USER MANUAL DWR-113

VERSION 1.00







Preface

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Package Contents

- D-Link DWR-113 3G Wi-Fi Router
- Power Adapter
- Manual and Warranty on CD
- External Wi-Fi antenna

Note: Using a power supply with a different voltage rating than the one included with the DWR-113 will cause damage and void the warranty for this product.

System Requirements

- A compatible 3G USB modem
- Computers with Windows[®], Macintosh[®], or Linux-based operating systems with an installed Ethernet adapter

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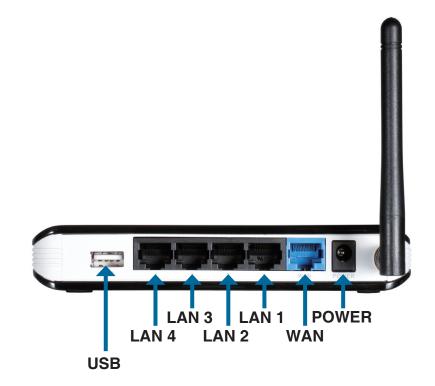
• Internet Explorer Version 6.0 or Netscape Navigator[™] Version 6.0 and above (for configuration)

Introduction

The D-Link 3G Wi-Fi Router allows users to access worldwide mobile broadband networks. Once connected, users can transfer data and stream media. Simply connect your USB modem and share your 3G Internet connection through a secure 802.11n wireless network or using the 10/100 Ethernet port.

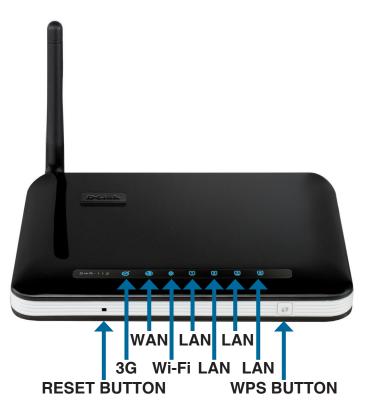
The 3G Wi-Fi Router can be installed quickly and easily almost anywhere. This router is great for situations where an impromptu wireless network must be set up, or wherever conventional network access is unavailable. The DWR-113 can even be installed in buses, trains, or boats, allowing passengers to check e-mail or chat online while commuting.

Hardware Overview Back Panel



Port	Function
USB Port	Connects to a USB modem.
LAN Port	Connects to wired computers or devices.
WAN Port	Connects to the Internet.
Power Port	Connects to the power adapter.

Hardware Overview Front Panel and LEDs



LED	Descrip	ription		
	Color	Solid	Blinking	Blinking (Fast)
3G	Green	3G connection established	Data transmitting	-
WAN	Green	WAN connection established	Data transmitting	-
Wi-Fi	Green	Wi-Fi active and available	Data transmitting	Device in WPS mode
LAN 1 - LAN 4	Green	Ethernet connection established	Data transmitting	-

Installation

This section will guide you through the installation process. Placement of the router is very important. Do not place the router in an enclosed area such as a closet, cabinet, or in an attic or garage.

Connect to Your Network

Note: Ensure that your DWR-113 3G Wi-Fi Router is disconnected and powered off before performing the installation steps below.

- 1. Connect a USB modem to the **USB** port on the back of the router.
- 2. Insert a LAN network cable into the LAN port on the back of the router. Plug the other end of the LAN cable into the LAN port of your computer or laptop. The Ethernet LED will turn green if the Ethernet connection is successfully established.

Note: The DWR-113 3G Wi-Fi Router LAN Port is "Auto-MDI/MDIX." Therefore, patch or crossover Ethernet cables can be used.

3. Configure the device using the setup utility.

Wireless Installation Considerations

The DWR-113 can be accessed using a wireless connection from virtually anywhere within the operating range of your wireless network. Keep in mind, however, that the quantity, thickness and location of walls, ceilings, or other objects that the wireless signals must pass through, may limit the range. Ranges vary depending on the types of materials and background RF (radio frequency) noise in your home or office. The key to maximizing the wireless range is to follow these basic guidelines:

- 1. Minimize the number of walls and ceilings between the D-Link router and other network devices. Each wall or ceiling can reduce your adapter's range from 3 to 90 feet (1 to 30 meters).
- 2. Be aware of the direct line between network devices. A wall that is 1.5 feet thick (0.5 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. Try to position access points, wireless routers, and computers so that the signal passes through open doorways and drywall. Materials such as glass, metal, brick, insulation, concrete and water can affect wireless performance. Large objects such as fish tanks, mirrors, file cabinets, metal doors and aluminum studs may also have a negative effect on range.
- 4. If you are using 2.4 GHz cordless phones, make sure that the 2.4 GHz phone base is as far away from your wireless device as possible. The base transmits a signal even if the phone in not in use. In some cases, cordless phones, X-10 wireless devices, and electronic equipment such as ceiling fans, fluorescent lights, and home security systems may dramatically degrade wireless connectivity.

Configuration

This section will show you how to configure your new D-Link mobile router using the web-based configuration utility.

Web-based Configuration Utility

To access the configuration utility, open a web-browser such as Internet Explorer and enter the IP address of the router (192.168.0.1).



Type **Admin** and then enter the password. By default, the password is blank.

If you get a **Page Cannot be Displayed** error, please refer to the **Troubleshooting** section for assistance.

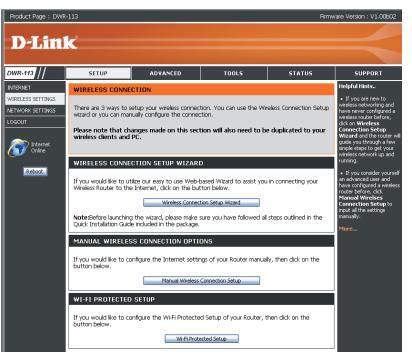
LOGIN	
Log in to the router:	
	User Name : admin
	Password : Log In

Setup Wizard

The setup wizard guides you through the initial setup of your router. There are two ways to setup your Internet connection. You can use the Web-based **Internet Connection Setup Wizard** or you can manually configure using the **Manual Internet Connection Setup** wizard.

Click Internet Connection Setup Wizard to begin.

If you want to enter your settings without running the wizard, click **Manual Internet Connection Setup** and skip to page 13.



Internet Connection Setup Wizard

This wizard will guide you through a step-by-step process to configure your D-Link router to connect to the Internet.

Click Next to continue.

WELCOME TO THE SETUP WIZARD



Section 3 - Configuration

Create a new password and then click **Next** to continue.

Click **Prev** to go back to the previous page or click **Cancel** to close the wizard.

Select your time zone from the drop-down box and then click **Next** to continue.

Click **Prev** to go back to the previous page or click **Cancel** to close the wizard.

Select the Internet connection type. The connection types are explained on the following page. If you are unsure of the correct connection type, you may have to contact your Internet Service Provider (ISP).

Click **Prev** to go back to the previous page or click **Cancel** to close the wizard.

Note: The DWR-113 supports several kinds of WAN interfaces, allowing you to assign either a WAN or a WWAN(3G) connection as the Backup WAN. If the Primary WAN is down or unavailable, configure the Backup WAN to **Enable**, and all the traffic will be routed through Backup WAN. This feature is called **WAN Failover**. You can use WAN Failover if you need redundancy to your Internet connection or any other network.

STEP 1: SET YOUR PASSWORD
To secure your new networking device, please set and verify a password below: Password : Verify Password :
Prev Next Cancel Connect

STEP 2: SELECT YOUR TIME ZONE
Select the appropriate time zone for your location. This information is required to configure the time-based options for the router.
(GMT-08:00) Pacific Time (US & Canada)
Prev Next Cancel Connect

STEP 3: CONFIGURE YOUR INTERNET CONNECTION
Please select the Internet connection type below:
DHCP Connection (Dynamic IP Address)
Choose this if your Internet connection automatically provides you with an IP Address. Most Cable Modems use this type of connection.
© Username / Password Connection (PPPoE)
Choose this option if your Internet connection requires a username and password to get online. Most DSL modems use this type of connection.
© Username / Password Connection (PPTP)
PPTP client.
Username / Password Connection (L2TP)
L2TP client.
C 3G Connection
36.
O Static IP Address Connection
Choose this option if your Internet Setup Provider provided you with IP Address information that has to be manually configured.
Prev Next Cancel Connect

The subsequent configuration pages will differ depending on the selection you make on this page.

Choose this if your Internet connection automatically provides you with an IP Address. Most cable modems use this type of connection. See page 16 for information about how to configure this type of connection.
 Choose this option if your Internet connection requires a username and password to connect. Most DSL modems use this style of connection. See page 17 for information about how to configure this type of connection.
 Choose this option if your Internet connection requires Point-to-Point Tunneling Protocol (PPTP). See page 18 for information about how to configure this type of connection.
Choose this option if your Internet connection requires Layer 2 Tunneling Protocol (L2TP). See page 19 for information about how to configure this type of connection.
Choose this option if your Internet Setup Provider provided you with IP Address information that has to be manually configured. See page 21 for information about how to configure this type of connection.

You have completed the Setup

Wizard.	SETUP COMPLETE!
	The Internet Connection Setup Wizard has completed. Click the Connect button to save your settings and reboot the router.
	Prev Next Cancel Connect

Click **Connect** to save your settings.

