Firmware Update

You can upgrade the firmware of the Router here. Make sure the firmware you want to use is on the local hard drive of the computer. Click on **Browse** to locate the firmware file to be used for the update. Please check the D-Link support site for firmware updates at http://support.dlink.com. You can download firmware upgrades to your hard drive from the D-Link support site.

- **Firmware** Click the **Check Now** button (or the link at the top **Upgrade:** of the window) to find out if there is an updated firmware; if so, download the new firmware to your hard drive.
- Browse: After you have downloaded the new firmware, click Browse in this window to locate the firmware update on your hard drive. Click Save Settings to complete the firmware upgrade.



DDNS Setting

The router supports DDNS (Dynamic Domain Name Service). The Dynamic DNS service allows a dynamic public IP address to be associated with a static host name in any of the many domains, allowing access to a specified host from various locations on the Internet. This is enabled to allow remote access to a host by clicking a hyperlinked URL in the form "hostname.dyndns.org". Many ISPs assign public IP addresses using DHCP, this can make it difficult to locate a specific host on the LAN using standard DNS. If for example you are running a public web server or VPN server on your LAN, this ensures that the host can be located from the Internet if the public IP address changes. DDNS requires that an account be setup with one of the supported DDNS providers.

Enable DDNS: Tick the Enable DDNS checkbox to enable support for DDNS.

Server Select one of the DDNS registration organizations Address: form those listed in the pull-down menu. Available servers include *dlinkddns.com(Free)*, *DynDns. org(Custom)*, *Dyn.Dns.org(free)*, and *Dyn.Dns. org(Static)*.

- Host Name: Enter the host name of the DDNS server.
- Username: Enter the username given to you by your DDNS server.
- Password: Enter the password or key given to you by your DDNS server.

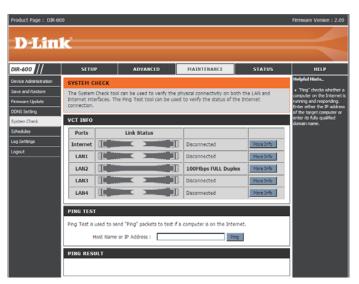
Product Page : DIR-6	00				Firmware Version : 2.00
D-Lin	k				
DIR-600	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Device Administration	DYNAMIC DNS			-	Helpful Hints
Save and Restore Firmware Update DDNS Setting System Check Schedules Log Settings Logout	domain name that you assigned IP address. M addresses. Using a DDN your game server no m	ure allows you to host a se have purchased (www.wh ost broadband Internet Se IS service provider, your fr iatter what your IP address le DDNS service at www.D tSave Settings	nateveryournamels.com) w rvice Providers assign dynar ends can enter your host r s is.	ith your dynamically mic (changing) IP	 To use this feature, you must first have a Dynamic DRS account from one of the providers in the drop down menu.
	DYNAMIC DNS SET				
	Server Ho	le DDNS : Address : dinkddns.com(F st Name : st Name : st Name : assword : DDNS Account			

System Check

This tool is used to verify the physical connectivity on both the LAN and the WAN interfaces. The Ping Test can be used to test the status of the Internet.

Virtual Cable VCT is an advanced feature that integrates a Tester (VCT) LAN cable tester on every Ethernet port on the Info: router. Through the graphical user interface (GUI), VCT can be used to remotely diagnose and report cable faults such as opens, shorts, swaps, and impedance mismatch. This feature significantly reduces service calls and returns by allowing users to easily troubleshoot their cable connections.

Ping Test: The Ping Test is used to send Ping packets to test if a computer is on the Internet. Enter the IP Address that you wish to Ping, and click **Ping**.

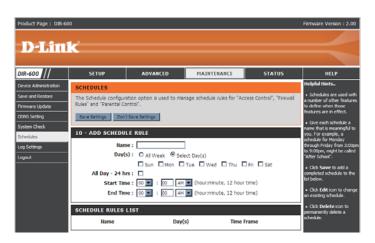


Schedules

The Router allows the user the ability to manage schedule rules for various firewall and parental control features on this window. Once you have finished configuring the new schedule rule, click the **Save Settings** button at the top of the window.

Name: Enter a name for the new schedule rule.

- Day(s): Choose the desired day(s), either All Week or Select Days. If the latter is selected, please use the checkboxes directly below to specify the individual days.
- All Day 24 hrs: Tick this check box if the new schedule rule applies to the full 24-hour period.
 - Start Time/ If the new schedule rule does not apply to the full End Time: 24-hour period, untick the previous checkbox and then enter a specific beginning and ending time.



Log Settings

The system log displays chronological event log data specified by the router user. You may also save a simple text file containing the log to your computer. Click the **Save** button and follow the prompts to save the file.

- Save Log File: Click on the Save button link on this window to save the log file to your local hard drive.
- Syslog Server: click the checkbox to save the log in the log server in the LAN side.
 - Log Type & Click the checkbox(es) of the type of log information Level: requested: "System, Firewall & Security, Router Status, Critical, Warning and Information"
- Send by Mail: Enter the your SNTP server name(or IP address) and enter your mail address before sending your system log by mail.

Product Page : DIR-60	00				Firmware Version : 2.00
D. T. Sand					
D-Lin					
DIR-600	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Device Administration	LOG SETTINGS				Helpful Hints
Save and Restore Firmware Lipdate DONS Setting System Check Schedules Log Settings Logout		slog Server:		ter Name 💌	 Cido on the Save bittor to save top fire to boah and drive with Can later send to the re-boah advertise table for tradictionating. Tou can also select what type of construct would like to be construct and like to be construct and like to be construct and like to be construct and like to like to be added to be added to be added to like to be added to be prover, you can use the collars to an edition to be added to added to be added to be added to
	LOG TYPE & LEVEL	ystem 🗹 Firewall		Router Status	logs to that server.
	SEND BY MAIL		,		
	Em Sender Em SMTP Server / 1	all Address: all Subject: all Address: DP Address: User Name:			
WIRELESS	Confirm	Password:	Send Mail Nov		

Device Info

This window displays the current information for the DIR-600. It will display the LAN, WAN, and Wireless information.

