Server Port :

RADIUS Server Shared Secret :

**Advanced**

Optional backup RADIUS server

Second RADIUS server IP Address :

Second RADIUS Server Port :

Second RADIUS Server Shared Secret :

**Advanced:** Click on the **Advanced** button to display the setup options for an optional backup RADIUS server configuration.

**Second RADIUS Server IP Address:** Enter the IP address for your network's backup RADIUS authentication server.

**Second Pre-Shared Key:** Enter the port for the backup RADIUS authentication server.

**Second RADIUS Server Shared Secret:** Enter the shared secret required by the backup RADIUS authentication server.

Click **Save Settings** at the top of the page to save the current configuration.

**2.4GHZ WIRELESS SECURITY SETTING :**

Security Mode : WPA-Enterprise ▾

WPA Mode : AUTO(WPA or WPA2) ▾

Cipher Type : TKIP and AES ▾

RADIUS Server IP Address : 0.0.0.0

RADIUS Server Port : 1812

RADIUS Server Shared Secret :

**Advanced**

Optional backup RADIUS server

Second RADIUS server IP Address : 0.0.0.0

Second RADIUS Server Port : 1812

Second RADIUS Server Shared Secret :

# LAN Setup

The LAN Setup page enables you to configure the Local Area Network (LAN) settings for the access point. From this page you can adjust your local network's IP address settings, and configure IPv6.

## Dynamic/Static IP

**Device Name:** You can change the name of your access point to make it easier to identify. Enter a name for the access point in the field provided. If you change the device name, you should use this name in your web browser address bar when trying to access the web-based configuration utility.

**Example:** http://devicename

**My LAN Connection is:** Select how you would like to configure the access point's IP address settings from the drop-down menu:  
**Dynamic IP(DHCP)** - The access point will request an IP address from the DHCP server that it is connected to.

**Static IP** - You can manually specify the IP address settings for the access point.

**IP Address:** Enter the IP address that you want to specify for the access point (Static IP only).

**Subnet Mask:** Enter the subnet mask to be used by the access point (Static IP only).

**Gateway Address:** Enter the default gateway address to be used by the access point (Static IP only).

**Primary DNS Server:** Enter the primary DNS server address to be used by the access point (Static IP only).

**Secondary DNS Server:** Enter the secondary DNS server address to be used by the access point (Static IP only).

Click **Save Settings** at the top of the page to save the current configuration.

**DEVICE NAME :**

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

**Device Name :**

---

**LAN IPV4 CONNECTION TYPE :**

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

**My LAN Connection is :**

---

**DYNAMIC IP (DHCP) LAN CONNECTION TYPE :**

IP Address Information.

**IP Address :**

**Subnet Mask :**

**Gateway Address :**

**Primary DNS Server :**

**Secondary DNS Server :**



## DHCP Server

The access point has a built-in Dynamic Host Control Protocol (DHCP) server which can automatically assign IP addresses to connected clients that request them. The DHCP server function will only be available when Static IP Address mode is used.

**Enable DHCP Server:** Check the box to enable the DHCP server function.

**DHCP IP Address Range:** Enter the range of the DHCP address pool from which requesting clients can be assigned addresses. You should ensure that the access point's static IP address is outside of this range in order to avoid any IP address conflicts.

**Always Broadcast:** Check the box to have the DHCP server always broadcast its response to clients. This can help to avoid problems when clients fail to obtain an IP address from the DHCP server.

**Gateway:** The gateway address which will be sent to requesting clients.

**WINS:** Enter the WINS server address which will be sent to requesting clients.

**DNS:** Enter the DNS server address which will be sent to requesting clients.

**DHCP Lease Time:** Select the desired DHCP address lease length time from the drop-down menu.

**Dynamic DHCP Client List:** This table will show details of clients which are currently receiving a DHCP address from the DHCP server.

Click **Save Settings** at the top of the page to save the current configuration.

**DHCP SERVER SETTINGS :**

Use this section to configure the built-in DHCP Server to assign IP addresses to the computers on your network.

Enable DHCP Server :

DHCP IP Address Range :  to   
(addresses within the LAN subnet)

Always Broadcast :

Gateway :

WINS :

DNS :

DHCP Lease Time :

---

**DYNAMIC DHCP CLIENT LIST :**

Host Name	IP Address	MAC Address	Expired Time
None	----	----	----

## IPv6

The DAP-1665 can be configured to operate using the IPv6 protocol. If you are connecting the access point to a network which is using IPv6, you should adjust the appropriate settings in this section.

**My IPv6 Connection is:** Select **Link-Local Only** from the drop-down menu. This will set the access point's local IPv6 address.

**LAN IPv6 Link-Local Address:** The router's local IPv6 address will be displayed here. This address should be used to access the web-based configuration utility through the IPv6 protocol.

Click **Save Settings** at the top of the page to save the current configuration.

**My IPv6 Connection is:** Select **Static IPv6** from the drop-down menu. This will allow you to assign a static IPv6 address to the access point.

**LAN IPv6 Address:** The router's local IPv6 address will be displayed here. This address should be used to access the web-based configuration utility through the IPv6 protocol.

**Subnet Prefix Length:** Enter the prefix length for IPv6 IP addresses on your network.

**Default Gateway:** Enter the default IPv6 gateway address for your network.

**Primary DNS Server:** Enter the primary IPv6 DNS server address for your network.

**Secondary DNS Server:** Enter the secondary IPv6 DNS server address for your network.

Click **Save Settings** at the top of the page to save the current configuration.

**IPv6 CONNECTION TYPE :**

Choose the mode to be used by the AP to connect to the IPv6 Internet.

**My IPv6 Connection is :**

**LAN IPv6 ADDRESS SETTINGS :**

Use this section to configure the internal network settings of your router. The LAN IPv6 Link-Local Address is the IPv6 Address that you use to access the Web-based management interface.

**LAN IPv6 Link-Local Address :**

**IPv6 CONNECTION TYPE :**

Choose the mode to be used by the AP to connect to the IPv6 Internet.

**My IPv6 Connection is :**

**LAN IPv6 ADDRESS SETTINGS :**

Enter the information provided by your Internet Service Provider(ISP);

**LAN IPv6 Address :**

**Subnet Prefix Length :**

**Default Gateway :**

**Primary DNS Server :**

**Secondary DNS Server :**

**My IPv6 Connection is:** Select **Autoconfiguration (SLAAC/DHCPv6)** from the drop-down menu. The access point will request IPv6 settings from a DHCPv6 server on your network.

**IPv6 DNS Settings:** You can select to have the access point automatically obtain DNS server settings from the DHCP server, or you can specify IPv6 DNS server settings to be used. If you select **Obtain IPv6 DNS automatically**, no further configuration is required.

**Primary DNS Server:** Enter the primary IPv6 DNS server address to be used.

**Secondary DNS Server:** Enter the secondary IPv6 DNS server address to be used.

Click **Save Settings** at the top of the page to save the current configuration.

### IPv6 CONNECTION TYPE :

Choose the mode to be used by the AP to connect to the IPv6 Internet.

My IPv6 Connection is :

### IPv6 DNS SETTINGS :

Obtain DNS server address automatically or enter a specific DNS server address.

Obtain IPv6 DNS Server automatically

Use the following IPv6 DNS Servers

Primary DNS Server :

Secondary DNS Server :

# Advanced

This section allows you to configure the advanced parameters of your DAP-1665. There will be different advanced features available for configuration based on the mode in which your device is operating. The instructions below are listed according to operation mode.

## Access Point Mode

### Access Control

Mac filtering allows you to control wireless access to your network according to clients' MAC addresses.

**Configure MAC Filtering:** Use the drop-down menu to select your desired MAC filtering method:  
**Turn MAC Filtering OFF** - No MAC filtering will be implemented.  
**Turn MAC Filtering ON and ALLOW** - MAC filtering will be turned on, and only MAC addresses listed in the table below will be allowed access.  
**Turn MAC Filtering ON and DENY** - MAC filtering will be turned on, and only MAC addresses listed in the table below will be denied access.

