



User Manual

Wireless AC750 4G LTE Router

DWR-953

Preface

D-Link reserves the right to revise this publication and to make changes in the content hereof without obligation to notify any person or organization of such revisions or changes.

Manual Revisions

Revision	Date	Description
1.00	August 24, 2015	• Initial release

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Package Contents



DWR-953 Wireless AC750 4G LTE Router



Power Adapter



CAT5 Ethernet Cable

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

System Requirements

- A compatible 3G / 4G SIM card with service.*
- Computer with Windows, Mac OS, or Linux-based operating system with an installed Ethernet adapter
- Java-enabled browser such as Internet Explorer 7, Safari 4.0, Chrome 20.0, or Firefox 12 or above (for configuration)

* Subject to service terms and conditions, consult your carrier for details."

Introduction

The D-Link Wireless AC750 4G LTE Router allows users to access worldwide mobile broadband networks. Once connected, users can transfer data, stream media, and send SMS messages. Simply insert a 3G / 4G SIM card to share your 3G / 4G Internet connection through a secure 802.11n wireless network, or by using any of the four 10/100 Ethernet ports.

Keep your wireless network safe with WPA/WPA2 wireless encryption. The DWR-953 utilizes dual-active firewalls (SPI and NAT) to prevent potential attacks across the Internet, and includes MAC address filtering to control access to your network.

The Wireless AC750 4G LTE Router can be installed quickly and easily almost anywhere, making it great for when you need an impromptu wireless network, or wherever conventional network access is unavailable.

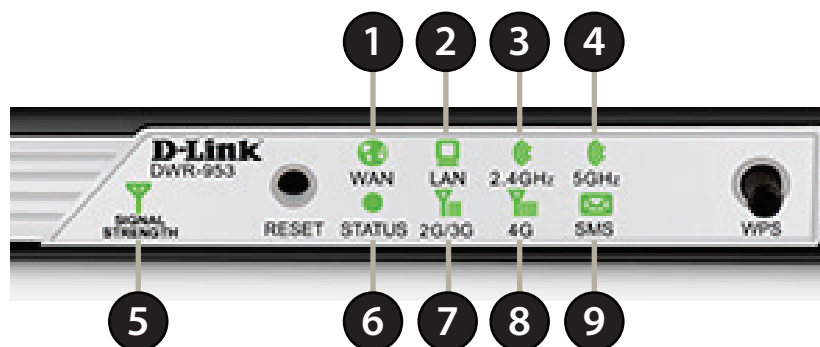
Hardware Overview

Front View



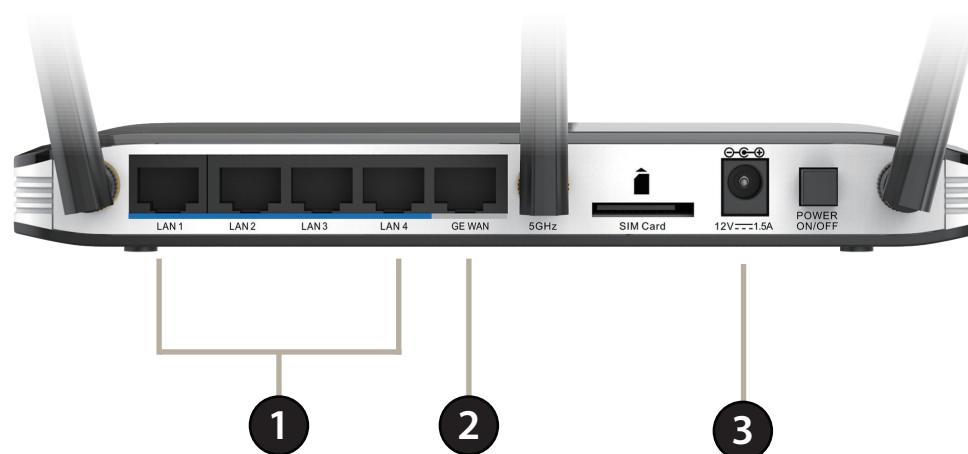
1	Reset Button	Press this button with an unfolded paperclip and hold for ten seconds to reset the device.
2	WPS Button	Press this button to initiate a new WPS connection. See WPS Button on page 52 for details.

LEDs



1	WAN LED	Will be lit if a WAN Ethernet connection is established.
2	LAN LED	Will be lit if an Ethernet connection is established, and will blink when data is being transferred.
3	2.4 GHz LED	Will be lit if the 2.4 GHz wireless function is enabled, and will blink when wireless data is being transferred.
4	5 GHz LED	Will be lit if the 5 GHz wireless function is enabled, and will blink when wireless data is being transferred.
5	Signal Strength	<p>Blinking Red: No SIM card or unverified PIN code.</p> <p>Solid Red: Signal strength is weak.</p> <p>Solid Amber: Signal strength is medium.</p> <p>Solid Green: Signal strength is strong.</p>
6	Status	Will be lit if the device is powered on and working.
7	2G/3G	Will be lit if a 2G/3G connection is established.
8	4G	Will be lit if a 4G connection is established.
9	SMS	Will be lit if a your SIM card number has received an SMS message.

Back View



1	Ethernet LAN Ports	For connection to a network-enabled desktop or notebook computer.
2	Ethernet WAN Port	For connection to a DSL/cable modem or router.
3	SIM Card	Insert your 4G/3G SIM card here.
4	Power Connector	Connects to the included power adapter.
5	Power On/Off	Power On/Off button.

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.

Before You Begin

1. Ensure that your DWR-953 Wireless AC750 4G LTE Router is disconnected and powered off.
2. To use your 3G / 4G Internet connection, insert a 3G / 4G SIM card into the SIM card slot on the back of the device.
3. Insert your Internet/WAN network cable into the WAN port on the back of the router.

Note: The 3G/4G connection can also be used as a backup WAN. Once a backup is configured, the router will automatically use 3G / 4G for the Internet connection if the Ethernet WAN is not available.

4. Insert the Ethernet cable into any LAN Port 1 on the back panel of the DWR-953 Wireless AC750 4G LTE Router and an available Ethernet port on the network adapter in the computer you will use to configure the router.

Note: The DWR-953 Wireless AC750 4G LTE Router LAN Ports are Auto-MDI/MDIX, so both patch and crossover Ethernet cables can be used.

5. Connect the power adapter to the socket on the back panel of your DWR-953 Wireless AC750 4G LTE Router. Plug the other end of the power adapter into a wall outlet or power strip and turn the device on.
 - a. The Status LED will light up to indicate that power has been supplied to the router.
 - b. The LEDs on the front panel will flash on and off as the DWR-953 Wireless AC750 4G LTE Router performs initialization and Internet connection processes.
 - c. After a few moments, if a connection has been established, the following LEDs will turn solid green: Power, Status, WAN, WLAN, and any LAN Port LEDs that are connected computers or other devices.

Wireless Installation Considerations

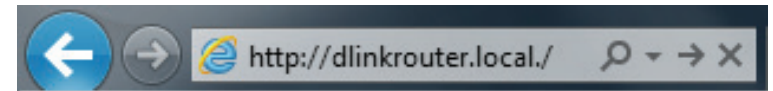
The DWR-953 can be accessed using a wireless connection from anywhere within the operating range of your wireless network. Keep in mind that the quantity, thickness, and location of walls, ceilings, or other objects that the wireless signals must pass through may limit the range of the wireless signal. 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 1 to 30 meters (3 to 90 feet).
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 is 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.

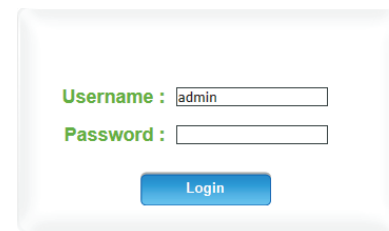
Configuration

Getting Started

To access the configuration utility, open a web-browser such as Internet Explorer and enter the address of the router (**http://dlinkrouter.local./** or **192.168.0.1** by default).



To log in to the configuration utility, enter **admin** as the username, 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.

Once you have successfully logged in, you will see the **Home** page. On this page you can view information about your Internet connection, the wireless/LAN status, and system information.



At the top of the page is a menu. Clicking on one of these icons will take you to the appropriate configuration section.

To access the setup wizard, click on the Internet icon in the navigation bar on the top of the screen; you will be brought to a WAN Service Configuration screen. Click on the Wizard icon on the left-hand side of the screen to begin the setup wizard.

For more information regarding the setup wizard refer to **“Wizard” on page 17**.

Internet WAN Service

On this page you can configure your Internet connection. If you are not sure which settings to use, please contact your Internet Service Provider (ISP).

My Internet Connection is: Select your Internet connection type.

- For Dynamic IP (DHCP) refer to **Dynamic IP (DHCP)** on page 10.
- For Static IP refer to **Static IP** on page 11.
- For PPPoE refer to **PPPoE** on page 12.
- For PPTP refer to **PPTP** on page 13.
- For L2TP refer to **L2TP** on page 14.
- For 4G LTE/3G refer to **4G LTE/3G** on page 15.

When you have finished configuring your Internet settings, click **Apply** to save your changes. To restore your settings to the most recent save, click **Reset**.

The screenshot displays the D-Link WAN Service Configuration interface. At the top, there is a navigation bar with icons for Home, Internet, Wi-Fi, LAN, Advanced, and System. The main content area is titled 'WAN Service Configuration' and includes a sidebar with a tree view containing 'WAN Service', 'Wizard', 'Failover', and 'IPv6'. The 'Internet Connection Type' section features a dropdown menu currently set to 'Dynamic IP (DHCP)'. Below this, the 'Dynamic IP (DHCP) Internet Connection Type' section contains several input fields: 'Host Name', 'Primary DNS Server', 'Secondary DNS Server', and 'MTU' (set to 0 bytes). The 'MAC Address' field is populated with '70:F3:95:0E:5C:41' and has a 'Clear' button next to it. At the bottom, there are checkboxes for 'Auto-reconnect' (checked) and 'NAT disable' (unchecked), along with 'Apply' and 'Reset' buttons.

Dynamic IP (DHCP)

Host Name: The host name is optional but may be required by some ISPs. Leave it blank if you are not sure.

Primary DNS Server: Enter the primary DNS server provided by your ISP here.

Secondary DNS Server: Enter the secondary DNS server provided by your ISP here.

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your ISP. The default value is 0.

MAC Address: Enter the MAC address, or click **Clone** to clone your client's MAC address to the WAN port.

Auto-reconnect: Check the box to allow the router to automatically attempt to reconnect whenever the Internet connection is lost.

NAT Disable: Click the checkbox to disable Network Address Translation(NAT).

The screenshot shows the D-Link web interface for WAN Service Configuration. The page title is "WAN Service Configuration". Under "Internet Connection Type", "My Internet Connection is" is set to "Dynamic IP (DHCP)". Below this, the "Dynamic IP (DHCP) Internet Connection Type" section contains the following fields and options:

- Host Name: [Empty text box]
- Primary DNS Server: [Empty text box]
- Secondary DNS Server: [Empty text box]
- MTU: 0 (bytes)
- MAC Address: 70.F3.95.0E.5C.41 [Clear button]
- Auto-reconnect: Enable
- NAT disable: Enable

At the bottom of the configuration area, there are "Apply" and "Refresh" buttons.

Static IP

IP Address: Enter the IP address provided by your ISP.

Subnet Mask: Enter the subnet mask provided by your ISP.

Default Gateway: Enter the gateway address provided by your ISP.

Primary DNS Server: Enter the primary DNS server provided by your ISP here.

Secondary DNS Server: Enter the secondary DNS server provided by your ISP here.

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your ISP. The default value is 0.

MAC Address: Enter the MAC address, or click **Clone** to clone your client's MAC address to the WAN port.

NAT Disable: Click the checkbox to disable Network Address Translation(NAT).

The screenshot shows the D-Link web interface for WAN Service Configuration. The page title is "WAN Service Configuration". Under "Internet Connection Type", "My Internet Connection is" is set to "Static IP". Under "Static IP Address Internet Connection Type", the following fields are visible:

- IP Address: []
- Subnet Mask: []
- Default Gateway: []
- Primary DNS Server: []
- Secondary DNS Server: []
- MTU: 0 (bytes)
- MAC Address: 70:F3:95:0E:5C:41
- NAT disable: Enable

A "Clear" button is located to the right of the MAC Address field.

PPPoE

Username: Enter the PPPoE username provided by your ISP.

Password: Enter the PPPoE password provided by your ISP.

Verify Password: Re-enter the PPPoE password for verification.

Service Name: Enter the PPPoE service name provided by your ISP if applicable.

IP Address: Enter the IP address provided by your ISP here.

Primary DNS Server: Enter the primary DNS server provided by your ISP here.

Secondary DNS Server: Enter the secondary DNS server provided by your ISP here.

MAC Address: Enter the MAC address, or click **Clone** to clone your client's MAC address to the WAN port.

Maximum Idle Time: Enter a maximum idle time during which the Internet connection is maintained during inactivity (if you select **Auto-reconnect** below, this setting will have no effect).

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your ISP. The default value is 0.

Auto-reconnect: Check the box to allow the router to automatically attempt to reconnect whenever the Internet connection is lost.

NAT disable: Click the checkbox to disable Network Address Translation(NAT).

The screenshot shows the D-Link web interface for WAN Service Configuration. The 'Internet Connection Type' is set to 'PPPoE (Username / Password)'. Under the 'PPPoE' section, the following fields are visible: Username, Password, Verify Password, Service Name (optional), IP Address, Primary DNS Server (optional), and Secondary DNS Server (optional). The MAC Address is set to '70 F3 95 0E 5C 41'. The Maximum Idle Time is set to 600 seconds. The MTU is set to 0 bytes. The 'Auto-reconnect' checkbox is checked, and the 'NAT disable' checkbox is unchecked. A 'Clear' button is located next to the MAC Address field.

PPTP

Address Mode: If your ISP provided a static IP address, select **Static IP**, otherwise leave this setting at the default, **Dynamic IP**.

PPTP IP Address: Enter the IP address provided by your ISP (Static IP only).

PPTP Subnet Mask: Enter the subnet mask provided by your ISP (Static IP only).

PPTP Gateway IP Address: Enter the gateway address provided by your ISP (Static IP only).

PPTP Server IP Address: Enter the server IP address provided by your ISP (Static IP only).

Username: Enter the PPTP username provided by your ISP.

Password: Enter the PPTP password provided by your ISP.

Verify Password: Re-enter the PPTP password for verification.

Reconnect Mode: Select **Always on** if you would like the router to never disconnect, or **Connect-on-demand** to allow the router to establish a connection to the Internet only when a device on your network tries to access a resource on the Internet.

Maximum Idle Time: Enter a maximum idle time during which the Internet connection is maintained during inactivity (if you selected **Always on** above, this setting will have no effect).

NAT disable: Click the checkbox to disable Network Address Translation(NAT).

The screenshot shows the D-Link WAN Service Configuration page. The 'Internet Connection Type' is set to 'PPTP (Username / Password)'. Under the 'PPTP' section, the 'Address Mode' is set to 'Dynamic IP'. The 'PPTP IP Address', 'PPTP Subnet Mask', 'PPTP Gateway IP Address', and 'PPTP Server IP Address' fields are empty. The 'Username' and 'Password' fields are filled with asterisks. The 'Verify Password' field is also filled with asterisks. The 'Reconnect Mode' is set to 'Always-on'. The 'Maximum Idle Time' is set to 600 seconds. The 'NAT disable' checkbox is checked.

L2TP

Address Mode: If your ISP provided a static IP address, select **Static IP**, otherwise leave this setting at the default, **Dynamic IP**.

L2TP IP Address: Enter the IP address provided by your ISP (Static IP only).

L2TP Subnet Mask: Enter the subnet mask provided by your ISP (Static IP only).

L2TP Gateway IP Address: Enter the gateway address provided by your ISP (Static IP only).

L2TP Server IP Address: Enter the server IP address provided by your ISP (Static IP only).

Username: Enter the L2TP username provided by your ISP.

Password: Enter the L2TP password provided by your ISP.

Verify Password: Re-enter the L2TP password for verification.

Reconnect Mode: Select **Always on** if you would like the router to never disconnect, or **Connect-on-demand** to allow the router to establish a connection to the Internet only when a device on your network tries to access a resource on the Internet.

Maximum Idle Time: Enter a maximum idle time during which the Internet connection is maintained during inactivity (if you selected **Always on** above, this setting will have no effect).

NAT disable: Click the checkbox to disable Network Address Translation(NAT).

The screenshot shows the D-Link WAN Service Configuration page. The 'Internet Connection Type' is set to 'L2TP (Username / Password)'. Under the 'L2TP' section, the 'Address Mode' is set to 'Dynamic IP'. The 'L2TP IP Address', 'L2TP Subnet Mask', 'L2TP Gateway IP Address', and 'L2TP Server IP Address' fields are empty. The 'Username' and 'Password' fields are filled with asterisks. The 'Verify Password' field is also filled with asterisks. The 'Reconnect Mode' is set to 'Always-on'. The 'Maximum Idle Time' is set to 600 seconds. The 'NAT disable' checkbox is checked.

4G LTE/3G

Dial-Up Profile: If **Auto-Detection** does not work, then try selecting **Manual** and filling out the information (supplied by your LTE/3G ISP).

Country: Select the technology country of your ISP.

Telecom: Enter the name of your Telecom/ISP.

Username: Enter the username provided by your ISP.

Password: Enter the password provided by your ISP.

Verify Password: Re-enter the password for verification.

Dialed Number: Enter the number to dial, provided by your ISP.

Authentication: Select **Auto**, **PAP**, or **CHAP** detection. The default authentication method is **Auto**.

APN: Enter the APN, provided by your ISP.