If your WAN connection is set up for a Dynamic IP address then a **DHCP Release** button and a **DHCP Renew** button will be displayed. Use **DHCP Release** to disconnect from your ISP and use **DHCP Renew** to connect to your ISP.

If your WAN connection is set up for PPPoE, a **Connect** button and a **Disconnect** button will be displayed. Use **Disconnect** to drop the PPPoE connection and use **Connect** to establish the PPPoE connection.

- LAN: Displays the MAC address and the private (local) IP settings for the router.
- **WAN:** Displays the MAC address and the public IP settings for the router.
- Wireless Displays the wireless MAC address and your 802.11N: wireless settings such as SSID, Channel, and Encryption status.

Product Page : DIR-6	00				Firmware Version : 2.00
DIA					
D-Lin	K.				
DIR-600	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Device Info	DEVICE INFORMATI	ON			Helpful Hints
Log Statistics Active Session	All of your Internet and version is also displayed h	iere.	n details are displayed on this p a : 2.00 , Mon 09 Mar 2009		All of your LAN, Internet and WIRELESS 802.11 N connection details are displayed here.
Wireless Logout	LAN				
	s	IAC Address : 00:2 IP Address : 192. ubnet Mask : 255. HCP Server : Enab	168.0.1 255.255.0		
		Connection : DHC	P client Connecting P Renew DHCP Release		
		IP Address : 0.0.0 ubnet Mask : 0.0.0			
		It Gateway : 0.0.0 DNS : 0.0.0	.0		
	WIRELESS 802.11N				
		SSID : dink Channel : 6 Encryption : 64 b			

Log

This window allows you to view a log of activities on the Router. This is especially helpful detecting unauthorized network usage.

First Page: View the first page of the log.

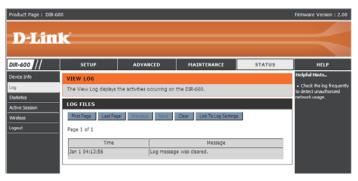
Last Page: View the last page of the log.

Previous: View the previous page.

Next: View the next page.

Clear: Clear the log.

Link to Log Click this button to go directly to the Log Settings Settings: window (Maintenance > Log Settings).



Statistics

The window below displays the Traffic Statistics. Here you can view the amount of packets that pass through the DIR-600 on both the WAN and the LAN ports. The traffic counter will reset if the device is rebooted.

Product Page : DIR					Firmware Version : 2.00
DIR-600	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Device Info	TRAFFIC STATIS				• This is a summary
Log	Traffic Statistics disp	alays Receive and Transmit pa	ickets passing through the E	DIR-600.	displaying the number of
Statistics					packets that have passed between the Internet and
Active Session					the LAN since the router was last initialized.
Wreless	_	Refresh	Reset		Had bart a solution.
Logout		Receive	Transmit		
	Internet	0 Packets	0 Packets		
		2 Packets	3 Packets		
	LAN				

Active Session

The NAPT Active Session table displays a list of all active conversations between WAN computers and LAN computers.



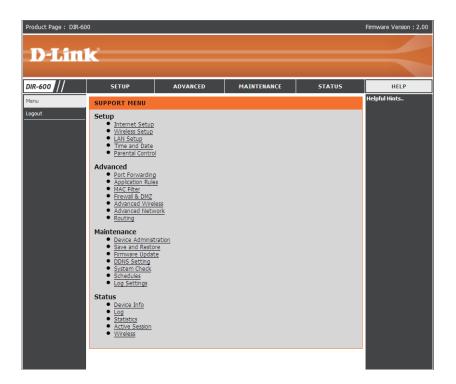
Wireless

The wireless client table displays a list of current connected wireless clients. This table also displays the connection time and MAC address of the connected wireless client.



Help

Click the desired hyperlink to get more information about how to use the Router.



Section 4 - Security

Wireless Security

This section will show you the different levels of security you can use to protect your data from intruders. The DIR-600 offers the following types of security:

- WPA2 (Wi-Fi Protected Access 2)
- WPA (Wi-Fi Protected Access)
- WEP (Wired Equivalent Privacy)
- WPA2-PSK (Pre-Shared Key)
- WPA-PSK (Pre-Shared Key)

What is WEP?

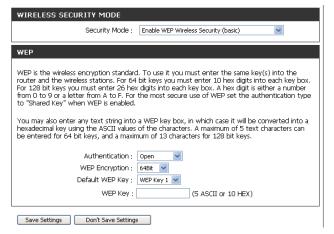
WEP stands for Wired Equivalent Privacy. It is based on the IEEE 802.11 standard and uses the RC4 encryption algorithm. WEP provides security by encrypting data over your wireless network so that it is protected as it is transmitted from one wireless device to another.

To gain access to a WEP network, you must know the key. The key is a string of characters that you create. When using WEP, you must determine the level of encryption. The type of encryption determines the key length. 128-bit encryption requires a longer key than 64-bit encryption. Keys are defined by entering in a string in HEX (hexadecimal - using characters 0-9, A-F) or ASCII (American Standard Code for Information Interchange – alphanumeric characters) format. ASCII format is provided so you can enter a string that is easier to remember. The ASCII string is converted to HEX for use over the network. Four keys can be defined so that you can change keys easily.

Configure WEP

It is recommended to enable encryption on your wireless router before your wireless network adapters. Please establish wireless connectivity before enabling encryption. Your wireless signal may degrade when enabling encryption due to the added overhead.

