



**User Manual**

**Wireless N 150 Micro USB Adapter**

# 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	October 5, 2010	• Initial release for Revision A1
1.1	July 11, 2013	• Added with Windows 8 support

## Trademarks

D-Link and the D-Link logo are trademarks or registered trademarks of D-Link Corporation or its subsidiaries in the United States or other countries. All other company or product names mentioned herein are trademarks or registered trademarks of their respective companies.

Copyright © 2015 by D-Link Systems, Inc.

All rights reserved. This publication may not be reproduced, in whole or in part, without prior expressed written permission from D-Link Systems, Inc.

# Table of Contents

<b>Preface</b> .....	<b>2</b>	Windows® 7 .....	32
Manual Revisions.....	2	Windows Vista® .....	34
Trademarks .....	2	Windows® XP .....	36
<b>Product Overview</b> .....	<b>4</b>	<b>Troubleshooting</b> .....	<b>38</b>
Package Contents .....	4	<b>Wireless Basics</b> .....	<b>41</b>
System Requirements.....	4	Wireless Modes .....	45
Introduction .....	5	 	
Features .....	6	<b>Networking Basics</b> .....	<b>46</b>
Hardware Overview.....	7	Check your IP address.....	46
 		Windows® 8 Users .....	46
<b>Installation</b> .....	<b>8</b>	Windows® 7/Vista® Users.....	46
Getting Started .....	8	Windows® XP Users .....	46
Remove Existing Installations.....	8	Statically Assign an IP Address .....	47
Disable Other Wireless Adapters .....	9	Windows® 8 Users.....	47
Wireless Installation Considerations .....	11	Windows® 7/ Vista® Users.....	48
Adapter Installation.....	12	Windows® XP Users .....	49
Wi-Fi® Protected Setup (WPS).....	18	 	
 		<b>Technical Specifications</b> .....	<b>50</b>
<b>Configuration</b> .....	<b>20</b>		
D-Link Wireless Connection Manager .....	20		
Wireless Networks List.....	21		
Personal Identification Number (PIN) .....	22		
Push Button Configuration (PBC) .....	24		
My Wireless Networks.....	25		
Add Profile .....	26		
Modify Profile.....	27		
Support.....	28		
About.....	29		
<b>Connect to a Wireless Network</b> .....	<b>30</b>		
Windows® 8 .....	30		

# Package Contents



D-Link DWA-121 Wireless N 150 Micro USB Adapter



Manual and Driver Software on CD



Quick Installation Guide

# System Requirements

- A computer or laptop with an available USB 2.0 port
- Windows® 8, 7, Vista®, XP (Service Pack 3), or Linux
- CD-ROM Drive
- 300MHz processor and at least 64MB of RAM
- A 802.11n or 802.11g access point or wireless router

# Introduction

The DWA-121 Wireless N 150 Pico USB Adapter is a convenient wireless connectivity solution for desktop or notebook PCs. Instead of stringing Ethernet cables to your PC, simply utilize your desktop or notebook PC's USB port and the adapter's 802.11n wireless connectivity.

Powered by Wireless N 150 technology, the DWA-121 provides a faster wireless connection than 802.11g\*. The DWA-121 was designed for use in bigger homes, and for users that require higher bandwidth networking. Maximize wireless performance by connecting this USB Adapter to a Wireless N™ router, and stay connected from virtually anywhere in the home. This USB Adapter supports WPA and WPA2 encryption to prevent outside intrusion and protect your personal information.

D-Link's Quick Setup Wizard easily guides you step-by-step through the installation process. The D-Link Wireless Manager is included with this product to help you keep track of your most frequently accessed networks.

Compact in size, robust in speed, the DWA-121 Wireless N 150 Pico USB Adapter conveniently provides you with high-performance wireless connectivity to your desktop or notebook PC when you are traveling. Enjoy the many benefits of wireless connectivity today!

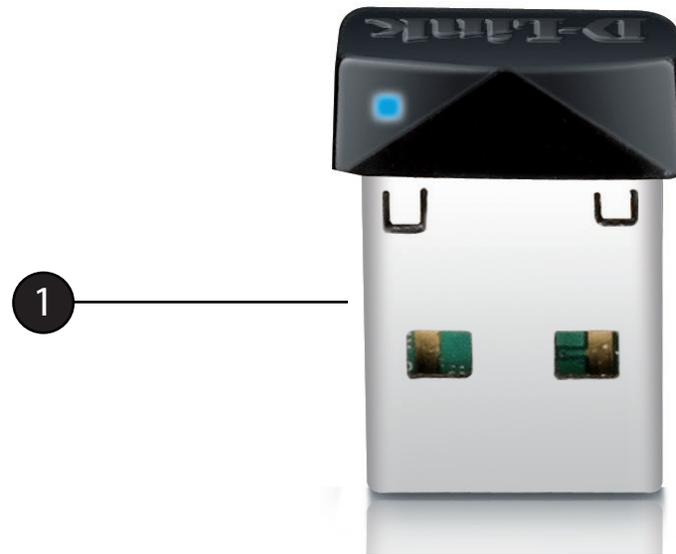
\* Maximum wireless signal rate derived from IEEE Standard 802.11g and 802.11n specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate.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

# Features

- Compact size for placement anywhere
- Convenience of Plug & Play installation
- Fully 802.11g compatible
- 802.11n compliant
- Powered by the USB port; no external power source required
- USB 2.0 standard\*
- You can securely connect to a wireless network using WPA/WPA2 (Wi-Fi Protected Access), providing you a much higher level of security for your data and communication than has previously been available
- Position the DWA-121 almost anywhere in your workspace to achieve the best reception possible
- Supports Infrastructure networks via an access point
- User-friendly configuration and diagnostic utilities

\* Using a USB 1.1 port will adversely affect throughput.

# Hardware Overview



<b>1</b>	USB Connector	Used to connect the DWA-121 to your computer.
----------	---------------	---

# Installation

This section will walk you through the installation process. If you have a built-in wireless adapter, please disable it in the Device Manager before installing your DWA-121 Wireless N 150 Pico USB Adapter. Also, if you previously installed another wireless adapter, please make sure any related software is uninstalled.

## Getting Started

Before installing your new D-Link wireless adapter, please verify the following:

- Previous installations of wireless adapters have been removed (If not, see instructions below.)
- Any built-in wireless adapters have been disabled (If not, see instructions on the next page.)
- Verify the settings, such as the SSID and security settings, of the network(s) you want to connect to

## Remove Existing Installations

If you've installed a different manufacturer's adapter or a different model D-Link adapter, make sure that software is uninstalled before installing the new software. Some utilities may cause a conflict with the new software. If you plan to use multiple adapters at different times, make sure the utilities are not set to automatically load when your computer boots up.

To remove old software:

Windows® 8 users: Press **Windows Key + Q** > **Control Panel** > **Uninstall Programs**

Windows® 7 users: Click **Start** > **Control Panel** > **Uninstall Programs**

Windows Vista® users: Click **Start** > **Control Panel** > **Add or Remove Programs**

Windows® XP users: Click **Start** > **Control Panel** > **Add or Remove Programs**

# Disable Other Wireless Adapters

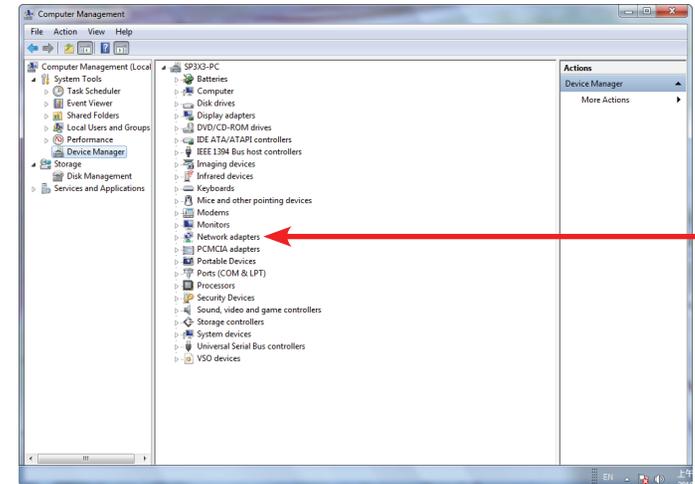
Most newer laptops include a built-in wireless adapter. To prevent conflicts with the D-Link wireless adapter, it is recommended that you disable the wireless adapter (as well as any unused Ethernet adapters).

Windows® 8 - Press the **Windows key** and **X** together and then click **Device Manager**

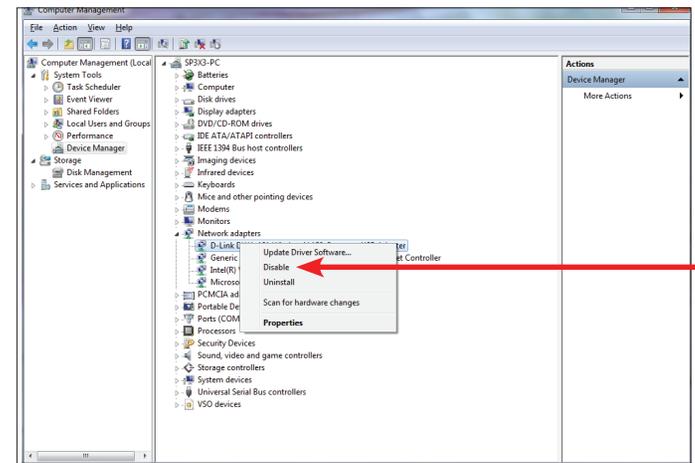
Windows® 7/Vista® - Go to **Start > Device Manager**

Windows® XP - Go to **Start > My Computer > Properties > Hardware > Device Manager**

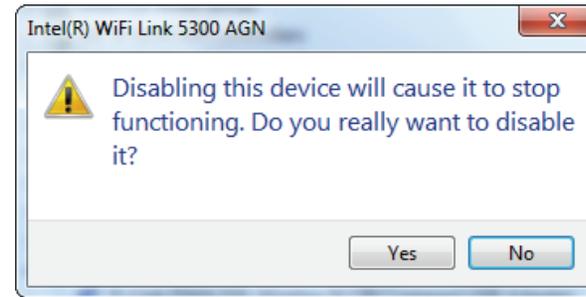
From within **Device Manager**, scroll down the list and click the **+** sign to the left of **Network Adapters**.