Pin Code: Enter the PIN Code, provided by your ISP.

Reconnect Mode: Select either **Auto** or **Manual**.

Maximum Idle Time: Enter a maximum idle time during which the Internet connection is maintained during inactivity (if you selected **Auto** above, this setting will have no effect).

Primary DNS Server: Enter the primary DNS server provided by your ISP here.

Secondary DNS Server: Enter the secondary DNS server provided by your ISP here.

The screenshot shows the D-Link WAN Service Configuration page. The 'Internet Connection Type' is set to '4G LTE /3G'. Under '4G LTE /3G Internet Connection Type', the 'Dial-Up Profile' is set to 'Manual'. Other settings include Country (USA), Telecom (CBW), Username (cbw), Password, Verify Password, Dialed Number (*99#), Authentication (Auto), APN (web.gocbw.com), Pin Code, Reconnect Mode (Auto), Maximum Idle Time (600 seconds), Primary DNS Server, Secondary DNS Server, Keep Alive (Disable), Roaming (Enable), Bridge ethernet ports (Enable), NAT disable (Enable), and Transparent Bridge (Enable). There are 'Apply' and 'Refresh' buttons at the bottom.

Keep Alive: Select **Disable** or **Use Ping** depending on the settings required by your ISP. If you select **Use Ping**, set the ping interval and the IP address to ping.

Roaming: Click the checkbox to enable roaming.
Note: Additional charges may apply depending on your network subscription.

Bridge ethernet ports: Click **Enable** to use the router's WAN port as an additional LAN port.

NAT disable: Click the checkbox to disable Network Address Translation(NAT).

Transparent Bridge: Click the checkbox to enable transparent bridge.

The screenshot displays the 'WAN Service Configuration' interface. At the top, there is a navigation bar with icons for Home, Internet, Wi-Fi, LAN, Advanced, and System. The main content area is titled 'WAN Service Configuration' and includes a sidebar with 'WAN Service' and sub-items 'Wizard', 'Failover', and 'IPv6'. The configuration fields are as follows:

- Internet Connection Type:** My Internet Connection is: 4G LTE /3G
- 4G LTE /3G Internet Connection Type:**
 - Dial-Up Profile: Auto-Detection Manual
 - Country: USA
 - Telecom: CBW
 - Username: cbw (optional)
 - Password: (optional)
 - Verify Password: (optional)
 - Dotted Number: *99#
 - Authentication: Auto
 - APN: web.gocbw.com (optional)
 - Pin Code: (optional)
 - Reconnect Mode: Auto Manual
 - Maximum Idle Time: 600 seconds
 - Primary DNS Server: (optional)
 - Secondary DNS Server: (optional)
 - Keep Alive: Disable Use Ping
 - Roaming: Enable
 - Bridge ethernet ports: Enable
 - NAT disable: Enable
 - Transparent Bridge: Enable

Buttons for 'Apply' and 'Refresh' are located at the bottom of the configuration area.

Wizard

Navigate to the wizard by clicking on the Internet icon in the navigation bar on the top section of the screen; you will be brought to a WAN Service Configuration screen. Click on the Wizard icon on the left-hand side of the screen to begin the setup wizard.

Navigate between the steps 1-5 by press the **Next** and **Prev** buttons.

Select your Internet connection. By default DHCP will be selected, if this option does not work and you are not sure which settings to use, please contact your Internet Service Provider (ISP).

If you selected DHCP connection this option will be displayed. Follow the on-screen instructions and click **Next** to continue.

D-Link Home Internet Wi-Fi LAN Advanced System English Logout Refresh

■ WAN Service
■ Wizard
■ Failover

WAN Service Configuration

WELCOME TO THE SETUP WIZARD

It appears that you have already successfully connected your new router to the Internet.

- Step 1: Configure your Internet Connection
- Step 2: Configure your Wi-Fi Security
- Step 3: Set your Password
- Step 4: Select your Time Zone
- Step 5: Save Settings and Connect

Prev Next Cancel Connect

STEP 1: 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.
- 4G LTE / 3G Connection**
4G LTE / 3G.
- 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

DHCP CONNECTION (DYNAMIC IP ADDRESS)

To set up this connection, please make sure that you are connected to the Router with the PC that was originally connected to your broadband connection. If you are, then click the Clone MAC button to copy your computer's MAC Address to the Router.

MAC Address : 70:F3:95:0E:5C:41 Clear

Host Name :

Note: You may also need to provide a Host Name. If you do not have or know this information, please contact your ISP.

Prev Next Cancel Connect

Type your desired network name (SSID) in the field available. When devices are connecting via Wi-Fi this will be the name of the network that they connect to.

To protect your network from unwanted users select one of the security options listed.

Set your wireless security password in the box provided. This is the password that devices will need to use when connecting to your wireless network.

Set the DWR-953's password in the box provided. This is the password you will use to log in to the configuration interface in your web browser.

Set the your current time zone.

STEP 2: CONFIGURE YOUR WI-FI SECURITY

Your wireless network needs a name so it can be easily recognized by wireless clients. For security purposes, it is highly recommended to change the pre-configured network name of [default].

Wireless Network Name (SSID) :

STEP 2: CONFIGURE YOUR WI-FI SECURITY

In order to protect your network from hackers and unauthorized users, it is highly recommended you choose one of the following wireless network security settings.

There are three levels of wireless security -Good Security, Better Security, or Best Security. The level you choose depends on the security features your wireless adapters support.

BEST : Select this option if your wireless adapters SUPPORT WPA2
BETTER : Select this option if your wireless adapters SUPPORT WPA
GOOD : Select this option if your wireless adapters DO NOT SUPPORT WPA
NONE : Select this option if you do not want to activate any security features

For information on which security features your wireless adapters support, please refer to the adapters' documentation.

Note: All wireless adapters currently support WPA.

STEP 2: CONFIGURE YOUR WI-FI SECURITY

Once you have selected your security level - you will need to set a wireless security password. With this password, a unique security key will be generated.

Wireless Security Password :

Note: You will need to enter the unique security key generated into your wireless clients enable proper wireless communication - not the password you provided to create the security key.

STEP 3: SET YOUR PASSWORD

To secure your new networking device, please set and verify a password below:

Password :

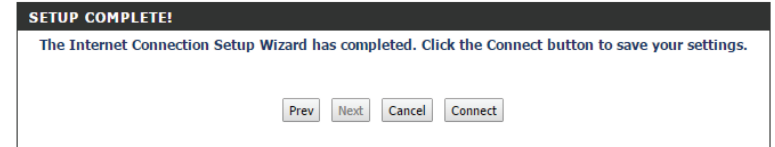
Verify Password :

STEP 4: 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.

Time Zone :

When you have finished the Internet connection setup wizard, click **Connect** to save your changes. To restore your settings to the most recent save, click **Cancel**.



Failover

This connection can serve as a backup for your default connection.

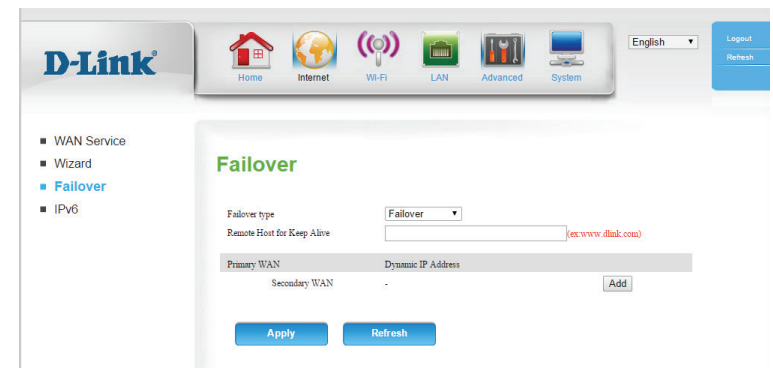
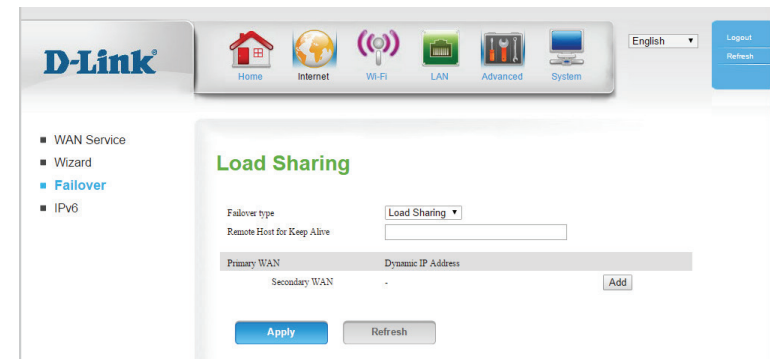
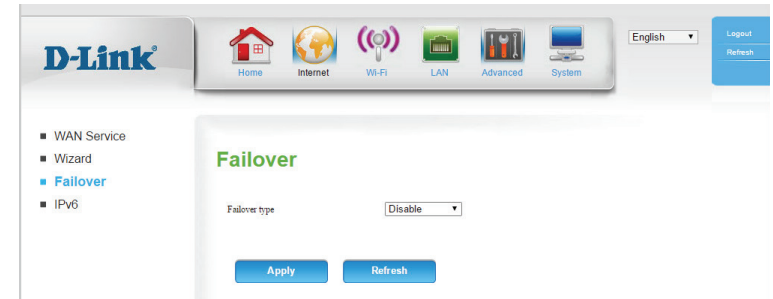
The **Failover type** can be set to either **Disable**, **Load Sharing** or **Failover**. With **Load Sharing**, the data usage is distributed evenly over the two different Internet connections. With **Failover**, the secondary Internet connection will be in standby mode, until the primary Internet connection fails.

If you selected **Load Sharing** or **Failover**, the **Remote Host for Keep Alive** box will appear, and should be set to an external IP address that can be used to ensure that the 3G/4G LTE connection will be kept from going offline due to inactivity. An example would be Google's public DNS servers (**8.8.8.8** or **8.8.4.4**) or your ISP's DNS servers.

The **Primary WAN** will display your current Internet configuration type.

The **Secondary WAN** can be set by clicking **Add**, and the available options will be shown in the drop down box that appears. Select **4G LTE/3G** to use your mobile connection as a backup.

When you have finished configuring your failover settings, click **Apply** to save your changes. To restore your settings to the most recent save, click **Reset**.



IPv6

On this page you can configure your IPv6 Internet connection. If you are not sure which settings to use, please contact your Internet Service Provider (ISP).

IPv6: To enable an IPv6 Internet connection, click **Enable**.

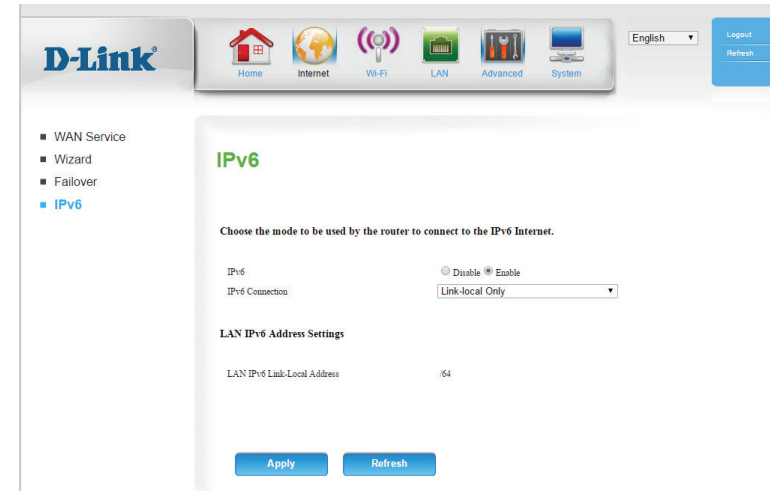
IPv6 Connection: Select your IPv6 connection type.

For Static IPv6 refer to **Static IPv6** on page 22.

For Autoconfiguration (SLAAC/DHCPv6) refer to **Autoconfiguration (SLAAC/DHCPv6)** on page 23.

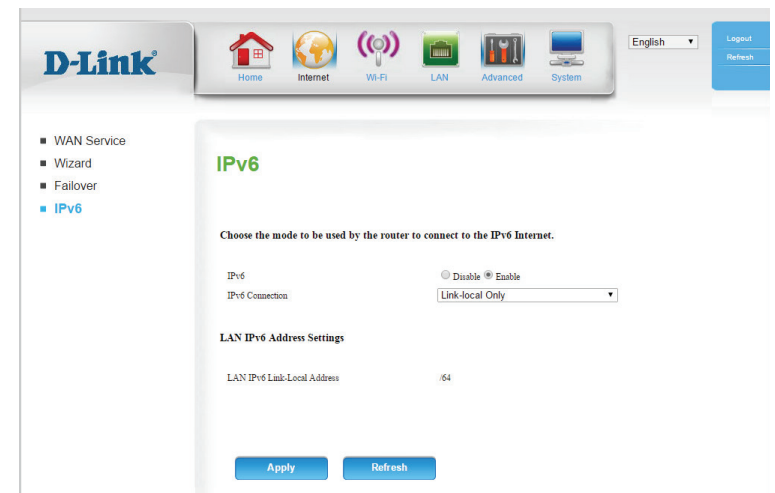
For PPPoE refer to **PPPoE** on page 24.

When you have finished configuring your Internet settings, click **Apply** to save your changes. To restore your settings to the most recent save, click **Reset**.



Link-local Only

LAN IP Link-Local Address: Displays the router's LAN link-local address.



Static IPv6

IPv6 Address: Enter the IPv6 address supplied by your ISP.

Subnet Prefix Length: Enter the subnet prefix length supplied by your ISP.

Default Gateway: Enter the default gateway for your IPv6 connection.

Primary DNS Address: Enter the primary DNS server address.

Secondary DNS Address: Enter the secondary DNS server address.

LAN IPv6 Address: Enter the LAN (local) IPv6 address for the router.

LAN IP Link-Local Address: Displays the router's LAN link-local address.

Enable Auto-configuration: Check the box to enable autoconfiguration.

Auto configuration Type: Select Stateful (DHCPv6), SLAAC + RDNSS or SLAAC + Stateless DHCPv6.

Router Advertisement Lifetime: Enter the IPv6 address lifetime (in seconds).

D-Link Home Internet Wi-Fi LAN Advanced System English Logout Refresh

- WAN Service
- Wizard
- Failover
- IPv6**

IPv6

Setting completed

Choose the mode to be used by the router to connect to the IPv6 Internet.

IPv6 Disable Enable
 IPv6 Connection Static IPv6

WAN IPv6 Address Settings

IPv6 Address
 Subnet Prefix Length
 Default Gateway
 Primary DNS Address
 Secondary DNS Address

LAN IPv6 Address Settings

LAN IPv6 Address /64
 LAN IPv6 Link-Local Address /64

LAN Address Autoconfiguration Settings

Enable Autoconfiguration
 Autoconfiguration Type SLAAC+Stateless DHCPv6
 Router Advertisement Lifetime seconds

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Autoconfiguration (SLAAC/DHCPv6)

DNS Setting: Select either **Obtain DNS server address automatically** or **Use the following DNS address**.

Primary DNS Address: Enter the primary DNS server address.

Secondary DNS Address: Enter the secondary DNS server address.

Enable DHCP-PD: Check the box to enable prefix delegation services.

LAN IPv6 Address: Enter the LAN (local) IPv6 address for the router.

LAN IP Link-Local Address: Displays the router's LAN link-local address.

Enable Auto configuration: Check the box to enable autoconfiguration.

Auto configuration Type: Select Stateful (DHCPv6), SLAAC + RDNSS or SLAAC + Stateless DHCPv6.

Router Advertisement Lifetime: Enter the IPv6 address lifetime (in seconds).

The screenshot shows the D-Link web interface for IPv6 configuration. The top navigation bar includes Home, Internet, Wi-Fi, LAN, Advanced, and System. The main content area is titled 'IPv6' and shows 'Setting completed'. The configuration options are as follows:

- IPv6 Connection:** Enable, Disable. Mode: Autoconfiguration (SLAAC/DHCPv6)
- IPv6 DNS Settings:**
 - DNS Setting:** Obtain DNS Server address Automatically, Use the following DNS address
 - Primary DNS Address:** [Empty text box]
 - Secondary DNS Address:** [Empty text box]
- LAN IPv6 Address Settings:**
 - Enable DHCP-PD:**
 - LAN IPv6 Address:** [Empty text box]
 - LAN IPv6 Link-Local Address:** /64
- LAN Address Autoconfiguration Settings:**
 - Enable Autoconfiguration:**
 - Autoconfiguration Type:** SLAAC+Stateless DHCPv6
 - Router Advertisement Lifetime:** [Empty text box] seconds

Buttons for 'Apply' and 'Refresh' are located at the bottom of the configuration area.

PPPoE

Username: Enter the PPPoE username provided by your ISP.

Password: Enter the PPPoE password provided by your ISP.

Service Name: Enter the PPPoE service name provided by your ISP if applicable.

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your ISP.

DNS Setting: Select either **Obtain DNS server address automatically** or **Use the following DNS address**.

Primary DNS Address: Enter the primary DNS server address.

Secondary DNS Address: Enter the secondary DNS server address.

Enable DHCP-PD: Check the box to enable prefix delegation services.

LAN IPv6 Address: Enter the LAN (local) IPv6 address for the router.

LAN IP Link-Local Address: Displays the router's LAN link-local address.

Enable Auto configuration: Check the box to enable autoconfiguration.

Auto configuration Type: Select Stateful (DHCPv6), SLAAC + RDNSS or SLAAC + Stateless DHCPv6.