- 1. Log into the web-based configuration by opening a web browser and entering the IP address of the router (192.168.0.1). Click on **Wireless Setup** on the left side.
- 2. Next to Security Mode, select Enable WEP Wireless Security (basic).
- **3.** Next to **Authentication**, select either *Shared Key or Open*. *Shared Key* is recommended as it provides greater security when WEP is enabled.
- **4.** Select either *64Bit* or *128Bit* encryption from the drop-down menu next to **WEP Encryption**.
- 5. Next to **Default Key Type**, select *WEP Key 1* and enter a WEP key that you create. Make sure you enter this key exactly on all your wireless devices. You may enter up to four different keys either using *Hex* or *ASCII*. *Hex* is recommended (letters A-F and numbers 0-9 are valid). In *ASCII* all numbers and letters are valid.



6. Click **Save Settings** to save your settings. If you are configuring the router with a wireless adapter, you will lose connectivity until you enable WEP on your adapter and enter the same WEP key as you did on the router.

D-Link DIR-600 User Manual

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 two major improvements over WEP:

- Improved data encryption through the Temporal Key Integrity Protocol (TKIP). TKIP scrambles the keys using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with. WPA2 is based on 802.11i and uses Advanced Encryption Standard (AES) instead of TKIP.
- User authentication, which is generally missing in WEP, through the extensible authentication protocol (EAP). WEP regulates access to a wireless network based on a computer's hardware-specific MAC address, which is relatively simple to be sniffed out and stolen. EAP is built on a more secure public-key encryption system to ensure that only authorized network users can access the network.

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

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

Configure WPA/WPA2-PSK

It is recommended to enable encryption on your wireless Router before your wireless network adapters. Please establish wireless connectivity before enabling encryption. Your wireless signal may degrade when enabling encryption due to the added overhead.

- Log into the web-based configuration by opening a web browser and entering the IP address of the router (192.168.0.1). Click on Wireless Setup on the left side.
- 2. Next to Security Mode, select Enable WPA/WPA2 Wireless Security (enhanced).
- 3. Next to Cipher Mode, select TKIP, AES, or Auto.

VIRELESS SECURITY MODE
Security Mode : Enable WPA/WPA2 Wireless Security (enhanced) 💌
NPA/WPA2
WPA/WPA2 requires stations to use high grade encryption and authentication.
Cipher Type : TKIP 💌
PSK / EAP : PSK 💌
Network Key : (8~63 ASCII or 64 HEX)
Save Settings Don't Save Settings

- 4. Next to **PSK/EAP**, select *PSK*.
- **5.** Next to **Network Key**, enter a key (passphrase). The key is an alpha-numeric password between 8 and 63 characters long. The password can include symbols (!?*&_) and spaces. Make sure you enter this key exactly the same on all other wireless clients.
- 6. Click Save Settings to save your settings. If you are configuring the Router with a wireless adapter, you will lose connectivity until you enable WPA/WPA2-PSK on your adapter and enter the same passphrase as you did on the Router.

Configure WPA/WPA2 (RADIUS)

It is recommended to enable encryption on your wireless router before your wireless network adapters. Please establish wireless connectivity before enabling encryption. Your wireless signal may degrade when enabling encryption due to the added overhead.

- 1. Log into the web-based configuration by opening a web browser and entering the IP address of the router (192.168.0.1). Click on **Wireless Settings** on the left side.
- 2. Next to Security Mode, select Enable WPA Only Wireless Security (enhanced), Enable WPA2 Only Wireless Security (enhanced), or Enable WPA/WPA2 Wireless Security (enhanced).
- 3. Next to Cipher Type, select TKIP, AES, or Auto.
- 4. Next to **PSK/EAP**, select *EAP*.
- 5. Next to **RADIUS Server 1** enter the **IP Address** of your RADIUS server.
- 6. Next to **Port**, enter the port you are using with your RADIUS server. *1812* is the default port.
- 7. Next to Shared Secret, enter the security key.
- **8.** If you have a secondary RADIUS server, enter its IP address, port, and secret key.
- 9. Click Save Settings to save your settings.

D-Link	DIR-600	User	Manual
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WIRELESS SECURITY MODE	
Security Mode :	Enable WPA Only Wireless Security (enhanced)
WPA ONLY	
WPA Only requires stations to use high	grade encryption and authentication.
Cipher Type :	
PSK / EAP ;	EAP
802.1X	
RADIUS Server 1 IP Address ;	
Port :	
Shared Secret ;	
RADIUS Server 2 IP Address ;	
Port :	
Shared Secret ;	

Connect to a Wireless Network Using Windows[®] XP

Windows[®] XP users may use the built-in wireless utility (Zero Configuration Utility). The following instructions are for Service Pack 2 users. If you are using another company's utility or Windows[®] 2000, please refer to the user manual of your wireless adapter for help with connecting to a wireless network. Most utilities will have a "site survey" option similar to the Windows[®] XP utility as seen below.

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

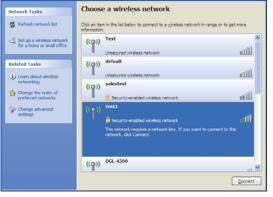
or

Right-click on the wireless computer icon in your system tray (lower-right corner next to the time). Select **View Available Wireless Networks**.

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

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

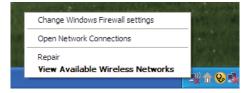


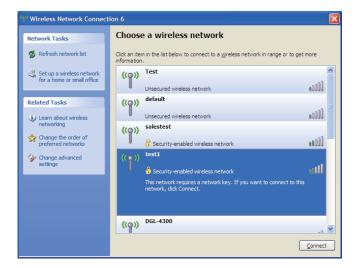


Configure WEP

It is recommended to enable WEP on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the WEP key being used.

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





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

3. The **Wireless Network Connection** box will appear. Enter the same WEP key that is on your router and click **Connect**.

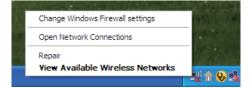
It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the WEP settings are correct. The WEP key must be exactly the same as on the wireless router.

