

D-Link Quick Installation Guide

This product works with the following operating system software: **Windows XP, Windows 2000, Windows Me, Windows 98se**



DWL-520+
D-Link AirPlus™
Wireless PCI Adapter

Before You Begin

You must have at least the following:

- A desktop computer with an available 32-bit PCI slot
- At least a 300 MHz processor and 32 MB of memory
- An 802.11b Access Point (for Infrastructure Mode) or another 802.11b wireless adapter (for Ad-Hoc; Peer-to-Peer networking mode.)

Check Your Package Contents

These are the items included with your DWL-520+ purchase:

- **DWL-520+ Wireless PCI Adapter**
- **CD-ROM (containing Drivers, Manual and Warranty)**



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

1

Insert the D-Link CD-ROM Into Your Computer

Turn on the computer and **Insert** the D-Link AirPlus DWL-520+ Driver CD in the CD-ROM drive.

The step-by-step instructions that follow are shown in **Windows XP**. The steps and screens are similar for the other Windows operating systems.



Do **NOT** install the DWL-520+ PCI Adapter into your computer before installing the driver software on the D-Link CD!

1

Insert the D-Link CD (continued)

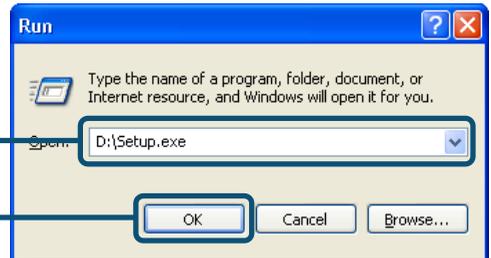
The Install Screen will appear.

Click **Install Driver/PC Utility**



If the CD Autorun function on your computer does not automatically start, type "D:\Setup.exe." If it does start, proceed to the next screen.

Type **"D:\Setup.exe."**



 The letter **"D"** represents the letter of the CD-ROM drive. Your CD-ROM drive may be a different drive letter.

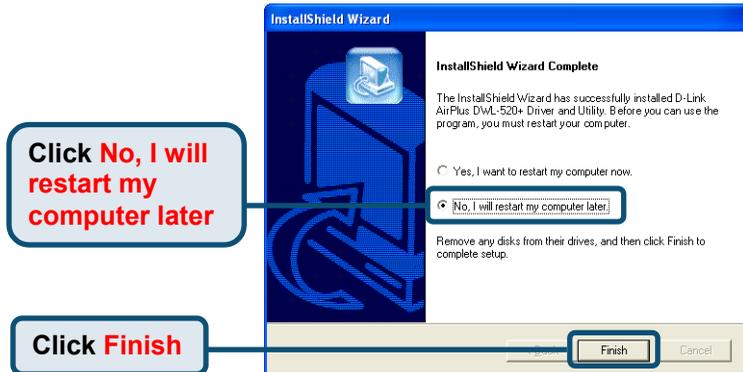
Click **OK**



Click **Next**

Click **Next**





Shut down your computer and **unplug** it

2

Installing the DWL-520+ Wireless PCI Adapter Into Your Computer

- A. **Make sure to turn off your computer and unplug the power cord.** Remove the back cover of the computer.
- B. **Install the DWL-520+ carefully** and firmly seat it into an available PCI slot (which is usually “white” or “cream” colored).