The screenshot displays the IPv6 configuration interface on a D-Link router. The page is titled "IPv6" and indicates that the settings are completed. The configuration is organized into several sections:

- IPv6 Enablement:** A radio button for "Enable" is selected.
- IPv6 Connection:** A dropdown menu is set to "PPPoE".
- PPPoE Settings:** Fields for Username, Password, Service Name, and MTU are present.
- IPv6 DNS Settings:** The "Obtain DNS Server address Automatically" radio button is selected.
- LAN IPv6 Address Settings:** The "Enable DHCP-PD" checkbox is checked. The "LAN IPv6 Address" field shows a link-local address ending in ::64.
- LAN Address Autoconfiguration Settings:** The "Enable Autoconfiguration" checkbox is unchecked. The "Autoconfiguration Type" is set to "SLAAC+Stateless DHCPv6".

Navigation buttons for "Apply" and "Refresh" are located at the bottom of the configuration area.

Wi-Fi

Device List

The **Device List** displays the current wireless clients connected to both the 2.4GHz and 5GHz networks. Each device's **ID** and **MAC Address** will be shown.



Wi-Fi Settings

On this page you can configure your wireless settings.

Wireless Band: Displays the wireless band currently being configured.

Enable Wireless: Check the box to enable the router's wireless functionality.

Wireless Network Name: Create a name for your wireless network using up to 32 characters.

802.11 Mode: Select the desired wireless networking standards to use. The available options will depend on the wireless frequency band, as well as the currently selected security mode.

Enable Auto Channel Scan: Check the box to automatically scan for an appropriate channel.

Wireless Channel: If Auto Channel Scan is disabled, select the desired channel here.

Channel Width: A higher channel width allows for faster data transmission, at the possible expense of wireless coverage and compatibility with older wireless clients. Select the optimum channel width for your wireless network from the drop-down menu.

Visibility Status: The default setting is **Visible**. Select **Invisible** if you do not want to broadcast the SSID of your wireless network.

Security Mode: Select your security mode, and refer to the next page for details.

D-Link

Home Internet Wi-Fi LAN Advanced System

Help
Logout
Refresh

- Device List
- Wi-Fi Settings**
- WPS
- Wi-Fi Advanced

WiFi Setting

In this section you can configure the wireless interface (access point) available on the router.

2.4G

Wireless Band : 2.4GHz Band

Enable Wireless :

Wireless Network Name : dlink_DWR-117 (Also called the SSID)

802.11 Mode : Mixed 802.11n, 802.11g and 802.11b

Enable Auto Channel Scan :

Wireless Channel : 2.412 GHz - CH 1

Channel Width : 20/40Mbps (Auto)

Visibility Status : Visible Invisible

Security Mode : WEP

WEP Key Length : 64Bit (10 hex digits) (length applies to all keys)

Authentication : Both

WEP Key 1 : HEX (5 ASCII or 10 HEX)

5G

Wireless Band : 5GHz Band

Enable Wireless :

Wireless Network Name : dlink_DWR-117_5g (Also called the SSID)

802.11 Mode : 802.11 a/n/ac Mixed

Enable Auto Channel Scan :

Wireless Channel : 36

Channel Width : HT80

Visibility Status : Visible Invisible

Security Mode : WPA-Personal

WPA Mode : Auto (WPA or WPA2)

Cipher Type : TKIP and AES

Pre-Shared Key : (8-63 ASCII or 64 HEX)

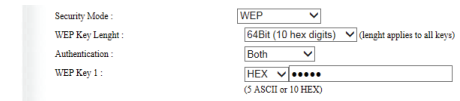
Apply Reset

WEP

WEP Key Length: Select either a **64Bit** or **128Bit** WEP key length.

Authentication: Select whether to use **Both** or **Shared Key** authentication.

WEP Key: For a 64-bit key, enter 10 hexadecimal (0-9, A-F) values or 5 ASCII values. For a 128-bit key, enter 26 hexadecimal values or 13 ASCII values.



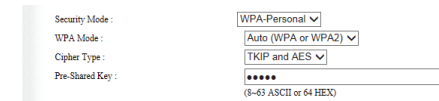
Security Mode : WEP
 WEP Key Length : 64Bit (10 hex digits) (length applies to all keys)
 Authentication : Both
 WEP Key 1 : HEX [] (5 ASCII or 10 HEX)

WPA-Personal

WPA Mode: Select **Auto (WPA or WPA2)**, **WPA only**, or **WPA2 only**.

Cipher Type: Select **TKIP**, **AES**, or **TKIP and AES**. **AES** is the most secure, but **TKIP** allows for compatibility with clients that don't support **AES**.

Pre-Shared Key: If you are using a Pre-Shared Key (PSK), choose a key (between 8 and 63 characters) here.



Security Mode : WPA-Personal
 WPA Mode : Auto (WPA or WPA2)
 Cipher Type : TKIP and AES
 Pre-Shared Key : [] (8-63 ASCII or 64 HEX)

WPS

WPS: **Enable** or **Disable** Wi-Fi Protected Setup (WPS).

AP PIN: Displays the current PIN. Click **Generate New PIN** if you want to generate a new one.

Config Mode: Select either **Registrar** or **Enrollee.v**

Config Status: Displays the current WPS configuration status. Click **Release** to re-configure.

Disable WPS-PIN Method: Check the box to disable the WPS PIN method.

Config Method: Select either **Push Button** or **PIN Code**.

WPS Status: Displays the current WPS status. Click **Trigger** to activate WPS.

The screenshot shows the D-Link web interface for WPS configuration. The page is titled "WPS" and has a "Setting completed" message. The configuration options for 2.4G WPS are as follows:

- WPS:** Enable Disable
- AP PIN:** 00000006 [Generate New PIN](#)
- Config Mode:** Registrar
- Config Status:** CONFIGURED [Release](#)
- Disable WPS-PIN Method:**
- Config Method:** Push Button
- WPS status:** IDLE [Trigger](#)

At the bottom of the page, there are [Apply](#) and [Refresh](#) buttons.

Wi-Fi Advanced

- Beacon Interval:** Specify a value for the beacon interval. Beacons are packets sent by an access point to synchronize a wireless network. 100 is the default and recommended setting.
- Transmit Power:** Set the transmitting power of the antennas.
- RTS Threshold:** This value should remain at its default setting of 2347. If you encounter inconsistent data flow, only minor modifications are recommended.
- Fragmentation:** The fragmentation threshold determines whether packets will be fragmented. Packets exceeding the specified value 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.
- WMM Capable:** WMM (Wi-Fi Multimedia) is a 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 **Best**.
- Short GI:** Check this box to reduce the guard interval to 400 ns. This can increase the throughput rate provided that the delay spread of the connection is also low. However, it can also increase error rate in some installations, due to increased sensitivity to radio-frequency reflections.

D-Link Home Internet Wi-Fi LAN Advanced System English Logout Refresh

- Device List
- Wi-Fi Settings
- WPS
- Wi-Fi Advanced**

Advanced Wireless Settings

Specify advanced configuration settings for the gateway's radio from this page. AP security and association parameters can be modified from the default values if needed.

Advanced 2.4G Wireless Settings

Beacon Interval: 100 (msec, range:20-1024)
 Transmit Power: 100%
 RTS Threshold: 2347 (1-2347)
 Fragmentation: 2346 (236-2346)
 DTIM Interval: 1 (range: 1-255)
 WMM Capable: Enable Disable
 TX Rates: Best
 Short GI:
 HT 20/40 Coexistence: Enable Disable

Advanced 5G Wireless Settings

Beacon Interval: 100 (msec, range:20-1024)
 Transmit Power: 100%
 RTS Threshold: 2347 (1-2347)
 Fragmentation: 2346 (236-2346)
 DTIM Interval: 3 (range: 1-255)
 WMM Capable: Enable Disable
 TX Rates: Best
 Short GI:

Apply Refresh

HT 20/40 Coexistence: Select **Enable** to reduce interference from other wireless networks in your area. If the channel width is operating at 40 MHz and there is another wireless network's channel overlapping and causing interference, the router will automatically change to 20 MHz.

The screenshot displays the 'Advanced Wireless Settings' page in the D-Link web interface. The page is divided into two main sections: 'Advanced 2.4G Wireless Settings' and 'Advanced 5G Wireless Settings'. Each section contains a list of configuration parameters with input fields and radio buttons.

Advanced 2.4G Wireless Settings:

- Beacon Interval: 100 (msec, range: 20-1024)
- Transmit Power: 100%
- RTS Threshold: 2347 (1-2347)
- Fragmentation: 2346 (256-2346)
- DTTM Interval: 1 (range: 1-255)
- WMM Capable: Enable Disable
- TX Rates: Best
- Short GI:
- HT 20/40 Coexistence: Enable Disable

Advanced 5G Wireless Settings:

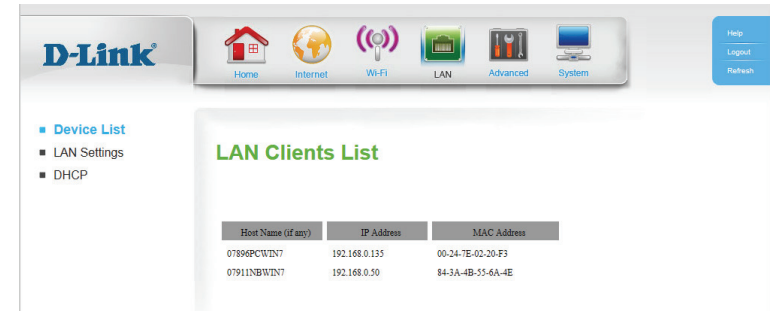
- Beacon Interval: 100 (msec, range: 20-1024)
- Transmit Power: 100%
- RTS Threshold: 2347 (1-2347)
- Fragmentation: 2346 (256-2346)
- DTTM Interval: 3 (range: 1-255)
- WMM Capable: Enable Disable
- TX Rates: Best
- Short GI:

At the bottom of the page, there are 'Apply' and 'Refresh' buttons.

LAN

Device List

The **Device List** displays a list of recognised LAN clients, showing their **Host Name**, **IP Address**, and **MAC Address**.

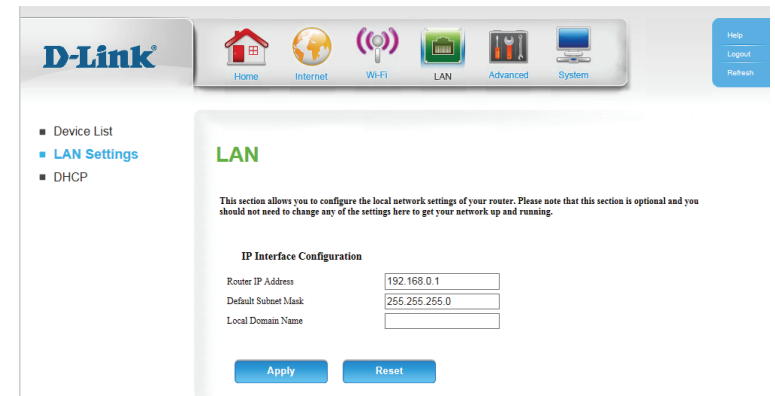


LAN Settings

IP Address: Enter the IP address of the router. The default 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.



DHCP

On this page you can configure the Dynamic Host Configuration Protocol (DHCP) settings.

Enable DHCP Server: Check the box to enable the DHCP server on your router.

DHCP IP Address Range: Enter the range of IPs for the DHCP server to use to assign IP addresses to devices on your network.

DHCP Lease Time: Enter the lease time for DHCP assignments. The default is 86400.

Primary DNS IP Address: Enter the IP address of the DHCP server (the default is the router's IP address).

Secondary DNS IP Address: Enter the IP address of a secondary DNS server, if applicable.

To permanently set the IP address of devices connected to the DWR-953, click on the **Fixed Mapping** button.

DHCP Clients: Select from the drop down list of clients connected to your network, choose an ID number and press the **Copy to** button to assign an ID number.

MAC Address: The MAC address of the device connected to your network.

IP Address: The IP address you wish to assign to the connected device.

The screenshot shows the 'DHCP Server Configuration' page in the D-Link router's web interface. The 'Enable DHCP Server' checkbox is checked. The 'DHCP IP Address Range' is set to 50 to 199. The 'DHCP Lease Time' is 86400 seconds. There are input fields for 'Primary DNS IP Address' and 'Secondary DNS IP Address'. A 'Fixed Mapping' button is visible below the form, along with 'Apply' and 'Refresh' buttons.

The screenshot shows the 'Fixed Mapping' page in the D-Link router's web interface. It features a table for mapping DHCP clients to specific IP addresses. The table has columns for ID, MAC Address, IP Address, and an 'Enable' checkbox. A dropdown menu labeled 'DHCP clients' is at the top left, and a 'Copy to' button is at the top right. The table contains 10 rows for mapping. Below the table are buttons for 'Previous page', 'Next page', and 'Back'. At the bottom of the page are 'Apply' and 'Refresh' buttons.

ID	MAC Address	IP Address	Enable
1			<input type="checkbox"/>
2			<input type="checkbox"/>
3			<input type="checkbox"/>
4			<input type="checkbox"/>
5			<input type="checkbox"/>
6			<input type="checkbox"/>
7			<input type="checkbox"/>
8			<input type="checkbox"/>
9			<input type="checkbox"/>
10			<input type="checkbox"/>

Advanced DNS

On this page you can configure the Domain Name System (DNS) server, which manages the resolution of host/domain names to IP addresses.

Enable DDNS: DDNS is a method of keeping a domain name linked to a changing IP Address. Select this box to enable DDNS.

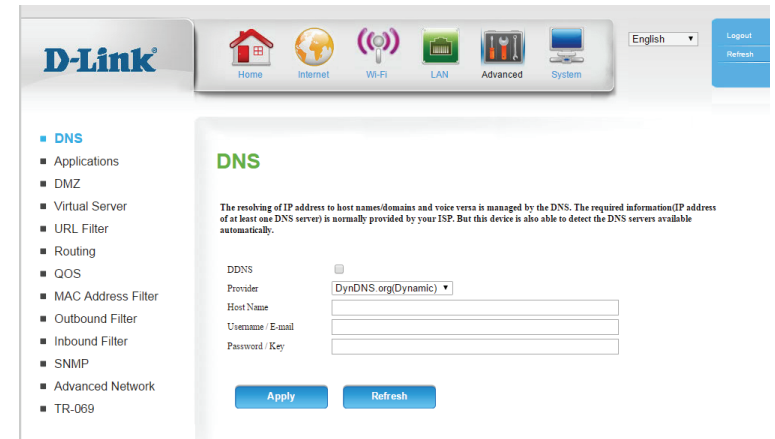
Provider: Select your DDNS provider from the dropdown box.

Host Name: Enter the Host Name that you registered with your DDNS service provider.

Username / E-mail: Enter the Username for your DDNS account.

E-mail:

Password / Key: Enter the Password for your DDNS account.



Applications

On this page you can configure special application rules, to open ports on your firewall and allow certain applications access to your network.

Popular applications: To speed up configuration, you can select a popular application from the drop-down menu, an **ID**, and click **Copy to**, to copy the application's rules to the specified ID.

ID: Displays a numeric ID for the rule.

Trigger Protocol: Enter the port or range of ports to listen to in order to trigger the rule.

Incoming Ports: Enter the port or range of ports that will be used to access the application.

Enable: Check the box to enable the rule.

The screenshot shows the D-Link web interface for configuring application rules. The top navigation bar includes icons for Home, Internet, Wi-Fi, LAN, Advanced, and System, along with a language dropdown set to English and a Logout button. The left sidebar lists various configuration options, with 'Applications' selected. The main content area is titled 'Applications' and contains a 'Popular applications' dropdown menu, a 'Copy to' button, and an 'ID' dropdown menu. Below these is a table titled 'Application Rules' with the following structure:

ID	Trigger	Incoming Ports	Enable
1	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
2	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
3	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
4	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
5	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
6	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
7	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
8	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
9	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
10	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
11	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
12	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>

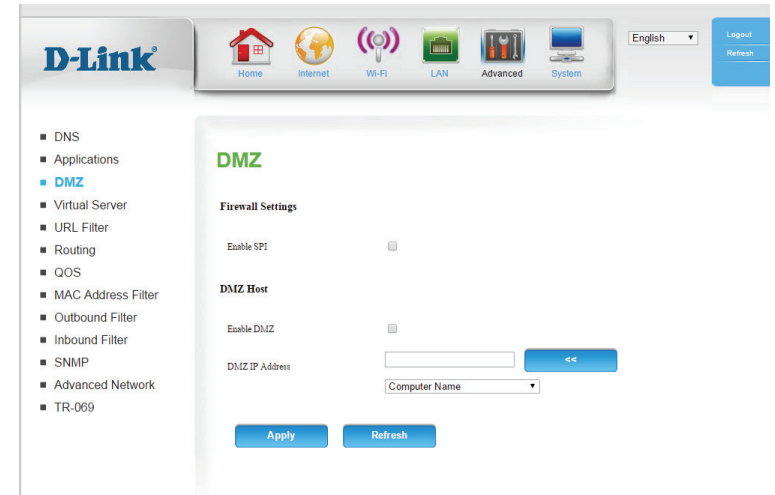
DMZ

On this page you can enable or disable Demilitarized Zone (DMZ). This completely exposes the client to threats over the Internet, and is not recommended in ordinary situations.

Enable SPI: Check the box to enable Stateful Packet Inspection (SPI).

Enable DMZ: Check the box to enable DMZ.

DMZ IP Address: Enter the IP address of the client you wish to expose, or select the **Computer Name** from the drop-down menu and click << to automatically enter the IP information.



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: To speed up configuration, you can select a service from the drop-down menu, an **ID**, and click **Copy to**, to copy the service rules to the specified ID.

Service Ports: Enter the ports used by the service.