**Checkbox:** Check the box to include this MAC address in the MAC filtering rules.

**MAC Address:** Enter the MAC address of the client that you wish to filter. If the client is currently connected to the access point, you can select it from the **Client List** drop-down menu, and click << to automatically populate the field.

Click **Clear** to clear all fields. Click **Save Settings** at the top of the page to save the current configuration.

**ACCESS CONTROL SETTINGS**

Configure MAC Filtering below :

Turn MAC Filtering OFF ▼

	MAC Address		Client List	
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address ▼	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address ▼	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address ▼	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address ▼	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address ▼	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address ▼	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address ▼	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address ▼	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address ▼	Clear

## Advanced Wireless

On this page, you can adjust the advanced wireless settings for both the 2.4 GHz band, and the 5 GHz band.

### 2.4 GHz Band

**Transmit Power:** Select the desired transmission power of the wireless radio from the drop-down menu.

**WMM Enable:** Check the box to enable Wireless Multimedia (WMM), a QoS engine which can help to reduce lag and latency when transmitting multimedia over your wireless connection.

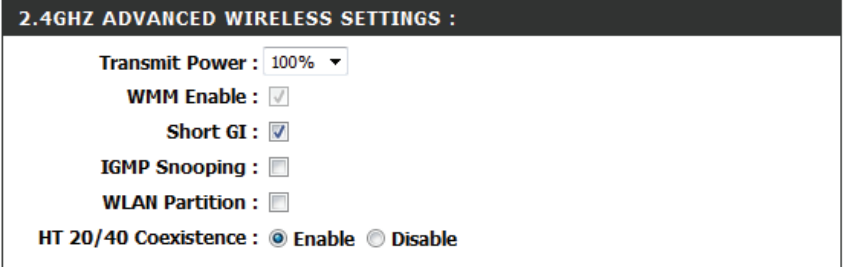
**Short GI:** Enabling a short Guard Interval (GI) can increase throughput. However, it can also increase error rate in some installations, due to increased sensitivity to radio-frequency reflections. Select the option that works best for your installation.

**IGMP Snooping:** Enabling this option allows the access point to listen for Internet Group Management Protocol (IGMP) traffic, which can help to detect clients which require multicast streams.

**WLAN Partition:** Enabling this option means that connection wireless clients will not be able to communicate with one another, but will still have access to network resources such as the Internet.

**HT 20/40 Coexistence:** Enable this option to reduce interference from other wireless networks in your area. If the channel width is operating at 40 MHz and there is another wireless network's channel overlapping and causing interference, the router will automatically change to 20 MHz.

Click **Save Settings** at the top of the page to save the current configuration.



**2.4GHZ ADVANCED WIRELESS SETTINGS :**

Transmit Power : 100% ▾

WMM Enable :

Short GI :

IGMP Snooping :

WLAN Partition :

HT 20/40 Coexistence :  Enable  Disable

## 5 GHz Band

**Transmit Power:** Select the desired transmission power of the wireless radio from the drop-down menu.

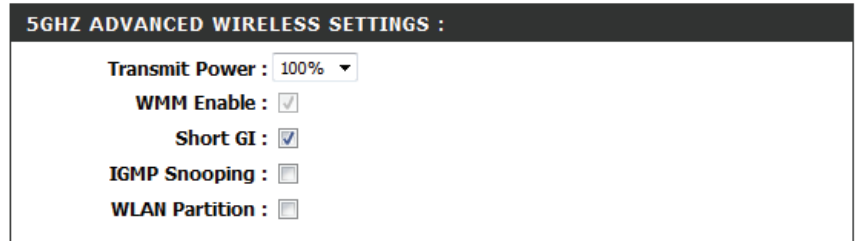
**WMM Enable:** Check the box to enable Wireless Multimedia (WMM), a QoS engine which can help to reduce lag and latency when transmitting multimedia over your wireless connection.

**Short GI:** Enabling a short Guard Interval (GI) can increase throughput. However, it can also increase error rate in some installations, due to increased sensitivity to radio-frequency reflections. Select the option that works best for your installation.

**IGMP Snooping:** Enabling this option allows the access point to listen for Internet Group Management Protocol (IGMP) traffic, which can help to detect clients which require multicast streams.

**WLAN Partition:** Enabling this option means that connection wireless clients will not be able to communicate with one another, but will still have access to network resources such as the Internet.

Click **Save Settings** at the top of the page to save the current configuration.



The screenshot shows a configuration panel titled "5GHZ ADVANCED WIRELESS SETTINGS :". It contains the following settings:

- Transmit Power :** 100% (dropdown menu)
- WMM Enable :**
- Short GI :**
- IGMP Snooping :**
- WLAN Partition :**

## Wi-Fi Protected Setup

This section allows you to configure how the DAP-1665 uses Wi-Fi Protected Setup (WPS) to create a secure wireless connection.

**Enable:** Check the box to enable WPS.

**Disable WPS-PIN Method:** Check the box to disable WPS using the PIN method. If this option is selected, wireless clients will only be able to use the WPS-PBC (Push-button Connection) method.

**Current PIN:** Displays the current PIN which can be used by wireless clients to connect to the access point. Click **Reset PIN to Default** to return the PIN to its factory default. Click **Generate New PIN** to randomly generate a new PIN.

**Add Wireless Station:** Click **Add Wireless Device With WPS** to activate the WPS-PBC (Push-button) method. You will then have 120 seconds to press the WPS button on the new device that you wish to connect.

Click **Save Settings** at the top of the page to save the current configuration.

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

Enable :

Disable WPS-PIN Method :

Reset to Unconfigured

**PIN SETTINGS**

Current PIN: 63010923

Reset PIN to Default    Generate New PIN

**ADD WIRELESS STATION**

Add Wireless Device With WPS

## User Limit

Here, you can set a maximum number of users that can be connected to the access point at any one time.

**Enable User Limit:** Check the box to enable the user limit function.

**User Limit:** Enter a number of users (between 1-32).

Click **Save Settings** at the top of the page to save the current configuration.

USER LIMIT SETTINGS	
Enable User Limit :	<input checked="" type="checkbox"/>
User Limit (1 - 32) :	<input type="text" value="0"/>



# Wireless Client Mode

## Advanced Wireless

### 2.4 GHz Band

**Transmit Power:** Select the desired transmission power of the wireless radio from the drop-down menu.

**HT 20/40 Coexistence:** Enable this option to reduce interference from other wireless networks in your area. If the channel width is operating at 40 MHz and there is another wireless network's channel overlapping and causing interference, the router will automatically change to 20 MHz.

Click **Save Settings** at the top of the page to save the current configuration.

2.4GHZ ADVANCED WIRELESS SETTINGS :	
Transmit Power :	100% ▼
HT 20/40 Coexistence :	<input checked="" type="radio"/> Enable <input type="radio"/> Disable

### 5 GHz Band

**Transmit Power:** Select the desired transmission power of the wireless radio from the drop-down menu.

Click **Save Settings** at the top of the page to save the current configuration.

5GHZ ADVANCED WIRELESS SETTINGS :	
Transmit Power :	100% ▼

# Bridge Mode

## Access Control

Mac filtering allows you to control wireless access to your network according to clients' MAC addresses.

**Configure MAC Filtering:** Use the drop-down menu to select your desired MAC filtering method:  
**Turn MAC Filtering OFF** - No MAC filtering will be implemented.  
**Turn MAC Filtering ON and ALLOW** - MAC filtering will be turned on, and only MAC addresses listed in the table below will be allowed access.  
**Turn MAC Filtering ON and DENY** - MAC filtering will be turned on, and only MAC addresses listed in the table below will be denied access.

**Checkbox:** Check the box to include this MAC address in the MAC filtering rules.

**MAC Address:** Enter the MAC address of the client that you wish to filter. If the client is currently connected to the access point, you can select it from the **Client List** drop-down menu, and click << to automatically populate the field.

Click **Clear** to clear all fields. Click **Save Settings** at the top of the page to save the current configuration.