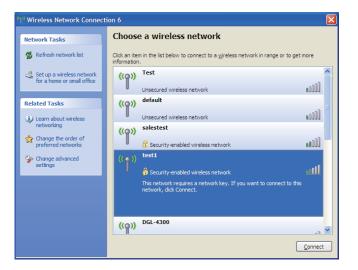
Wireless Network Conn	ection 🛛 🕅
	a network key (also called a WEP key or WPA key). A network intruders from connecting to this network.
Type the key, and then click	Connect.
Network <u>k</u> ey:	1
Confirm network key:	
	<u>C</u> onnect Cancel

Configure WPA-PSK

It is recommended to enable WEP on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the WEP key being used.

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





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

3. The **Wireless Network Connection** box will appear. Enter the WPA-PSK passphrase and click **Connect**.

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

Wireless Network Conn	ection 🛛
	a network key (also called a WEP key or WPA key). A network ntruders from connecting to this network.
Type the key, and then click	Connect.
Network <u>k</u> ey:	1
Confirm network key:	
	<u>C</u> onnect Cancel

Section 6 - Setting Up Wi-Fi Protection (WCN 2.0 in Windows Vista)

Setting Up Wi-Fi Protection (WCN 2.0 in Windows Vista)

The DIR-600 supports Wi-Fi protection, referred to as WCN 2.0 in Windows Vista. The instructions for setting this up depend on whether you are using Windows Vista to configure the Router or third party software.

Initial Router Configuration for Wi-Fi Protection

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

If you are running Windows Vista, tick the Enable checkbox on the **Wireless Network** window. Use the Current PIN that is displayed on the **Wireless Network** window or choose to click the **Generate New PIN** button or **Reset PIN to Default** button.



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

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D-Link DIR-600 User Manual
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Section 6 - Setting Up Wi-Fi Protection (WCN 2.0 in Windows Vista)

Setting Up a Configured Router

Once the Router has been configured, you can use the push button on the Router or third party software to invite a newcomer to join your Wi-Fi protected network. For maximum security, the software method is recommended. However, the push button method is ideal if there is no access to a GUI.

If you are using the Router's Wi-Fi Security push button option, simultaneously depress the push button located on the side of the Router and the button on the client (or virtual button on the client's GUI). Next click **Finish**. The Client's software will then allow a newcomer to join your secure, Wi-Fi protected network.

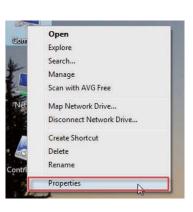
If you are using third party software, run the appropriate Wi-Fi Protected System utility. You will be asked to either use the push button method or to manually enter the PIN. Follow the on-screen instructions.

Section 7 - Changing the Computer Name and Joining a Workgroup

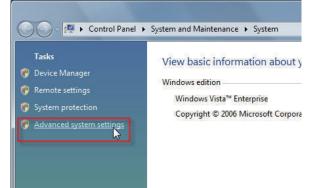
Changing the Computer Name and Joining a Workgroup

The following are step-by-step directions to change the computer name and join a workgroup.

1. Click on Properties.



2. Click on the Advanced system settings link.



Section 7 - Changing the Computer Name and Joining a Workgroup

3. Click the **Computer Name** tab in the **System Properties** window and enter a description of your computer in the textbox. When you are finished, click the **Change** button.

4. Go to the **Computer Name/Domain Changes** window and click the radio button next to the Workgroup you want to join. When you are finished, click the **OK** button.

mputer N	lame	Hardware	e Advanced	System Pro	tection	Remote
1		ows uses t e network.	he following inf	formation to id	dentify y	our computer
Computer	descri	iption:	Ī			
		•	For example: " Computer".	Kitchen Com	puter" o	r "Mary's
Full comp	uter na	ame:	Ryan-PC-Dell			
Workgrou	ip:		WORKGROUI	P		
To use a Network I		to join a d	omain or workg	group, click	Ne	etwork ID
		computer o Change.	or change its do	omain or		Change
			ОК	Ca	incel	Apply
			ОК	Ca	incel	Apply
nputer N	lame/	Domain (Ca	incel) Apply
ou can ch omputer. (nange Change	the name a		rship of this	X	Apply
ou can ch omputer. (nange Change	the name a	Changes and the membe	rship of this	X) Apply
ou can ch	hange Change hation	the name a	Changes and the membe	rship of this	X	Apply
ou can ch omputer. (lore inform	hange Change hation	the name a	Changes and the membe	rship of this	X	Apph
ou can ch omputer. (lore inform omputer n Office ull comput	nange Chang <u>nation</u> name:	the name a es might af	Changes and the membe	rship of this	X	Apph
ou can ch omputer. (lore inform omputer n Office ull comput	nange Chang <u>nation</u> name:	the name a es might af	Changes and the membe	rship of this network reso	urces.	
ou can ch omputer. (lore inform omputer n Office	nange Chang <u>nation</u> name:	the name a es might af	Changes and the membe	rship of this	urces.	
ou can ch omputer. (lore inform omputer n Mfice ull comput ffice	nange i Changi <u>nation</u> iame: iame: ter nan	the name a es might af	Changes and the membe	rship of this network reso	urces.	
ou can ch omputer. (lore inform omputer n Office ull comput	nange i Changi <u>nation</u> iame: iame: ter nan	the name a es might af	Changes and the membe	rship of this network reso	urces.	
ou can chomputer. (lore inform omputer n Office ull comput ffice Member o O Dom	nange i Chang nation iame: er nan of ain:	the name a es might af	Changes and the membe	rship of this network reso	urces.	Appb
ou can chomputer. Clore inform omputer n Office ull comput ffice Member o O Dom	nange i Chang nation iame: er nan of ain:	the name es might af ne:	Changes and the membe	rship of this network reso	urces.	Appb
ou can chomputer. Clore inform omputer n Office ull comput ffice Member o O Dom	hange Chang hation hame: hame: her nan of ain:	the name es might af ne:	Changes and the membe	rship of this network reso	urces.). Apply

Section 8 - Configuring the IP Address in Vista

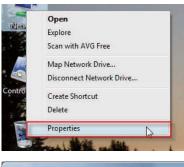
Configuring the IP Address in Vista

The following are step-by-step directions to configure the IP address in Windows Vista.