Server IP: Port: Enter 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 or click **Add New Rule...** to add a new schedule rule.

D-Link Home Internet Wi-Fi LAN Advanced System English Logout Refresh

- DNS
- Applications
- DMZ
- **Virtual Server**
- URL Filter
- Routing
- QOS
- MAC Address Filter
- Outbound Filter
- Inbound Filter
- SNMP
- Advanced Network
- TR-069

Virtual Server

The Externally acts as server. It receives the requests of remote users under its public IP address and forwards them automatically to the Virtual Server. So a client in your network behind NAT or firewall can provide services as a Virtual Server. You just have to enable specific ports or port ranges and protocols (UDP/TCP). File-sharing or web services for e.g. HTTP, FTP or POP3 are possible. The private IP addresses of the servers in the local network remain safe. If you have a dynamic IP address, you may want to enable DynDNS additionally.

Well known services: -- Select one -- **Copy to** ID: -- --
Use schedule rule: --ALWAYS ON--

Virtual Servers List

ID	Service Ports	Server IP: Port	Enable	Schedule Rule
1	<input type="text"/>	<input type="text"/> : <input type="text"/>	<input type="checkbox"/>	<input type="text"/> Add New Rule...
2	<input type="text"/>	<input type="text"/> : <input type="text"/>	<input type="checkbox"/>	<input type="text"/> Add New Rule...
3	<input type="text"/>	<input type="text"/> : <input type="text"/>	<input type="checkbox"/>	<input type="text"/> Add New Rule...
4	<input type="text"/>	<input type="text"/> : <input type="text"/>	<input type="checkbox"/>	<input type="text"/> Add New Rule...
5	<input type="text"/>	<input type="text"/> : <input type="text"/>	<input type="checkbox"/>	<input type="text"/> Add New Rule...
6	<input type="text"/>	<input type="text"/> : <input type="text"/>	<input type="checkbox"/>	<input type="text"/> Add New Rule...
7	<input type="text"/>	<input type="text"/> : <input type="text"/>	<input type="checkbox"/>	<input type="text"/> Add New Rule...

URL Filter

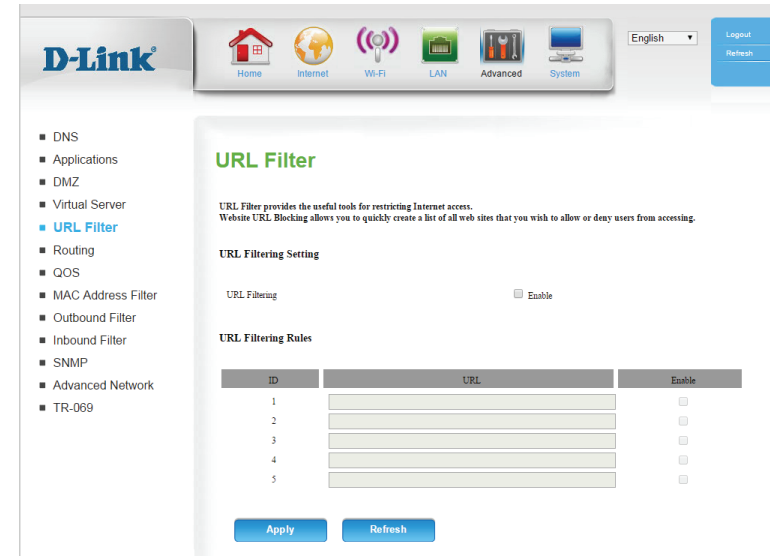
On this page you can restrict Internet access to particular URLs.

URL Filtering: Check the box to enable URL Filtering.

ID: Identifies the rule.

URL: Enter URL that you would like to block.

Enable: Click to enable the specific URL filter.



The screenshot shows the D-Link web interface for configuring the URL Filter. The top navigation bar includes the D-Link logo and icons for Home, Internet, Wi-Fi, LAN, Advanced, and System. The left sidebar lists various configuration options, with 'URL Filter' selected. The main content area is titled 'URL Filter' and contains the following sections:

- URL Filtering Setting:** A checkbox labeled 'URL Filtering' with an 'Enable' label next to it.
- URL Filtering Rules:** A table with three columns: ID, URL, and Enable.

ID	URL	Enable
1	<input type="text"/>	<input type="checkbox"/>
2	<input type="text"/>	<input type="checkbox"/>
3	<input type="text"/>	<input type="checkbox"/>
4	<input type="text"/>	<input type="checkbox"/>
5	<input type="text"/>	<input type="checkbox"/>

At the bottom of the table are two buttons: 'Apply' and 'Refresh'.

Routing

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

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 subnet mask exchange.

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 network.

Gateway: Enter the gateway IP address to the specified network.

Hop: Enter the amount of hops it will take to reach the specified network.

Enable: Select this box to enable the rule.

The screenshot shows the D-Link web interface for the Routing configuration page. The page title is 'Routing'. Below the title, there is a note: 'The routes for the traffic in your network are defined in the routing table. Normally, the entries for IP Address and Gateway are sufficient. You do not need to define any settings.'

The 'RIP Setting' section includes a checkbox for 'Enable' and radio buttons for 'RIPv1' and 'RIPv2'.

The 'Routing Rules' section contains a table with the following columns: ID, Destination, Subnet Mask, Gateway, Hop, and Enable. The table has 8 rows, each with input fields for the first five columns and a checkbox for the 'Enable' column.

At the bottom of the page, there are 'Apply' and 'Refresh' buttons.

QoS

On this page you can configure the router's Quality of Service (QoS) engine, which prioritizes important network traffic, such as online gaming, Internet phone calls, and video streaming, over ordinary traffic, such as web browsing and file transferring.

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).

Use schedule rule: You may select **Always On** or choose the number of a schedule rule that you have defined. Click **Copy to** to copy the rule to the specified ID.

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.

Use Rule #: Specify the schedule rule number or click **Add New Rule...** to add a new schedule rule.

The screenshot shows the D-Link router's web interface for QoS configuration. The top navigation bar includes Home, Internet, Wi-Fi, LAN, Advanced, and System. The left sidebar lists various settings, with QoS highlighted. The main content area is titled 'QoS' and contains the following sections:

- QoS Engine Setup:**
 - Enable QoS Packet Filter:
 - Upstream bandwidth: kbps
 - Use schedule rule: (dropdown menu showing 'ALWAYS ON')
 - Copy to: (dropdown menu showing 'ID')
- QoS Rules:**

ID	Local IP : Ports	Remote IP : Ports	QoS Priority	Enable	Use Rule#
1	<input type="text"/> : <input type="text"/>	<input type="text"/> : <input type="text"/>	High	<input type="checkbox"/>	<input type="text"/> Add New Rule...
2	<input type="text"/> : <input type="text"/>	<input type="text"/> : <input type="text"/>	High	<input type="checkbox"/>	<input type="text"/> Add New Rule...
3	<input type="text"/> : <input type="text"/>	<input type="text"/> : <input type="text"/>	High	<input type="checkbox"/>	<input type="text"/> Add New Rule...
4	<input type="text"/> : <input type="text"/>	<input type="text"/> : <input type="text"/>	High	<input type="checkbox"/>	<input type="text"/> Add New Rule...
5	<input type="text"/> : <input type="text"/>	<input type="text"/> : <input type="text"/>	High	<input type="checkbox"/>	<input type="text"/> Add New Rule...
6	<input type="text"/> : <input type="text"/>	<input type="text"/> : <input type="text"/>	High	<input type="checkbox"/>	<input type="text"/> Add New Rule...
7	<input type="text"/> : <input type="text"/>	<input type="text"/> : <input type="text"/>	High	<input type="checkbox"/>	<input type="text"/> Add New Rule...
8	<input type="text"/> : <input type="text"/>	<input type="text"/> : <input type="text"/>	High	<input type="checkbox"/>	<input type="text"/> Add New Rule...

At the bottom of the page are 'Apply' and 'Refresh' buttons.

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 Address Control: Check 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.

DHCP clients: To speed up configuration, you can select a DHCP client from the drop-down menu, an **ID**, and click **Copy to**, to copy the client's MAC address to the specified ID.

ID: Identifies the rule.

MAC Address: Specify the MAC address of the computer to be filtered.

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.

The screenshot shows the D-Link web interface for configuring the MAC Address Filter. The page is titled "MAC Address Filter" and is part of the "Advanced Network" section. The "MAC Filtering Settings" section includes options to enable MAC Address Control, Connection control, and Association control. Below these settings, there is a "DHCP clients" dropdown menu, a "Copy to" button, and an "ID" dropdown menu. The "MAC Filtering Rules" section contains a table with columns for ID, MAC Address, C, and A. The table has 5 rows, each with a text input field for the MAC address and checkboxes for C and A. At the bottom of the page, there are "Apply" and "Refresh" buttons.

ID	MAC Address	C	A
1	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>

Outbound Filter

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

Outbound Filter: Check this box to enable the filter.

Use schedule rule: You may select **Always On** or choose the number of a schedule rule that you have defined. Click **Copy to** to copy the rule to the specified ID.

Outbound Filter rules list: Select whether to **Allow** or **Deny** all data to pass except those matching the rules configured on this page.

ID: Identifies the filter.

Source IP : Ports: Specify the local IP address and then specify the port after the colon.

Destination IP : Ports: Specify the remote IP address and then the port after the colon.

Enable: Select this box to enable the filter.

Schedule Rule #: Specify the schedule rule number or click **Add New Rule...** to add a new schedule rule.

The screenshot displays the D-Link router's web interface for configuring the Outbound Filter. The top navigation bar includes the D-Link logo and icons for Home, Internet, Wi-Fi, LAN, Advanced, and System. The main content area is titled 'Outbound Filter' and contains the following sections:

- Outbound Filter Setting:**
 - An 'Outbound Filter' checkbox with an 'Enable' label.
 - A 'Use schedule rule' dropdown menu currently set to 'ALWAYS ON', with a 'Copy to' button and an 'ID' dropdown.
- Outbound Filter Rules List:**
 - Two radio buttons: 'Allow all to pass except those match the following rules.' (selected) and 'Deny all to pass except those match the following rules.'
 - A table with 4 rows and 5 columns: ID, Source IP Ports, Destination IP Ports, Enable, and Schedule Rule. Each row has an 'Add New Rule...' button.

Inbound Filter

The **Inbound Filter** enables you to control what packets are allowed to pass through the router. The inbound filter only applies to packets that are destined for virtual servers or DMZ hosts.

Inbound Filter: Check this box to enable the filter.

Use schedule rule: You may select **Always On** or choose the number of a schedule rule that you have defined. Click **Copy to** to copy the rule to the specified ID.

Inbound Filter rules list: Select whether to **Allow** or **Deny** all data to pass except those matching the rules configured on this page.

ID: Identifies the filter.

Source IP : Ports: Specify the local IP address and then specify the port after the colon.

Destination IP : Ports: Specify the remote IP address and then the port after the colon.

Enable: Select this box to enable the filter.

Schedule Rule #: Specify the schedule rule number or click **Add New Rule...** to add a new schedule rule.

The screenshot displays the D-Link web interface for configuring the Inbound Filter. At the top, there are navigation icons for Home, Internet, Wi-Fi, LAN, Advanced, and System, along with a language dropdown set to English and a Refresh button. A sidebar on the left lists various configuration options, with 'Inbound Filter' highlighted. The main content area is titled 'Inbound Filter' and contains the following sections:

- Inbound Filter Setting:** Includes an 'Inbound Filter' checkbox (checked), a 'Use schedule rule' dropdown menu (set to 'ALWAYS ON'), a 'Copy to' button, and an 'ID' dropdown menu.
- Inbound Filter Rules List:** Features two radio buttons: 'Allow all to pass except those match the following rules.' (selected) and 'Deny all to pass except those match the following rules.'
- Rules Table:** A table with 4 rows and 5 columns: ID, Source IP Ports, Destination IP Ports, Enable, and Schedule Rule. Each row includes an 'Add New Rule...' button.

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-953. The DWR-953 supports SNMP v1 or v2c.

SNMP Local: Select whether the local SNMP administration should be **Enabled** or **Disabled**.

SNMP Remote: Select whether the local SNMP administration should be **Enabled** or **Disabled**.

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 enable read/write access to the network using SNMP.

IP 1 ~ 4: Enter up to 4 IP addresses to use as trap targets for your network.

SNMP Version: Select the SNMP version of your system.

WAN Access IP Address: If you want to limit remote access SNMP access, enter the IP address of the remote computer you will use to access this device; all other IP addresses will be denied remote SNMP access.

The screenshot shows the D-Link web interface for the DWR-953. The top navigation bar includes icons for Home, Internet, Wi-Fi, LAN, Advanced, and System, along with a language dropdown set to English and a Logout/Refresh button. The left sidebar contains a menu with items like DNS, Applications, DMZ, Virtual Server, URL Filter, Routing, QOS, MAC Address Filter, Outbound Filter, Inbound Filter, **SNMP** (highlighted), Advanced Network, and TR-069. The main content area is titled 'SNMP' and contains the following configuration options:

- SNMP Local: Enable Disable
- SNMP Remote: Enable Disable
- Get Community:
- Set Community:
- IP 1:
- IP 2:
- IP 3:
- IP 4:
- SNMP Version: V1 V2c
- WAN Access IP Address:

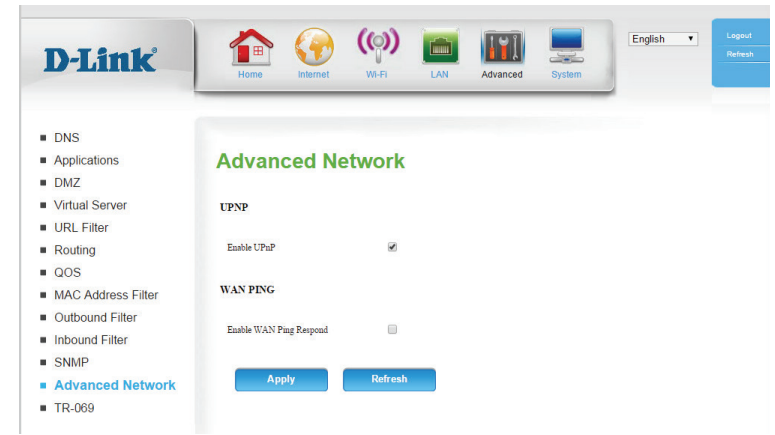
At the bottom of the configuration area are 'Apply' and 'Refresh' buttons.

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 do so.

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

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.



TR069

This page allows you to configure the router's TR069 settings. TR-069 provides standardized remote device management for residential gateways, which allows your router to be configured remotely by your ISP (if supported), or any service providing Auto-Configuration Servers (ACS). If you wish to configure TR069 but lack the required settings, contact your Internet Service Provider (ISP).

TR069: Check the box to enable TR069.

ACS URL: Enter the ACS URL.

ACS Username: Enter your ACS username.

ACS Password: Enter your ACS password.

Connection Request Port: Enter the connection request port.

Connection Request Username: Enter the connection request username.

Connection Request Password: Enter the connection request password.

Inform: Select either **Disable** or **Enable**.

Interval: Enter the interval time here in seconds.

The screenshot shows the D-Link router's configuration interface for TR069. The top navigation bar includes 'Home', 'Internet', 'Wi-Fi', 'LAN', 'Advanced', and 'System'. The left sidebar lists various settings, with 'TR-069' highlighted. The main content area is titled 'TR-069' and contains the following sections:

- TR-069 Setting:** A radio button for 'Enable' is selected.
- ACS Setting:**
 - ACS URL:
 - ACS UserName:
 - ACS Password:
- CPE Setting:**
 - ConnectionRequest Port:
 - ConnectionRequest UserName:
 - ConnectionRequest Password:
- Inform Setting:**
 - Inform: A radio button for 'Enable' is selected.
 - Interval: seconds

At the bottom of the form are 'Apply' and 'Refresh' buttons. A copyright notice 'Copyright © 2012. All Rights Reserved' is visible in the bottom right corner.

System Time Settings

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 router.

Time Zone: Select the appropriate time zone from the drop-down box.

Enable Daylight Saving: Check the box to enable daylight saving time.

Automatically synchronize with Internet time server: Check the box to automatically synchronize the router with an Internet time server.

NTP Server Used: Choose the NTP Server used for synchronizing time and date. Click **Update Now** to synchronize with the NTP server now.

Sync. Result: Shows the result of the last time synchronization.

D-Link

Home Internet Wi-Fi LAN Advanced System

Help Logout Refresh

- Time Settings
- Administration
- Reboot & Reset
- Firmware Upgrade
- System Logs
- Schedules

Time

The time Configuration option allows you to configure, update, and maintain the correct time on the internal system clock. From this section you can set the time zone that you are in and set the NTP (Network Time Protocol) Server. Daylight Saving can also be configured to automatically adjust the time when needed.

Time Settings

Time Thu Nov 13, 2014 18:58:46

Time Zone (GMT-08:00) Pacific Time (US & Canada)

Enable Daylight Saving Sync. your computer's time settings

Automatically synchronize with Internet time server

NTP Server Used time.nist.gov

pool.ntp.br **Update Now**

Sync. RESULT

Apply **Reset**

Administration

The **Administration** page allows you to change the Administrator password and enable Remote Management. The Administrator 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.

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 allows the router 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 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.

Port: This is the port number used to access the router. Example: 8080 is the port used for the web-management interface.

Enable Telnet: This enables you to connect to DWR-953 via Telnet.

Allow WAN: Allow access via the Internet.

Port: Specify the port that you wish to connect to.