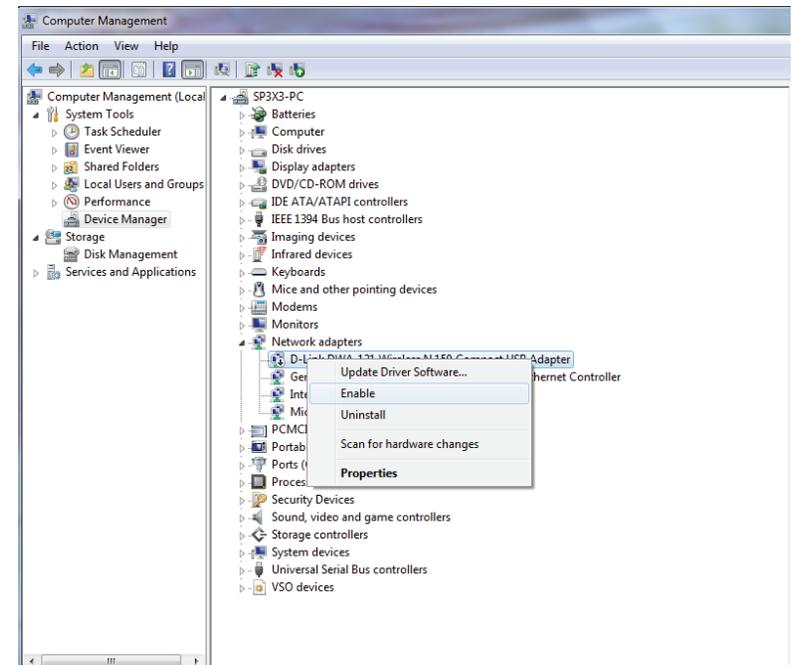
Right-click the adapter you would like to disable and select **Disable**.



You will see a warning that says, *Disabling the device will cause it to stop functioning.* Click **Yes** to disable the adapter.



When the adapter is disabled, you will see a red X over the icon that represents the device. However, this does not mean you have removed it. Disabling the adapter will not remove the drivers either. If in the future you would like to use the adapter, simply right-click it and select **Enable**.



# Wireless Installation Considerations

The D-Link wireless adapter lets you access your network using a wireless connection from virtually anywhere within the operating range of your wireless network. Keep in mind the number and thickness of walls and ceilings, as well as the location of 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 adapter and other network devices to a minimum. Each wall or ceiling can reduce your adapter's range by 3-90 feet (1-30 meters.) Position your devices so that the number of walls or ceilings is minimized.
2. Strive for a direct line between network devices. A wall that is 1.5 feet thick (.5 meters), at a 45-degree angle will appear to be almost 3 feet (1 meter) thick. At a two-degree angle it appears to be over 42 feet (14 meters) thick! Position your devices so that the signal will travel straight through a wall or ceiling, instead of at an angle, for the best reception.
3. Be aware of the type of building materials separating your devices. 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 three to six feet) from electrical devices or appliances that generate RF noise.
5. If you are using 2.4GHz cordless phones or X-10 wireless products, such as ceiling fans, lights, and home security systems, your wireless connection may degrade dramatically or drop completely. Make sure your 2.4GHz phone base is as far away from your wireless devices as possible. The base transmits a signal even when the phone is not in use.

# Adapter Installation

**Warning: Do NOT plug the DWA-121 Wireless N 150 Pico USB Adapter into your computer before installing the driver software from the D-Link CD.**

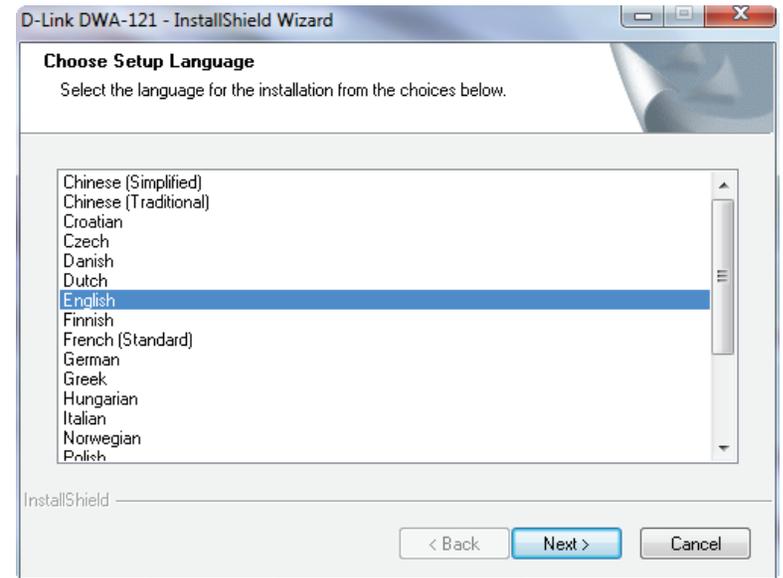
Turn on the computer and Insert the D-Link DWA-121 Driver CD into the CD-ROM drive.

If the CD Autorun function does not automatically start on your computer, go to **Start > Run**. In the run box type "**D:\autorun.exe**" (where **D:** represents the drive letter of your CD-ROM drive).

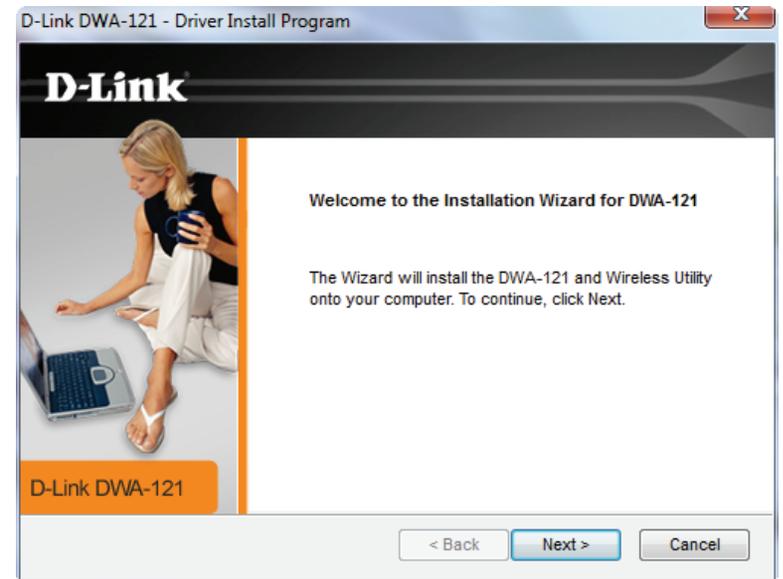
When the autorun screen appears, click **Install** to start the *DWA-121 InstallShield Wizard*.



Select your language from the list and click **Next** to continue.

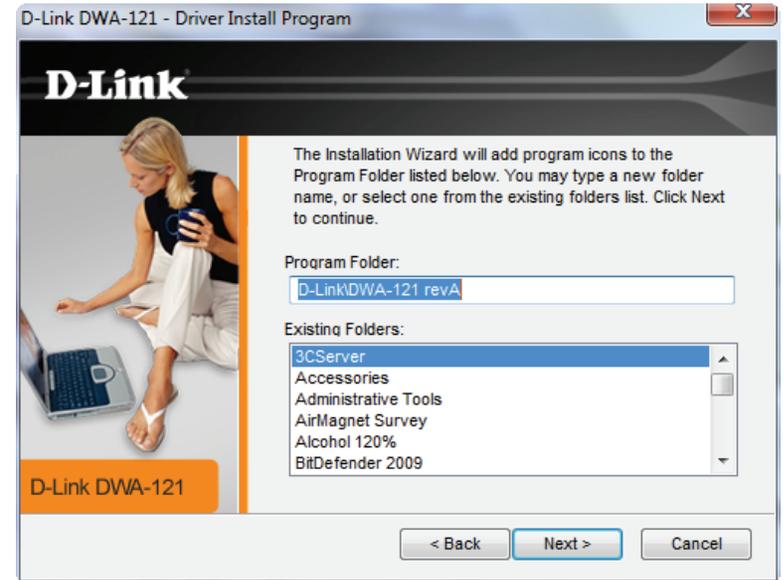


You will see the *Installation Wizard* welcome window. Click **Next** to continue.

