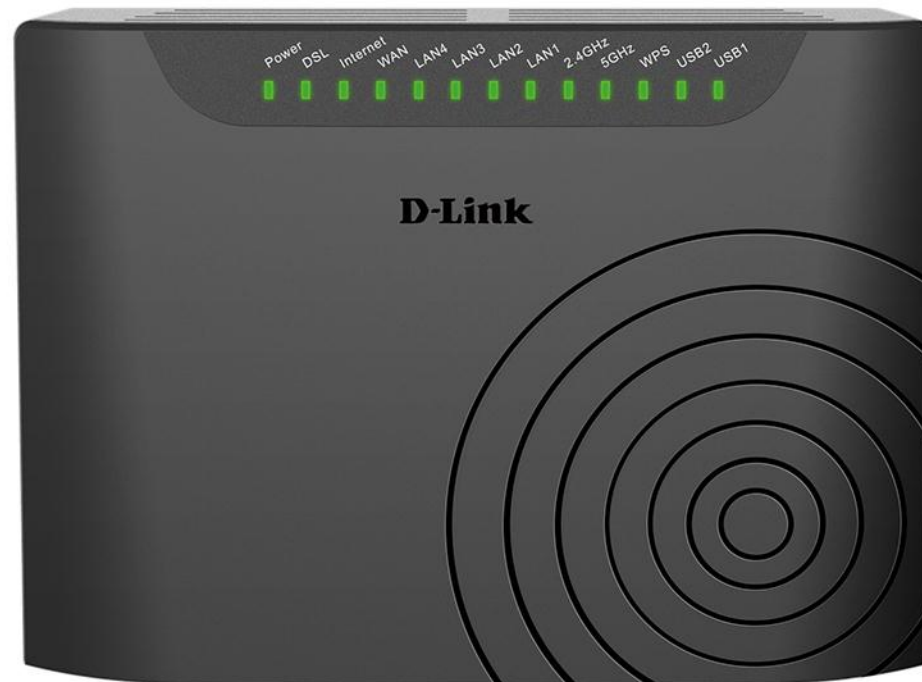


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# User Manual

*DSL-2877AL Dual Band Wireless AC750 VDSL/ADSL2+ Modem Router*



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## Product Overview

### Package Contents

This product should contain all of the below mentioned items within its packaging:

- One DSL-2877AL Wireless AC750 VDSL/ADSL2+ Modem Router
- One Power Adapter
- One CD containing the User Manual
- One twisted-pair telephone cable used for DSL connection
- One straight-through Ethernet cable
- One Quick Installation Guide

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

**Note:** Using a power supply with a different voltage rating than the one included with the DSL-2877AL will cause damage to this product and void the warranty for this product.



## System Requirements

<b>Network Requirements:</b>	<ul style="list-style-type: none"><li>• Ethernet Adapter at 10/100Mbps.</li><li>• Wireless Adapter with IEEE 802.11N, 802.11a,802.11b/g and 802.11ac Protocols.</li></ul>
<b>Web User Interface Requirements:</b>	<ul style="list-style-type: none"><li>• Windows®, Macintosh, or Linux-based Operating System.</li><li>• Internet Browser like Internet Explorer 7 or higher, Firefox 3.5 or higher, Safari 4 or higher, or Chrome 8 or higher.</li></ul>
<b>Internet Requirements:</b>	<ul style="list-style-type: none"><li>• DSL Internet Connection Service from an ISP.</li></ul>

## Features

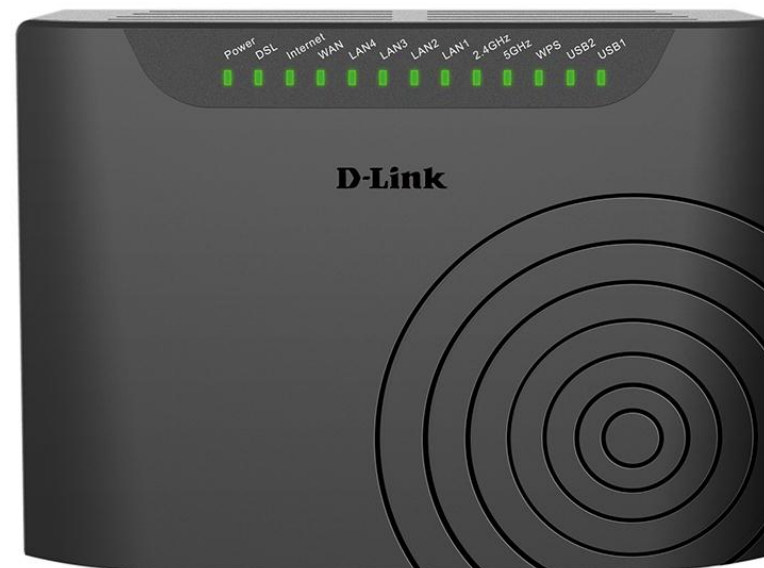
- **Faster Wireless Networking** - The DSL-2877AL provides up to 300Mbps\* for the 2.4GHz band and 450Mbps\* for the 5GHz band wireless connection with other 802.11n and 802.11ac wireless clients capability allows users to participate in real-time activities online, such as video streaming, online gaming, and real-time audio.
- **Compatible with 802.11b and 802.11g Devices** - The DSL-2877AL is still fully compatible with the IEEE 802.11b and IEEE 802.11g standards, so it can connect with existing 802.11b and 802.11g PCI, USB and Cardbus adapters.
- **DHCP Support** - Dynamic Host Configuration Protocol automatically and dynamically assigns all LAN IP settings to each host on your network. This eliminates the need to reconfigure every host whenever changes in network topology occur.
- **Network Address Translation (NAT)** - For small office environments, the DSL-2877AL allows multiple users on the LAN to access the Internet concurrently through a single Internet account. This provides Internet access to everyone in the office for the price of a single user. NAT improves network security in effect by hiding the private network behind one global and visible IP address. NAT address mapping can also be used to link two IP domains via a LAN-to-LAN connection.
- **Precise ATM Traffic Shaping** - Traffic shaping is a method of controlling the flow rate of ATM data cells. This function helps to establish the Quality of Service for ATM data transfer.
- **High Performance** - Very high rates of data transfer are possible with the router.
- **Full Network Management** - The DSL-2877AL incorporates SNMP (Simple Network Management Protocol) support for web-based management and text-based network management via a Telnet connection.
- **Easy Installation** - The DSL-2877AL uses a web-based graphical user interface program for convenient management access and easy set up. Any common web browsing software can be used to manage this router.

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

# Hardware Overview

## Front Panel

Number	Description
<b>Power</b>	A steady green light indicates the unit is powered on. When the device is powered off this remains dark. During the Power-On Self-Test this light will be red. If this light remains red after the POST, a malfunction has occurred.
<b>DSL</b>	A blinking green light indicates a valid DSL connection. This will be steady light after the DSL negotiation process has been settled.
<b>Internet</b>	Steady green light indicates a successful Internet connection. Steady red light indicates failed Internet connection. Dark if no WAN protocol is configured.
<b>WAN</b>	Steady green light indicates a successful WAN connection. Dark if no WAN device is connected.
<b>LAN1-4</b>	A solid light indicates a valid link on startup. This light will blink when there is activity currently passing through the Ethernet port. A green light will be illuminated for a 10/100Mbps connection.
<b>2.4GHz</b>	Steady green light indicates the 2.4GHz WLAN is available.
<b>5GHz</b>	Steady green light indicates the 5GHz WLAN is available.
<b>WPS</b>	The light will flash while a WPS connection is being established. The light will light solid for 5 seconds if a successful WPS connection has been made. This is also the WPS button used to initiate the push-button WPS connection.
<b>USB1-2</b>	Steady green light indicates a successful USB connection. Dark if no USB device is connected.



## Rear Panel

Number	Description
1	<b>DSL Port</b> - Use the DSL cable to connect to your telephone line (RJ-11 port).
2	<b>Ethernet Ports</b> - Use the Ethernet ports to connect the router to your Ethernet LAN or Ethernet devices.
3	<b>WAN Port</b> - Use the Ethernet cable to connect to your internet.
4	<b>Reset Button</b> - Press and hold the button for 5-8 Seconds to restore the device to its original factory default settings.
5	<b>USB2 Port</b> - Use the USB port to connect your USB device.
6	<b>Power Receptor</b> - Receptor for the supplied power adapter.
7	<b>2.4GHz Wireless On/Off Switch Button</b> - Please press and hold on for 3 seconds to turn on/turn off.
8	<b>5GHz Wireless On/Off Switch Button</b> - Please press and hold on for 3 seconds to turn on/turn off.
9	<b>Power Button</b> - Push in to power-on the router. Push again to power-off the router.
10	<b>USB1 Port</b> - Use the USB port to connect your USB device.



## Basic Installation

This section will walk 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 the attic or garage.

### Before You Begin

Please read and make sure you understand all the prerequisites for proper installation of your new router. Have all the necessary information and equipment on hand before beginning the installation.

### Installation Notes

In order to establish a connection to the Internet it will be necessary to provide information to the router that will be stored in its memory. For some users, only their account information (Username and Password) is required. For others, various parameters that control and define the Internet connection will be required.

#### **Low Pass Filters**

Since ADSL and telephone services share the same copper wiring to carry their respective signals, a filtering mechanism may be necessary to avoid mutual interference. A low pass filter device can be installed for each telephone that shares the line with the ADSL line. These filters are easy to install passive devices that connect to the ADSL device and/or telephone using standard telephone cable. Ask your service provider for more information about the use of low pass filters with your installation.

#### **Operating Systems**

The DSL-2877AL uses an HTML-based web interface for setup and management. The Web configuration manager may be accessed using any operating system capable of running web browser software, including Windows<sup>®</sup>, Macintosh, and Linux-based Operating Systems.

#### **Web Browser**

Any common Web browser can be used to configure the router using the Web configuration management software. The program is designed to work best with more recently released browsers such as Internet Explorer 7 or higher, Firefox 3.5 or higher, Safari 4 or higher, or Chrome 8 or higher.. The Web browser must have JavaScript enabled. JavaScript is enabled by default on many browsers. Make sure JavaScript has not been disabled by other software (such as virus protection or web user security packages) that may be running on your computer.

#### **Ethernet Port (NIC Adapter)**

Any computer that uses the router must be able to connect to it through one of the Ethernet ports on the router. This connection is an Ethernet connection and therefore requires that your computer be equipped with an Ethernet port as well. Most notebook computers are now sold with an Ethernet port already installed. Likewise, most fully assembled desktop computers come with an Ethernet adapter as standard equipment. If your computer does not have an Ethernet port, you must install an Ethernet NIC adapter before you can use the router. If you must install an adapter, follow the installation instructions that come with the Ethernet NIC adapter.

### **Additional Software**

It may be necessary to install software on your computer that enables the computer to access the Internet. Additional software must be installed if you are using the device a simple bridge. For a bridged connection, the information needed to make and maintain the Internet connection is stored on another computer or gateway device, not in the router itself.

If your ADS / VDSL / Ethernet service is delivered through a PPPoE or PPPoA connection, the information needed to establish and maintain the Internet connection can be stored in the router. In this case, it is not necessary to install software on your computer. It may however be necessary to change some settings in the device, including account information used to identify and verify the connection.

All connections to the Internet require a unique global IP address. For bridged connections, the global IP settings must reside in a TCP/IP enabled device on the LAN side of the bridge, such as a PC, a server, a gateway device such as a router or similar firewall hardware. The IP address can be assigned in a number of ways. Your network service provider will give you instructions about any additional connection software or NIC configuration that may be required.



## Information you will need from your service provider

### **Username**

This is the Username used to log on to your service provider's network. Your service provider uses this to identify your account.

### **Password**

This is the Password used, in conjunction with the Username above, to log on to your service provider's network. This is used to verify the identity of your account.

### **WAN Setting / Connection Type**

These settings describe the method your service provider uses to transport data between the Internet and your computer. Most users will use the default settings. You may need to specify one of the following WAN Setting and Connection Type configurations (Connection Type settings listed in parenthesis):

- Dynamic IP Address (1483 Routed IP LLC or 1483 Routed IP VC-Mux)
- PPPoE/PPPoA (PPPoE LLC, PPPoE VC-Mux, PPPoA LLC or PPPoA VC-Mux)
- Static IP Address (1483 Routed IP LLC or 1483 Routed IP VC-Mux)
- Bridge Mode (1483 Bridged IP LLC or 1483 Bridged IP VC Mux)

### **Modulation Type**

ADSL uses various standardized modulation techniques to transmit data over the allotted signal frequencies. Some users may need to change the type of modulation used for their service. The default DSL modulation (Autosense) used for the router automatically detects all types of ADSL, ADSL2, and ADSL2+ modulation.

### **Security Protocol**

This is the method your service provider will use to verify your Username and Password when you log on to their network. Your router supports the PAP and CHAP protocols.

### **VPI**

Most users will not be required to change this setting. The Virtual Path Identifier (VPI) is used in conjunction with the Virtual Channel Identifier (VCI) to identify the data path between your service provider's network and your computer. If you are setting up the router for multiple virtual connections, you will need to configure the VPI and VCI as instructed by your service provider for the additional connections. This setting can be changed in the WAN Settings window of the web management interface.

### **VCI**

Most users will not be required to change this setting. The Virtual Channel Identifier (VCI) used in conjunction with the VPI to identify the data path between your service provider's network and your computer. If you are setting up the router for multiple virtual connections, you will need to configure the VPI and VCI as instructed by your service provider for the additional connections. This setting can be changed in the WAN Settings window of the web management interface.

## Information you will need about this Router

### Username

This is the Username needed access the router's web management interface. When you attempt to connect to the device through a web browser you will be prompted to enter this Username. The default Username for the router is "**admin**".

### Password

This is the Password you will be prompted to enter when you access the router's web management interface. The default Password is "**admin**".

### LAN IP Addresses for the DSL-2877AL

This is the IP address you will enter into the Address field of your web browser to access the router's configuration Graphical User Interface (GUI) using a web browser. The default IP address is **192.168.1.1**. This may be changed to suit any IP address scheme the user desires. This address will be the base IP address used for DHCP service on the LAN when DHCP is enabled.

### LAN Subnet Mask for the DSL-2877AL

This is the subnet mask used by the DSL-2877AL, and will be used throughout your LAN. The default subnet mask is **255.255.255.0**. This can be changed later.

## Information you will need about your LAN or computer

### Ethernet NIC

If your computer has an Ethernet NIC, you can connect the DSL-2877AL to this Ethernet port using an Ethernet cable. You can also use the Ethernet ports on the DSL-2877AL to connect to other computer or Ethernet devices.

### DHCP Client status

Your DSL-2877AL router is configured, by default, to be a DHCP server. This means that it can assign an IP address, subnet mask, and a default gateway address to computers on your LAN. The default range of IP addresses the DSL-2877AL will assign are from **192.168.1.2 to 192.168.1.254**. Your computer (or computers) needs to be configured to obtain an IP address automatically (that is, they need to be configured as DHCP clients.)

Once you have the above information, you are ready to setup and configure your DSL-2877AL router.

## Device Installation

The DSL-2877AL connects two separate physical interfaces, an ADSL/VDSL (WAN) and an Ethernet (WAN) and four Ethernet (LAN) interface. Place the router in a location where it can be connected to the various devices as well as to a power source. The router should not be located where it will be exposed to moisture or excessive heat. Make sure the cables and power cord are placed safely out of the way so they do not create a tripping hazard. As with any electrical appliance, observe common sense safety procedures.

The router can be placed on a shelf or desktop, ideally you should be able to see the LED indicators on the front if you need to view them for troubleshooting.

## Power on Router

The router must be used with the power adapter included with the device.

1. Insert the AC Power Adapter cord into the power receptacle located on the rear panel of the router and plug the adapter into a suitable nearby power source.
2. Press the Power button into the on position. You should see the Power LED indicator light up and remain lit.
3. If the Ethernet port is connected to a working device, check the Ethernet LED indicators to make sure the connection is valid. The router will attempt to establish the DSL connection, if the DSL line is connected and the router is properly configured this should light up after several seconds. If this is the first time installing the device, some settings may need to be changed before the router can establish a connection.

## Factory Reset Button

The router may be reset to the original factory default settings by using a ballpoint pen or paperclip to gently push down the reset button in the following sequence:

1. Press and hold the reset button while the device is powered on for 45-60 seconds.
2. Hold the reset button for 5-8 seconds and release the reset button.

Remember that this will wipe out any settings stored in flash memory including user account information and LAN IP settings. The device settings will be restored to the factory default IP address **192.168.1.1** and the subnet mask is **255.255.255.0**. The default management username is **“admin”** and the default password is **“admin”**.

## Network Connections

### **Connect ADSL/VDSL Line**

Use the DSL cable included with the router to connect it to a telephone wall socket or receptacle. Plug one end of the cable into the ADSL/VDSL port (RJ-11 receptacle) on the rear panel of the router and insert the other end into the RJ-11 wall socket. If you are using a low pass filter device, follow the instructions included with the device or given to you by your service provider. The ADSL/VDSL connection represents the WAN interface, the connection to the Internet. It is the physical link to the service provider's network backbone and ultimately to the Internet.

### **Connect Ethernet WAN Cable**

Use the Ethernet cable included with the router to connect it to a RJ-45 wall socket or receptacle. Plug one end of the cable into the Ethernet WAN port (RJ-45 receptacle) on the rear panel of the router and insert the other end into the RJ-45 wall socket. The Ethernet connection represents the WAN interface, the connection to the Internet. It is the physical link to the service provider's network backbone and ultimately to the Internet.

### **Connect Router to Ethernet**

The router may be connected to a single computer or Ethernet device through the Ethernet ports on the rear panel. Any connection to an Ethernet concentrating device such as a switch or hub must operate at a speed of 10/100/1000Mbps. When connecting the router to any Ethernet device that is capable of operating at speeds higher than 10Mbps, be sure that the device has auto-negotiation (NWay) enabled for the connecting port. Use standard twisted-pair cable with RJ-45 connectors. The RJ-45 ports on the router are a crossed port (MDI-X). Follow standard Ethernet guidelines when deciding what type of cable to use to make this connection. When connecting the router directly to a PC or server use a normal straight-through cable. You should use a crossed cable when connecting the router to a normal (MDI-X) port on a switch or hub. Use a normal straight-through cable when connecting it to an uplink (MDI-II) port on a hub or switch. The rules governing Ethernet cable lengths apply to the LAN to router connection. Be sure that the cable connecting the LAN to the router does not exceed 100 meters.

### **Hub or Switch to Router Connection**

Connect the router to an uplink port (MDI-II) on an Ethernet hub or switch with a straight-through cable. If you wish to reserve the uplink port on the switch or hub for another device, connect to any on the other MDI-X ports (1x, 2x, etc.) with a crossed cable.

### **Computer to Router Connection**

You can connect the router directly to an Ethernet adapter card (NIC) installed on a PC using the Ethernet cable provided.

## D-Link One-Touch APP

D-Link offers you a fast and easy way to get connected, by utilizing the free One-Touch APP for your Android or iOS mobile device which walks you step-by-step through installation of your D-Link One-Touch enabled device.

You also have the ability to configure/change WAN and Wi-Fi settings and even upgrade the firmware.

You can search for the D-Link One-Touch APP directly in the Google Play or iOS APP Store, and install it.

The D-Link One-Touch icon will be displayed in the mobile device (Android, iOS).

**Note:**

- The following steps are for the Android version of the app.
- From your iOS mobile device, choose **Settings**, and Click **Wi-Fi**, select the Wi-Fi Network Name that you created during setup and then enter default Wi-Fi password located on your Wi-Fi configuration note.



Tap on the One-Touch icon, the following screen will appear.

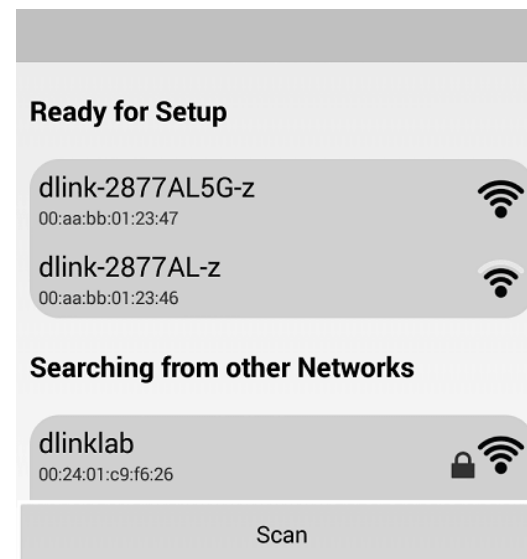
Here contains two functions:

- [Network Starter](#) - the function is mainly to configure WAN and Wi-Fi settings of the router.
- [Software Upgrader](#) - the function is mainly to upgrade the firmware for the router.

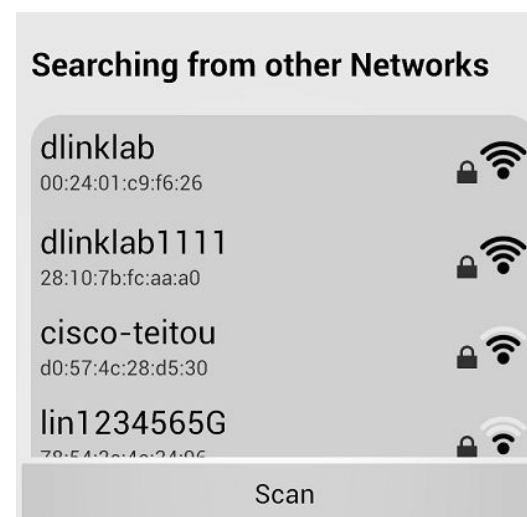


## Network Starter

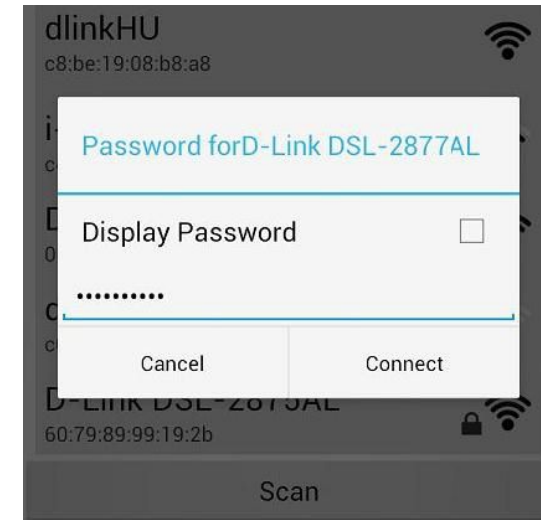
1. The Wi-Fi Network Name of the router will be displayed in **Ready for Setup**, and you can tap the Wi-Fi Network Name to configure it.



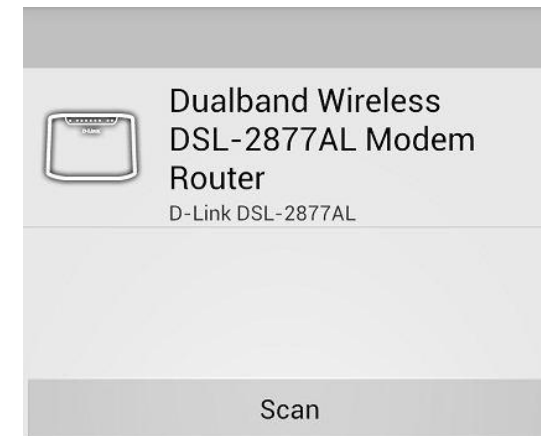
2. If your Wi-Fi Network Name is not shown here, you can tap the **Scan** button to re-search.



