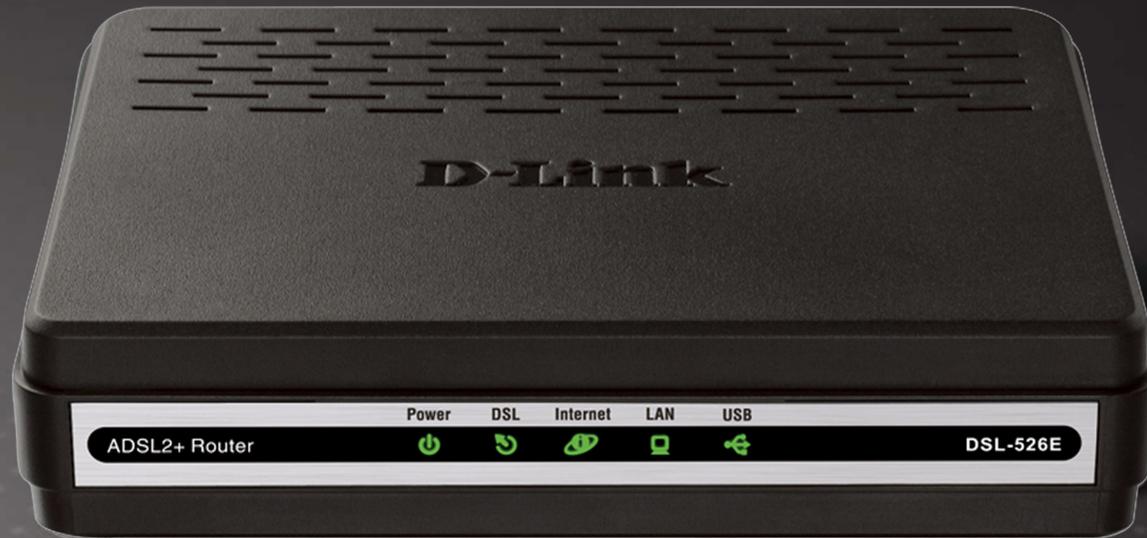


# USER MANUAL

DSL-526E

VERSION 1.00



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# Product Overview

## Package Contents

- DSL-526E Modem Router
- Power Adapter
- CD-ROM with User Manual
- One twisted-pair telephone cable used for ADSL connection
- One straight-through Ethernet cable
- One USB cable
- One Quick Installation Guide



**Note:** Using a power supply with a different voltage rating other than the one included with the DSL-526E may cause damage and void the warranty for this product.

## System Requirements

- ADSL Internet service
- Computer with:
  - 200MHz Processor or higher
  - 64MB Memory
  - CD-ROM Drive
  - Ethernet Adapter with TCP/IP Protocol Installed
  - Internet Explorer v6 or later, FireFox v1.5
  - Computer with Windows 2000, Windows XP, Windows Vista or Windows 7
- D-Link Click'n Connect Utility

# Features

**PPP (Point-to-Point Protocol) Security** – The Router supports PAP (Password Authentication Protocol) and CHAP (Challenge Handshake Authentication Protocol) for PPP connections. The Router also supports MSCHAP.

**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 the network topology occur.

**Network Address Translation (NAT)** – For small office environments, the Router 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.

**TCP/IP (Transmission Control Protocol/Internet Protocol)** – The Router supports the TCP/IP protocol, the language used for the Internet. It is compatible with access servers manufactured by major vendors.

**RIP-1/RIP-2** – The Router supports both RIP-1 and RIP-2 exchanges with other routers. Using both versions allows the Router to communicate with all RIP enabled devices.

**Static Routing** – This allows you to select a data path to a particular network destination that will remain in the routing table and never “age out”. Create a static route if you wish to define a specific route that will always be used for data traffic from your LAN to a specific destination

within your LAN (for example to another router or a server) or to a specific destination outside your network (to an ISP defined default gateway for instance).

**Default Routing** – This allows you to choose a default path for incoming data packets for which the destination address is unknown. This is particularly useful when/if the Router functions as the sole connection to the Internet.

**ATM (Asynchronous Transfer Mode)** – The Router supports Bridged Ethernet over ATM (RFC1483), IP over ATM (RFC1577), and PPP over ATM (RFC 2364).