**ACCESS CONTROL SETTINGS**

Configure MAC Filtering below :

Turn MAC Filtering OFF ▼

	MAC Address		Client List	
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address ▼	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address ▼	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address ▼	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address ▼	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address ▼	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address ▼	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address ▼	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address ▼	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address ▼	Clear

# Bridge with AP Mode

## Advanced Wireless

On this page, you can adjust the advanced wireless settings for both the 2.4 GHz band, and the 5 GHz band.

### 2.4 GHz Band

**Transmit Power:** Select the desired transmission power of the wireless radio from the drop-down menu.

**WMM Enable:** Check the box to enable Wireless Multimedia (WMM), a QoS engine which can help to reduce lag and latency when transmitting multimedia over your wireless connection.

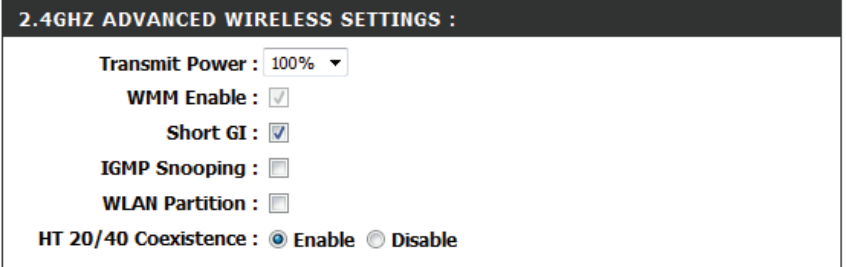
**Short GI:** Enabling a short Guard Interval (GI) can increase throughput. However, it can also increase error rate in some installations, due to increased sensitivity to radio-frequency reflections. Select the option that works best for your installation.

**IGMP Snooping:** Enabling this option allows the access point to listen for Internet Group Management Protocol (IGMP) traffic, which can help to detect clients which require multicast streams.

**WLAN Partition:** Enabling this option means that connection wireless clients will not be able to communicate with one another, but will still have access to network resources such as the Internet.

**HT 20/40 Coexistence:** Enable this option to reduce interference from other wireless networks in your area. If the channel width is operating at 40 MHz and there is another wireless network's channel overlapping and causing interference, the router will automatically change to 20 MHz.

Click **Save Settings** at the top of the page to save the current configuration.



The screenshot shows the '2.4GHZ ADVANCED WIRELESS SETTINGS' configuration page. The settings are as follows:

- Transmit Power: 100% (dropdown menu)
- WMM Enable:
- Short GI:
- IGMP Snooping:
- WLAN Partition:
- HT 20/40 Coexistence:  Enable  Disable

## 5 GHz Band

**Transmit Power:** Select the desired transmission power of the wireless radio from the drop-down menu.

**WMM Enable:** Check the box to enable Wireless Multimedia (WMM), a QoS engine which can help to reduce lag and latency when transmitting multimedia over your wireless connection.

**Short GI:** Enabling a short Guard Interval (GI) can increase throughput. However, it can also increase error rate in some installations, due to increased sensitivity to radio-frequency reflections. Select the option that works best for your installation.

**IGMP Snooping:** Enabling this option allows the access point to listen for Internet Group Management Protocol (IGMP) traffic, which can help to detect clients which require multicast streams.

**WLAN Partition:** Enabling this option means that connection wireless clients will not be able to communicate with one another, but will still have access to network resources such as the Internet.

Click **Save Settings** at the top of the page to save the current configuration.

The screenshot shows a configuration panel titled "5GHZ ADVANCED WIRELESS SETTINGS :". It contains the following settings:

- Transmit Power :** 100% (dropdown menu)
- WMM Enable :**
- Short GI :**
- IGMP Snooping :**
- WLAN Partition :**

# Repeater Mode

## Access Control

Mac filtering allows you to control wireless access to your network according to clients' MAC addresses.

**Configure MAC Filtering:** Use the drop-down menu to select your desired MAC filtering method:  
**Turn MAC Filtering OFF** - No MAC filtering will be implemented.  
**Turn MAC Filtering ON and ALLOW** - MAC filtering will be turned on, and only MAC addresses listed in the table below will be allowed access.  
**Turn MAC Filtering ON and DENY** - MAC filtering will be turned on, and only MAC addresses listed in the table below will be denied access.

**Checkbox:** Check the box to include this MAC address in the MAC filtering rules.

**MAC Address:** Enter the MAC address of the client that you wish to filter. If the client is currently connected to the access point, you can select it from the **Client List** drop-down menu, and click << to automatically populate the field.

Click **Clear** to clear all fields. Click **Save Settings** at the top of the page to save the current configuration.

**ACCESS CONTROL SETTINGS**

Configure MAC Filtering below :

Turn MAC Filtering OFF

	MAC Address	<<	Client List	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address	Clear
<input type="checkbox"/>	00:00:00:00:00:00	<<	MAC Address	Clear

## Advanced Wireless

On this page, you can adjust the advanced wireless settings.

**Transmit Power:** Select the desired transmission power of the wireless radio from the drop-down menu.

**WMM Enable:** Check the box to enable Wireless Multimedia (WMM), a QoS engine which can help to reduce lag and latency when transmitting multimedia over your wireless connection.

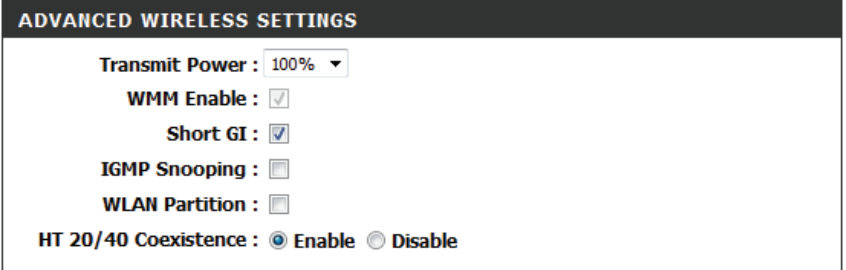
**Short GI:** Enabling a short Guard Interval (GI) can increase throughput. However, it can also increase error rate in some installations, due to increased sensitivity to radio-frequency reflections. Select the option that works best for your installation.

**IGMP Snooping:** Enabling this option allows the access point to listen for Internet Group Management Protocol (IGMP) traffic, which can help to detect clients which require multicast streams.

**WLAN Partition:** Enabling this option means that connection wireless clients will not be able to communicate with one another, but will still have access to network resources such as the Internet.

**HT 20/40 Coexistence:** Enable this option to reduce interference from other wireless networks in your area. If the channel width is operating at 40 MHz and there is another wireless network's channel overlapping and causing interference, the router will automatically change to 20 MHz.

Click **Save Settings** at the top of the page to save the current configuration.



**ADVANCED WIRELESS SETTINGS**

Transmit Power : 100% ▾

WMM Enable :

Short GI :

IGMP Snooping :

WLAN Partition :

HT 20/40 Coexistence :  Enable  Disable

## Wi-Fi Protected Setup

This section allows you to configure how the DAP-1665 uses Wi-Fi Protected Setup (WPS) to create a secure wireless connection.

**Enable:** Check the box to enable WPS.

**Disable WPS-PIN Method:** Check the box to disable WPS using the PIN method. If this option is selected, wireless clients will only be able to use the WPS-PBC (Push-button Connection) method.

**Current PIN:** Displays the current PIN which can be used by wireless clients to connect to the access point. Click **Reset PIN to Default** to return the PIN to its factory default. Click **Generate New PIN** to randomly generate a new PIN.

Click **Add Wireless Device With WPS** to activate the WPS-PBC (Push-button) method. You will then have 120 seconds to press the WPS button on the new device that you wish to connect.

Click **Save Settings** at the top of the page to save the current configuration.

The screenshot displays the WPS configuration interface, organized into three main sections:

- WIFI PROTECTED SETUP (ALSO CALLED WCN 2.0 IN WINDOWS VISTA) :** This section contains two checkboxes: "Enable" (checked) and "Disable WPS-PIN Method" (unchecked). Below these is a "Reset to Unconfigured" button.
- PIN SETTINGS:** This section shows the "Current PIN" as 63010923. It includes two buttons: "Reset PIN to Default" and "Generate New PIN".
- ADD WIRELESS STATION:** This section features a single button labeled "Add Wireless Device With WPS".