3. If your mobile device has saved the router's wireless password, it will be automatically associated to your router, otherwise D-Link One Touch will pop-up a password dialog, you need enter correct Wi-Fi password and tap **Connect** button associate your router.



4. The device name, device icon and device type will be shown here, if they are not shown in here, you can tap **Scan** button to re-search.



5. Tap the **Network Starter** to start configuring the router.



6. The D-Link One Touch will login router, if login router is fail, the D-Link One touch will pop-up a login UI, you need enter correct username and password to login the router.





7. Modify the device Name, login password and operation mode.

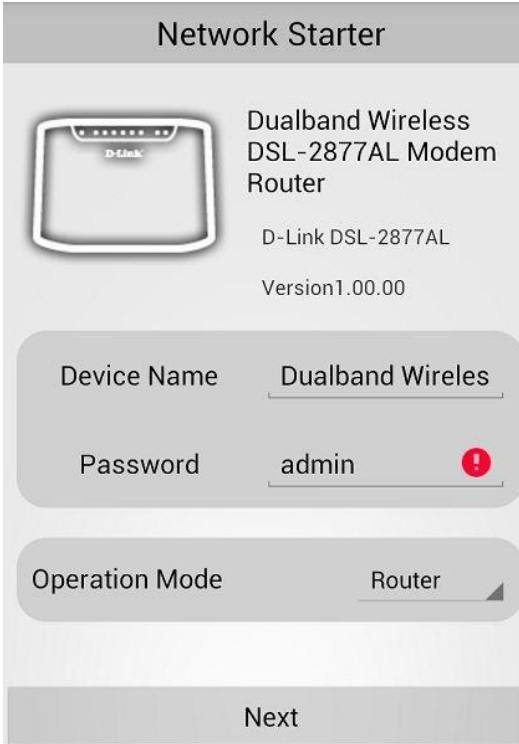
**Device Name:** The user changes the device name; the main title beside the ICON also will be changed.

**Password:** the login password can't be empty and "admin" and the password string length should be between 4 – 24 characters.


**Note:** If the router setting is factory default setting, the D-Link One Touch will provide a random string to login password; users can also modify the login password.

**Operation Mode:** Select the operation mode for the router, DSL-2877AL has only one operation mode: **Router**


Click **Next** button to configure Country, Operator, and PPPoA or PPPoE username, password for the router.



**Network Starter**

 Dualband Wireless DSL-2877AL Modem Router  
D-Link DSL-2877AL  
Version 1.00.00

Device Name

Password  

Operation Mode

**Next**

8. Selecting your country and ISP provider from dropdown boxes, and enters PPPoE or PPPoA username and password.

**Country:** Select your country in this drop-down menu.

**Operator:** After selecting a country in the previous option, a list of ISP connections will be available here. If your ISP is in the list, select it here and the correct parameters will be set.

**IP:** Displays the public IP address here.

**Netmask:** Displays the public Netmask here.

**Gateway:** Displays the public gateway here.

**DNS:** Displays the DNS address here.

**Username:** Enter the PPPoE or PPPoA username for your product.

**Password:** Enter the PPPoE or PPPoA password for your product.

Click **Next** button to configure the wireless settings.

The screenshot shows a 'Network Starter' configuration screen. It features two main sections. The first section contains two dropdown menus: 'Country' set to 'Australia' and 'Operator' set to 'AAPT'. The second section contains several text input fields: 'IP' (10.1.1.109), 'Netmask' (255.255.255.255), 'Gateway' (10.1.1.59), 'DNS' (202.96.209.5), 'Username' (test), and 'Password' (test). A 'Next' button is located at the bottom of the screen.

Field	Value
Country	Australia
Operator	AAPT
IP	10.1.1.109
Netmask	255.255.255.255
Gateway	10.1.1.59
DNS	202.96.209.5
Username	test
Password	test

9. Configure the wireless 2.4G and the wireless 5G for the router.

Tap the **ON** button to enable the wireless 2.4G

**Wireless Name:** Displays the wireless name for your 2.4G wireless network.

**Encryption Mode:** You can select the **None**, **WPA2** and **WPAWPA2** encryption mode.

**Encryption Key:** Enter the password for your 2.4G wireless network.

Tap the **ON** button to enable the wireless 5G

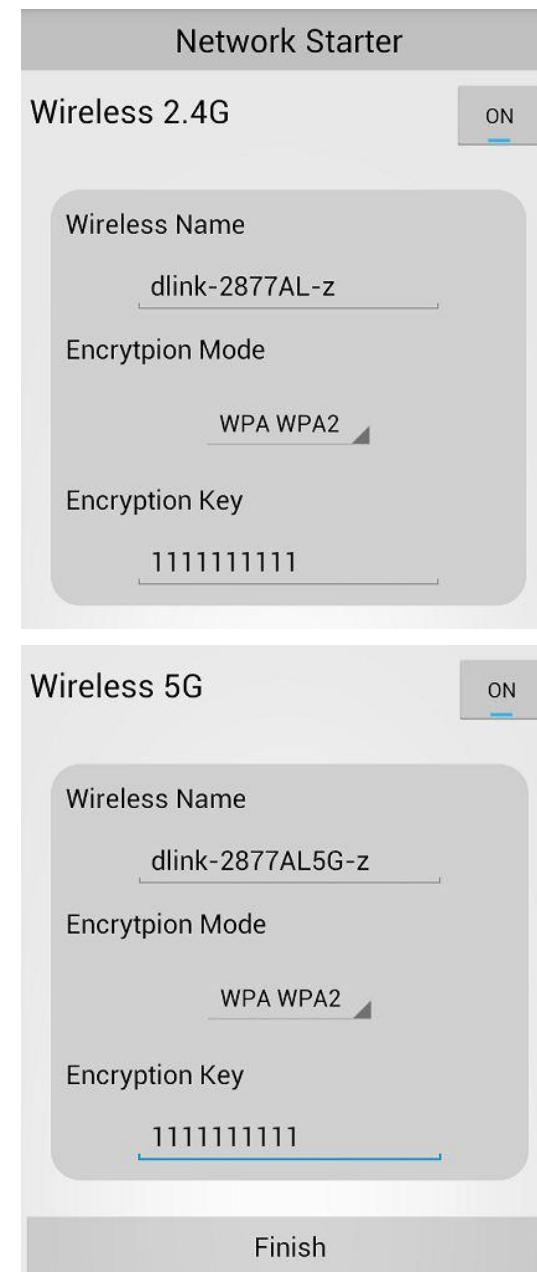
**Wireless Name:** Displays the wireless name for your 5G wireless network.

**Encryption Mode:** You can select the **None**, **WPA2** and **WPAWPA2** encryption mode.

**Encryption Key:** Enter the password for your 5G wireless network.

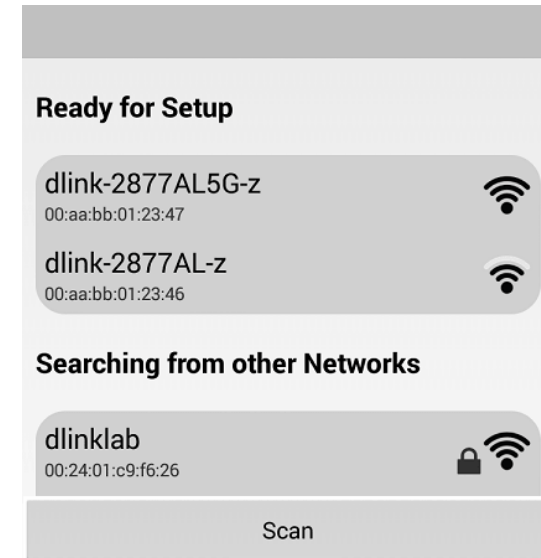
Tap **Finish** button to commit the configuration, and Configuration Successfully dialog will be pop-up. Tap the **Ok** button of the dialog, the **Wi-Fi Profile** will be saved to D-Link One Touch installation directory.

**Note:** If the router setting is factory default setting, the D-Link One Touch will provide a random string to the Wireless Name and Encryption Key, the default Encryption mode is set to WPAWPA2.

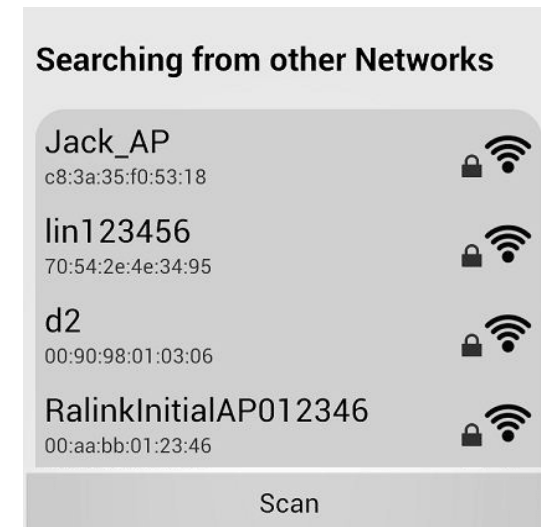


## Software Upgrader

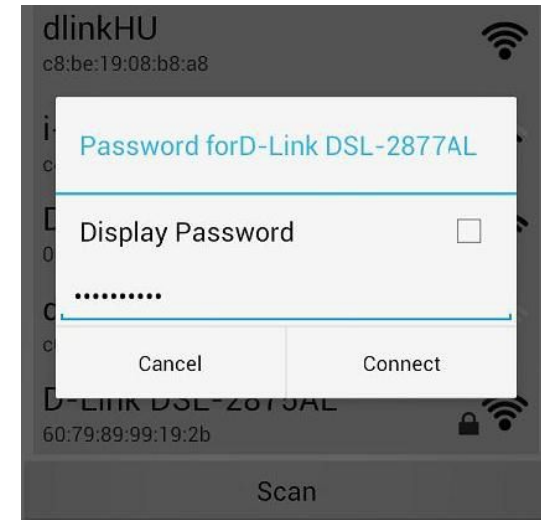
1. The Wi-Fi Network Name of the router will be displayed in **Ready for Setup**, tap the Wi-Fi Network Name to upgrade firmware of router.



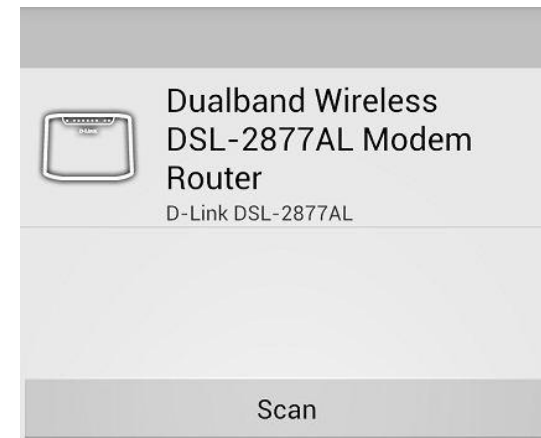
2. If your Wi-Fi Network Name is not shown here, you can tap the **Scan** button to re-search.



3. If your mobile device has saved the router's wireless password, it will be automatically associated to your router, otherwise D-Link One Touch will pop-up a password dialog, you need enter correct Wi-Fi password and tap Connect button associate your router.



10. The device name, device icon and device type will be shown here, if they are not shown here, you can tap **Scan** button to re-search.



11. The D-Link One Touch will login router, if login router is fail, the D-Link One touch will pop-up a login UI, you need enter correct username and password to login the router.



Dualband Wireless

Login Required

Username

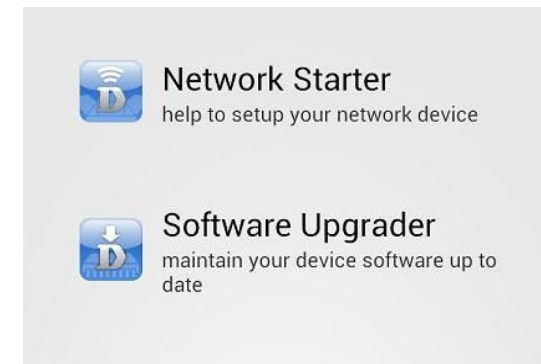
Password

Display Password

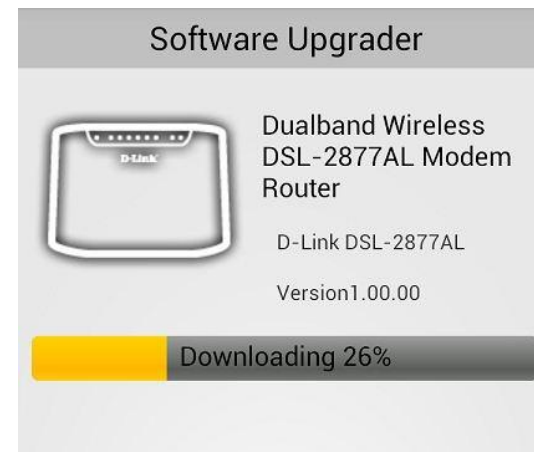
Cancel Login

12. Tap the **Software Upgrader** to start to upgrade firmware for router.

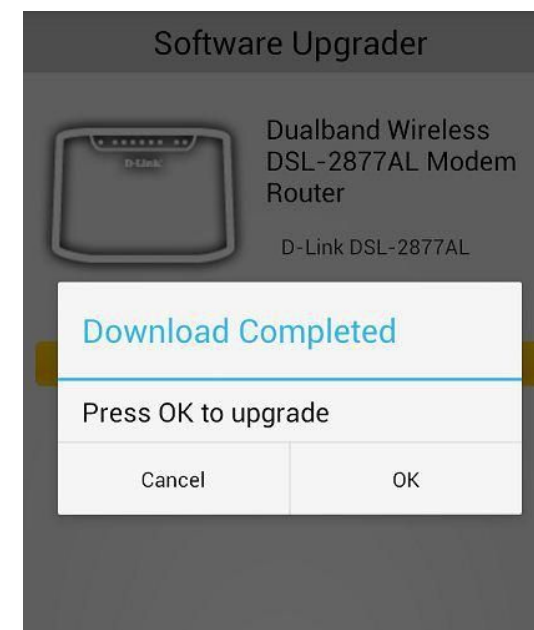
**Note:** When performing a firmware upgrade, you need to make sure that the router or mobile device can access internet.



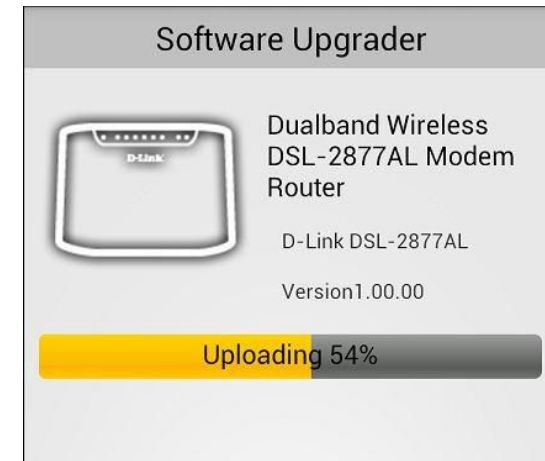
13. If the router is not the latest firmware version, then D-Link One Touch will download it.



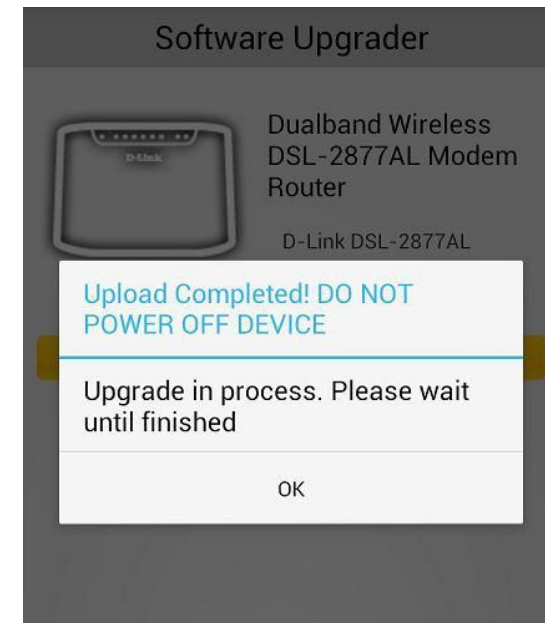
14. The latest firmware download is complete; the Download Completed dialog will be pop-up, tap **OK** button to upgrade the latest firmware for the router.



15. Uploading the firmware for the router.



16. Upload Completed dialog will be pop-up, tap **OK** button to exit the D-Link One Touch, and wait a few minutes for the firmware upgrade is complete.





## Getting Started

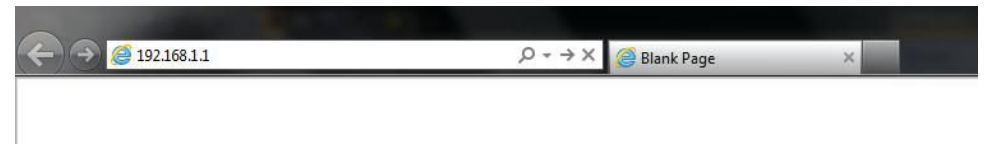
This section will show you how to set up and configure your new D-Link router using the Web-based configuration utility.

### How to connect to the Web User Interface

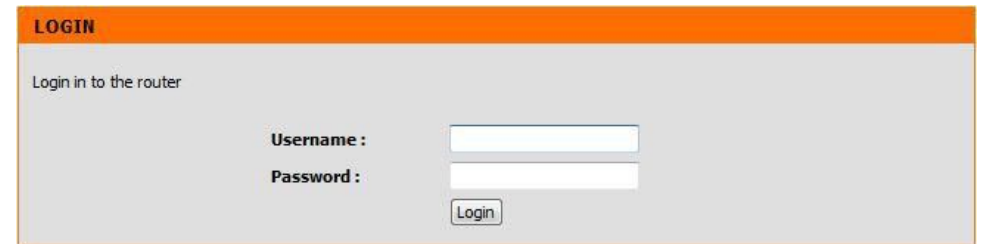
#### Connect to the Router

To configure the WAN connection used by the router it is first necessary to communicate with the router through its management interface, which is HTML-based and can be accessed using a web browser. The easiest way to make sure your computer has the correct IP settings is to configure it to use the DHCP server in the router.

To access the web user interface, open a web-browser such as Internet Explorer and enter the IP address of the router (**192.168.1.1**) into the address bar and press the *Enter* key on your keyboard.



Type "**admin**" in the User Name field and "**admin**" in the Password field, and click the **Login** button to proceed. If you get a *Page Cannot be Displayed* error, please refer to the Troubleshooting section for



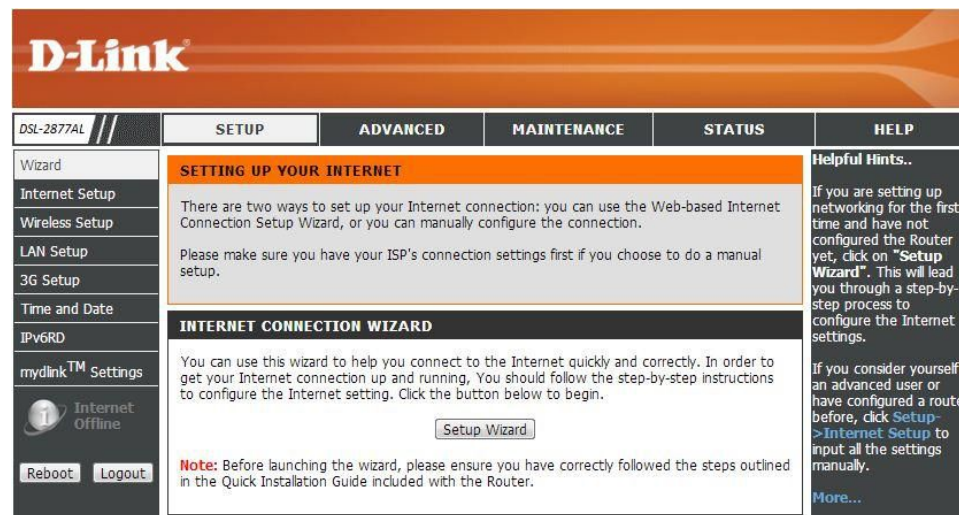
# Web User Interface Configuration

After successfully logging into the Web User Interface, the following page will be displayed. This page is divided into clickable components that make the configuration of this device easier and more understandable.

The top menu lists out the **Categories** available for configuration. The categories available to configure on this device are **Setup, Advanced, Maintenance, Status** and **Help**.

The left menu lists out the **Pages** available, for each individual category, for configuration. In this example, we observe the pages available in the **Setup** category. The pages available here are **Wizard, Internet Setup, Wireless Setup, LAN Setup, 3G Setup, Time and Date, IPv6RD** and **Mydlink™ Settings**.

At the Bottom is the **Reboot** Button which will restart the router.



## Setup Category

The **Setup** category is designed to assist the user with essential configurations, concerning the initial setup of this product.

The following pages can be found in the **Setup** category:

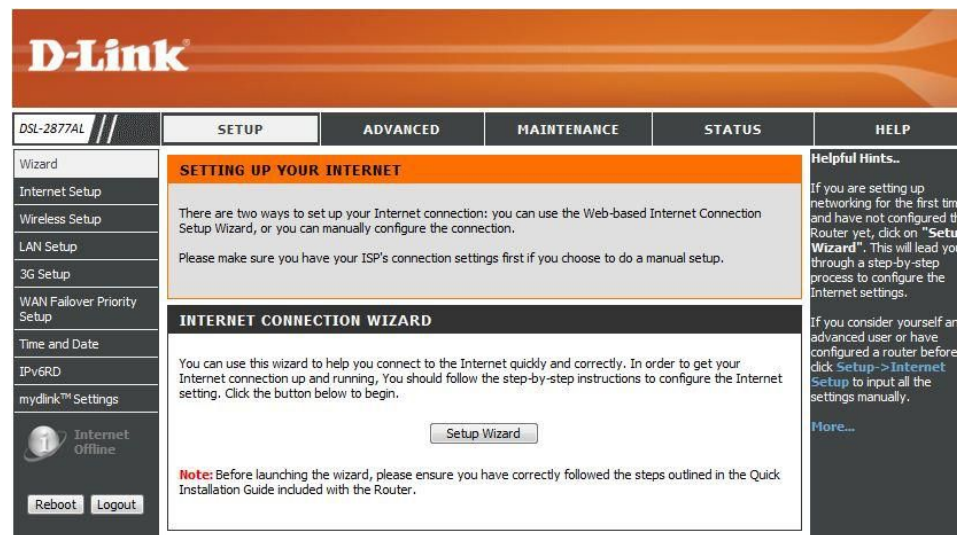
- [Wizard](#) - On this page we can configure services using D-Link setup wizard.
- [Internet Setup](#) - On this page we can configure services related to the Internet connectivity of this product.
- [Wireless Setup](#) - On this page we can configure services related to the Wireless connectivity of this product.
- [LAN Setup](#) - On this page we can configure the Local Area Network (LAN).
- [3G Setup](#) - On this page we can configure the 3G network settings of this product.
- [WAN Failover Priority Setup](#) - On this page we can configure the WAN interface failover priority of this product.
- [Time and Date](#) - On this page we can configure services related to time and date of this product.
- [IPv6RD](#) - On this page we can configure services related to IPv6RD of this product.
- [Mydlink™ Settings](#) - On this page we can configure services related to mydlink™ settings of this product.