**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.

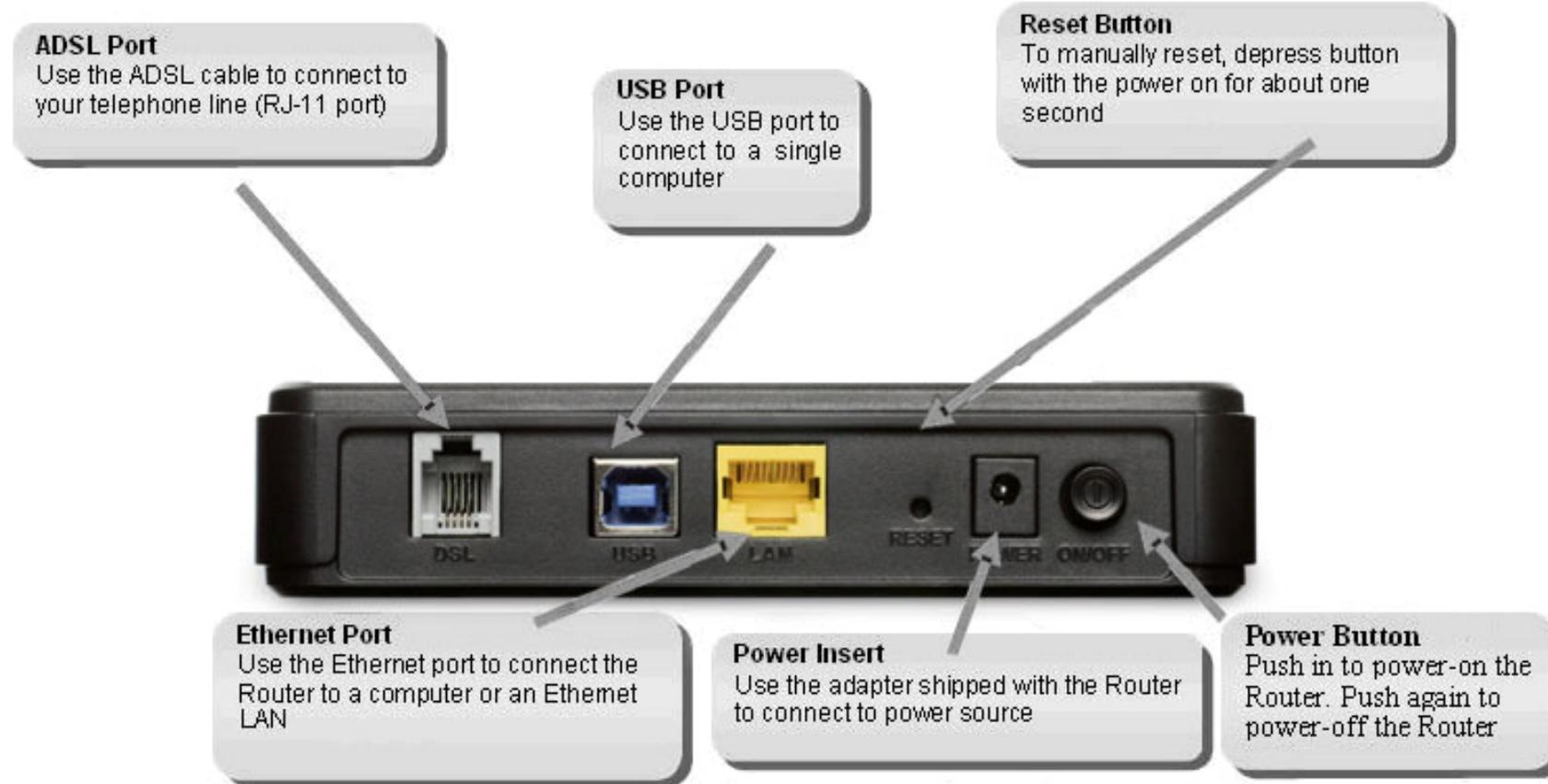
**G.hs (Auto-handshake)** – This allows the Router to automatically choose either the G.lite or G.dmt ADSL connection standards.

**High Performance** – Very high rates of data transfer are possible with the Router. Up to 8 Mbps downstream bit rate using the G.dmt standard.

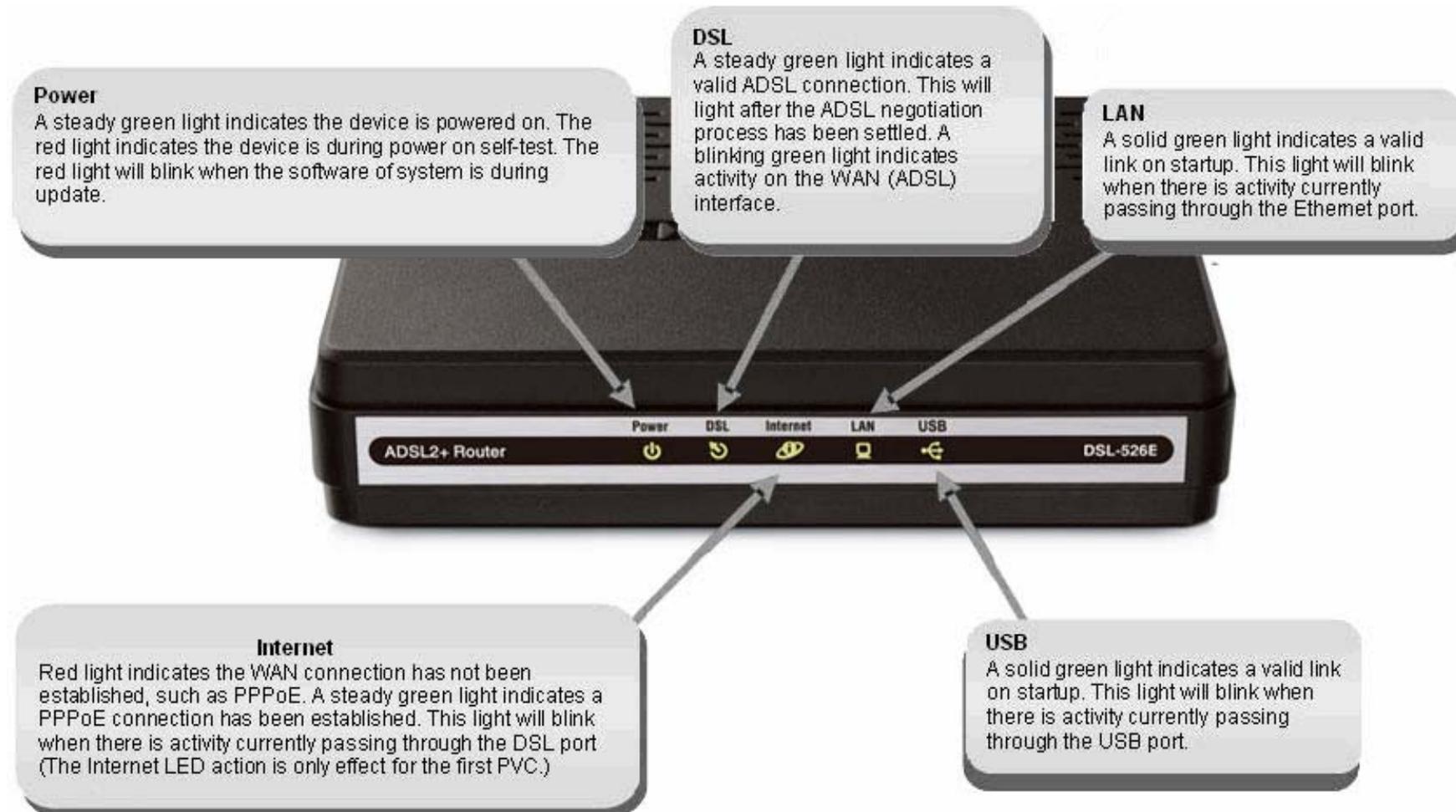
**Telnet Connection** – Telnet enables a network manager to access the Router’s management software remotely.

