D-Link®

User Manual

AC1200 MU-MIMO Wi-Fi USB Adapter

DWA-182

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Package Contents

D-Link DWA-182 AC1200 MU-MIMO Wi-Fi USB Adapter

USB 3.0 Cable (only available in some regions)

CD with drivers and software

System Requirements

- A computer or laptop with an available USB 2.0 or USB 3.0 port
- Windows® 10/ 8.1/ 8/ 7, Vista or XP (Service Pack 3)
- CD-ROM Drive
- A 802.11ac, 802.11n, 802.11g or 802.11a access point or wireless router

Introduction

The AC1200 MU-MIMO Wi-Fi USB Adapter (DWA-182) delivers powerful wireless AC technology to your desktop or notebook computer. Simply plug the adapter into an available USB port and connect to a wireless network to access a secure, high-speed internet connection – 2.4GHz (300Mbps) or 5GHz (up to 867Mbps). And with integrated Dual Band technology, you'll have reduced Wi-Fi interference to maximize throughput for faster streaming, gaming, and Skype calls.

Interference-Free Bandwidth
The AC1200 MU-MIMO Wi-Fi USB Adapter (DWA-182) delivers Dual Band technology to your home network for intelligent, versatile, interference-free bandwidth. Check your email and surf the Internet on the 2.4GHz band; or game, make Skype calls and stream HD movies to multiple devices using the cleaner, interference-free 5GHz band. Whatever you like to do online, Dual Band has you covered.

Easy WPS Push Button Setup
Quickly and easily establish a fast, secure home network that will have you browsing, streaming, and watching in minutes. It's as easy as push and connect!

Compatible With All Your Wireless Products
While the AC1200 MU-MIMO Wi-Fi USB Adapter delivers cutting-edge 802.11ac speed to your home network, it's also backward compatible with all of your current wireless products – no updates or adapters necessary.

What is wireless AC?
802.11ac is a new networking standard that produces high-throughput wireless speed on the 5GHz band. What does this mean for your home network? Flawless HD video streaming, faster gaming, and lag-free Skype and Facetime calls, all with less Wi-Fi interference for smooth, lightning-fast performance. And while your home gains all the cutting-edge benefi ts of 11ac, D-Link's AC1200 MU-MIMO Wi-Fi USB Adapter is also compatible with all of your current Wireless N products.

"Maximum wireless signal rate derived from IEEE 802.11ac specification and IEEE Standard 802.11n specification. D-Link makes no warranties as to forward compatibility with future standards or compatibility with 802.11ac devices from other manufacturers. 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 may adversely affect wireless signal range. Up to 867Mbps wireless speeds achieved when connecting to other 802.11ac devices. Data throughput may also be limited by the product's interface, less than 480 Mbps for a USB 2.0 interface. The inclusion of a specific product or manufacturer does not imply its endorsement of D-Link or the D-Link product. Computer must adhere to Microsoft's recommended System Requirements."

Features

• IEEE 802.11ac, 802.11n, 802.11g and 802.11a Compliant

• Dual Band N Technology for use in 2.4GHz or 5GHz Networks

• Wireless AC Wave 2 Technology for Superior Wireless Performance

• Access Secure Networks using WPA™ or WPA2™

• Wi-Fi Protected Setup™ (WPS) Push Button for Easy Connection to a Wireless Network

• USB* Extension Cable for Placement Flexibility

* Using a USB 1.1 port will adversely affect throughput.

Hardware Overview

1	**WPS Button**	Press the WPS button to automatically connect to a WPS-enabled wireless router or access point and establish connectivity. Refer to "Push Button" on page 13
2	**USB Connector**	Used to connect the DWA-182 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 device manager before installing your D-Link adapter. Also, if you have previously installed another wireless adapter, please make sure any software is uninstalled.