The screenshot shows the D-Link Administration web interface. At the top, there is a navigation bar with icons for Home, Internet, Wi-Fi, LAN, Advanced, and System, along with Logout and Refresh buttons. A sidebar on the left lists menu items: Time Settings, Administration (highlighted), Reboot & Reset, Firmware Upgrade, System Logs, and Schedules. The main content area is titled 'Administration' and contains the following sections:

- Administrator Settings:** Fields for 'New Password' and 'Confirm Password', both masked with asterisks.
- Remote Administration:**
 - 'Enable Remote Management' checkbox is unchecked.
 - 'IP Allowed to Access' field contains '0.0.0.0'.
 - 'Port' dropdown menu is set to '1080'.
- Telnet:**
 - 'Enable Telnet' checkbox is checked.
 - 'Allow Wan' checkbox is unchecked.
 - 'Port' field contains '23'.

At the bottom of the form are 'Apply' and 'Refresh' buttons.

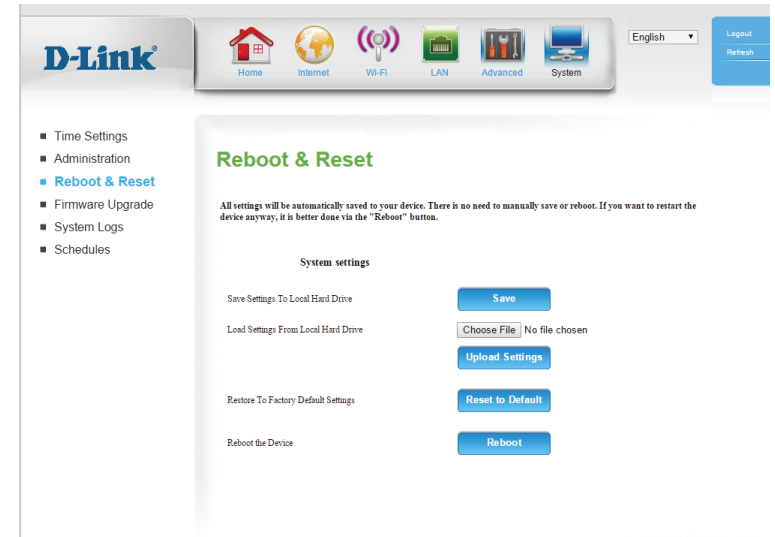
Reboot & Reset

Save Settings To Local Hard Drive: Use this option to save your current router configuration settings to a file and onto your computer. Click **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.

Save and Reboot the Device: Click **Reboot** to save your settings and reboot the device.

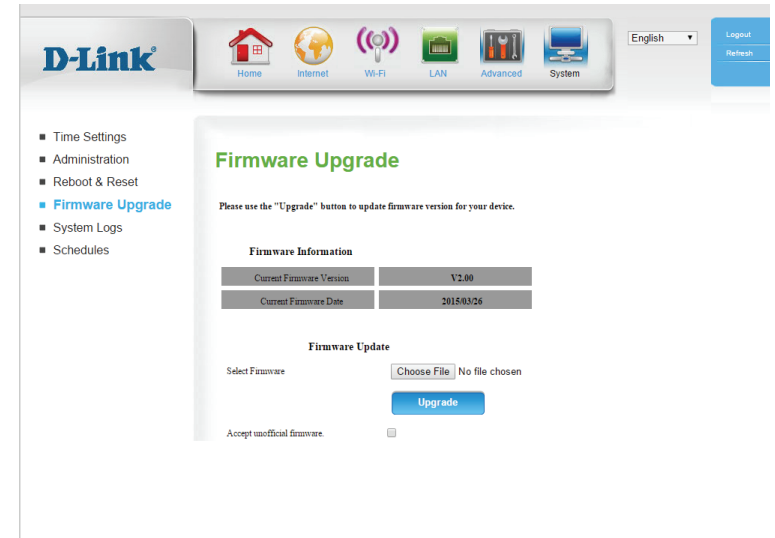


Firmware Upgrade

This page displays your router's current firmware version, and allows you to upgrade your router's firmware.

Firmware Information: Displays your router's current firmware version and build date.

Firmware Update: To upgrade your router's firmware, click **Browse...** and navigate to the firmware file on your computer's hard drive. If you are installing unofficial firmware, check the **Accept unofficial firmware** box (not recommended). Click **Upgrade** to start the upgrade process or **Cancel** to cancel the upgrade.

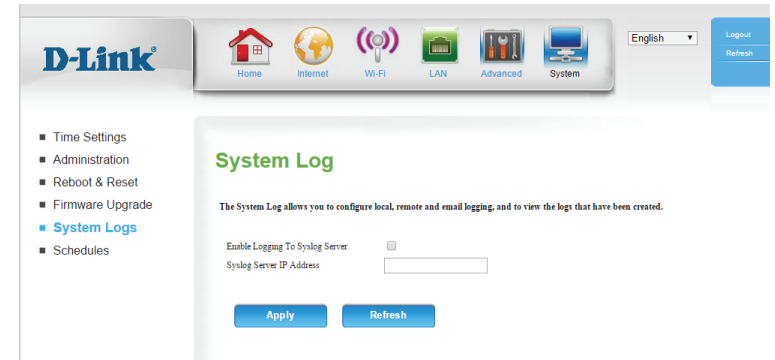


System Logs

The DWR-953 keeps a running log of events and activities occurring on the router. You may send these logs to a system log (syslog) server on your network.

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

Syslog Server IP Address: Enter the address of the syslog server that will be used to send the logs.



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 on this button to create a new rule. The following options will be available.

Schedule Rule Setting

Name of Rule 1: Enter a name for your new schedule.

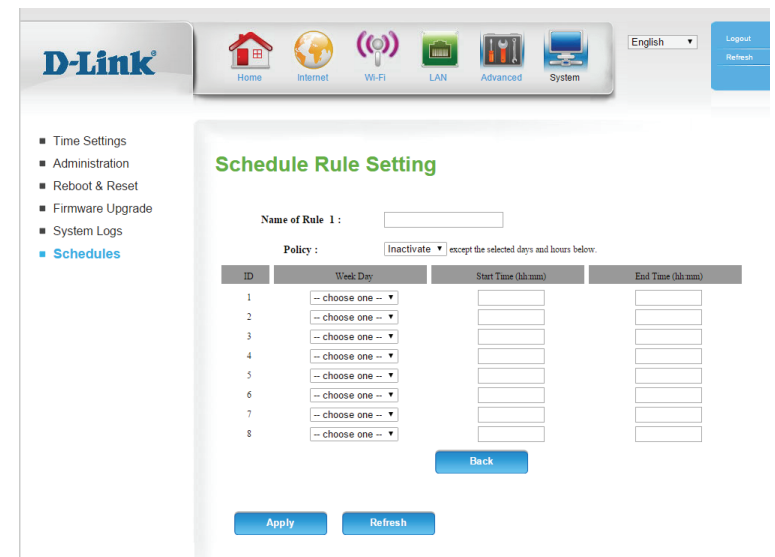
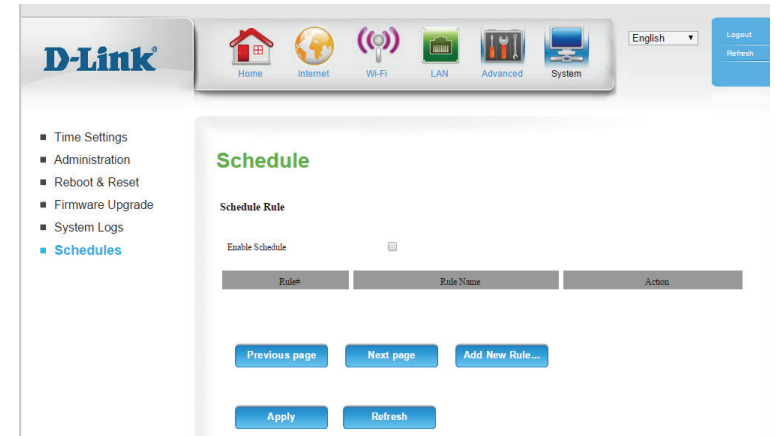
Policy: Select whether the schedule is **Active** or **Inactive** except for the schedule rules configured below.

ID: Displays the ID number of the rule.

Week Day: Select the day of the week on which you would like the schedule to become active.

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.



Connect a Wireless Client to your Router

WPS Button

The easiest and most secure way to connect your wireless devices to the router is with WPS (Wi-Fi Protected Setup). Most wireless devices such as wireless adapters, media players, Blu-ray DVD players, wireless printers and cameras will have a WPS button (or a software utility with WPS) that you can press to connect to the DWR-953 router. Please refer to your user manual for the wireless device you want to connect to make sure you understand how to enable WPS. Once you know, follow the steps below:

Step 1 - Press the WPS button on the DWR-953 for about 1 second. The Internet LED on the front will start to blink.



Step 2 - Within 2 minutes, press the WPS button on your wireless client (or launch the software utility and start the WPS process).

Step 3 - Allow up to 1 minute for your connection to be configured. Once the Internet light stops blinking, you will be connected and your wireless connection will be secure with WPA2.

Windows® 8

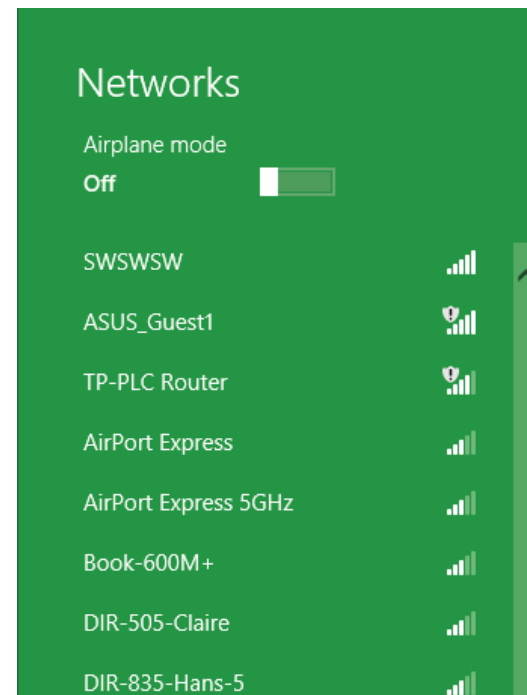
WPA/WPA2

It is recommended that you enable wireless security (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 (Wi-Fi password) being used.

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



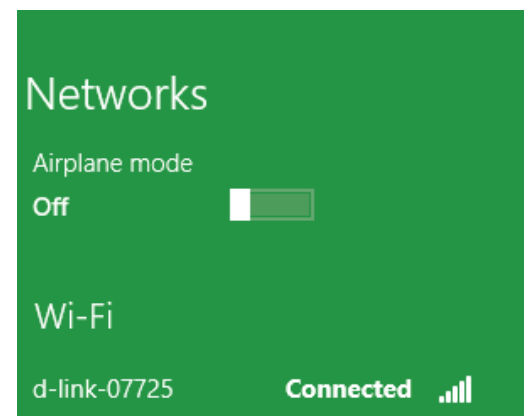
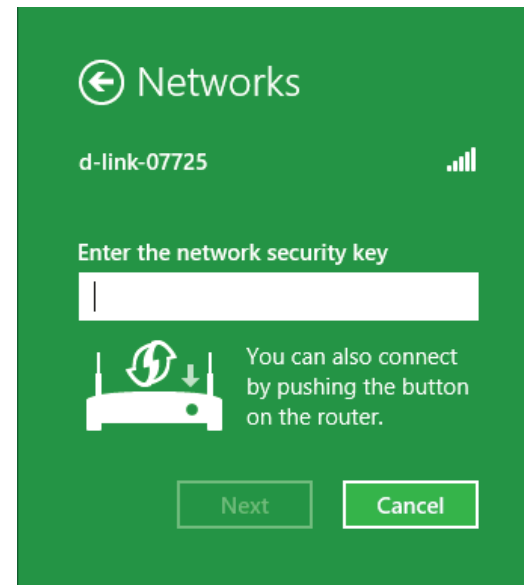
Clicking on this icon will display a list of wireless networks that are within connecting proximity of your computer. Select the desired network by clicking on the network name.



You will then be prompted to enter the network security key (Wi-Fi password) for the wireless network. Enter the password into the box and click **Next**.

If you wish to use Wi-Fi Protected Setup (WPS) to connect to the router, you can also press the WPS button on your router during this step to enable the WPS function.

When you have established a successful connection to a wireless network, the word **Connected** will appear next to the name of the network to which you are connected to.

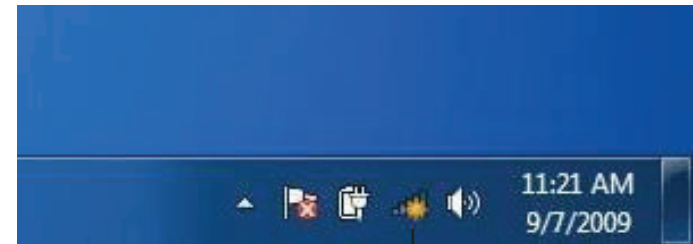


Windows® 7

WPA/WPA2

It is recommended that you enable wireless security (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.

1. Click on the wireless icon in your system tray (lower-right corner).



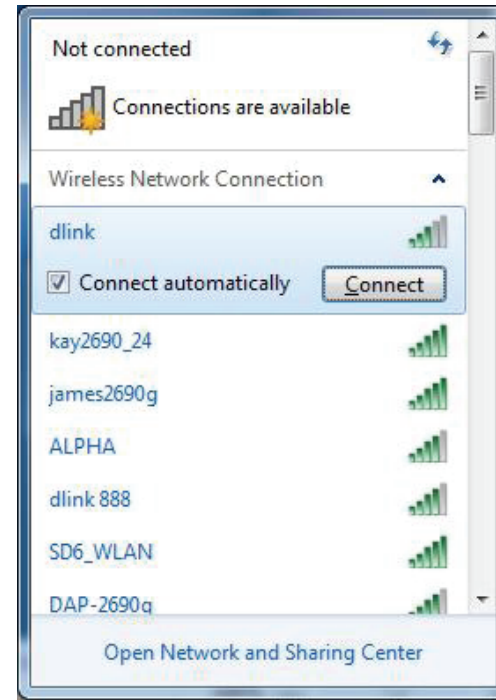
Wireless Icon

2. The utility will display any available wireless networks in your area.

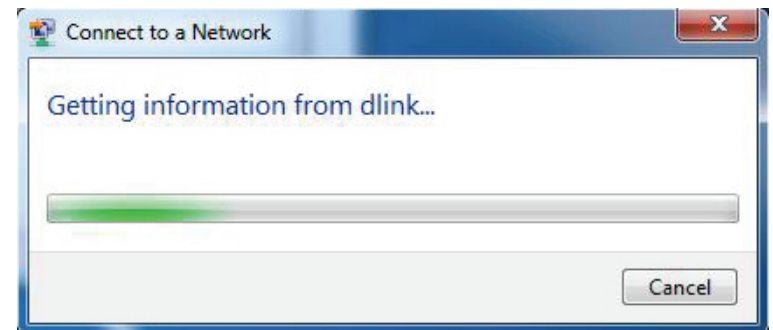


3. Highlight the wireless connection with Wi-Fi name (SSID) you would like to connect to and click the **Connect** button.

If you get a good signal but cannot access the Internet, check your TCP/IP settings for your wireless adapter. Refer to **Networking Basics** on page 77 for more information.

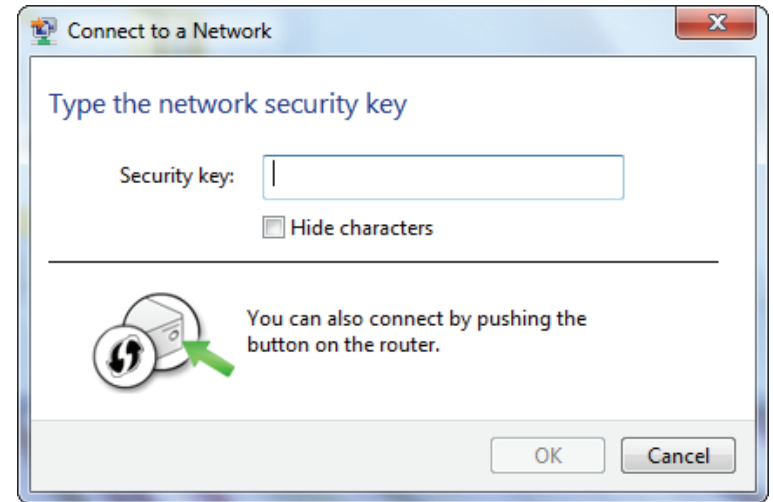


4. The following window appears while your computer tries to connect to the router.



5. Enter the same security key or passphrase (Wi-Fi password) that is on your router and click **Connect**. You can also connect by pushing the WPS button on the router.

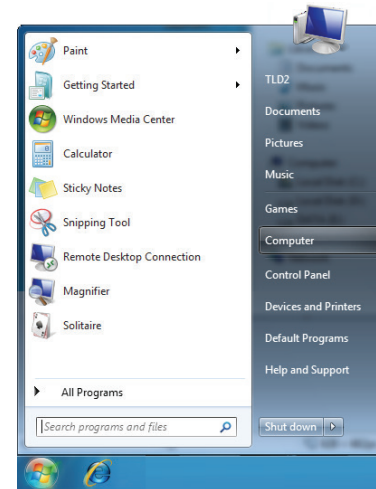
It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the security settings are correct. The key or passphrase must be exactly the same as the one on the wireless router.