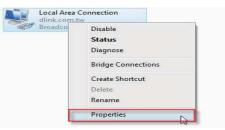
1. Click on Properties.

2. Go to the Network and Internet window and click the appropriate Local Area Connection icon.

3. Right-click the **Local Area Connection** icon and then select **Properties** from the drop-down menu.

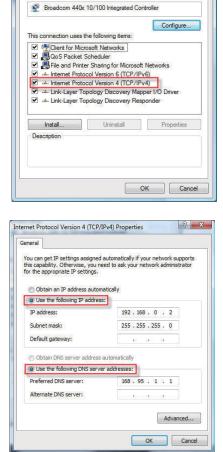






4. Tick the Internet Protocol Version 4 (TCP/IPv4) checkbox in the Networking tab in the Local Area Connection Properties window.

5. Click the "Use the following IP address" option in the General tab in the Local Area Connections Properties window and enter the desired IP address in the space offered. Then click the "Use the following DNS server adresses" option on the same tab and enter the desired DNS server information.



Local Area Connection Properties

Networking

Connect using:

X

Section 8 - Configuring the IP Address in Vista

6. Right-click the Local Area Connection icon and then select Status LAN or High-Speed Internet (1) Local Area Connection from the drop-down menu. dlink.com.tw Broadcom 440x 10/10 Disable Status Diagnose Bridge Connections **Create Shortcut** Delete Rename Properties 7. Go to the Local Area Connection Status window and click X Local Area Connection Status the **Details** button. General Connection IPv4 Connectivity: Limited IPv6 Connectivity: Media State: Limited Enabled 03:35:43 Duration: 100.0 Mbps Speed: Details Activity Received Bytes 66,880 851,221 Properties Plisable Diagnose Close 8. Confirm your new settings on the Network Connection Status Network Connection Details window. When you are finished, click the **Done** button. Property Value Connection specific Description Physical Address DHCP Enabled IPv4 IP Address IPv4 Subnet Mask Lease Oktainet Mask Lease Default Gatewa IPv4 DHCP Server IPv4 DNS Server NetBIOS over Topio IPv4 DNS Server NetBIOS over Topio IPv6 DNS Server IPv6 DNS Server Connecti fic DN. dlink.com tv Broadcom 440x 10/100 Integ 00-0D-56-AE-0E-92
 192.168.0.10

 Tuesday, January 30, 2007 11:59:38 AM

 Tuesday, January 30, 2007 3:34:36 PM

 192.168.0.1

 192.168.0.1
 ip En Yes fe80::a871:ab99:c1e8:9452%8

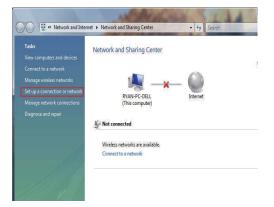
D-Link DIR-600 User Manual

Close

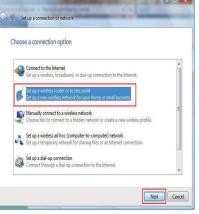
Setting Up a Connection or Network Wirelessly

The following are step-by-step directions to set up a wireless connection.

1. Click on Set up a connection or network in the Network and Sharing Center section.



2. Go to the Set up a connection or network window and choose the Set up a wireless router or access point Set up a new wireless network for your home or business option. Click the Next button.



3. Click the Next button on the Set up a wireless router or access point window.	Set on a worker router or access point Set up a home or small business network: Set up file and prints there are business; Set up file and prints there are not one are consecting other computers and devices to your natively. Set up file and mark this a private network: Description of your network hardware; some of the typions above might not be available. Description: Set up file and prints there:
4. The following window displays the system progress.	Set up a windex route of access point
	Detecting network hardware and settings
	Ø
5. This window confirms that you want to create wireless network settings that are savable to a USB flash drive.	 ✓ Stop a virieless router or access point ✓ Stop available of the stop of t
D-Link DIR-600 User Manual	

6. Enter a network name on the **Give your network a name** window in the **Set up a wireless router or access point** wizard. Click the **Next** button.

- 7. Enter a passphrase on the Help make your network more secure with a passphrase window in the Set up a wireless router or access point wizard. Click the Show advanced network security options link.
- 8. Select security method on the Choose advanced network security options window in the Set up a wireless router or access point wizard. Click the Next button.

out of faces a faces and sections and	
Set up a wireless router or access point	
Red 1.92 1.97	
Give your network a name	
Choose a name that people who connect to your network will recognize	
Network name (SSID):	
dlink300	
You can type up to 32 letters or numbers.	
Tou can type up to 32 letters of numbers.	
	Next Cancel
	Cancel
	X
Set up a wireless router or access point	
 Set of a mutues contex or access point. 	
Help make your network more secure with a passphrase	
Windows will use the persphrate provided below to generate a WFA security key for you. The first	
Windows will use the <u>paraphrate</u> provided below to generate a <u>WPA</u> security key for you. The first time that people connect to this network, they will need the passphrase.	
-	
Pasphase NISs #E3A00:NSE0p.z6FEH	
The passphrase must be at least 8 characters and cannot begin or end with a space.	
· · · · · · · · · · · · · · · · · · ·	
V Display characters	
Create a different passphrase for me	
Show advanced metwork security options	
	1201
Net	hill _
A STATE OF THE OWNER	
Set up a wireless router or access point	_
Choose advanced network security options	
We recommend using Wi-Fi Protected Access 2 (WPA2-Personal) because it p security, but it is not supported by devices made before 2001.	rovides better
Security method:	
WPA-Personal WPA-Personal	
WPA2-Personal	
WEP No Security	
✓ Display characters	
Create a different security key or passphrase for me	
	Next Cancel