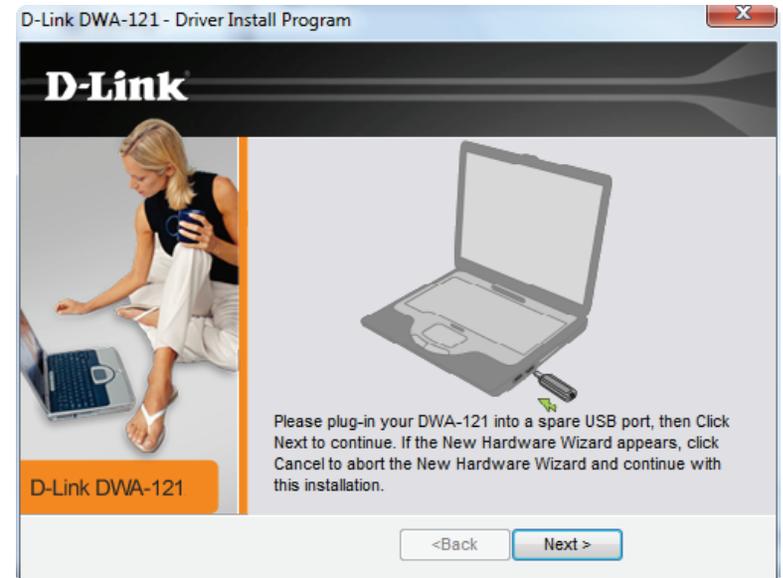


## Section 2 - Installation

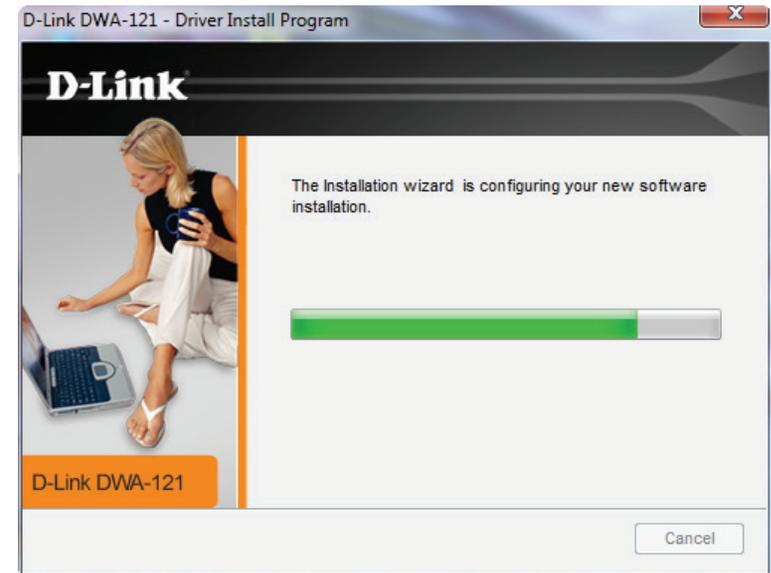
Select an existing folder, or create a new **Program Folder**, which will be used to hold program icons. Click **Next**.



Insert the DWA-121 into an available USB port on your computer and click **Next**.  
If the *Found New Hardware Wizard* appears, click **Cancel**.

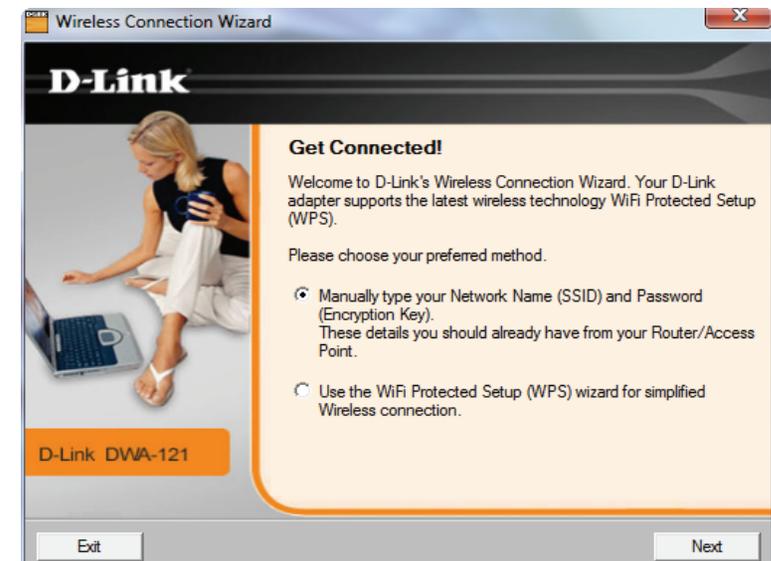


Wait while the *Installation Wizard* configures your new software installation. This process may take one to two minutes. Then the *Wireless Connection Wizard* screen will appear, presenting you with two options.



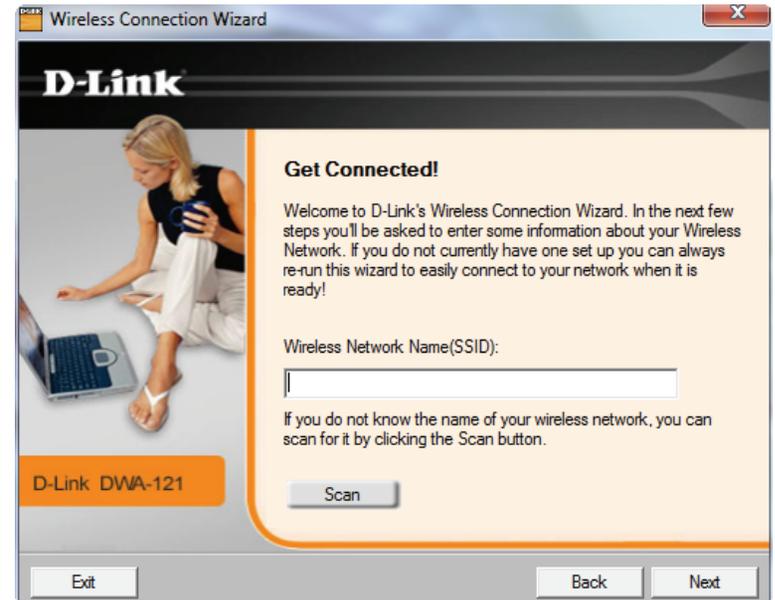
To manually connect to your wireless network, select **Manually type your Network Name (SSID) and Password** and then click **Next**.

See “[Wi-Fi® Protected Setup \(WPS\)](#)” on page 18 for the more secure option, **Use the Wi-Fi Protected Setup (WPS) wizard for simplified Wireless connection.**

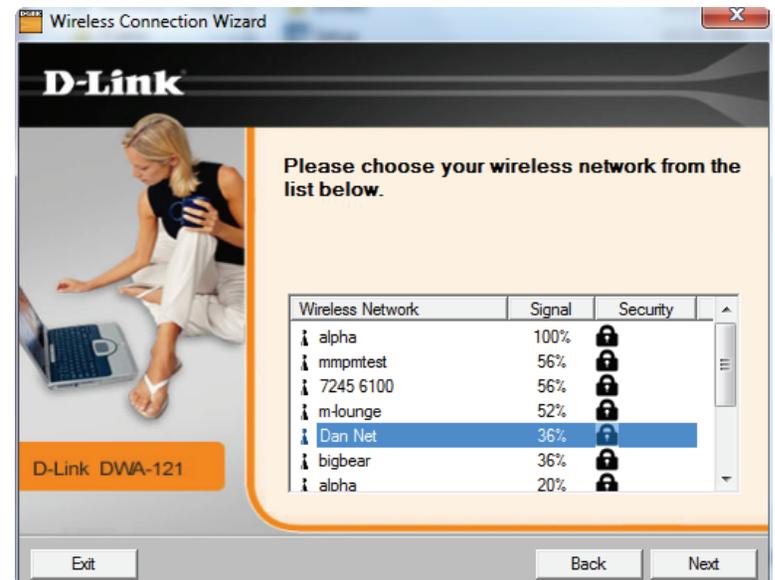


If you know your **Network Name**, enter it in the text box below **Wireless Network Name (SSID)**. Make sure you enter it correctly. Click **Next** to continue, and skip to the instructions on the next page.

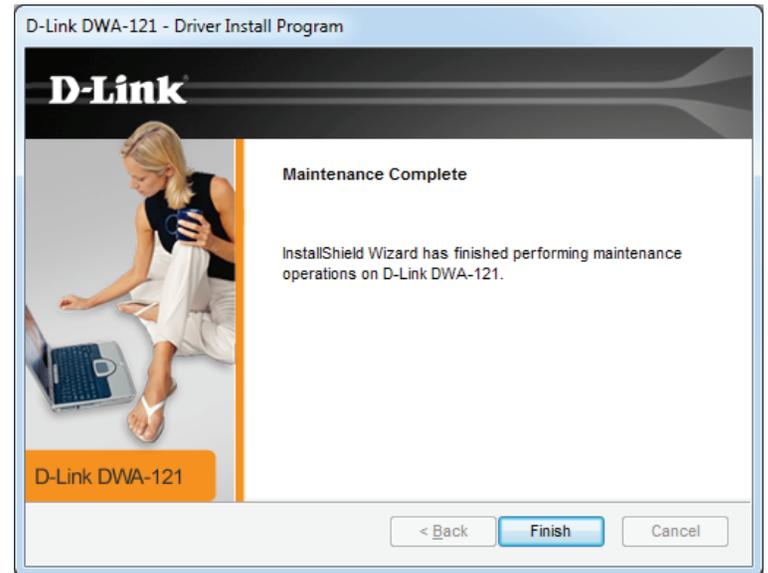
If you entered your **Network Name** incorrectly, you will be directed to the Site Survey page. Click **Scan** to scan for the name of your wireless network on the Site Survey page.