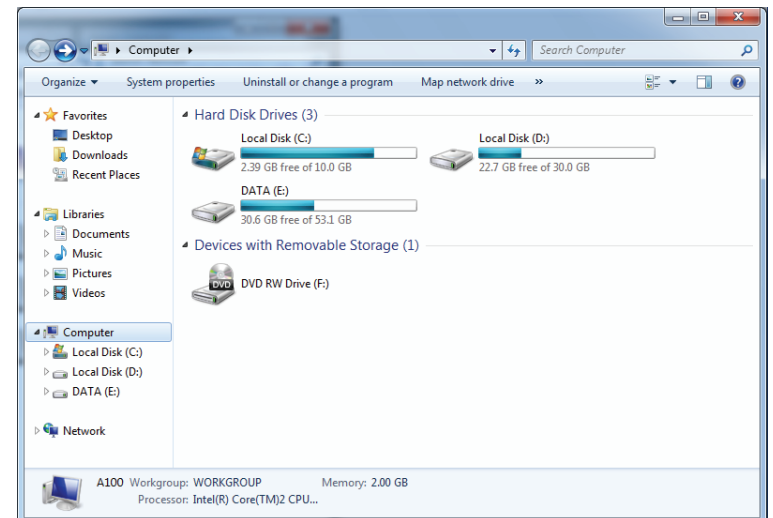
WPS

The WPS feature of the DWR-953 can be configured using Windows® 7. Carry out the following steps to use Windows® 7 to configure the WPS feature:

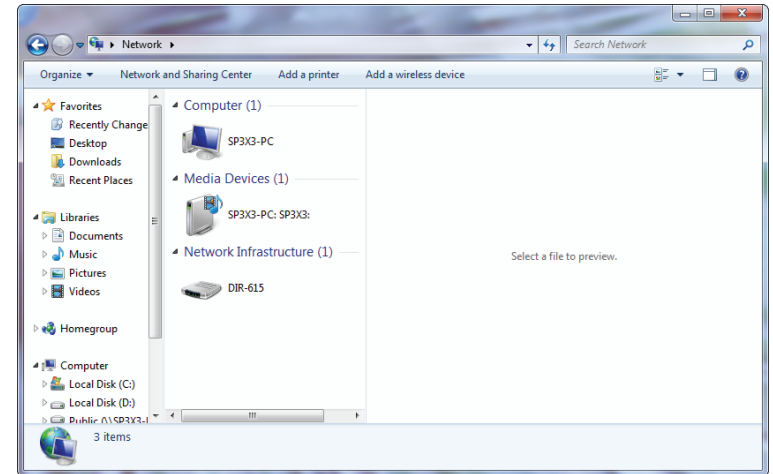
1. Click the **Start** button and select **Computer** from the Start menu.



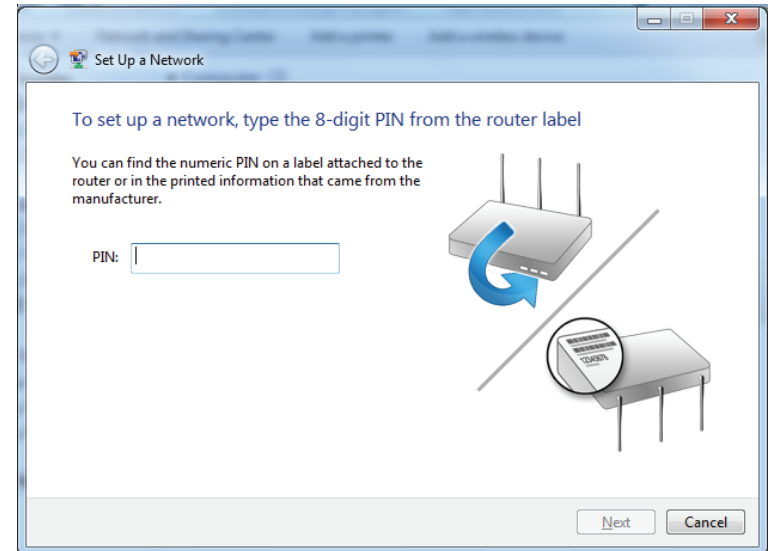
2. Click **Network** on the left side.



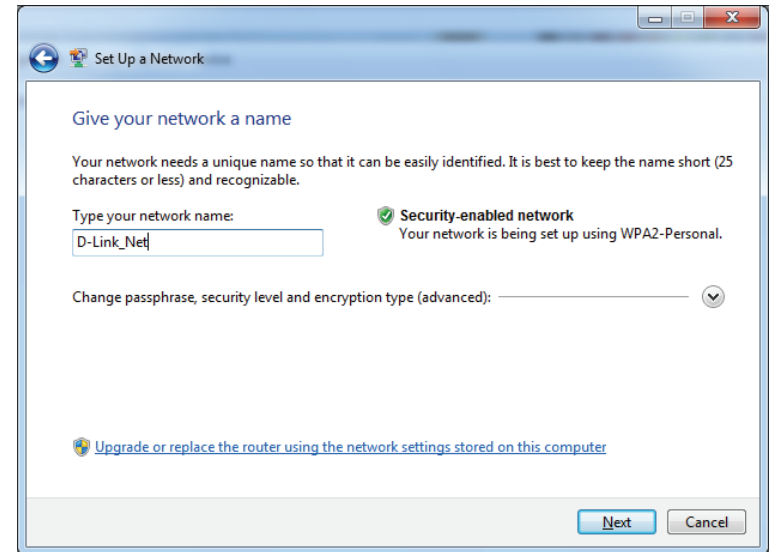
3. Double-click the DWR-953.



4. Input the WPS PIN number (on the router label) in the **Setup > Wireless Setup** menu in the Router's Web UI) and click **Next**.

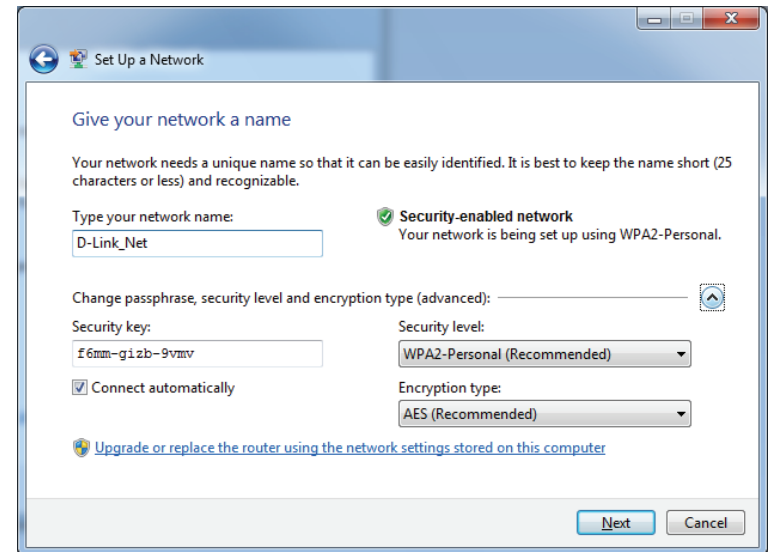


5. Type a name to identify the network.



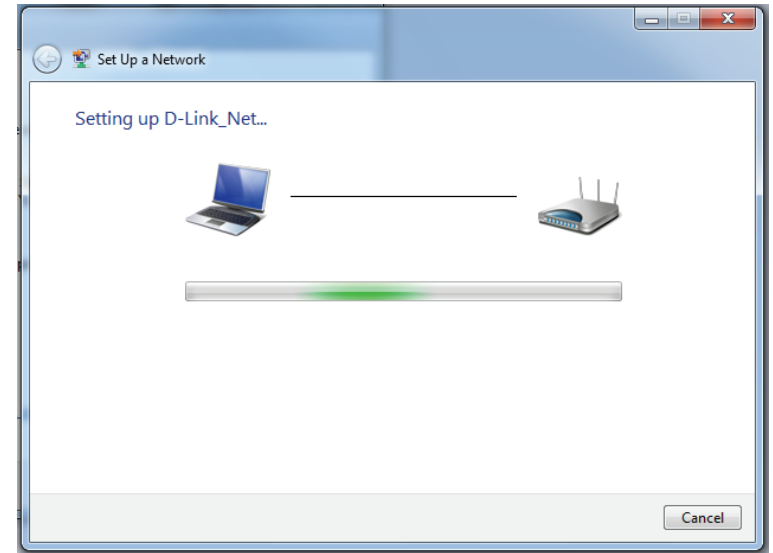
6. To configure advanced settings, click the  icon.

Click **Next** to continue.



7. The following window appears while the router is being configured.

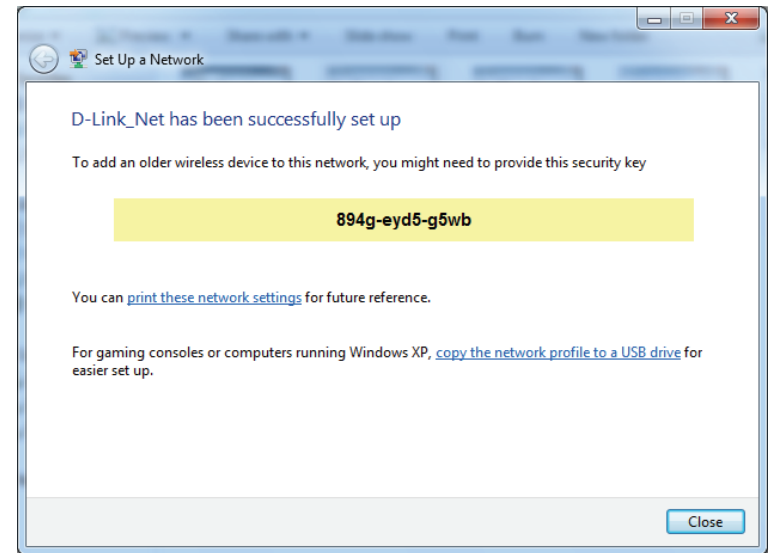
Wait for the configuration to complete.



8. The following window informs you that WPS on the router has been set up successfully.

Make a note of the security key as you may need to provide this security key if adding an older wireless device to the network in the future.

9. Click **Close** to complete WPS setup.



Windows Vista®

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

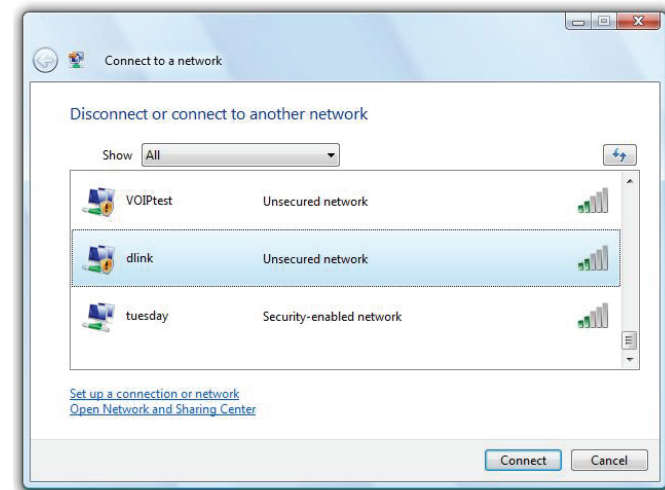
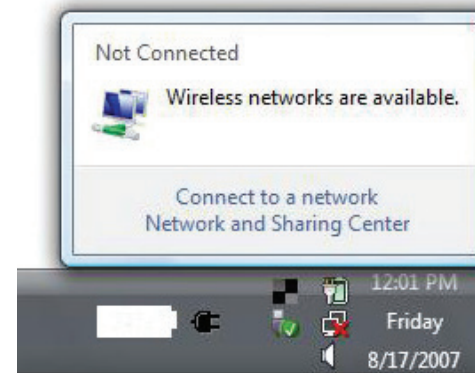
If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

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.

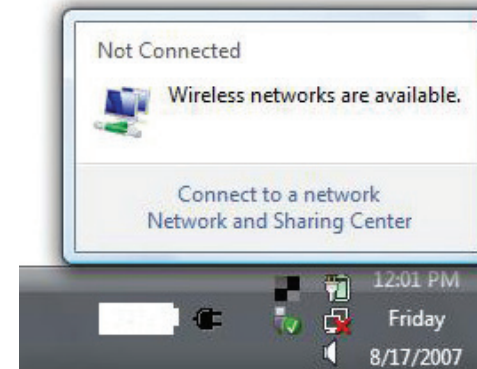
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



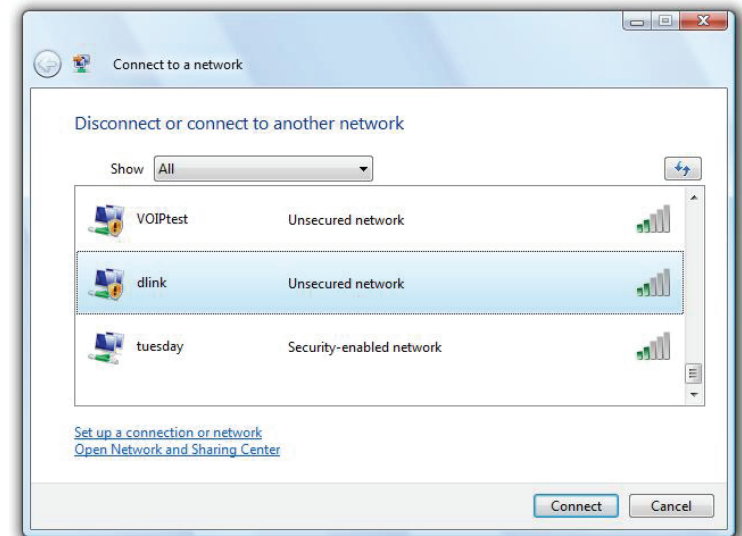
WPA/WPA2

It is recommended that you enable wireless security (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.

1. 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**.

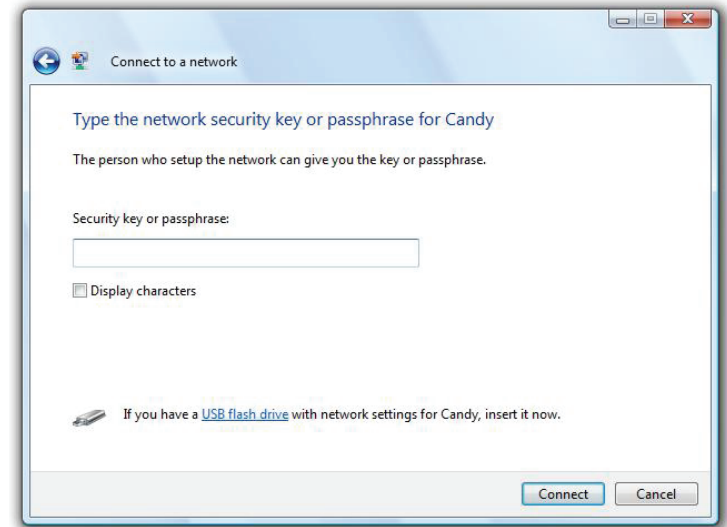


2. Highlight the Wi-Fi name (SSID) you would like to connect to and click **Connect**.



3. Enter the same security key or passphrase (Wi-Fi password) 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 the one on the wireless router.



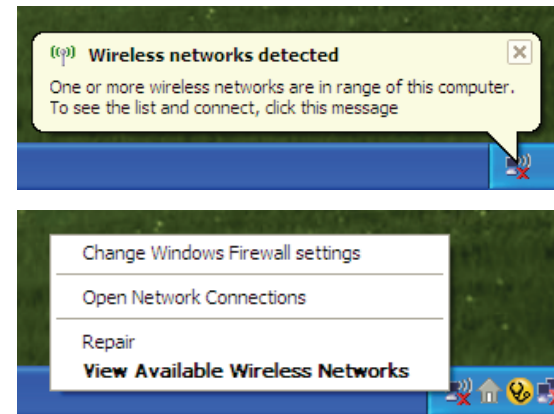
Windows® XP

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, 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.

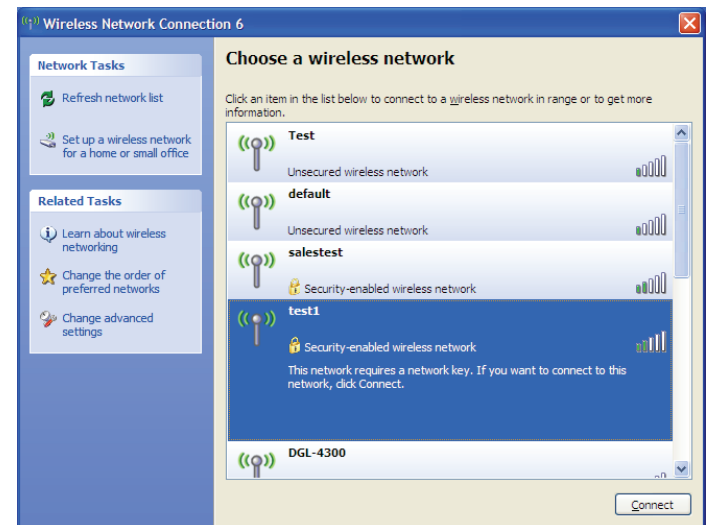
or

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 Wi-Fi network (displayed using the SSID) and click the **Connect** button.

