D-Link®

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User Manual

Wi-Fi Audio Extender

DCH-M225

Preface

D-Link reserves the right to revise this publication and to make changes in the content hereof without obligation to notify any person or organization of such revisions or changes.

Manual Revisions

Revision	Date	Description
1.0	December 2, 2013	• Initial release
1.01	September 17, 2014	• add Power Usage
1.10	November 27, 2014	• add LED indicator description

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Power Usage

This device is an Energy Related Product (ErP) with High Network Availability (HiNA), and automatically switches to a power-saving Network Standby mode within 1 minute of no packets being transmitted. If it is not needed during certain periods of time, it can be unplugged to save energy.
Network Standby: 1.47 watts

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Product Overview
Package Contents

DCH-M225 Wi-Fi Audio Extender

Wi-Fi Configuration Card

If any of the above items are missing from your package, please contact your reseller.

System Requirements

Network Requirements	• A wireless router with an active Internet connection. • IEEE 802.11n, 802.11g, or 802.11b wireless clients/devices
Web-based Configuration Utility Requirements	**Computer or Mobile Device with the following:** • A Windows®, Macintosh, Android, or Linux-based operating system • Wireless adapter or Wi-Fi functionality **Browser Requirements:** • Internet Explorer 7 or later • Firefox 12.0 or later • Safari 4 or later • Google Chrome 20.0 or later

Introduction

Features

Easily Extend Your Existing Network and Audio Setup

The DCH-M225 Wi-Fi Audio Extender is a portable plug-in repeater that lets you extend an existing wireless network. It also has the ability to stream your music library to anywhere within your extended wireless network. Tiny yet powerful, it supports Wireless N speeds of up to 300 Mbps in a device that fits in the palm of your hand.

Compact, Convenient Design

The DCH-M225 's compact design is ideal for use at home or a small office, as it does not take up much space and is ready to use by simply plugging it in. The repeater's small form means it can easily be plugged into a power outlet without blocking other outlets while its wall wart design saves you the hassle of dealing with a power cord. Its sleek, unobtrusive appearance means it blends easily into the background.

Conveniently Stream Audio

Expanding your audio capabilities has never been easier with the help of the DCH-M225. With support for both DLNA and AirPlay, simply plug in your speakers and you'll be able to stream audio to anywhere within your wireless network. The Wi-Fi WMM quality of service protocol ensures that you'll have no issues with bandwidth when streaming audio and performing other tasks such as surfing the Internet, checking email, or online gaming.

Simple Setup

Through its easy-to-use web-based user interface, you can quickly and easily connect the DCH-M225 to an uplink router, configure the extender wireless network, and manage the administrative settings. The setup wizard will even guide you through the setup process, getting your extended wireless network up and running in no time.

* Maximum wireless signal rate derived from IEEE Standard 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.

What is a Wireless Extender?

The DCH-M225 acts as a repeater to extend the range of an existing wireless network to provide better signal for parts of your home or office that may have poor or no reception. Your existing wireless signal will be re-broadcast by the DCH-M225, allowing you to reach the farthest corners of your home or office . The extended network can simply use the same network credentials as the existing network, or you can specify a different network name and password, giving you the flexibility to control network access.

This purpose of this product is to create a constant network connection for your devices. As such, it does not have a standby mode or use a power management mode. If you wish to power down this product, please simply unplug it from the power outlet.

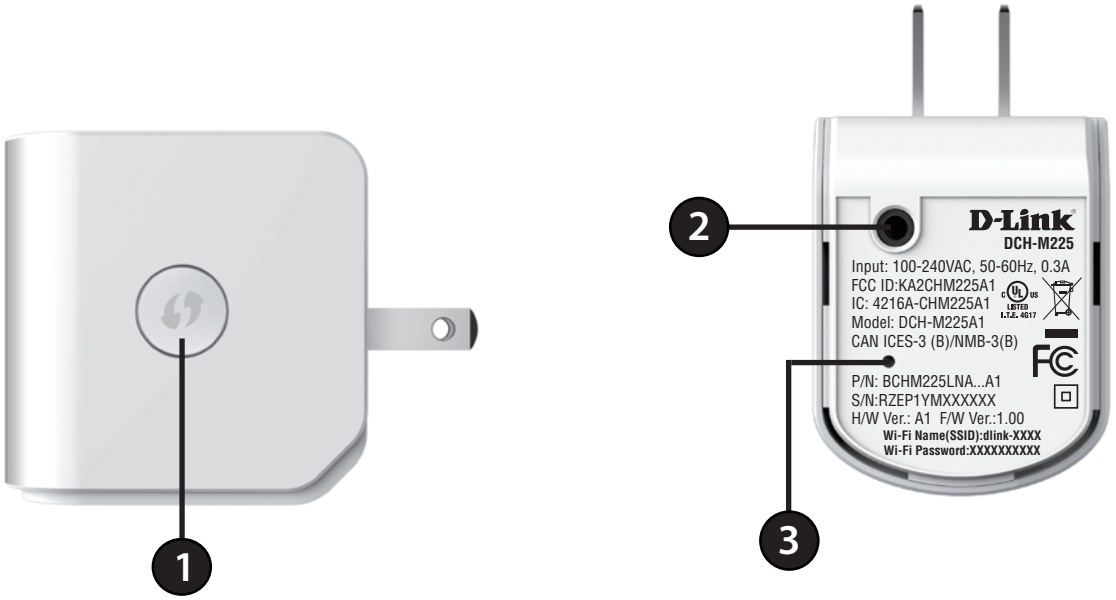
Hardware Overview

Front/Top

1	LED Indicator	This indicates the current status of the DCH-M225, as detailed in the table below.

LED Indicator	Color	Status	Description
Power/Status	Green	Solid Green	Connection quality is good and device operating normally
		Blinking Green	The device is processing WPS
	Red	Solid Red	Device is powering ON or system is defective
	Orange	Blinking Orange	Cannot connect or provision an IP address from the uplink router
		Solid Orange	Connection quality is poor due to poor reception
	None	Off	Device is not receiving power. Check the power outlet

Hardware Overview
Side and Bottom



1	WPS Button	Pressing the WPS button for 1 second allows you to connect with Wi-Fi clients using Wi-Fi Protected Setup
2	Audio Line Out	Audio line out jack for connecting an external speaker
3	Reset Button	Pressing the reset button will reset the DCH-M225 to the factory default settings

Wireless Installation Factors

The Wi-Fi Audio Extender lets you extend the reach of your existing wireless network, allowing you to work wirelessly from more places in your home or office. 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 extender and other network devices to a minimum - each wall or ceiling can reduce your adapter's range by up to 98 feet (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. At a 45-degree angle, a wall that is 0.5 meters thick (1.5 feet) appears to be almost 1 meter (3 feet) thick. At a 2-degree angle it can appear over 14 meters (45 feet) thick! Position devices so that the signal will travel straight through a wall or ceiling (instead of at an angle) for better reception.

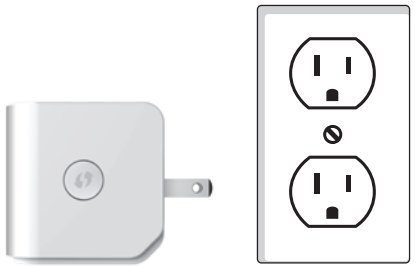
3. Building materials make a difference. A solid metal door or aluminum studs may have a negative effect on range. Try to position access points, wireless routers, and computers so that the signal passes through drywall or open doorways. Materials and objects such as glass, steel, metal, walls with insulation, water (fish tanks), mirrors, file cabinets, brick, and concrete can 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 degrade dramatically or drop completely. 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 in not in use.

Setting Up Your DCH-M225

Plug in the DCH-M225 to a power outlet. Verify that the power LED is blinking orange before continuing.



Locate the Wi-Fi name (SSID) and password for your DCH-M225 device. These details are printed on the specification sticker on the underside of the device. Using your computer or mobile device's Wi-Fi connection utility, connect to the SSID of your DCH-M225 and enter the password. If you are unsure of how to connect to a wireless network, please refer to "Connect to a Wireless Network" on page 33, or consult your device's user manual. Once connected, you are ready to begin the setup process.

There are two ways to configure your DCH-M225; using the QRS Mobile app on your smartphone or tablet device, or using the web GUI on your computer.

For detailed information on either of the methods for configuring your DCH-M225, refer to the following sections of the manual:

- "QRS Mobile App Setup" on page 9
- "Web-based Configuration" on page 13

QRS Mobile App Setup

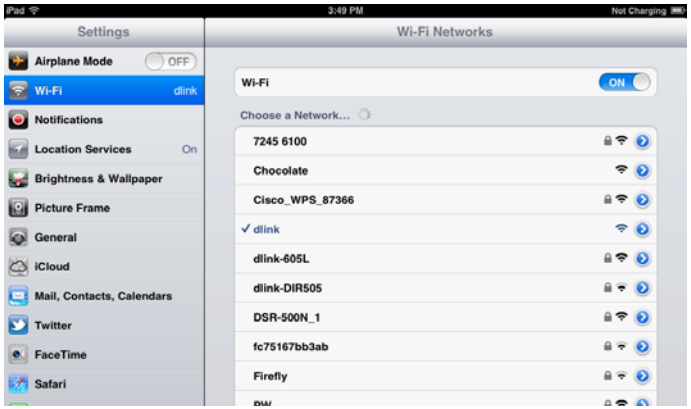
The DCH-M225 can be set up from your iOS or Android smartphone or tablet device using the QRS Mobile app.

Search for "QRS Mobile" in the App Store or Google Play, or use your mobile device to scan the QR codes on the right to download the QRS Mobile app from the App Store (left) for your iOS device, or from Google Play (right) for your Android device.

For iOS

For Android

Connect to the Wi-Fi network that is displayed on the Wi-Fi Configuration Card included in your package (ex: **dlink-a8fa).** Then, enter the Wi-Fi password also printed on the Wi-Fi Configuration Card (ex: **akbdj1936).** These details are also printed on the specification sticker on the underside of the device.



Once your mobile device is connected, tap on the **QRS Mobile** icon.