The screenshot displays the D-Link web interface for the DSL-2877AL router. The top navigation bar includes 'DSL-2877AL // SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar lists various setup options: Wizard, Internet Setup, Wireless Setup, LAN Setup, 3G Setup, WAN Failover Priority Setup, Time and Date, IPv6RD, and mydlink™ Settings. The main content area is titled 'SETTING UP YOUR INTERNET' and features an 'INTERNET CONNECTION WIZARD' section with a 'Setup Wizard' button. A 'Helpful Hints..' sidebar on the right provides additional guidance.

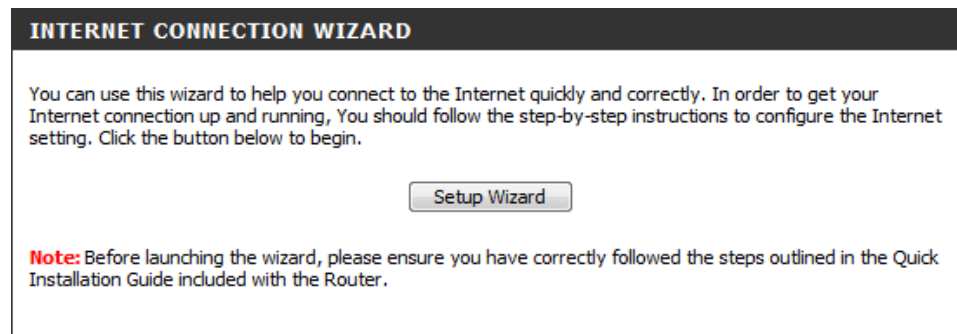
## Wizard

To access the **Wizard** page, click on the **Setup** menu link at the top, and then click on the **Wizard** menu link on the left.

On this page the user can easily configure some essential settings available on this router by following a step-by-step wizard.



Click on the **Setup Wizard** button to initiate the setup wizard.



## Welcome to the Setup Wizard

This wizard will guide user through a step-by-step wizard, divided into 7 steps, to configure this router and to connect to the Internet.

Click the **Next** button to continue to the next page.

Click the **Cancel** button to discard the changes made and return to the main page.



**WELCOME TO THE SETUP WIZARD**

Welcome to the Setup Wizard:

- Step 1: Set your password
- Step 2: Select your Time Zone
- Step 3: Configure your internet connection
- Step 4: Name your Wireless Network
- Step 5: Secure your Wireless Network
- Step 6: Set your Wireless Security Password
- Step 7: Setup mylink™ Cloud Services

Prev Next Cancel Connect

## Step 1: Set Your Password


In this step, the user can configure the web user interface login password. Enter the **Password** and **Verify Password** here.

Click the **Prev** button to discard the changes made and return to the previous page.

Click the **Next** button to continue to the next page..

Click the **Cancel** button to discard the changes made and return to the main page.

Click the **Connect** button to connect to the internet.



**STEP 1: SET YOUR PASSWORD**

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

Password :

Verify Password :

Prev Next Cancel Connect

## Step 2: Select Your Time Zone

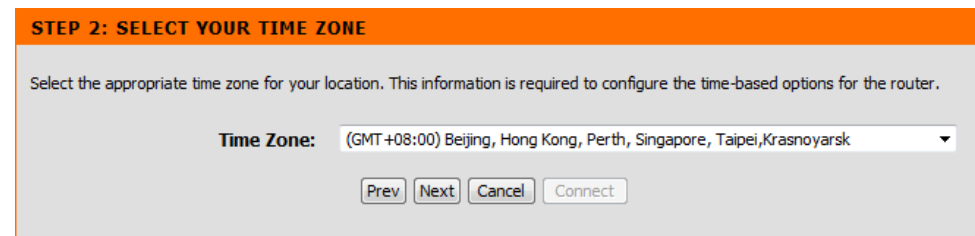
In this step the user can configure the time zone settings that will be used by this router.

Click the **Prev** to return to the previous page

Click the **Next** to continue to the next page

Click the **Cancel** to cancel the setup wizard

Click the **Connect** button to connect to the internet.



**STEP 2: SELECT YOUR TIME ZONE**

Select the appropriate time zone for your location. This information is required to configure the time-based options for the router.

Time Zone: (GMT+08:00) Beijing, Hong Kong, Perth, Singapore, Taipei, Krasnoyarsk

Prev Next Cancel Connect

### Step 3: Setup Internet Connection

In this step, the user can configure the Internet connection settings used by this router.

In this section we can configure the following parameters.

**Internet Connection Type:** Select the appropriate connection type to use here. Options to choose from are **ADSL**, **VDSL** and **Ethernet WAN (NBN/UFB)**.

**Country:** The user can select one country option in this drop-down menu.

**Internet Service Provider:** After selecting a country, in the previous option, a list of ISP connections will be available here. If your ISP is in the list, select it here and the correct parameters will be entered for the rest of the page. However, if your ISP is not listed here, you can choose the **Other** option.

**Protocol:** Select the appropriate protocol to use here. Options to choose from are **Dynamic IP Address**, **Static IP Address**, **PPPoE**, **PPPoA**, and **Bridge Mode**.

**Connection Type:** Select the appropriate connection type to use here. Options to choose from are **VC-Mux** and **LLC**.

**VPI:** Enter the correct Virtual Path Identifier (VPI) value for your ISP here.

**VCI:** Enter the correct Virtual Channel Identifier (VCI) value for your ISP here.

**MTU:** For PPP default value is 1492, for dynamic and static IP are 1500.

Click the **Prev** button to discard the changes made and return to the previous page.

Click the **Next** button to continue to the next page.

Click the **Cancel** button to discard the changes made and return to the main page.

**STEP 3: CONFIGURE YOUR INTERNET CONNECTION**

Please select your Interface and Protocol from the list below.

**Internet Connection Type :** ADSL

**Country :** Australia

**Internet Service Provider :** Dodo Internet

**Protocol :** PPPoE

**Connection Type :** LLC

**VPI :** 8 (0-255)

**VCI :** 35 (32-65535)

**MTU :** 1492

Prev Next Cancel Connect

In this step, the user can configure the Internet connection settings used by this router.

In this section we can configure the following parameters.

**Internet Connection Type:** Select the appropriate connection type to use here.

Options to choose from are **ADSL**, **VDSL** and **Ethernet WAN (NBN/UFB)**.

**Country:** In this drop-down menu, the user can select one of two country options.

They are **Australia** and **New Zealand**. To manually configure this connection, the user can choose the third option called **Other**.

**Internet Service Provider:** After selecting a country, in the previous option, a list of ISP connections will be available here. If your ISP is in the list, select it here and the correct parameters will be entered for the rest of the page. However, if your ISP is not listed here, you can choose the **Other** option.

**802.1q:** Select Activated or Deactivate.

**VLAN ID:** Select the appropriate connection type to use here. Options to choose from are **VC-Mux** and **LLC**.

**Protocol:** Enter the correct Virtual Path Identifier (VPI) value for your ISP here.

**MTU:** For PPP default value is 1492, for dynamic and static IP are 1500.

Click the **Prev** button to discard the changes made and return to the previous page.

Click the **Next** button to continue to the next page.

Click the **Cancel** button to discard the changes made and return to the main page.

In this step, the user can configure the Internet connection settings used by this router.

In this section we can configure the following parameters.

**Internet Connection Type:** Select the appropriate connection type to use here.

Options to choose from are **ADSL**, **VDSL** and **Ethernet WAN (NBN/UFB)**.

**Protocol:** Enter the correct Virtual Path Identifier (VPI) value for your ISP here.

**MTU:** For PPP default value is 1492, for dynamic and static IP are 1500.

Click the **Prev** button to discard the changes made and return to the previous page.

Click the **Next** button to continue to the next page.

Click the **Cancel** button to discard the changes made and return to the main page.

**STEP 3: CONFIGURE YOUR INTERNET CONNECTION**

Please select your Interface and Protocol from the list below.

**Internet Connection Type :** VDSL

**Country :** New Zealand

**Internet Service Provider :** Snap

**802.1q :**  Activated  Deactivated

**VLAN ID :** 10 (range: 0~4095)

**Protocol :** Dynamic IP Address

**MTU :** 1500

Prev Next Cancel Connect

**STEP 3: CONFIGURE YOUR INTERNET CONNECTION**

Please select your Interface and Protocol from the list below.

**Internet Connection Type :** Ethernet WAN (NBN/UFB)

**Protocol :** Dynamic IP Address

**MTU :** 1500

Prev Next Cancel Connect



When the **Protocol** is Dynamic IP Address, on the next Page name your wireless network.

2.4G Wireless Network Name (SSID): Enter the 2.4G wireless network name (SSID).

5G Wireless Network Name (SSID): Enter the 5G wireless network name (SSID).

Click the Prev to return to the previous page

Click the Next to continue to the next page

Click the Cancel to cancel the setup wizard

Click the Connect button to connect to the internet.

When the **Protocol** is Static IP Address, on the next Page enter the PPPOE information.

IP Address: Enter the IP address.

Subnet Mask: Enter the subnet mask.

Default Gateway: Enter the default gateway.

Click the Prev to return to the previous page

Click the Next to continue to the next page

Click the Cancel to cancel the setup wizard

Click the Connect button to connect to the internet.

When the **Protocol** is PPPOE, on the next Page enter the PPPOE information.

User Name: Enter the user name.

Password: Enter the password.

Confirm Password: Enter the confirm password.

Click the Prev to return to the previous page

Click the Next to continue to the next page

Click the Cancel to cancel the setup wizard

Click the Connect button to connect to the internet.

#### STEP 4: NAME YOUR WIRELESS NETWORK

Your wireless network needs a name so it can be easily recognised by wireless clients. For security purpose, it is highly recommended to change the default pre-configured network name.

2.4G Wireless Network Name (SSID) :

5G Wireless Network Name (SSID) :

#### SET STATIC IP ADDRESS

Enter the static IP information provided to you by your ISP. Click Next to continue.

IP Address :

Subnet Mask :

Default Gateway :

#### SET PPPOE

Enter the PPPoE information provided to you by your ISP. Click Next to continue.

User Name :

Password :

Confirm Password :



When the **Protocol** is Bridge Mode, on the next Page name your wireless network.

2.4G Wireless Network Name (SSID): Enter the 2.4G wireless network name (SSID).

5G Wireless Network Name (SSID): Enter the 5G wireless network name (SSID).

Click the **Prev** to return to the previous page

Click the **Next** to continue to the next page

Click the **Cancel** to cancel the setup wizard

Click the **Connect** button to connect to the internet.

#### **Step 4: Name Your Wireless Network**

In this step, the user can name your Wireless for this router.

Please enter an SSID to do so. The default name is D-Link DSL-2877AL. Please note that the length of the 5G SSID must be between 3 and 32 alphanumeric characters only including hyphens and spaces.

In this section we can configure the following parameters.

**2.4G Wireless Network Name (SSID):** In this textbox, we can enter the wireless networks name (SSID) for the wireless network, hosted by this router. This name will be visible for all wireless clients to see before initiating a connection to this router.

**5G Wireless Network Name (SSID):** In this textbox, we can enter the wireless networks name (SSID) for the wireless network, hosted by this router. This name will be visible for all wireless clients to see before initiating a connection to this router.

Click the **Prev** to return to the previous page

Click the **Next** to continue to the next page

Click the **Cancel** to cancel the setup wizard

**STEP 4: NAME YOUR WIRELESS NETWORK**

Your wireless network needs a name so it can be easily recognised by wireless clients. For security purpose, it is highly recommended to change the default pre-configured network name.

**2.4G Wireless Network Name (SSID) :**

**5G Wireless Network Name (SSID) :**

**STEP 4: NAME YOUR WIRELESS NETWORK**

Your wireless network needs a name so it can be easily recognised by wireless clients. For security purpose, it is highly recommended to change the default pre-configured network name.

**2.4G Wireless Network Name (SSID) :**

**5G Wireless Network Name (SSID) :**

### **Step 5: Secure Your Wireless Network**

In this step, we can secure your wireless network for this router here.

In this section we can configure the following parameters.

**BEST:** Select this option if you're your wireless adapters SUPPORT WPA2.

**BETTER:** Select this option if you're your wireless adapters SUPPORT WPA.

**GOOD:** Select this option if you're your wireless adapters DO NOT SUPPORT WPA.

**NONE:** Select this option if you do not want to activate any security features.

Click the **Prev** button to discard the changes made and return to the previous page.

Click the **Next** button to continue to the next page.

Click the **Cancel** button to discard the changes made and return to the main page.

Click the **Connect** button to connect to the internet.

### **Step 6: Set Your Wireless Security Password**

In this step, we can set the wireless security password.

In this section we can configure the following parameters.

**2.4G Wireless Security Password:** Enter the 2.4G wireless security password.

**5G Wireless Security Password:** Enter the 5G wireless security password.

Click the **Prev** button to discard the changes made and return to the previous page.

Click the **Next** button to continue to the next page.

Click the **Cancel** button to discard the changes made and return to the main page.

**STEP 5: SECURE YOUR WIRELESS NETWORK**

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.

For information on which security features your wireless adapters support, please refer to the adapters' documentation.  
Note: All wireless adapters currently support WPA

**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 your do not want to activate any security features

**STEP 6: SET YOUR WIRELESS SECURITY PASSWORD**

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.

**2.4G Wireless Security Password :**

**5G Wireless Security Password :**

## Step 7: Setup Mylink™ Cloud Services

In this step, we can setup mylink™ cloud services.

I

Click the **Prev** button to discard the changes made and return to the previous page.

Click the **Next** button to continue to the next page.

Click the **Cancel** button to discard the changes made and return to the main page.

Click the **Connect** button to connect to the internet.

On the next Page register Mylink™ Cloud Services account.

Click the **Prev** button to discard the changes made and return to the previous page.

Click the **Next** button to continue to the next page.

Click the **Cancel** button to discard the changes made and return to the main page.

Click the **Connect** button to connect to the internet.

On the next Page login mylink™ Cloud Services account.

In this section we can configure the following parameters.

**E-mail Address (Account Name):** Enter the E-mail address (Account Name).

**Password:** Enter the password.

Click the **Login** button to login the mylink™ Cloud Services account.

Click the **Prev** button to discard the changes made and return to the previous page.

Click the **Next** button to continue to the next page.

Click the **Cancel** button to discard the changes made and return to the main page.

Click the **Connect** button to connect to the internet.

**STEP 7: SETUP MYDLINK™ CLOUD SERVICES**

The internet connection has now been established. If you would like to register this device with a mylink™ Cloud Services account right now please click on "Next", otherwise click "Connect" to skip this step and complete the Setup Wizard.

**Mylink Function Setting :**  Disable  Enable

Prev Next Cancel Connect

**SETUP MYDLINK™ CLOUD SERVICES**

The Internet connection had been established. If you want to register mylink™ Cloud Services account right now, please click "Next". Or you can click "Skip" to skip and setup it later.

To use the features of [mydlink.com](http://mydlink.com) and the mylink™ Lite app, you will need an account with [mydlink.com](http://mydlink.com) . If you already have an account, select Yes, I have a mylink™ account and click Next to register the router with [mydlink.com](http://mydlink.com) . If you do not have an account, select No, I want to register and login with a new mylink™ account and click Next to create an account. If you do not wish to sign up for the mylink™ service, please click Cancel.

**Do you have mylink™ account?**

Yes, I have a mylink™ account.

No, I want to register and login with a new mylink™ account.

Prev Next Cancel Connect

**SETUP MYDLINK™ CLOUD SERVICES**

E-mail Address (Account Name) : eileen@cn.dlink.com

Password : \*\*\*\*\*

Login

Prev Next Cancel Connect

On the next Page sign up mydlink™ Cloud Services account.

In this section we can configure the following parameters.

**E-mail Address (Account Name):** Enter the E-mail address (Account Name).

**Password:** Enter the password.

**Confirm Password:** Enter the confirm password.

**First Name:** Enter the first name.

**Last Name:** Enter the last name.

Click the **Sign Up** button to sign up mydlink™ Cloud Services account.

Click the **Prev** button to discard the changes made and return to the previous page.

Click the **Next** button to continue to the next page.

Click the **Cancel** button to discard the changes made and return to the main page.

Click the **Connect** button to connect to the internet.

**SETUP MYDLINK™ CLOUD SERVICES**

The Internet connection had been established. If you want to register mydlink™ Cloud Services account right now, please click "Next". Or you can click "Skip" to skip and setup it later.

**Please fulfill the options to complete the registration**

**E-mail Address (Account Name) :** eileen@cn.dlink.com

**Password :** •••••

**Confirm Password :** •••••

**First Name :** eileen

**Last Name :** lin

I accept the [mydlink terms and conditions](#)

## Internet Setup

To access the **Internet Setup** page, click on the **Setup** menu link at the top, and then click on the **Internet Setup** menu link on the left.

You can manually configure the connection from this page. Please make sure you have your ISP's connection settings first if you manually configure the connection.

The screenshot shows the D-Link web interface for the DSL-2877AL. The top navigation bar includes 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar menu is expanded to show 'Internet Setup'. The main content area is titled 'INTERNET SETUP' and contains a 'MODE SELECT' section with a dropdown menu for 'Internet Connection Type' set to 'Ethernet WAN (NBN/UFB)'. Below this is an 'ETH SETTING' section with fields for 'Service Num', 'Enable Virtual Circuit', '802.1q' (Activated/Deactivated), and 'VLAN ID'.

### Mode Select

**Internet Connection Type:** Select the modes including **ADSL**, **VDSL** and **Ethernet WAN (NBN/UFB)**.

This is a close-up of the 'MODE SELECT' section from the screenshot above. It shows the 'Internet Connection Type' dropdown menu with 'Ethernet WAN (NBN/UFB)' selected.

### ATM VC Setting

Select **Internet Connection Type** as **ADSL** to configure the ADSL setting for the WAN mode.

**PVC:** Select the PVC index, it includes 8 PVC index: 0 ~ 7.

**Enable Virtual Circuit:** Enable or disable the virtual circuit.

**Country:** In this drop-down menu, the user can select one country option. To manually configure this connection, the user can choose the third option called **Other**.

**ISP:** After selecting a country, in the previous option, a list of ISP connections will be available here. If your ISP is in the list, select it here and the correct parameters will be entered for the rest of the page. However, if your ISP is not listed here, you can choose the **Other** option.

**VPI:** Enter the correct Virtual Path Identifier (VPI) value for your ISP here.

**VCI:** Enter the correct Virtual Channel Identifier (VCI) value for your ISP here.

**Service Category:** Select the service category; it includes **UBR**, **CBR**, **RT-VBR** and **NRT-VBR**.

**802.1q:** Activate or Deactivate the 802.1q for the WAN mode.

**VLAN ID:** Enter the VLAN ID if required by your ISP.

### PTM Setting

Select **Internet Connection Type** as **VDSL** to configure the VDSL setting for the WAN mode.

**Service Num:** Select the service number to configure.

**Enable Virtual Circuit:** Enable or disable the PTM interface.

**Country:** In this drop-down menu, the user can select one country option. To manually configure this connection, the user can choose the third option called **Other**.

**ISP:** After selecting a country, in the previous option, a list of ISP connections will be available here. If your ISP is in the list, select it here and the correct parameters will be entered for the rest of the page. However, if your ISP is not listed here, you can choose the **Other** option.

**802.1q:** Activated or deactivated the 802.1q for the WAN mode.

**VLAN ID:** Enter the VLAN ID if required by your ISP.



### ETH Setting

Select **Internet Connection Type** as **Ethernet WAN (NBN/UFB)** to configure the Ethernet setting for the WAN mode.

**Service Num:** Select the service number to configure.

**Enable Virtual Circuit:** Enable or disable the PTM interface.

**802.1q:** Activated or deactivated the 802.1q for the WAN mode.

**VLAN ID:** Enter the VLAN ID if required by your ISP.

**ETH SETTING**

**Service Num:** 0 Services Summary

**Enable Virtual Circuit:**

**802.1q:**  Activated  Deactivated

**VLAN ID:** 0 (range: 0~4095)

### IPV4/IPV6

**IP Version:** Select the IP version to configure. It includes IPv4, IPv4/IPv6 and IPv6.

**IPV4/IPV6**

**IP Version:**  IPv4  IPv4/IPv6  IPv6

### WAN Settings

Select this option to configure the WAN settings including **Dynamic IP Address**, **Static IP Address**, **PPPoA/PPPoE** and **Bridge Mode**.

**WAN SETTINGS**

Configure your DSL connection here. Please consider the information of your provider on the settings otherwise it may not be possible to establish a connection.

**Dynamic IP Address** Choose this option to obtain an IP address automatically from your ISP. (For most Cable modem users)

**Static IP Address** Choose this option to set static IP information provided to you by your ISP.

**PPPoA/PPPoE** Choose this option if your ISP uses PPPoE. (For most DSL users)

**Bridge Mode** Choose this option if your ISP uses Bridge.

### WAN - Dynamic IP Address

Select this option to set static IP information provided to you by your ISP.

**MTU:** If you experience connection issues, you may need to change the MTU setting for optimal performance with your specific ISP.

**Default Route:** Enable or disable default route.

**Enable PPPoE Passthrough:** Enable or disable PPPoE Passthrough.

**IGMP Proxy:** Enable or disable IGMP proxy.

**WAN**

**MTU:** 1500 (0:default)

**Default Route:**

**NAT Enable:**

**Enable PPPoE Passthrough:**

**IGMP Proxy:**

### WAN - Static IP Address

Select this option to set static IP information provided to you by your ISP.

**Static IP Address:** Enter the static IP address assigned to you by your ISP.

**IP Subnet Mask:** Enter the IP subnet mask assigned to you by your ISP.

**Gateway:** Enter the gateway assigned to you by your ISP.

**MTU:** If you experience connection issues, you may need to change the MTU setting for optimal performance with your specific ISP.

**Default Route:** Specifies the default route for the WAN interface.

**NAT Enable:** Enable or disable NAT function.

**Enable PPPoE Passthrough:** Enable or disable PPPoE pass through function.

**IGMP Proxy:** Enable or disable IGMP proxy function.

**WAN**

**Static IP Address:**

**IP Subnet Mask:**

**Gateway:**

**MTU:** 1500 (0:default)

**Default Route:**

**NAT Enable:**

**Enable PPPoE Passthrough:**

**IGMP Proxy:**

### WAN - PPPoA/PPPoE

Select this option if your ISP requires you to use a **PPPoA/PPPoE** connection. This option is typically used for DSL services. Select **PPPoA/PPPoE** to obtain an IP address automatically for your **PPPoA/PPPoE** connection. Please enter the information accordingly.

Please Note the image to the right shows **PPPoE** options. **PPPoA WAN** page may differ slightly.

**Username:** Enter the username for your product.

**Password:** Enter the password for your product.

**Confirm Password:** Enter the confirm password.

**MTU:** If you experience connection issues, you may need to change the MTU setting for optimal performance with your specific ISP.

**TCP MSS:** Specifies the maximum segment size for the PPPoE connection.

**Default Route:** Specifies the default route for the WAN interface.

**NAT Enable:** Enable or disable NAT function.

**Enable PPPoE Passthrough:** Enable or disable PPPoE pass through function.

**IGMP Proxy:** Enable or disable IGMP proxy function.

**Connection:** Specifies the PPPoE connect mode.

**Get IP Address:** Select the way to get IP address. It is static or dynamic.

**Static IP Address:** Enter the static IP address.

**IP Subnet Mask:** Enter the IP subnet mask.

**Gateway:** Enter the gateway.

**WAN**

**Username:**

**Password:**

**Confirm Password:**

**MTU:** 1500 (0:default)

**TCP MSS:** 1452 (0:default)

**Default Route:**

**NAT Enable:**

**Enable PPPoE Passthrough:**

**IGMP Proxy:**

**Connection:**  Always On (Recommended)  
 Connect On-Demand (Close if idle for  minutes)  
 Connect Manually

**Get IP Address:**  Static  Dynamic

**Static IP Address:**

**IP Subnet Mask:**

**Gateway:**



## Wireless Setup

To access the **Wireless Setup** page, click on the **Setup** menu link at the top, and then click on the **Wireless Setup** menu link on the left.