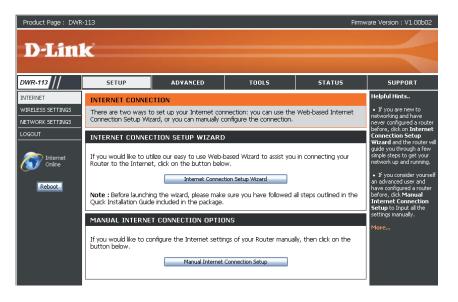
A popup will appear, to confirm your settings.

Click **OK** to save your settings.

Manual Internet Connection Setup

Click Manual Internet Connection Setup to begin.

If you want to configure your router to connect to the Internet using the wizard, click **Internet Connection Setup Wizard** and refer to page 9.



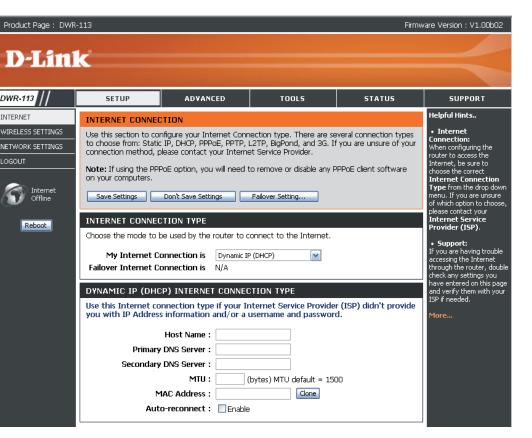
Internet Connection Internet Connection Type

Several different Internet Connection types can be selected depending upon the specifications of your Internet Service Provider (ISP).

My Internet Connection is:	Select the Internet Connection type	F
	specified by your Internet Service	
	Provider (ISP). The corresponding	
	settings will be displayed below.	
	Please see the following pages for	D
	details on how to configure these	IN
	different connection types.	
		-Ni

Failover Internet This connection can serve as a **Connection is:** backup for your default connection.

- Host Name: Enter the name of the Internet host to be used as the backup connection.
- **Primary DNS Server:** Enter the primary DNS server.
- Secondary DNS Server: Enter the secondary DNS server.
 - MTU: Set the MTU (the default value is 1500).
 - MAC Address: Manually enter the MAC address or click Clone to copy the PC's MAC address.
 - Auto-reconnect: Tick this check box to enable auto-reconnect.



Dynamic IP (DHCP)

This section will help you to obtain IP Address information automatically from your ISP. Use this option if your ISP didn't provide you with IP Address information and/or a username and password.

Host Name:	(Optional) Required by some ISPs.	DYNAMIC IP (DHCP) INTERNET CONNECTION TYPE
Primary DNS Server:	(Optional) Fill in with IP address of primary DNS server.	Use this Internet connection type if your Internet Service Provider (ISP) didn't provide you with IP Address information and/or a username and password. Host Name : ROUTER Primary DNS Server : 0.0.0.0
Secondary DNS Server:	(Optional) Fill in with IP address of secondary DNS server.	Secondary DNS Server : 0.0.0.0 (optional) MTU : 1500 (bytes) MTU default = 1500 MAC Address : 00-21-9B-57-2A-9C Save Restore MAC Auto-reconnect : Enable
MTU (Maximum Transmission Unit):	You may need to change the Maximum Transmission Unit (MTU) for optimal performance. The default value is 1500.	Save Settings Don't Save Settings
MAC Address:	It is not recommended that you change the default	physical interface MAC address on the Broadband Router. MAC address unless required by your ISP. You can use ce the Internet port's MAC address with the MAC address
Auto-reconnect:	This feature enables this product to renew WAN IP	addross automatically when the lease time is expiring

Auto-reconnect: This feature enables this product to renew WAN IP address automatically when the lease time is expiring.

PPPoE

Choose this Internet connection if your ISP provides you PPPoE account.

Username:	The username/account name that your ISP provides to you for PPPoE dial-up.	PPPOE Enter the information provided by your Internet Service Provider (ISP).
Password:	Password that your ISP provides to you for PPPoE dial-up.	Username : Password : Verify Password : Service Name : (optional)
Verify Password:	Fill in with the same password in Password field.	IP Address : 0.0.0.0 Primary DNS Server : 0.0.0.0
Service Name:	(Optional) Fill in if provided by your ISP.	Secondary DNS Server : 0.0.0.0 (optional) MAC Address : 00-00-00-01-00 Save Restore MAC Maximum Idle Time : 300 seconds
IP Address:	(Optional) Fill in if provided by your ISP. If not, keep the default value.	MTU: 1492 (bytes) MTU default = 1492 Auto-reconnect : Enable
Primary DNS Server:	(Optional) Fill in if provided by your ISP. If not, keep the default value.	Save Settings Don't Save Settings
Secondary DNS Server:	(Optional) Fill in if provided by your ISP. If not, keep	the default value.
MAC Address:	19	MAC address of your PC to its WAN interface by pressing outton will reset the router to its default MAC address.
Maximum Idle Time:	The amount of time of inactivity before disconnecti Auto-reconnect will disable this feature.	ng established PPPoE session. Set it to zero or enable
Maximum Transmission Unit (MTU):	The default setting of PPPoE is 1492.	
Auto-reconnect:	The device will dial-up PPPoE connection automatic	cally.
	Click Save Settings to save your changes, or click	Don't Save Settings to discard your changes.

PPTP

Choose this Internet connection if your ISP provides you PPTP account.

Address Mode:	Choose Static IP only if your ISP assigns you an IP address. Otherwise, please choose Dynamic IP.	PPTP Enter the information provided by your Internet Service Provider (ISP).
PPTP IP Address:	Enter the information provided by your ISP. (Only applicable for Static IP PPTP.)	Address Mode : O Dynamic IP O Static IP PPTP IP Address : 0.0.0 PPTP Subnet Mask : 255.255.255.0
PPTP Subnet Mask:	Enter the information provided by your ISP. (Only applicable for Static IP PPTP.)	PPTP Gateway IP Address : 0.0.0.0 PPTP Server IP Address : Username : Password :
PPTP Gateway IP Address:	Enter the information provided by your ISP. (Only applicable for Static IP PPTP.)	Verify Password : Reconnect Mode : O Always-on O Connect-on-demand Maximum Idle Time : 300 seconds
PPTP Server IP Address:	IP address of PPTP server.	Save Settings Don't Save Settings

Username: User/account name that your ISP provides to you for PPTP dial-up.

Password: Password that your ISP provides to you for PPTP dial-up.

Verify Password: Fill in with the same password in Password field.

Reconnect Mode: Choose **Always-on** when you want to establish PPTP connection all the time. If you choose **Connect-ondemand**, the device will establish PPTP connection when local users want to surf Internet, and disconnect if no traffic after time period of Maximum Idle Time.

Maximum Idle Time: The time of no activity to disconnect your PPTP session. Set it to zero or choose Always-on to disable this feature.

L2TP

Choose this Internet connection if your ISP provides you L2TP account.

Address Mode:	Choose Static IP only if your ISP assigns you an IP	L2TP
	address. Otherwise, please choose Dynamic IP.	Enter the information provided by your Internet Service Provider (ISP).
		Address Mode : C Dynamic IP • Static IP
L2TP IP Address:	Enter the information provided by your ISP.	L2TP IP Address : 0.0.0.0
	(Only applicable for Static IP L2TP.)	L2TP Subnet Mask : 255.255.255.0
		L2TP Gateway IP Address : 0.0.0.0
LOTD Subnot Mack	Entor the information provided by your ISP	L2TP Server IP Address :
LZTF SUDIICI WIASK.	Enter the information provided by your ISP.	Username :
	(Only applicable for Static IP L2TP.)	Password :
		Verify Password :
L2TP Gateway IP Address:	Enter the information provided by your ISP.	Reconnect Mode : C Always-on © Connect-on-demand
	(Only applicable for Static IP L2TP.)	Maximum Idle Time: 300 seconds
		Save Settings Don't Save Settings
L2TP Server IP Address:	IP address of L2TP server.	

User/account name that your ISP provides to you for L2TP dial-up.

Password: Password that your ISP provides to you for L2TP dial-up.

Verify Password: Fill in with the same password in Password field.

- **Reconnect Mode:** Choose Always-on when you want to establish L2TP connection all the time. Choose Connect-on-demand the device will establish L2TP connection when local users want to surf Internet, and disconnect if no traffic after time period of Maximum Idle Time.
- Maximum Idle Time: The time of no activity to disconnect your L2TP session. Set it to zero or choose Always-on to disable this feature.

3G

Choose this Internet connection if you already use a SIM card for 3G Internet service from your Telecom company. The fields here may not be necessary for your connection. The information on this page should only be used if required by your service provider.