**Easy Installation** – The Router uses a web-based graphical user interface program for convenient management access and easy set up. Any common web browser software can be used to manage the Router.

## Hardware Overview: Connections



## Hardware Overview: LEDs



# 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. You can print out the two pages below and use the tables to list this information. This way you have a hard copy of all the information needed to setup the Router. If it is necessary to reconfigure the device, all the necessary information can be easily accessed. Be sure to keep this information safe and private.

### 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 a standard telephone cable. Ask your service provider for more information about the use of low pass filters with your installation.

### Operating Systems

The DSL-526E 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 98 SE, Windows ME, Windows 2000, Windows XP, and Windows Vista.

### 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 Opera, Microsoft Internet Explorer® version 6.0, Netscape Navigator® version 6.2.3, or later versions. 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.

### USB Port or Ethernet Port (NIC Adapter)

Any computer that uses the Router must be able to connect to it through either the Ethernet port or USB port on the Router. The easiest method of installation is via the Ethernet connection, which requires your computer be equipped with an Ethernet port. Most notebook computers are now sold with an Ethernet port already installed. Likewise, most fully assembled desktop computers come with an Ethernet NIC adapter as standard. If your computer does not have an Ethernet port and you do not wish to use a USB connection, you must install an Ethernet NIC adapter before you can use the Router. If you need to 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 as 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 ADSL 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.

**Note**

*If you plan to use the DSL-526E's USB port to connect to your computer, do not connect the USB cable to the Router until you have finished all of the steps to install the USB driver, and your computer has restarted.*

# Information you will need from your ADSL service provider

## Username

This is the Username used to log on to your ADSL service provider's network. Your ADSL 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 ADSL service provider's network. This is used to verify the identity of your account.

## WAN Setting / Connection Type

These settings describe the method your ADSL 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):

PPPoE/PPPoA (PPPoE LLC, PPPoA LLC or PPPoA VC-Mux)

Bridge Mode (1483 Bridged IP LLC or 1483 Bridged IP VC Mux)

IPoA/MER (Static IP Address) (Bridged IP LLC, 1483 Bridged IP VC Mux, 1483 Routed IP LLC, 1483 Routed IP VC-Mux or IPoA)

MER (Dynamic IP Address) (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 (ADSL2+ Multi-Mode) used for the Router automatically detects all types of ADSL, ADSL2 and ADSL2+ modulation.

## Security Protocol

This is the method your ADSL 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 ADSL 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 ADSL 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) is used in conjunction with the VPI to identify the data path between your ADSL 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 ADSL service provider for the additional connections. This setting can be changed in the WAN Setup window of the web management interface.

---

# Information you will need about your DSL-526E Modem Router

## Username

This is the Username needed to access the Router's 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". The user cannot change this.

## Password

This is the Password you will be prompted to enter when you access the Router's management interface. The default Password is "admin." The user may change this.

## LAN IP addresses for the DSL-526E

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-526E

This is the subnet mask used by the DSL-526E 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-526E to the Ethernet port using an Ethernet cable. You can also use the Ethernet ports on the DSL-526E to connect to other computers or Ethernet devices.

## DHCP Client status

Your DSL-526E Modem 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-526E 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.)

It is recommended that you collect and record this information here, or in some other secure place, in case you have to re-configure your ADSL connection in the future.

Once you have the above information, you are ready to setup and configure your DSL-526E Modem Router.

# Installing the USB Driver

The CD-ROM shipped with the Router contains the USB driver software. Insert the DSL-526E CD-ROM into the CD drive. Within a few seconds you should see a window that offers the following options: View Manual, View QIG, Install Acrobat Reader, Technical Support, Quick Installation and Exit. If you do not see this auto-run pop-up window, explore the CD-ROM and double-click the file **Setup.exe** to launch the installation software. The auto-run USB driver setup must be completed before connecting the router to your PC with the USB cable.

To install the driver under a Windows XP system, follow these instructions:

## Method 1

1. Connect one end of the USB cable to the USB port of the Router and the other end to the USB port of your PC.
2. When the PC powers up, a message appears in the system tray indicating that new hardware is found.