On this page the user can configure services related to the Wireless Setup connectivity of this product.

Services available for configuration are the following:

- [Wireless Connection Setup Wizard](#)
- [Add Wireless Device With WPS \(WI-FI Protected Setup\) Wizard](#)
- [Manual Wireless Connection Options](#)

The screenshot shows the D-Link web interface for the DSL-2877AL. The top navigation bar includes 'D-Link' and tabs for 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar contains a menu with 'Wizard' selected, and other options like 'Internet Setup', 'LAN Setup', '3G Setup', 'WAN Failover Priority Setup', 'Time and Date', 'IPv6RD', and 'mydlink™ Settings'. Below the menu are 'Reboot' and 'Logout' buttons. The main content area is titled 'WIRELESS CONNECTION' and contains three sections: 1) 'WIRELESS CONNECTION' with a note about manual configuration and a warning to duplicate changes to wireless clients and PC. 2) 'WIRELESS CONNECTION SETUP WIZARD' with a button 'Wireless Connection Setup Wizard' and a note about following the Quick Installation Guide. 3) 'ADD WIRELESS DEVICE WITH WPS(WI-FI PROTECTED SETUP) WIZARD' with a button 'Add Wireless Device with WPS'. A 'Helpful Hints...' sidebar on the right explains that changing the SSID is the first step in securing the network and should be a familiar name without personal information.

## Wireless Connection Setup Wizard

Click the **Wireless Connection Setup Wizard** button to initiate the Wireless connection setup wizard.

After clicking the **Wireless Connection Setup Wizard** button, the following page will be available. The service set identifier (SSID) or network name is case sensitive and must not exceed 32 characters, which may be any keyboard character. You should select the same SSID for all the APs that will be communicating with mobile wireless stations.

**Network Name (SSID) 2.4GHz:** Enter the wireless network name (SSID), for the 2.4GHz frequency band, here.

**Network Name (SSID) 5GHz:** Enter the wireless network name (SSID), for the 5GHz frequency band, here.

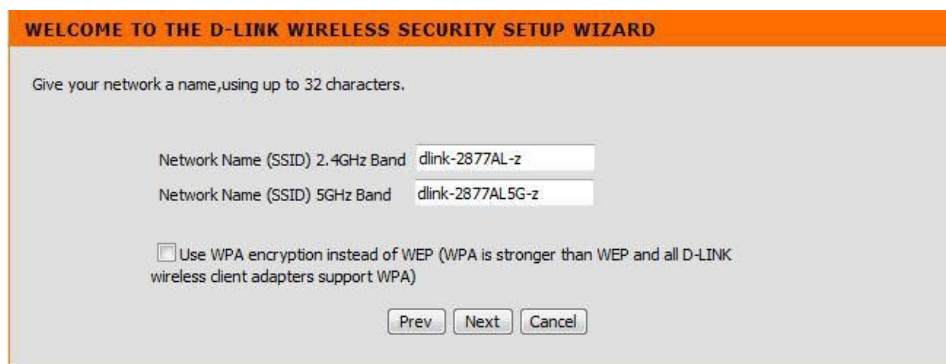
**Tick Box:** Use the tick box to use WPA encryption instead of WEP.

## Welcome to the D-Link Wireless Security Setup Wizard

Please note that when using selecting your wireless security settings you have the following options

### WEP

Make sure that all wireless devices on your network are using the same encryption level and key. WEP keys must consist of the letters "A" through "F" and the numbers "0" through "9".



## WPA

Make sure that all wireless devices on your network are using the same encryption level and key. WPA keys must consist of the 8-63 bit ASCII or 64 bit hex characters

Click the **Next** button to continue to the next step.

Click the **Prev** button to return to the previous step.

Click the **Cancel** button to discard the changes made and return the main menu.

## Save Your Wireless Security Password

After assigning a security setting, the following page will be available showing your settings.

Click the **Save** button to continue to save your settings.

Click the **Prev** button to return to the previous step.

Click the **Cancel** button to discard the changes made and return to the main menu.

## Add Wireless Device With WPS Wizard

Click the **Add Wireless Device with WPS** button to initiate the Wi-Fi Protected Setup (WPS) setup wizard.

### WELCOME TO THE D-LINK WIRELESS SECURITY SETUP WIZARD

The WPA (Wi-Fi Protected Access) key must meet one of the following guidelines:

- Between 8 and 63 characters (A longer WPA key is more secure than a short one)
- Exactly 64 characters using 0-9 and A-F

2.4G Band Wireless Security Password:

5G Band Wireless Security Password:

### ADD WIRELESS DEVICE WITH WPS (WI-FI PROTECTED SETUP)

Please enter the following settings in the wireless device that you are adding to your wireless network and keep a note of it for future reference.

2.4GHz Band Wireless Network Name (SSID) : **dlink-2877AL-z**

Wireless Security Mode : **WPA**

Network Key : **1111111111**

5GHz Band Wireless Network Name (SSID) : **dlink-2877AL5G-z**

Wireless Security Mode : **WPA**

Network Key : **1111111111**

### ADD WIRELESS DEVICE WITH WPS(WI-FI PROTECTED SETUP) WIZARD

This wizard is designed to assist you in connecting your wireless device to your router. It will guide you through step-by-step instructions on how to get your wireless device connected. Click the button below to begin.

## **ADD WIRELESS DEVICE WITH WPS (WI-FI PROTECTED SETUP)**

After clicking the **Add Wireless Device with WPS** button, the following page will be available.

In this section, we can configure the following:

**Auto:** Select this option to automatically allow the router and the wireless client to connect to each other by means of WPS.

**Manual:** Select this option to display the configured wireless settings. This information can then be configured of the wireless clients manually to initiate a wireless connection.

Click the **Next** button to continue to the next step.

Click the **Cancel** button to discard the changes made and return to the main menu.

### **Connect Your Wireless Device**

After selecting the **Auto** option, in Step 1, the following page will be available. In this section, we can configure the following:

**PIN:** Select this option to use the Personal Identification Number (PIN) method to connect the two devices. Enter the PIN number here. Enter the same PIN number at the wireless client software.

**PBC:** Select this option to use the Push Button Configuration (PBC) method to connect the two devices.

Click the **Connect** button to initiate the WPS connection.

Click the **Prev** button to return to the previous step.

After selecting the **PIN** option, the following page will be available.

The router will allow 120 seconds for the WPS connection to initiate.

**ADD WIRELESS DEVICE WITH WPS (WI-FI PROTECTED SETUP)**

Please select one of the following configuration methods and click next to continue.

Auto -- Select this option if your wireless device supports WPS (Wi-Fi Protected Setup)

Manual -- Select this option will display the current wireless settings for you to configure the wireless device manually

Next Cancel

**ADD WIRELESS DEVICE WITH WPS (WI-FI PROTECTED SETUP)**

There are two ways to add wireless device to your wireless network:

-PIN (Personal Identification Number)

-PBC (Push Button Configuration)

**PIN :**

Please enter the PIN from your wireless device and press the "Connect" button below within 120 seconds

**PBC**

Please press the push button on your wireless device and press the "Connect" button below within 120 seconds

Prev Connect

**USING PIN NUMBER**

Please start WPS on the wireless device you are adding to your wireless network within 119 seconds...  
If the connection is success ,the page is return to wireless setup page immediately.

After selecting the **PBC** option, in Step 2, the following page will be available. Press the WPS button on the wireless client to initiate the connection.

The router will allow 120 seconds for the WPS connection to initiate. After successfully connecting the router and the wireless client, the page will return to the wireless setup page.

After selecting the **Manual** option, in Step 1, the following page will be available to provide information regarding manual setup. Click **OK to continue**.

After clicking the **OK** button, the following page will be available.

### **Manual Wireless Connection Option**

If your wireless adapter doesn't support the WPS connection methods, we can configure the Wireless Connection manually here.

Click on the **Manual Wireless Connection Setup** button to access the manual wireless connection setup page.

#### **VIRTUAL PUSH BUTTON**

Please press down the Push Button (physical or virtual) on the wireless device you are adding to your wireless network within **108** seconds...  
If the connection is success ,the page is return to wireless setup page immediately.

#### **ADD WIRELESS DEVICE WITH WPS (WI-FI PROTECTED SETUP)**

Please enter the following settings in the wireless device that you are adding to your wireless network and keep a note of it for future reference.

Network Name (SSID) :  
Wireless Security Mode : **WPA/WPA2 TKIP/AES**  
Network Key :

Network Name (SSID) : **HT\_APO**  
Wireless Security Mode : **WPA/WPA2 TKIP/AES**  
Network Key : **88888888888888**

OK

#### **MANUAL WIRELESS CONNECTION OPTIONS**

If your wireless network is already set up with Wi-Fi Protected Setup, manual configuration of the wireless network will destroy the existing wireless network. If you would like to configure the wireless settings of your new D-Link Systems Router manually, then click on the Manual Wireless Network Setup button below.

Manual Wireless Connection Setup

After clicking the **Manual Wireless Connection Setup** button, the following page will be available.

In this section we can configure the following parameters.

**Wireless Enable:** Tick this option to enable the wireless feature on this router.

**MBSSID AP Isolation:** Tick this option to enable the MBSSID AP isolation feature on this router.

**Multiple SSID:** Enter the Wireless name (SSID) here. This name will be available when wireless clients scan for available wireless networks. However, when the **Hide Access Point** option is enabled, this name will not be visible to wireless clients.

**Hide SSID:** Here we can choose to hide the Wireless SSID by selecting **Enable** to hide it and **Disable** to reveal it.

**WMM:** Here we can enable or disable the Wireless Multimedia Forwarding (WMM) feature.

**802.11 Mode:** Here we can select which 802.11 wireless modes to use. Options to choose from are **802.11 n Only**, **802.11 B only**, **802.11 G only**, **Mixed 802.11g and 802.11b**, **Mixed 802.11g and 802.11n** and **Mixed 802.11n, 802.11g and 802.11b**. If you are not sure, select the **802.11 B/G/N mixed** option.

**Channel Width:** Here we can select the wireless bandwidth range used. Options to choose from are **Up to 130 Mbps**, **Up to 270 Mbps** and **Force to 300 Mbps**.

**Channel:** Here we can select a wireless channel manually, or select the **Auto** option to allow the router to automatically select the channel with the least interference.

**Security:** Here we can select security to use. Options to choose from are **None**, **WEP-64Bits**, **WEP-128Bits**, **WPA**, **WPA2** and **WPA/WPA 2**.

**Cipher Type:** Here we can select cipher type to use. Options to choose from are **TKIP**, **AES** and **Both**.

**Group Key Interval:** Enter the group key interval.

**WIRELESS BASIC**

**Wireless Enabled :**   
**MBSSID AP Isolation :**   
**Multiple SSID :**   
**SSID Interface Enabled :**   
**Hide SSID :**  Disable  Enable  
**WMM :**  Disable  Enable  
**802.11 Mode :**   
**Channel Width :**   
**Channel :**   AutoChannel  
**Security :**   
**Cipher Type :**   
**Group Key Interval :**  Seconds

---

**WIRELESS BASIC**

**Wireless Enabled :**   
**MBSSID AP Isolation :**   
**Multiple SSID :**   
**SSID Interface Enabled :**   
**Hide SSID :**  Disable  Enable  
**WMM :**  Disable  Enable  
**802.11 Mode :**   
**Channel Width :**   
**Channel :**   AutoChannel  
**Security :**   
**Cipher Type :**   
**Group Key Interval :**  Seconds



### WEP-64Bits/WEP-128Bits for 2.4Ghz and 5Ghz Wireless Configuration

Make sure that all wireless devices on your network are using the same encryption level and key. WEP keys must consist of the letters "A" through "F" and the numbers "0" through "9".

#### WEP

##### WEP Key

WEP is the wireless encryption standard. To use it you must enter the same key(s) into the router and the wireless stations. For 64 bit keys you must enter 10 hex digits into each key box. For 128 bit keys you must enter 26 hex digits into each key box. A hex digit is either a number from 0 to 9 or a letter from A to F. For the most secure use of WEP set the authentication type to "Shared Key" when WEP is enabled.

You may also enter any text string into a WEP key box, in which case it will be converted into a hexadecimal key using the ASCII values of the characters. A maximum of 5 text characters can be entered for 64 bit keys, and a maximum of 13 characters for 128 bit keys.

Selection	Key
A <input checked="" type="radio"/>	<input type="text"/>
B <input type="radio"/>	<input type="text"/>
C <input type="radio"/>	<input type="text"/>
D <input type="radio"/>	<input type="text"/>

### WPA Type for 2.4Ghz and 5Ghz Wireless Configuration

This router supports two type options available in the **WPA Type**. The types are the **802.1x** and **PSK Value**.

#### 802.1x

WPA RADIUS uses an external RADIUS server to perform user authentication. To use WPA RADIUS, enter the IP address of the RADIUS server, the RADIUS Port (default is 1812) and the shared secret from the RADIUS server.

#### WPA TYPE

802.1x  PSK Value

#### WPA TYPE

802.1x  PSK Value

#### 802.1X

Server IP Address:

Port:

Secret:

### **PSK**

Is a special mode of WPA for home users without an enterprise authentication server and provides the same strong encryption protection. To use WPA Pre-Shared Key, enter a password in the WPA Shared Key field between 8 and 63 bit ASCII or 64 bit hex characters long.

**PSK**

Psk Network Key:

### **Wireless Schedule for 2.4Ghz and 5Ghz Wireless Configuration**

This is to control Wireless enable or disable base on schedule settings.

**WIRELESS SCHEDULE**

Schedule Enabled :

Begin Time :  :

End Time :  :

Day :  Mon  Tue  Wed  
 Thu  Fri  Sat  Sun

### **WI-FI Protected Setup (Also Called WCH 2.0 in Windows Vista) for 2.4Ghz and 5Ghz Wireless Configuration**

**Enable:** Enable the Wi-Fi Protected Setup feature.

**Current PIN:** Shows the current value of the router's PIN.

**Wi-Fi Protected Status:** Shows the Wi-Fi protected status.

**WI-FI PROTECTED SETUP (ALSO CALLED WCN 2.0 IN WINDOWS VISTA)**

Enable :

Current PIN : 39910127

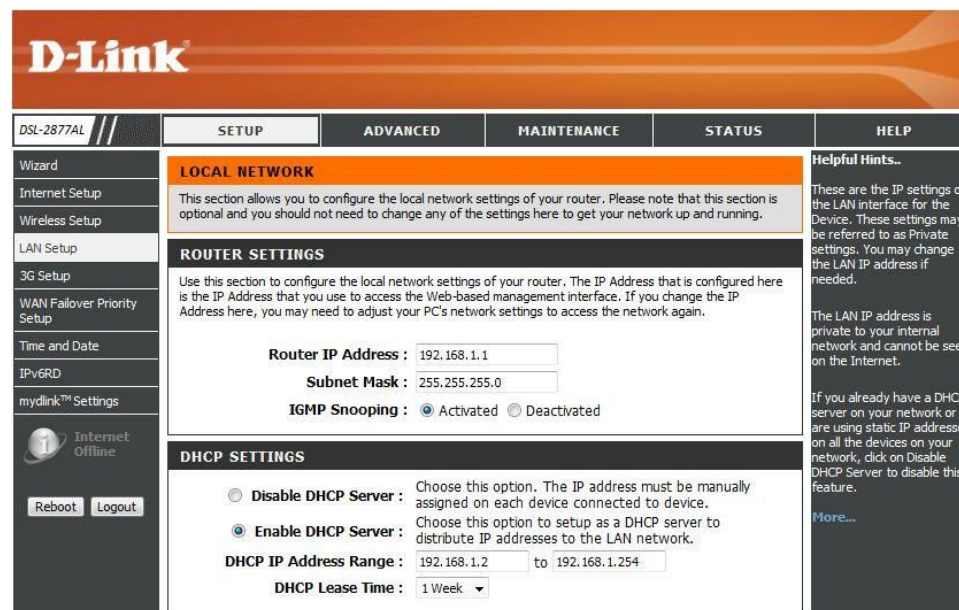
Wi-Fi Protected Status : Enabled/Configured



## LAN Setup

To access the **LAN Setup** page, click on the **Setup** menu link at the top, and then click on the **LAN Setup** menu link on the left.

On this page we can configure services related to the Local Area Network connectivity of this product.



**D-Link**

DSL-2877AL // **SETUP** ADVANCED MAINTENANCE STATUS HELP

Wizard  
Internet Setup  
Wireless Setup  
**LAN Setup**  
3G Setup  
WAN Failover Priority Setup  
Time and Date  
IPv6RD  
mydlink™ Settings

Internet  
Offline  
Reboot Logout

**LOCAL NETWORK**  
This section allows you to configure the local network settings of your router. Please note that this section is optional and you should not need to change any of the settings here to get your network up and running.

**ROUTER SETTINGS**  
Use this section to configure the local network settings of your router. The IP Address that is configured here is the IP Address that you use to access the Web-based management interface. If you change the IP Address here, you may need to adjust your PC's network settings to access the network again.

Router IP Address : 192.168.1.1  
Subnet Mask : 255.255.255.0  
IGMP Snooping :  Activated  Deactivated

**DHCP SETTINGS**

Disable DHCP Server : Choose this option. The IP address must be manually assigned on each device connected to device.  
 Enable DHCP Server : Choose this option to setup as a DHCP server to distribute IP addresses to the LAN network.  
DHCP IP Address Range : 192.168.1.2 to 192.168.1.254  
DHCP Lease Time : 1 Week

**Helpful hints..**  
These are the IP settings of the LAN interface for the Device. These settings may be referred to as Private settings. You may change the LAN IP address if needed.  
The LAN IP address is private to your internal network and cannot be seen on the Internet.  
If you already have a DHCP server on your network or are using static IP addresses on all the devices on your network, click on Disable DHCP Server to disable this feature.  
[More...](#)

### Router Settings

In this section, the following parameters are available to configure:

**Router IP Address:** Enter the local IP address for this router here. This IP address is also used to connect to this device's Web User Interface. Please note that after changing this IP address you'll be forced to log into the Web User Interface again, using the new IP address.

**Subnet Mask:** Enter the subnet mask used here.

**IGMP Snooping:** Activate or deactivate the IGMP snooping function.

**ROUTER SETTINGS**

Use this section to configure the local network settings of your router. The IP Address that is configured here is the IP Address that you use to access the Web-based management interface. If you change the IP Address here, you may need to adjust your PC's network settings to access the network again.

Router IP Address :

Subnet Mask :

IGMP Snooping :  Activated  Deactivated

### DHCP Settings

In this section, the following parameters can be configured:

**Disable DHCP Server:** Select this option to disable the DHCP Server option.

**Enable DHCP Server:** Select this option to enable the DHCP Server option.

**DHCP IP Address Range:** Enter the starting and ending IP address host number value for the DHCP Server pool here.

**DHCP Lease Time:** select the DHCP lease time value used here.

**DHCP SETTINGS**

**Disable DHCP Server :** Choose this option. The IP address must be manually assigned on each device connected to device.

**Enable DHCP Server :** Choose this option to setup as a DHCP server to distribute IP addresses to the LAN network.

DHCP IP Address Range :  to

DHCP Lease Time :

### IPv6 Settings

In this section, the following parameters can be configured:

**IPv6 Global Address:** Enter the IPv6 Global address for the LAN setting.

**Radvd Enable:** Enable or disable Radvd function.

**DHCP6 Sever:** Enable or disable DHCPv6 server.

**IPV6 SETTINGS**

IPv6 Global Address :  /

Radvd Enable :  Disable  Enable

DHCP6 Server :  Disable  Enable

### DHCP Table

The Client Table will show the Host Name, IP Address, and MAC Address of each client computer.

**DHCP TABLE**

Host Name	IP Address	MAC Address	Status
	192.168.1.2	Manual Config	Static

## 3G Setup

To access the **3G Setup** page, click on the **Setup** menu link at the top, and then click on the **3G Setup** menu link on the left.

On this page we can configure the 3G network settings of this product.

The screenshot shows the D-Link web interface for the DSL-2877AL. The top navigation bar includes 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar lists various setup options, with '3G Setup' highlighted. The main content area is titled '3G NETWORK' and contains a description: 'This section allows you to configure the 3g network settings of your router. Please note that this section is optional and you should not need to change any of the settings here to get your network up and running.' Below this is the '3G SETTINGS' section, which includes a 'Status' toggle set to 'Deactivated'. The 'ISP SETTINGS' section contains the following fields: 'Default APN' (Yes/No), 'TELEPHONE' (\*99#), 'APN', 'UserName', and 'Password'. A 'Helpful Hints' sidebar on the right notes that user names and passwords are case-sensitive.

### 3G Settings

In this section to activate or deactivate the 3G settings.

**Status:** Activate or deactivate the 3G settings.

This close-up shows the '3G SETTINGS' section with the 'Status' toggle set to 'Deactivated'.

### ISP Settings

In this section, the following parameters are available to configure:

**Default APN:** Select **No** if your ISP provides you a fixed APN, otherwise, select **Yes**.

**TELEPHONE:** Enter the dial code.

**APN:** Enter the APN.

**UserName:** Enter the user name for the 3G settings.

**PassWord:** Enter the password for the 3G settings.

This close-up shows the 'ISP SETTINGS' section with the following fields: 'Default APN' (Yes/No), 'TELEPHONE' (\*99#), 'APN', 'UserName', and 'Password'.

### Connection Settings

In this section, the following parameters are available to configure:

**Connection:** Specifies the 3G connection mode, It includes 3 connection models: **Always On**, **Connect On-Demand** and **Connect Manually**. if the user select the Connect On-Demand, then you need to configure idle time.

**PPP Authentication:** Select the PPP authentication, there are 3 options for PPP authentication: **Auto**, **PAP** and **CHAP**.

**Default Route:** Specifies the default route for the 3G interface. .

**NAT:** Enable or disable the NAT function for the 3G interface.

**TCP MTU:** Specifies the TCP MUT for the 3G interface.

**CONNECTION SETTINGS**

**Connection**  Always On (Recommended)  
 Connect On-Demand (Close if idle for  minutes)  
 Connect Manually

**PPP Authentication**

**Default Route**  Yes  No

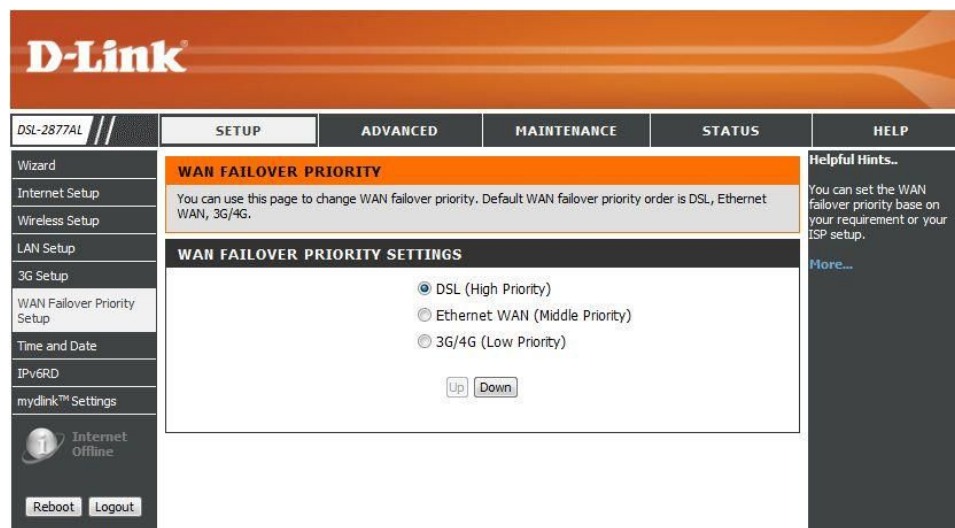
**NAT**  Enabled  Disabled

**TCP MTU**  bytes(0 means use default:1492)

## WAN Failover Priority Setup

To access the **WAN Failover Priority Setup** page, click on the **Setup** menu link at the top, and then click on the **WAN Failover Priority Setup** menu link on the left.