Account/Profile Name:	Fill in a name to indicate the following 3G 3G INTERNET CONNECTION TYPE				
	configuration.	Enter the information provided by your Internet Service Provider (ISP).			
Heornamo	(Optional) Fill in only if requested by ISP	Account/Profile Name :			
Usemanie.	(Optional) Fill in only if requested by ISP.	Username : (optional)			
Deceword	(Optional) Fill in only if requested by ISP.	Password : (optional) Dialed Number :			
rasswulu.	(Optional) I in in only in requested by ISP.	Authentication : Auto 🗸			
Dialed Number:	Enter the number to be dialed.	APN : (optional)			
Dialeu Nullinei.	Litter the number to be dialed.	Pin :			
Authentication:	PAP, CHAP, or Auto detection. The default	Reconnect Mode : O Auto C Manual Maximum Idle Time : 300 seconds			
Autionitication.	authentication method is Auto.	Primary DNS Server : 0.0.0.0			
	admentication method is Auto.	Secondary DNS Server : 0.0.0.0			
APN:	(Optional) Enter the APN information.	Keep Alive : O Disable C Use LCP Echo Request			
	(Optional) Enter the Arry monnation.	Bridge ethernet ports : 🗌 Enable			
PIN:	Enter the PIN associated with your SIM card.	Save Settings Don't Save Settings			
Reconnect Mode:	Auto or Manual. Connect to 3G network automatica	lly or manually.			
Maximum Idle Time:	The time of no activity to disconnect established 3G to disable this feature.	session. Set it to zero or choose Auto in Reconnect Mode			

- Primary DNS Server: (Optional) Fill in if provided by your ISP. If not, keep the default value.
- Secondary DNS Server: (Optional) Fill in if provided by your ISP. If not, keep the default value.
 - Keep Alive: Disable or Use LCP Echo Request. It depends on ISP requirement.
- Bridge Ethernet Ports: Activate this feature to change Ethernet WAN port to LAN port.

Static IP

Choose this Internet connection if your ISP assigns you a static IP address.

IP Address:	Enter the IP address assigned to	STATIC IF ADDRESS INTERNET CONNECTION THE				
	your network connection.	Enter the static address information provided by your Internet Service P				
Subnet Mask:	Enter the subnet mask.	IP Address :	0.0.0.0			
		Subnet Mask :	255.255.255.0			
Default Gateway:	Enter the default gateway.	Default Gateway :	0.0.0.0			
		Primary DNS Server :	0.0.0.0			
Primary DNS Server:	Enter the primary DNS server.	Secondary DNS Server :	0.0.0.0			
		MTU :	1500 (bytes) MTU default = 1500			
Secondary DNS Server:	Enter the secondary DNS server.	MAC Address :	00-00-00-01-00 Save Restore MAC			
MTU:	You may need to change the	Save S	ettings Don't Save Settings			
	Maximum Transmission Unit (MTU)					
	for optimal performance. The defaul	t value is 1500.				

MAC Address: The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Clone Your PC's MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

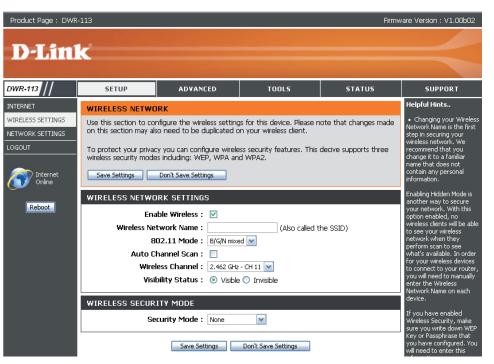
Wireless Settings

This section will help you to manually configure the wireless settings of your router. Please note that changes made on this section may also need to be duplicated on your Wireless Client.

WIRELESS NETWORK SETTINGS

- Enable Wireless: Select this checkbox to enable wireless access. When you set this option, the following parameters take effect.
- Wireless Network Name: Also known as the SSID (Service Set Identifier), this is the name of your Wireless Local Area Network (WLAN). Enter a name using up to 32 alphanumeric characters. The SSID is case-sensitive. The default name is "dlink_DWR-113".
 - **802.11 Mode: B/G/N mixed:** Enable this mode if your network contains a mix of 802.11b and 802.11g devices.

G mode: Enable this mode if your network has only 802.11g devices. If you have both 802.11b and 802.11g wireless clients, disable this mode.



Auto Channel Scan: A wireless network uses specific channels in the wireless spectrum to handle communication between clients. Some channels in your area may experience interference from other electronic devices. Choose the clearest channel to help optimize the performance and coverage of your wireless network.

- Wireless Channel: Indicates the channel setting for the DWR-113. By default the channel is set to 11. This can be changed to fit the channel setting for an existing wireless network or to customize your wireless network. Click **Auto Channel Scan** to automatically select the channel that it will operate on. This option is recommended because the router will choose the channel with the least amount of interference.
 - Visibility Status: Select Invisible if you do not want the SSID of your wireless network to be broadcasted by DWR-113. The SSID of your router will not be seen by Site Survey utilities. Therefore while setting up your wireless clients, you will have to manually enter your SSID to connect to the router.

WIRELESS SECURITY MODE

Security Mode: This device supports three wireless security modes, WEP, WPA-Personal, WPA-Enterprise or None. WEP is the original wireless encryption standard. WPA provides a higher level of security and WPA-Personal does not require an authentication server. When WPA enterprise is enabled, the router uses EAP (802.1x) to authenticate clients via a remote RADIUS server.

Product Page : DWR-113

Click **Save Settings** to save your changes, or click **Don't Save Settings** to discard your changes.

D -Lini					
DWR-113	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
INTERNET	WIRELESS NETWO	IRK			Helpful Hints
WIRELESS SETTINGS NETWORK SETTINGS		nfigure the wireless setting to need to be duplicated o		ote that changes made	 Changing your Wireless Network Name is the first step in securing your wireless network. We
	wireless security mode	y you can configure wirele s including: WEP, WPA an		decive supports three	wireless network, we recommend that you change it to a familiar name that does not contain any personal
Online	Save Settings	Don't Save Settings			information.
Reboot	WIRELESS NETWO	RK SETTINGS			Enabling Hidden Mode is another way to secure your network, With this
		ble Wireless : 💌 twork Name :	(Also called t	he SSID)	option enabled, no wireless clients will be able to see your wireless
		D2.11 Mode : B/G/N mixe	ed 💌		network when they perform scan to see
		hannel Scan: 📃 ess Channel: 2.462 GHz	- CH 11 💌		what's available. In order for your wireless devices to connect to your router,
		pility Status : 💿 Visible			you will need to manually enter the Wireless Network Name on each
	WIRELESS SECUR	ITY MODE			device.
	Se	curity Mode: None	v		If you have enabled Wireless Security, make sure you write down WEP Key or Passphrase that
		Save Settings	Don't Save Settings		you have configured. You will need to enter this

Firmware Version : V1.00b02

Network Settings Router Settings

This section will help you to change the internal network settings of your router and to configure the DHCP Server settings.

Router IP Address:	Enter the IP address of the router. The default IP address is 192.168.0.1 .
	If you change the IP address, you will need to enter the new IP address in your browser to get into the configuration utility.
Default Subnet Mask:	Enter the Subnet Mask of the router. The default subnet mask is 255.255.255.0 .
Local Domain Name:	Enter the local domain name for your network.

Product Page : DWR	-113			Firmv	vare Version : V1.00b02
D I Seal					
D-Lin	2				
WR-113	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
NTERNET	NETWORK SETTIN	3			Helpful Hints
VIRELESS SETTINGS ETWORK SETTINGS DGOUT	the built-in DHCP serve that is configured here interface. If you chang to access the network	-	the computers on your ne u use to access the Web- u may need to adjust you	etwork. The IP address based management Ir PC's network settings	 If you already have a DHCP server on your network or are using static IP addresses on all the devices on your network, uncheck Enable DHCP Server to disable this feature.
Internet Online	settings here to get	s section is optional an your network up and i		hange any of the	More
Reboot	Save Settings	Don't Save Settings			
	ROUTER SETTINGS	1			
	configured here is the	ifigure the internal netwo IP address that you use to ddress here, you may nee	o access the Web-based r	management interface.	
	Router	IP Address : 192.168.0.	.1		
	Default S	ubnet Mask : 255.255.25	55.0		
	Local D	omain Name :			
	DHCP SERVER SET	TINGS			
	Use this section to cor your network.	figure the built-in DHCP se	erver to assign IP address	to the computers on	
	Enable D	HCP Server : 🔽			
	DHCP IP Add	Iress Range: 50 to	199 (addresses within	the LAN subnet)	
			(Seconds)		
		IP Address :			
	Secondary DNS Primary WINS				
	Secondary WINS				
		Save Settings	Don't Save Settings		

DHCP Server Settings

The DWR-113 has a built-in DHCP (Dynamic Host Control Protocol) server. The DHCP server assigns IP addresses to devices on the network that request them. By default, the DHCP Server is enabled on the device. The DHCP address pool contains a range of IP addresses, which is automatically assigned to the clients on the network.

Enable DHCP Server:	Select this box to enable the DHCP	
		DHCP SERVER SETTINGS
	server on your router.	Use this section to configure the built-in DHCP server to assign IP address to the computers on your network.
DHCP IP Address Range:	Enter the starting and ending IP address for the server's IP	Enable DHCP Server : 🔽
	assignment.	DHCP IP Address Range : 50 to 199 (addresses within the LAN subnet)
		DHCP Lease Time : 1440 (minutes)
DHCP Lease Time:	The time period for the IP address	Primary DNS IP Address 0.0.0.0
	lease. Enter the Lease time in	Secondary DNS IP Address 0.0.0.0
	minutes.	Primary WINS IP Address 0.0.0.0
		Secondary WINS IP Address 0.0.0.0
Primary DNS IP Address:	Primary DNS IP Address: assign a primary DNS Server to DHCP clients.	Save Settings Don't Save Settings
Secondary DNS IP Address:	Secondary DNS IP Address: assign a	DNS Server to DHCP clients.
Primary WINS IP Address:	Primary WINS IP Address: assign a p	rimary WINS Server to DHCP clients.
Secondary WINS IP Address:	Secondary WINS IP Address: assign	a WINS Server to DHCP clients.