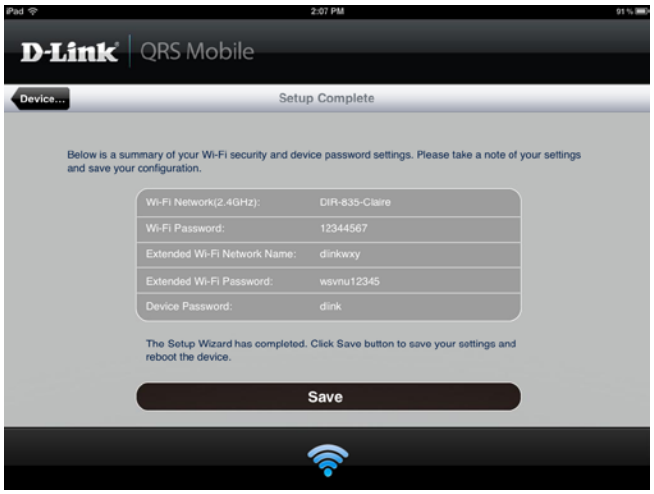
Click **Start** to continue.

QRS Mobile will first detect your DCH-M225, then scan for available Wi-Fi networks. Select the network you wish to extend and enter the password if required.

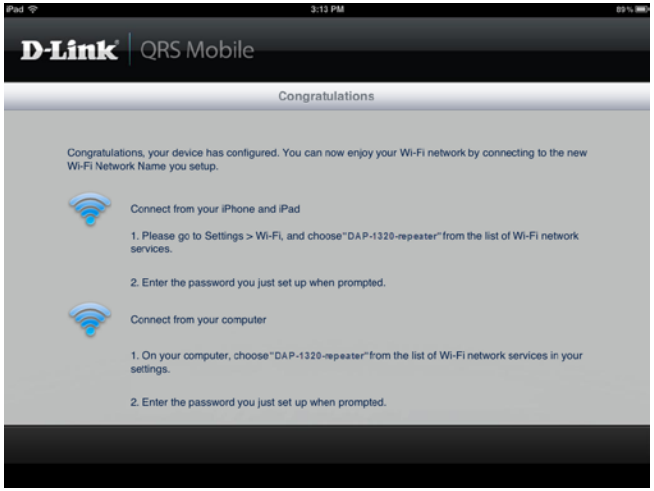
Enter a network name (SSID) and password for the extended Wi-Fi network. You may keep the existing SSID and password if you wish. Click **Next** to continue.

Create an admin password for the DCH-M225's Web-based configuration utility. Click **Next** to continue.

A summary of your settings will be displayed. Click **Save** to reboot the device and to complete the setup.

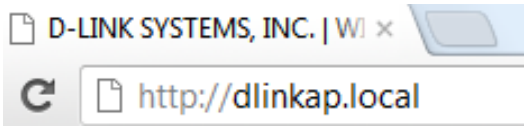


After the setup wizard is complete, the following screen will appear. You can now change your mobile device and laptop Wi-Fi settings to the wireless network name and password you just created.



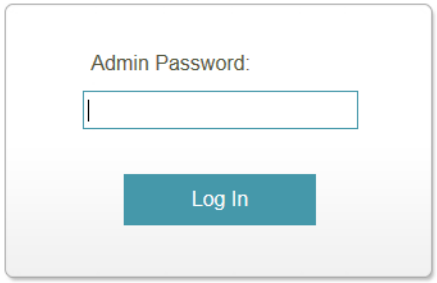
Web-based Configuration

To access the configuration utility for the DCH-M225 on your PC, first connect to the DCH-M225 wirelessly using the Wi-Fi name (SSID) and password located on your Wi-Fi Configuration Card. Then open a web browser and enter **http://dlinkap.local** in the address bar. You can also use the IP address **http://192.168.0.50**.

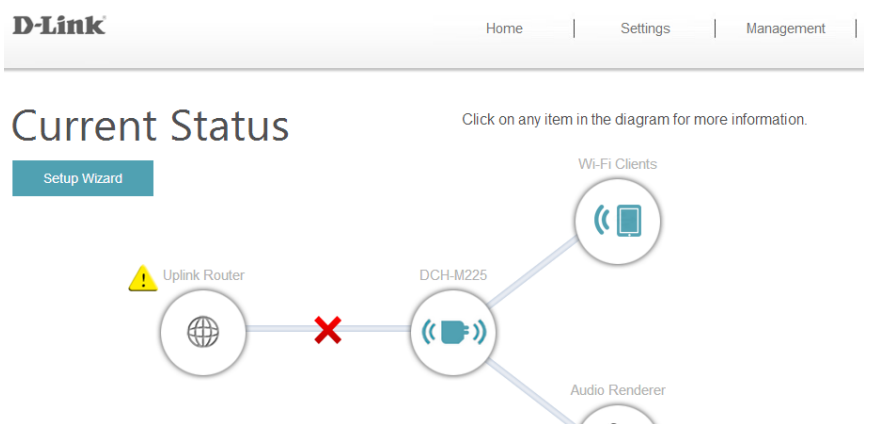


Note: If you have multiple DCH-M225 devices on the network, you can access web-based configuration via **http://dlinkapxxxx.local.** as shown in the included Wi-Fi Configuration Card, with "xxxx" being the last four digits of the DCH-M225's MAC address.

Enter your password. By default, Admin is selected as the username and cannot be changed, and by default, the password is blank.



The configuration interface will open, and you can configure the various settings for the DCH-M225. If you have not yet configured an uplink network, the home screen will show that there is no connection between the DCH-M225 and the uplink router.



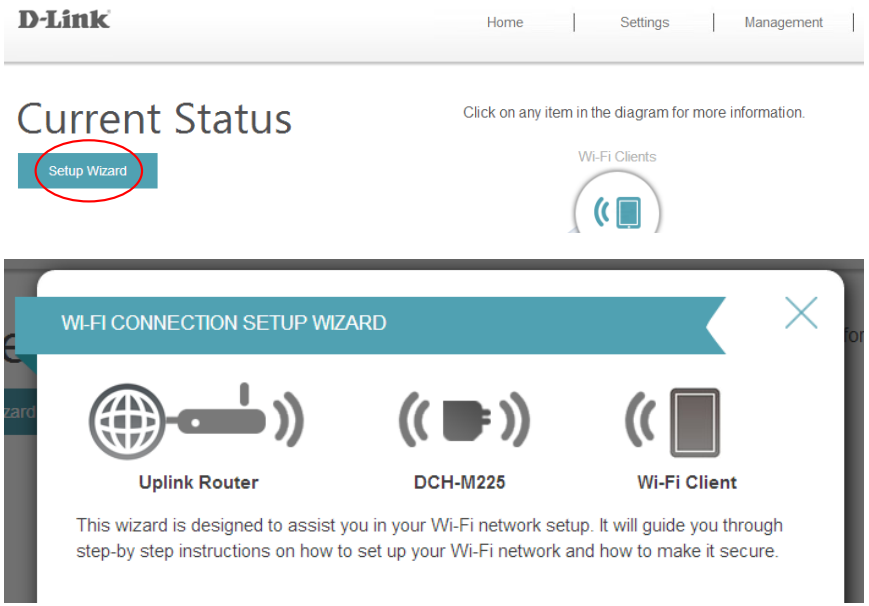
For detailed information on manually setting up your DCH-M225 to extend an existing wireless network, refer to "Using the Manual Method" on page 17.

Setup Wizard

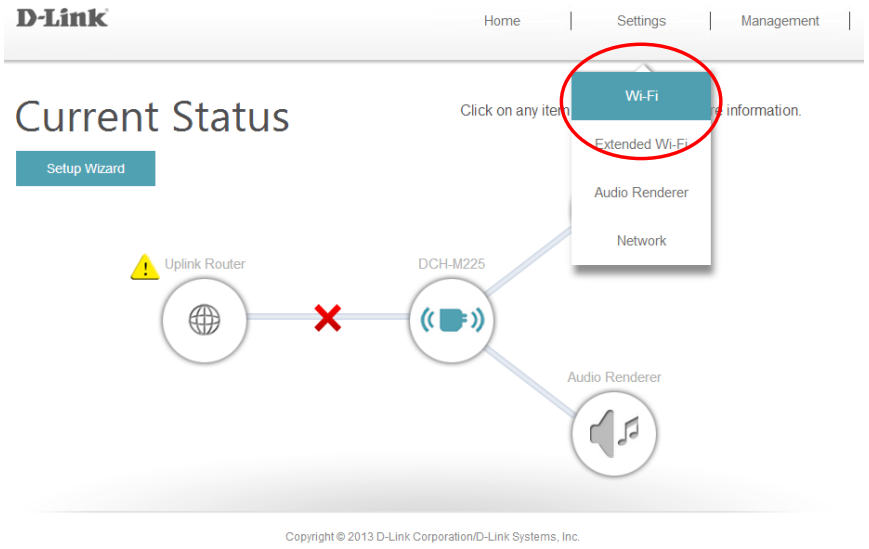
If you wish to configure your extender to connect to the Internet using the setup wizard, click the **Setup Wizard** button.

This wizard is designed to guide you through a step-by-step process to configure your new Wi-Fi Audio Extender to extend your wireless network and connect to the Internet.

Click **Next** to continue.



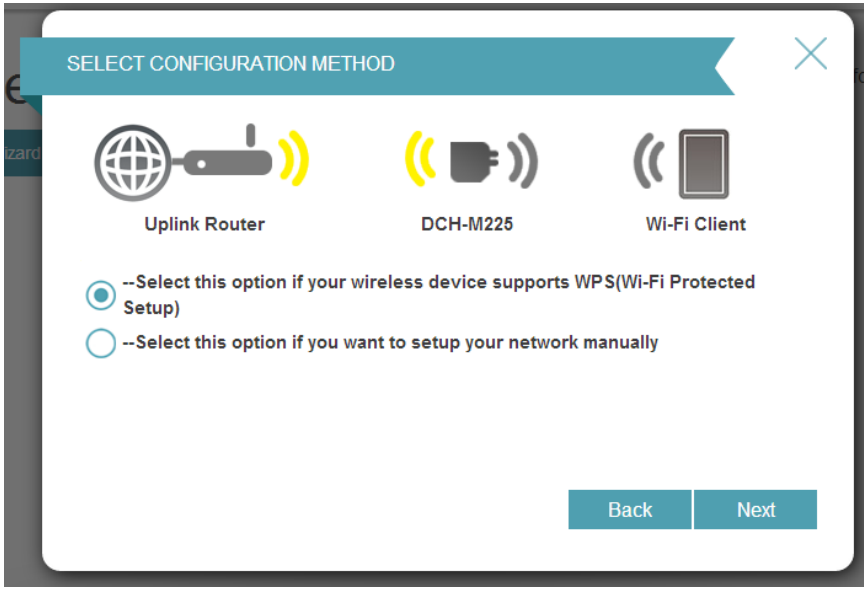
If you already have a Wi-Fi network set up and you want to configure your Wi-Fi network settings manually, go to **Settings** at the top of your browser window and select **Wi-Fi** from the drop-down menu (refer to "Wi-Fi Settings" on page 22) to set up the connection between your DCH-M225 and the uplink router. To set up the extended Wi-Fi network, select **Extended Wi-Fi** (refer to "Extended Wi-Fi Settings" on page 23).