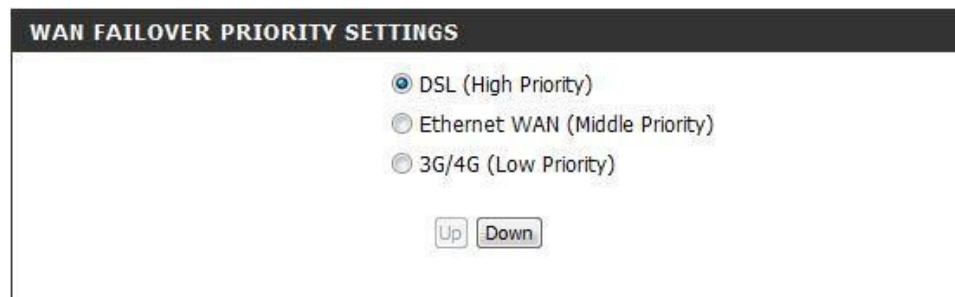
On this page we can configure the WAN interface failover priority of this product.



### WAN Failover Priority Settings

In this section to configure the WAN interface failover priority.

Select a WAN interface, and then click **Up** or **Down** button to change the WAN interface failover priority.



## Time and Date

To access the **Time and Date** page, click on the **Setup** menu link at the top, and then click on the **Time and Date** menu link on the left.

On this page we can configure services related to the Time and Date services used by this product. 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.

### Synchronize Time

Select this option if you want to synchronize the router's clock to a Network Time Server over the Internet. If you are using schedules or logs, this is the best way to ensure that the schedules and logs are kept accurate.

### NTP Server Address

Select a Network Time Server for synchronization. You can type in the address of a time server or select one from the list. If you have trouble using one server, select another.

### Time Zone

Select your local time zone from pull down menu.

The screenshot shows the D-Link web interface for the DSL-2877AL router. The top navigation bar has tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains a menu with options like Wizard, Internet Setup, Wireless Setup, LAN Setup, 3G Setup, WAN Failover Priority Setup, Time and Date, IPv6RD, and mydlink™ Settings. The main content area is titled 'TIME' and contains a 'TIME SETTINGS' section. The settings include:
 

- Time:** N/A (Can't find NTP server)
- Synchronize time with:** Radio buttons for NTP Server automatically (selected), PC's Clock, and Manually.
- Time Zone:** A dropdown menu showing '(GMT+10:00) Brisbane, Canberra, Melbourne, Sydney, Hobart, Yakutsk'.
- Daylight Saving Settings:** Radio buttons for Enabled and Disabled (selected).
- NTP Server Address:** A dropdown menu showing 'ntp1.dlink.com'.
- Secondary NTP server:** A dropdown menu showing 'ntp.dlink.com.tw'.

 An 'Apply' button is located at the bottom right of the settings form. A 'Helpful Hints...' sidebar on the right provides additional information about time synchronization.



## IPv6RD

To access the **IPv6RD** page, click on the **Setup** menu link at the top, and then click on the **IPv6RD** menu link on the left.

IPv6rd specifies a protocol mechanism to deploy IPv6 to sites via a service provider's (SP's) IPv4 network.

On this page we can configure services related to the IPv6RD services used by this product.

In this section, the following parameters can be configured:

**6RD Tunnel:** Select this option to disable the 6RD tunnel option.

**6rd IPv6 Prefix:** Enter the 6rd IPv6 Prefix here.

**IPv4 Addr:** Enter the IPv4 address here.

**IPv4 Mask:** Enter the IPv4 mask address here.

**6RD Border Relay IPv4Addr:** Enter the 6RD border relay IPv4 address here.

**6rd Prefix Delegation:** Show the 6rd prefix delegation.

The screenshot shows the D-Link web interface for configuring IPv6RD. The top navigation bar includes 'DSL-2877AL', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar lists various setup options, with 'IPv6RD' highlighted. The main configuration area is titled 'IPv6RD' and contains the following settings:

- 6RD Tunnel:**  Enabled  Disabled
- 6rd IPv6 Prefix:** 2001:55c:: / 32
- IPv4 Addr:** 58.211.230.102
- IPv4 Mask:** 0
- 6RD Border Relay IPv4Addr:** 69.252.80.66
- 6rd Prefix Delegation:** 2001:55c:3ad3:e666::

An 'Apply' button is located at the bottom right of the configuration area. A 'Helpful Hints...' sidebar on the right provides additional information: 'The 6rd mechanism relies upon an algorithmic mapping between the IPv6 and IPv4 addresses that are assigned for use within the SP network. 6rd views the IPv4 network as a link layer for IPv6.' A 'More...' link is also present.

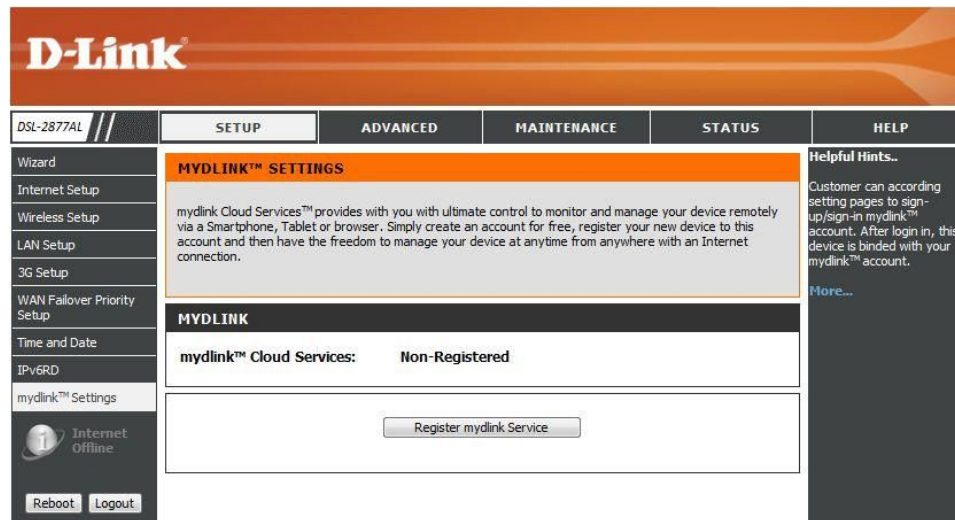
## Mydlink™ Settings

To access the **Mydlink™ Settings** page, click on the **Setup** menu link at the top, and then click on the **Mydlink™ Settings** menu link on the left.

Devices that are mydlink-enabled can be accessed and managed through the mydlink website and by using mydlink mobile apps for IOS and Android. You cannot take advantage of these features without a mydlink account. If you have a mydlink account already, you can log in when you first set up the router, or by visiting this setup page.

**Mydlink Service:** Displays whether your device is registered with a mydlink account or not.

**Register Mydlink Service:** Click to go to open a wizard that will guide you through the process of registering your device to your mydlink account, If you don't have a mydlink account yet, you will be able to create one.





## Advanced Category

The **Advanced** category is designed to assist the user with more advanced configurations, concerning the other features found on this product.

The following pages can be found in the **Advanced** category:

- [Advanced Wireless](#) - On this page the user can configure advanced services related to the Wireless connectivity of this product. Services available for configuration are **WLAN Access Rules**, **Multiple WLAN SSIDs** and **WLAN Performance**.
- [Virtual Server](#) - On this page the user can configure virtual server related to the virtual server connectivity of this product.
- [Port Trigger](#) - On this page the user can configure services related to the port triggering feature of this product.
- [DMZ](#) - On this page the user can configure services related to the DMZ feature of this product.
- [Parental Control](#) - On this page the user can configure services related to the parental control feature of this product. Services available for configuration are **Time Restriction** and **URL Filtering**.
- [IP & MAC Filtering](#) - On this page the user can configure services related to the IP & MAC filtering feature of this product.
- [DSL Line Settings](#) - On this page the user can configure services related to the DSL lines settings feature of this product.
- [Firewall](#) - On this page the user can configure services related to the firewall feature of this product.
- [DNS](#) - On this page the user can configure services related to the DNS feature of this product.
- [Dynamic DNS](#) - On this page the user can configure services related to the Dynamic DNS feature of this product.
- [Network Tools](#) - On this page the user can configure services related to the Network Tools available on this product. Services available for configuration are **Port Mapping**, **Quality of Service**, **Queue Configuration**, **QoS Classification**, **UPnP**, **DSL Settings**, and **IGMP**.
- [Routing](#) - On this page the user can configure services related to the Routing feature of this product. Services available for configuration are **Static Route**, **Default Gateway**, and **RIP**.
- [URL Redirect](#) - On this page the user can configure services related to the URL redirect feature of this product.

The screenshot displays the D-Link web interface for the DSL-2877AL modem router. The top navigation bar includes 'D-Link', 'DSL-2877AL //', and tabs for 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'ADVANCED' tab is selected, and the 'Advanced Wireless' sub-tab is active. The main content area is titled '2.4G WLAN ACCESS RULES' and contains the following information:

- 2.4G WLAN ACCESS RULES**: A section with a warning icon and text: "You can allow and deny the access to your WLAN for specific MAC Addresses (one address per rule / format of MAC Address: aa:aa:aa:aa:aa:aa)." Below this is a sub-section titled 'WLAN ACCESS RULES'.
- WLAN ACCESS RULES**: This section includes:
  - Existing SSIDs**: A dropdown menu showing 'dlink-2877AL-z'.
  - WLAN Access Policy**: Three radio button options:
    - Disabled
    - Only **allow** computers listed to access wireless network.
    - Only **deny** computers listed to access wireless network.
  - An **Apply** button.
- ADD WLAN ACCESS RULES**: A section with a plus icon and text:
  - MAC Address**: An input field containing '00:00:00:00:00:00'.
  - An **Apply** button.

On the left side, a sidebar menu lists various configuration options: Advanced Wireless, Virtual Server, Port Trigger, DMZ, Parental Control, IP & MAC Filtering, DSL Line Settings, Firewall, DNS, Dynamic DNS, Network Tools, Routing, and URL Redirect. At the bottom of the sidebar are 'Reboot' and 'Logout' buttons. On the right side, a 'Helpful Hints..' section provides additional information: "Set up access rules and Multiple SSIDs for your WLAN." and a 'More...' link.

## Advanced Wireless

To access the **Advanced Wireless** page, click on the **Advanced** menu link at the top, and then click on the **Advanced Wireless** menu link on the left.

On this page the user can configure advanced services related to the Wireless connectivity of this product.

Services available for configuration are the following:

- [WLAN Access Rules](#)
- [Multiple WLAN SSIDs](#)
- [WLAN Performance](#)

The screenshot displays the D-Link web interface for the DSL-2877AL router. The top navigation bar includes 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar lists various configuration options, with 'Advanced Wireless' selected. The main content area is titled '2.4G WLAN ACCESS RULES' and contains the following configuration options:

- Existing SSIDs:** A dropdown menu showing 'dlink-2877AL-z'.
- WLAN Access Policy:** A radio button selection with 'Disabled' selected. Other options are 'Only allow computers listed to access wireless network' and 'Only deny computers listed to access wireless network'.
- ADD WLAN ACCESS RULES:** A section with a 'MAC Address' input field containing '00:00:00:00:00:00' and an 'Apply' button.

On the right side, there is a 'Helpful Hints..' section with the text: 'Set up access rules and Multiple SSIDs for your WLAN.' and a 'More...' link.

## 2.4G WLAN Access Rules

Without WLAN MAC access restriction, any WLAN client can join (authenticate with) a Wi-Fi network if they know the network name (also called the SSID) and perhaps a few other security parameters like encryption keys.

When WLAN MAC access is enabled, however, the access point or router performs an additional check on a different parameter. Obviously the more checks that are made, the greater the likelihood of preventing network break-ins.

To set up WLAN MAC access rules, you as a WLAN administrator must configure a list of clients that will be allowed to join the network.

### 2.4G WLAN ACCESS RULES

You can allow and deny the access to your WLAN for specific MAC Addresses (one address per rule / form at of MAC Address: aa:aa:aa:aa:aa:aa).

#### WLAN ACCESS RULES

**Existing SSIDs :** dlink-2877AL-z ▼

**WLAN Access Policy :**  Disabled  
 Only **allow** computers listed to access wireless network.  
 Only **deny** computers listed to access wireless network.

Apply

#### ADD WLAN ACCESS RULES

**MAC Address :** 00:00:00:00:00:00

Apply

## 5 G WLAN Access Rules

Without WLAN MAC access restriction, any WLAN client can join (authenticate with) a Wi-Fi network if they know the network name (also called the SSID) and perhaps a few other security parameters like encryption keys.

When WLAN MAC access is enabled, however, the access point or router performs an additional check on a different parameter. Obviously the more checks that are made, the greater the likelihood of preventing network break-ins.

To set up WLAN MAC access rules, you as a WLAN administrator must configure a list of clients that will be allowed to join the network.

### 5G WLAN ACCESS RULES

You can allow and deny the access to your WLAN for specific MAC Addresses (one address per rule / form at of MAC Address: aa:aa:aa:aa:aa:aa).

#### WLAN ACCESS RULES

**Existing SSIDs :** dlink-2877AL 5G-z ▼

**WLAN Access Policy :**  Disabled  
 Only **allow** computers listed to access wireless network.  
 Only **deny** computers listed to access wireless network.

Apply

#### ADD WLAN ACCESS RULES

**MAC Address :** 00:00:00:00:00:00

Apply

### 2.4G Multiple WLAN SSIDs

The SSID is name of your WLAN. Try to avoid using standard term, e.g. WLAN, as SSID.

The DSL-2877AL supports Multiple SSIDs so you can operate several WLAN in parallel.

#### 2.4G MULTIPLE SSIDS

The SSID is name of your WLAN. Do not use standard term, e.g. WLAN, as SSID.

#### ADD MULTIPLE WLAN SSIDS

SSID :

Isolate :

#### EXISTING SSIDS

SSID	Isolate	Remove	Edit
ss	Inactive	<input type="checkbox"/>	<input type="radio"/>
ttt	Inactive	<input type="checkbox"/>	<input type="radio"/>

### 5G Multiple WLAN SSIDs

The SSID is name of your WLAN. Try to avoid using standard term, e.g. WLAN, as SSID.

The DSL-2877AL supports Multiple SSIDs so you can operate several WLAN in parallel.

#### 5G MULTIPLE SSIDS

The SSID is name of your WLAN. Do not use standard term, e.g. WLAN, as SSID.

#### ADD MULTIPLE WLAN SSIDS

SSID :

Isolate :

#### EXISTING SSIDS

SSID	Isolate	Remove	Edit
dlink-2877AL5G-z	Inactive	<input type="checkbox"/>	<input type="radio"/>

## 2.4G WLAN Performance

Please note: The position of the DSL-2877AL may influence the performance, specially the range of the radio signal. Always change just one parameter and keep track of the effects.

### Threshold for Fragmentation

Default value: 2346. Threshold for breaking down of data packets; measured in bytes. Data packets large than 2,346 bytes are broken down before transmission. Generally there is no need to change this value, except for a huge packet error rate. Change the value within the range between 256 and 2,346.

Please note: Choosing a low value for fragmentation may result in bad data transfer rates.

## 5G WLAN Performance

Please note: The position of the DSL-2877AL may influence the performance, specially the range of the radio signal. Always change just one parameter and keep track of the effects.

### 2.4G WLAN PERFORMANCE

Please set up the performances of your Access Point. You can modify some of the parameters to obtain an improved performance.

#### WLAN PERFORMANCE

Signal-Interval :  msec.

Range: 20-1000, Standard: 100

DTIM :

Range: 1-255, Standard: 1

Transmitting Power :

Threshold for fragmentation :

Standard: 2346

### 5G WLAN PERFORMANCE

Please set up the performances of your Access Point. You can modify some of the parameters to obtain an improved performance.

#### WLAN PERFORMANCE

Signal-Interval :  msec.

Range: 40-1000, Standard: 100

DTIM :

Range: 1-255, Standard: 1

Transmitting Power :

Threshold for fragmentation :

Standard: 2346

## Virtual Server

To access the **Virtual Server** page, click on the **Advanced** menu link at the top, and then click on the **Virtual Server** menu link on the left.

On this page the user can configure advanced services related to the virtual server connectivity of this product.

The DSL-2877AL 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.

A Virtual Server is defined as service port. All requests to this port of your external IP address are forwarded to a certain internal IP address, e.g. requests via FTP or POP3. Enable firewall SPI before use virtual server. Use the Virtual Server to forward hack attacks via HTTP to your HTTP server in the DMZ.

### Example

You want to set up one FTP server, one Web server and an VPN server for your LAN.

Add 3 new rules:

Name of rule	Protocol	Start Port	End Port	IP Address
FTP server	TCP	21	21	192.168.1.5
Web server	TCP	80	80	192.168.1.6
VPN server	TCP	1723	1723	192.168.1.7

Link the IP addresses (see last column) with the new rules accordingly.

### Add a Rule

- Input data.
- Click on the "Apply" button.

### Edit a Rule

- Click on the radio box in the list entry.

**D-Link**

DSL-2877AL // SETUP ADVANCED MAINTENANCE STATUS HELP

**VIRTUAL SERVER**

This is the ability to open ports in your router and re-direct data through those ports to a single PC on your link local network.

**ADD VIRTUAL SERVER RULES**

Enable Virtual Server Rules:

Name: FTP

Internal IP: 192.168.1.2

Internal Start Port: 21

Internal End Port: 21

External Start Port: 10.1.1.22

External End Port: 21

Protocol Type: TCP

NAT Loopback:

Time:  Disable  Enable

Begin Time: 00:00

End Time: 00:00

Begin Day: Sun

End Day: Sun

Apply

**Helpful Hints...**

A Virtual Server is defined as service port. All requests to this port of your external IP address are forwarded to a certain internal IP address, e.g. requests via FTP or POP3. Disable firewall SPI before use virtual server.

More...



- Edit the rule in the top field

Click on the "Apply" button.

**Delete a Rule**

- Click on the checkbox in the list entry.
- Confirm the warning dialog by clicking on the "Remove Selected" button.

The rule will be deleted.

## Port Trigger

To access the **Port Trigger** page, click on the **Advanced** menu link at the top, and then click on the **Port Trigger** menu link on the left.

On this page the user can configure services related to the port trigger feature of this product.

In this section we can create a new port triggering rule.

**Enable Port Trigger:** Enable or disable port trigger.

**Name:** Enter the name of the port trigger.

**Trigger Port Start:** Enter the starting trigger port number here.

**Trigger Port End:** Enter the ending trigger port number here.

**Trigger Protocol Type:** Select the trigger protocol used here. Options to choose from are **All Protocol**, **TCP**, and **UDP**.

**Open Port Start:** Enter the starting open port number here.

**Open Port End:** Enter the ending open port number here.

**Open Protocol Type:** Select the open protocol used here. Options to choose from are **All protocol**, **TCP**, and **UDP**.

Click the **Apply** button to accept the changes made.

The screenshot displays the D-Link web interface for the DSL-2877AL modem router. The top navigation bar includes 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'ADVANCED' menu is selected, and the 'PORT TRIGGER' sub-menu is active. The left sidebar lists various configuration options, with 'Port Trigger' highlighted. The main content area shows the 'PORT TRIGGER' configuration page. It features a 'Helpful Hints...' section on the right and a 'More...' link. The configuration fields include: 'Enable Port Trigger' (radio buttons for Disabled and Enabled, with Enabled selected), 'Name' (text input field with 'FTP'), 'Trigger Port Start' (text input field with '2121'), 'Trigger Port End' (text input field with '2121'), 'Trigger Traffic Protocol Type' (dropdown menu with 'All Protocol' selected), 'Open Port Start' (text input field with '21'), 'Open Port End' (text input field with '21'), and 'Open Traffic Protocol Type' (dropdown menu with 'All Protocol' selected). An 'Apply' button is located at the bottom right of the configuration area. The bottom of the sidebar contains 'Reboot' and 'Logout' buttons.

## DMZ

To access the **DMZ** page, click on the **Advanced** menu link at the top, and then click on the **DMZ** menu link on the left.

On this page the user can configure services related to the DMZ feature of this product.

**Enable DMZ:** Enable or disable the DMZ function.

**Interface:** Select the interface for the DMZ function.

**IP Address:** Enter the internal IP address for the DMZ function.

The screenshot shows the D-Link web interface for the DSL-2877AL modem router. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains a menu with options like Advanced Wireless, Virtual Server, Port Trigger, DMZ, Parental Control, IP & MAC Filtering, DSL Line Settings, Firewall, DNS, Dynamic DNS, Network Tools, Routing, URL Redirect, and Internet Offline. The main content area is titled 'DMZ (EXPOSED HOST)' and contains the following settings:

- Enable DMZ:** Radio buttons for Disable and Enable (Enable is selected).
- Interface:** A dropdown menu set to 'PVC0'.
- IP Address:** A text input field containing '192.168.1.2'.
- Time:** Radio buttons for Disable and Enable (Disable is selected).
- Begin time:** Two dropdown menus for hours and minutes, both set to '00'.
- End time:** Two dropdown menus for hours and minutes, both set to '00'.
- Begin day:** A dropdown menu set to 'Sun'.
- End day:** A dropdown menu set to 'Sun'.

Below the settings is an 'Apply' button. To the right of the settings is a 'Helpful Hints...' section with text explaining DMZ and demilitarized zones.

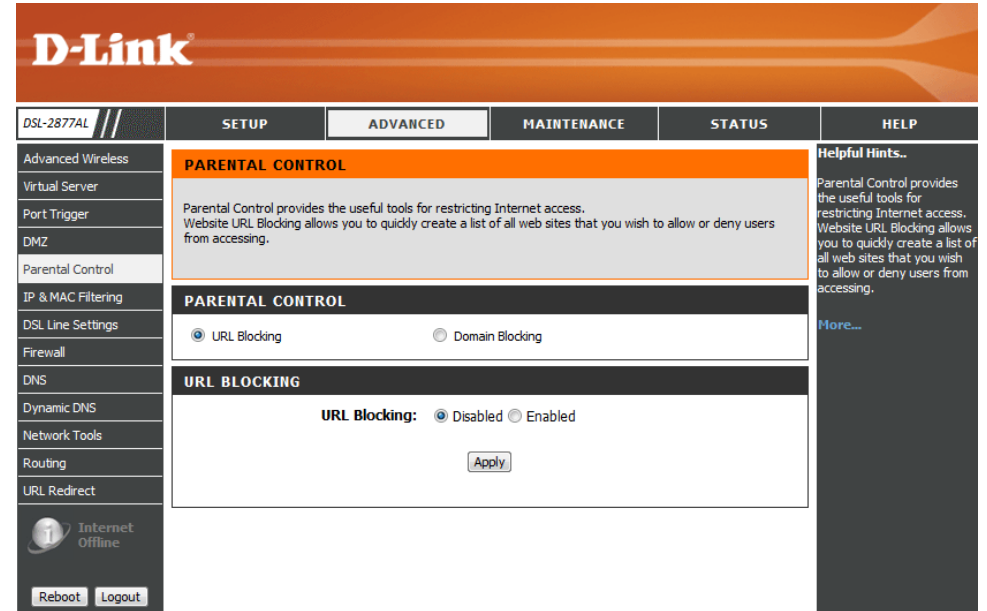
## Parental Control

To access the **Parental Control** page, click on the **Advanced** menu link at the top, and then click on the **Parental Control** menu link on the left.