## User Limit

Here, you can set a maximum number of users that can be connected to the access point at any one time.

**Enable User Limit:** Check the box to enable the user limit function.

**User Limit:** Enter a number of users (between 1-32).

Click **Save Settings** at the top of the page to save the current configuration.

USER LIMIT SETTINGS	
Enable User Limit :	<input checked="" type="checkbox"/>
User Limit (1 - 32) :	<input type="text" value="0"/>



# Maintenance

The Maintenance section allows you to adjust the administrative settings of the router such as time and date, administrator password, and update the device's firmware.

## Admin

**New Password:** To change the password for the web-based configuration utility's Admin account, enter a new password in the field provided.

**Confirm Password:** Re-enter the new password in this field.

**Enable Graphical Authentication:** Check the box to enable graphical authentication. Graphical authentication uses a challenge-response test to prevent unauthorized users from gaining access to the configuration utility through automated means.

Click **Save Settings** at the top of the page to save the current configuration.

PASSWORD :	
New Password :	<input type="password"/>
Confirm Password :	<input type="password"/>

ADMINISTRATION :	
Enable Graphical Authentication :	<input type="checkbox"/>

# System

The System page can be used to save and restore the device's configuration, as well as restore the factory default settings.

**Save Settings to Local Hard Drive:** Click **Save** to save the access point's current configuration to a file on your local computer. After clicking, a *Save File* dialog will appear, prompting you to save the configuration file on your computer.

**Load Settings From Local Hard Drive:** Click **Browse** to locate a previously saved configuration file on your local computer. Once the file has been located, click **Upload Settings** to apply the configuration in the file to the access point.  
**Note:** This will overwrite any current configuration.

**Restore to Factory Default Settings:** Click **Restore Device** to reset the DAP-1665's settings to the factory defaults.  
**Warning:** This will erase all current settings and cannot be undone.

**Reboot the Device:** Click **Reboot** to reboot the device. You will need to log in to the device again once the reboot has been completed.

The screenshot shows a web interface titled "SAVE AND RESTORE :". It contains four main sections, each with a label and a corresponding button:

- Save Settings To Local Hard Drive :** A button labeled "Save".
- Load Settings From Local Hard Drive :** A text input field followed by a "Browse..." button, and a button labeled "Upload Settings".
- Restore To Factory Default Settings :** A button labeled "Restore Device".
- Reboot The Device :** A button labeled "Reboot".

# Firmware

Use the Firmware page to update the device's firmware, and add or remove language packs.

**Firmware Information:** This section displays information about the device's current firmware and language pack. Click **Remove** to remove any currently installed language packs. Click **Check Now** to check for new firmware or language pack versions.  
**Note:** The access point must have an active Internet connected to check for firmware and language pack updates.

**Check the Latest Firmware and Language Pack Versions:** If the above check for firmware and language packs detected updates, the details will displayed here. Click **Download** to download the update files to your computer.

**Firmware Upgrade:** Click **Browse** to locate a firmware file on your computer. Once located, click **Upload** to commence the firmware upgrade process. It is recommended that you save your current router configuration using the System page before you begin a firmware upgrade.  
**Warning:** You must use a wired connection to the access point to update the firmware.

**Language Pack Upgrade:** Click **Browse** to locate a language pack file on your computer. Once located, click **Upload** to commence the language pack upgrade process.

FIRMWARE INFORMATION :	
Current Firmware Version : 1.00	Date : 2013/07/15
Current Language Pack Version :	Date :
Current Language Pack Version : <input type="button" value="Remove"/>	
Check Online Now for Latest Firmware and Language pack Version: <input type="button" value="Check Now"/>	

CHECK LATEST FIRMWARE AND LANGUAGE PACK VERSION
Latest Firmware Version :
Latest Firmware Date :
<input type="button" value="Download"/>

FIRMWARE UPGRADE
<b>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 <a href="#">Maintenance -&gt; System</a> screen.</b>
To upgrade the firmware, your PC must have a wired connection to the access point. Enter the name of the firmware upgrade file, and click on the Upload button.
Upload : <input type="text"/> <input type="button" value="Browse..."/>
<input type="button" value="Upload"/>

LANGUAGE PACK UPGRADE
Upload : <input type="text"/> <input type="button" value="Browse..."/>
<input type="button" value="Upload"/>

# Time

Use the Time page to configure the time and date settings of the access point. You can also configure daylight saving adjustments and synchronize the access point's clock and calendar with an Internet-based Network Time Protocol (NTP) server.

**Time:** Displays the access point's current time and date.

**Time Zone:** Select your time zone from the drop-down menu.

**Enable Daylight Saving:** Check the box to have the access point automatically adjust the clock for daylight saving.

**Daylight Saving Offset:** Select the offset for beginning daylight saving from the drop-down menu.

**Daylight Saving Dates:** Use the drop-down menus to set the **Start** and **End** dates for daylight saving time.

**Enable NTP Server:** Check the box to have the access point automatically synchronize its clock and calendar with an online NTP server.

**NTP Server Used:** Type the address of the NTP server you would like to use in the field provided, or choose a pre-determined server from the drop-down menu and click << to populate the field.

**Date and Time:** Use the drop-down menus to manually configure the time and date. This option will not be available if Enable NTP Server is selected above.

Click **Save Settings** at the top of the page to save the current configuration.

**TIME CONFIGURATION**

Time : 07/15/2013 23:28:03

Time Zone : (GMT-08:00) Pacific Time (US & Canada); Tijuana ▼

Enable Daylight Saving :

Daylight Saving Offset : +1:00 ▼

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

**AUTOMATIC TIME CONFIGURATION**

Enable NTP server :

NTP Server Used : ntp1.dlink.com << ntp1.dlink.com ▼

**SET THE DATE AND TIME MANUALLY**

Date and Time : Year 2013 ▼ Month Jul ▼ Day 16 ▼

Hour 15 ▼ Minute 53 ▼ Second 20 ▼

Copy Your Computer's Time Settings

# System Check

**Host Name or IP Address:** Enter the host name or IP address for which you wish to conduct a ping test.

**Ping Result:** Displays results of the ping test above.

<b>PING TEST :</b>	
Host Name or IP address :	<input type="text"/> <input type="button" value="Ping"/>
<b>PING RESULT :</b>	
Enter a host name or IP address above and click "Ping".	

# Schedules

Use the Schedules page to create new schedule rules for various access point functions. Schedules created here will be available for selection from schedule selection drop-down menus throughout the configuration utility.

**Name:** Enter a name to identify the new schedule rule.

**Day(s):** Select **All Week** to make the rule active for all days of the week. Select **Select Day(s)** to determine specific days on which to activate the rule. Days can be selected by checking the boxes below.

**All Day-24 hrs:** Check the box to make the rule active all day for the days selected above.

**Time format:** Select whether you would like to use **24-hour** or **12-hour** time format.

**Start Time:** Enter the time for the rule to become active on each of the days selected above.

**End Time:** Enter the time for the rule to become inactive on each of the days selected above.

Click **Add** to add the rule to the Schedule Rules List. Click **Clear** to clear all fields.

**Schedule Rules List.** This table displays a summary of all current schedule rules. Click on the **Edit** icon to edit the rule, or click on the **Delete** icon to delete the rule from the list.

**ADD SCHEDULE RULE :**

Name :

Day(s) :  All Week  Select Day(s)

Sun  Mon  Tue  Wed  Thu  Fri  Sat



All Day - 24 hrs :

Time format : 24-hour ▼

Start Time : 0 : 0 AM ▼ (hour:minute)

End Time : 0 : 0 AM ▼ (hour:minute)

**SCHEDULE RULES LIST :**

Name	Day(s)	Time Frame		
Schedule 1	Mon Wed Thu Fri	09:00 AM-05:00 AM		

# Status

## Device Info

This page displays the current information for the DAP-1665, such as LAN and wireless LAN information and statistics.

**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 wireless settings such as SSID and channel for the 2.4 GHz wireless band.