Select whether you want to use the WPS (Wi-Fi Protected Setup) method or the manual method to set up an extended wireless network using your DCH-M225 and click **Next**.

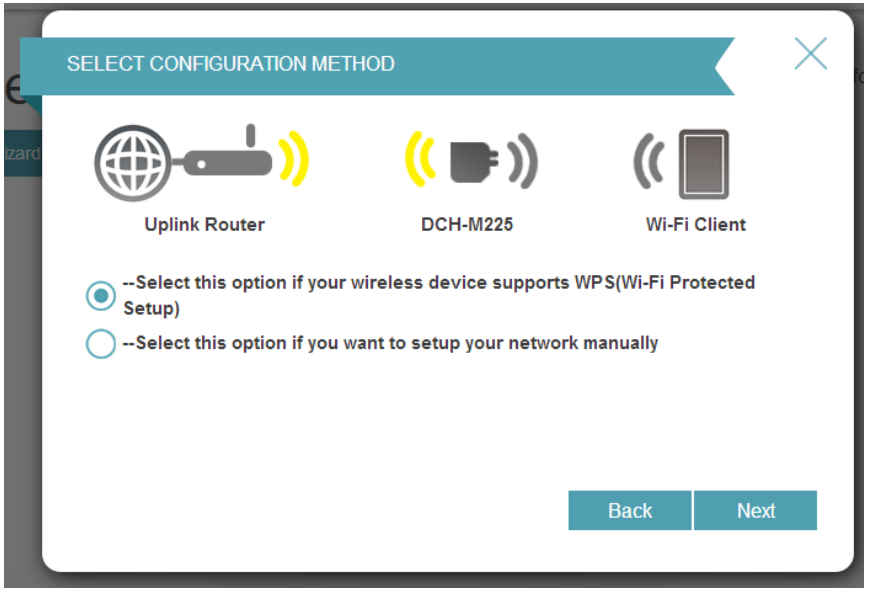
If you wish to use the WPS method, please refer to "Using the WPS Method" on page 16.

If you wish to use the manual setup method, please refer to "Using the Manual Method" on page 17.

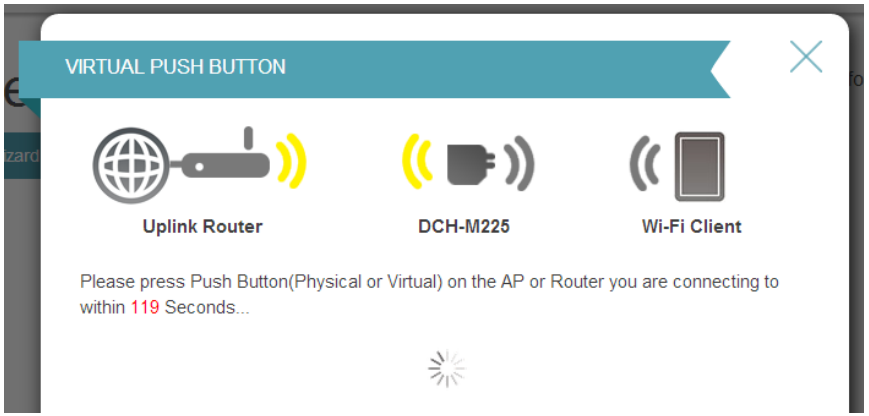


Using the WPS Method

To set up using the WPS method, select the first option from the setup wizard menu. Click **Next** to continue.

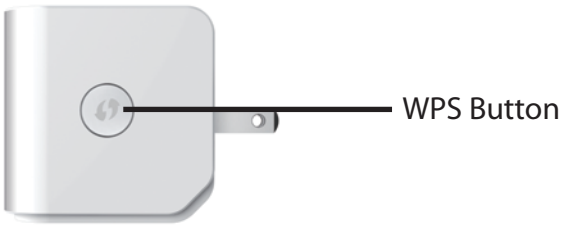


The DCH-M225 uses the push-button method for WPS. After selecting WPS, the DCH-M225 will ask you to press the WPS push button on the access point or router you want to connect the DCH-M225 to. You have 120 seconds to press the button on your access point or router. Click **Next** to continue.



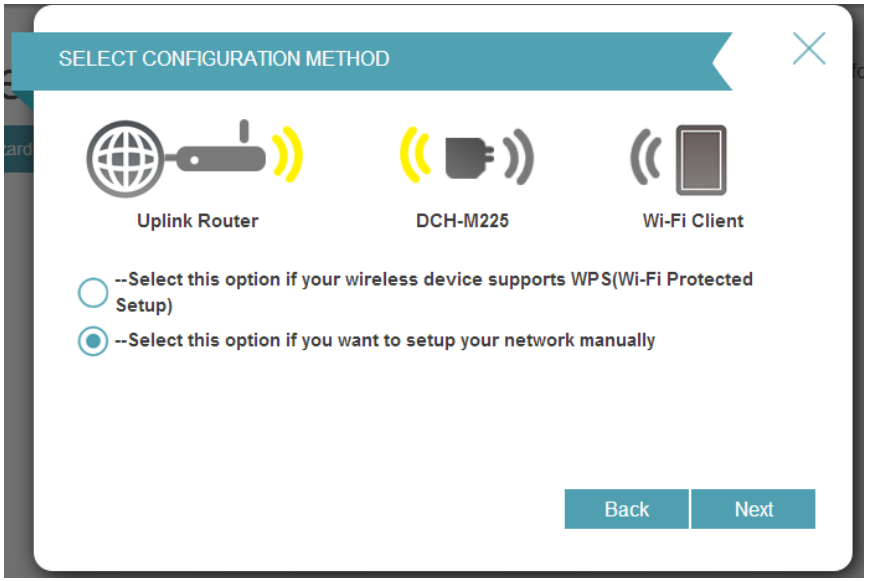
If a connection has been successfully made, you will see a notice on the screen and the LED on the device will turn solid green.

You can also use the WPS button on the side of the DCH-M225 to initiate a WPS connection with the uplink router. After pressing the WPS button on the DCH-M225, you will have 120 seconds to press the WPS button on your access point or router. The LED on the DCH-M225 will turn solid green when a connection has been successfully established with the uplink router.



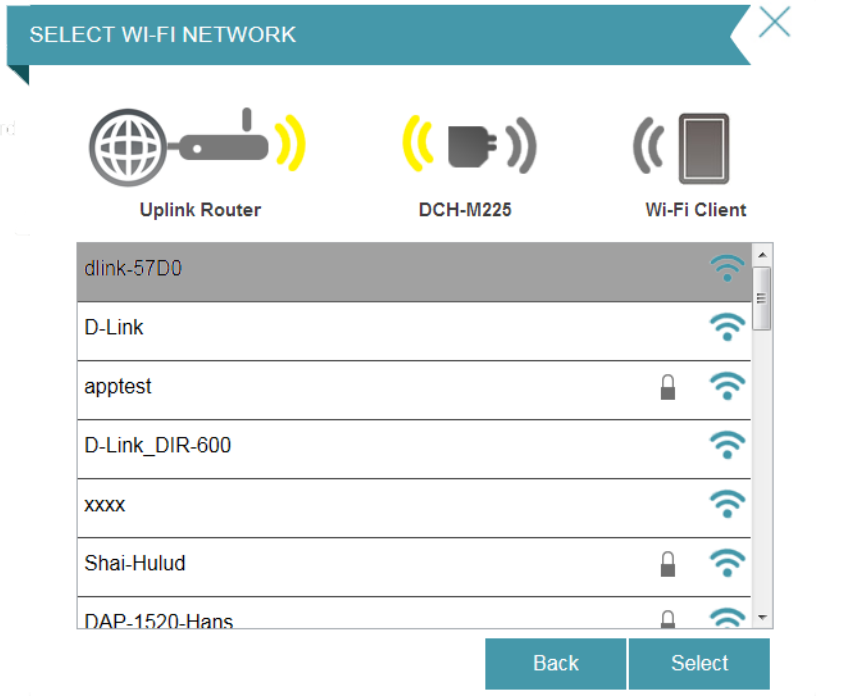
Using the Manual Method

To set up your network manually, select the second option from the setup wizard menu. Click **Next** to continue.



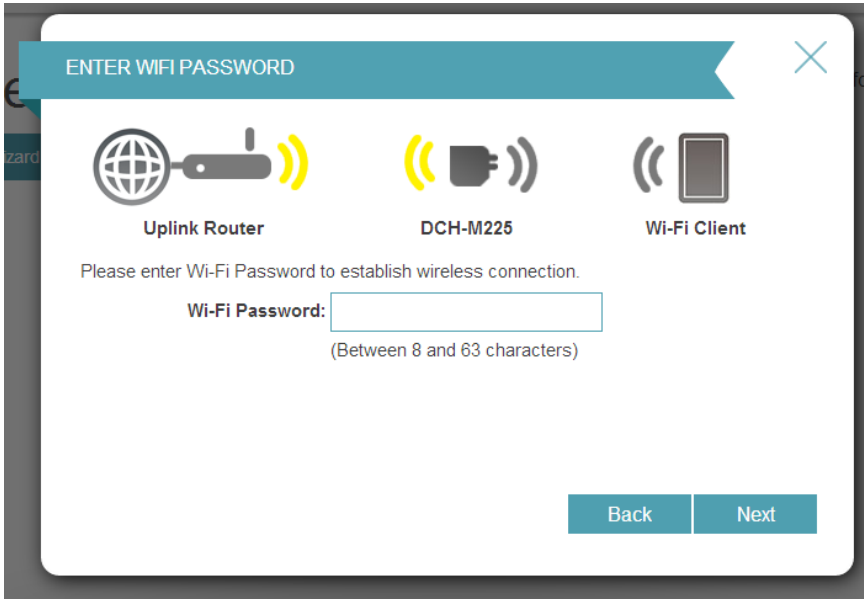
The DCH-M225 will first scan for available Wi-Fi networks and list the networks it has found. If the network you would like to connect to isn't listed, click **Back** and select the manual option again to perform another scan.

Once you have selected the uplink network you wish to use, click **Select**.