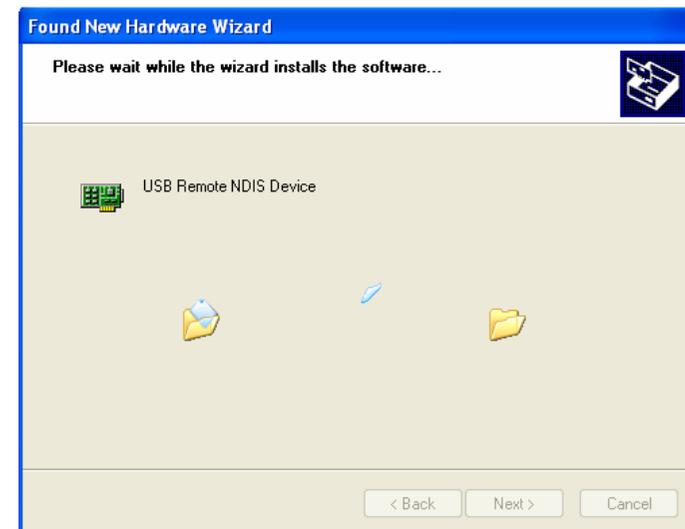
3. The **Found New Hardware Wizard** dialog box appears. Select **Install from a list or specific location (Advanced)**. Click **Next** to continue.



- The dialog instructs you to choose your search and installation options. You can choose the path of USB drive installation. Click **Next**.



- A dialog box appears, saying **Please wait while the wizard installs the software**. Then click **Next**.



6. Click **Finish** to complete the USB driver installation.



### Method 2

1. Connect the USB cable to the PC, and then run **Setup.exe** on the PC. Follow the screen instruction to go through the installation, and then the right dialogue box will be prompted.



2. When the above dialogue box is prompted:

- If your router is not connected, please connect it now;
- If the router is connected, please disconnect and then reconnect it.

After connection, the USB drive will be installed automatically installed in your PC. Then click OK in the above dialogue box to

finish the installation. To view the device, go to **Computer**

**Management (Local) > Device Manager**, click  **Network adapters**, and you will see the icon  **USB Remote NDIS Device**. If it does not work, please rerun **Setup.exe** and then reset the router.

**Note:** Do not run **Setup.exe** on the PC when the USB cable is disconnected to the PC.

When the USB driver has been installed, carry out the following steps:

1. Insert one end of the USB cable included with the Router into the DSL-526E Router's USB port.
2. Insert the other end of the USB cable into a spare USB port on your PC.
3. Connect the power adapter to the power input in the back panel of the DSL-526E and then plug the other end of the power adapter to a wall outlet or power strip.
4. Press the power button to switch on the Router. On the front of the device, the Power LED will turn ON to indicate proper operation.
5. Insert the telephone cable included with the Router into the ADSL port, and then connect the cable to your telephone line.
6. Check the DSL LED on the front of the Router to confirm that the connections have been made.

## Device Installation

The DSL-526E has three separate physical interfaces, an ADSL (WAN), an Ethernet (LAN) interface and a USB Interface. The Router can be connected to your PC via the USB port or the Ethernet port. 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. Depress the Power button into the on position. You should see the Power LED indicator light up and remain lit. The Status LED should light solid green and begin to blink after a few seconds.
3. If the Ethernet port is connected to a working device, check the Ethernet LAN LED indicator to make sure the connection is valid. The Router will attempt to establish the ADSL connection, if the ADSL line is connected and the Router is properly configured this should light up after several seconds. If this is the first time you have installed 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. To restore factory defaults, keep the device powered on and push a paper clip into the hole. Press down the button for 3 seconds using a ballpoint or paperclip, and then release.

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 **255.255.255.0**, the default management Username is “admin” and the default Password is “admin”.

## Network Connections

### Connect ADSL Line

Use the ADSL cable included with the Router to connect it to a telephone wall socket or receptacle. Plug one end of the cable into the ADSL 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 the instructions given to you by your service provider. The ADSL 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 10/100 BASE-TX Ethernet port 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 Mbps only. 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 cabling with RJ-45 connectors. The RJ-45 port on the Router is 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 of the other MDI-X ports (1x, 2x, etc.) with a crossed cable.

### Computer to Router Connection

You can either connect the Router's Ethernet interface directly to a 10/100BASE-TX Ethernet adapter card (NIC) installed in a PC using the Ethernet cable provided, or connect the Router to a spare USB port using the Router's USB interface.

# Configuration

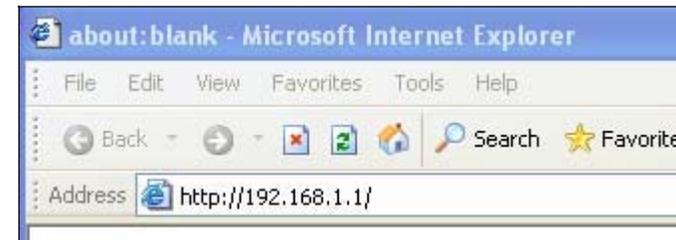
This section describes how to configure your new D-Link Router using the web-based configuration utility.

## Web-based Configuration Utility

### 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. To make sure your computer has the correct IP settings, configure it to use the DHCP server in the Router. The next section describes how to change the IP configuration for a computer running a Windows operating system to be a DHCP client.

To access the configuration utility, open a web-browser such as Internet Explorer and enter the IP address of the router (**192.168.1.1**).



Type “**admin**” for the User Name and “**admin**” in the Password field. If you get a **Page Cannot be Displayed** error, please refer to the section of Troubleshooting for assistance.



If you log in as the super user successfully, the page shown in the right figure appears. This page displays a summary overview of the router, including the system information, DSL information, LAN Configuration, DNS information and WAN Configuration.