Getting Started

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

- Remove any previous installations of wireless adapters
- Disable any built-in wireless adapters
- 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 manufacture's adapter or a different model D-Link adapter, make sure the 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 load when your computer boots up.

To remove any old software:

Windows 10 users: Click Start > All apps > Windows System > Control Panel > Programs > Uninstall a Program

Windows 7/8 users: Click Start > Control Panel > Uninstall Programs.

Windows Vista®/XP users: Click Start > Control Panel > Add or Remove Programs.

Disable Other Wireless Adapters

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

From the desktop, right-click on the **My Computer** icon and select **Properties**.
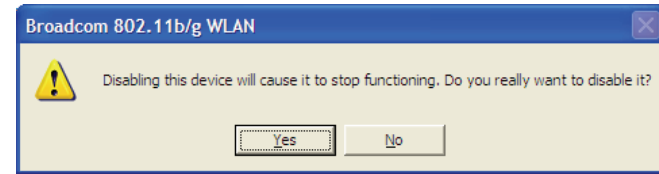
Click the **Hardware** tab and then click **Device Manager**. Scroll down the list and click the + sign to the left of **Network Adapters**.
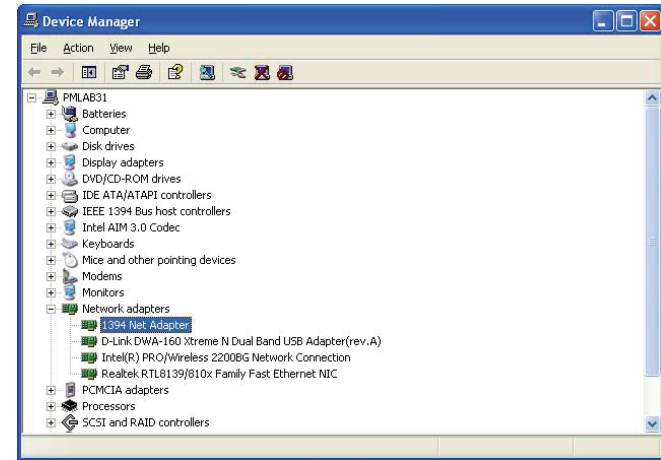
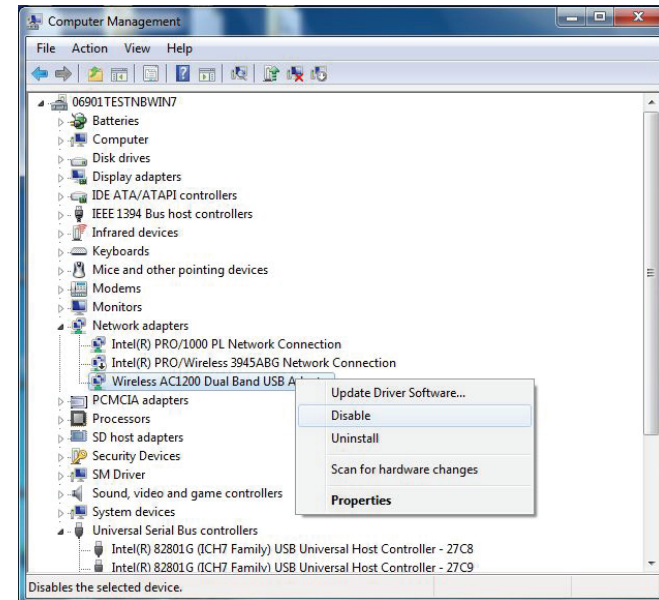Right-click the adapter you would like to disable and select **Disable**.
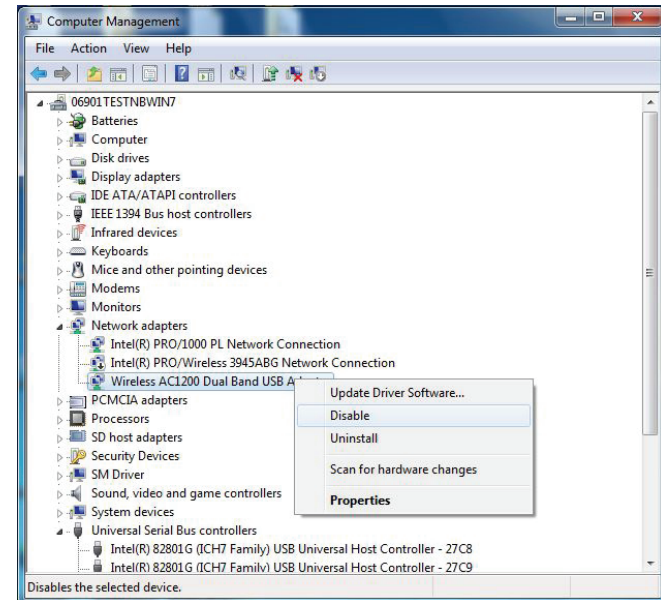
Click **Yes** to disable the adapter.