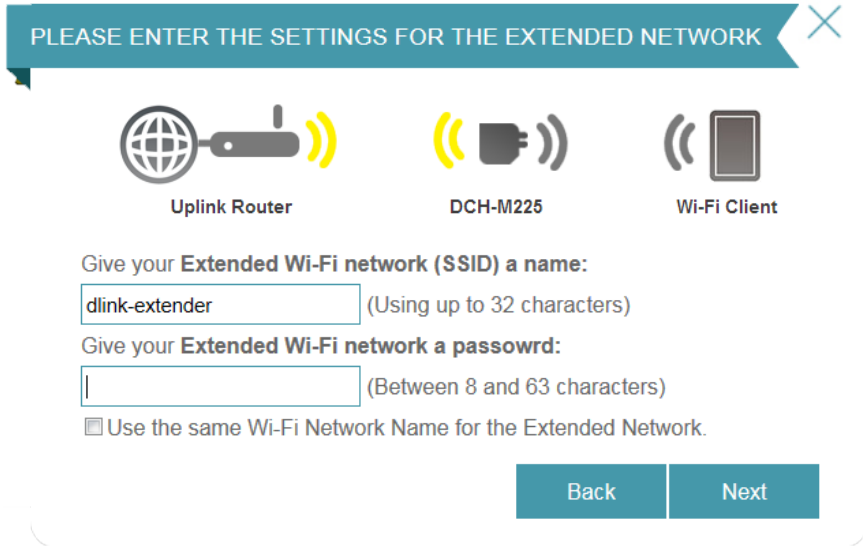
Enter the password for your uplink network.

Click **Next** to continue, or click **Back** to return to the previous step.



The DCH-M225 will re-broadcast the Wi-Fi connection from the uplink router as an extended Wi-Fi network. Enter the SSID and password that you wish to apply to the extended Wi-Fi network. If you would like the uplink router Wi-Fi network and the extended Wi-Fi network to have the same SSID and password, check the box at the bottom of the screen.

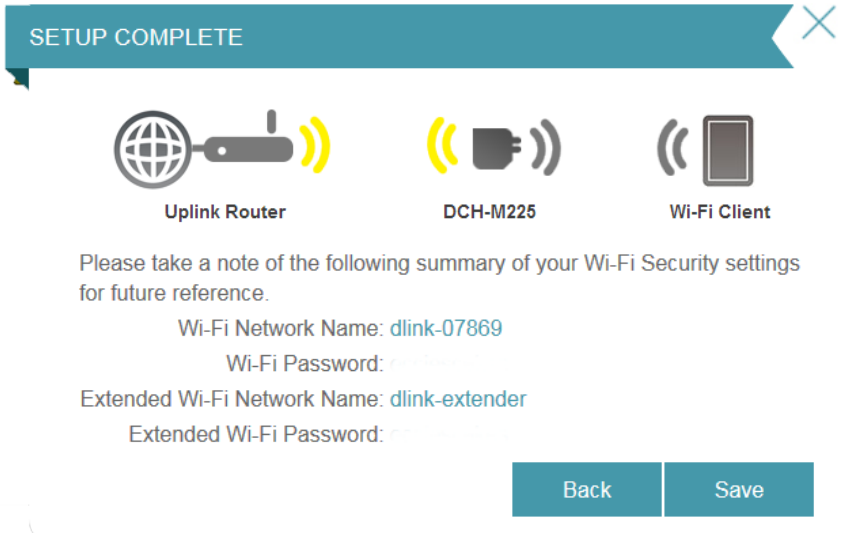
Click **Next** to continue, or click **Back** to return to the previous step.



The setup process is now complete. A summary page will appear showing the settings for both the connection to the uplink router, and the extended Wi-Fi network. It is recommended that you make a record of this information for future reference.

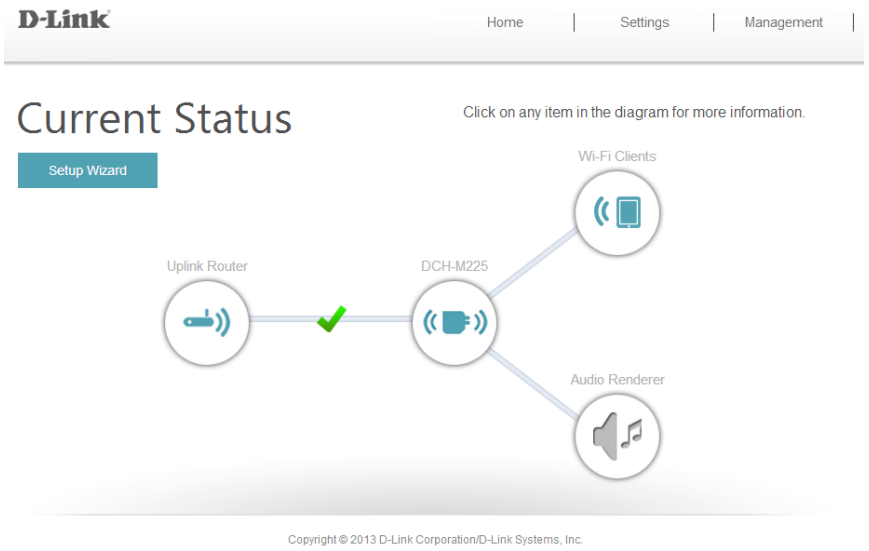
Click **Save** to exit the wizard and return to the home screen.

Or, click **Back** to return to the previous step.

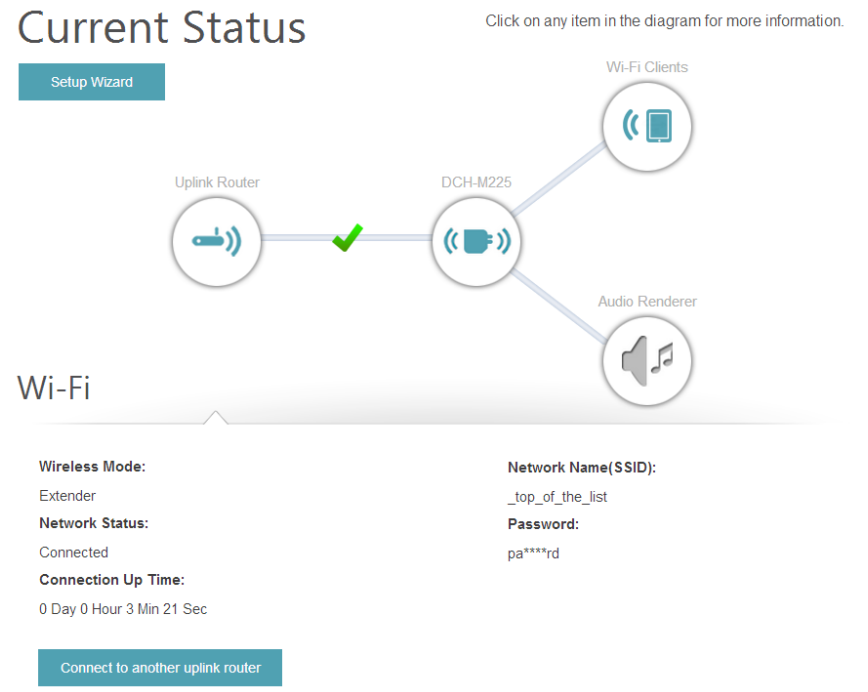


Home Screen

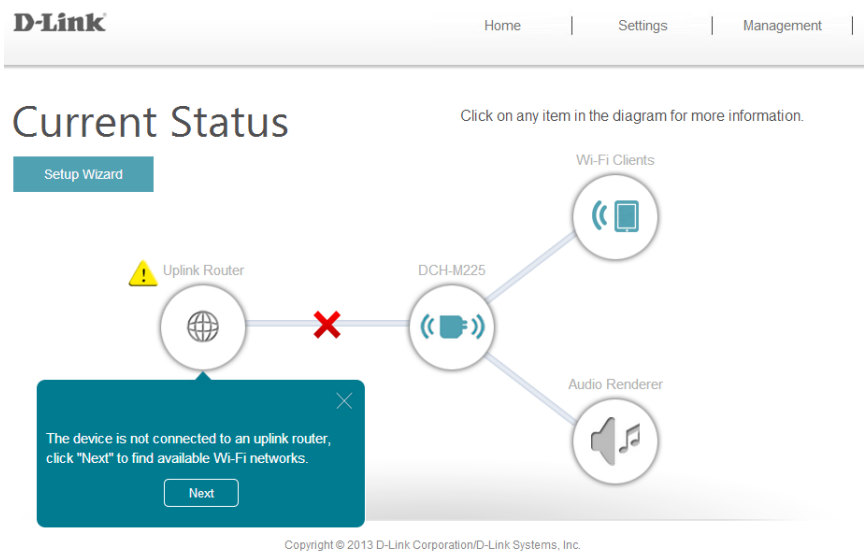
The home screen gives a summary of the current status of devices connected to the DCH-M225. A green check between devices indicates that there is an active connection. A red X indicates that there is no connection present, or there is a connection error.



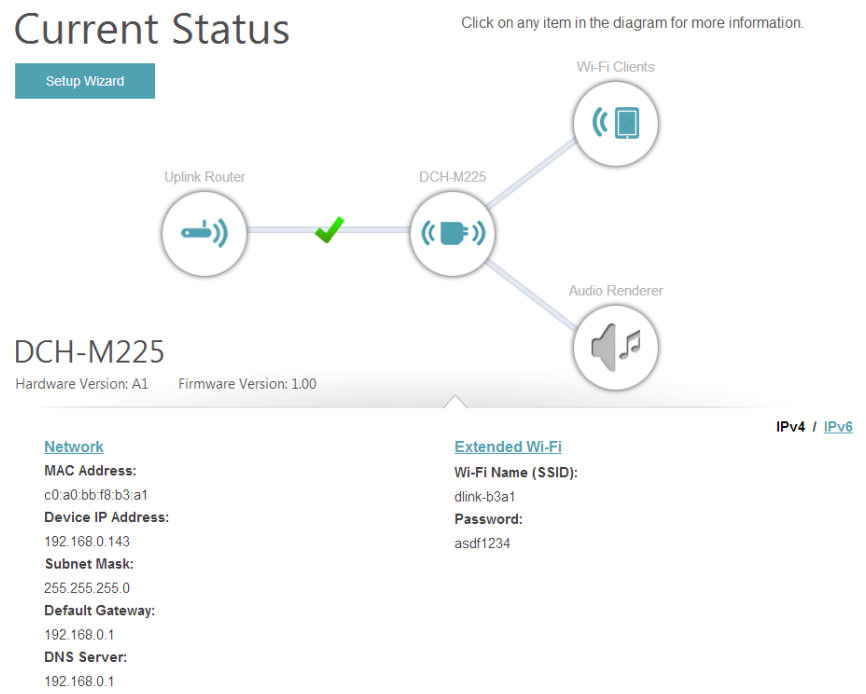
At any time, you can click on the device images on the home screen to view the current status of each device.