Virtual Server

The device can be configured as a virtual server so that users can access services such as Web or FTP via the public (WAN) IP address of the router.

- Well-known Services: This contains a list of pre-defined services.
 - **Copy to:** Copies the rule to the line of the specified ID.
 - Use schedule rule: You may select Always On or choose the number of a schedule rule that you have defined.

VIRTUAL SERVERS LIST

- **ID:** Identifies the virtual server.
- Server IP: Port: Enter the last digits of the IP address of the computer on your local network that you want to allow the incoming service. In the next box, enter the port number that you would like to open.
 - **Enable:** Select this box to enable the rule.
- Schedule Rule #: Specify the schedule rule number.

D -Lin	1-2				
DWR-113	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
VIRTUAL SERVER	VIRTUAL SERVER	· · · ·		·	Helpful Hints
APPLICATION RULES	The Virtual Server option	n allows you to define a sin	gle public port on y	your router for redirection	 You can select your computer from the list
QOS ENGINE	to an internal LAN IP Ad online services such as F	dress and Private LAN port TP or Web Servers,	if required. This fe	ature is useful for hosting	DHCP clients in the Computer Name dro
MAC ADDRESS FILTER	Save Settings D	on't Save Settings			down menu, or enter t
URL FILTER		on t Save Settings			IP address manually of computer you would lik
OUTBOUND FILTER	Well kn	own services select one	e 🔽 🔽 Copy to 🛛 J	ID 💌	open the specified port
INBOUND FILTER		Use schedule rule/	ALWAYS ON 🔽		 This feature allows to open a range of por
SNMP	VIRTUAL SERVERS				to a computer on your network. To do so, ent
ROUTING	-	1101	1. V		the first port in the ran you would like to open
ADVANCED WIRELESS	ID Service Ports	Server IP : Port	Enable	Schedule Rule#	the router in the first b under Public Port and
ADVANCED NETWORK	1	:		Add New Rule	last port of the range i the second one. After
LOGOUT	2	:		Add New Rule	you enter the first port the range that the inte
Internet	3	:		Add New Rule	server uses in the first under Private Port a
Offline	4	:		Add New Rule	the last port of the ran in the second.
	5	:		Add New Rule	 To open a single pol
Reboot	6	:		Add New Rule	using this feature, simp
	7	:		Add New Rule	enter the same number both boxes.
	8	:		Add New Rule	More
	9	:		Add New Rule	
	10	:		Add New Rule	
	11	:		Add New Rule	
	12	:		Add New Rule	
	13	:		Add New Rule	
	14	:		Add New Rule	
	15	1:		Add New Rule	
	16			Add New Rule	
	17	:		Add New Rule	
	18			Add New Rule	
	19			Add New Rule	
	20			Add New Rule	

Application Rules

Some applications require multiple connections, such as Internet gaming, video conferencing, Internet telephony and others. These applications have difficulties working through NAT (Network Address Translation). **Applications Rules** allow some of these applications work with the DWR-113.

APPLICATION RULES

- **Popular Applications:** Select from a list of popular applications.
 - **Copy to ID:** Copies the predefined application rule to the line of the specified ID.
 - **ID:** Identifies the rule.
 - **Trigger:** The name of the trigger.
 - **Incoming Ports:** Specify the incoming port for the trigger rule.
 - Enable: Select this box to enable the rule.

D-Lin							
DWR-113	SETUP	ADV	ANCED	TOOLS	STAT	US	SUPPORT
VIRTUAL SERVER	APPLICATION	RULES					Helpful Hints
APPLICATION RULES QOS ENGINE MAC ADDRESS FILTER URL FILTER	sent to the Inte	ed to open single rnet on a 'trigger' our internal netwo Don't Save S	' port or port r irk.	rts on your router when th ange. Special Applications	ne router sens rules apply to	es data all	 Check the Applicati Name drop down menu for a list of pre-defined applications that you can select from. If you selec one of the pre-defined applications, click the
OUTBOUND FILTER		opular applicatio	ann coloct or	ne 🔽 Copy to ID			arrow button next to the drop down menu to fill o
INBOUND FILTER		opular applicatio					the appropriate fields.
SNMP	APPLICATION	RULES					More
ROUTING	ID	Trigger		Incoming Ports	E	nable	
ADVANCED WIRELESS	1						
ADVANCED NETWORK	2						
LOGOUT	3						
Construct	4						
Online	5						
	6						
Reboot	7						
	8						
	9						
	10						
	11						

QoS Engine

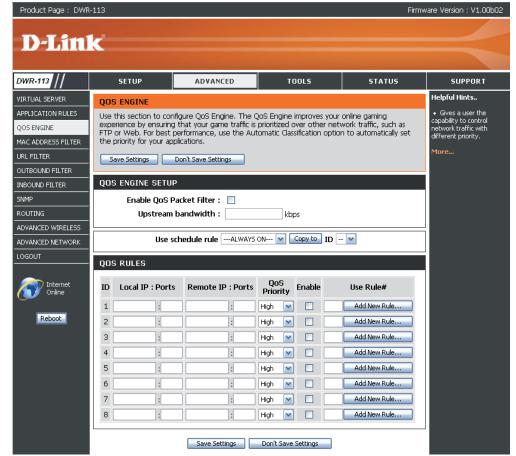
The **QoS Engine** improves your online gaming experience by ensuring that your game traffic is prioritized over other network traffic, such as FTP or Web. For best performance, use the Automatic Classification option to automatically set the priority for the applications.

QoS ENGINE SETUP

- Enable QoS Packet Filter: Select this box to enable the QoS Packet Filter.
 - **Upstream Bandwidth:** Specify the maximum upstream bandwidth here (e.g. 400 kbps).

QoS RULES

- **ID:** Identifies the rule.
- Local IP : Ports: Specify the local IP address and then specify the port after the colon.
- **Remote IP : Ports:** Specify the remote IP address and then the port after the colon.
 - **QoS Priority:** Select Low, Normal, or High.
 - Enable: Select a checkbox to enable the particular QoS rules individually.



Click Save Settings to save your

changes, or click **Don't Save Settings** to discard your changes.

MAC Address Filter

The **MAC (Media Access Controller) Address Filter** option is used to control network access based on the MAC Address of the network adapter. A MAC address is a unique ID assigned by the manufacturer of the network adapter. This feature can be configured to ALLOW or DENY network/Internet access.

MAC FILTERING SETTINGS

- MAC Address Control: Select this box to enable Mac Filtering.
 - **Connection Control:** Wireless and wired clients with **C** selected can connect to this device and **allow/deny** connections from unspecified MAC addresses.
 - Association Control: Wireless clients with A selected can associate to the wireless LAN; and allow/deny connections from unspecified MAC addresses.

MAC FILTERING RULES

- **ID:** Identifies the rule.
- MAC Address: Specify the MAC Address of the computer to be filtered.
 - **IP Address:** Specify the last section of the IP address.
- Wake On LAN: Click Trigger to configure Wake On LAN.



- **C:** If this box is selected, the rule will follow the connection control setting specified in MAC filtering settings.
- A: If this box is selected, the rule will follow the connection control setting specified in MAC filtering settings.

URL Filter

URL Filter allows you to set up a list of Web-sites that will be blocked from users on your network.

URL Filtering: Select this box to enable URL Filtering.

URL FILTERING RULES

- **ID:** Identifies the rule.
- URL: Enter URL that you would like to block.
- Enable: Click to enable the specific URL filter.

D-Lin	K							
DWR-113	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT			
VIRTUAL SERVER	URL FILTER				Helpful Hints			
APPLICATION RULES	URL Blocking will bloc	URL Blocking will block LAN computers to connect to pre-defined Websites.						
QOS ENGINE	Save Settings							
MAC ADDRESS FILTER	Dave Dectings	Save settings Don't save settings						
URL FILTER	URL FILTERING S	URL FILTERING SETTING						
OUTBOUND FILTER								
INBOUND FILTER								
SNMP	URL FILTERING F	RULES						
ROUTING	ID	URL		Enable				
ADVANCED WIRELESS	- 1							
ADVANCED NETWORK	- 2							
LOGOUT	- 3							
	4							
Online	5	L						

Outbound Filter

Outbound Filter enables you to control what packets are allowed to pass the router. Outbound filter applies on all outbound packets.