Scan the list of wireless networks. Click on your **Wireless Network Name** and click **Next**.



Click **Finish** to complete the installation. If you are prompted to reboot your computer, select **Yes, I want to restart my computer now**.



# Wi-Fi® Protected Setup (WPS)

The *Wi-Fi Protected Setup (WPS) Wizard* provides easy setup of security-enabled Wi-Fi networks. It is recommended that you have the access point or wireless router nearby during setup.

To begin the WPS setup, select the option the **Use the WiFi Protected Setup (WPS) wizard for simplified Wireless connection** and click **Next**.

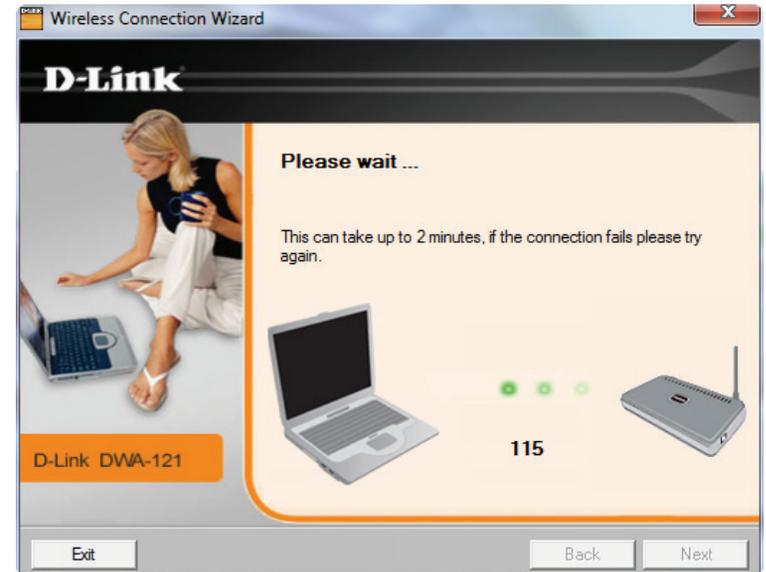


Press the WPS button on your router, and within 120 seconds, click on **Connect Now**, which is the virtual button on the screen.

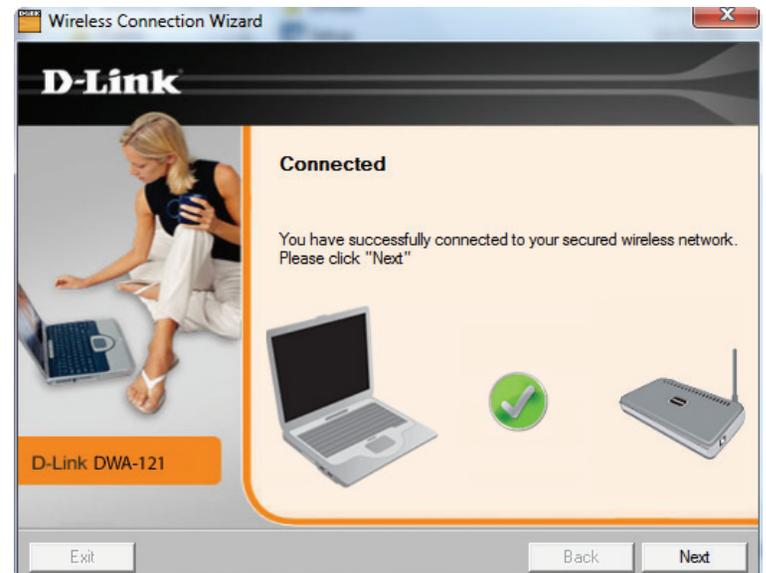
**Note:** Refer to your router's user manual for more information about WPS.



Wait while the router establishes connection.



When the screen appears that says *Connected*, you have successfully established connectivity. Click **Finish** to complete your setup.



# Configuration

This section will show you how to configure your new D-Link wireless adapter.

## D-Link Wireless Connection Manager

The D-Link DWA-121 uses the *Wireless Connection Manager* as the management software. This is a user interface that makes it easy to change any settings related to your wireless adapter.

Double-click the **Wireless Connection Manager** icon on your desktop to begin configuration.



## Wireless Networks List

The DWA-121 *Wireless Connection Manager* window contains a *Wireless Networks* list. It will display all wireless networks that are currently available in your area. To connect to a network, simply highlight the wireless network (**SSID**) and click **Connect**.

**SSID:** Displays the *SSID* (Service Set Identifier), which is the name of the wireless network.

**MAC:** Displays the *MAC* address (BSSID) of the wireless device.

**Signal:** Displays the link quality of the wireless connection.

**Security:** If you see a “lock” icon, this means the wireless network is secure. You must know the encryption key/security settings to connect.

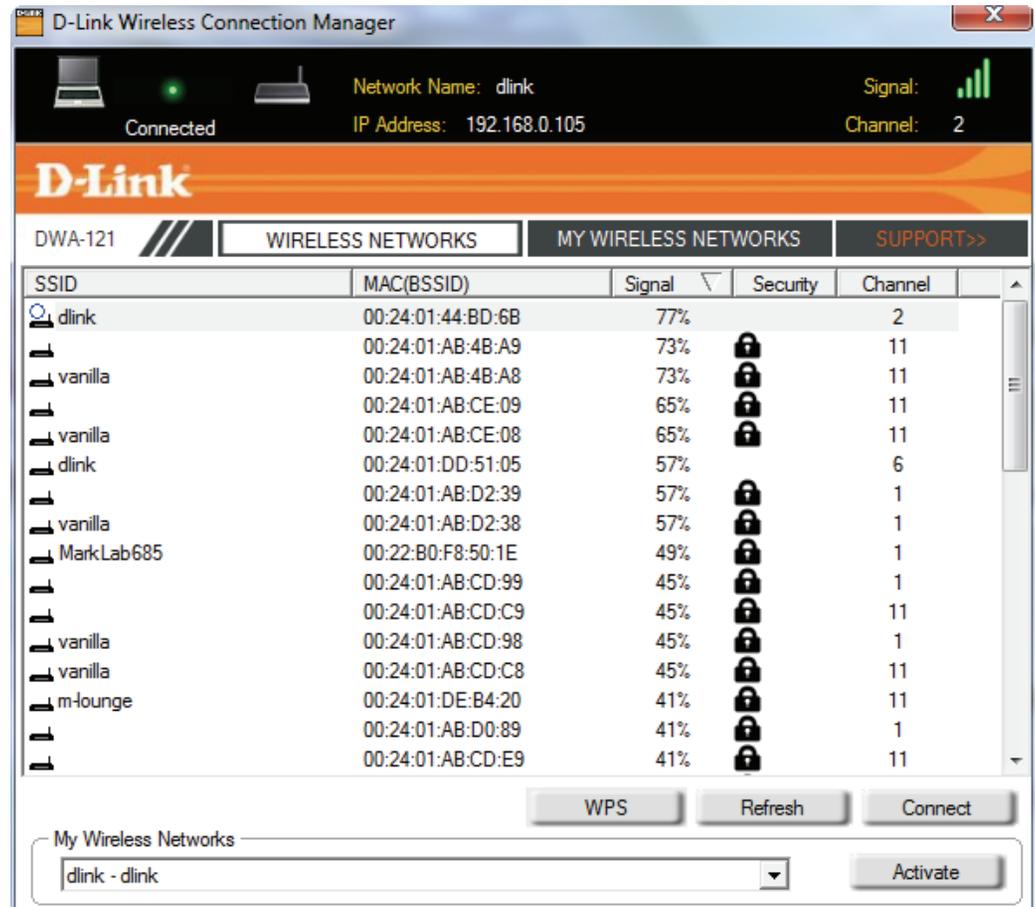
**Channel:** Displays the channel of the wireless network.

**WPS Button:** Click to connect to a wireless network using Wi-Fi Protected Setup. (Refer to the instructions on the next page.)

**Refresh Button:** Click to re-scan for available wireless networks in your area.

**Connect Button:** Highlight a wireless network and click the **Connect** button. If the network is secure, a pop-up window will appear. Enter the security information to connect. (Refer to the *Wireless Basics* section of this manual for more information.)

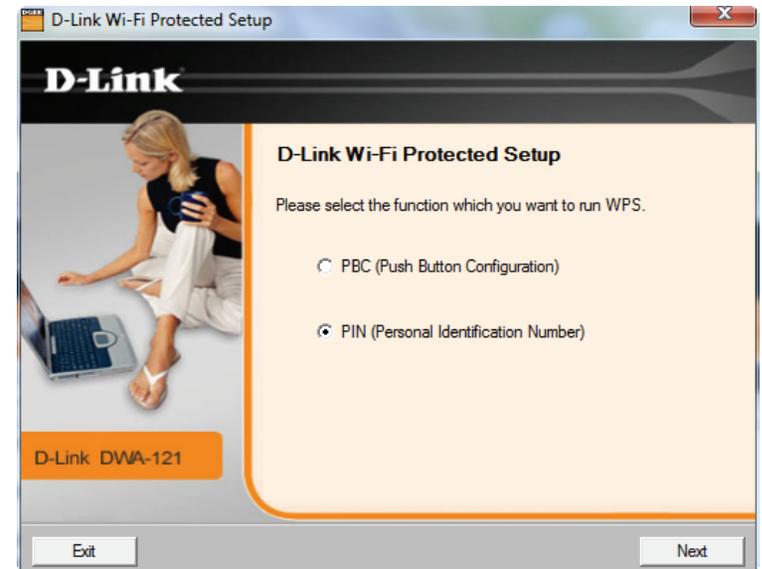
**Activate Button:** Select a wireless network profile from the drop-down menu under **My Wireless Networks**, and click **Activate** to connect. Allow up to 30 seconds to connect.