9. Once you have selected the desired security method on the Choose 🚱 😤 Set up a wireless router or ac advanced network security options window in the Set up a wireless router or access point wizard, click the Next button. Choose advanced network security options We recommend using Wi-FI Protected Access 2 (WPA2-Personal) because it provides better security, but it is not supported by devices made before 2001. Security method: No Security • Security key or passphrase: [2] Display characters Create a different security key or passphrase for me Next Cancel **10**.Select the desired file and printer sharing option on the **Choose** Co 10 Set up file and printer sharing options window in the Set up a wireless Choose file and printer sharing options router or access point wizard. Click the Next button.) Do not allow file and printer sharing You can set up file and printer sharing later by going to Network and Sharing Center in Co-Panel. ing with anyone with a user account and pa Files in your Public folder and shared printers attached to this computer will be access Allow sharing with anyone on the same network as this computer Files in your Public folder and shared printers attached to this computer will be a Tell me more about file and printer sharing Next Cancel 11. Once you have saved your network settings to USB, use the pull-Set up a wireless router or access point down menu on the Insert the USB flash drive into this computer Insert the USB flash drive into this computer Plug the USB flash drive into a USB port on your computer, and then select the drive from the list below. window in the Set up a wireless router or access point wizard to select a destination for your network settings. Click the Next 10 button.

D-Link DIR-600 User Manual

Next Cancel

D-Link DIR-600 User Manual

- 12.Once you have saved your network settings to USB, the Copying settings to the USB drive window in the Set up a wireless router or access point wizard opens to indicate the system progress.
 - 13.Once you are finished, the **To add a device or computer, follow** these instructions window in the **Set up a wireless router or** access point wizard opens. When you are finished, click the **Close** button.

Section 9 - Setting Up a Connection Wirelessly



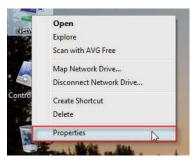
- O - X

Close

Connecting to a Secured Wireless Network (WEP, WPA-PSK & WPA2-PSK)

The following are step-by-step directions to set up a wireless connection.

1. Click on Properties.

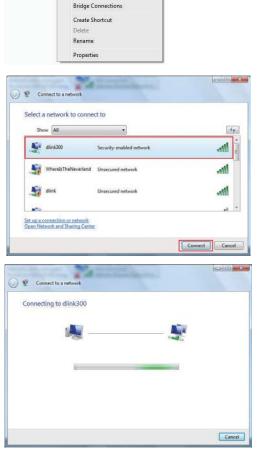


2. Click the Manage network connections link in the Network and Sharing Center window.



- 3. Right-click the Wireless Network Connection entry and then select Connect/Disconnect from the drop-down menu.
- Select a network to connect to in the Select a network to connect to window in the Connect to a network wizard and then click the Connect button.

5. The following **Connect to a network** wizard window displays the system progress.



Wireless Network Connection Not con Disable

Diagnose

Connect / Disconnect

- 6. Enter the network security key or passphrase for the Router in the textbox provided in the Type the network security key or passphrase for dlink300 window in the Connect a network wizard. When you are finished, click the Connect button.
- 7. The following Successfully connected to dlink300 window in the Connect to a network wizard is displayed. Choose to save to the network and/or start the new connection automatically. When you are finished, click the Close button.

8. The successful connection is displayed at the bottom of the Windows start up menu.



- **9.** Confirm your new settings by calling up the command prompt and then entering the ipconfig command.
- **10.**To test the new IP address, use the Ping feature of the command prompt.

G:VUServ=Ngan> <u>Lipconfig</u> Vindows IP Configuration Viroless LAN adapter Vireless Network Connection: Connection-specific DNS Suffix : dlink.com.tw. IP4 Adapters			<c> 2</c>	006 M	icrosof	6.0.6000 t Corpor] ation.	A11	rights
<pre>Vireless LGN adapter Vireless Network Connection: Connection-specific DNS Suffix : : 11ink:con.tw ink=loss I Fob Anders Suffix : : 10ink:con.tw ink=loss I Fob Anders Suffix : : 1092.168.0.103 Submet Hask</pre>	-	ers	yan >1	pconf	18				
Connerstion-specific DNS Suffix : : 41ink.con.tw	Windo	ws IP	Conf	igura	tion				
Ivya Hadress. i 192.168.45.108 Default Gateway. i 192.168.45.108 Default Gateway. i 192.168.45.108 Ethernet adapter Local Area Connection: Hedia State Hedia State i 192.168.45.108 Connection=pecific DNS Suffix': Hedia State Connection=pecific DNS Suffix': i Ink.com.tu Tunnel adapter Local Area Connection= 6: Connection= 6: Connection=specific DNS Suffix : : IPv6 Address. : : : : : : : : : : : : : : : : : : :	Wirel	ess L	AN ad	apter	Wirele	ss Netwo	rk Con	nectio	on:
Media State Media State Connection-pecific DNS Suffix : : dlink.con.tu Tunnel adapter Local Rea Connection* 6: Connection-specific DNS Suffix : : IP06 Address	IP Su	bnet	ldress Mask		ic DNS ddress	Suffix	fe	80::ec	1f2:c78
Connection-specific DNS Suffix . : dlink.com.tu Tunnel adapter Local Area Connection* 6: Connection-specific DNS Suffix . : IPv6 Address	Ether	net a	dapte	r Loc	al Area	Connect	ion:		
Connection=specific DNS Suffix :: 2001:0:4136:e: TPvG Address	He Co	dia S nnect	tate ion-s	pecif	ic DNS	Suffix	. : Me . : dl	dia di ink.co	isconne om.tw
IPv6 fiddress. 2001:0:4136:ce C:\Undowskystemi2(cmd.exe=ping 192168.01-t) 2 C:\Users\Ryan)ping 192:168.0.1 -t 2 Finging 192:168.0.1 vith 32 bytes of data: 2 Reply from 192:168.0.1 bytes=32 time-3ns TIL-64 4	Tunne	l ada	pter	Local	Area C	onnectio	n*6:		
23 CAWindows/system32/cmd.exe - ping 192168.0.1 -t C:\Uisers\Ryan > ping 192.168.0.1 -t Pinging 192.168.0.1 with 32 bytes of data: Reply From 192.168.0.1: bytes=32 time=3ns TIL=64 Reply From 192.168.0.1: bytes=32 time=1ns TIL=64 Reply From 192.168.0.1: bytes=32 time=1ns TIL=64 Reply From 192.168.0.1: bytes=32 time=1ns TIL=64	Co	nnect	ion-s	pecif	ic DNS	Suffix			
C:\Users\Ryan\ping 192.168.0.1 -t Pinging 192.168.0.1 vith 32 bytes of data: Reply from 192.168.0.1: bytes=32 time=3ns THI=64 Reply from 192.168.0.1: bytes=32 time=3ns THI=64 Reply from 192.168.0.1: bytes=32 time=1ns THI=64 Reply from 192.168.0.1: bytes=32 time=1ns THI=64	115	V6 Ad	ldress				. : 20	01:0:4	1136:c.
Reply from 192.168.0.1: hytes=32 time=3ms ITL=64 Reply from 192.168.0.1: hytes=32 time=2ms ITL=64 Reply from 192.168.0.1: hytes=32 time=7ms ITL=64 Reply from 192.168.0.1: hytes=32 time=7ms ITL=64	C:\Use	ers\Ry	an>pin	g 192.	168.0.1	-t			
Reply from 192.168.0.1: bytes=32 time=2ms TTL=64 Reply from 192.168.0.1: bytes=32 time=2ms TTL=64 Reply from 192.168.0.1: bytes=32 time=1ms TTL=64			100 0	.1 with	h 32 byte	es of data			
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Connecting to an Unsecured Wireless Network