	OUTBOUND FILTER SETTING	Product Page : DWR-113	
Outbound Filter:	Select this box to Enable the filter.	D-Lini	K
Use Schedule Rule:	You may select Always On or choose the number of a schedule rule that you have defined.	DWR-113	OU Pack appl
Copy to ID:	Copies the predefined filter to the specified ID	URL FILTER OUTBOUND FILTER INBOUND FILTER	0U ⁻
	OUTBOUND FILTER RULES LIST	SNMP ROUTING ADVANCED WIRELESS	OU [.]
ID:	Identifies the filter.	ADVANCED NETWORK	00
Source IP : Ports:	Specify the local IP address and then specify the port after the colon.	Internet Offline Reboot	ID 1 2 3
Destination IP : Ports:	Specify the remote IP address and then the port after the colon.		4 5 6
Enable:	Select this box to enable the filter.		7 8
Schedule Rule #:	Specify the schedule rule number.		
Previous Page:	Go back to the previous filter page.		

1 Add New Rule ... 2 Add New Rule. З Add New Rule.. 4 Add New Rule ... 5 Add New Rule... 6 Add New Rule .. 7 Add New Rule ... Add New Rule. 8 Previous page Next page Save Settings Don't Save Settings

SETUP

OUTBOUND FILTER

applies on all outbound packets.

OUTBOUND FILTER SETTING

OUTBOUND FILTER RULES LIST

Source IP:Ports

Save Settings Don't Save Settings

ADVANCED

Outbound Filter : 📃 Enable

TOOLS

Packet Filter enables you to control what packets are allowed to pass the router. Outbound filter

Use schedule rule ---ALWAYS ON--- 🔽 Copy to ID -- 🔽

Allow all to pass except those match the following rules. O Deny all to pass except those match the following rules.

Destination IP:Ports Enable

STATUS

Schedule Rule#

Next Page: Advance to the next filter page.

Click Save Settings to save your changes, or click Don't Save Settings to discard your changes.

Firmware Version : V1.00b02

SUPPORT Helpful Hints..

Packet Filter enable

you to control what

, packets are allowed t pass the

router.Outbound filter applies on all outbound packets.

owever, Inbound filte applies on packets that

destined to Virtual only.You can select on of the two filtering

olicies:

Inbound Filter

Inbound Filter enables you to control what packets are allowed to pass the router. Inbound filter only applies to packets that are destined for Virtual Servers or DMZ hosts.

SETUP

BOUND FILTER

Save Settings Don't Save Settings

BOUND FILTER SETTING

BOUND FILTER RULES LIST

Source IP:Ports

ADVANCED

plies on packets that destined to Virtual Servers or DMZ host only.

Inbound Filter : 📃 Enable

	INTBOUND FILTER SETTING	Product Page : DWR	-113
Inbound Filter:	Select this box to Enable the filter.	D-Lin	k
Use Schedule Rule:	You may select Always On or choose the number of a schedule rule that you have defined.	DWR-113	INB Pack appl
Copy to ID:	Copies the predefined filter to the specified ID	MAC ADDRESS FILTER URL FILTER OUTBOUND FILTER INBOUND FILTER	INB
	INBOUND FILTER RULES LIST	SNMP ROUTING ADVANCED WIRELESS	INB
ID:	Identifies the filter.	ADVANCED NETWORK	INB
Source IP : Ports:	Specify the local IP address and then specify the port after the colon.	Internet Online	ID 1 2 3
Destination IP : Ports:	Specify the remote IP address and then the port after the colon.		4 5 6
Enable:	Select this box to enable the filter.		7 8
Schedule Rule #:	Specify the schedule rule number.		

- **Previous Page:** Go back to the previous filter page.
 - **Next Page:** Advance to the next filter page.

Click Save Settings to save your changes, or click Don't Save Settings to discard your changes.

Firmware Version : V1.00b02

SUPPORT Helpful Hints..

Packet Filter enable

vou to control what

packets are allowed to pass the

router.Outbound filter applies on all outboun packets.

However, Inbound filter applies on packets that destined to Virtual

Servers or DMZ host only.You can select on of the two filtering

olicies:

STATUS

Schedule Rule#

Add New Rule...

Add New Rule.

Add New Rule.

Add New Rule ..

Add New Rule ..

Add New Rule ..

Add New Rule..

Add New Rule...

TOOLS

Enable

Next page

cket Filter enables you to control what packets are allowed to pass the router. Inbound filter

Use schedule rule ----ALWAYS ON--- 🔽 Copy to ID -- 💌

Allow all to pass except those match the following rules.
 Deny all to pass except those match the following rules.

Destination IP:Ports

Previous page

Save Settings Don't Save Settings

SNMP

SNMP (Simple Network Management Protocol) is a widely used network monitoring and control protocol that reports activity on each network device to the administrator of the network. SNMP can be used to monitor traffic and statistics of the DWR-113. The DWR-113 supports SNMP v1 or v2c.

SNMP

- **SNMP Local:** Select **Enabled** to allow local SNMP administration. Select **Disabled** to disallow local SNMP administration.
- SNMP Remote: Select Enabled to allow local SNMP administration. Select Disabled to disallow local SNMP administration.
- **Get Community:** Enter the password **public** in this field to allow "Read only" access to network administration using SNMP. You can view the network, but no configuration is possible with this setting.
- Set Community: Enter the password private in this field to gain "Read and Write" access to the network using SNMP software.

Product Page : DWR	-113			Firmw	are Version : V1.00b02
D-Lini	k				\prec
DWR-113	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
VIRTUAL SERVER APPLICATION RULES QOS ENGINE	SNMP Use Simple Network M	anagement Protocol(SNMF Don't Save Settings) for management purpo	ses.	 Helpful Hints Gives a user the capability to remotely manage a computer
MAC ADDRESS FILTER	SNMP	bont save seconds			network by polling and setting terminal values and monitoring network events.
OUTBOUND FILTER	SN	MP Remote : 🔘 Enable	ed 💿 Disabled ed 💿 Disabled		More
ROUTING ADVANCED WIRELESS		Community : Community : IP 1 :			
ADVANCED NETWORK		IP 3 :			
Internet Online		IP 4 : MP Version : V1	V2c		
		Save Settings	Don't Save Settings		

- IP 1, IP 2, IP 3, IP 4: Enter up to four IP addresses of any trap targets on your network.
 - **SNMP Version:** Select the SNMP version of your system.

Routing

The **Routing** page allows you to specify custom routes that determine how data is moved around your network.

RIP SETTING

RIP: Select this box to enable routing.

RIPv1: Protocol in which the IP address is routed through the internet.

RIPv2: Enhanced version of RIPv1 with added features such as Authentication, Routing Domain, Next Hop Forwarding, and Subnetmask Exchange.

ROUTING RULES

- **ID:** Identifies the rule.
- **Destination:** Enter the IP of the specified network that you want to access using the static route.
- Subnet Mask: Enter the subnet mask to be used for the specified net work.
 - Gateway: Enter the gateway IP address to the specified network.
 - Hop: Enter the amount of hops it will take to reach the specified network.

Note: In a transmission path, each link is terminated at a network device such as a router or gateway. The number of hops equals the number of routers or gateways that data must pass through before reaching the destination.

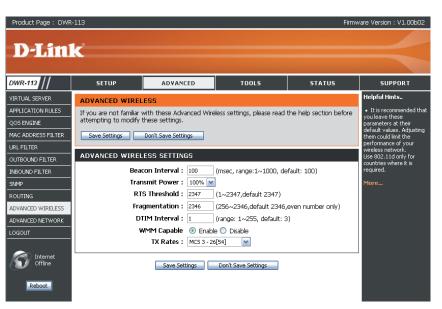
Enable: Select this box to enable the rule.

Product Page : DWR	-113					Firmw	vare Version : V1.00b02	
D-Lin	k						\prec	
WR-113 //	9	БЕТИР	ADVANCED	TOOLS	51	ATUS	SUPPORT	
IRTUAL SERVER	ROUT	ING					Helpful Hints	
PPLICATION RULES	This Ro	 Each route has a check box next to it, check this 						
OS ENGINE	your network. box if you want the rout to be enabled.							
AC ADDRESS FILTER	Save Settings Don't Save Settings							
RL FILTER	The destination IP address is the address of							
	RIP SETTING the host or network you wish to reach.							
	RIP: Enable ORIPv1 ORIPv2 • The netmask field							
NMP	identifies the portion of the destination II in u							
OUTING	RUUI	ING RULES					The gateway IP	
DVANCED WIRELESS	ID	Destination	Subnet Mask	Gateway	Нор	Enable	address is the IP address of the router, if any, used	
DVANCED NETWORK	1						to reach the specified destination.	
	2						More	
<u> </u>	З						Plore	
Internet Online	4							
	5							
Reboot	6							
	7							
	8							
			Save Settings	Don't Save Settings				

Advanced Wireless

Advanced Wireless contains settings which can negatively affect the performance of your router if configured improperly. Do not change these settings unless you are already familiar with them or have been instructed to make the change by one of our support personnel.

- **Beacon Interval:** Beacons are packets sent by an Access Point to synchronize a wireless network. Specify a value. 100 is the default setting and is recommended.
- Transmit Power: Set the transmit power of the antennas.
- **RTS Threshold:** This value should remain at its default setting of 2347. If inconsistent data flow is a problem, only a minor modification should be made.
- **Fragmentation:** The fragmentation threshold, which is specified in bytes, determines whether packets will be fragmented. Packets exceeding the 2346 byte setting will be fragmented before transmission. 2346 is the default setting.