Product Page: DSL-526E Firmware Version: SE\_1.00

**D-Link**

DSL-526E // SETUP ADVANCED MAINTENANCE STATUS HELP

Device Info DHCP Clients ADSL Driver Statistics Route Info Traffic Graphic

**ADSL ROUTER STATUS**  
This page shows the current status and some basic settings of the device.

**SYSTEM**

Flash Memory	4194304 (B)
RAM Memory	16777216 (B)
CPU Usage	15%
Memory Usage	11%
Active Session	0
Firmware Version	SE_1.00
Alias Name	RTL867x ADSL Modem
Uptime	0 0:29:37
Date/Time	Thu Jan 1 0:29:37 1970
Built Date	May 3 2013 10:34:11
Total Session Number	4096

**DSL**

Operational Status	--
Upstream Speed	--
Downstream Speed	--

**LAN CONFIGURATION**

IP Address	192.168.1.1
Subnet Mask	255.255.255.0
DHCP Server	Enable
MAC Address	00:E0:4C:00:00:01

**DNS STATUS**

DNS Mode	Auto
DNS Servers	
IPv6 DNS Mode	Auto
IPv6 DNS Servers	

**WAN CONFIGURATION**

Interface	VPI/VCI	Encap	Route	Protoc ol	IP Address	Gateway	Status

**WAN IPV6 CONFIGURATION**

Interface	VPI/VCI	Encap	Protocol	IPv6 Address	Gateway	Route	Status

Helpful Hints... This page displays a summary overview of your router, including system information,DSL information,LAN Configuration,DNS information,WAN Configuration and so on More...

Refresh

# Setup

In the main interface, click **Setup** tab to enter the **Setup** menu as shown in the following figure. The submenus are **Wizard**, **Local Network**, **Internet Setup** and **Time and Date**.

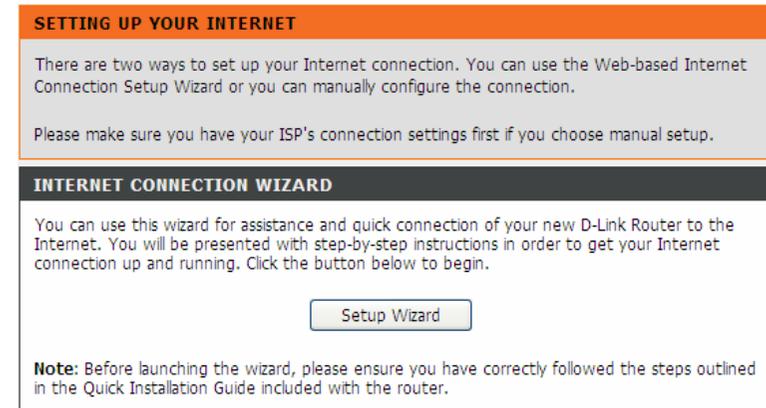
## Wizard

**Wizard** enables fast and accurate configuration of Internet connection and other important parameters. The following sections describe configuration parameters.

When subscribing to a broadband service, you should be aware of the method, by which you are connected to the Internet. Your physical WAN device can be Ethernet, DSL, or both.

Technical information about the properties of your Internet connection is provided by your Internet service provider (ISP). For example, your ISP should inform you that you are connected to the Internet using a static or dynamic IP address, and the protocol you use to communicate over the Internet, i.g. PPPoA or PPPoE.

Choose **Setup > Wizard**. The page shown in the right figure appears.



Click **Setup Wizard**. The page shown in the following figure appears. There are 4 steps to configure the device. Click **Next** to continue.

**WELCOME TO D-LINK SETUP WIZARD**

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

- **Step 1:** Change Device Login Password
- **Step 2:** Set Time and Date
- **Step 3:** Setup Internet Connection
- **Step 4:** Completed and Apply

**Step 1** Change the device login password.

**STEP 1: CHANGE DEVICE LOGIN PASSWORD** → 2 → 3 → 4

To help secure your network, D-Link recommends that you should choose a new password. If you do not wish to choose a new password now, just click "Skip" to continue. Click "Next" to proceed to next step.

**Current Password :**

**New Password :**

**Confirm Password :**

**Step 2** Set the time and date.

1 → **STEP 2: SET TIME AND DATE** → 3 → 4

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.

**SYSTEM TIME**

**System time:** Thu Jan 1 0:0:56 1970

**Time Zone:** (GMT) Gambia, Liberia, Morocco, England

**DayLight:** LocalTIME

**Mode:** Copy Computer time

**Step 3** Configure the Internet connection.

**- PPPoE/ PPPoA**

If the internet service you subscribed is **PPPoE** or **PPPoA**, you can choose the **Protocol** to be **PPPoE** or **PPPoA**. Set the VPI and VCI. Enter the user name and password provided by your ISP.

1 → 2 → **STEP 3: SETUP INTERNET CONNECTION** → 4

Please select your Country and ISP (Internet Service Provider) from the list below. If your Country or ISP is not in the list, please select "Others".

Country : (Click to Select) ▾

Internet Service Provider : (Click to Select) ▾

Protocol : (Click to Select) ▾

Connection Type : (Click to Select) ▾

Auto PVC search:  Manual  Auto

VPI : (Enter a number) (0-255)

VCI : (Enter a number) (32-65535)

SPI Enable :

1 → 2 → **STEP 3: SETUP INTERNET CONNECTION** → 4

Please select your Country and ISP (Internet Service Provider) from the list below. If your Country or ISP is not in the list, please select "Others".