When the adapter is disabled, a down arrow or a grayed icon will be displayed.

Disabling the adapter will not remove the drivers. If 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, however, that the number, thickness and location of walls, ceilings, or other objects that the wireless signals must pass through, may limit the range. Typical ranges vary depending on the types of materials and background RF (radio frequency) noise in your home or business. The key to maximizing wireless range is to follow these basic guidelines:

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

2. Be aware of the direct line between network devices. A wall that is 1.5 feet thick (.5 meters), at a 45-degree angle appears to be almost 3 feet (1 meter) thick. At a 2-degree angle it looks over 42 feet (14 meters) thick! Position devices so that the signal will travel straight through a wall or ceiling (instead of at an angle) for better reception.

3. Building materials make a difference. A solid metal door or aluminum studs may have a negative effect on range. Try to position access points, wireless routers, and computers so that the signal passes through drywall or open doorways. Materials and objects such as glass, steel, metal, walls with insulation, water (fish tanks), mirrors, file cabinets, brick, and concrete will degrade your wireless signal.

4. Keep your product away (at least 3-6 feet or 1-2 meters) from electrical devices or appliances that generate RF noise.

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

Adapter Installation

Warning: Do NOT install the DWA-182 adapter into your computer before installing the driver software from the D-Link CD.

Turn on the computer and Insert the D-Link DWA-182 Driver CD in 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).
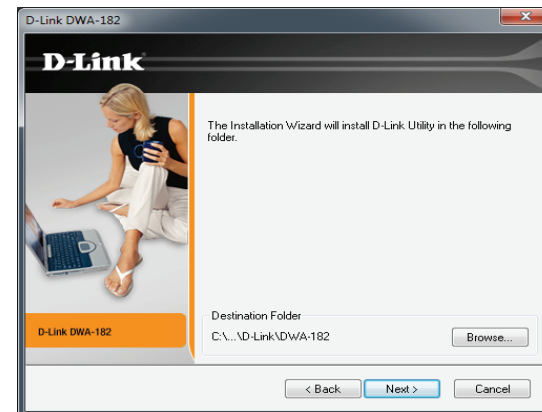
When the autorun screen appears, click **Install.**

The welcome window will appear. Click **Next** to continue.

By default setup will install to the default location: *C:\Program Files\D-Link\ DWA-182*, where C: represents the drive letter of your hard drive.

Insert the adapter into an available USB port on your computer. Click **Next** to continue.

If the *Found New Hardware Wizard* appears, click **Cancel**.

Push Button

1. To connect to your network, press the WPS button on the adapter and hold for two seconds until the wizard screen appears.