- **DTIM Interval:** A Delivery Traffic Indication Message (DTIM) is a countdown informing clients of the next window for listening to broadcast and multicast messages. The default interval is 3.
- WMM Capable: WMM (Wi-Fi Multimedia) is QoS (Quality of Service) system for your wireless network. Enable this option to improve the quality of video and voice applications for your wireless clients.
 - **TX Rates:** Select the basic transfer rates based on the speed of wireless adapters on your wireless network. It is strongly recommended to keep this setting to **Auto**.

Advanced Network

Advanced Network contains settings which can change the way the router handles certain types of traffic. We recommend that you do not change any of these settings unless you are already familiar with them or have been instructed to make the change by one of our support personnel.

UPnP

Enable UPnP: Click Enable UPnP to use the Universal Plug and Play (UPnP[™]) feature. UPnP provides compatibility with networking equipment, software and peripherals.

WAN PING

Enable WAN Ping Respond: Select the box to allow the WAN port to be "pinged." Blocking the Ping option may provide some extra security from hackers.



Admin

The **Admin** page allows you to change the Administrator password and enable Remote Management. The Admin has read/write access while the user has read-only access. Only the admin has the ability to change both admin and user account passwords.

ADMINISTRATOR

- New Password: Enter a password that the admin account will use to access the router's management interface.
- **Confirm Password:** Confirm the chosen password.

REMOTE MANAGEMENT

Remote Management: Remote management allows the DWR-113 to be configured from the Internet using a web browser. A username and password is still required to access the Web-Management interface. Usually only a member of your network can

Product Page : DWR	Product Page : DWR-113 Firmware Version : V1.00b02				
D-Lin	k				\prec
DWR-113	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
ADMIN TIME SYSLOG EMAIL SETTINGS SYSTEM FIRMWARE DYNAMIC DNS	Save Settings ADMINISTRATOR Net	SETTINGS etwork, we recommend th Don't Save Settings (THE DEFAULT LOGIN w Password :		ew password.	Helpful Hints • For security reasons, it is recommended that you change the password for the Admin and User accounts. Be sure to write down the new and passwords to avoid having to reset the router in case they are forgotten. • Enabling Remote
SYSTEM CHECK SCHEDULES LOGOUT Online	REMOTE MANAGEN Enable Remote M IP Allowe	lanagement : Enable Id to Access : Port : I	1anual 🗸		Management, allows you or others to change the router configuration from a computer on the Internet. • Choose a port to open for remote management. More
Reboot		Save Settings	Don't Save Settings		

browse the built-in web pages to perform Administrator tasks. This feature enables you to perform Administrator tasks from the remote (Internet) host.

IP Allowed to Access: Enter the Internet IP address of the PC that has access to the Broadband Router. If you enter an asterisk (*) in this field, then anyone will be able to access the Router. Adding an asterisk (*) into this field could present a security risk and is not recommended.

This is the port number used to access the router. Example: 8080 is the port used for the Web-Management **Port:** interface.

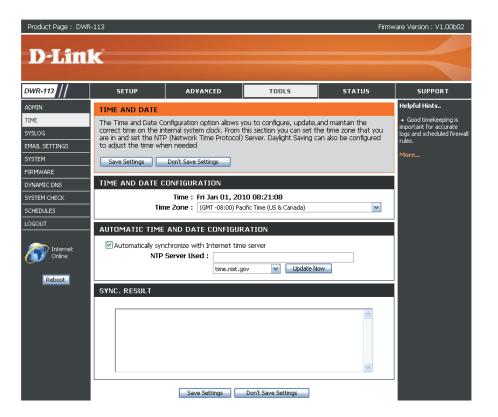
Time

This section will help you set the time zone that you are in and the NTP (Network Time Protocol) Server. Daylight Saving can also be configured to adjust the time when needed.

- **Time:** Displays the current time and date of the DWR-113.
- **Time Zone:** Select the appropriate **Time Zone** from the drop-down box.

Automatically synchronize Select this checkbox to automatically synchronize synchronize the DWR-113 with an Internet time server.

- **NTP Server Used:** Choose the NTP Server used for synchronizing time and date.
 - Sync. Result: Shows the result of the last time synchronization.

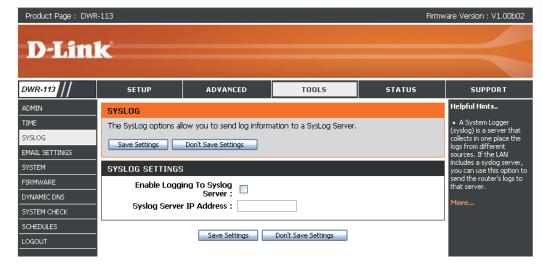


Syslog

The DWR-113 keeps a running log of events and activities occurring on the router. You may send these logs to a SysLog server on your network.

Enable Logging to Syslog	Select this box to send the router
Server:	logs to a Syslog Server.

Syslog Server IP Address: Enter the address of the Syslog server that will be used to send the logs. You may also select your computer from the dropdown box (only if you want to receive an IP address from the router via DHCP).

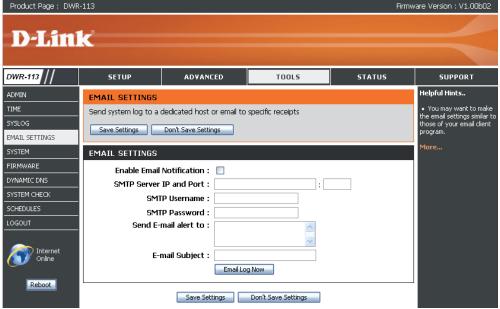


E-mail Settings

E-mail Settings allows you to send the system log files, router alert messages, and firmware update notifications to an e-mail address.

Enable E-mail Notification:	When this option is enabled, router	Product Page : DWR	-113
	activity logs are e-mailed to a designated e-mail address.	D-Lin	k
SMTP Sever IP and Port:	Enter the SMTP server IP address	DWR-113	5 EMAIL
	followed by a colon and the port number (e.g. 123.123.123.1:25).	TIME SYSLOG EMAIL SETTINGS	Send sy
SMTP Username:	Enter the SMTP username.	SYSTEM FIRMWARE DYNAMIC DNS	EMAIL
SMTP Password:	Enter the SMTP password.	SYSTEM CHECK SCHEDULES	
Send E-mail Alert to:	Enter the e-mail address where you would like the e-mail sent to.	LOGOUT	
E-mail Subject:	Enter a subject for the e-mail.	Reboot	

E-mail Log Now: Click this button to access the e-mail log.

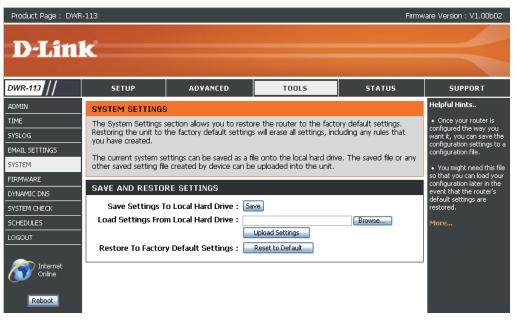


System

Here, you can save the current system settings onto the local hard drive.

Save Settings To Local Hard Drive Hard Drive Save to open a file dialog, and then select a location and file name for the settings.

- Load Settings From Local Hard Drive: Use this option to load the previously saved router configuration settings. Browse to find the saved file and then click Upload Settings to transfer those settings to the router.
- Restore To Factory Default Settings: This option will restore all settings back to their defaults. Any settings that have not been backed up will be lost, including any rules that you have created.



Current

Firmware

Here, you can upgrade the firmware of your router. Make sure the firmware you want to use is on the local hard drive of the computer and then click Browse to upload the file. 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.

Current Firmware Version:	Displays your current firmware	Product Page : DWR-	-131			F	irmware Versio
	version.	D -Linl	ĸ				
Current Firmware Date:	Displays your current firmware date.	DWR-131	SETUP	ADVANCED	TOOLS	STATUS	SUPP
Browse:	After you have downloaded the new firmware, click Browse to locate the firmware on your computer. Tick Accept unofficial firmware if you want to update the DWR- 113 with unofficial firmware (not recommended).	ADMIN TIME SYSLOG EMAIL SETTINGS SYSTEM FIRMWARE DYNAMIC DNS SYSTEM CHECK SCHEDULES LOGOUT Internet Offline Reboot	To upgrade the firmw button. Once you hav firmware upgrade. FIRMWARE INFOR Current Firmw Current Firm FIRMWARE UPGRA Note! Do not power The upgrade proced When the upgrade i To upgrade the firm	MWARE for your Router to are, locate the upgrade to re found the file to be us MATION ware Version : V1.00 mware Date : 2010/0 ADE r off the unit when it i lure takes about 180 s is done successfully, th ware, your PC must h	s being upgraded.	with the Browse below to start the automatically. to the router. Enter	Helpful Hints • Firmware u released perio improve the fu of your router features. If you problem with a feature of the check if updat is available for router. More
	upgrade.		Accept unoffi	Upload :		Browse	

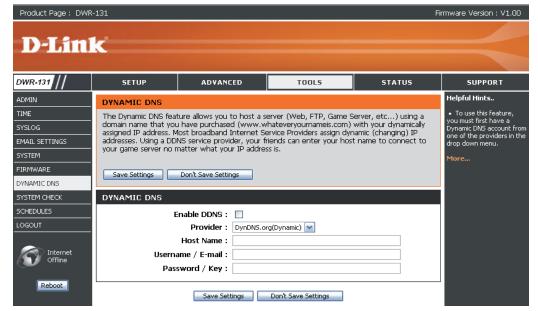
PORT ts.. odically tr iunctio ou run in router ted firmi r your

Dynamic DNS

The DDNS feature allows you to host a server (Web, FTP, or Game Server) using a domain name that you have purchased (www. whateveryournameis.com) with your dynamically assigned IP address.