## Personal Identification Number (PIN)

To set up WPS using the PIN method, select **PIN (Personal Identification Number)** and click **Next**.

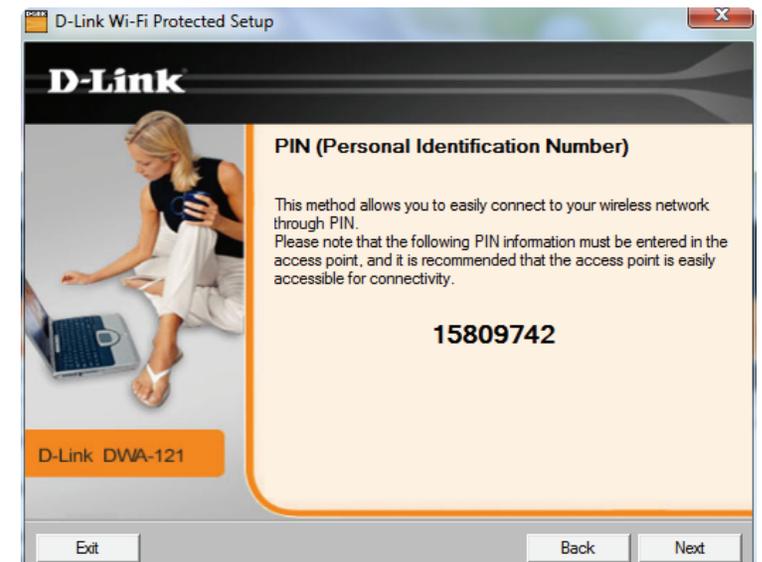
For the option to set up WPS using PBC, see “[Push Button Configuration \(PBC\)](#)” on page 24.



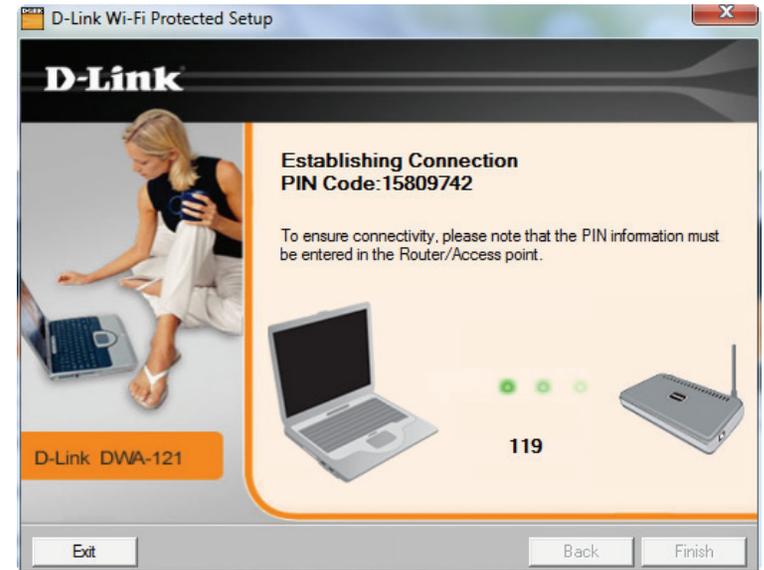
The PIN is a unique random number generated by the wireless adapter's utility. Write down the number you see on the screen. You will need it in order to connect with your wireless network.

After you click **Next**, you will have 120 seconds to enter the PIN number into your access point or wireless router.

**Note:** Refer to your router's manual for instructions.



Wait while the adapter tries to establish connectivity to your access point or wireless router.



When the screen appears that says *Connected*, you have successfully established connectivity. Click **Finish** to complete your setup.



## Push Button Configuration (PBC)

To connect to your network using the WPS push button configuration method, press the WPS button on the router until it lights up. Click on **Connect Now**, which is the virtual button on the screen.

**Note:** Refer to your router's user manual for more information about WPS.



# My Wireless Networks

The *My Wireless Networks* page will allow you to create, edit, and delete wireless network profiles. Every time you connect to a network using the *Wireless Networks* page, a profile will automatically be created.

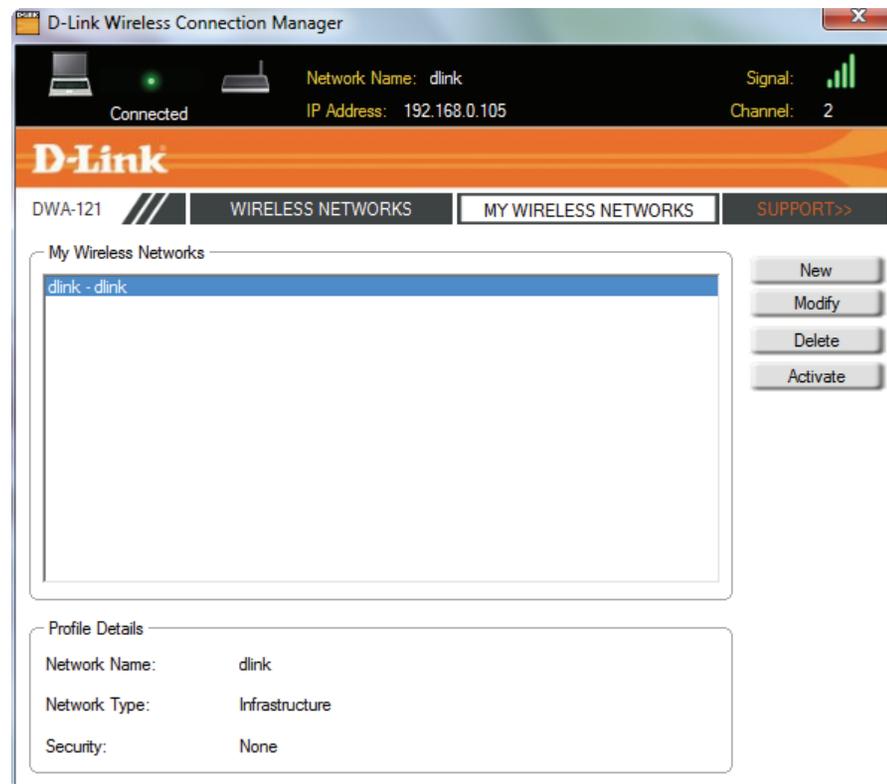
**New:** Click **New** to create a new wireless network profile. See "Add Profile" on page 26.

**Modify:** Click **Modify** to edit a current profile. See "Modify Profile" on page 27.

**Delete:** Click **Delete** to remove a profile.

**Activate:** Click **Activate** to use a profile. Allow up to 30 seconds to connect to the wireless network.

**Profile Details:** The *Profile Details* section displays information about the wireless network selected above, such as the *Network Name* (SSID), *Network Type* (Infrastructure), and if the network is secured.



## Add Profile

You may add a new network by clicking the **New** button from the *My Wireless Networks* page.

**Profile Name:** Enter a name for your profile (e.g. **Home, Office, Coffee Shop**).

**SSID:** Enter the **SSID** of the wireless network.

**Network Type:** Select the **Network Type**. If you are connecting to a wireless router or access point, select **Infrastructure**. (**Ad-hoc** mode is not supported.)

**Set Security Option:** Enter the security settings of the network you are connecting to. Refer to the *Wireless Basics* section for more information.

**OK Button:** Click **OK** to save your settings.

**Profile Settings**

**Basic Settings**

Profile Name:

SSID:

Network Type:  Infrastructure  Ad hoc

**Set Security Option**

None

WEP

WPA-Personal

WPA2-Personal

WPA-Enterprise

WPA2-Enterprise

**Passphrase Settings**

TKIP  AES

Key:

Show text in the password field

OK Cancel

## Modify Profile

You may edit an existing profile by selecting the profile and clicking the **Modify** button from the *My Wireless Networks* page.

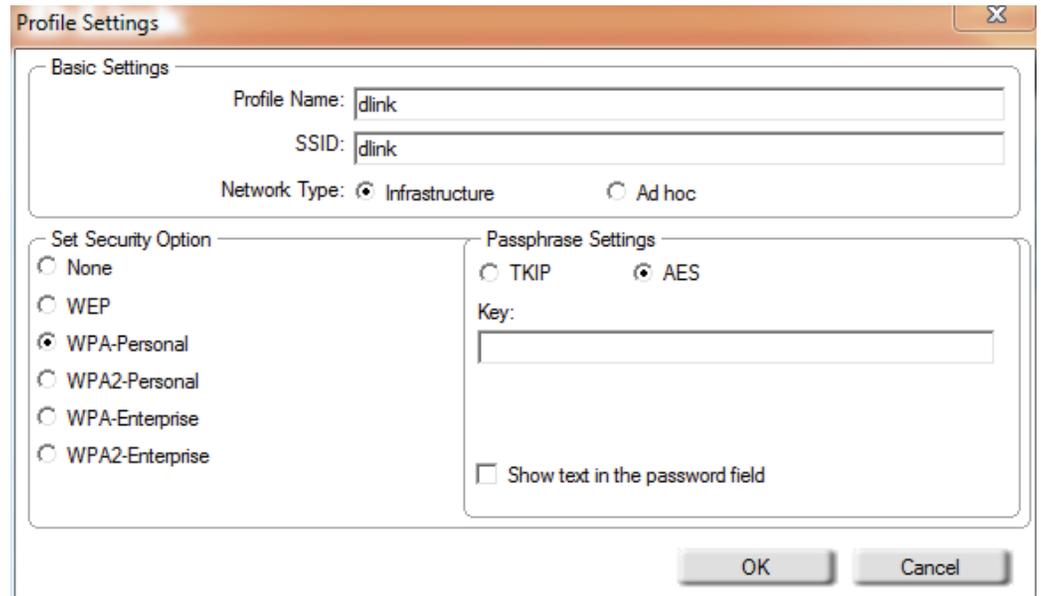
**Profile Name:** Displays a name for your profile (e.g. **Home, Office, Coffee Shop**).