If there is no connection between the DCH-M225 and the uplink router, you can click on the uplink router icon to search for an available uplink router.



You can view the details of both the uplink router network and the extended Wi-Fi network by clicking on the DCH-M225 icon.



Wi-Fi Settings

This page lets you configure the Wi-Fi settings to connect your DCH-M225 to another wireless network. This is the uplink network which the DCH-M225 will then be able to extend. To access this page, click on the **Settings** drop-down menu at the top of the page, and select **Wi-Fi**.

Wireless Mode: This is set to Repeater mode and cannot be changed.

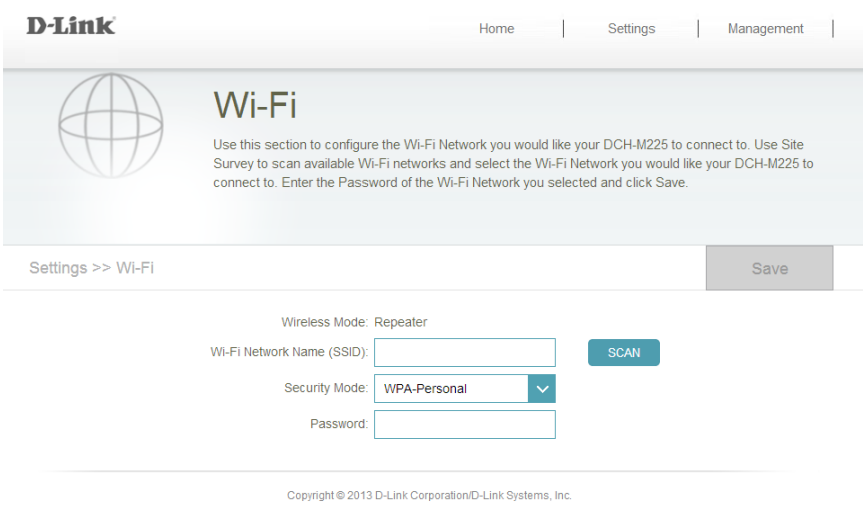
Wi-Fi Network Name (SSID): Click **Scan** to scan for available wireless networks and select the one you want to use the DCH-M225 to extend. You can also type in the name (SSID) of the wireless network.

Security Mode: Select the security method that is being used by the wireless network that you have selected: **WEP**, **WPA-Personal**, or **None**.

Password: If you selected WEP or WPA-Personal, you will be required to enter the password or security key for the network you are attempting to join.

You can also use WPS to connect your wireless devices to the DCH-M225's extended network. For further information on how to do this, please refer to "Connecting a Wireless Client" on page 32.

Click **Save** to save the settings and return to the home page.



Extended Wi-Fi Settings

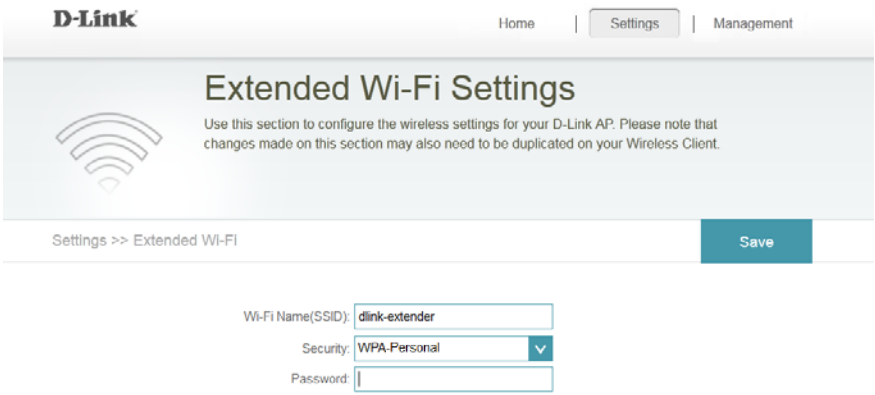
This page lets you configure the settings for the DCH-M225's extended wireless network. To access this page, click on the **Settings** drop-down menu at the top of the page, and select **Extended Wi-Fi**.

Wi-Fi Name (SSID): This is the name of the DCH-M225's extended network. The DCH-M225 will rebroadcast the uplink router's Internet connection under this SSID. You can also choose to make the SSID for the extended network the same as the SSID for the uplink network.

Security: Select the type of wireless security you wish to use for the extended network. Choose **None**, **WEP**, or **WPA-Personal**.

Password: Enter the password or network key that you wish to use for the extended network. You can also choose to make the password for the extended network the same as the password for the uplink network.

Click **Save** to save the settings and return to the home page.



Audio Renderer

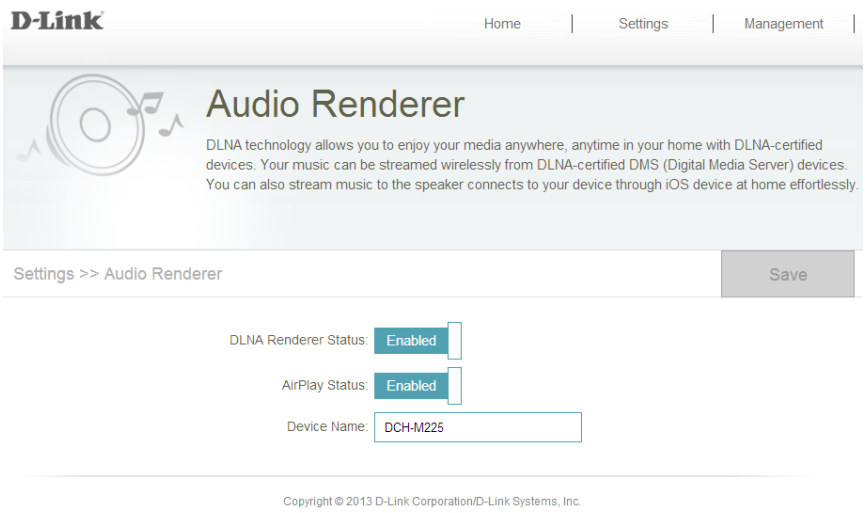
This page lets you configure the settings for the DCH-M225's audio extending feature. To access this page, click on the **Settings** drop-down menu at the top of the page, and select **Audio Renderer**.

DLNA Renderer Status: Click to enable or disable the DLNA Renderer feature. When this option is enabled, any DLNA compatible device will be able to find the DCH-M225 using the device name that is set in the **Device Name** field below.

AirPlay Status: Click to enable or disable the AirPlay feature. When this option is enabled, any AirPlay compatible device will be able to find the DCH-M225 using the device name that is set in the **Device Name** field below.

Device Name: You can enter a name for your device in this field. Other devices on your network that can stream audio through DLNA or AirPlay will be able to identify your DCH-M225 by this name.

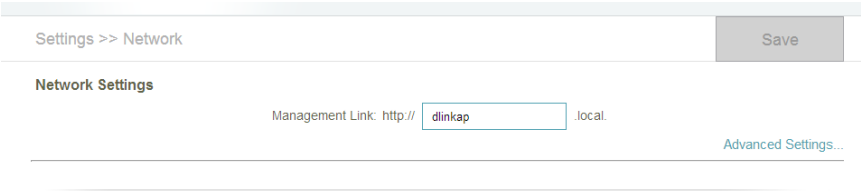
Click **Save** to save the settings and return to the home page.



Network Settings

This page lets you configure the network settings for the DCH-M225. To access this page, click on the **Settings** drop-down menu at the top of the page, and select **Network**. Click **Save** at any time to save the changes you have made on this page.

Device Name: You can change the name of the device by editing the text in the text box. If you change the name of the device, you will need to enter "http://xxxx.local." (where "xxxx" corresponds to the name of the device) in the address bar of your web browser in order to access the configuration utility.



Advanced Settings

The **Advanced Settings** section of the Network Settings page allows you to configure both IPv4 and IPv6 settings which will be used by the DCH-M225's extended network.

IPv4 Device Management interface - You can select either a Dynamic or Static IPv4 configuration:

My LAN Connection is: Here you can select whether you want the IP to have a **Dynamic IP** or **Static IP** address. If you select Dynamic IP, the options below will not be available.

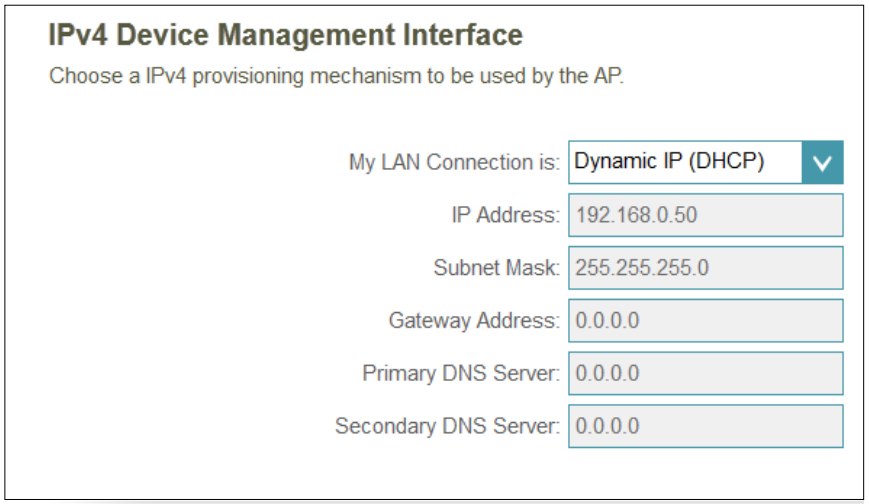
IP Address: Enter the Static IP address that you want to assign to the extended network AP. This address should be outside of the uplink router's DHCP address pool.

Subnet Mask: Enter the subnet mask.

Gateway Address: Enter the gateway address. This is usually the IP address of the uplink router.

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

Secondary DNS Server: Enter the address of the secondary DNS server. This is optional but will provide backup if the primary server fails.



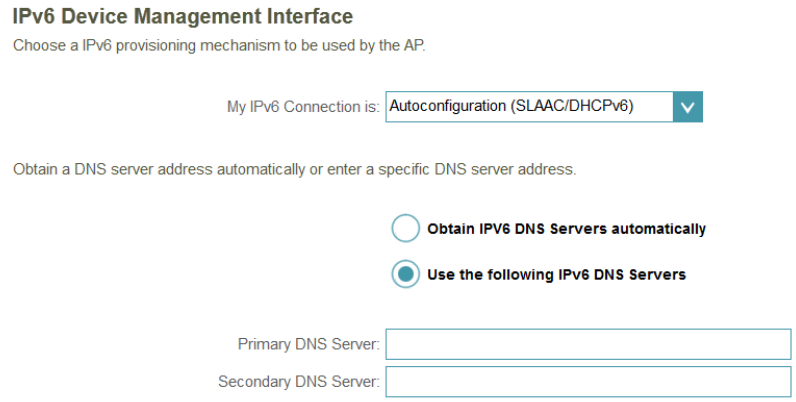
IPv6 Device Management Interface - You can select an **Autoconfiguration (dynamic), Static IP, or Link-local** IPv6 configuration:

My IPv6 Connection is: Select **Autoconfiguration (SLAAC/DHCPv6)** to have the DCH-M225 automatically receive an IPv6 address from the uplink router.