Country : Singapore ▾

Internet Service Provider : Others ▾

Protocol : PPPoE ▾

Connection Type : (Click to Select) ▾

Auto PVC search:  Manual  Auto

VPI : 8 (0-255)

VCI : (Enter a number) (32-65535)

SPI Enable :

**PPPoE**

Please enter your Username and Password as provided by your ISP (Internet Service Provider). Please enter the information exactly as shown taking note of upper and lower cases. Click "Next" to continue.

Username :

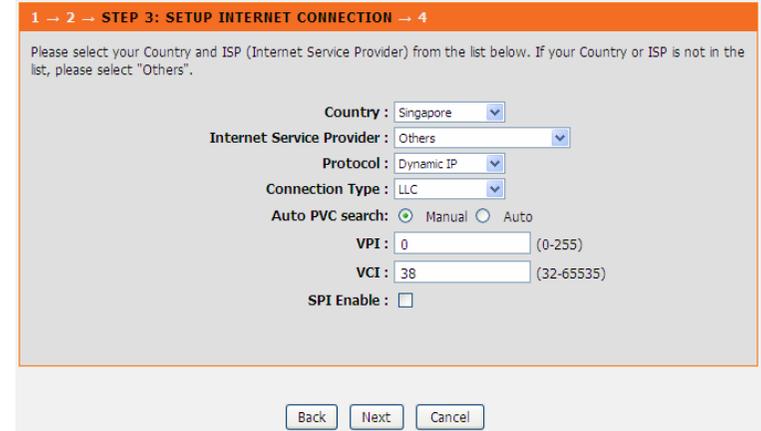
Password :

Confirm Password :

Back Next Cancel

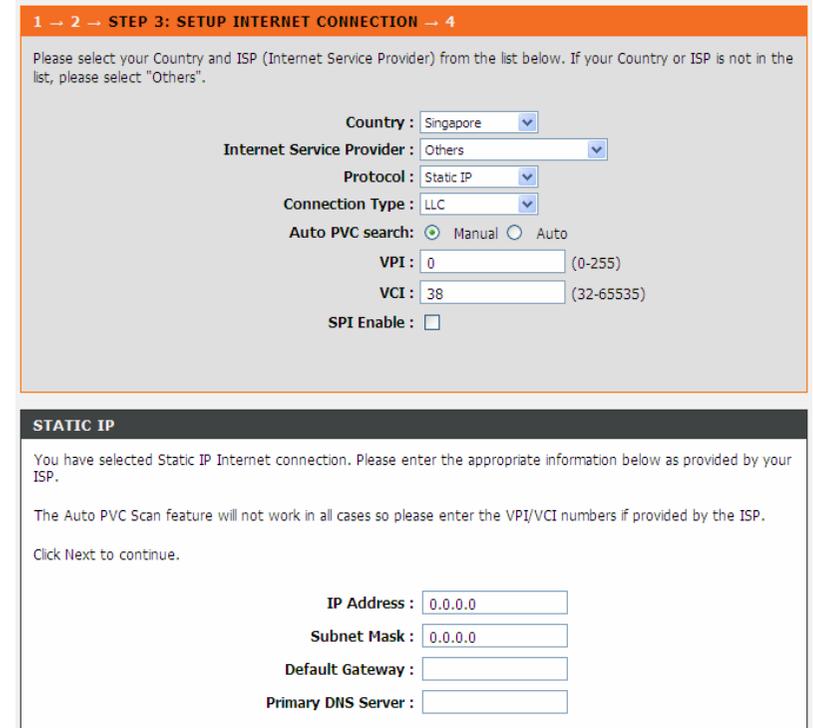
**- Dynamic IP**

If the internet service you subscribed is **Dynamic IP**, you can choose **Protocol** to be **Dynamic IP**. The page shown in the right figure appears.



**- Static IP**

If the Protocol is **Static IP**, you can choose **Protocol** to be **Static IP**. The page shown in the right figure appears. Enter the **IP Address**, **Subnet Mask**, **Default Gateway** and **Primary DNS Server** provided by your ISP.



### - Bridge

If the Protocol is **Bridge**, the page shown in the right figure appears.

1 → 2 → **STEP 3: SETUP INTERNET CONNECTION** → 4

Please select your Country and ISP (Internet Service Provider) from the list below. If your Country or ISP is not in the list, please select "Others".

Country : Singapore

Internet Service Provider : Others

Protocol : Bridge

Connection Type : LLC

Auto PVC search:  Manual  Auto

VPI : 0 (0-255)

VCI : 38 (32-65535)

SPI Enable :

**Step 4** Complete and apply the settings. Click **Apply** to save the settings.

1 → 2 → 3 → **STEP 4: COMPLETED AND APPLY**

Setup complete. Click "Back" to review or modify settings. Click "Apply" to apply current settings.

If your Internet connection does not work after apply, you can try the Setup Wizard again with alternative settings or use Manual Setup instead if you have your Internet connection details as provided by your ISP.

**SETUP SUMMARY**

Below is a detailed summary of your settings.

Time Settings :	Copy from Computer
VPI / VCI :	0/38
Protocol :	PPPoE
Connection Type :	LLC
Username :	test
Password :	test

Back Apply Cancel

You will go to the **ADSL Router Status** page as shown in the right figure.  
**Note:** In each step of the Wizard page, you can click **Back** to review or modify the previous settings. Click **Cancel** to exit the wizard page.

**ADSL ROUTER STATUS**

This page shows the current status and some basic settings of the device.