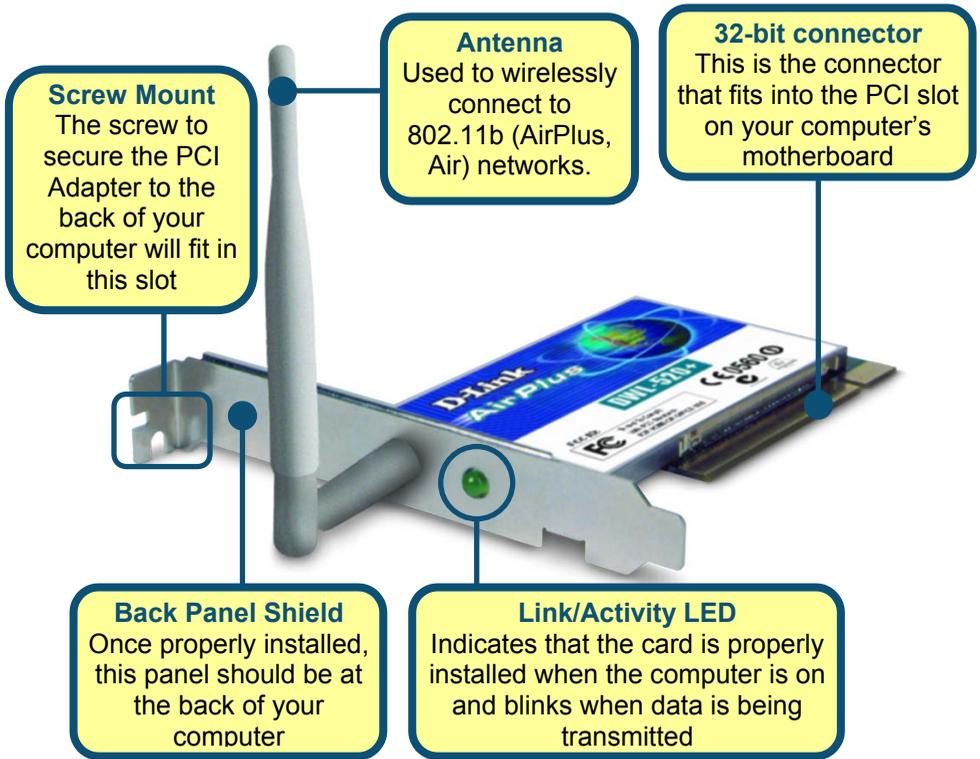


To avoid damage caused by static electricity, make sure to properly ground yourself by first touching a metal part of your computer to discharge any static electricity before working with the DWL-520+ Wireless PCI Adapter.

- C. Secure the DWL-520+ back panel shield with a screw.
- D. Replace the computer's cover.
- E. Place the computer back in its normal position.
- F. Attach the DWL-520+'s antenna to the socket on the back panel shield.

2

Installing the DWL-520+ Wireless PCI Adapter Into Your Computer



3

Plug In & Restart Your Computer

When you restart your computer this **Found New Hardware Wizard (Windows XP)** screen will appear:





For Windows XP: this **Hardware Installation** alert screen may appear after the desktop computer restarts.

Click **Continue Anyway** to finalize the installation

Hardware Installation



The software you are installing for this hardware:
D-Link AirPlus DWL-520+ Wireless PCI Adapter

has not passed Windows Logo testing to verify its compatibility with Windows XP. [Tell me why this testing is important.]

Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.

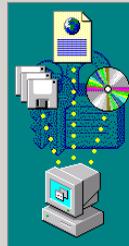
Continue Anyway

STOP Installation

(The D-Link driver software for this device is undergoing Windows Logo testing. Microsoft certification is pending.)
For Windows 2000, this **Digital Signature Not Found** screen may appear after your computer restarts.

Click **Yes** to finalize the installation

Digital Signature Not Found



The Microsoft digital signature affirms that software has been tested with Windows and that the software has not been altered since it was tested.

The software you are about to install does not contain a Microsoft digital signature. Therefore, there is no guarantee that this software works correctly with Windows.

D-Link AirPlus DWL-520+ Wireless PCI Adapter

If you want to search for Microsoft digitally signed software, visit the Windows Update Web site at <http://windowsupdate.microsoft.com> to see if one is available.

Do you want to continue the installation?

Yes

No

More Info

For Windows Me and 98, after your computer restarts, this **Systems Settings Change** screen may appear.

Select **Yes** to finalize the installation

System Settings Change



To finish setting up your new hardware, you must restart your computer.

Do you want to restart your computer now?

Yes

No

4

Your Installation is Complete!

After you've continued in Windows XP (or after the computer restarts in the other Windows operating systems), the D-Link AirPlus DWL-520+ **Configuration Utility** will automatically start and the utility icon will appear in the bottom right hand corner of the desktop screen (systray). **If this icon appears GREEN, then you have successfully installed the DWL-520+, are connected to a wireless network and are ready to communicate!**

Double-click the **utility icon** to use the configuration utility.



4:43 PM



If the utility icon does not appear, double-click the **shortcut icon** that has appeared on your desktop.



Using the Configuration Utility

The **D-Link AirPlus Configuration Utility** window will appear. By default, it will take you to the **Link Info** section.

A. Status: Displays the MAC Address of the Access Point that is associated with the DWL-520+.

B. SSID: The Service Set Identifier is the name assigned to the wireless network. The factory SSID setting is set to **default**.

C. TxRate: The default setting is 11 Mbps; however, TxRate settings are automatically determined by the DWL-520+ depending on the distance from the access point.