2. Press the WPS button located on your access point or router to continue. This screen will appear once you have successfully established connection with your network.
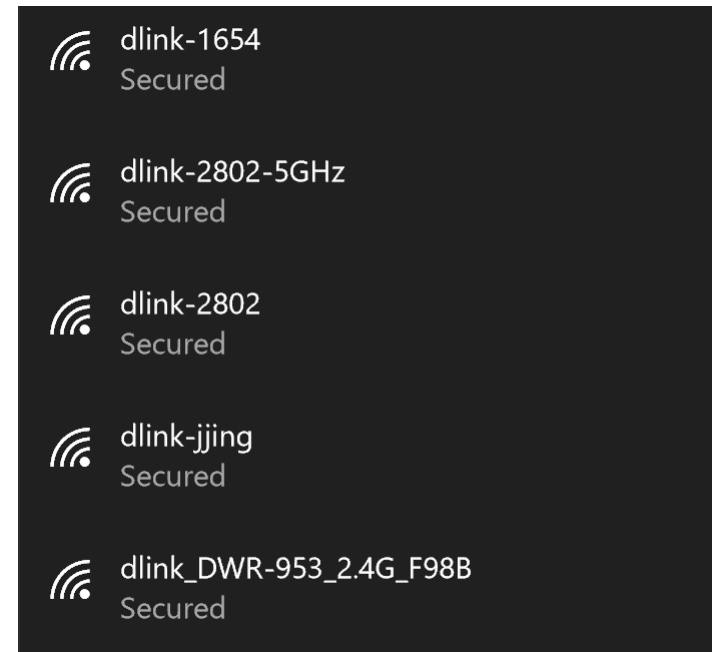
Connect to a Wireless Network
Windows® 10

To connect to a wireless network using Windows 10, you will need to know the wireless network name (SSID) and Wi-Fi password (security key) of the device you are connecting to.

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

11:24 AM
1/27/2016

Wireless Icon

Clicking on this icon will display a list of wireless networks which are within range of your computer. Select the desired network by clicking on its SSID.

dlink-1654
Secured

dlink-2802-5GHz
Secured

dlink-2802
Secured

dlink-jjing
Secured

dlink_DWR-953_2.4G_F98B
Secured

To connect to the network, click **Connect.**

To automatically connect when your device is in range, click the **Connect Automatically** check box**.** Your computer will now automatically connect to this wireless network whenever it is detected.
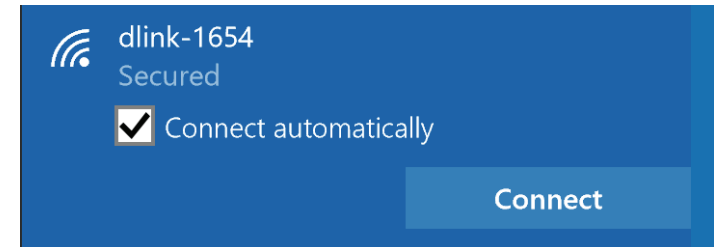
You will then be prompted to enter the Wi-Fi password (network security key) for the wireless network. Enter the password into the box and click **Next** to connect to the network.
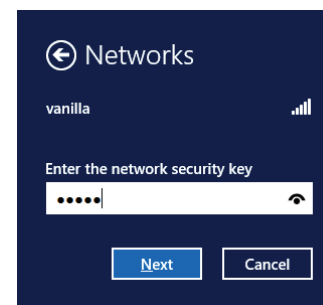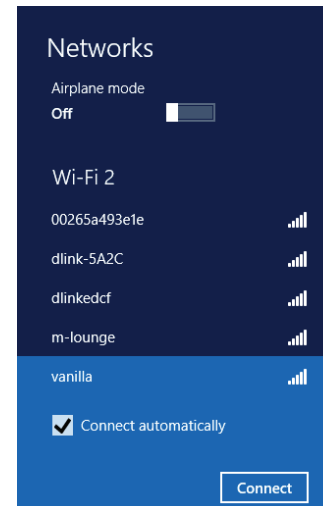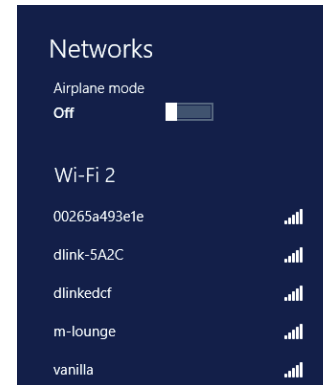
You can also use Wi-Fi Protected Setup (WPS) to connect to the wireless network. Press the WPS button on your device and you will be automatically connected.