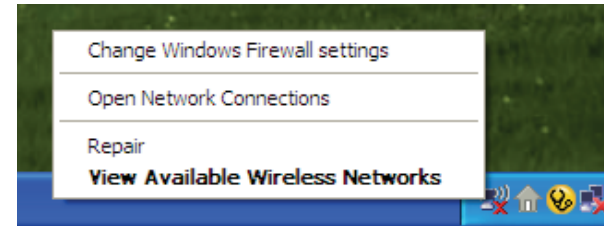
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



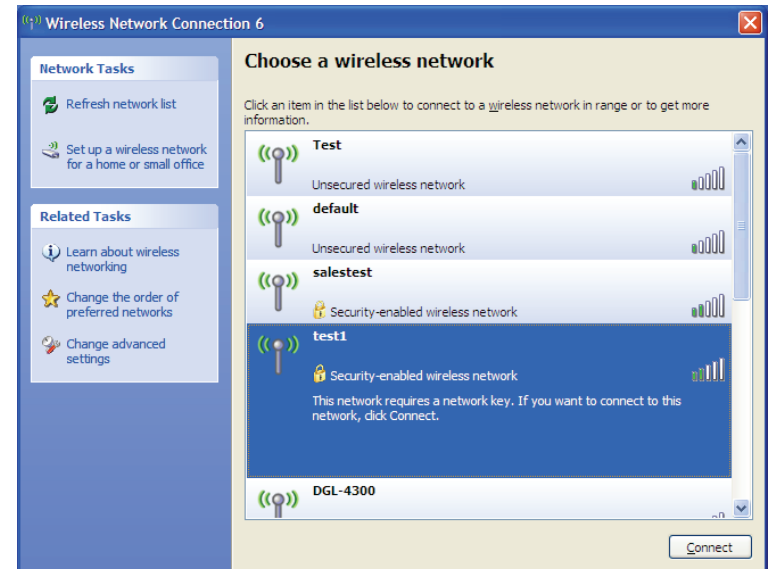
WPA/WPA2

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.

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**.

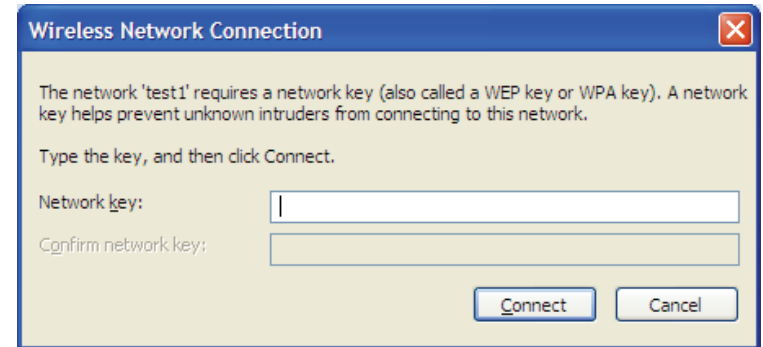


2. Highlight the Wi-Fi network (SSID) you would like to connect to and click **Connect**.



3. The **Wireless Network Connection** box will appear. Enter the WPA-PSK Wi-Fi password 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 Wi-Fi password must be exactly the same as on the wireless router.



Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DWR-953. 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 these 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, nor do you 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:
 - Microsoft Internet Explorer® 9 or higher
 - Mozilla Firefox 23 or higher
 - Google™ Chrome 28 or higher
 - Apple Safari 6 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 ZoneAlarm, BlackICE, 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 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. 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, leave the password box empty.

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).

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, XP, Vista®, and 7 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, let's 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 box and click **Save Settings** 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 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 similarly to how cordless phones work, through radio signals that 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 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, university 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. This makes it ideal for personal devices, such as mobile phones, PDAs, headphones, laptops, speakers, and other devices that operate on batteries.

Who uses wireless?

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

Home Uses/Benefits

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

Small Office and Home Office Uses/Benefits

- 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 the Internet from remote locations like: airports, hotels, coffee shops, libraries restaurants, and convention centers.

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

Tips

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

Centralize your router or access point

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

Eliminate Interference

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

Security

Don't let your next-door neighbors or intruders connect to your wireless network. Secure your wireless network by turning on the WPA or WEP security feature on the router. Refer to the 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 DWR-953 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

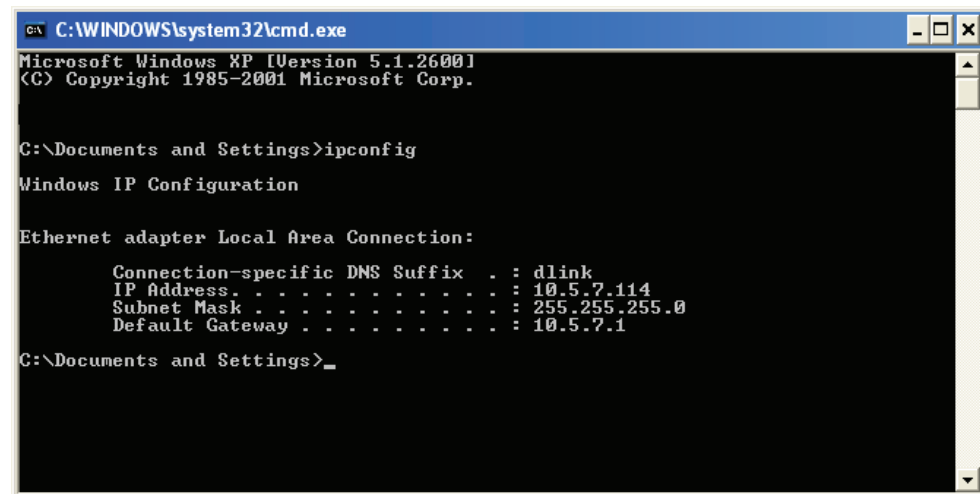
After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

Click on **Start > Run**. In the run box type **cmd** and click **OK**. (Windows® 7/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.