D-Link AirPlus

Link Info. >>>
Configuration
Encryption
SiteSurvey
About

A Status: Associated BSSID=00-05-5D-5B-51-F4

B SSID: testlab3

C Tx Rate: 22 PBCC Mbps

D Channel: 11

E Link Quality/Signal Strength

Link Quality: 84% Signal Strength: 95%

F Data Rate

Transmit: 0 Kbps Receive: 0 Kbps

10000
1000
100
10
0

D. Channel: Displays the channel information. By default, the channel is set to 6 and selection is automatically determined by the DWL-520+.

E. Link Quality / Signal Strength: Displays the Link Quality for the DWL-520+ wireless connection to the access point. The Signal Strength represents the wireless signal between the access point and the DWL-520+. The percentage coincides with the graphical bar.

F. Data Rate: Graphically displays the statistics of data transmitted and received.

Making changes to the DWL-520+'s factory settings. By clicking on the **Configuration menu**, changes can be made to the default wireless settings of the DWL-520+.

G. SSID: The Service Set Identifier is the name assigned to the wireless network. The factory SSID setting is set to **default**. Make changes here to match the SSID on existing Wireless Router or Access Point.

H. Wireless Mode: The factory setting is set to **Infrastructure**. Ad-Hoc mode is used for peer-to-peer networking.

I. Channel: By default, the channel is set to **6**. Channel selection is automatically determined by the DWL-520+ depending on the channel setting of the access point selected for association. To change the channel settings, the **Wireless Mode** must be set to **Ad-hoc**.

The screenshot shows the 'D-Link AirPlus' configuration window. On the left is a navigation menu with 'Link Info.', 'Configuration >>>', 'Encryption', 'SiteSurvey', and 'About'. The 'Configuration >>>' option is selected. The main area contains several settings, each with a lettered callout (G through L) and a corresponding input field or dropdown menu:

- G SSID:** Input field containing 'default'.
- H Wireless Mode:** Dropdown menu set to 'Infrastructure'.
- I Channel:** Dropdown menu set to '6'.
- J Tx Rate:** Dropdown menu set to '11 Mbps'.
- K Preamble:** Dropdown menu set to 'Long Preamble'.
- L Power Mode:** Dropdown menu set to 'Continuous Access Mode'.

At the bottom of the configuration area are two buttons: 'Apply' and 'Cancel'.

J. TxRate: You can adjust the transmission rate to get the best signal possible depending on your usage and your environment.

K. Preamble: By default, D-Link AirPlus Products are set to **Long Preamble**. The Preamble defines the length of the CRC block (Cyclic Redundancy Check is a common technique for detecting data transmission errors) for communication between the Access Point and wireless network adapters. High network traffic areas should use the shorter preamble type.

L. Power Mode: By default, Power Mode is set to Continuous Access Mode. **Continuous Access Mode** — this default setting consumes the most power. **Maximum Power Save** — this setting consumes the least power. **Power Save** — this setting consumes a moderate amount of power.

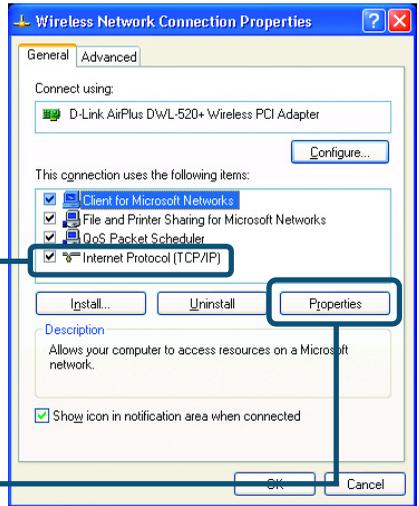
 The **preamble setting** of the DWL-520+ must match the preamble setting of the Wireless Router or Access Point in order to communicate on the network.

APPENDIX

To connect to a network, make sure the proper network settings are configured for DWL-520+.

For Microsoft Windows XP:

Go to **Start > right click on My Network Places > select Properties > Double-click on the Network Connection** associated with the DWL-520+.