**Wireless LAN 2:** Displays the wireless MAC address and wireless settings such as SSID and channel for the 5 GHz wireless band.

GENERAL
Time : 7/15/2013 23:54:15 Firmware Version : 1.00 , Mon, 15, Jul, 2013
LAN
MAC Address : 00:e0:4c:81:96:c1 Connection : Dynamic IP IP Address : 192.168.0.101 Subnet Mask : 255.255.255.0 Default Gateway : 192.168.0.2
WIRELESS LAN
MAC Address : 00:E0:4C:81:96:D1 Network Name(SSID) : dlink-96C1 Channel Width : 40MHz Channel : 2 Security Mode : Open / Disabled Wi-Fi Protected Setup : Enable / Configured
WIRELESS LAN 2
MAC Address : 00:E0:4C:81:96:C1 Network Name(SSID) : dlink-96C1-5GHz Channel Width : 80MHz Channel : 149 Security Mode : Open / Disabled Wi-Fi Protected Setup : Disable / Configured

# Logs

TheDAP-1665 keeps a running log of events and activities occurring on the access point. If the device is rebooted, the logs will automatically be cleared.

**Log Options:** There are several types of logs that can be viewed: **System Activity, Debug Information, Attacks, Dropped Packets,** and **Notice**. Check the boxes to display log items of each type. Click **Apply Log Settings Now** to update the log options.

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

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

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

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

**Clear Log:** This button clears all current log content.

**Save Log:** This button allows you to save the current log to a file on your local computer.

**Refresh:** This button refreshes the log.

**LOG OPTIONS**

System Activity :  System Activity  Debug Information  Attacks

Dropped Packets  Notice

[Apply Log Settings Now](#)

**LOG DETAILS :**

[First Page](#) [Last Page](#) [Previous Page](#) [Next Page](#) [Clear Log](#) [Save log](#)

[Refresh](#)

**page 1 of 4**

Time	Message
Jul 15 23:52:46	rt18192cd_ dfs_det_chk_timer 722 DFS detected



# Statistics

The DAP-1665 keeps statistics of the traffic that passes through it. You can view the amount of packets that pass through the LAN and wireless portions of the network. The traffic counter will reset if the access point is rebooted. Use the buttons at the top of the page to **Refresh** or **Clear** the statistics.

**TRAFFIC STATISTICS :**

Traffic Statistics display Receive and Transmit packets passing through the DAP-1665.

**LAN STATISTICS**

Sent:	14727	Received:	56224
TX Packets Dropped:	0	RX Packets Dropped:	0
Collisions:	0	Errors:	0

**WIRELESS STATISTICS**

Sent:	16504	Received:	1519366
TX Packets Dropped:	0	RX Packets Dropped:	0
Collisions:	0	Errors:	0

**WIRELESS STATISTICS 2**

Sent:	46307	Received:	5690032
TX Packets Dropped:	0	RX Packets Dropped:	0
Collisions:	0	Errors:	0

# Wireless

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

**Connection Time:** Displays the amount of time the wireless client has been connected to the access point.

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

**CONNECTED WIRELESS CLIENT LIST :**

The Wireless Client table below displays Wireless clients connected to the AP (Access Point). In AP Client mode it displays the connected AP's MAC address and connected Time.

**CONNECTED WIRELESS CLIENT LIST :**

Connected Time	MAC Address
---	None

**CONNECTED WIRELESS CLIENT LIST 2 :**

Connected Time	MAC Address
---	None

# Help

The screenshot displays the D-Link web interface for a DAP-1665 Client. The top navigation bar includes the D-Link logo and tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The HELP tab is selected, showing a 'HELP MENU' with the following categories and links:

- Setup**
  - [Wizard](#)
  - [Wireless Setup](#)
  - [LAN Setup](#)
- Advanced**
  - [Port Forwarding](#)
  - [Port Filter](#)
  - [MAC Address Filter](#)
  - [DMZ](#)
  - [Parental Control](#)
  - [Advanced Wireless](#)
  - [Advanced Network](#)
  - [WI-FI PROTECTED SETUP](#)
  - [USER LIMIT](#)
- Maintenance**
  - [Device Administration](#)
  - [Save and Restore](#)
  - [Firmware Update](#)
  - [WatchDog](#)
  - [Time](#)
  - [Schedules](#)
  - [SYSTEM CHECK](#)
- Status**
  - [Device Info](#)
  - [Log](#)
  - [Statistics](#)
  - [Wireless](#)

On the right side of the interface, there is a 'Helpful Hints..' section with the text: 'Click on the links for more informations of each section in the GUI.'

# Wireless Security

This section will explain the different types of security you can use to protect your wireless network from intruders. Please note that some security methods may not be available for all operation modes. The DAP-1665 offers the following types of security:

- Wired Equivalent Privacy (WEP)
- Wi-Fi Protected Setup (WPS)
- Wi-Fi Protected Access (WPA/WPA2)
  - WPA - Personal
  - WPA - Enterprise

## What is WEP?

Wired Equivalent Privacy (WEP) is an older form of wireless encryption which operates only in 802.11g legacy mode. WEP uses hex digits to create an authentication key, and is considered to be less secure than the newer WPA/WPA2 security standards. It is recommended that you only use this security mode if your wireless clients do not support WPA/WPA2.

## What is WPS?

Wi-Fi Protected Setup (WPS) allows you to quickly and easily create a secure wireless connection between devices using a push-button or a PIN code. This method alleviates the need for users to change settings on their wireless devices, or remember security passwords. Many wireless devices have a physical push-button located somewhere on the exterior casing, while others may have a software button located within the device's configuration software. Please refer to your wireless device's documentation for further information on how to connect to the DAP-1665 using WPS.

# 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.

WPA/WPA2 has two main security levels; Personal, and Enterprise:

- **WPA/WPA2 - Personal** is sufficient for most home networks and uses a pre-shared key as described above to authenticate users and encrypt data.
- **WPA/WPA2 - Enterprise** is designed for medium-to-large scale networking environments and uses a centralized RADIUS server for authentication. Users must be registered and authorized by the RADIUS server in order to access the wireless network.

# Connect to a Wireless Network

## Windows® 8

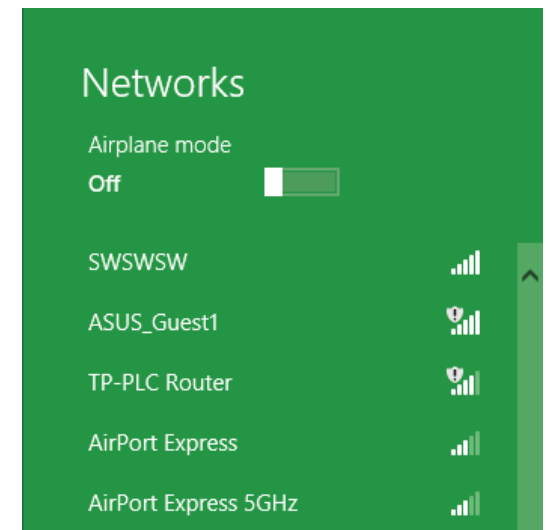
It is recommended to enable wireless security (WPA/WPA2) on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the security key (Wi-Fi password) being used.

To join an existing network, locate the wireless network icon in the taskbar, next to the time display.



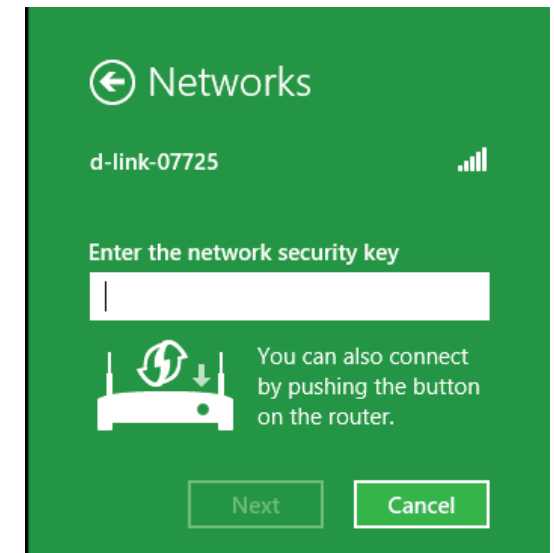
Wireless Icon

Clicking on this icon will display a list of wireless networks which are within connecting proximity of your computer. Select the desired network by clicking on the network name.