Parental Control provides the useful tools for restricting Internet access.

Website URL Blocking allows you to quickly create a list of all web sites that you wish to allow or deny users from accessing.

On this page the user can configure services related to the parental control feature of this product.



### URL Blocking

To select the URL Blocking option to configure the URL blocking function for the router.



- URL Blocking:** Enable or disable the URL blocking function for the router.
- Default Policy Rule:** Configure the default policy rule for all URL blocking entries.
- Active:** Activate or deactivate the URL blocking entry.
- Access Rule:** Configure the access rule as Allow or Deny for the URL blocking entry.
- Name:** Enter the URL Blocking name for the URL blocking entry.
- URL Keyword:** Enter the URL keyword for the URL blocking entry.
- MAC Address:** Enter the MAC address you want to allow or deny.

Click **Apply** button to commit the configuration.

### URL BLOCKING

**URL Blocking:**  Disabled  Enabled

**Default Policy Rule:**  ACCEPT  DROP

**Active :**

**Access Rule:**  Allow  Deny

**Name :**

**URL Keyword :**

**MAC Address :**

**Time :**  Disable  Enable

**Begin Time :**  :

**End Time :**  :

**Begin Day :**

**End Day :**

To show the existing URL blocking entries

### EXISTING URL BLOCKING

Active	Name	URL Keyword	MAC Address	Access Rule	Remove	Edit
Active	Yahoo	yahoo	00-24-E8-83-30-18	⊘	<input type="checkbox"/>	<input type="checkbox"/>

### Domain Blocking

To select the Domain Blocking option to configure the domain blocking function for the router.

### PARENTAL CONTROL

URL Blocking  Domain Blocking

**Domain Blocking:** Enable or disable the domain blocking function for the router.

**Default Policy Rule:** Configure the default policy rule for all domain blocking entries.

**Active:** Activate or deactivate the domain blocking entry.

**Access Rule:** Configure the access rule as Allow or Deny for the domain blocking entry.

**Name:** Enter the Domain Blocking name for the domain blocking entry.

**URL Keyword:** Enter the domain keyword for the domain blocking entry.

**MAC Address:** Enter the MAC address you want to allow or deny.

Click **Apply** button to commit the configuration.

**DOMAIN BLOCKING**

**Domain Blocking:**  Disabled  Enabled

**Default Policy Rule:**  ACCEPT  DROP

**Active :**

**Access Rule:**  Allow  Deny

**Name :**

**Domain Keyword :**

**Time :**  Disable  Enable

**Begin Time :**  :

**End Time :**  :

**Begin Day :**

**End Day :**

To show the existing Domain blocking entries

**EXISTING DOMAIN BLOCKING**

Active	Name	Domain Keyword	Access Rule	Remove	Edit
Active	Yahoo	yahoo.com			

## IP & MAC Filtering

To access the **IP & MAC Filtering** page, click on the **Advanced** menu link at the top, and then click on the **IP & MAC Filtering** menu link on the left.

On this page the user can configure services related to the IP & MAC Filtering feature of this product.

The screenshot shows the D-Link router's web interface. At the top, there is a navigation bar with tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The ADVANCED tab is selected. On the left side, there is a sidebar menu with various configuration options, including IP & MAC Filtering, which is highlighted. The main content area is titled 'FILTER' and contains a description of the feature. Below this, there is a 'FILTER TYPE' section with two radio buttons: 'IP Filters' (selected) and 'MAC Filters'. The 'ADD FILTER' section includes fields for Name, Protocol, Source IP Address, Destination IP Address, Destination Ports, Time (Disable/Enable), Begin Time, End Time, Begin Day, and End Day. An 'Apply' button is located at the bottom of the 'ADD FILTER' section. On the right side, there is a 'Helpful Hints..' section with additional information and a 'More...' link.

### IP Filter

To select the IP Filter option to configure the IP filter function for the router.

This close-up shows the 'FILTER TYPE' section of the configuration page. It features two radio buttons: 'IP Filters' (which is selected) and 'MAC Filters'.

To select the IP Filter option to configure the URL blocking function for the router.

In this section we can create a new Inbound Filtering rule.

**Enable IP Filters:** enable or disable the IP filters function

**Name:** Enter the Inbound filtering rule name here.

**Protocol:** Select the protocol used from the list. Options to choose from are ANY, TCP, UDP, and ICMP.

**Source IP address:** Select the source IP address type, it includes: Any IP Address, Single IP, and Specify IP address (Range).

**Destination IP address:** Select the destination IP address type, it includes: : Any IP Address, Single IP, Specify IP address (Range).

**Destination Port:** Select the destination port type here.

Click the **Apply** button to accept the changes made.

### ADD FILTER

**Enable IP Filters :**

**Name :**

**Protocol :**

**Source IP Address :**

**IP Address :**

**Destination IP Address :**

**IP Address :**

**Destination Ports :**

**port :**

**Time :**  Disable  Enable

**Begin Time :**  :

**End Time :**  :

**Begin Day :**

**End Day :**

To show the existing IP Filter entries

### EXISTING FILTER

Status	Name	Protocol	Source	Destination	Dest. Port	Remove	Edit
Active	FTP	TCP	192.168.1.2	10.1.1.22	21	<input type="button" value="Remove"/>	<input type="button" value="Edit"/>



### MAC Filter

To select the MAC Filter option to configure the MAC filter function for the router.

**FILTER TYPE**

IP Filters
  MAC Filters

To select the IP Filter option to configure the URL blocking function for the router.

In this section we can create a new Inbound Filtering rule.

**MAC Filters:** Enable or disable the IP filters function

**Default Policy Rule:** Select the default policy rule as Accept or Drop for all MAC filter entries.

**Active:** Activate or deactivate the MAC filter entry.

**Access Rule:** Configure the access rule as Allow or Deny for the MAC filter entry.

**Name:** Enter the MCA Filter name for the MAC filter entry.

**MAC Address:** Enter the MAC address you want to allow or deny.

**MAC FILTERS**

MAC Filters :  Disable  Enable

Default Policy Rule :  ACCEPT  DROP

Active :

Access Rule :  Allow  Deny

Name :

MAC Address :

Time :  Disable  Enable

Begin Time :  :

End Time :  :

Begin Day :

End Day :

Click the **Apply** button to accept the changes made.

To show the existing MAC Filter entries

**EXISTING MAC FILTERS**

Active	Name	MAC Address	Access Rule	Remove	Edit
Active	MAC_Filter1	00-24-E8-83-30-18	✔	<input type="checkbox"/>	<input checked="" type="radio"/>

## DSL Line Settings

To access the **DSL Line Settings** page, click on the **Advanced** menu link at the top, and then click on the **DSL Line Settings** menu link on the left.

On this page the user can configure services related to the DSL Line Settings feature of this product.

The screenshot displays the D-Link web interface for the DSL-2877AL modem router. The top navigation bar includes the D-Link logo and tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar menu lists various configuration options, with 'DSL Line Settings' highlighted. The main content area shows the 'DSL LINE SETTINGS' page, which includes a warning message and two dropdown menus for 'Modulation Mode' (set to 'Auto Sync-Up') and 'Type' (set to 'Annex A'). An 'Apply' button is located below the dropdowns. A 'Helpful Hints...' section on the right provides additional information about the settings.

DSL-2877AL //	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Advanced Wireless	<b>DSL LINE SETTINGS</b>				<b>Helpful Hints..</b> Do not change these settings unless directed by your ISP. By default the D-Link router will determine your best connection. You do not need to change any settings unless instructed by D-Link Technical Support. <a href="#">More...</a>
Virtual Server	The DSL Line settings allow you to choose which ADSL modulation settings your modem router will support. D-Link do not recommend that you change these settings unless directed to do so by your ISP.				
Port Trigger	<b>DSL LINE SETTINGS</b>				
DMZ	Modulation Mode: Auto Sync-Up				
Parental Control	Type: Annex A				
IP & MAC Filtering	<input type="button" value="Apply"/>				
DSL Line Settings					
Firewall					
DNS					
Dynamic DNS					
Network Tools					
Routing					
URL Redirect					
Internet Offline					
<input type="button" value="Reboot"/> <input type="button" value="Logout"/>					

## Firewall

To access the **Firewall** page, click on the **Advanced** menu link at the top, and then click on the **Firewall** menu link on the left.

On this page the user can configure services related to the Firewall feature of this product.

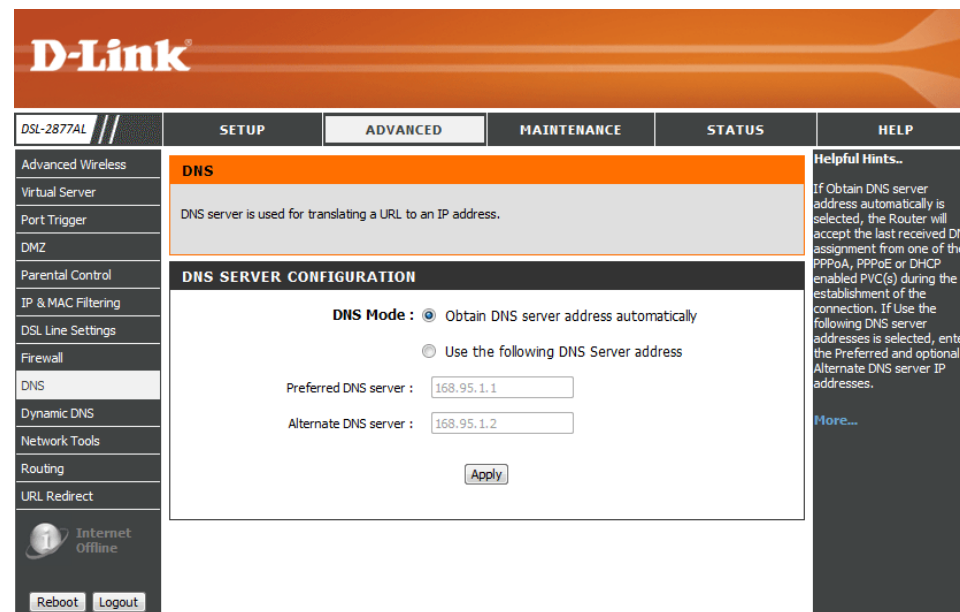
The screenshot shows the D-Link web user interface for the Firewall configuration page. The interface has a dark grey sidebar on the left with a menu of options including Advanced Wireless, Virtual Server, Port Trigger, DMZ, Parental Control, IP & MAC Filtering, DSL Line Settings, Firewall (selected), DNS, Dynamic DNS, Network Tools, Routing, and URL Redirect. At the bottom of the sidebar, there is an 'Internet Offline' indicator and 'Reboot' and 'Logout' buttons. The main content area has a top navigation bar with 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP' tabs. The 'ADVANCED' tab is active, and the 'FIREWALL' sub-tab is selected. The page title is 'D-Link' and the device model is 'DSL-2877AL //'. The main content area is divided into sections: a top section with the title 'FIREWALL' and a description: 'Firewall Rules can be used to allow or deny traffic from passing through the device. As opened the SPI, All requests from the wan side will be rejected.' Below this is the 'FIREWALL TYPE' section with two radio buttons: 'IPv4 Firewall' (selected) and 'IPv6 Firewall'. The main configuration area is titled 'FIREWALL' and contains a list of checkboxes for enabling various security features: 'Enable SPI', 'Enable DOS and Portscan Protection', 'SYN flood attack', 'SYN/RST attack', 'SYN/FIN attack', 'FIN/URG/PSH attack', 'Xmas attack', 'Null scanning attack', 'Ping flood/Ping of Death attack', and 'UDP flood attack'. An 'Apply' button is located at the bottom right of this section. On the right side of the page, there is a 'Helpful Hints..' section with a brief explanation of a firewall and a 'More...' link.

## DNS

To access the **DNS** page, click on the **Advanced** menu link at the top, and then click on the **DNS** menu link on the left.

On this page the user can configure services related to the DNS feature of this product.

If Obtain DNS server address automatically is selected, the Router will accept the last received DNS assignment from one of the PPPoA, PPPoE or DHCP enabled PVC(s) during the establishment of the connection. If Use the following DNS server addresses is selected, enter the Preferred and optional Alternate DNS server IP addresses.



In this section we can configure the DNS Server Configuration.

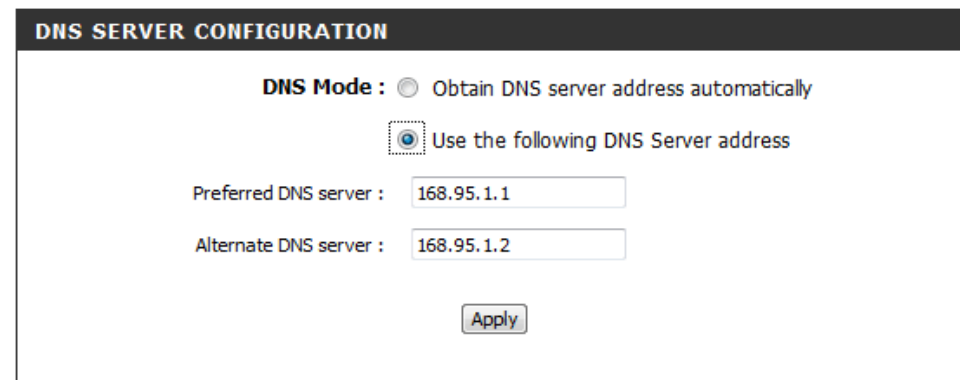
**Obtain DNS server address automatically:** Select this option to obtain DNS information automatically.

**Use the following DNS Server address:** Select this option to use DNS IP addresses.

**Preferred DNS server:** Enter the preferred DNS server IP address here.

**Alternate DNS server:** Enter the alternate DNS server IP address here.

Click the **Apply** button to accept the changes made.



## Dynamic DNS

To access the **Dynamic DNS** page, click on the **Advanced** menu link at the top, and then click on the **Dynamic DNS** menu link on the left.

On this page the user can configure services related to the Dynamic DNS feature of this product.

To use Dynamic DNS you have to register at a DDNS provider (dyndns.org (<http://www.dyndns.org>) or no-ip.com (<http://www.no-ip.com>)) beforehand.

With DDNS the dynamic IP address of your computer will be resolved to a permanent host name.

- Enable the "Dynamic DNS" option.
- Select the DNS Server.
- In the "User name" field enter the user name for your DDNS account.
- In the "Password" and "Confirm Password" fields enter the password for your DDNS account.
- In the "Hostname" field enter the hostname as set up for your DDNS account.

The screenshot displays the D-Link web interface for configuring Dynamic DNS. At the top, the D-Link logo is visible. Below it, a navigation bar includes links for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains a menu with options like Advanced Wireless, Virtual Server, Port Trigger, DMZ, Parental Control, IP & MAC Filtering, DSL Line Settings, Firewall, DNS, Dynamic DNS (highlighted), Network Tools, Routing, and URL Redirect. At the bottom of the sidebar are 'Reboot' and 'Logout' buttons. The main content area is titled 'DYNAMIC DNS' and contains a descriptive paragraph: 'The Dynamic DNS feature allows you to host a server (Web, FTP, Game Server, etc...) using a domain name that you have purchased (www.whateveryournameis.com) with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IP addresses. Using a DDNS service provider, your friends can enter your host name to connect to your game server no matter what your IP address is.' Below this is the 'DYNAMIC DNS SETTINGS' section, which includes a 'Dynamic DNS Settings' toggle set to 'Disable', a 'DDNS Server' dropdown menu set to 'www.dyndns.org', and input fields for 'User name', 'Password', and 'Confirm Password'. A 'Hostname' field is also present. The 'Status' is indicated as 'Failed'. An 'Apply' button is located at the bottom of the settings section. On the right side of the page, there is a 'Helpful Hints...' section with a link to 'More...'. The status bar at the bottom left shows 'Internet Offline'.

## Network Tools

To access the **Network Tools** page, click on the **Advanced** menu link at the top, and then click on the **Network Tools** menu link on the left.

On this page we can use various Network tools to set up and administer the network.

The screenshot shows the D-Link web interface for the DSL-2877AL. The top navigation bar includes 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar lists various configuration options, with 'Network Tools' selected. The main content area displays four network tool sections: QoS, UPnP, SNMP, and Samba. Each section includes a brief description and a configuration button.

DSL-2877AL	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Advanced Wireless	<b>NETWORK TOOLS -- QoS</b> Allows you to manually configure special routes that your network might need. <input type="button" value="QoS"/>				
Virtual Server	<b>NETWORK TOOLS -- UPnP</b> Allows you to configure UPnP. <input type="button" value="UPnP"/>				
Port Trigger	<b>NETWORK TOOLS -- SNMP</b> Allows you to configure SNMP. <input type="button" value="SNMP"/>				
DMZ	<b>NETWORK TOOLS -- SAMBA</b> Allows you to configure Samba. <input type="button" value="Samba"/>				
Parental Control					
IP & MAC Filtering					
DSL Line Settings					
Firewall					
DNS					
Dynamic DNS					
Network Tools					
Routing					
URL Redirect					
Internet Offline	<input type="button" value="Reboot"/> <input type="button" value="Logout"/>				

## QoS

This option will provide better service of selected network traffic over various technologies.

### 802.1p

Select this option to Activate/Deactivated the 802.1p IEEE 802.1p establishes eight levels of priority (0 ~ 7). Although network managers must determine actual mappings, IEEE has made broad recommendations. Seven is the highest priority which is usually assigned to network-critical traffic such as Routing Information Protocol (RIP) and Open Shortest Path First (OSPF) table updates. Five and six are often for delay-sensitive applications such as interactive video and voice. Data classes four through one range from controlled-load applications such as streaming multimedia and business-critical traffic - carrying SAP data, for instance - down to "loss eligible" traffic. Zero is used as a best-effort default priority, invoked automatically when no other value has been set.

### IP QoS

Select this option to Activated/Deactivated the IP QoS on different types (IP ToS and DiffServ). IP QoS function is intended to deliver guaranteed as well as differentiated Internet services by giving network resource and usage control to the Network operator.

### Applications QoS

Select this option to Activated/Deactivated the different application packets prioritized on the queues.

### VLAN Group QOS

Select this option to Activated/Deactivated the 4094 VID on the 4 different queues. VID (VLAN ID) is the identification of the VLAN, which is basically used by the standard 802.1Q. It has 12 bits and allow the identification of 4096 ( $2^{12}$ ) VLANs. Of the 4096 possible VIDs, a VID of 0 is used to identify priority frames and value 4095 (FFF) is reserved, so the maximum possible VLAN configurations are 4,094.

**IP QoS CONFIGURATION**

QoS :  Activated  Deactivated

Discipline :  WRR  Strict Priority

WRR weight : Highest: 8 High: 4 Medium: 2 Low: 1 (valid: 1~15)

---

**Rule**

Rule Index : 0

Active :  Activated  Deactivated

Application : SIP

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
eth0	eth1	eth2	eth3
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ra0	ra1	ra2	ra3
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
rai0	rai1	rai2	rai3

Destination MAC : 08-00-27-00-BC-5E

IP : 10.1.1.2

Mask : 255.255.255.0

Port Range : 5060 ~ 5060

Source MAC : 00-24-E8-83-30-18

IP : 192.168.1.2

Mask : 255.255.255.0

Port Range : 1000 ~ 1000

Protocol ID : UDP

VLAN ID Range : 101 ~ 102

IPP/DS Field :  IPP/TOS  DSCP

IP Precedence Range : ~

Type of Service :

DSCP Range : 34 ~ 34 (Value Range: 0 ~ 63)

802.1p : 2 ~ 3

---

**Action**

IPP/DS Field :  IPP/TOS  DSCP

IP Precedence Remarking : 3

Type of Service Remarking : Normal service

DSCP Remarking : 63 (Value Range: 0 ~ 63)

802.1p Remarking : 6 Voice

Queue # : High

## UPnP

UPnP short for Universal Plug and Play is based on a series of standard network protocols and file formats. Via UPnP various devices, e.g. stereo system, router, printer, can be controlled manufacturer spanning over an IP based network.

## SNMP

SNMP is short for Simple Network Management Protocol. This protocol provides functionality for controlling and monitoring networks. Triggered by defined events, e.g. errors, the protocol will inform the administrator in an appropriate way.

### Get Community

Select to set the password for the incoming Get requests from the management station.

### Set Community

Select to set the password for incoming Set requests from the management station.

## UPNP & DLNA

UPnP enables the devices to dynamically join a network, obtain an IP address, convey its capabilities, and learn about the presence and capabilities of other devices - without a dedicated server.

## UPNP SETTINGS

**UPnP :**  Activated  Deactivated

**Auto-configured :**  Activated  Deactivated (by UPnP-enabled Application)

**UPnP AV(DLNA) :**  Activated  Deactivated

Apply

## SNMP

SNMP stands for Simple Network Management Protocol. This protocol provides functionalities for controlling and monitoring a network. It responds to specific incidents such as errors and notifies the administrator in an appropriate way.

## SNMP

**SNMP :**  Enable  Deactivated

**SNMPv3 :**  Activated  Disable

**Get Community :**

**Set Community :**

**Trap Manager IP :**

**Trap Manager IPv6 Address :**

Apply



## Samba

Samba allows you to enable USB storage samba.

**Samba:** Active or deactivate samba function for the router.

**Work Group:** Enter work group for the samba function.

**Net BIOS Name:** Enter the Net BIOS name for the samba.

**User account:** Enable or disable settings of the samba account.

**New Password:** Enter new password for the samba function.

**Confirm Password:** Enter confirm password for the samba function.

Click **SAVE** button to commit the configuration.

### SAMBA

Samba is the protocol by which a lot of PC related machines share files and printers and other information such as lists of available files and printers. Operating systems that support this natively include Windows 9x, Windows NT, OS/2, Mac OS X and Linux.

#### SAMBA SETUP

**Samba :**  Enable  Disable

**Work Group :**

**Net BIOS Name :**

**User account :**  Disable  Enable

**Username :**

**New Password :**

**Confirm Password :**

## Routing

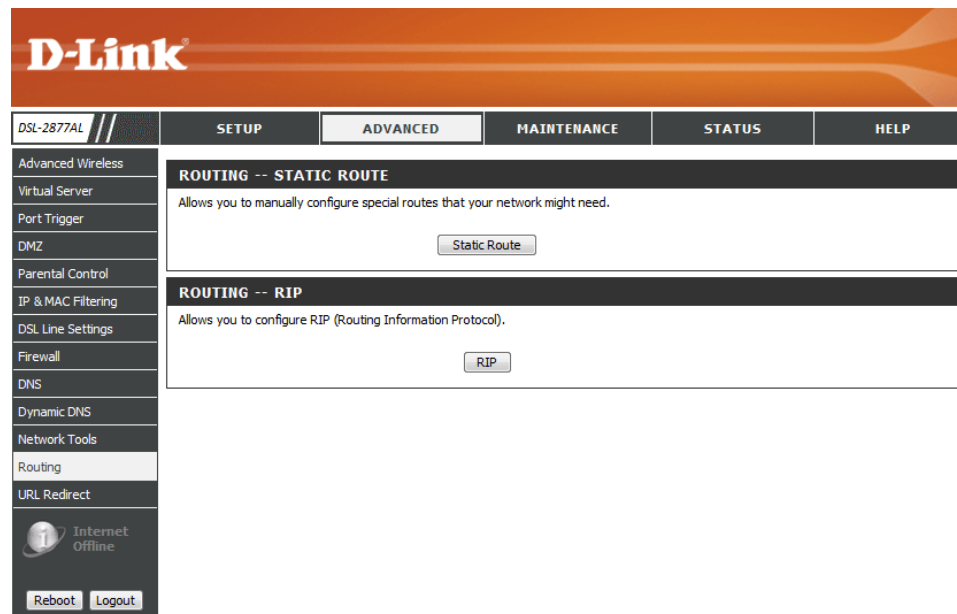
To access the **Routing** page, click on the **Advanced** menu link at the top, and then click on the **Routing** menu link on the left.