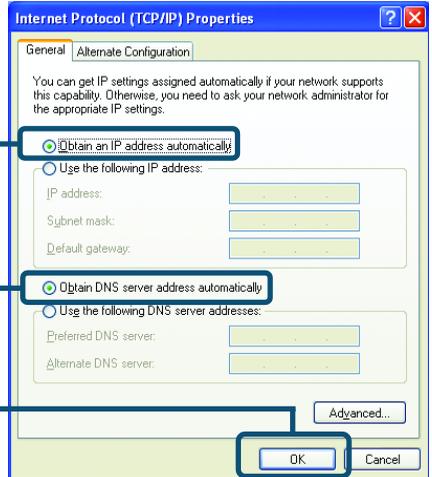
Click **Internet Protocol (TCP/IP)**

Click **Properties**

Select **Obtain an IP address automatically** (if the Wireless Router or Access Point has DHCP server enabled)

Select **Obtain DNS server address automatically**

Click **OK**



Setup for wireless router or Access Point using **Static IP address**.

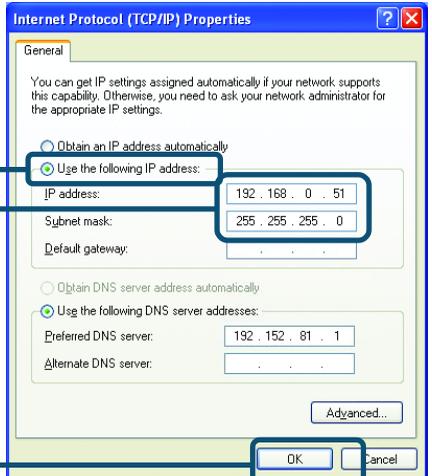
Select **Use the following IP address** (if the Wireless Router or Access Point does not have DHCP server enabled)

Input a static IP address on the same network, which will correspond with the Wireless Router or Access Point.

IP address: 192.168.0.51
Subnet mask: 255.255.255.0

Your Internet service provider provides preferred DNS server information.

Click **OK**



For Windows 2000 users:

Go to **Start > Settings > Network and Dial-up Connections** > Double-click on the **Local Area Connection** associated with the DWL-520+ > select **Properties**

Click **Internet Protocol (TCP/IP)**

Click **Properties**

Setup for wireless router or Access Point using **DHCP server**.

Select **Obtain an IP address automatically** (if the Wireless Router or Access Point has DHCP server enabled)

Select **Obtain DNS server address automatically**

Click **OK**

Setup for wireless router or Access Point using **Static IP address**.

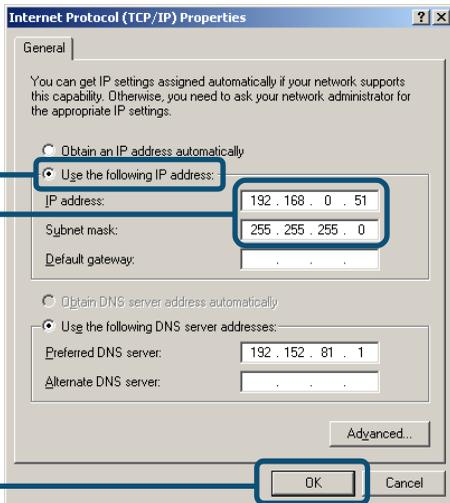
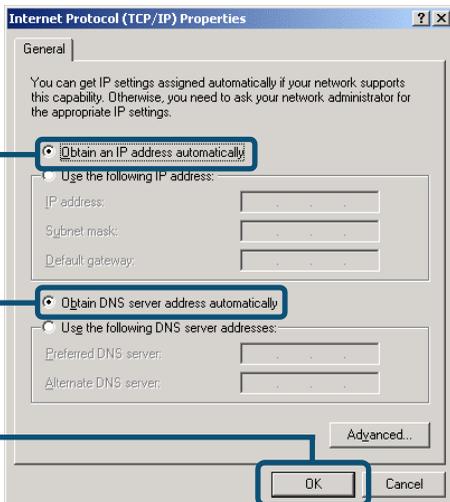
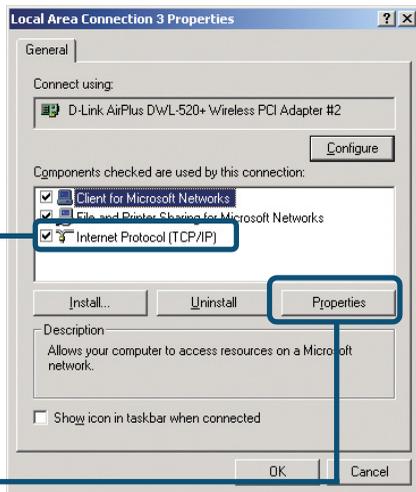
Select **Use the following IP address** (if the Wireless Router or Access Point does not have DHCP server enabled)

Input a static IP address on the same network, which will correspond with the Wireless Router or Access Point.