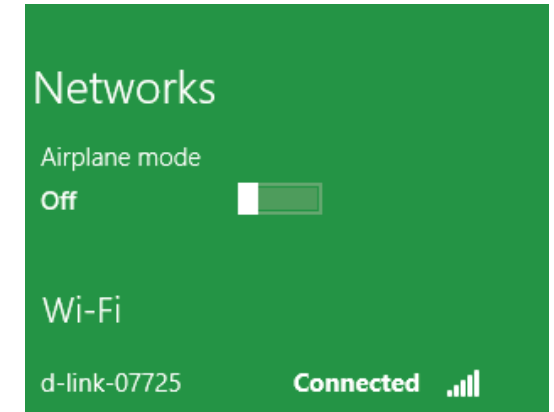


You will then be prompted to enter the network security key (Wi-Fi password) for the wireless network. Enter the password into the box and click **Next**.

If you wish to use Wi-Fi Protected Setup (WPS) to connect to the router, you can also press the WPS button on your router at this point to enable the WPS function.



When you have established a successful connection to a wireless network, the word **Connected** will appear next to the name of the network to which you are connected.



# Windows® 7

It is recommended to enable wireless security (WPA/WPA2) on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the security key or passphrase being used.

1. Click on the wireless icon in your system tray (lower-right corner).



Wireless Icon

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



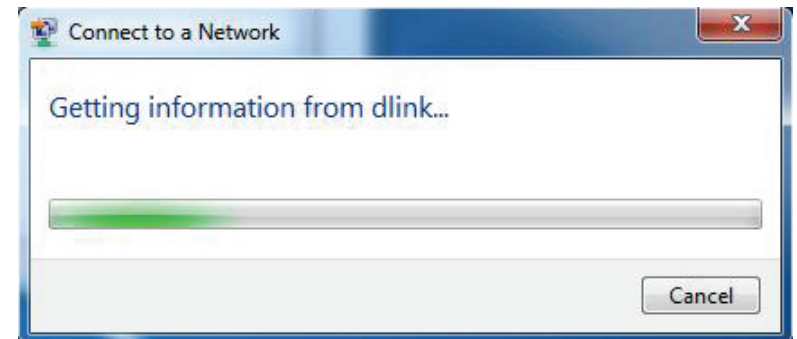


3. Highlight the wireless network (SSID) you would like to connect to and click the **Connect** button.

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

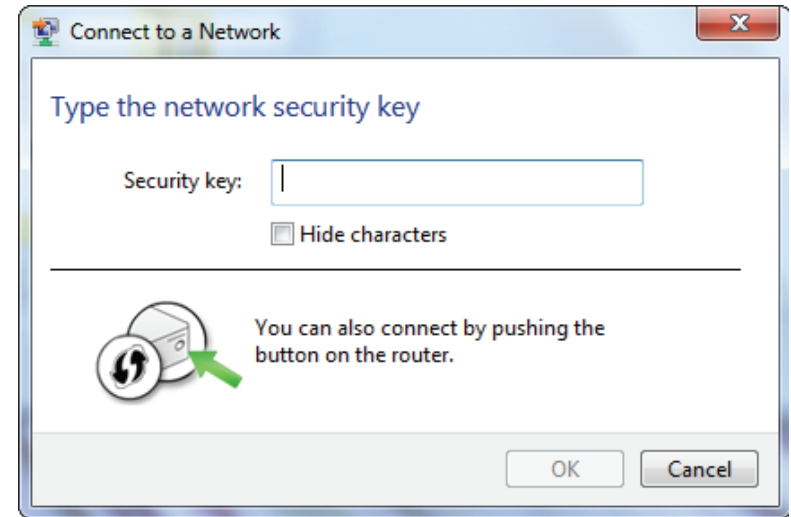


4. The following window appears while your computer tries to connect to the router.



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

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



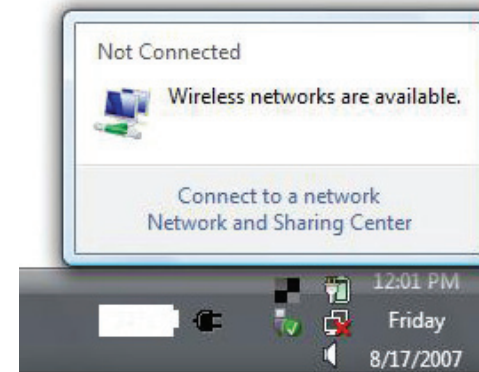
# Windows Vista®

Windows Vista users may use the built-in wireless utility. If you are using another company's utility, 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 Vista® utility as seen below.

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

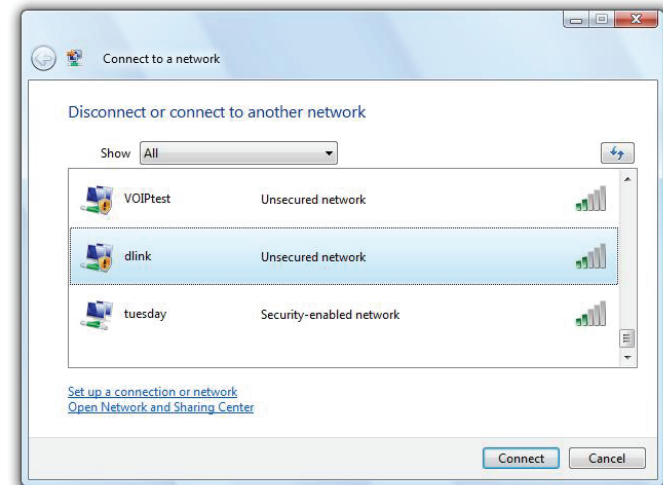
or

Right-click on the wireless computer icon in your system tray (lower-right corner next to the time). Select **Connect to a network**.



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

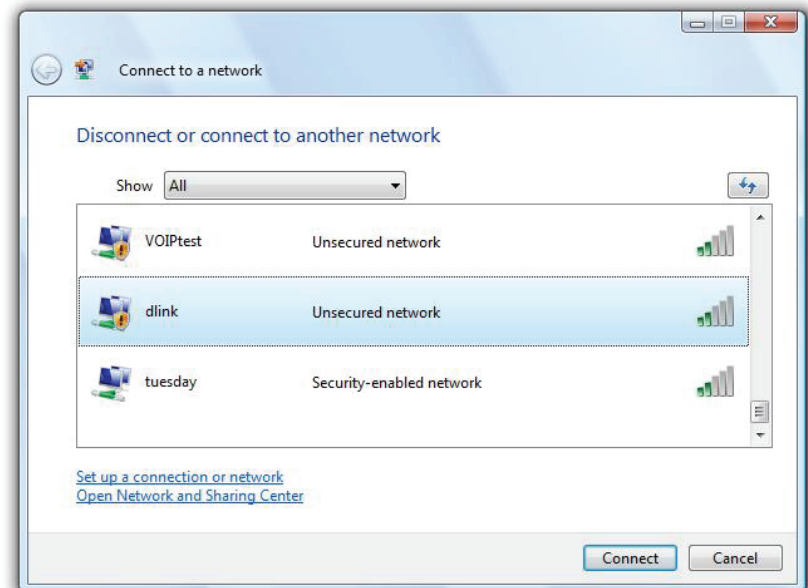
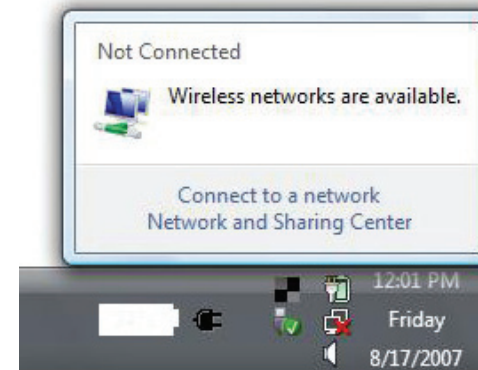
If you get a good signal but cannot access the Internet, check your TCP/IP settings of your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