Sign up for D-Link's free DDNS service at www.dlinkddns.com.

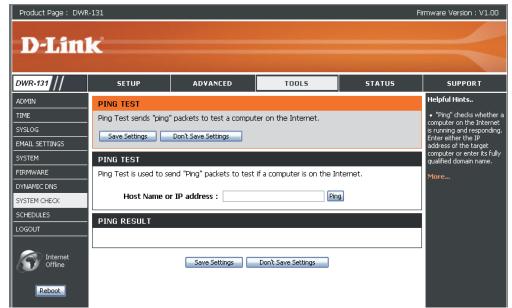
- Enable DDNS: Dynamic Domain Name System is a method of keeping a domain name linked to a changing IP Address. Select this box to enable DDNS.
 - **Provider:** Select your DDNS provider from the drop-down box.
 - Host Name: Enter the Host Name that you registered with your DDNS service provider.
- Username / E-mail: Enter the Username for your DDNS account.
 - Password / Key: Enter the Password for your DDNS account.



System Check

This useful diagnostic utility can be used to check if a computer is connected to the network. It sends ping packets and listens for responses from the specific host.

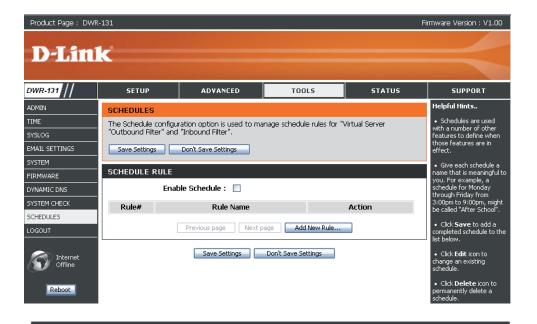
- Host Name or IP Address: Enter a host name or the IP address that you want to ping (Packet Internet Groper) and click **Ping**.
 - **PING Result:** The status of your Ping attempt will be displayed in the Ping Result box.



Schedules

This section allows you to manage schedule rules for various firewall and parental control features.

- Enable Schedule: Tick this check box to enable schedules.
- Add New Rule...: Click this button to specify the start time, end time, and name of the rule.
 - Edit: Edit the rule's start and end time.
 - **Delete:** Delete the rule.



- Name of Rule 1: Enter a name for your new schedule.
- Start Time (hh:mm): Enter the time at which you would like the schedule to become active.
- End Time (hh:mm): Select the time at which you would like the schedule to become inactive.

Name of Rule 1 :			
Week Day	Start Time (hh:mm)	End Time (hh:mm)	
Sunday		:	
Monday		:	
Tuesday		:	
Wednesday		:	
Thursday		:	
Friday	:	:	
Saturday	:	:	
Every Day		:	

Device Information

All of your Internet and network connection details are displayed on this page. The firmware version is also displayed here.

- **General:** Displays the current time and firmware version.
 - WAN: Displays the MAC address and the private (local) IP settings for the router.
- **3G Card:** Displays 3G card info, link status, and the network name.
 - LAN: Displays the MAC address and the public IP settings for the router.
- Wireless LAN: Displays the wireless MAC address and your wireless settings such as SSID, Channel, and Encryption type.
- LAN Computers: Displays the list of DHCP clients.

FO DEVICE INFORMATION Helpful lints. All of your Internet and network connection details are displayed on this page. The firmware version is also displayed here. • All of your Internet and network connection details are displayed on this page. The firmware details are displayed here. • All of your Internet and network connection details are displayed on this page. The firmware details are displayed here. • All of your Internet and network connection details are displayed on this page. The firmware details are displayed here. • All of your Internet and network connection details are displayed on this page. The firmware details are displayed here. Internet GENERAL Time : Fri Jan 01, 2010 08:20:47 Immuno details are displayed here. Firmware Version : V1.00 , 2010/08/18 WAN Connection Time : N/A Signal Strength : N/A Internet and network status : Connecting Connection Time : N/A Inter Status : Connecting Default Gateway : 0.0.0.0 DNS Server : 0.0.0.0 BC CARD Card Info: N/A Link Status : Connecting Network Name : N/A LAN MAC Address : 00:50:18:61:08:0C IP Address : 102:18:61:08:0C IP Address : 00:50:18:61:08:0C Wireless LAN MAC Address : 00:50:18:61:08:0C Wireless LAN MAC Address : 00:50:18:61:08:0C Wireless LAN Sis	1	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
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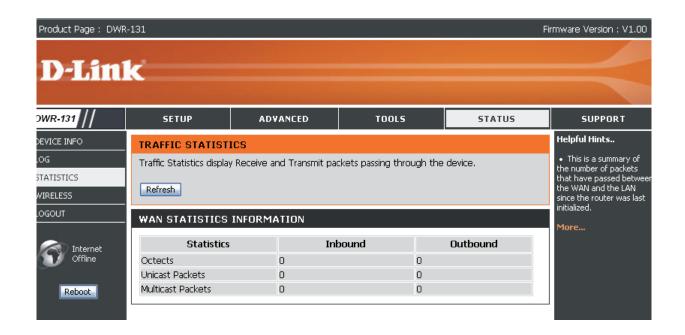
Logs

Here, you can view logs and define events that you want to view. This router also has an internal syslog server, so you can send the log files to a computer that is running a syslog utility.

Product Page: D	WR-131				Firmware Version : V1.0
D-Lin	ık				\prec
WR-131	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
EVICE INFO	VIEW LOG				Helpful Hints
G	View Log displays the	activities occurring on the	device.		• Check the log
ATISTICS		-			frequently to detect unauthorized network
RELESS	Page: 1/1 (Log Nu	mber : 12)			usage.
GOUT	Previous Next F	irst Page Last Page			More
	Refresh Download		o Log Settings		
Offline	SYSTEM LOG				
_					
Reboot	Time		Message		
	Dec 31 15:59:59	kernel: klogd : CST)	started: BusyBox v1.3.2 (2	2010-08-18 13:35:59	
	Dec 31 16:00:04		commander: Write AP PinCode into CSID S WLANAP WPS AP PINCODE		
	Dec 31 16:00:07	udhcpd[1467]]: udhcpd (v0.9.9-pre) sta	rted	
	Dec 31 16:00:07 udhcpd[1467]: Unable to open /var/run/udhcpd.leases for reading				
	Dec 31 16:00:07	init: Starting p	id 1507, console /dev/tty	S1: '/bin/ash'	
	Dec 31 16:00:08	commander: 9	STOP WANTYPE 3G		
	Dec 31 16:00:11	udhcpd[1469]): sending OFFER of 192.1	68.0.50	
	Dec 31 16:00:11	udhcpd[1469]): sending ACK to 192.168	3.0.50	
	Dec 31 16:00:47	udhcpd[1469]]: Received a SIGUSR1		
	Dec 31 16:05:58	udhcpd[1469]]: Received a SIGUSR1		
	Dec 31 16:09:22	udhcpd[1469]]: Received a SIGUSR1		
	Dec 31 16:20:41	udbapd[1460]): Received a SIGUSR1		

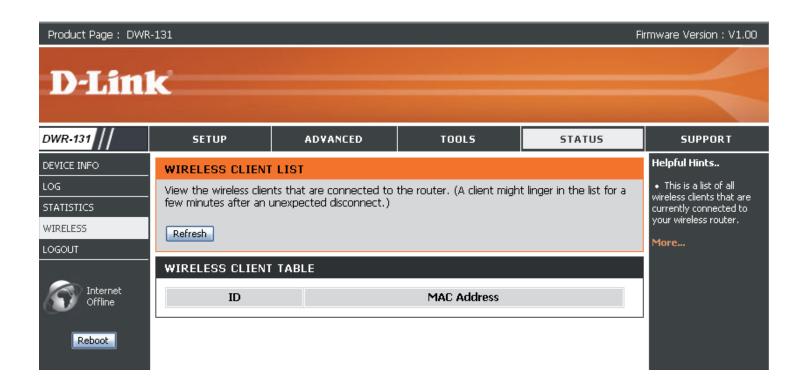
Statistics

Here you can view the packets transmitted and received passing through your router on both WAN and LAN ports. The traffic counter will reset if the device is rebooted.

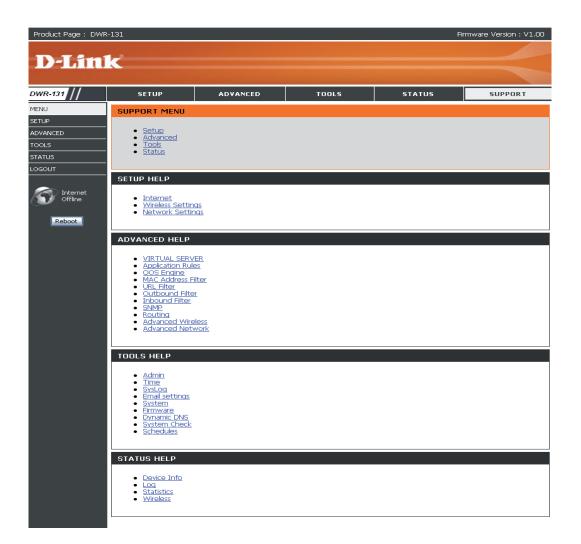


Wireless

This table displays a list of wireless clients that are connected to your wireless router. It also displays the connection time and MAC address of the connected wireless clients.