Open Explore Scan with AVG Free Map Network Drive... Disconnect Network Drive... Create Shortcut Delete Properties

The following are step-by-step directions to set up an unsecured wireless connection.

1. Click on Properties.





Wireless Network Connection 3. Right-click the Wireless Network Connection entry and then select Not co Connect/Disconnect from the drop-down menu. Disable 0 Connect / Disconnect Status Diagnose Bridge Connections Create Shortcut Delete Rename Properties 4. Select a network to connect to in the Select a network to connect 🕞 🔮 Connect to a network to window in the Connect to a network wizard and then click the Connect button. Select a network to connect to 47 Show All • dlink300 lle. Unsecured network lltre WhereIsTheNeverland Unsecured network Ju. dlink 🛃 Unsecured network -.... Set up a connection or network Open Network and Sharing Center Connect Cancel 5. Confirm your desire to connect anyway on the following Network i v Connect to a r Connection Status window. dlink300 is an unsecured network Connect Anyway Information sent over this network might be visible to others * Connect to a different network

D-Link DIR-600 User Manual

Cancel

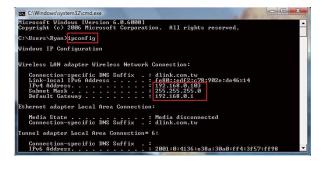
6. The following **Connect to a network** wizard window displays the system progress.

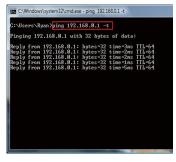
- 7. The following Successfully connected to dlink300 window in the Connect to a network wizard is displayed. Choose to save to the network and/or start the new connection automatically. When you are finished, click the Close button.
- **8.** The successful connection is displayed at the bottom of the Windows start up menu.



9. Confirm your new settings by calling up the command prompt and then entering the ipconfig command.

10.To test the new IP address, use the Ping feature of the command prompt.





Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DIR-600. Read the following descriptions if you are having problems. (The examples below are illustrated in Windows[®] XP. If you have a different operating system, the screenshots on your computer will look similar to the following examples.)

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

When entering the IP address of the D-Link router (192.168.0.1 for example), you are not connecting to a website on the Internet or have to be connected to the Internet. The device has the utility built-in to a ROM chip in the device itself. Your computer must be on the same IP subnet to connect to the web-based utility.

• Make sure you have an updated Java-enabled web browser. We recommend the following:

- Internet Explorer 6.0 or higher
- Netscape 8 or higher
- Mozilla 1.7.12 (5.0) or higher
- Opera 8.5 or higher
- Safari 1.2 or higher (with Java 1.3.1 or higher)
- Camino 0.8.4 or higher
- Firefox 1.5 or higher
- Verify physical connectivity by checking for solid link lights on the device. If you do not get a solid link light, try using a different cable or connect to a different port on the device if possible. If the computer is turned off, the link light may not be on.
- Disable any internet security software running on the computer. Software firewalls such as Zone Alarm, Black Ice, Sygate, Norton Personal Firewall, and Windows[®] XP firewall may block access to the configuration pages. Check the help files included with your firewall software for more information on disabling or configuring it.

D-Link DIR-600 User Manual

• Configure your Internet settings:

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

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

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

To reset the router, locate the reset button (hole) on the rear panel of the unit. With the router powered on, use a paperclip to hold the button down for 10 seconds. Release the button and the router will go through its reboot process. Wait about 30 seconds to access the router. The default IP address is 192.168.0.1. When logging in, the username is **admin** and leave the password box empty.