## WPA/WPA2

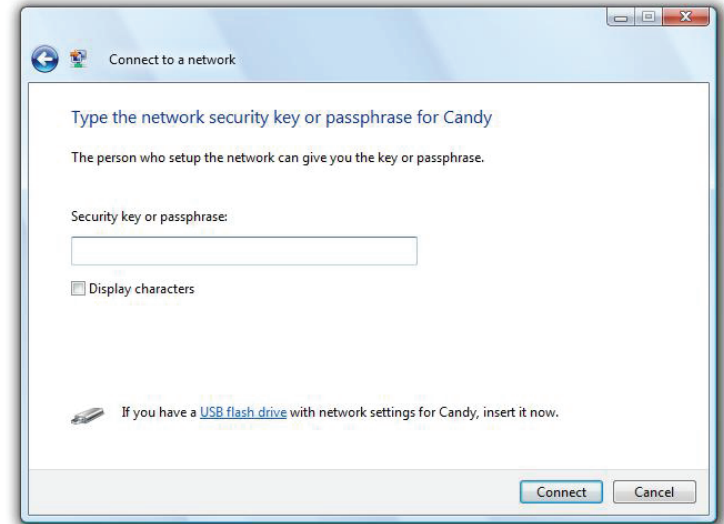
It is recommended to enable wireless security (WPA/WPA2) on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the security key or passphrase being used.

1. Open the Windows Vista Wireless Utility by right-clicking on the wireless computer icon in your system tray (lower right corner of screen). Select **Connect to a network**.
2. Highlight the Wi-Fi name (SSID) you would like to connect to and click **Connect**.



3. Enter the same security key or passphrase (Wi-Fi password) that is on your router and click **Connect**.

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

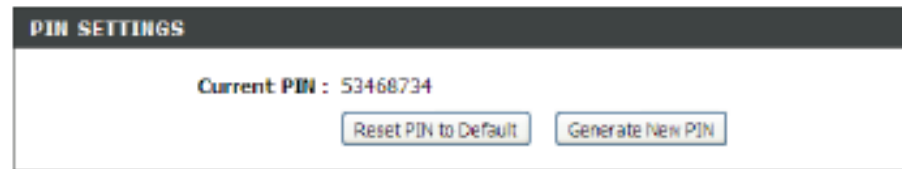


## WPS/WCN 2.0

The router supports Wi-Fi protection, referred to as WCN 2.0 in Windows Vista. The following instructions for setting this up depends on whether you are using Windows Vista to configure the router or third party software.

When you first set up the router, Wi-Fi protection is disabled and unconfigured. To enjoy the benefits of Wi-Fi protection, the router must be both enabled and configured. There are three basic methods to accomplish this: use Windows Vista's built-in support for WCN 2.0, use software provided by a third party, or manually configure.

If you are running Windows Vista, log into the router and click the **Enable** checkbox in the **Basic > Wireless** section. Use the Current PIN that is displayed on the **Advanced > Wi-Fi Protected Setup** section or choose to click the **Generate New PIN** button or **Reset PIN to Default** button.



If you are using third party software to set up Wi-Fi Protection, carefully follow the directions. When you are finished, proceed to the next section to set up the newly-configured router.

# 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.

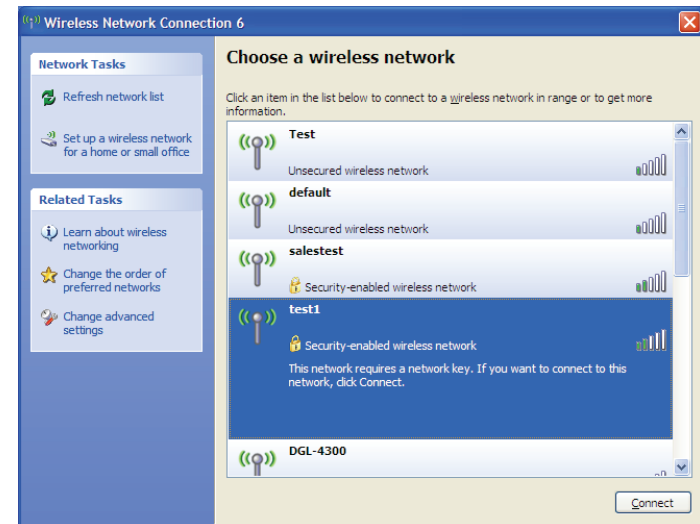
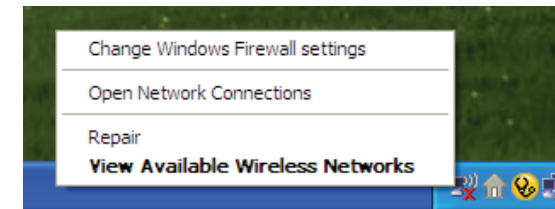
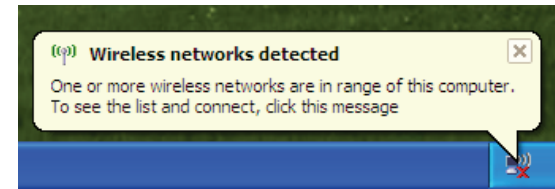
If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

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.

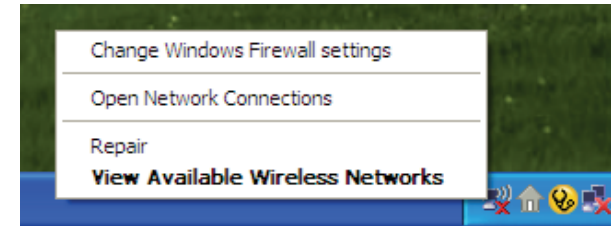
If you get a good signal but cannot access the Internet, check the TCP/IP settings of your wireless adapter. Refer to the Networking Basics section in this manual for more information.



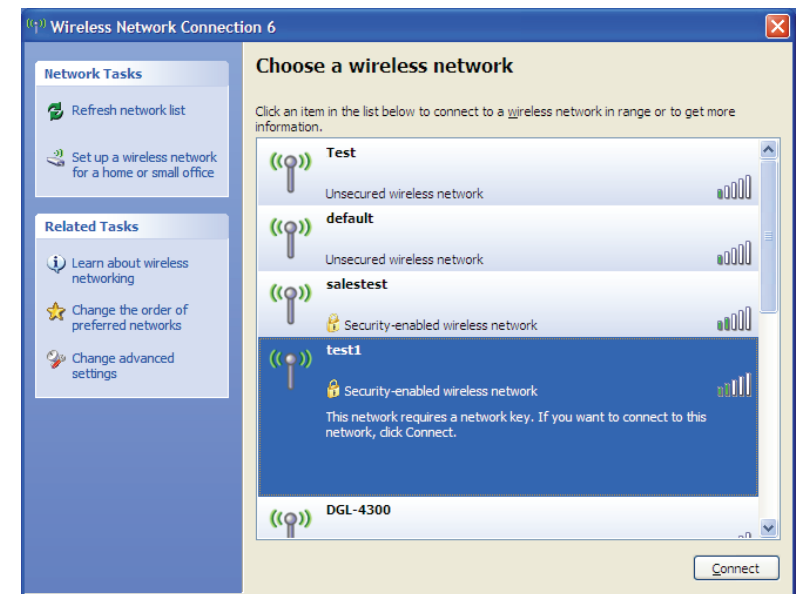
## Configure WPA-PSK

It is recommended to enable WEP on your wireless router 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**.