Obtain DNS Server Address: You can select to obtain IPv6 DNS server information automatically, or you can select to configure DNS servers manually.

Primary DNS Server: Enter the primary IPv6 DNS server address.

Secondary DNS Server: Enter the secondary IPv6 DNS server address. This is optional but will provide backup if the primary server fails.



My IPv6 Connection is: Select **Static IPv6** to manually assign an IP address to the DCH-M225.

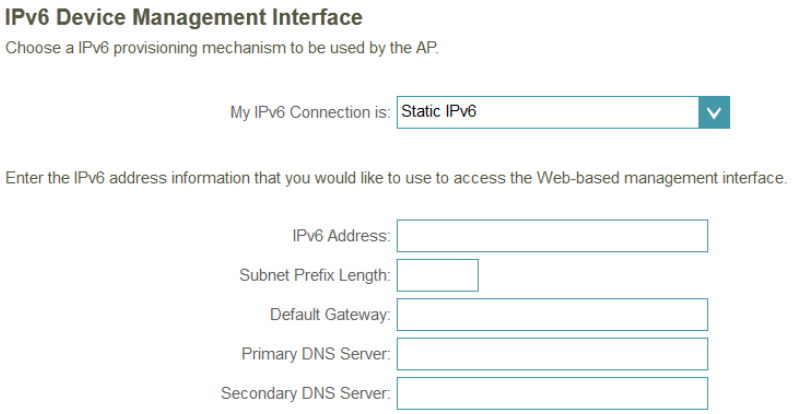
IPv6 Address: Enter the IPv6 address that you want to assign to the extended network AP. This address should be outside of the uplink router's DHCP address pool.

Subnet Prefix Length: Enter the length of the IPv6 subnet prefix.

Default Gateway: Enter the default gateway.

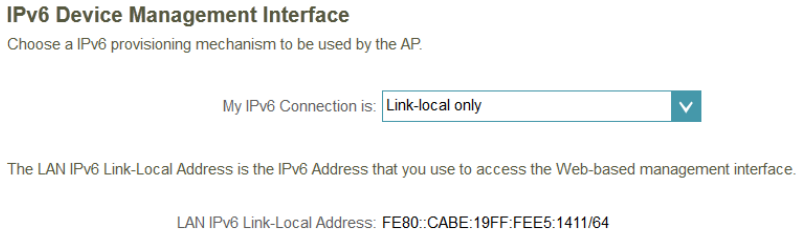
Primary DNS Server: Enter the primary IPv6 DNS server address.

Secondary DNS Server: Enter the secondary IPv6 DNS server address. This is optional but will provide backup if the primary server fails.



My IPv6 Connection is: Select **Link-local only** to only set an IPv6 address for the local network.

LAN IPv6 Link-Local Address: The link-local address of the DCH-M225.



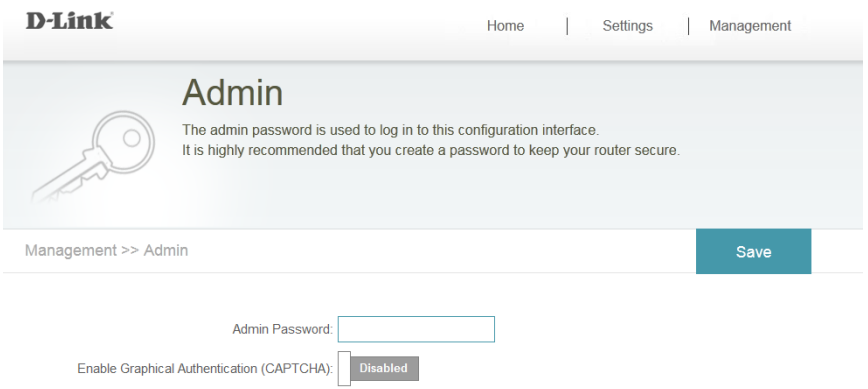
Maintenance

Admin

This page will allow you to set a new password for the administrator account used to configure the DCH-M225. You can also enable graphical authentication (CAPTCHA) on this page. To access this page, click on the **Management** drop down menu at the top of the page, and select **Admin**. Click **Save** at any time to save the changes you have made on this page.

Admin Password: Enter the Admin password.

Enable Graphical Authentication: Click on the slider to enable graphical authentication, or CAPTCHA. This provides an extra layer of security by requiring you to enter a code that is displayed on-screen. This can help prevent unauthorized users from gaining access to your wireless network using automated methods.



System

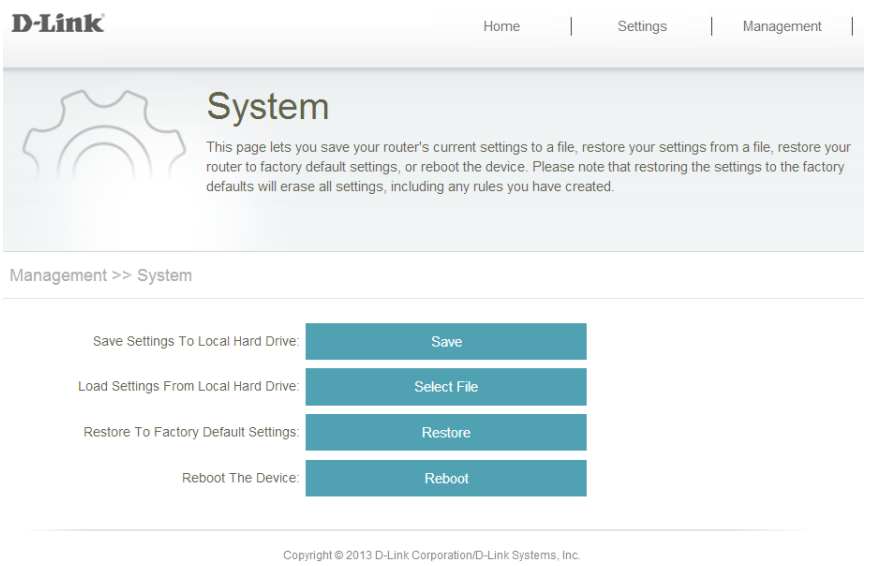
This page allows you to save or restore your system configuration, reset or reboot the DCH-M225. To access this page, click on the **Management** drop down menu at the top of the page, and select **System**. Click **Save** at any time to save the changes you have made on this page.

Save Settings To Local Hard Drive: Save the system settings into a file to the local hard drive. You will then see a file dialog where you can select a location and file name for the settings.

Load Settings From Local Hard Drive: Load the system settings from a file on the local hard drive.

Restore to Factory Default Settings: Restore the system settings to factory default settings. This will erase all currently stored settings.

Reboot the Device: Click **Reboot** to reboot the DCH-M225.



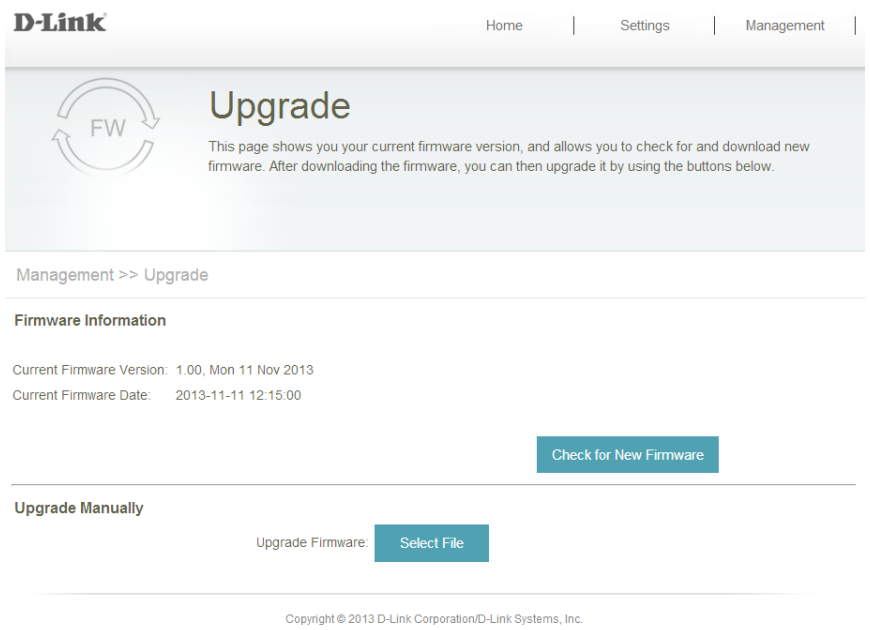
Upgrade

Firmware upgrades may be provided for the DCH-M225 in future. You can check for and upgrade your firmware on this page. To access this page, click on the **Management** drop down menu at the top of the page, and select **Upgrade**.

Firmware Information: This section displays the currently installed firmware version, as well as the date on which the current firmware version was released.

Check For New Firmware: Click **Check For New Firmware** to find out if there is new or updated firmware. If there is, you can download it to your computer.

Upgrade Firmware: Click **Select File** to locate the firmware file on your local device and perform a manual firmware upgrade.