D-Link DIR-600 User Manual

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

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

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

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

- Click on **Start** and then click **Run**.
- Windows[®] 95, 98, and Me users type in **command** (Windows[®] NT, 2000, and XP users type in **cmd**) and press **Enter** (or click **OK**).
- Once the window opens, you'll need to do a special ping. Use the following syntax:

ping [url] [-f] [-l] [MTU value]

Example: ping yahoo.com -f -l 1472

C:∖>ping yahoo.com -f -l 1482
Pinging yahoo.com [66.94.234.13] with 1482 bytes of data:
Packet needs to be fragmented but DF set. Packet needs to be fragmented but DF set. Packet needs to be fragmented but DF set. Packet needs to be fragmented but DF set.
Ping statistics for 66.94.234.13: Packets: Sent = 4, Received = 0, Lost = 4 (100% loss), Approximate round trip times in milli-seconds: Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:∖>ping yahoo.com -f -l 1472
Pinging yahoo.com [66.94.234.13] with 1472 bytes of data:
Reply from 66.94.234.13: bytes=1472 time=93ms TTL=52 Reply from 66.94.234.13: bytes=1472 time=109ms TTL=52 Reply from 66.94.234.13: bytes=1472 time=125ms TTL=52 Reply from 66.94.234.13: bytes=1472 time=203ms TTL=52
Ping statistics for 66.94.234.13: Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), Approximate round trip times in milli-seconds: Minimum = 93ms, Maximum = 203ms, Average = 132ms
C:\>

You should start at 1472 and work your way down by 10 each time. Once you get a reply, go up by 2 until you get a fragmented packet. Take that value and add 28 to the value to account for the various TCP/IP headers. For example, lets say that 1452 was the proper value, the actual MTU size would be 1480, which is the optimum for the network we're working with (1452+28=1480).

Once you find your MTU, you can now configure your router with the proper MTU size.

To change the MTU rate on your router follow the steps below:

- Open your browser, enter the IP address of your router (192.168.0.1) and click **OK**.
- Enter your username (admin) and password (blank by default). Click **OK** to enter the web configuration page for the device.
- Click on Setup and then click Manual Configure.
- To change the MTU enter the number in the MTU field and click the **Save Settings** button to save your settings.
- Test your email. If changing the MTU does not resolve the problem, continue changing the MTU in increments of ten.

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 Cardbus 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.

For the wireless repeater, there are two types of repeater in D-Link for user to select:

Universal repeater: It acts as an AP and a wireless STA at the same time. It can support all AP and wireless STA if they work in the same wireless channel.

AP-repeater (AP with WDS): only repeat same model or limited models which base on the same proprietary protocol.

Please choose a universal repeater to boost the signal to extend the range.

Wireless Modes

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 you 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.

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, such as two or more WNA-2330 wireless network Cardbus adapters.

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 cardbus adapters. All the adapters must be in Ad-Hoc mode to communicate.

Appendix B - Networking Basics

Networking Basics

Check your IP address

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

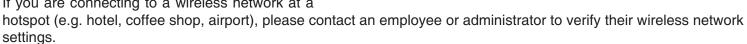
Click on **Start** > **Run**. In the run box type *cmd* and click **OK**.

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.

If you are connecting to a wireless network at a





🛤 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	
C:\Documents and Settings>_	
	-

Appendix B - Networking Basics

Statically Assign an IP address

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

Step 1

Windows[®] XP - Click on Start > Control Panel > Network Connections. Windows[®] 2000 - From the desktop, right-click My Network Places > Properties.

Step 2

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

Step 3

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

Step 4

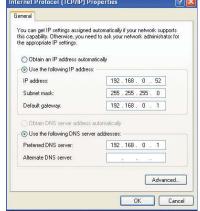
Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your router.

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

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

Step 5

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



Appendix C - Technical Specifications

Technical Specifications

Standards

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

Wireless Signal Rates*

- 150Mbps 54Mbps
- 48Mbps 36Mbps
- 24Mbps 18Mbps
- 12Mbps 11Mbps
- 9Mbps 6Mbps
- 5.5Mbps 2Mbps
- 1Mbps

Security

- WPA Wi-Fi Protected Access (TKIP, MIC, IV Expansion, Shared Key Authentication)
- 802.1x
- 64/128-bit WEP

VPN Pass Through/ Multi-Sessions

• PPTP

• IPSec

Device Management

• Web-based Internet Explorer v6 or later; Netscape

D-Link DIR-600 User Manual

- Navigator v6 or later; or other Java-enabled browsers
- DHCP Server and Client

Wireless Frequency Range

2.4GHz to 2.497GHz (802.11b) 2.4GHz to 2.4835GHZ ((802.11g and 802.11n))

Wireless Operating Range2

- Indoors up to 328 ft. (100 meters)
- Outdoors- up to 1312 ft. (400 meters)

Wireless Transmit Power (AVG Power)

11b:17dBm(Max) 11g:16dBm(Max) 11n:14dBm(Max)

External Antenna Type

Detachable Dipole Antenna (Reverse SMA Plug)

Advanced Firewall Features

• NAT with VPN Pass-through (Network Address Translation)

- MAC Filtering
- IP Filtering
- URL Filtering
- Domain Blocking
- Scheduling

Operating Temperature

32°F to 129 °F (0°C to 40°C)

Appendix C - Technical Specifications

Humidity

95% maximum (non-condensing)

Safety and Emissions

FCC Part 15B/ 15C/ MPE IC RSS-210 NCC LP0002

LEDs

- Power
- Status
- Internet
- WLAN (Wireless Connection)
- LAN (10/100)

Dimensions

- L = 135mm
- W = 99.8mm
- H = 31.5mm

Weight

0.246kg

penerates, 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. 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 . 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. IEEE 802.11b or 802.11g operation of this product in the U.S.A. is firmware-limited to channels 1 through 11. IMPORTANT NOTE: FCC Radiation Exposure Statement: This equipment comparison by the CC radiation exposure limits set forth for an uncontrolled environment. This equipment should be nstalled and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. 以下警語適用台灣地區 經型式認證合格之低功率射頻電機,非經許可,公司、局部還如百時之區 低功率射頻電機之使用不得影響飛航安全及干擾合法通信;經發現有干擾現象時,應立即停用,並改善至無干擾時方得繼續使用。前項 合法通信,指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

Federal Communication Commission Interference Statement

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

* Maximum wireless signal rate derived from IEEE Standard 802.11b, 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 factors will adversely affect wireless signal range.