Routing protocols specify the ways (routes) of data packets in your LAN and in the Internet. Normally all out-bound data packets from your LAN will be send via a gateway, e.g. the DSL-2877AL, to the server of your ISP and into the internet accordingly. As the internet is based on packet-switching protocols, the way for each data packet is determined on every network knot anew.

Using Routing Tables you can assign routes for data packet into sub networks of your LAN.

The Static Routing Method is simple and therefor often used. Each knot maintains a table with one line for every possible destination knot. Every line holds information about which connection is best, second, etc. and a weight.

If a data packet has to be routed to a certain destination knot a connection according to the information is chosen, depending on the weight information as a chance to choose especially this connection.



### Static Routing

In this section, the following parameters can be configured:

**Destination Address:** Input the Destination Address.

**Destination Subnet Mask:** Input Destination Subnet Mask.

**Gateway IP Address:** Click either radio Button to input a gateway address or select from a drop down menu.

**Metric:** Input routing metric here.

**STATIC ROUTING**

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.

**ADD ROUTING**

**Destination Address :**

**Destination Subnet Mask :**

**Gateway IP Address :**

**Metric :**

In this section a list of static route entries will be displayed.

Click the **Add** button to add a new entry.

Select the **Remove** option and click the **Remove** button to remove the specific entry.

**ROUTING TABLE**

Network	Destination Subnet Mask	Device	Gateway IP Address	Metric	Remove	Edit
10.90.90.0	255.255.255.0		10.90.90.254	0	<input type="checkbox"/>	<input type="radio"/>
192.168.0.0	255.255.255.0	br0		0		
127.0.0.0	255.255.0.0	lo		0		

## **RIP**

The routing information protocol (RIP) is one of the most commonly used interior gateway protocol (IGP) routing protocols on internal networks (and to a lesser extent, networks connected to the Internet), which helps routers dynamically adapt to changes of network connections by communicating information about which networks each router can reach and how far away those networks are.

There is no need to activate this option normally.

### **RIP**

For the protocol RIP please define the routes for the traffic in your network in the routing table. You can specify the version of the protocol as well as the required direction of action.

### **RIP**

**Enable RIP :**

**WAN :**

**Wan Interface :** PVC1 ▾

**Dynamic Route :** RIP1 ▾

**LAN :**

**Dynamic Route :** RIP1 ▾

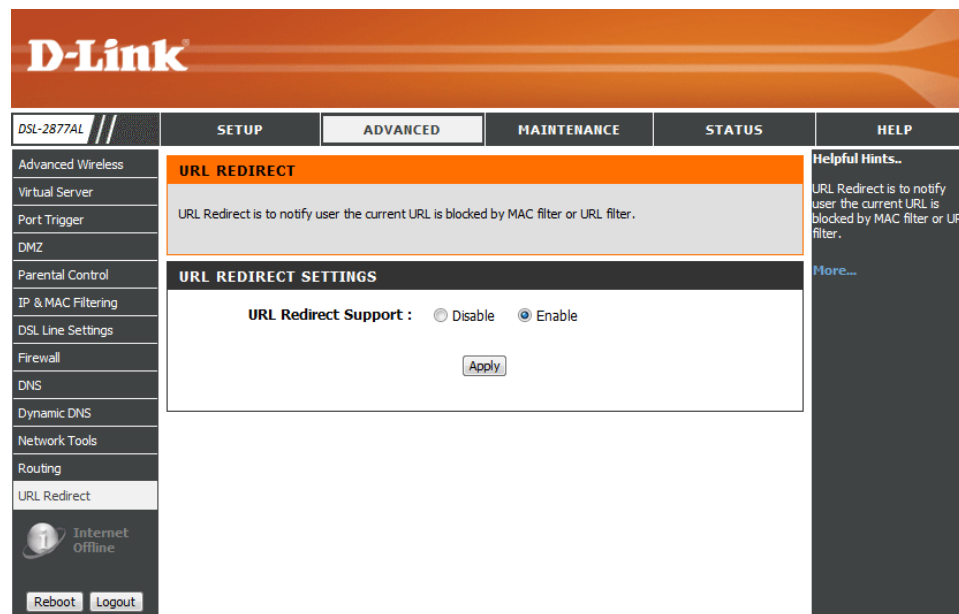
Apply

## URL Redirect

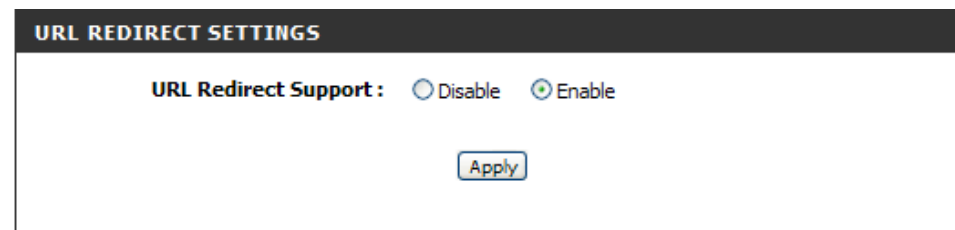
To access the **URL Redirect** page, click on the **Advanced** menu link at the top, and then click on the **URL Redirect** menu link on the left.

On this page the user can configure services related to the URL Redirect feature of this product.

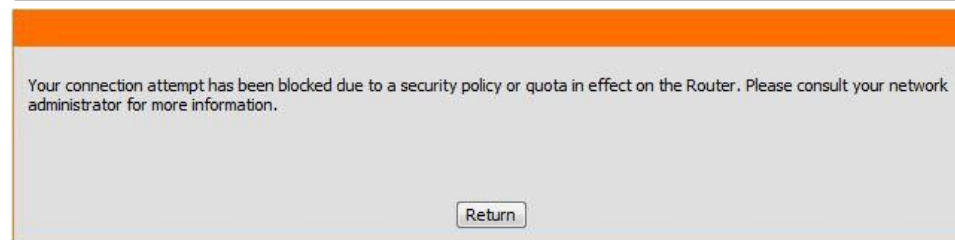
URL Redirect is to notify user the current URL is blocked by MAC filter or URL filter.



Select this option to enable or disable the URL Redirect feature.



This page to notify the user of the current URL is blocked by MAC filter or URL filter.



## Maintenance Category

The **Maintenance** category is designed to assist the user with maintenance configurations for this product.

The following pages can be found in the **Maintenance** category:

- [Administrator](#) - Here you can change the password for the administrator. The username (admin) cannot be changed.
- [Access Control](#) - On this page the user can configure access control for WAN and LAN interface of this product.
- [System Settings](#) - All settings will be automatically saved to your DSL-2877AL. There is no need to manually save or reboot. If you want to restart the device anyway, it is better done via the "Reboot" button.
- [Firmware Update](#) - On this page the user can update the running firmware for this product.
- [Diagnostics](#) - The diagnostics feature executes a series of test of your system software and hardware connections. Use the feature when working with your ISP to troubleshoot problems.
- [System Log](#) - On this page we can view and initiate a firmware update for this router. The system Log allows you to configure local and remote, and to view the logs that have been created.

The screenshot displays the D-Link web interface for the DSL-2877AL. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE (selected), STATUS, and HELP. The left sidebar lists various configuration options: Administration, Access Control, System Settings, Firmware Update, Diagnostics, and System Log. The main content area is titled "ADMINISTRATOR" and contains the following text: "Here you can change the password for the administrator. The username (admin) can not be changed." Below this, the "ADMINISTRATOR SETTINGS" section includes input fields for Username (pre-filled with "admin"), Password, and Confirm Password, along with an "Enable Captcha" checkbox. An "Apply" button is located at the bottom of the settings section. On the right side, a "Helpful Hints" section provides security advice: "For security reasons, it is recommended that you change the password for the Admin accounts. Be sure to write down the new password to avoid having to reset the router incase they are forgotten." A "More..." link is also visible.

## Administrator

To access the **Administrator** page, click on the **Maintenance** menu link at the top, and then click on the **Administrator** menu link on the left.

On this page we can configure the administrator settings of this router.

In this section, the following parameters can be configured:

**Password:** Enter the new Web UI login password here.

**Confirm Password:** Enter the new Web UI login password here again to verify.

**Enable Captcha:** Enable or disable the graphic login authentication for this router here.

Click the **Apply** button to accept the changes made

This login page to display the graphic login authentication for this router.

**ADMINISTRATOR**

Here you can change the password for the administrator.  
The username (*admin*) can not be changed.

**ADMINISTRATOR SETTINGS**

Username :

Password :

Confirm Password :

Enable Captcha :

Apply

**LOGIN**

Login in to the router

Username :

Password :

Captcha :

refresh

Login

## Access Control

To access the **Access Control** page, click on the **Maintenance** menu link at the top, and then click on the **Access Control** menu link on the left.

On this page the user can configure access control for WAN and LAN interface of this product.

The screenshot displays the D-Link web management interface for the DSL-2877AL. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE (selected), STATUS, and HELP. The left sidebar contains a menu with options like Administration, Access Control (selected), System Settings, Firmware Update, Diagnostics, and System Log. Below the menu are 'Internet Online' status indicators and 'Reboot'/'Logout' buttons. The main content area is titled 'ACCESS CONTROL' and contains a message: 'You can control the device DSL-2877AL special protocols from LAN and WAN at this page. The http for lan can not be changed.' Below this is the 'ACCESS CONTROL TYPE' section with radio buttons for IPv4 (selected) and IPv6. The 'ACCESS CONTROL SETTINGS' section includes 'Access From' (WAN selected, LAN unselected), 'Access Rules' (Disable selected, Enable unselected), and an 'IP Address' field set to 0.0.0.0. A list of protocols with checkboxes and port number input fields is shown: HTTP (Port: 8080), HTTPS (Port: 443), TELNET (Port: 23), SSH (Port: 22), FTP (Port: 21), TFTP (Port: 69), SNMP, and PING. An 'Apply' button is located at the bottom of the settings area. On the right side, there is a 'Helpful Hints...' section with a 'More...' link.



In this section we can configure the access control account information.

**Access From:** Specify the access interface for this router here.

**Access Rules:** Enable or disable the access rules for this router here.

**IP Address:** Enter the IP address for this router here, it specify which IP address can access the router.

**Access Control Services:** Specify the access services for this router here, it includes services: **HTTP**, **TELNET**, **SSH**, **FTP**, **TFTP**, **SNMP** and **PING**.

Click the **Apply** button to accept the changes made.

### ACCESS CONTROL

You can control the device *DSL-2875AL* special protocols from LAN and WAN at this page.  
The http for lan can not be changed.

#### ACCESS CONTROL SETTINGS

**Access From :**  WAN  LAN

**Access Rules :**  Disable  Enable

**IP Address :**

**HTTP :**  Port :

**TELNET :**  Port :

**SSH :**  Port :

**FTP :**  Port :

**TFTP :**  Port :

**SNMP :**

**PING :**

Apply

## System Settings

To access the **System Settings** page, click on the **Maintenance** menu link at the top, and then click on the **System Settings** menu link on the left.

On this page the user can perform maintenance concerning the System. Services available for configuration are **Save and System Reboot**, **Save Setting To Local Hard Drive**, **Backup and Restore Settings**, **Restore to Factory Default Settings**.

The screenshot shows the D-Link web interface for the DSL-2877AL. The top navigation bar includes 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar lists 'Administration', 'Access Control', 'System Settings', 'Firmware Update', 'Diagnostics', and 'System Log'. The 'System Settings' page displays a 'SYSTEM' section with a warning: 'All settings will be automatically saved to your DSL-2877AL. There is no need to manually save or reboot. If you want to restart the device anyway, it is better done via the "Reboot" button.' Below this are four main sections: 'Save and Reboot the device' with a 'Reboot' button; 'Save Settings To Local Hard Drive' with a 'Save' button; 'Load Settings From Local Hard Drive' with a file selection field and an 'Upload Settings' button; and 'Restore To Factory Default Settings' with a 'Restore Device' button. A 'Helpful Hints' sidebar on the right explains that the system page allows for rebooting, restoring to factory defaults, and backing up settings.

**Save and Reboot the Device:** All settings will be automatically saved to the DSL-2877AL. There is no need to manually save or reboot.

**Local Hard Driver.** You will be prompted to select a location on your computer to put the file. The file type is bin and may be named anything you wish.

**Backup Settings:** Once you have configured the router to your satisfaction, it is a good idea to back up the configuration file to your computer. To save the current configuration settings to your computer, click the **Save** button of **Save Settings to Restore Settings:** To load a previously saved configuration file, click the **Browse** button of **Load Settings from Local Hard Driver** and locate the file on your computer. Click the **Upload Settings** button to load the settings from your local hard drive. Confirm that you want to load the file when prompted. The router will reboot and begin operating with the configuration settings that have just been loaded

**Restore to Factory Default Settings:** Restore the default settings if the DSL-2877AL does not work properly after an abortive configuration Click on the "Restore"

This is a close-up view of the 'SYSTEM SETTINGS' section from the screenshot above. It clearly shows the four main configuration options: 'Save and Reboot the device' with a 'Reboot' button; 'Save Settings To Local Hard Drive' with a 'Save' button; 'Load Settings From Local Hard Drive' with a file selection field and an 'Upload Settings' button; and 'Restore To Factory Default Settings' with a 'Restore Device' button.

button. If the admin's password is lost you can no longer manage the DSL-2877AL. Use the restore switch at the back of the device. Warning! When you select to restore the Default Settings you will lose any settings defined before.

**Default Values**

IP address: http://192.168.1.1.

User name: admin

Password: admin

## Firmware Update

To access the **Firmware Update** page, click on the **Maintenance** menu link at the top, and then click on the **Firmware Update** menu link on the left.

The Firmware update section can be used to update to the latest firmware code to improve functionality and performance. To update the firmware, follow these steps:

Click the "Browse" button to locate the D-Link update file on your computer.

Once you have found the file to be used, click the "update" button below to start the firmware update process. This can take a minute or more.

Wait for the router to reboot. This can take another minute or more.

**Note:** Some firmware updates reset the configuration options to the factory defaults. Before performing an update, be sure to save the current configuration from the Maintenance->System Settings screen.

The screenshot displays the D-Link web management interface for the DSL-2877AL router. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE (selected), STATUS, and HELP. The left sidebar contains a menu with options: Administration, Access Control, System Settings, Firmware Update (selected), Diagnostics, and System Log. Below the menu are 'Reboot' and 'Logout' buttons, and an 'Internet Online' indicator.

The main content area is titled 'FIRMWARE UPGRADE' and contains the following instructions:

- Step 1: Obtain an updated software image file from your ISP.
- Step 2: Enter the path to the image file location in the box below or click the "Browse" button to locate the image file.
- Step 3: Click the "Update" button once to upload the new image file.

A note states: "Note: The update process takes about 2 minutes to complete, and your Router will reboot."

Below the instructions is a 'FIRMWARE INFORMATION' section showing:

- Current Firmware Version: 1.00.00
- Firmware Date: 03072014

At the bottom is a 'FIRMWARE UPDATE' section with a file input field, a '浏览...' (Browse) button, and an 'Update' button.

On the right side, there is a 'Helpful Hints..' section with text: "Firmware updates are released periodically to improve the functionality of your router and also to add features. If you run into a problem with a specific feature of the router, check our support site by clicking on the link and see if an updated firmware is available for your router." and a 'More...' link.

## Diagnostics

To access the **Diagnostics** page, click on the **Maintenance** menu link at the top, and then click on the **Diagnostics** menu link on the left.

The Diagnostic Test page shows the test results for the connectivity of the physical layer and protocol layer for both LAN and WAN sides.

**D-Link**

DSL-2877AL // SETUP ADVANCED MAINTENANCE STATUS HELP

Administration  
Access Control  
System Settings  
Firmware Update  
Diagnostics  
System Log

Internet Online

Reboot Logout

**TOOL TEST**

The diagnostics feature executes a series of test of your system software and hardware connections. Use the feature when working with your ISP to troubleshoot problems.

**DIAGNOSTIC TEST**

Virtual Circuit: PVC0 [Test] [Print] [Save]

**Testing Circuit for LAN Connection**

Testing Ethernet LAN connection:	N/A
Testing Wireless 2.4g connection:	N/A
Testing Wireless 5g connection:	N/A

**Testing Circuit for Network Connection**

Testing xDSL Synchronization:	N/A
Testing ATM OAM segment ping:	N/A
Testing ATM OAM end to end ping:	N/A

**Testing Internet Connectivity**

Ping Primary Domain Names Server:	N/A
-----------------------------------	-----

**Helpful Hints..**  
The tests on this page can be used to verify whether or not your router is working correctly.  
[More...](#)

In this section diagnostic tests are performed to test the connection to the **Local Network** interface and **DSL Service Provider**. This test will include testing the **Ethernet, Wireless** connections, **ATM OAM**, and **Internet Connectivity** of this router.

### DIAGNOSTIC TEST

Interface : PVC1 Test Print Save

Testing Circuit for LAN Connection	
Testing Ethernet LAN Physical Port Link State:	PASS
Testing Wireless 2.4g connection	Fail
Testing Wireless 5g connection	Fail

Testing Circuit for Network Connection	
Testing xDSL Synchronization	PASS
Testing ATM OAM segment ping	PASS
Testing ATM OAM end to end ping	PASS

Testing Internet Connectivity	
Ping Primary Domain Names Server:	PASS

## System Log

To access the **System Log** page, click on the **Maintenance** menu link at the top, and then click on the **System Log** menu link on the left.

On this page the user can View and Configure the System Log used by this product.

**SYSTEM LOG**

The system Log allows you to configure local and remote, and to view the logs that have been created.

**SAVE LOG FILE**

Save Log File To Local Hard Driver :

Clear the Log info :

**LOG TYPE**

Display Level :

**REMOTE LOG SETTING**

Log Enable :

Remote Log Server IP :

**Helpful Hints.**

You can set both the Log Level and Display Level to match your needs, with Emergency as the highest level and Debugging as the lowest.

[More...](#)

In this section we can save the **System Log** file to the computer for this router, or clear the log info for this router.

In this section we can select the System Log Type option here. Options to choose from are **Emergency**, **Alert**, **Critical**, **Error**, **Warning**, **Notice**, **Information**, and **Debug**.

**SAVE LOG FILE**

Save Log File To Local Hard Driver :

Clear the Log info :

**LOG TYPE**

Display Level :

In this section we can configure the Remote System Log Server for this router.

**Log Enable:** Specify the Remote log state here. Options to choose from are **Disable** and **Enable**.

**Remote Log Server IP:** Enter IPv4 or IPv6 IP address for the remote System log server.

**REMOTE LOG SETTING**

Log Enable :	<input checked="" type="checkbox"/>
Remote Log Server IP :	192.168.0.111

Click the **Apply** button to accept the changes made.

After clicking the **View Log** button, the following page is available. Please refer to **System Log of Status** section.

D-Link

DSL-2877AL //	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
---------------	-------	----------	-------------	--------	------

Device Info

System Log

Statistics

Internet Online

Reboot
Logout

SYSTEM LOG

System Log stores internal system informations.

LOG SERVER

Log Server : Disable  
 Log Server Address : N/A

LOG FILES

First Page
Last Page
Previous
Next
Refresh

Time	Event
Jan 4 21:59:55   syslog.info -- MARK --	
Jan 4 22:00:18   user.warn kernel: hostname = android-123bd56de7552f69, buf = New User is online	
Jan 4 22:12:59   user.warn kernel: Link State: LAN_4 up.	
Jan 4 22:13:24   user.warn kernel: Link State: LAN_4 down.	
Jan 4 22:13:27   user.warn kernel: Link State: LAN_4 up.	
Jan 4 22:19:55   syslog.info -- MARK --	
Jan 4 22:28:32   user.warn kernel: ----WLAN 2.4G---Client d0:22:be:68:c0:3d leave or auth fail, pEntry->AuthMode = 0	
Jan 4 22:39:55   syslog.info -- MARK --	

Helpful Hints..

System Log stores internal system informations. The messages may be helpful when trouble shooting.

Click on the "Refresh" button to refresh the list.

More...



## Status Category

The **Status** category is designed to assist the user with information display pages, concerning the configuration and behavior of this product.

The following pages can be found in the **Status** category:

- [Device Info](#) - On this page we can view General, WAN, LAN, and Wireless information about this router.
- [System Log](#) - On this page we can view and configure the system log settings for this router.
- [Statistics](#) - On this page we can view LAN, WAN and Wireless interface statistics for this router.

The screenshot shows the D-Link web user interface for the DSL-2877AL. The top navigation bar includes 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'STATUS' page is selected, showing a 'DEVICE' section with the following information:

- Current Time: Tue Mar 11 19:14:18 2014
- Uptime: 5:58:45
- DSL Firmware Version: FwVer:5.5.1.15\_A\_A60901 HwVer:T14.F7\_0.0
- Firmware Version: 1.00.00

The 'INTERNET STATUS' section shows the following configuration:

- Interface: PVC0
- Connection Type: Dynamic IP
- Status: Not Connected
- IP Address: N/A (with renewIP and releaseIP buttons)
- Subnet Mask: N/A
- Default Gateway: N/A
- DNS Server: N/A
- IPv6: Not Connected
- Status: Not Connected
- IP Address: N/A (with renewIP6 and releaseIP6 buttons)
- Prefix Length: N/A

A sidebar on the right contains 'Helpful Hints...' and 'More...'. The left sidebar includes 'Device Info', 'System Log', 'Statistics', 'Internet Online' status, and 'Reboot'/'Logout' buttons.

## Device Info

To access the **Device Info** page, click on the **Status** menu link at the top, and then click on the **Device Info** menu link on the left.

This page displays the current information for the device. It will display what version of firmware you are currently running, as well as Ethernet and Wireless parameters.

### GENERAL

This area shows the current time, uptime, ADSL firmware version and firmware version of your device.

### INTERNET STATUS

This area shows the status of all your WAN PVCs, including IP Address, DNS server address.

### WIRELESS LAN

This area shows your wireless information, including SSID, security type, and MAC address.

### LAN

This area shows your local network information including IP address and MAC address.

In this section, we can view general information about this router.