**SSID:** Displays the SSID of the network.

**Network Type:** Displays the network type.

**Set Security Option:** Displays the type of wireless security for the network you are connecting to.

**OK Button:** If you modify any of the fields above, click **OK** to save your settings.



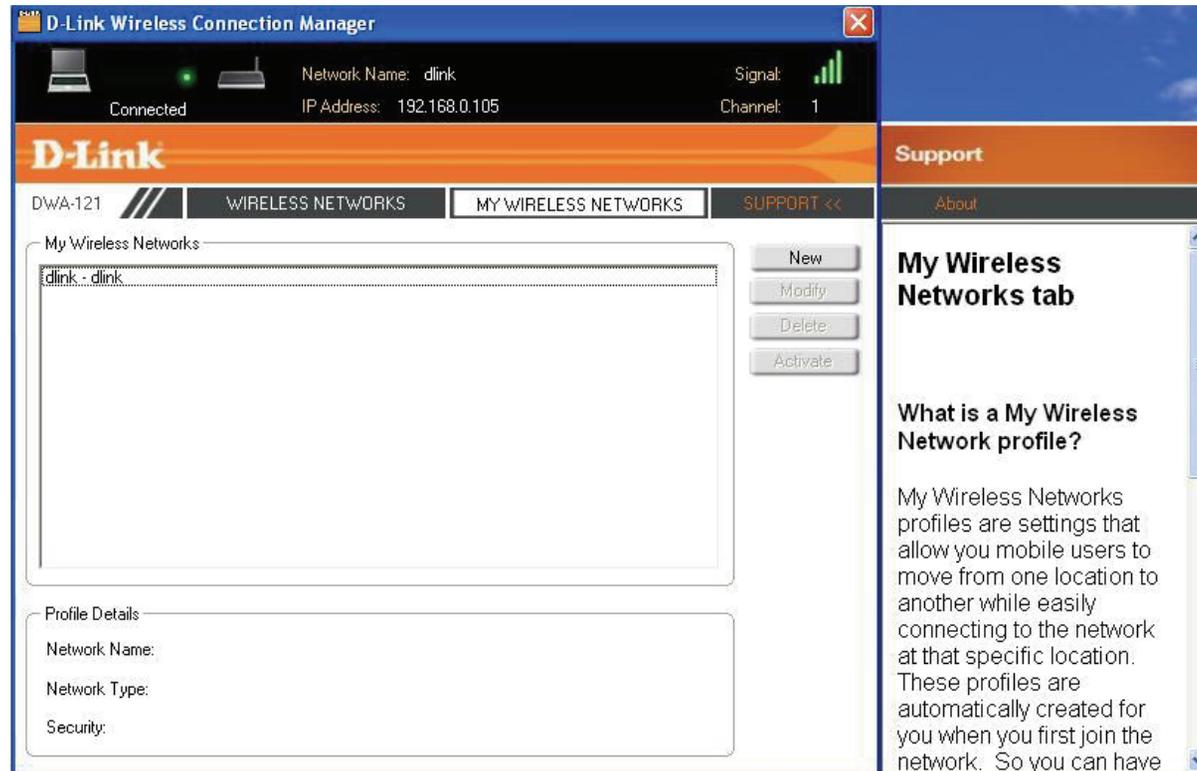
The screenshot shows a dialog box titled "Profile Settings" with a close button in the top right corner. The dialog is divided into three main sections:

- Basic Settings:** Contains three input fields: "Profile Name" with the value "dlink", "SSID" with the value "dlink", and "Network Type" with radio buttons for "Infrastructure" (selected) and "Ad hoc".
- Set Security Option:** A vertical list of radio buttons: "None", "WEP", "WPA-Personal" (selected), "WPA2-Personal", "WPA-Enterprise", and "WPA2-Enterprise".
- Passphrase Settings:** Contains radio buttons for "TKIP" and "AES" (selected), a "Key:" input field, and a checkbox labeled "Show text in the password field" which is currently unchecked.

At the bottom right of the dialog are "OK" and "Cancel" buttons.

# Support

If you need help, click **Support**, located to the right of the *My Wireless Networks* tab. A panel will appear to the right of the utility, which will display information about the utility.



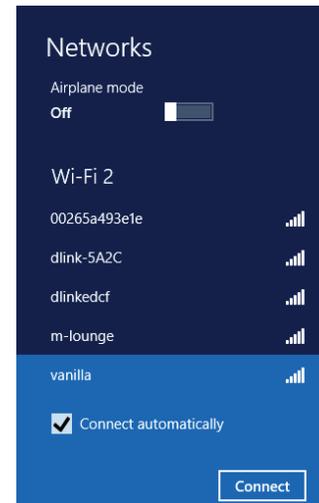
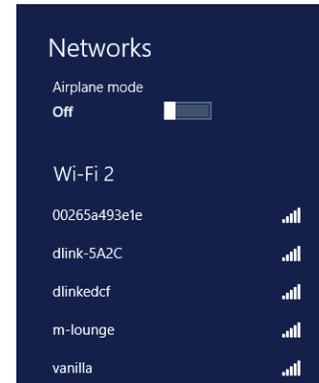
# About

The *About* screen, which becomes visible when the *Support* panel opens, provides the *Driver Version*, *Utility Version*, and *MAC Address* of the DWA-121.



# Connect to a Wireless Network Windows® 8

1. Click on the wireless computer icon in your system tray (lower-right corner next to the time).
2. A list of available wireless networks will appear.
3. Click the wireless network (SSID) you want to connect to and then click **Connect**.

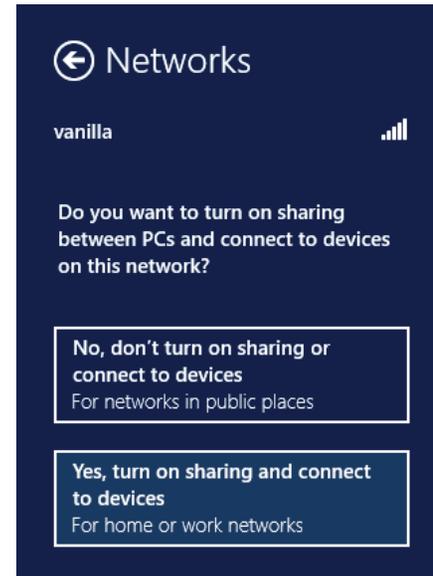


4. If the network is secure/encrypted, enter the Wi-Fi password (security key) and click **Next**.



5. Click either to enable or disable file sharing.

6. You will now be connected to your wireless network.



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

# Windows® 7

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. 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.

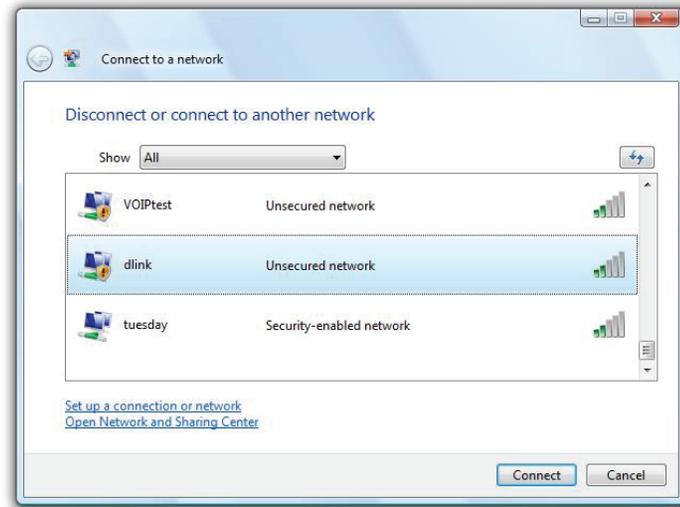


# Windows Vista®

1. Open the 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. The utility will display any available wireless networks in your area. Highlight the wireless network (SSID) you would like to connect to and click **Connect**.