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 the one on the wireless router.
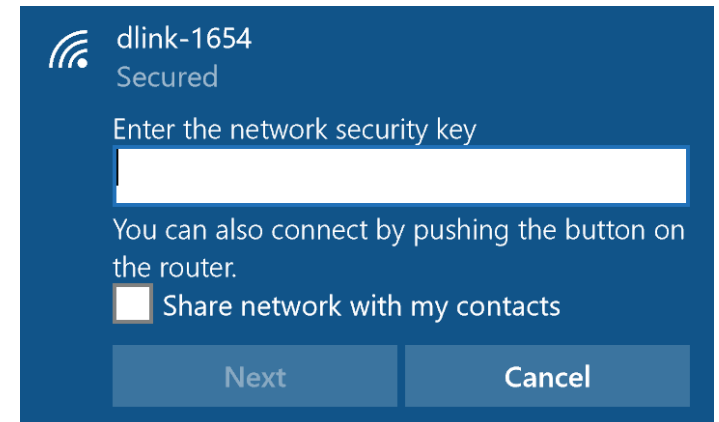
Windows® 8.1/ Windows 8

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**.

Networks

Airplane mode
Off

Wi-Fi 2

00265a493e1e

dlink-5A2C

dlinkedcf

m-lounge

vanilla

Networks

Airplane mode
Off

Wi-Fi 2

00265a493e1e

dlink-5A2C

dlinkedcf

m-lounge

vanilla

☑ Connect automatically

Connect

← **Networks**

vanilla

Enter the network security key

•••••

Next   Cancel

5. Click either to enable or disable file sharing.

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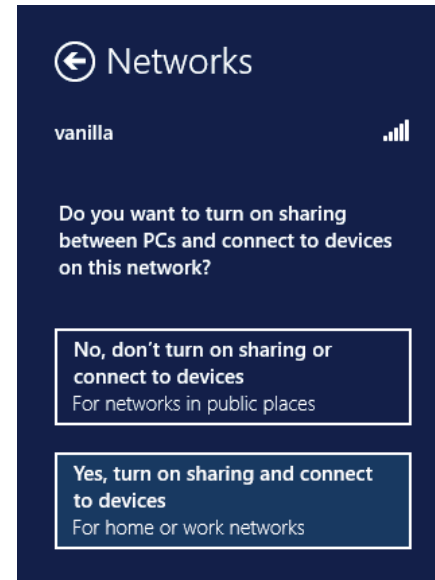
If you get a good signal but cannot access the Internet, confirm the encryption by reviewing the profile or check the TCP/IP settings for your wireless adapter. Refer to the *Networking Basics* section in this manual for more information.

Windows® 7

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

or

Left-click the wireless icon in your system tray (lower-right corner next to the time).

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.

Wireless Security

This section will show you the different levels of security you can use to protect your data from intruders. The DWA-182 offers the following types of security:

- WPA/WPA2-Personal
- WPA/WPA2-Enterprise

What is WPA™?

WPA™, or Wi-Fi® Protected Access, is a Wi-Fi standard that was designed to improve the security features of WEP (Wired Equivalent Privacy).

The 2 major improvements over WEP:

- Improved data encryption through the Temporal Key Integrity Protocol (TKIP). TKIP scrambles the keys using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with. WPA2™ is based on 802.11i and uses Advanced Encryption Standard instead of TKIP.