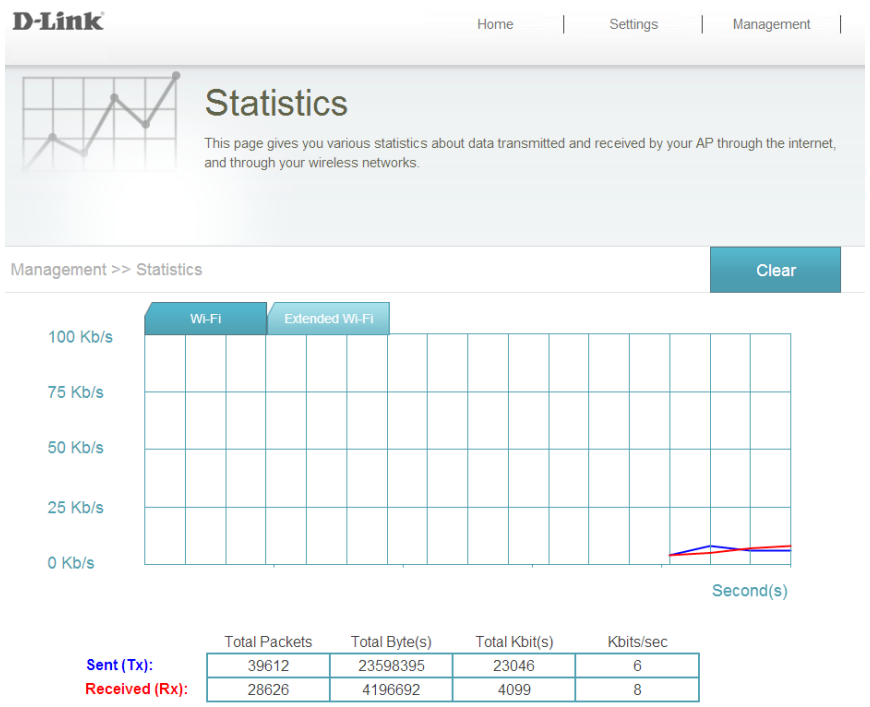
Statistics

This page displays details about your wireless and network connections. To access this page, click on the **Management** drop down menu at the top of the page, and select **Statistics**.

Wi-Fi: Click on the **Wi-Fi** tab to display the statistics for the connection between the DCH-M225 and the uplink router.

Extended Wi-Fi: Click on the **Extended Wi-Fi** tab to display the statistics for the connection between the DCH-M225 and any connected clients.

Clear: Click the **Clear** button to reset the statistics.



Connecting a Wireless Client

WPS Button

WPS (Wi-Fi Protected Setup) is a simple and secure way to connect your wireless devices with the DCH-M225. Most wireless devices such as wireless routers, media players, printers, and cameras will have a WPS button (or a software utility with WPS) that you can press to connect to the DCH-M225. Please refer to the user manual for the wireless device you want to connect to make sure you understand how to enable WPS. Once you know, follow the steps below:

Step 1 - Press the WPS button on the DCH-M225 for about 3 seconds. The LED on the device will start to blink. You can also use the WPS option in the setup wizard section of the web interface.

Step 2 - Within 120 seconds, press the WPS button on your wireless device.

Step 3 - Allow up to 1 minute to configure. Once the LED light stops blinking and turns solid green, you will be connected and your wireless connection will be secured with WPA2.

Connect to a Wireless Network

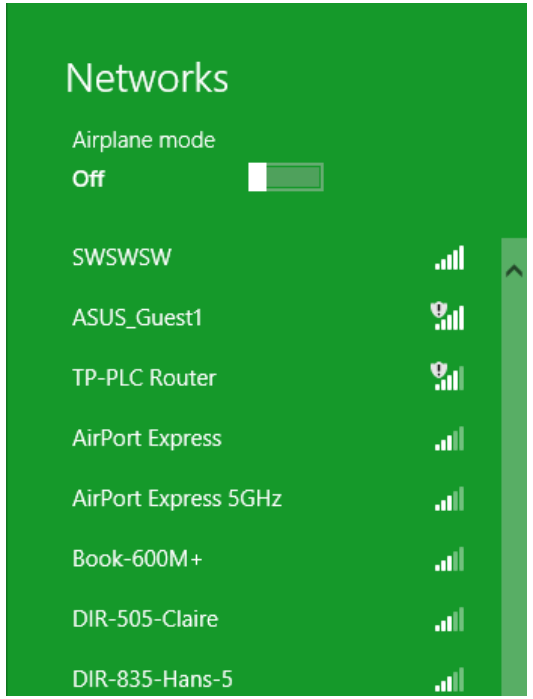
Windows® 8

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 (Wi-Fi password) being used.

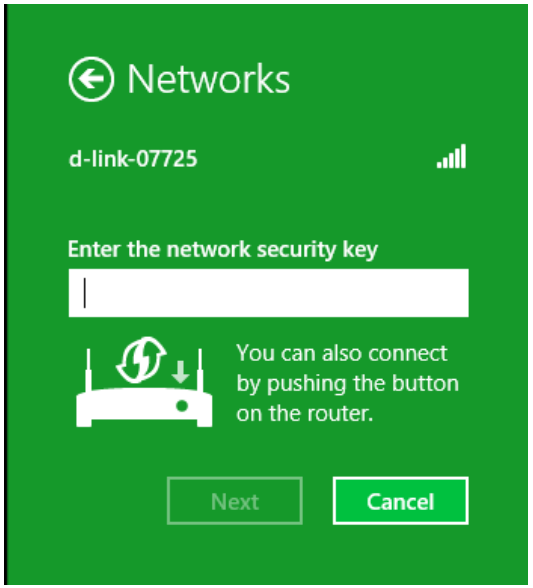
To join an existing network, locate the wireless network icon in the taskbar, next to the time display.

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.

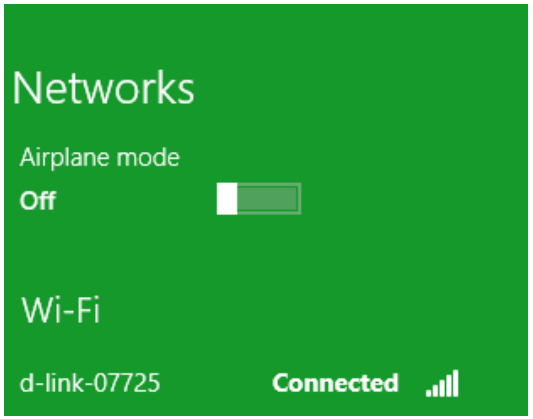


You will then be prompted to enter the network security key (Wi-Fi password) for the wireless network. Enter the password into the box and click **Next**.

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 with a wireless network, the word **Connected** will appear next to the name of the network to which you are connected.



Windows® 7

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.

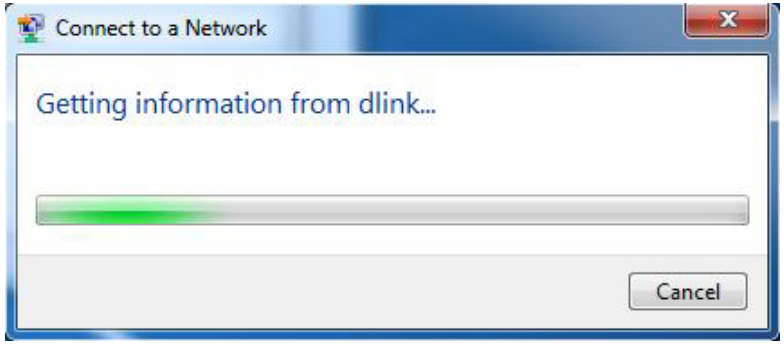
1. Click on the wireless icon in your system tray (lower-right corner).

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

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

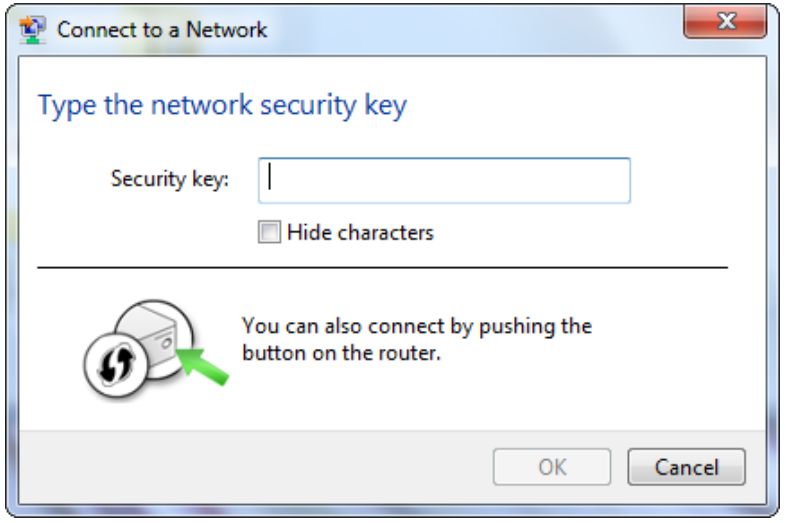
   If you get a good signal but cannot access the Internet, check your TCP/IP settings for your wireless adapter. Refer to the Networking Basics section in this manual for more information.

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



5. Enter the same security key or passphrase that is on your 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.



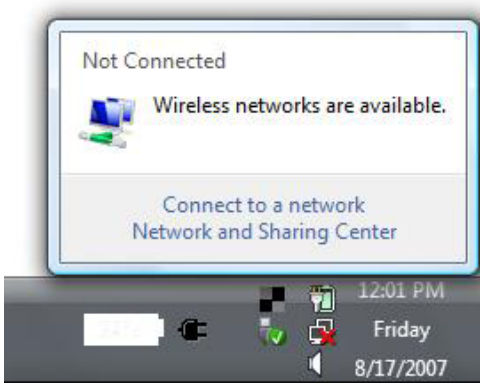
Windows Vista®

Windows Vista® users may use the built-in wireless utility. 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 Vista® utility as seen below.

If you receive the "Wireless Networks Are Available" bubble, click on the center of the bubble to access the utility.

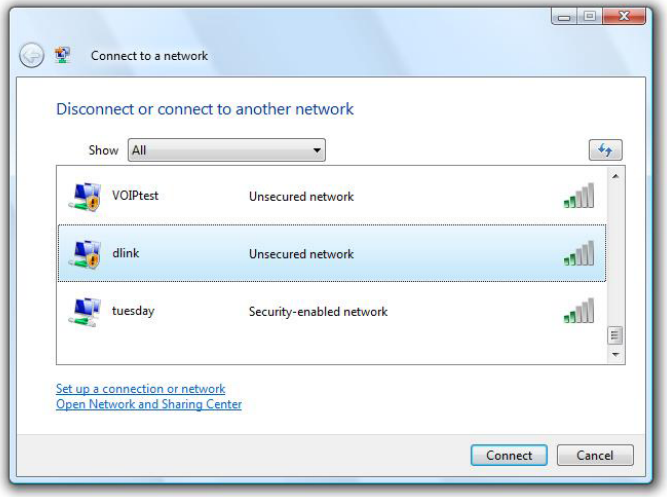
or

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 **Connect**.

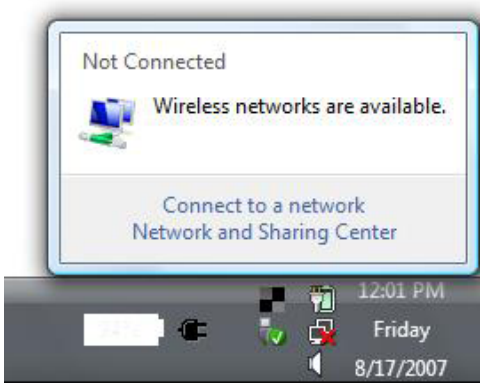
If you get a good signal but cannot access the Internet, check the TCP/IP settings for your wireless adapter. Refer to "Troubleshooting" on page 44 for more information.