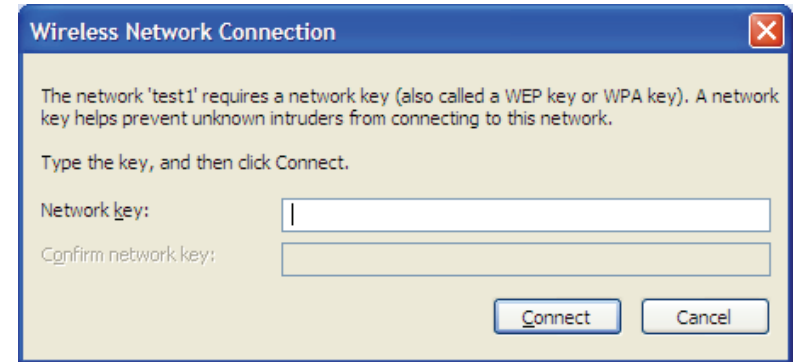
2. Highlight the wireless network (SSID) you would like to connect to and click **Connect**.





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 router.



# Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DAP-1665. Read the following descriptions if you are having problems.

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

When entering the name or IP address of the D-Link access point (**192.168.0.50** for example), you are not connecting to a website on the Internet or have to be connected to the Internet. The device has the utility built-in to a ROM chip in the device itself. Your computer must be on the same IP subnet to connect to the web-based utility.

- Make sure you have an updated Java-enabled web browser. We recommend the following:
  - Microsoft Internet Explorer® 7.0 or higher
  - Mozilla Firefox® 12.0 or higher
  - Google Chrome™ 20.0 or higher
  - Apple Safari® 4.0 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. 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 ZoneAlarm, BlackICE, Sygate, Norton Personal Firewall, and Windows® XP firewall may block access to the configuration pages. Check the help files included with your firewall software for more information on disabling or configuring it.

- Configure your Internet settings:
  - Go to **Start > Settings > Control Panel**. Double-click the **Internet Options** icon. From the Security tab, click the button to restore the settings to their defaults.
  - Click the Connection tab and set the dial-up option to Never Dial a Connection. Click the LAN Settings button. Make sure nothing is checked. Click OK.
  - Go to the Advanced tab and click the button to restore these settings to their defaults. Click OK three times.
  - Close your web browser (if open) and open it.
- Access the web management. Open your web browser and enter the IP address of your D-Link access point in the address bar. This should open the login page for your the web management.
- If you still cannot access the configuration, unplug the power to the access point for 10 seconds and plug back in. Wait about 30 seconds and try accessing the configuration. If you have multiple computers, try connecting using a different computer.

### 2. What can I do if I forgot my password?

If you forgot your password, you must reset your access point. Unfortunately this process will change all your settings back to the factory defaults.

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

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

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

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

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

- Click on **Start** and then click **Run**.
- Windows® 95, 98, and ME users type in *command* (Windows® NT, 2000, and XP users type in *cmd*) and 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.
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
Ping statistics for 66.94.234.13:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 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.

# Networking Basics

## Check your IP address

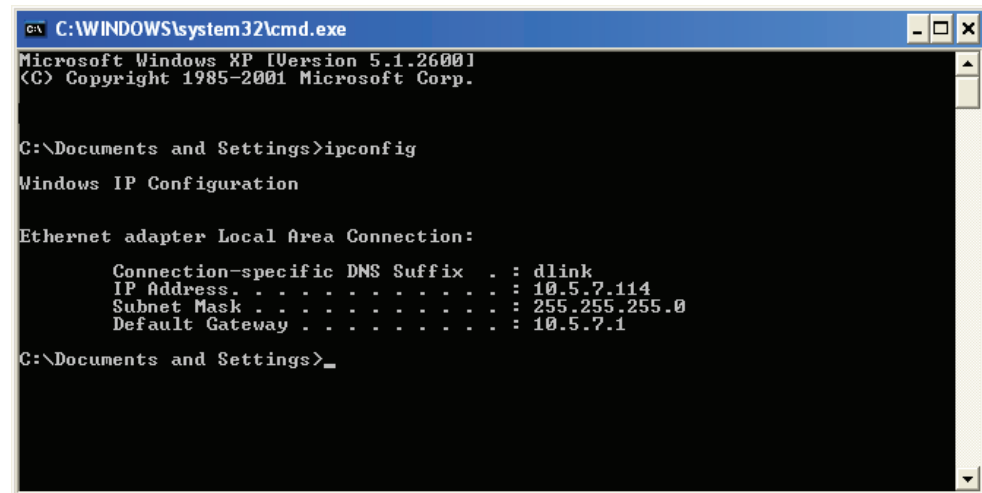
After you install your adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

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

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

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

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



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600.1
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

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

C:\Documents and Settings>_
```

## Statically Assign an IP address

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

### Step 1

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

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

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

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

### Step 2

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

### Step 3

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

### Step 4

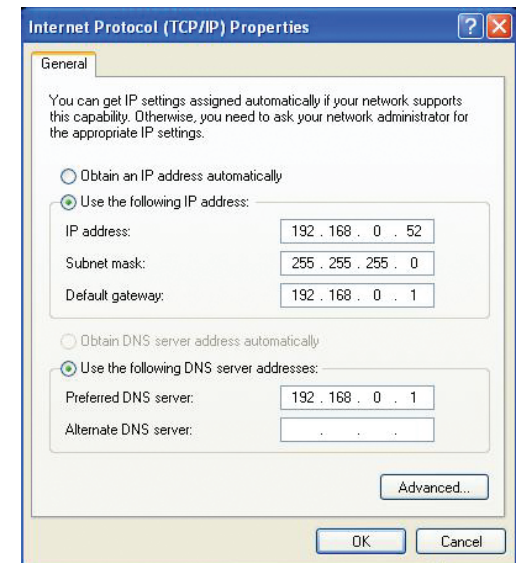
Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your router.

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

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

### Step 5

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



# Technical Specifications

## Standards

- IEEE 802.11ac
- IEEE 802.11n
- IEEE 802.11g
- IEEE 802.11b
- IEEE 802.3
- IEEE 802.3u

## Security

- WPA/WPA2
  - Personal
  - Enterprise
- WEP
- WPS

## Wireless Signal Rate

- Up to 1200 Mbps

## Maximum Transmission Power<sup>2</sup>

- 2.4 GHz
  - 11n: 23 dBm
  - 11g: 23 dBm
  - 11b: 25 dBm
- 5 GHz
  - 11ac: 20dBm
  - 11a: 21dBm
  - 11n: 21dBm

## Maximum Operating Voltage

- 12 V 1A

## Power Consumption

- 5.18 W

## Frequency Range<sup>3</sup>

- 2.4 GHz Band:
  - 2.4 - 2.4835 GHz
- 5 GHz Band:
  - 5.15 GHz to 5.35 GHz
  - 5.47 GHz to 5.85 GHz

## Antennas

- Two 2 dBi external antennas

## LEDs

- Power
- 2.4 GHz wireless
- 5 GHz wireless
- LAN

## Temperature

- Operating
  - 32°F to 131°F ( 0°C to 55°C)
- Storage
  - -20 to 65 °C (-4 to 149 °F)

## Humidity

- Operating
  - 10 - 90% (non-condensing)
- Storage
  - 5 - 95% (non-condensing)

## Safety & Emissions

- CE
- FCC
- TELEC
- IC
- Wi-Fi Certified
- VCCI

## Dimensions

- 47 x 108 x 27.8 mm (5.79 x 4.25 x 1.1 inches)

## Weight

- 222 grams (0.489 lbs)

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

<sup>2</sup> All Maximum transmission power values expressed are for dual-chain mode. Maximum transmission power may vary depending on regional regulations.

<sup>3</sup> Range may vary depending on regional regulations.



# Compliance Statements

## **Trademarks:**

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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.

## **Federal Communication Commission Interference Statement**

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

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

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

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

Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

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

### **IMPORTANT NOTE:**

FCC Radiation Exposure Statement:

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

Note: The country code selection is for non-US model only and is not available to all US model. Per FCC regulation, all WiFi product marketed in US must fixed to US operation channels only.

### **Industry Canada Statement**

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

### **Caution :**

- (i) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
- (ii) high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

### **Avertissement:**

- (i) les dispositifs fonctionnant dans la bande 5 150-5 250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;
- (ii) De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5 250-5 350 MHz et 5 650-5 850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

### **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.

### **NOTE IMPORTANTE:**

Déclaration d'exposition aux radiations:

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

### **TELEC Statement:**

電波法により5GHz帯は屋内使用に限ります。