Support



Wireless Security

This section will show you the different levels of security you can use to protect your data from intruders. The

DWR-113 offers the following types of security:

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

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 Settings** on the left side.
- 2. Next to *Security Mode*, select **Enable WEP Security**.
- 3. Next to Authentication, select **Open** or **Shared Key**.
- 4. Select either **64-bit** or **128-bit** encryption from the drop-down box next to *WEP Encryption*.
- 5. Next to Key Type, select either Hex or ASCII.

Hex (recommended) - Letters A-F and numbers 0-9 are valid.

ASCII - All numbers and letters are valid.

- 6. Next to *Key 1*, enter a WEP key that you create. Make sure you enter this key exactly on all your wireless devices. You may enter up to 4 different keys.
- WEP : WEP is the wireless encryption standard. To use it you must enter the same key(s) into the router and the wireless stations. For 64 bit keys you must enter 10 hex digits into each key box. For 128 bit keys you must enter 26 hex digits into each key box. A hex digit is either a number from 0 to 9 or a letter from A to F. For the most secure use of WEP set the authentication type to "Shared Key" when WEP is enabled. You may also enter any text string into a WEP key box, in which case it will be converted into a hexadecimal key using the ASCII values of the characters. A maximum of 5 text characters can be entered for 64 bit keys, and a maximum of 13 characters for 128 bit keys. Authentication : Open WEP Encryption : 64Bit 🔻 Key Type : HEX 🔽 Default WEP Key : | WEP Key 1 💌 WEP Key 1 : 0000000000 WEP Key 2 : 0000000000 WEP Key 3 : 000000000 WEP Key 4 : 0000000000
- 7. 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.

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 (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-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.

- 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-Personal Security or Enable WPA2-Personal Security.
- 3. Next to Cipher Mode, select TKIP, AES, or Auto.
- 4. Next to *PSK/EAP*, select **PSK**.
- 5. Next to *Passphrase*, enter a key (passphrase). The key is an alphanumeric 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. Enter the passphrase again next to Confirmed Passphrase.

WPA-PERSONAL :
WPA-Personal requires stations to use high grade encryption and authentication.
Cipher Type : TKIP - PSK / EAP : PSK -
Passphrase :
Confirmed Passphrase :

7. 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-PSK (or WPA2-PSK) on your adapter and enter the same passphrase as you did on the router.

Configure WPA (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-Personal Security** or **Enable WPA2-Personal Security**.
- 3. Next to Cipher Mode, 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 Apply Settings to save your settings.

WPA-PERSONAL :		
WPA-Personal requires stations to use	high grade encryptic	on and authentication.
Cipher Type : PSK / EAP : 802.1X	AUTO - EAP -	
RADIUS Server 1 : RADIUS Server 2 :	Port Shared Secret	0.0.0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Connect to a Wireless Network Using Windows Vista™

Windows[®] Vista[™] users may use the built-in wireless utility. If you are using another company's utility or Windows[®] 2000, please refer to the user manual of your wireless adapter for help with connecting to a wireless network. Most utilities will have a "site survey" option similar to the Windows[®] Vista[™] utility as seen below.

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

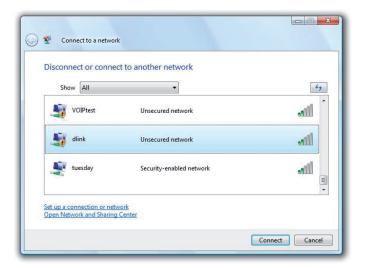
or

Right-click on the wireless computer icon in your system tray (lower-right corner next to the time). Select **Connect to a network**.

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

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





Configure Wireless Security

It is recommended to enable wireless security (WEP/WPA/WPA2) on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the security key or passphrase being used.

 Open the Windows[®] Vista[™] Wireless Utility by right-clicking on the wireless computer icon in your system tray (lower right corner of screen). Select Connect to a network.



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



Section 5 - Connecting to a Wireless Network

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

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

Туре	the network security key or passphrase for Candy
The pe	erson who setup the network can give you the key or passphrase.
Securi	ty key or passphrase:
Dis Dis	play characters
	If you have a <u>USB flash drive</u> with network settings for Candy, insert it now.

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 the TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



all l

Connect

This network requires a network key. If you want to connect to this

vork, dick Connect

((Q)) DGL-4300

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 rightclicking on the wireless computer icon in your system tray (lower-right corner of screen). Select View Available Wireless Networks.



1 ¹⁾ Wireless Network Connection 6				
Network Tasks	Choose a wireless network			
💋 Refresh network list	Click an item in the list below to connect to a <u>wi</u> reless network in range or to get more information.			
Set up a wireless network for a home or small office	((p)) Test			
Related Tasks	Unsecured wireless network ((Q)) default			
Learn about wireless networking	Unsecured wireless network			
Change the order of preferred networks	((p)) salestest			
Change advanced settings	((●))) test1			
	This network requires a network key. If you want to connect to this network, dick Connect.			
	((p)) DGL-4300			
	Connect	כ		

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

Section 5 - Connecting to a Wireless Network

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

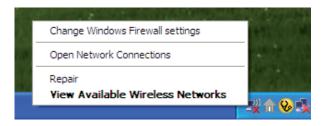
It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the WEP settings are correct. The WEP key must be exactly the same as on the wireless router.

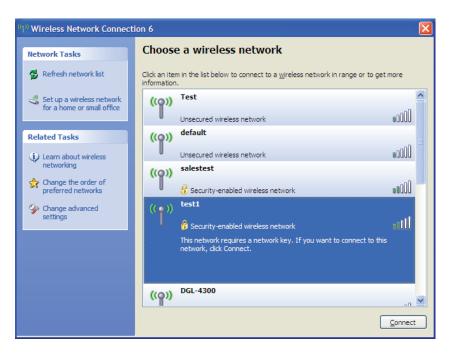
Wireless Network Connection				
The network 'test1' requires a network key (also called a WEP key or WPA key). A network key helps prevent unknown intruders from connecting to this network.				
Type the key, and then click	Connect.			
Network <u>k</u> ey:				
Confirm network key:				
	Connect Cancel			

Configure WPA-PSK

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

- 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 Conne	ection 🔀
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Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DWR-113. 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.

- 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.

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 e-mail, 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.

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.

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, 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.

Networking Basics

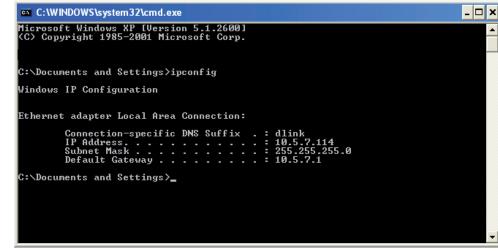
Check your IP address

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**. (Windows[®] Vista[™] users type *cmd* in the **Start Search** box.)

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

This will display the IP address, subnet mask, and the default gateway of your adapter.



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

Statically Assign an IP address

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

Step 1

- Windows[®] Vista[™] Click on Start > Control Panel > Network and Internet > Network and Sharing Center > Manage Network Connections.
- 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 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.

	automatically if your network supports ed to ask your network administrator fo
Obtain an IP address autom	atically
Use the following IP addres	s:
IP address:	192.168.0.52
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	192.168.0.1
Obtain DNS server address	automatically
Ose the following DNS serv	er addresses:
Preferred DNS server:	192.168.0.1
Alternate DNS server:	

Technical Specifications

Data Rates **

- 1/2/5.5/11 Mbps in 802.11b mode
- 6/9/11/12/18/24/36/48/54 Mbps in 802.11g mode
- Up to 150 Mbps in 802.11n mode

Standards

- IEEE 802.11b
- IEEE 802.11g
- IEEE 802.3
- IEEE 802.3u
- 150N

Frequency

2.4 - 2.4835 GHz

Wireless Security

- 64/128-bit WEP (Wired Equivalent Privacy)
- WPA & WPA2 (Wi-Fi Protected Access)

Firewall

- IP Filtering
- Network Address Translation (NAT)
- MAC Filtering

VPN

L2TP/PPTP/IPSEC VPN Pass-through

Antenna

1 External Wi-Fi antenna

Ports

- 4 x LAN (RJ-45)
- 1x WAN
- 1 x USB

LED Status Indicators

- 3G
- WAN
- Wi-Fi
- LAN 1, LAN 2, LAN 3, LAN 4

Power

External 5 V DC 2 A power adapter

Dimensions (L x W x H)

tbd x tbd x tbd mm

Operating Temperature

tbd to tbd °C (tbd to tbd °F)

Operating Humidity

tbd% to tbd% (Non-condensing)

Certifications

- tbd
- tbd
- tbd

* Supported frequency band is dependent upon regional hardware version. ** Maximum wireless signal rate derived from IEEE Standard 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.