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

C:\Documents and Settings>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

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

C:\Documents and Settings>_
```

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® 7 - Click on **Start > Control Panel > Network and Internet > Network and Sharing Center.**
 - 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.**

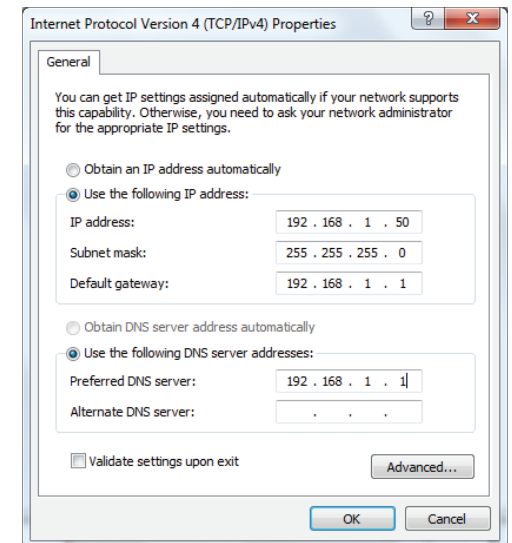
Step 3
Highlight **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties.**

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 192.168.1.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 the Default Gateway the same as the LAN IP address of your router (I.E. 192.168.0.1).

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

Step 5
Click **OK** twice to save your settings.



Wireless Security

This section will show you the different levels of security you can use to protect your data from intruders. The DWR-953 offers the following types of security:

- WPA2 (Wi-Fi Protected Access 2)
- WPA (Wi-Fi Protected Access)
- WPA2-PSK (Pre-Shared Key)
- WPA-PSK (Pre-Shared Key)

What is WPA?

WPA (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.

Technical Specifications

GSM/GPRS/EDGE Band

- 850 / 900 / 1800 / 1900 MHz
- Power Class 4 (850 / 900 MHz)
- Power Class 1 (1800 / 1900 MHz)

UMTS/HSDPA/HSUPA/HSPA+/DC-HSPA+ Band¹

- 2100 MHz
- Power Class 3

LTE Band¹

- 1800 / 2600 MHz
- Power Class 3

Data Rates²

- 433 Mbps in 802.11ac mode
- 300/150/135/120/90/60/45/30/15 Mbps in 802.11n mode
- 54/48/36/24/18/12/11/9/6 Mbps in 802.11g mode
- 1/2/5.5/11 Mbps in 802.11b mode
- 3G Uplink: Up to 5.76 Mbps
- 3G Downlink: Up to 42 Mbps
- LTE Uplink: Up to 50 Mbps
- LTE Downlink: Up to 150 Mbps

Standards

- IEEE 802.11ac (1Tx1R)
- IEEE 802.11n compliant (2Tx2R)
- IEEE 802.11n/g/b
- IEEE 802.3
- IEEE 802.3u

Wireless Security

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

Firewall

- IP Filtering
- Network Address Translation (NAT)

- Stateful Packet Inspection (SPI)
- MAC Filtering

VPN

- L2TP/PPTP/IPSEC VPN passthrough

Ports

- 1 x Gigabit Ethernet WAN port
- 4 x Fast Ethernet LAN port

Antenna

- 2 x external 3 dBi LTE/3G antennas
- 1 x external 5 dBi Wi-Fi antennas (5 GHz)
- 2 x internal 3 dBi Wi-Fi antenna (2.4 GHz)
- USIM Slot - Standard 6-pin SIM card interface

LED Status Indicators

- Signal Strength
- Status
- 2G/3G
- 4G
- SMA
- WAN
- LAN
- 2.4GHz
- 5GHz

Power Input

- DC 12 V/1.5A +/- 5%

Dimensions (L x W x H)

- 189.5 x 111.5 x 21.84 mm (6.2 x 3.65 x 0.74 inches)

Operating Temperature

- 0 to 40 °C (32 to 104 °F)

Operating Humidity

- 10% to 90% non-condensing

Certifications

- CE

¹Supported frequency band is dependent upon regional hardware version.

²Maximum wireless signal rate derived from IEEE Standard 802.11ac and 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 the actual data throughput rate. Environmental factors will adversely affect wireless signal range.

Regulatory Information

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. For more information, please refer to the Declaration of Conformity.

Notice of Wireless Radio LAN Usage in The European Community

- At the time of writing this addendum, some countries such as Italy, Greece, Portugal and Spain have not allowed operation of radio devices in the 5 GHz bands, although operation of 2.4 GHz radio devices are allowed. Please check with your local authority to confirm.
- This device is restricted to indoor use when operated in the European Community using channels in the 5.15-5.35 GHz band to reduce the potential for interference.
- This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France where restrictive use applies. This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIR P in the frequency range of 2454 –2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France. This equipment may be operated in AL, AD , BE , BG, DK, DE , FI, FR, GR, GW, IS, IT , HR , LI, LU, MT , MK, MD , MC , NL, NO, AT , OL, PT, RO, SM, SE, RS, SK, ES, CI , HU , CY.

Usage Notes:

- To remain in conformance with European National spectrum usage regulations, frequency and channel limitations will be applied on the products according to the country where the equipment will be deployed.
- This device is restricted from functioning in Ad-hoc mode while operating in 5 GHz. Ad-hoc mode is direct peer-to-peer communication between two client devices without an Access Point.
- Access points will support DFS (Dynamic Frequency Selection) and TPC (Transmit Power Control) functionality as required when operating in 5 GHz within the EU.



5 GHz wireless frequency and channel operation in EEC countries

Allowable 802.11a Frequencies and Channels	Countries
5.15-5.25 GHz (Channels 36, 40, 44, 48)	Liechtenstein
5.15-5.25 GHz & 5.725-5.875 GHz (Channels 36, 40, 44, 48, 149, 153, 157, 161, 165, 169)	Austria
5.15-5.35 GHz (Channels 36, 40, 44, 48, 52, 56, 60, 64)	France
5.15-5.35 & 5.47-5.725 GHz (Channels 36, 40, 44, 48, 52, 56, 60, 64, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140)	Denmark, Germany, Iceland, Finland, Netherlands, Norway, Poland, Sweden, Slovenia, Luxembourg, U.K., Ireland, Slovak, Switzerland, Hungary, Italy
5.15-5.35 GHz & 5.725-5.875 GHz (Channels 36, 40, 44, 48, 52, 56, 60, 64, 149, 153, 157, 161, 165, 169)	Czech Republic

European Community Declaration of Conformity:

Česky [Czech]	D-Link tímto prohlašuje, že tento DWR-953 je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
Dansk [Danish]	Undertegnede D-Link erklærer herved, at følgende udstyr DWR-953 overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
Deutsch [German]	Hiermit erklärt D-Link, dass sich das Gerät DWR-953 in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
Eesti [Estonian]	Käesolevaga kinnitab D-Link seadme DWR-953 vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
English	Hereby, D-Link, declares that this DWR-953 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Español [Spanish]	Por medio de la presente D-Link declara que el DWR-953 cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ D-Link ΔΗΛΩΝΕΙ ΟΤΙ DWR-953 ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/EK.
Français [French]	Par la présente D-Link déclare que l'appareil DWR-953 est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
Italiano [Italian]	Con la presente D-Link dichiara che questo DWR-953 è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar šo D-Link deklarē, ka DWR-953 atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	Šiuo D-Link deklaruoja, kad šis DWR-953 atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Nederlands [Dutch]	Hierbij verklaart D-Link dat het toestel DWR-953 in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.

Malti [Maltese]	Hawnhekk, D-Link, jiddikjara li dan DWR-953 jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
Magyar [Hungarian]	Alulírott, D-Link nyilatkozom, hogy a DWR-953 megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
Polski [Polish]	Niniejszym D-Link oświadcza, że DWR-953 jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
Português [Portuguese]	D-Link declara que este DWR-953 está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Slovensko [Slovenian]	D-Link izjavlja, da je ta DWR-953 v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Slovensky [Slovak]	D-Link týmto vyhlasuje, že DWR-953 spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
Suomi [Finnish]	D-Link vakuuttaa täten että DWR-953 tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.

Safety Instructions

Please adhere to the following safety guidelines to help ensure your own personal safety and protect your system from potential damage. Any acts taken that are inconsistent with ordinary use of the product, including improper testing, etc., and those not expressly approved by D-Link may result in the loss of product warranty.

Unless expressly approved by an authorized representative of D-Link in writing, you may not and may not permit others to:

- Disassemble or reverse engineer the device or attempt to derive source code (underlying ideas, algorithms, or structure) from the device or from any other information provided by D-Link, except to the extent that this restriction is expressly prohibited by local law.
- Modify or alter the device.
- Remove from the device any product identification or other notices, including copyright notices and patent markings, if any.

To reduce the risk of bodily injury, electrical shock, fire, and damage to the device and other equipment, observe the following precautions:

Power Sources

- Observe and follow service markings.
- Do not push any objects into the openings of your device unless consistent with the authorized operation of the device. Doing so can cause a fire or an electrical shock by shorting out interior components.
- The powering of this device must adhere to the power specifications indicated for this product.
- Do not overload wall outlets and/or extension cords as this will increase the risk of fire or electrical shock.
- Do not rest anything on the power cord or on the device (unless the device is made and expressly approved as suitable for stacking).
- Position system cables and power cables carefully; route cables so that they cannot be stepped on or tripped over. Be sure that nothing rests on any cables.
- Operate the device only from the type of external power source indicated on the electrical ratings label.
- To help avoid damaging your device, be sure the voltage selection switch (if provided) on the power supply is set to match the power available at your location.
- Also be sure that attached devices are electrically rated to operate with the power available in your location.
- Use only approved power cable(s). If you have not been provided a power cable for your device or for any AC -powered option intended for your device, purchase a power cable that is approved for use in your country and is suitable for use with your device. The power cable must be rated for the device and for the voltage and current marked on the device's electrical ratings label. The voltage and current rating of the cable should be greater than the ratings marked on the device.
- To help prevent an electrical shock, plug the device and peripheral power cables into properly grounded electrical outlets. These cables are equipped with three-prong plugs to help ensure proper grounding. Do not use adapter plugs or remove the grounding prong from a cable. If you must use an extension cable, use a 3-wire cable with properly grounded plugs.
- Observe extension cable and power strip ratings. Ensure that the total ampere rating of all products plugged into the extension cable or power strip does not exceed 80 percent of the ampere ratings limit for the extension cable or power strip.
- To help protect your device from sudden, transient increases and decreases in electrical power, use a surge suppressor, line conditioner, or uninterruptible power supply (UPS).
- Do not modify power cables or plugs. Consult a licensed electrician or your power company for site modifications. Always follow your local/national wiring rules.
- When connecting or disconnecting power to hot-pluggable power supplies, if offered with your device, observe the following guidelines.
- Install the power supply before connecting the power cable to the power supply.
- Unplug the power cable before removing the power supply.

- If the system has multiple sources of power, disconnect power from the device by unplugging all power cables from the power supplies.

Servicing/Disassembling

- Do not service any product except as expressly set forth in your system documentation.
- Opening or removing covers that are marked with the triangular symbol with a lightning bolt may expose you to an electrical shock. Only a trained service technician should service components inside these compartments.
- To reduce the risk of electrical shock, never disassemble this device. None of its internal parts are user-replaceable; therefore, there is no reason to access the interior.
- Do not spill food or liquids on your system components, and never operate the device in a wet environment. If the device gets wet, see the appropriate section in your troubleshooting guide or contact your trained service provider.
- Use the device only with approved equipment.
- Move products with care; ensure that all casters and/or stabilizers are firmly connected to the system. Avoid sudden stops and uneven surfaces.

Environment

- Do not use this device near water (e.g. near a bathtub, sink, laundry tub, fish tank, in a wet basement or near a swimming pool).
- Do not use this device in areas with high humidity.
- This device must not be subjected to water or condensation.
- Keep your device away from radiators and heat sources. Also, do not block cooling vents.

Cleaning

- Always unplug the power before cleaning this device.
- Do not use liquid or aerosol cleaners of any kind. Use only compressed air that is recommended for electronic devices.
- Use a dry cloth for cleaning.

Protecting Against Electrostatic Discharge

Static electricity can harm delicate components inside your system. To prevent static damage, discharge static electricity from your body before you touch any of the electronic components, such as the microprocessor. You can do so by periodically touching an unpainted metal surface on the chassis.

You can also take the following steps to help prevent damage from electrostatic discharge (ESD):

1. When unpacking a static-sensitive component from its shipping carton, do not remove the component from the antistatic packing material until you are ready to install the component in your system. Just before unwrapping the antistatic packaging, be sure to discharge static electricity from your body.
2. When transporting a sensitive component, first place it in an antistatic container or packaging.
3. Handle all sensitive components in a static-safe area. If possible, use antistatic floor pads, workbench pads, and an antistatic grounding strap.

ErP Power Usage

This device is an Energy Related Product (ErP) designed to be always on. It can be turned off through a power switch to save energy when it is not needed.

Switched Off: 0 watts

Disposing of and Recycling Your Product

ENGLISH



This symbol on the product or packaging means that according to local laws and regulations this product should be not be disposed of in the household waste but sent for recycling. Please take it to a collection point designated by your local authorities once it has reached the end of its life, some will accept products for free.

By recycling the product and its packaging in this manner you help to conserve the environment and protect human health.

D-Link and the Environment

At D-Link, we understand and are committed to reducing any impact our operations and products may have on the environment. To minimise this impact D-Link designs and builds its products to be as environmentally friendly as possible, by using recyclable, low toxic materials in both products and packaging.

D-Link recommends that you always switch off or unplug your D-Link products when they are not in use. By doing so you will help to save energy and reduce CO2 emissions.

To learn more about our environmentally responsible products and packaging please visit www.dlinkgreen.com

DEUTSCH DE



Dieses Symbol auf dem Produkt oder der Verpackung weist darauf hin, dass dieses Produkt gemäß bestehender örtlicher Gesetze und Vorschriften nicht über den normalen Hausmüll entsorgt werden sollte, sondern einer Wiederverwertung zuzuführen ist. Bringen Sie es bitte zu einer von Ihrer Kommunalbehörde entsprechend amtlich ausgewiesenen Sammelstelle, sobald das Produkt das Ende seiner Nutzungsdauer erreicht hat. Für die Annahme solcher Produkte erheben einige dieser Stellen keine Gebühren. Durch ein auf diese Weise durchgeführtes Recycling des Produkts und seiner Verpackung helfen Sie, die Umwelt zu schonen und die menschliche Gesundheit zu schützen.

D-Link und die Umwelt

D-Link ist sich den möglichen Auswirkungen seiner Geschäftstätigkeiten und seiner Produkte auf die Umwelt bewusst und fühlt sich verpflichtet, diese entsprechend zu mindern. Zu diesem Zweck entwickelt und stellt D-Link seine Produkte mit dem Ziel größtmöglicher Umweltfreundlichkeit her und verwendet wiederverwertbare, schadstoffarme Materialien bei Produktherstellung und Verpackung.

D-Link empfiehlt, Ihre Produkte von D-Link, wenn nicht in Gebrauch, immer auszuschalten oder vom Netz zu nehmen. Auf

diese Weise helfen Sie, Energie zu sparen und CO₂-Emissionen zu reduzieren.

Wenn Sie mehr über unsere umweltgerechten Produkte und Verpackungen wissen möchten, finden Sie entsprechende Informationen im Internet unter www.dlinkgreen.com.

FRANÇAIS FR



Ce symbole apposé sur le produit ou son emballage signifie que, conformément aux lois et réglementations locales, ce produit ne doit pas être éliminé avec les déchets domestiques mais recyclé. Veuillez le rapporter à un point de collecte prévu à cet effet par les autorités locales; certains accepteront vos produits gratuitement. En recyclant le produit et son emballage de cette manière, vous aidez à préserver l'environnement et à protéger la santé de l'homme.

D-Link et l'environnement

Chez D-Link, nous sommes conscients de l'impact de nos opérations et produits sur l'environnement et nous engageons à le réduire. Pour limiter cet impact, D-Link conçoit et fabrique ses produits de manière aussi écologique que possible, en utilisant des matériaux recyclables et faiblement toxiques, tant dans ses produits que ses emballages.

D-Link recommande de toujours éteindre ou débrancher vos produits D-Link lorsque vous ne les utilisez pas. Vous réaliserez ainsi des économies d'énergie et réduirez vos émissions de CO₂.

Pour en savoir plus sur les produits et emballages respectueux de l'environnement, veuillez consulter le www.dlinkgreen.com

ESPAÑOL ES



Este símbolo en el producto o el embalaje significa que, de acuerdo con la legislación y la normativa local, este producto no se debe desechar en la basura doméstica sino que se debe reciclar. Llévelo a un punto de recogida designado por las autoridades locales una vez que ha llegado al fin de su vida útil; algunos de ellos aceptan recogerlos de forma gratuita. Al reciclar el producto y su embalaje de esta forma, contribuye a preservar el medio ambiente y a proteger la salud de los seres humanos.

D-Link y el medio ambiente

En D-Link, comprendemos y estamos comprometidos con la reducción del impacto que puedan tener nuestras actividades y nuestros productos en el medio ambiente. Para reducir este impacto, D-Link diseña y fabrica sus productos para que sean lo más ecológicos posible, utilizando materiales reciclables y de baja toxicidad tanto en los productos como en el embalaje.

D-Link recomienda apagar o desenchufar los productos D-Link cuando no se estén utilizando. Al hacerlo, contribuirá a ahorrar energía y a reducir las emisiones de CO₂.

Para obtener más información acerca de nuestros productos y embalajes ecológicos, visite el sitio www.dlinkgreen.com

ITALIANO IT



La presenza di questo simbolo sul prodotto o sulla confezione del prodotto indica che, in conformità alle leggi e alle normative locali, questo prodotto non deve essere smaltito nei rifiuti domestici, ma avviato al riciclo. Una volta terminato il ciclo di vita utile, portare il prodotto presso un punto di raccolta indicato dalle autorità locali. Alcuni questi punti di raccolta accettano gratuitamente i prodotti da riciclare. Scegliendo di riciclare il prodotto e il relativo imballaggio, si contribuirà a preservare l'ambiente e a salvaguardare la salute umana.

D-Link e l'ambiente

D-Link cerca da sempre di ridurre l'impatto ambientale dei propri stabilimenti e dei propri prodotti. Allo scopo di ridurre al minimo tale impatto, D-Link progetta e realizza i propri prodotti in modo che rispettino il più possibile l'ambiente, utilizzando materiali riciclabili a basso tasso di tossicità sia per i prodotti che per gli imballaggi.

D-Link raccomanda di spegnere sempre i prodotti D-Link o di scollegarne la spina quando non vengono utilizzati. In questo modo si contribuirà a risparmiare energia e a ridurre le emissioni di anidride carbonica.

Per ulteriori informazioni sui prodotti e sugli imballaggi D-Link a ridotto impatto ambientale, visitate il sito all'indirizzo www.dlinkgreen.com

NEDERLANDS NL



Dit symbool op het product of de verpakking betekent dat dit product volgens de plaatselijke wetgeving niet mag worden weggegooid met het huishoudelijk afval, maar voor recyclage moeten worden ingeleverd. Zodra het product het einde van de levensduur heeft bereikt, dient u het naar een inzamelpunt te brengen dat hiertoe werd aangeduid door uw plaatselijke autoriteiten, sommige autoriteiten accepteren producten zonder dat u hiervoor dient te betalen.

Door het product en de verpakking op deze manier te recyclen helpt u het milieu en de gezondheid van de mens te beschermen.

D-Link en het milieu

Bij D-Link spannen we ons in om de impact van onze handelingen en producten op het milieu te beperken. Om deze impact te beperken, ontwerpt en bouwt D-Link zijn producten zo milieuvriendelijk mogelijk, door het gebruik van recycleerbare producten met lage toxiciteit in product en verpakking.

D-Link raadt aan om steeds uw D-Link producten uit te schakelen of uit de stekker te halen wanneer u ze niet gebruikt. Door dit te doen bespaart u energie en beperkt u de CO₂-emissies.

Breng een bezoek aan www.dlinkgreen.com voor meer informatie over onze milieuverantwoorde producten en verpakkingen

POLSKI PL



Ten symbol umieszczony na produkcie lub opakowaniu oznacza, że zgodnie z miejscowym prawem i lokalnymi przepisami niniejszego produktu nie wolno wyrzucać jak odpady czy śmieci z gospodarstwa domowego, lecz należy go poddać procesowi recyklingu. Po zakończeniu użytkowania produktu, niektóre odpowiednie do tego celu podmioty przyjmą takie produkty nieodpłatnie, dlatego prosimy dostarczyć go do punktu zbiórki wskazanego przez lokalne władze.

Poprzez proces recyklingu i dzięki takiemu postępowaniu z produktem oraz jego opakowaniem, pomogą Państwo chronić środowisko naturalne i dbać o ludzkie zdrowie.

D-Link i środowisko

W D-Link podchodzimy w sposób świadomy do ochrony otoczenia oraz jesteśmy zaangażowani w zmniejszanie wpływu naszych działań i produktów na środowisko naturalne. W celu zminimalizowania takiego wpływu firma D-Link konstruuje i wytwarza swoje produkty w taki sposób, aby były one jak najbardziej przyjazne środowisku, stosując do tych celów materiały nadające się do powtórnego wykorzystania, charakteryzujące się małą toksycznością zarówno w przypadku samych produktów jak i opakowań.

Firma D-Link zaleca, aby Państwo zawsze prawidłowo wyłączali z użytku swoje produkty D-Link, gdy nie są one wykorzystywane. Postępując w ten sposób pozwalają Państwo oszczędzać energię i zmniejszać emisje CO₂.

"Aby dowiedzieć się więcej na temat produktów i opakowań mających wpływ na środowisko prosimy zapoznać się ze stroną internetową www.dlinkgreen.com."

ČESKY



CZ

Tento symbol na výrobku nebo jeho obalu znamená, že podle místně platných předpisů se výrobek nesmí vyhazovat do komunálního odpadu, ale odeslat k recyklaci. Až výrobek doslouží, odneste jej prosím na sběrné místo určené místními úřady k tomuto účelu. Některá sběrná místa přijímají výrobky zdarma. Recyklací výrobku i obalu pomáháte chránit životní prostředí i lidské zdraví.

D-Link a životní prostředí

"Ve společnosti D-Link jsme si vědomi vlivu našich provozů a výrobků na životní prostředí a snažíme se o minimalizaci těchto vlivů. Proto své výrobky navrhujeme a vyrábíme tak, aby byly co nejekologičtější, a ve výrobcích i obalech používáme recyklovatelné a nízkotoxické materiály."

"Společnost D-Link doporučuje, abyste své výrobky značky D-Link vypnuli nebo vytáhli ze zásuvky vždy, když je nepoužíváte. Pomůžete tak šetřit energii a snížit emise CO₂."

Více informací o našich ekologických výrobcích a obalech najdete na adrese www.dlinkgreen.com.

MAGYAR HU



Ez a szimbólum a terméken vagy a csomagoláson azt jelenti, hogy a helyi törvényeknek és szabályoknak megfelelően ez a termék nem semmisíthető meg a háztartási hulladékkal együtt, hanem újrahasznosításra kell küldeni. Kérjük, hogy a termék élettartamának elteltét követően vigye azt a helyi hatóság által kijelölt gyűjtőhelyre. A termékek egyes helyeken ingyen elhelyezhetők. A termék és a csomagolás újrahasznosításával segíti védeni a környezetet és az emberek egészségét.

A D-Link és a környezet

A D-Linknél megértjük és elkötelezettek vagyunk a műveleteink és termékeink környezetre gyakorolt hatásainak csökkentésére. Az ezen hatás csökkentése érdekében a D-Link a lehető leginkább környezetbarát termékeket tervez és gyárt azáltal, hogy újrahasznosítható, alacsony károsanyag-tartalmú termékeket gyárt és csomagolásokat alkalmaz.

A D-Link azt javasolja, hogy mindig kapcsolja ki vagy húzza ki a D-Link termékeket a tápforrásból, ha nem használja azokat. Ezzel segít az energia megtakarításában és a széndioxid kibocsátásának csökkentésében.

Környezetbarát termékeinkről és csomagolásainkról további információkat a www.dlinkgreen.com weboldalon tudhat meg.

NORSK NO



Dette symbolet på produktet eller forpakningen betyr at dette produktet ifølge lokale lover og forskrifter ikke skal kastes sammen med husholdningsavfall, men leveres inn til gjenvinning.

Vennligst ta det til et innsamlingssted anvist av lokale myndigheter når det er kommet til slutten av levetiden. Noen steder aksepteres produkter uten avgift. Ved på denne måten å gjenvinne produktet og forpakningen hjelper du å verne miljøet og beskytte folks helse.

D-Link og miljøet

Hos D-Link forstår vi oss på og er forpliktet til å minske innvirkningen som vår drift og våre produkter kan ha på miljøet. For å minimalisere denne innvirkningen designer og lager D-Link produkter som er så miljøvennlig som mulig, ved å bruke resirkulerbare, lav-toksiske materialer både i produktene og forpakningen.

D-Link anbefaler at du alltid slår av eller frakobler D-Link-produkter når de ikke er i bruk. Ved å gjøre dette hjelper du å spare energi og å redusere CO₂-utslipp.

"For mer informasjon angående våre miljøansvarlige produkter og forpakninger kan du gå til www.dlinkgreen.com"

DANSK DK



Dette symbol på produktet eller emballagen betyder, at dette produkt i henhold til lokale love og regler ikke må bortskaffes som husholdningsaffald, mens skal sendes til genbrug. Indlever produktet til et indsamlingssted som angivet af de lokale myndigheder, når det er nået til slutningen af dets levetid. I nogle tilfælde vil produktet blive modtaget gratis. Ved at indlevere produktet og dets emballage til genbrug på denne måde bidrager du til at beskytte miljøet og den menneskelige sundhed.

D-Link og miljøet

Hos D-Link forstår vi og bestræber os på at reducere enhver indvirkning, som vores aktiviteter og produkter kan have på miljøet. For at minimere denne indvirkning designer og producerer D-Link sine produkter, så de er så miljøvenlige som muligt, ved at bruge genanvendelige materialer med lavt giftighedsniveau i både produkter og emballage.

D-Link anbefaler, at du altid slukker eller frakobler dine D-Link-produkter, når de ikke er i brug. Ved at gøre det bidrager du til at spare energi og reducere CO₂-udledningerne.

Du kan finde flere oplysninger om vores miljømæssigt ansvarlige produkter og emballage på www.dlinkgreen.com

SUOMI

FI



Tämä symboli tuotteen pakkauksessa tarkoittaa, että paikallisten lakien ja säännösten mukaisesti tätä tuotetta ei pidä hävittää yleisen kotitalousjätteen seassa vaan se tulee toimittaa kierrätettäväksi. Kun tuote on elinkaarensa päässä, toimita se lähimpään viranomaisten hyväksymään kierrätyspisteeseen. Kierrättämällä käytetyn tuotteen ja sen pakkauksen autat tukemaan sekä ympäristön että ihmisten terveyttä ja hyvinvointia.

D-Link ja ympäristö

D-Link ymmärtää ympäristönsuojelun tärkeyden ja on sitoutunut vähentämään tuotteistaan ja niiden valmistuksesta ympäristölle mahdollisesti aiheutuvia haittavaikutuksia. Nämä negatiiviset vaikutukset minimoidakseen D-Link suunnittelee ja valmistaa tuotteensa mahdollisimman ympäristöystävällisiksi käyttämällä kierrätettäviä, alhaisia pitoisuuksia haitallisia aineita sisältäviä materiaaleja sekä tuotteissaan että niiden pakkauksissa.

Suosittellemme, että irrotat D-Link-tuotteesi virtalähteestä tai sammutat ne aina, kun ne eivät ole käytössä. Toimimalla näin autat säästämään energiaa ja vähentämään hiilidioksiidipäästöjä.

"Lue lisää ympäristöystävällisistä D-Link-tuotteista ja pakkauksistamme osoitteesta www.dlinkgreen.com"

SVENSKA SE



Den här symbolen på produkten eller förpackningen betyder att produkten enligt lokala lagar och föreskrifter inte skall kastas i hushållssoporna utan i stället återvinnas. Ta den vid slutet av dess livslängd till en av din lokala myndighet utsedd uppsamlingsplats, vissa accepterar produkter utan kostnad. Genom att på detta sätt återvinna produkten och förpackningen hjälper du till att bevara miljön och skydda människors hälsa.

D-Link och miljön

På D-Link förstår vi och är fast beslutna att minska den påverkan våra verksamheter och produkter kan ha på miljön. För att minska denna påverkan utformar och bygger D-Link sina produkter för att de ska vara så miljövänliga som möjligt, genom att använda återvinningsbara material med låg gifthalt i både produkter och förpackningar.

D-Link rekommenderar att du alltid stänger av eller kopplar ur dina D-Link produkter när du inte använder dem. Genom att göra detta hjälper du till att spara energi och minska utsläpp av koldioxid.

För mer information om våra miljöansvariga produkter och förpackningar www.dlinkgreen.com

PORTUGUÊS PT



Este símbolo no produto ou embalagem significa que, de acordo com as leis e regulamentações locais, este produto não deverá ser eliminado juntamente com o lixo doméstico mas enviado para a reciclagem. Transporte-o para um ponto de recolha designado pelas suas autoridades locais quando este tiver atingido o fim da sua vida útil, alguns destes pontos aceitam produtos gratuitamente. Ao reciclar o produto e respectiva embalagem desta forma, ajuda a preservar o ambiente e protege a saúde humana.

A D-Link e o ambiente

Na D-Link compreendemos e comprometemo-nos com a redução do impacto que as nossas operações e produtos possam ter no ambiente. Para minimizar este impacto a D-Link concebe e constrói os seus produtos para que estes sejam o mais inofensivos para o ambiente possível, utilizando materiais recicláveis e não tóxicos tanto nos produtos como nas embalagens.

A D-Link recomenda que desligue os seus produtos D-Link quando estes não se encontrarem em utilização. Com esta acção ajudará a poupar energia e reduzir as emissões de CO2.

Para saber mais sobre os nossos produtos e embalagens responsáveis a nível ambiental visite www.dlinkgreen.com