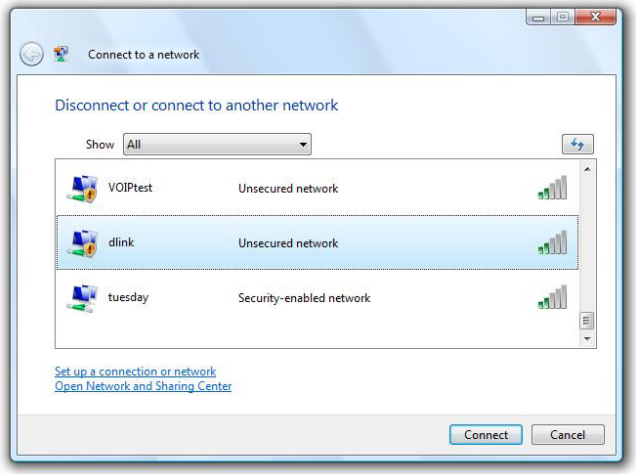
WPA/WPA2

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



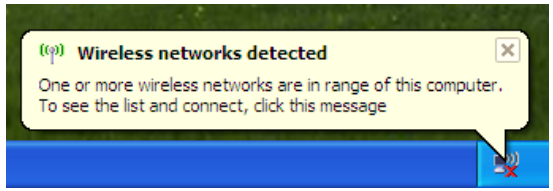
3. Enter the same security key or passphrase that is on your router and click **Connect**.

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.

Windows® XP

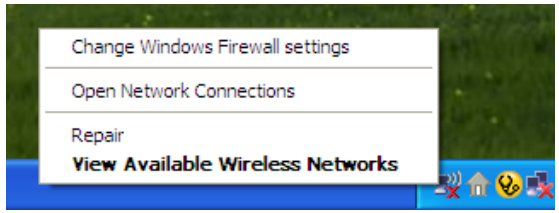
Windows® XP users may use the built-in wireless utility (Zero Configuration Utility). The following instructions are for Service Pack 2 users. If you are using another company's utility, please refer to the user manual of your wireless adapter for help with connecting to a wireless network. Most utilities 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.



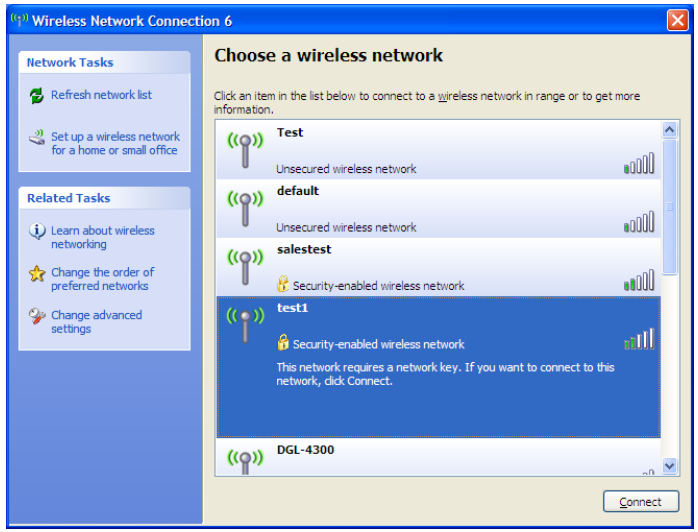
or

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.

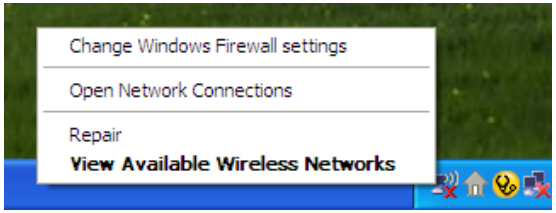
If you get a good signal but cannot access the Internet, check your TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



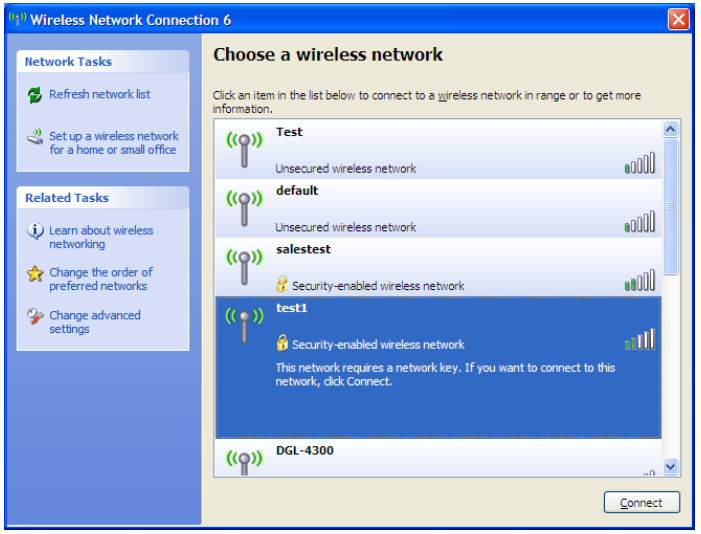
WPA/WPA2

It is recommended to enable WPA 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 WPA key being used.

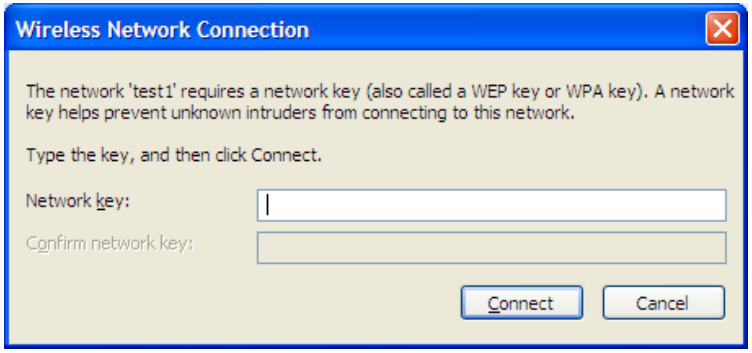
1. Open the Windows® XP Wireless Utility by right-clicking on the wireless computer icon in your system tray (lower-right corner of screen). Select **View Available Wireless Networks**.



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 section provides solutions to problems that can occur during the installation and operation of the DCH-M225. Read the following descriptions if you are having problems. The examples below are illustrated in Windows® XP. If you have a different operating system, the screenshots on your computer will look similar to the following examples.

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

When entering the IP address of the Wi-Fi Audio Extender (dlinkap.local for example), you are not connecting to a website nor do you have to be connected to the Internet. The device has the utility built-in to a ROM chip in the device itself. Your computer must be on the same IP subnet to connect to the web-based utility.

- Make sure you have an updated Java-enabled web browser. We recommend the following:
  - Internet Explorer 7 or later
  - Firefox 12.0 or later
  - Safari 4 or later
  - Google Chrome 20.0 or later
- Make sure that you are connected to the same wireless network which is listed on the base of the DCH-M225. If you have an active wired LAN Ethernet connection, try temporarily unplugging the Ethernet cable from the computer you are using, as this may eliminate possible conflicts from having two simultaneous connections on the same computer.
- 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 interface. Open your web browser and enter the address of your extender (**http://dlinkap.local**) in the address bar. This should open the login page for your web management. If the DCH-M225 is not connected to an uplink router, you can try accessing the web interface using the default IP address **http://192.168.0.50**.
- If you still cannot access the configuration, unplug the extender from the power outlet for at least 10 seconds and plug it 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 extender. Unfortunately this process will change all your settings back to the factory defaults.

To reset the extender, locate the reset button (hole) on the underside panel of the unit. With the extender powered on, use a paperclip to hold the button down for 10 seconds. Release the button and the extender will go through its reboot process (indicated by the LED turning red). Wait about 30 seconds to access the extender. The default IP address is **http://dlinkap.local**. When logging in, the username is **admin** and leave the password box empty.

Wireless Basics

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

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

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

Under many circumstances, it may be desirable for mobile network devices to link to a conventional Ethernet LAN in order to use servers, printers or an Internet connection supplied through the wired LAN. A wireless router is a device used to provide this link.

Tips

Here are a few things to keep in mind when you are installing your Wi-Fi Audio Extender.

Centralize the extender's location
For best performance, make sure you place the extender in a centralized location within your desired usage area. Try to place the extender so that there are minimal obstructions between it and the uplink router. If possible, use an elevated power outlet, so the signal can be dispersed more easily. If you have a large home or usage area, you may need several extenders in order to achieve optimal coverage.

Eliminate Interference
Place home appliances such as cordless telephones, microwaves, and televisions as far away as possible from the extender. This can significantly reduce any interference that the appliances might cause since they operate on same frequency.

Security
Don't let your neighbors or intruders connect to your wireless network. Secure your wireless network by utilizing the WPA or WEP security feature on the extender and uplink router. Refer to the relevant sections of this manual for further details.

Technical Specifications

Standards
- IEEE 802.11n
- IEEE 802.11g
- IEEE 802.11b

Wireless Frequency Range [1]
- 2.4 GHz to 2.4835 GHz

Antenna
- Two Internal Antennas

Security
- Wi-Fi Protected Access (WPA/WPA2)
- WPS™ (PBC)
- Wired Equivalent Privacy (WEP) 64/128-bit

Advanced Features
- QRS Mobile setup app for iOS and Android devices

Device Management
- Web UI

Diagnostic LEDs
- Status/WPS

Operating Temperature
- 0 to 40 ˚C (32 to 104 ˚F)

Operating Humidity
- 0% to 90% non-condensing

Power Input
- AC 110-240 V

Maximum Power Consumption
- 5 W

Certifications
- FCC
- CE
- IC
- C-Tick
- CSA
- Wi-Fi Certified

Dimensions
- 54 x 42 x 54.5 mm (2.13 x 1.65 x 2.15 inches)

Weight
- 81.2 grams (0.18 lb)

[1] Frequency range varies depending on local regulations

Warranty

Industry Canada statement:

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

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

FOR MOBILE DEVICE USAGE (>20cm/low power)

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.

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.

Federal Communication Commission Interference Statement

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

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

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

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

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

FOR MOBILE DEVICE USAGE (>20cm/low power)

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.

FOR COUNTRY CODE SELECTION USAGE (WLAN DEVICES)

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.