IP address: 192.168.0.51
Subnet mask: 255.255.255.0

Your Internet service provider provides preferred DNS server information.

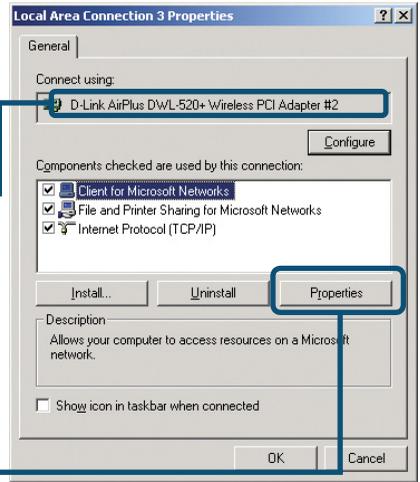
Click **OK**



For Windows Me and 98 users:

Go to **Start > Settings > Control Panel >** Double-click on the **Local Area Connection** associated with the DWL-520+ > select **Properties**

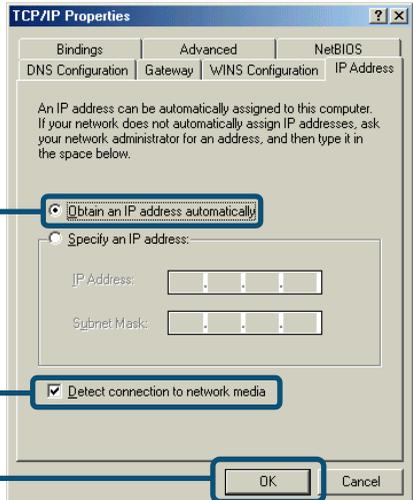
Click **Internet Protocol (TCP/IP)**



Click **Properties**

Setup for wireless router or Access Point using **DHCP server**.

Select **Obtain an IP address automatically** (if the Wireless Router or Access Point has DHCP server enabled)

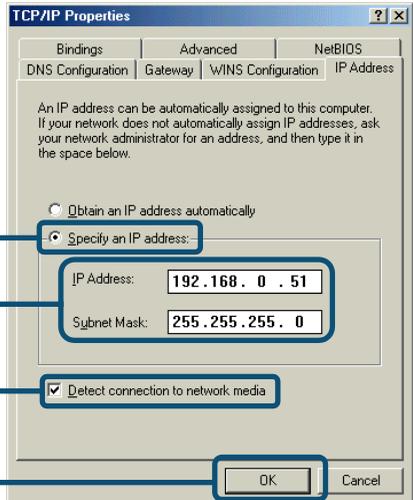


Select **Detect connection to network media**

Click **OK**

Setup for wireless router or Access Point using **Static IP address**. Input a static IP address on the same network, which will correspond with the Wireless Router or Access Point.

Select **Use the following IP address** (if the Wireless Router or Access Point does not have DHCP server enabled)



IP address: 192.168.0.51
Subnet mask: 255.255.255.0

Select **Detect connection to network media**

Click **OK**

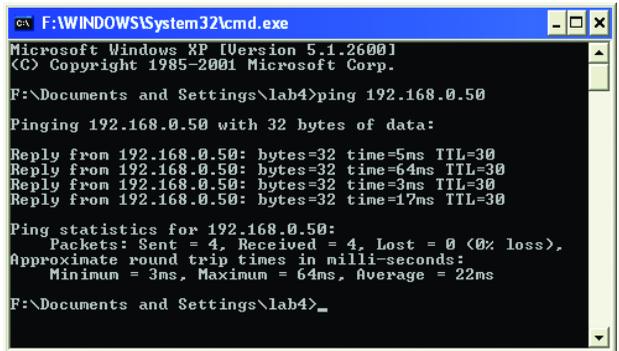
Your Internet service provider provides preferred DNS server information.

Checking the Wireless Connection

For Windows XP and 2000 Go to **Start > Run > type cmd.**

A window similar to this will appear.

Type **ping xxx.xxx.xxx.xxx**, where xxx is the IP address of the wireless router or Access Point. A good wireless will show the reply from the wireless router or access point.