**SYSTEM**

Flash Memory	4194304 (B)
RAM Memory	16777216 (B)
CPU Usage	51%
Memory Usage	12%
Active Session	0
Firmware Version	SE_1.00
Alias Name	RTL867x ADSL Modem
Uptime	0 10:39:35
Date/Time	Thu Jan 1 10:39:35 1970
Built Date	May 3 2013 10:34:11
Total Session Number	4096

**DSL**

Operational Status	--
Upstream Speed	--
Downstream Speed	--

**LAN CONFIGURATION**

IP Address	192.168.1.1
Subnet Mask	255.255.255.0
DHCP Server	Enable
MAC Address	00:E0:4C:00:00:01

**DNS STATUS**

DNS Mode	Auto
DNS Servers	
IPv6 DNS Mode	Auto
IPv6 DNS Servers	

**WAN CONFIGURATION**

Interface	VPI/VCI	Encap	Droute	Protocol	IP Address	Gateway	Status
pppoe1	0/38	LLC	Off	PPPoE	0.0.0.0	0.0.0.0	Down 0 0:0:0 / 0 0:0:0

**WAN IPV6 CONFIGURATION**

Interface	VPI/VCI	Encap	Protocol	IPv6 Address	Gateway	Droute	Status
pppoe1	0/38	LLC	PPPoE				Down

## Local Network

You can configure the LAN IP address according to the actual application. The preset IP address is 192.168.1.1. You can use the default settings

and DHCP service to manage the IP settings for the private network. The IP address of the device is the base address used for DHCP. To use the device for DHCP on your LAN, the IP address pool used for DHCP must be compatible with the IP address of the device. The IP address available in the DHCP IP address pool changes automatically if you change the IP address of the device.

You can also enable the secondary LAN IP address. The two LAN IP addresses must be in different networks.

# LAN Interface

Choose **Setup > Local Network > LAN Interface**. The **LAN Setting** page shown in the right figure appears. You may configure the LAN interface, for example, the IP address and subnet mask.

Configure the parameters in this page as described below.

**IP Address:** Enter the IP address of LAN interface. It is recommended to use an address from a block reserved for private use. This address block is 192.168.1.1-192.168.1.254.

**Subnet Mask:** Enter the subnet mask of LAN interface. The range of subnet mask is from 255.255.0.0-255.255.255.254.

**Secondary IP:** Select it to enable the secondary LAN IP address. The two LAN IP addresses must be in different subnets.

**LAN Port:** You may choose the LAN interface you want to configure.

**Link Speed/ Duplex Mode:** You may select one mode from the drop-downlist: **100Mbps/FullDuplex**, **100Mbps/Half Duplex**, **10Mbps/FullDuplex**, **10Mbps/Half Duplex** and **Auto Negotiation**.

**MAC Address Control:** It is the access control based on MAC address. Select it, and the host whose MAC address is listed in the **Current Allowed MAC Address Table** can access the modem.

**Add:** Enter MAC address, and then click this button to add a new MAC address.

**LAN SETTING**

This page is used to configure the LAN interface of your ADSL Router. Here you may change the setting for IP address, subnet mask, etc..

**LAN INTERFACE SETTINGS**

Interface Name: e1

IP Address:

Subnet Mask:

Secondary IP

IGMP Snooping:  Disable  Enable

**LAN LINK MODE SETTINGS**

LAN Port:

Link Speed/Duplex Mode:

ETHERNET Status Table:		
Select	Port	Link Mode
<input type="radio"/>	LAN	AUTO Negotiation

**MAC ADDRESS CONTROL SETTINGS**

MAC Address Control:  LAN1  USB

New MAC Address:

**CURRENT ALLOWED MAC ADDRESS TABLE**

MAC Addr	Action

## LAN IPv6 Interface

Choose **Setup > Local Network > LAN IPv6 Interface**. The **LAN IPv6 Setting** page shown in the right figure appears. You may set LAN RA server work mode and LAN DHCPv6 server work mode.

Configure the parameters in this page as described below.

**Global Address:** Specify the LAN global ipv6 address. It can be assigned by ISP.

**Enable:** Enable or disable the Router Advertisement feature.

**M Flag:** Enable or disable the “Managed address configuration” flag in RA packet.

**O Flag:** Enable or disable the “Other configuration” flag in RA packet.

**Prefix Mode:** Specify the RA feature prefix mode: “Auto”: the RA prefix will use WAN dhcp-pd prefix; “Manual”: user will specify the prefix address, length, preferred time and valid time.

**DHCPv6 Mode:** Specify the dhcpv6 server mode: “None”: close dhcpv6 server; “Manual”: dhcpv6 server is opened and user specifies the dhcpv6 server address pool and other parameters; “Auto”: dhcpv6 server is opened and it use WAN dhcp-pd prefix to generate address pool.

**LAN IPV6 SETTING**

This page is used to configure ipv6 lan setting. User can set lan RA server work mode and lan DHCPv6 server work mode.

**LAN GLOBAL ADDRESS SETTING**

Global Address:  /

**RA SETTING**

Enable:

M Flag:

O Flag:

Max Interval:  Secs

Min Interval:  Secs

Prefix Mode:  ▾

**DHCPV6 SETTING**

DHCPv6 Mode:  ▾

IPv6 Address Suffix Pool:  -  (ex. :1:1:1:1 or ::1)

IPv6 DNS Mode:  ▾

# DHCP Server

Choose **Setup > Local Network > DHCP Server**. The **DHCP Server Setting** page shown appears. You may configure the DHCP mode.