- User authentication, which is generally missing in WEP, through the extensible authentication protocol (EAP). WEP regulates access to a wireless network based on a computer's hardware-specific MAC address, which is relatively simple to be sniffed out and stolen. EAP is built on a more secure public-key encryption system to ensure that only authorized network users can access the network.

WPA/WPA2-Personal uses a passphrase or key to authenticate your wireless connection. The key is an alpha-numeric password between 8 and 63 characters long. The password can include symbols (!?*&_) and spaces. This key must be the exact same key entered on your wireless router or access point.

WPA/WPA2-Enterprise incorporates user authentication through the Extensible Authentication Protocol (EAP). EAP is built on a more secure public key encryption system to ensure that only authorized network users can access the network.

Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DWA-182. Read the following descriptions if you are having problems. The examples below are illustrated in Windows® 7. If you have a different operating system, the process on your computer will be similar.

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

Go to **Start** > **Computer** (right-click) > **Properties**.

This will bring up the System settings under the Windows Control Panel.
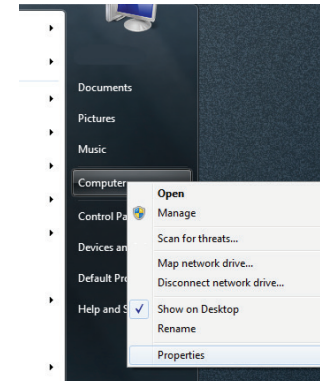
Click **Device Manager.**
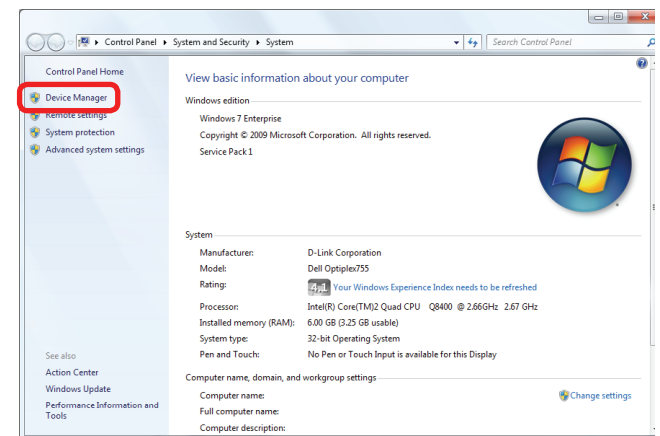
Click the **+** sign next to **Network Adapters.**

Right-click on **D-Link DWA-182 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-182 AC1200 MU-MIMO Wi-Fi USB Adapter.

Make sure that the DWA-182 AC1200 MU-MIMO Wi-Fi USB Adapter is properly seated in the computer's USB port.
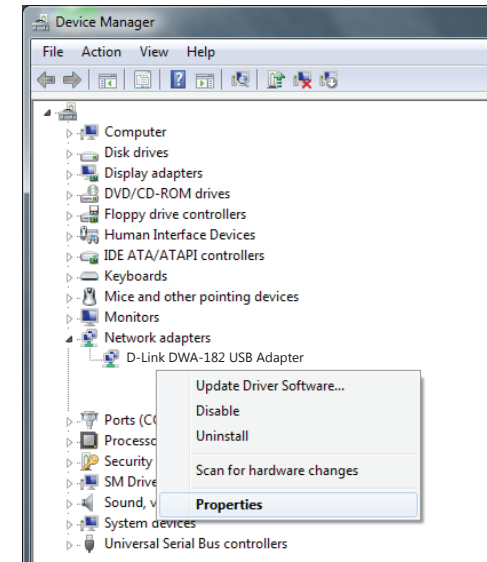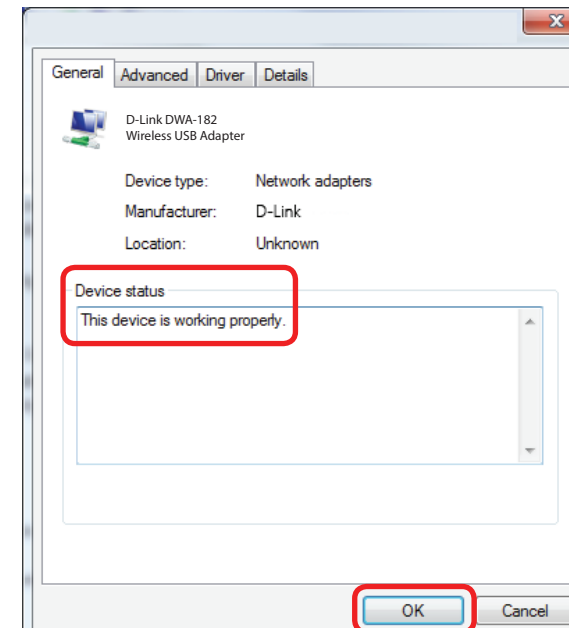If Windows does not detect the hardware upon insertion of the adapter, make sure to completely remove drivers that were previously loaded.