The screenshot shows the D-Link web interface for the DSL-2877AL. The top navigation bar includes 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'STATUS' menu is active. The left sidebar shows 'Device Info', 'System Log', and 'Statistics'. The main content area is titled 'DEVICE' and contains the following information:

- GENERAL**
  - Current Time : N/A (NTP server is connecting)
  - Uptime : 20:49:26
  - DSL Firmware Version : FwVer:5.5.1.15\_A\_A60901 HwVer:T14.F7\_0.1
  - Firmware Version : 1.00.00
- INTERNET STATUS**
  - Interface: PVC0
  - Connection Type: PPPoE
  - Status: Not Connected
  - IP Address: N/A
  - Subnet Mask: N/A
  - Default Gateway: N/A
  - DNS Server : N/A
  - IPv6: Not Connected
  - IP Address: N/A (with 'renewIP6' and 'releaseIP6' buttons)

The screenshot shows the 'GENERAL' section of the Device Info page. The information displayed is:

- Current Time : N/A (Can't find NTP server)
- Uptime : 1:39:13
- ADSL Firmware Version : FwVer:3.20.21.0\_A\_TC3087 HwVer:T14.F7\_11.2
- Firmware Version : 1.00.00

In this section, we can view information regarding the Internet Status connection of this router.

INTERNET STATUS	
<b>Connection :</b>	PVC1 <input type="button" value="v"/>
<b>Status :</b>	Connected
<b>Connection Type :</b>	Dynamic IP
<b>IP Address :</b>	192.168.0.207
<b>Subnet Mask :</b>	255.255.255.0
<b>Default Gateway :</b>	192.168.0.1
<b>DNS Server :</b>	202.96.209.5 192.168.0.1
<b>IPv6</b>	
<b>Status :</b>	Not Connected
<b>IP Address :</b>	N/A
<b>Prefix Length :</b>	N/A
<b>Default Gateway :</b>	N/A
<b>DNS Server :</b>	N/A
<b>Prefix Delegation :</b>	N/A

In this section, we can view information regarding the 2.4g Wireless LAN connection of this router.

2.4G WIRELESS LAN	
<b>Wireless Status :</b>	Disabled
<b>Networks Name (SSID) :</b>	DSL-2875AL <input type="button" value="v"/>
<b>SSID State :</b>	Enabled
<b>SSID Status :</b>	Deactive
<b>MAC Address :</b>	78:54:2E:4E:34:99
<b>Channel :</b>	13
<b>Security Type :</b>	WPAPSKWPA2PSK

In this section, we can view information regarding the 5G band wireless connection of this router.

5G WIRELESS LAN	
<b>Wireless Status :</b>	Disabled
<b>Networks Name (SSID) :</b>	DSL-2875AL-AC <input type="button" value="v"/>
<b>SSID State :</b>	Enabled
<b>SSID Status :</b>	Deactive
<b>MAC Address :</b>	78:54:2E:4E:34:9A
<b>Channel :</b>	60
<b>Security Type :</b>	WPAPSKWPA2PSK

In this section, we can view information regarding the LAN connection of this router.

LAN	
<b>Status :</b>	Active
<b>MAC Address :</b>	78:54:2E:4E:34:98
<b>IP Address :</b>	192.168.0.212
<b>Subnet Mask :</b>	255.255.255.0
<b>DHCP Server :</b>	Disable
<b>IPv6</b>	
<b>Link local IP :</b>	fe80::1/64
<b>Manual Global IP :</b>	
<b>Dynamic Global IP :</b>	
<b>DHCP Server :</b>	Enable

## System Log

To access the **System Log** page, click on the **Status** menu link at the top, and then click on the **System Log** menu link on the left.

System Log stores internal system information. The messages may be helpful when trouble shooting

**D-Link**

DSL-2877AL // SETUP ADVANCED MAINTENANCE STATUS HELP

Device Info  
System Log  
Statistics

Internet Online

Reboot Logout

**SYSTEM LOG**

System Log stores internal system informations.

**LOG SERVER**

Log Server : Disable  
Log Server Address : N/A

**LOG FILES**

First Page Last Page Previous Next Refresh

Time	Event
Jan 4 22:00:18	user.warn kernel: hostname = android-123bd56de7552f69, buf = New User is online
Jan 4 22:12:59	user.warn kernel: Link State: LAN_4 up.
Jan 4 22:13:24	user.warn kernel: Link State: LAN_4 down.
Jan 4 22:13:27	user.warn kernel: Link State: LAN_4 up.
Jan 4 22:19:55	syslog.info -- MARK --
Jan 4 22:28:32	user.warn kernel: -----WLAN 2.4G---Client d0:22:be:68:c0:3d leave or auth fail, pEntry->AuthMode = 0
Jan 4 22:39:55	syslog.info -- MARK --

Helpful Hints..  
System Log stores internal system informations. The messages may be helpful when trouble shooting.  
Click on the "Refresh" button to refresh the list.  
More...

In this section we can view external log server state and IP address.

**LOG SERVER**

Log Server : Disable  
Log Server Address : N/A

In this section we can view log information.

**First Page:** Click the button, the log page will return to first page of the log information.

**Last Page:** Click the button, the log page will return to last page of the log information.

**Previous:** Click the button, the log page will return to previous page of the log information.

**Next:** Click the button, the log page will return to next page of the log information.

**Refresh:** Click the button; it will refresh the log information page.

LOG FILES				
<a href="#">First Page</a>	<a href="#">Last Page</a>	<a href="#">Previous</a>	<a href="#">Next</a>	<a href="#">Refresh</a>
Time	Event			
Jan 1 00:00:28	syslog.info syslogd started: BusyBox v1.00 (2013.07.11-10:04+0000)			
Jan 1 00:00:28	user.warn kernel: TC 2 going on-line as CPU 2			
Jan 1 00:00:28	user.warn kernel: CPU revision is: 00019555			
Jan 1 00:00:28	user.warn kernel: TC 3 going on-line as CPU 3			
Jan 1 00:00:28	user.info kernel: Brought up 4 CPUs			
Jan 1 00:00:28	user.warn kernel: migration_cost=10000			
Jan 1 00:00:28	user.info kernel: NET: Registered protocol family 16			
Jan 1 00:00:28	user.warn kernel: RT63368_pcie_init			
Jan 1 00:00:28	user.warn kernel: registering PCI controller with io_map_base unset			
Jan 1 00:00:28	user.info kernel: PCI: Bridge: 0000:00:01.0			

## Statistics

To access the **Statistics** page, click on the **Status** menu link at the top, and then click on the **Statistics** menu link on the left.

The Statistics page displays all of the LAN, WAN, Wireless packet transmit and receive statistics and DSL statistics.

### Transmit

The number of packets sent from the router.

### Receive

The number of packets received by the router.

### Collision

The number of packets that were dropped due to Ethernet collision (two or more devices attempting to use an Ethernet circuit at the same time).

### Error

The number of transmission failures that cause loss of a packet. A noisy radio-frequency environment can cause a high error rate on the wireless LAN.

### DSL Statistics

Displays all of DSL statistics information, including link down or on, downstream and upstream, type, line coding and so on.

The screenshot shows the D-Link web interface for a DSL-2877AL modem router. The top navigation bar includes links for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains links for Device Info, System Log, and Statistics. The main content area is titled "TRAFFIC STATISTICS" and includes a "Refresh" button. Below this is a "STATISTICS" table showing data for various interfaces. At the bottom, there is a "DSL STATISTICS" section with details on Line State, Modulation, and Annex Mode.

Interface	Transmit				Receive			
	Frames	Bytes	Collision	Error	Frames	Bytes	Collision	Error
LAN:	51164	60193037	0	0	43992	7318265	0	0
WAN:	0	0	0	0	0	0	0	0
DSL:	15429	1707020	0	6	519974	37820573	0	0
Wireless 2.4G:	410961	1415349	-	1387	6334352	2756456	-	8487044
Wireless 5G:	3438	0	-	0	154062	0	-	4523

DSL STATISTICS	
Line State	up
Modulation	ITU G.992.5(ADSL2PLUS)
Annex Mode	ANNEX_A

In this section we can view **Local Network, Wireless** and **WAN Statistics**.

**WAN:** Select WAN interface to view WAN Statistics.

STATISTICS								
Interface	Transmit				Receive			
	Frames	Bytes	Collision	Error	Frames	Bytes	Collision	Error
<b>LAN:</b>	19885	1949552	0	0	8648	712008	0	0
<b>WAN:</b>	20	1674	0	0	0	0	0	0
<b>Wireless:</b>	N/A	N/A	-	N/A	N/A	N/A	-	N/A

In this section we can view **DSL Line Status** and **Statistics**.

DSL STATISTICS		
<b>Line State</b>	up	
<b>Modulation</b>	ITU G.992.5(ADSL2PLUS)	
<b>Annex Mode</b>	ANNEX_A	
	<b>Downstream</b>	<b>Upstream</b>
<b>SNR Margin</b>	6.5 dB	8.5 dB
<b>Line Attenuation</b>	0.0 dB	5.1 dB
<b>Data Rate</b>	24837 kbps	1086 kbps
<b>ES</b>	0	1
<b>SES</b>	0	0
<b>UAS</b>	3506	3506
<b>FEC</b>	0	8
<b>CRC</b>	142	7

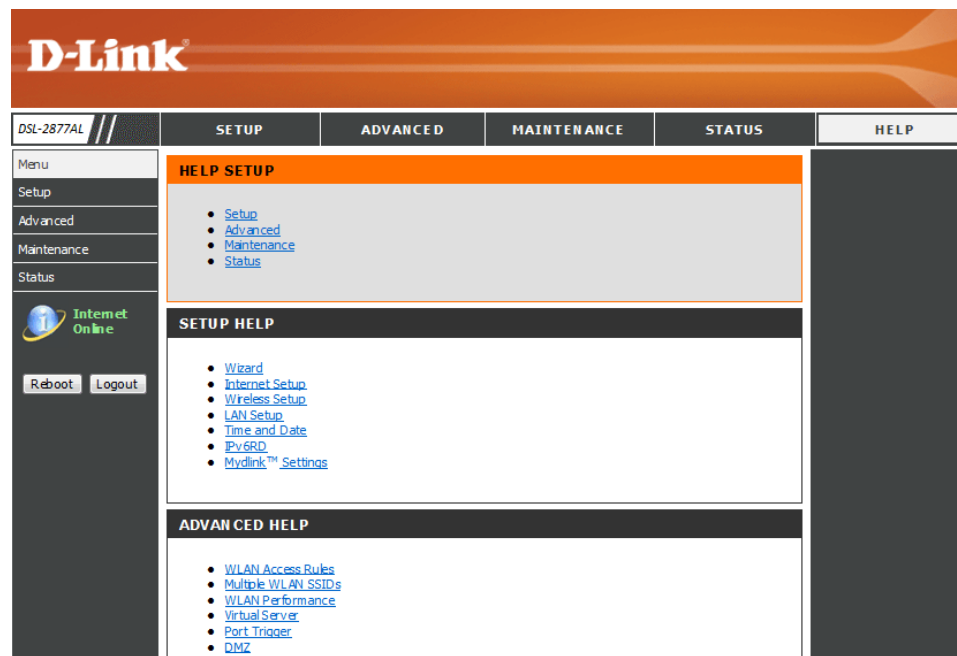


## Help Category

The **Help** category is designed to assist the user with helpful information about every topic found on the web user interface of this product.

The following pages can be found in the **Help** category:

- **Menu** - On this page the user can navigate easily to any page throughout the menu structure to access help information.
- **Setup** - On this page the user can read more about topics discussed in the Setup category.
- **Advanced** - On this page the user can read more about topics discussed in the Advanced category.
- **Maintenance** - On this page the user can read more about topics discussed in the Maintenance category.
- **Status** - On this page the user can read more about topics discussed in the Status category.



# Knowledge Base

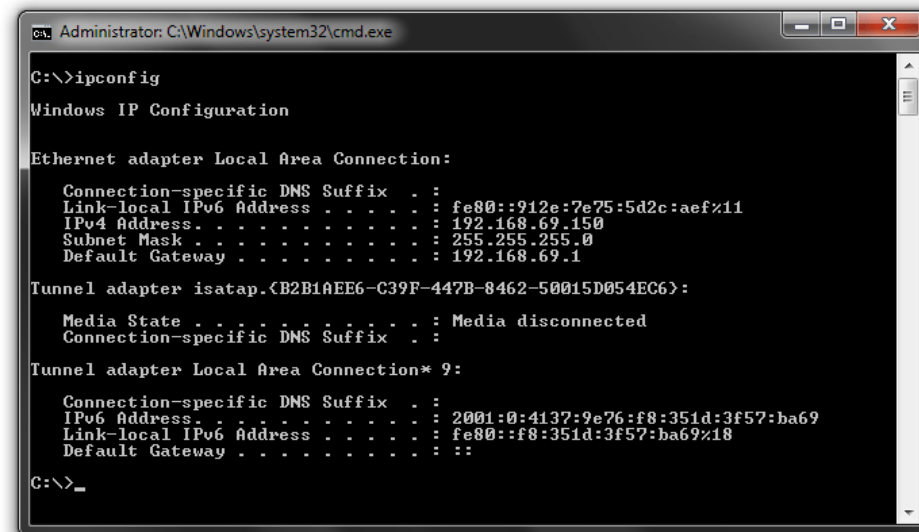
## Networking Basics

### Check your IP address

After you installed your new network or wireless adapter, by default, the TCP/IP settings should be set to obtain an IP address automatically from a DHCP server. By default the DHCP server option on your router is enabled.

To verify your IP address, please follow the steps below:

- Click on the Windows **Start** button and open the **Run** application.
- In the **Open** box type *cmd* and click **OK**.
- At the command prompt, type in the command *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*, it means that your network adapter did not receive an IP address from the DHCP server. 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.



```
Administrator: C:\Windows\system32\cmd.exe
C:\>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::912e:7e75:5d2c:aef%11
    IPv4 Address. . . . . : 192.168.69.150
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.69.1

Tunnel adapter isatap.{B2B1AEE6-C39F-447B-8462-50015D054EC6}:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 

Tunnel adapter Local Area Connection* 9:

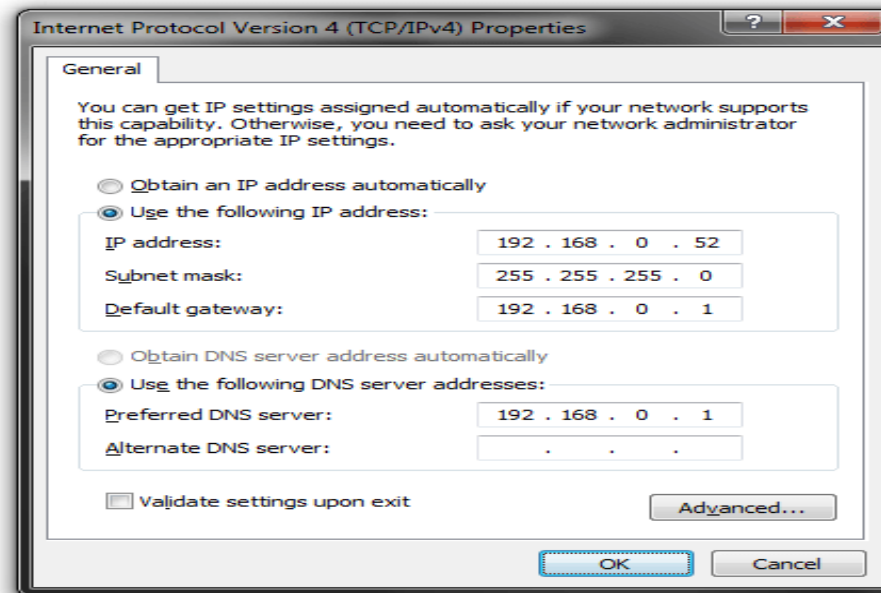
    Connection-specific DNS Suffix  . : 
    IPv6 Address. . . . . : 2001:0:4137:9e76:f8:351d:3f57:ba69
    Link-local IPv6 Address . . . . . : fe80::f8:351d:3f57:ba69%18
    Default Gateway . . . . . : ::

C:\>_
```

### Statically Assign an IP address

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

- Click on the Windows **Start** button and navigate to the **Control Panel > Network and Sharing Center** and click on the **Change Adapter Settings** option on the left panel.
- Right-click on the **Local Area Connection**, which represents your network adapter, and selects **Properties**.
- Select the **Internet Protocol Version 4 (TCP/IPv4)** option and click on the **Properties** button.
- Select **Use the following IP address** and enter an IP address that is on the same subnet as your router. For example: If your router is running on the IP address of **192.168.1.1**, use any IP address from **192.168.1.2** to **192.168.69.254**. Use the Subnet Mask of **255.255.255.0**. Set Default Gateway the same as the LAN IP address of your router. Set Preferred DNS server IP address the same as the LAN IP address of your router. The Secondary DNS is not needed at this stage.
- Click the **OK** button twice to return to the **Network Connections** window.



## Wireless Basics

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 wireless family of products will allow you to securely access the data you want, when and where you want it. You will be able to enjoy the freedom that wireless networking delivers.

A wireless local area network (WLAN) is a cellular computer network that transmits and receives data with radio signals instead of wires. Wireless LANs are used increasingly in both home and office environments, and public areas such as airports, coffee shops and universities. Innovative ways to utilize WLAN technology are helping people to work and communicate more efficiently. Increased mobility and the absence of cabling and other fixed infrastructure have proven to be beneficial for many users.

Wireless users can use the same applications they use on a wired network. Wireless adapter cards used on laptop and desktop systems support the same protocols as Ethernet adapter cards.

Under many circumstances, it may be desirable for mobile network devices to link to a conventional Ethernet LAN in order to use servers, printers or an Internet connection supplied through the wired LAN. A Wireless Router is a device used to provide this link.

### **What is Wireless?**

Wireless or Wi-Fi technology is another way of connecting your computer to the network without using wires. Wi-Fi uses radio frequency to connect wirelessly, so you have the freedom to connect computers anywhere in your home or office network.

### **How does Wireless work?**

Wireless works similar to how cordless phone work, through radio signals to transmit data from one point A to point B. But wireless technology has restrictions as to how you can access the network. You must be within the wireless network range area to be able to connect your computer. There are two different types of wireless networks Wireless Local Area Network (WLAN), and Wireless Personal Area Network (WPAN).

### **Wireless Local Area Network (WLAN)**

In a wireless local area network, a device called an Access Point (AP) connects computers to the network. The access point has a small antenna attached to it, which allows it to transmit data back and forth over radio signals. With an indoor access point as seen in the picture, the signal can travel up to 300 feet. With an outdoor access point the signal can reach out up to 30 miles to serve places like manufacturing plants, industrial locations, college and high school campuses, airports, golf courses, and many other outdoor venues.

### **Wireless Personal Area Network (WPAN)**

Bluetooth is the industry standard wireless technology used for WPAN. Bluetooth devices in WPAN operate in a range up to 30 feet away. Compared to WLAN the speed and wireless operation range are both less than WLAN, but in return it doesn't use nearly as much power which makes it ideal for personal devices, such as mobile phones, PDAs, headphones, laptops, speakers, and other devices that operate on batteries.

## **Who uses wireless?**

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

### **Home**

- 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**

- 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 Wireless Cardbus Adapter with your laptop, you can access the hotspot to connect to Internet from remote locations like: Airports, Hotels, Coffee Shops, Libraries, Restaurants, and Convention Centers.

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

## **Tips**

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

### **Centralize your router or Access Point**

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

### **Eliminate Interference**

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

### **Security**

Don't let your next-door neighbors or intruders connect to your wireless network. Secure your wireless network by turning on the WPA or WEP security feature on the router. Refer to product manual for detail information on how to set it up.

## **Wireless Modes**

There are basically two modes of networking:

- **Infrastructure** – All wireless clients will connect to an access point or wireless router.
- **Ad-Hoc** – Directly connecting to another computer, for peer-to-peer communication, using wireless network adapters on each computer, such as two or more 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.

## **Wireless Security**

This section will show you the different levels of security you can use to protect your data from intruders. The router offers wireless security options like WPA/WPA2 PSK/EAP.

### **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.

## Frequently Asked Questions

### **What can I do if my Router is not working correctly?**

There are a few quick steps you can take to try and resolve any issues:

- Check that all the cables are firmly connected at both ends.
- Check that all the corresponding LED indicators are on, especially the Power, DSL, and LAN LED indicators. For more information about LED indicators refer to the [Front Panel](#) on page 3.
- Ensure that the settings on the WAN Service page in the Web User Interface are the same as the settings that have been provided to you by your ISP. For more information refer to [Internet Setup](#) on page 34.

### **Why can't I get an Internet connection?**

For ADSL ISP users, please contact your ISP to make sure the service has been enabled/connected by your ISP and that your ISP username and password are correct.

### **What can I do if I forgot my web UI login password?**

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

To reset the router, locate the reset button (hole) on the rear panel of the unit. With the router powered on, use a paperclip to hold the button down for 10-15 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 **192.168.1.1**. When logging in, the username is '**admin**' and the password is '**admin**'.



# Technical Specifications

## Hardware Specifications

- LAN Interface: Four 10/100/1000Mbps LAN ports
- DSL Interface: One RJ11 Internet port
- Wireless Interface (2.4Ghz): IEEE 802.11b/g/n
- Wireless Interface (5Ghz): IEEE 802.11a/n

## Operating Voltage

- Input: 100~240V (±10%), 50~60Hz
- Output: DC12V, 1.5A

## Temperature

- Operating: 32°F~104°F (0°C~40°C)
- Non-Operating: -4°F~149°F (-20°C~65°C)

## Humidity

- Operating: 10%~90% non-condensing
- Non-Operating: 5%~95% non-condensing

## ADSL Standards

- ANSI T1.413 Issue 2
- ITU G.992.1 (G.dmt) Annex A
- ITU G.992.2 (G.lite) Annex A
- ITU G.994.1 (G.hs)

## ADSL2 Standards

- ITU G.992.3 (G.dmt.bis) Annex A
- ITU G.992.4 (G.lite.bis) Annex A

## ADSL2+ Standards

- ITU G.992.5 Annex A

## ADSL Data Transfer Rate

- G.dmt full rate downstream: up to 8 Mbps / upstream: up to 1 Mbps
- G.lite: ADSL downstream up to 1.5 Mbps / upstream up to 512 Kbps
- G.dmt.bis full rate downstream: up to 12 Mbps / upstream: up to 12 Mbps
- ADSL full rate downstream: up to 24 Mbps / upstream: up to 1 Mbps

## Wireless Frequency Range

- IEEE 802.11a: 5150 MHz~5350 MHz
- IEEE 802.11b: 2400 MHz~2497 MHz
- IEEE 802.11g: 2400 MHz~2497 MHz
- IEEE 802.11n: 2400 MHz~2497 MHz, 5150 MHz~5350 MHz

## Wireless Bandwidth Rate

- IEEE 802.11a: 54, 48, 36, 24, 18, 12, 9, and 6 Mbps
- IEEE 802.11b: 11, 5.5, 2, and 1 Mbps
- IEEE 802.11g: 54, 48, 36, 24, 18, 12, 9, and 6 Mbps
- IEEE 802.11an: 6.5 to 450 Mbps
- IEEE 802.11gn: 6.5 to 300 Mbps

## Wireless Channel Numbers

- IEEE 802.11a: Channels 36~64
- IEEE 802.11b: Channels 1~11 (USA), 1~13 (Europe), 1~14 (Japan)
- IEEE 802.11g: Channels 1~11 (USA), 1~13 (Europe), 1~14 (Japan)
- IEEE 802.11n: Channels 1~11 (USA), 1~13 (Europe), 1~14 (Japan), Channels 36~64

## Antenna Type

- Five Internal Antennas (Two 2.4 GHz Antennas, Three 5 GHz Antennas)

## Wireless Security

- 64/128bit WEP, WPA/WPA2-Personal, WPA/WPA2-Enterprise, WPS (PIN & PBC)

**Dimensions & Weight**

- 198.82 x 146.12 x 54.45 mm
- 302 grams

**Certifications**

- FCC P68/P15B, CE, A-tick.