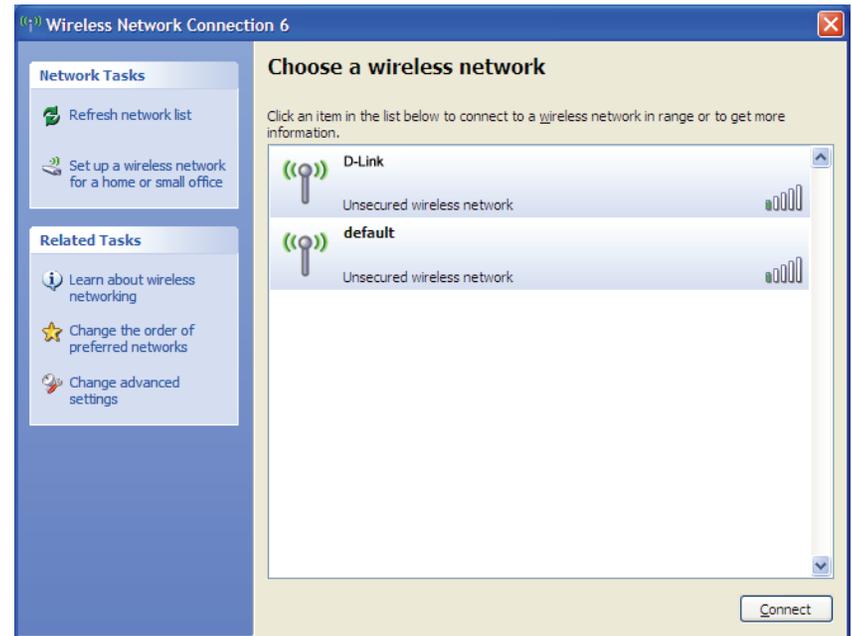
3. Enter the same security key or passphrase that is on your router and click **Connect**.

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.



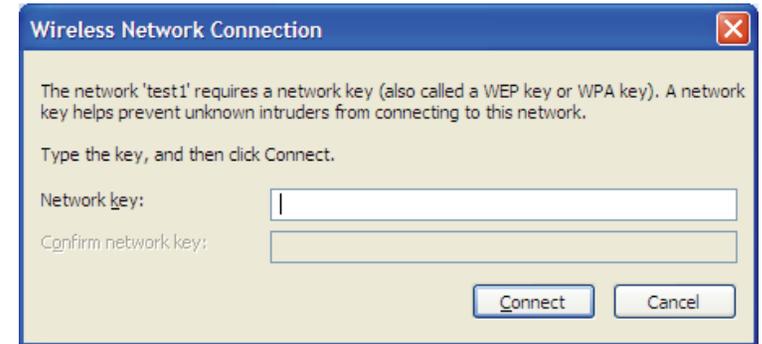
# Windows® XP

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. The utility will display any available wireless networks in your area. 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/WPA2-Personal 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/WPA2-Personal settings are correct. The WPA/WPA2-Personal passphrase must be exactly the same as on the wireless router or access point.



# Troubleshooting

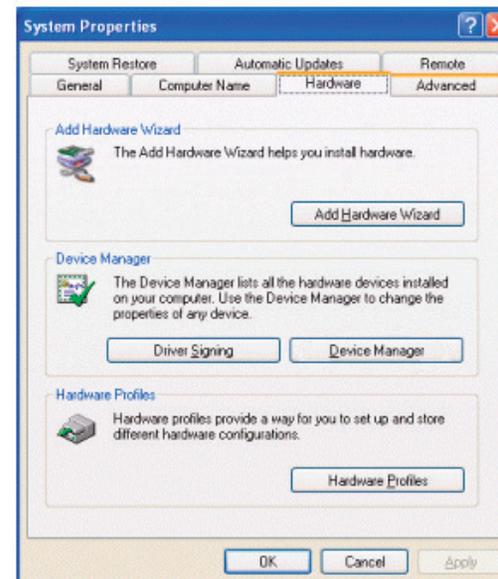
This chapter provides solutions to problems that can occur during the installation and operation of the DWA-121. Read the following descriptions if you are having problems. (The examples below are illustrated in Windows® XP. If you have a different operating system, the screen shots on your computer will look similar to the following examples.)

## 1. How do I know if my adapter is installed properly?

Go to **Start > My Computer > Properties.**



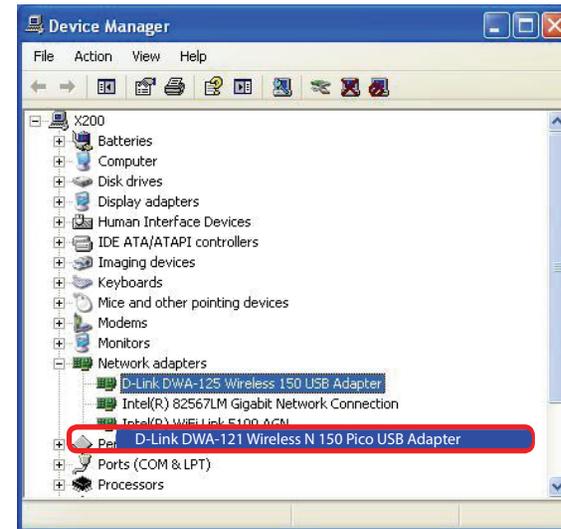
Select the **Hardware** Tab.



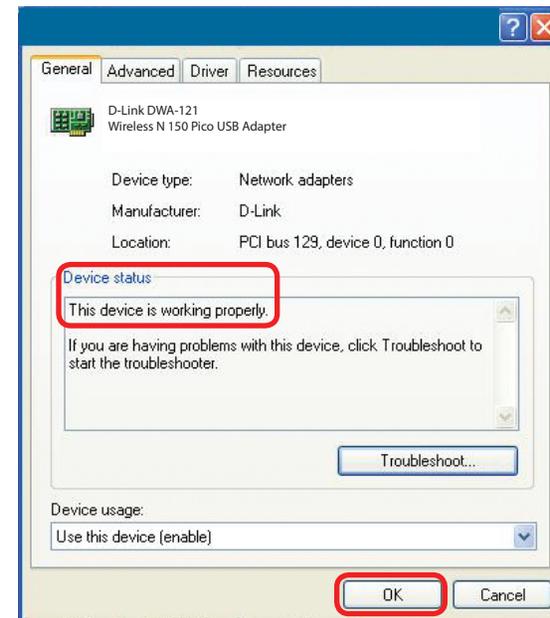
Click the + sign next to **Network Adapters**.

Right-click on **D-Link DWA-121 USB Adapter**.

Select **Properties** to check that the drivers are installed properly.



Look under **Device Status** to check that the device is working properly. Click **OK** to continue.



**2. The computer does not recognize the DWA-121 Wireless N 150 Pico USB Adapter.**

Make sure that the DWA-121 Wireless USB Adapter is properly seated in the computer's USB port. If Windows does not detect the hardware upon insertion of the adapter, try a different port. Also, make sure to completely remove the drivers that were previously loaded.

**3. The computer with the DWA-121 installed is unable to connect to the wireless network and/or the Internet.**

- Check that the LED indicators for the broadband modem are indicating normal activity. If not, there may be a problem with the broadband connection.
- Check that the LED indicators on the wireless router are functioning properly. If not, check that the AC power and Ethernet cables are firmly connected.
- Check that the IP Address, subnet mask, gateway, and DNS settings are correctly obtained from your network. Confirm your wireless key.
- In **Infrastructure** mode, make sure the same **Service Set Identifier (SSID)** is specified on the settings for the wireless clients and access points. The **SSID** factory default setting for D-Link products is **default**. (Double-click on the WLAN icon in the taskbar. The **Link Info** screen will display the SSID setting.)

# Wireless Basics

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

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

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

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

## **What is Wireless?**

Wireless or Wi-Fi technology is another way of connecting your computer to the network without using wires. Wi-Fi uses radio frequency to connect wirelessly, so you have the freedom to connect computers anywhere in your home or office network.

## **Why D-Link Wireless?**

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

## **How does wireless work?**

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

## **Wireless Local Area Network (WLAN)**

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

## **Wireless Personal Area Network (WPAN)**

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

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

## Who uses wireless?

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

### Home

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

### Small Office and Home Office

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

### **Where is wireless used?**

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

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

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

### **Tips**

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

#### **Centralize your router or Access Point**

Make sure you place the router/access point in a centralized location within your network for the best performance. Try to place the router/access point as high as possible in the room, so the signal gets dispersed throughout your home. If you have a two-story home, you may need a repeater to boost the signal to extend the range.

#### **Eliminate Interference**

Place home appliances such as cordless telephones, microwaves, and televisions as far away as possible from the router/access point. This would significantly reduce any interference that the appliances might cause since they operate on same frequency.

#### **Security**

Don't let your next-door neighbors or intruders connect to your wireless network. Secure your wireless network by turning on the WPA security feature on the router. Refer to product manual for detail information on how to set it up.

# Wireless Modes

There are basically two modes of networking:

- **Infrastructure** – All wireless clients will connect to an access point or wireless router.
- **Ad-Hoc** – Directly connecting to another computer, for peer-to-peer communication, using wireless network adapters on each computer. Unfortunately 802.11g/n products such as the DWA-121 do not support ad-hoc mode.

An Infrastructure network contains an Access Point or wireless router. All the wireless devices, or clients, will connect to the wireless router or access point.

An Ad-Hoc\* network contains only clients, such as laptops with wireless USB Adapters. All the adapters must be in Ad-Hoc mode to communicate.

\* Not supported with the DWA-121.