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

F:\Documents and Settings\lab4>ping 192.168.0.50

Pinging 192.168.0.50 with 32 bytes of data:

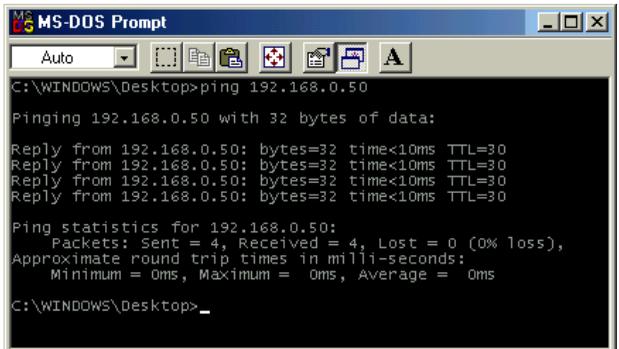
Reply from 192.168.0.50: bytes=32 time=5ms TTL=30
Reply from 192.168.0.50: bytes=32 time=64ms TTL=30
Reply from 192.168.0.50: bytes=32 time=3ms TTL=30
Reply from 192.168.0.50: bytes=32 time=17ms TTL=30

Ping statistics for 192.168.0.50:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 3ms, Maximum = 64ms, Average = 22ms

F:\Documents and Settings\lab4>_
```

For Windows Me and 98, Go to **Start > Run > type**

command. A window similar to Fig. 6.11 will appear. Type **ping xxx.x xx.xxx.xxx**, where xxx is the IP address of the Wireless Router or Access Point. A good wireless will show the reply from the wireless router or access point.



```
MS-DOS Prompt
Auto
C:\WINDOWS\Desktop>ping 192.168.0.50

Pinging 192.168.0.50 with 32 bytes of data:

Reply from 192.168.0.50: bytes=32 time<10ms TTL=30

Ping statistics for 192.168.0.50:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\WINDOWS\Desktop>_
```

Troubleshooting

Q1: I cannot connect to the access point or wireless router.

A: Make sure that the SSID on the DWL-520+ PCI Adapter is exactly the same as the SSID on the Access Point or wireless router.

Q2: The DWL-520+ Power and Link lights are not on.

A: Check to see if the DWL-520+ PCI Adapter is firmly seated into the PCI slot.

Q3: I am unable to access the Internet using the DWL-520+.

A1: Check that the LED indicators for the broadband modem are indicating normal activity. If not, there may be a problem with the broadband connection.

A2: 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.

A3: Check that the IP address, subnet mask, gateway, and DNS settings is correctly entered for the wireless adapter in that specific wireless network.

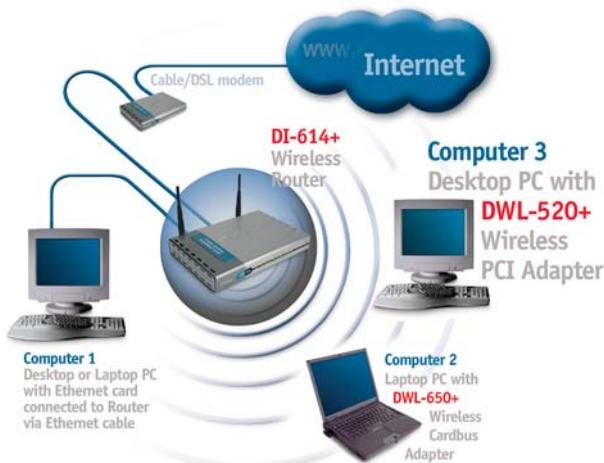
Q4: I forgot my Encryption key.

A: Reset the Access Point to its factory default settings and restore the DWL-520+ Wireless PCI Adapter to the factory default settings.

Once properly installed the **DWL-520+ Wireless PCI Adapter** will be able to connect to other 802.11b wireless adapters, routers and access points. The DWL-520+ using its default wireless settings also connects to other **D-Link Air™** and **D-Link AirPlus™** Wireless adapters, access points and routers as soon as it is properly installed and active.

When you have completed the steps in this *Quick Installation Guide*, your connected network should look similar to this:

For detailed explanations on Ad-Hoc, Infrastructure mode, Basics of Networking, file-sharing and troubleshooting, please refer to the DWL-520+ Manual on the CD included with the product.



Technical Support

You can find the most recent software and user documentation on the D-Link website. **D-Link** provides free technical support for customers within the United States for the duration of the warranty period on this product. U.S. customers can contact D-Link technical support through our web site or by phone.

D-Link Technical Support over the Telephone:

(800) 758-5489

24 hours a day, seven days a week

D-Link Technical Support over the Internet:

<http://support.dlink.com>

email: support@dlink.com

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Building Networks for People