3.   The computer with the DWA-182 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 entered for the network

Check that the **Network Connection** for the wireless client is configured properly. Select **AP (Infrastructure)** when connecting to an access point. Double-click on the **WLAN icon** in the taskbar > click on **Configuration** to change the settings for the wireless adapter.

If **Security** is enabled, make sure that the correct encryption keys are entered on both the DWA-182 and the access point. Double-click on the **WLAN** icon in the taskbar > click **Encryption**. Check to see that the key selected is set to the same key as other devices on the network.

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 as 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 USB 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, Nanowaves, 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 or WEP 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.

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.
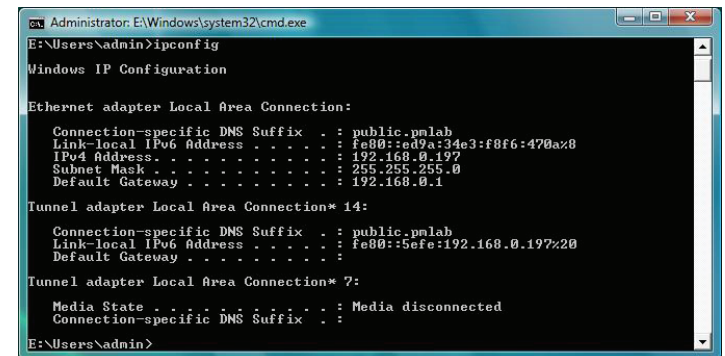
Networking Basics

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.

- Click **Start** > **All Programs** > **Accessories** > **Command Prompt**. You may need administrative access to run this application.

- For all additional prompt windows inquiring of running the command prompt application, select **Yes**, **OK**, or **Continue**.

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

- This will display the IP address, subnet mask, and 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:

- Click on **Start** > **Control Panel** (make sure you are in Classic View). Double-click on the **Network and Sharing Center** icon and then 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.
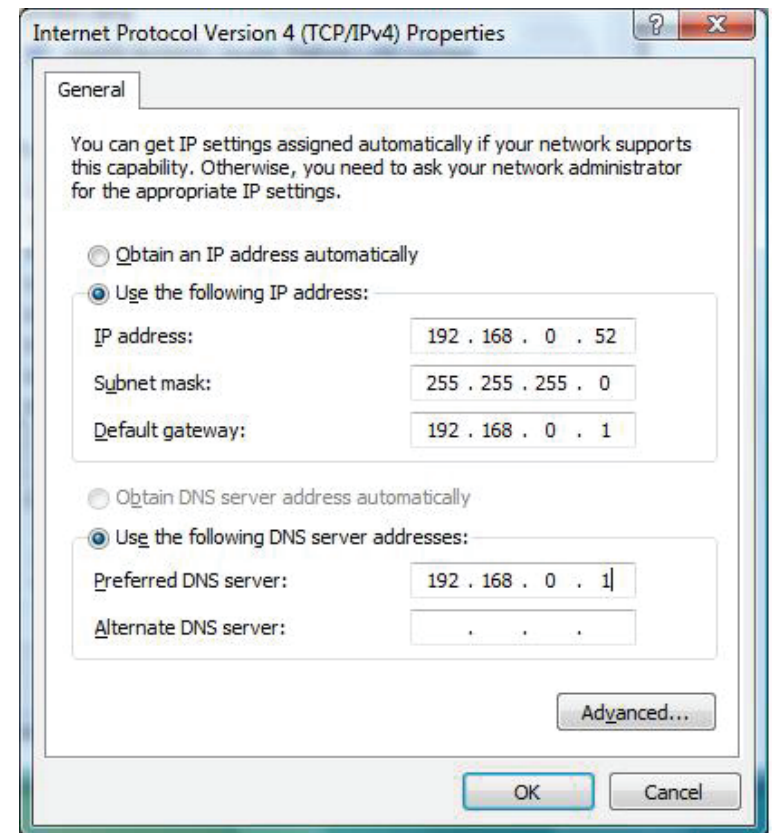
Technical Specifications

Standards
- • IEEE 802.11ac
- • IEEE 802.11n
- • IEEE 802.11g
- • IEEE 802.11a

Bus Type
- • USB 3.0 or USB 2.0

Security
- • Wi-Fi Protected Access (WPA™ & WPA2™)
- • Wi-Fi Protected Setup - PIN & PBC

Current Consumption (802.11n)
- • Tx: 150mA
- • Rx: 150mA

Operating Voltage
- • 5.0 VDC +/- 10%

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

Operating Humidity
- • 10% to 90% maximum (non-condensing)

Dimensions
- • 97x19x12 mm (3.82x0.75x0.47 inches)

Weight
- • 15.65 grams

Certifications
- • FCC Class B
- • CE
- • C-Tick
- • IC

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

Warranty

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.

Radiation Exposure Statement:

This device meets the government's requirements for exposure to radio waves.

This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

The exposure standard for wireless device employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg. *Tests for SAR are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands.

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

Industry Canada statement

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

2. This Class B digital apparatus complies with Canadian ICES-003.
2. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

3. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter, except tested built-in radios.
3. Cet appareil et son antenne ne doivent pas être situés ou fonctionner en conjonction avec une autre antenne ou un autre émetteur, exception faites des radios intégrées qui ont été testées.

4. The County Code Selection feature is disabled for products marketed in the US/ Canada.
4. La fonction de sélection de l'indicatif du pays est désactivée pour les produits commercialisés aux États-Unis et au Canada.

Radiation Exposure Statement:
The product comply with the Canada portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

Déclaration d'exposition aux radiations:
Le produit est conforme aux limites d'exposition pour les appareils portables RF pour les Etats-Unis et le Canada établies pour un environnement non contrôlé.
Le produit est sûr pour un fonctionnement tel que décrit dans ce manuel. La réduction aux expositions RF peut être augmentée si l'appareil peut être conservé aussi loin que possible du corps de l'utilisateur ou que le dispositif est réglé sur la puissance de sortie la plus faible si une telle fonction est disponible.

Caution :
1) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
2) the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall comply with the e.i.r.p. limit; and
3) the maximum antenna gain permitted for devices in the band 5725-5825 MHz shall comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate.
4) the worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in Section 6.2.2(3) shall be clearly indicated.
5) Users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

Avertissement:
1) les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;
2) le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5250-5350 MHz
   et 5470-5725 MHz doit se conformer à la limite de p.i.r.e.;
3) le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5725-5825 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.
4) les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la p.i.r.e. applicable au masque d'élévation, et énoncée à la section 6.2.2 3), doivent être clairement indiqués.
5) De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250-5350 MHz
   et 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.