# Networking Basics

## Check your IP address

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

### Windows® 8 Users

- Press the **Windows key** and **R** together. Type **cmd** in the box and click **OK**.
- At the prompt, type **ipconfig** and press **Enter**.
- This will display the IP address, subnet mask, and default gateway of your adapter.

```

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

C:\Documents and Settings>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

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

C:\Documents and Settings>_
  
```

### Windows® 7/Vista® Users

- Click **Start**, type **cmd** in the search box and then click **OK**.
- At the prompt, type **ipconfig** and press **Enter**.
- This will display the IP address, subnet mask, and default gateway of your adapter.

```

Administrator: E:\Windows\system32\cmd.exe
E:\Users\admin>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : public.pmlab
    Link-local IPv6 Address . . . . . : fe80::ed9a:34e3:f8f6:470a%8
    IPv4 Address. . . . . : 192.168.0.197
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.0.1

Tunnel adapter Local Area Connection* 14:

    Connection-specific DNS Suffix  . : public.pmlab
    Link-local IPv6 Address . . . . . : fe80::5efe:192.168.0.197%20
    Default Gateway . . . . . :

Tunnel adapter Local Area Connection* 7:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

E:\Users\admin>
  
```

### Windows® XP Users

- Click on **Start > Run**. In the run box type **cmd** and click **OK**.
- At the prompt, type **ipconfig** and press **Enter**.
- This will display the IP address, subnet mask, and the default gateway of your adapter.

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

# Statically Assign an IP Address

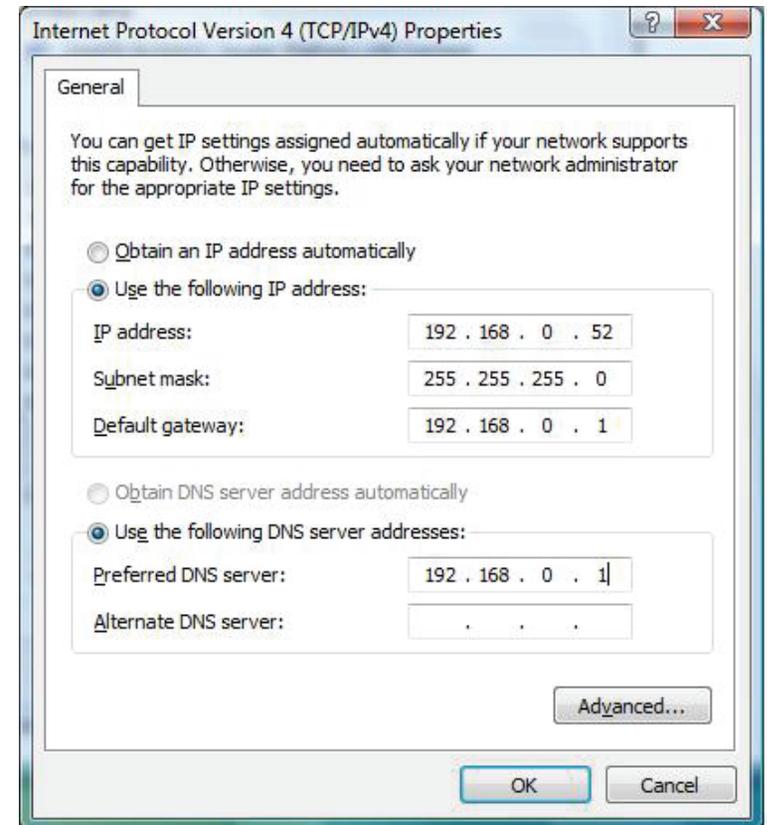
If you are not using a DHCP capable gateway/router, or you need to assign a static IP address, please follow the steps below:

## Windows® 8 Users

- Press the **Windows** key and then type **IP**. Click **Settings** on the right side and then click **View Network Connections**.
- Right-click on the adapter which represents your D-Link wireless network adapter.
- Highlight **Internet Protocol Version 4 (TCP /IPv4)** and click **Properties**.
- Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or LAN IP address on your router or network.

**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 or gateway.
- Set **Primary DNS** the same as the LAN IP address of your router or gateway.
- The **Secondary DNS** is optional (you may enter a DNS server from your ISP).
- Click **OK** to save your settings.

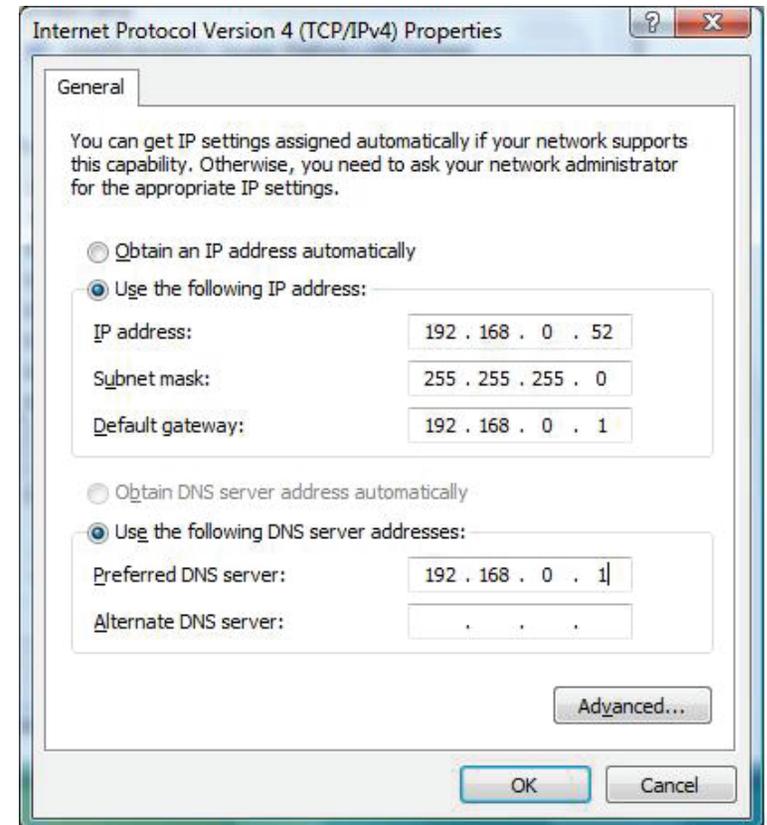


## Windows® 7/ Vista® Users

- Click on **Start > Control Panel** (make sure you are in Classic View). Double-click on the **Network and Sharing Center** icon. If you are using Windows Vista, click on **Manage network connections** along the left panel in the window. For Windows® 7, click on **Change adapter settings**.
- Right-click on the **Local Area Connection** which represents your D-Link wireless network adapter which will be connected to your network.
- Highlight **Internet Protocol Version 4 (TCP /IPv4)** and click **Properties**.
- Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or LAN IP address on your router or network.

**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 or gateway.
- Set **Primary DNS** the same as the LAN IP address of your router or gateway.
- The **Secondary DNS** is optional (you may enter a DNS server from your ISP).
- Click **OK** to save your settings.

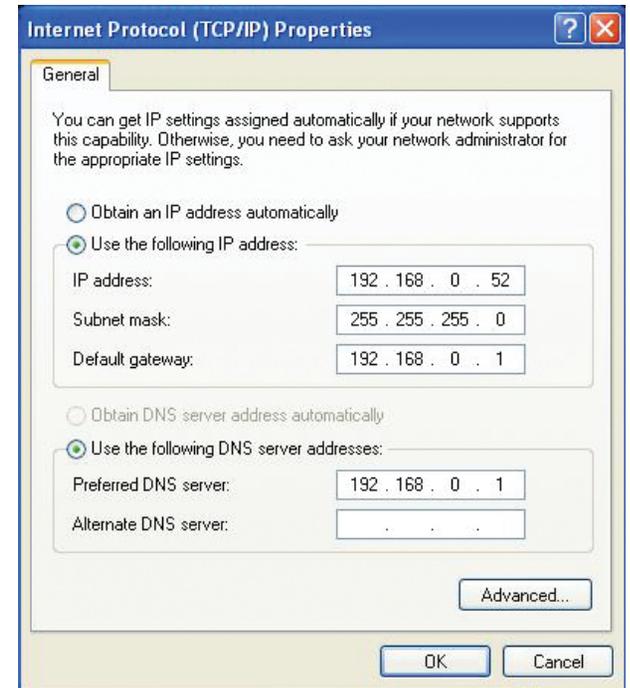


## Windows® XP Users

- Click on **Start > Control Panel**. Make sure you are in Classic View. Double-click on the Network Connections icon.
- Right-click on the **Local Area Connection** which represents your D-Link wireless network adapter (or other adapter) which will be connected to your router.
- Highlight **Internet Protocol (TCP/IP)** and click **Properties**.
- Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or 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 or gateway.
- Set **Primary DNS** as the LAN IP address of your router or gateway.
- The **Secondary DNS** is optional (you may enter a DNS server from your ISP).
- Click **OK** to save your settings.



# Technical Specifications

## Standards

- IEEE 802.11n
- IEEE 802.11g

## Bus Type

- USB 2.0 (1.1 compatible)

## Security

- WPA/WPA2 - Wi-Fi Protected Access (AES, MIC, IV Expansion, Shared Key Authentication)
- WPS (PBC/PIN)

## Media Access Control

- CSMA/CA with ACK

## Frequency Range

- 2.4GHz to 2.483GHz (North America)

## Power Consumption (802.11n)

- 230 mA at continuous transmit mode
- 120 mA at receive mode

## Modulation Technology

- Orthogonal Frequency

## Division Multiplexing (OFDM)

- Complementary Code Keying (CCK)

## Operating Voltage

- 5 VDC +/- 5%

## Operating Temperature

- 0 to 40 °C (32 to 104 °F)

## Operating Humidity

- 10% to 90% maximum (non-condensing)

## Dimensions

- 0.7" x .06" x 0.2"

## Weight

- 2.2 g

## Certifications

- FCC Class B
- IC
- Wi-Fi
- CE
- C-Tick

\* 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 factors will adversely affect wireless signal range.