Configure the parameters in this page as described below.

**DHCP Mode:** If set to DHCP Server, the router can assign IP addresses, IP default gateway and DNS servers to the host in Windows95, Windows NT and other operation systems that support the DHCP client.

**IP Pool Range:** It specifies the first and last IP addresses in the IP address pool. The router assigns IP address in the IP pool range to the host.

**Max Lease Time:** The lease time determines the period that the host retains the assigned IP addresses before the IP addresses change.

**Domain Name:** Enter the domain name if you know. If you leave this blank, the domain name obtained by DHCP from the ISP is used. You must enter host name (system name) on each individual PC. The domain name can be assigned from the router through the DHCP server.

**DNS Servers:** You can configure the DNS server ip addresses for DNS Relay.

**DHCP SERVER SETTING**

This page can be used to config the DHCP mode:None,DHCP Relay or DHCP Server.  
 (1)Enable the DHCP Server if you are using this device as a DHCP server. This page lists the IP address pools available to hosts on your LAN. The device distributes numbers in the pool to hosts on your network as they request Internet access.  
 (2)Enable the DHCP Relay if you are using the other DHCP server to assign IP address to your hosts on the LAN. You can set the DHCP server ip address.  
 (3)If you choose "None", then the modem will do nothing when the hosts request a IP address.

**DHCP SERVER SETTINGS**

**LAN IP:** 192.168.1.1/255.255.255.0

**DHCP Mode:** DHCP Server

**Interface:**  LAN  USB

**IP Pool Range:** 192.168.1.2 - 192.168.1.254 Show Client

**Default Gateway:** 192.168.1.1

**Max Lease Time:** 24 hours

**Domain Name:** domain.name

**DNS Servers:** 192.168.1.1

Apply Changes
Undo

Set VendorClass IP Range

## Configuration

In the **DHCP Server Setting** page, click the button **Show Client** to display the page **Active DHCP Client Table**. It shows the IP addresses assigned to DHCP clients.

Configure the parameters in this page as described below.

**IP Address:** It displays the IP address assigned to the DHCP client from the router.

**MAC Address:** It displays the MAC address of the DHCP client. Each Ethernet device has a unique MAC address. The MAC address is assigned at the factory and it consists of six pairs of hexadecimal character, for example, 00-A0-C5-00-02-12.

**Expiry:** It displays the lease time. The lease time determines the period that the host retains the assigned IP addresses before the IP addresses change.

**Refresh:** Click it to refresh this page.

In the **DHCP Server Setting** page, click the button **Set VendorClass IP Range** to display the page **Device IP Range Set**. In this page, you can configure the IP address range based on the device type.

**ACTIVE DHCP CLIENT TABLE**

This table shows the assigned IP address, MAC address and time expired for each DHCP leased client.

**ACTIVE DHCP CLIENT TABLE**

Name	IP Address	MAC Address	Expiry	Type
------	------------	-------------	--------	------

**DEVICE IP RANGE SET**

This page is used to configure the IP address range based on device type.

**DEVICE IP RANGE SETUP**

device name:

start address:

end address:

router address:

option60:

**IP RANGE TABLE:**

Select	device name	start address	end address	default gateway	option60
--------	-------------	---------------	-------------	-----------------	----------

In the **DHCP Server Setting** page, choose **None** at the **DHCP Mode** field, and the page shown on the left appears.

In the **DHCP Server Setting** page, choose **DHCP Relay** at the **DHCP Mode** field, and the page shown on the left appears.

- Configure the parameters in this page as described below.
- DHCP Mode:** If set to DHCP Relay, the router acts a surrogate DHCP Server and relays the DHCP requests and responses between the remote server and the client.
- Relay Server:** Enter the DHCP server address provided by your ISP.
- Apply Changes:** Click it to save the settings of this page.

**DHCP SERVER SETTING**

This page can be used to config the DHCP mode:None,DHCP Relay or DHCP Server.  
 (1)Enable the DHCP Server if you are using this device as a DHCP server. This page lists the IP address pools available to hosts on your LAN. The device distributes numbers in the pool to hosts on your network as they request Internet access.  
 (2)Enable the DHCP Relay if you are using the other DHCP server to assign IP address to your hosts on the LAN. You can set the DHCP server ip address.  
 (3)If you choose "None", then the modem will do nothing when the hosts request a IP address.

**DHCP SERVER SETTINGS**

**LAN IP:** 192.168.1.1/255.255.255.0  
**DHCP Mode:** None

Apply Changes
Undo

Set VendorClass IP Range

**DHCP SERVER SETTING**

This page can be used to config the DHCP mode:None,DHCP Relay or DHCP Server.  
 (1)Enable the DHCP Server if you are using this device as a DHCP server. This page lists the IP address pools available to hosts on your LAN. The device distributes numbers in the pool to hosts on your network as they request Internet access.  
 (2)Enable the DHCP Relay if you are using the other DHCP server to assign IP address to your hosts on the LAN. You can set the DHCP server ip address.  
 (3)If you choose "None", then the modem will do nothing when the hosts request a IP address.

**DHCP SERVER SETTINGS**

**LAN IP:** 192.168.1.1/255.255.255.0  
**DHCP Mode:** DHCP Relay  
**Relay Server:** 192.168.2.242

Apply Changes
Undo

Set VendorClass IP Range

## DHCP Reserved

Choose **Setup > Local Network > DHCP Reserved**. The **DHCP Static IP Configuration** page appears. This page lists the fixed IP/MAC address on your LAN. The device distributes the number configured to hosts on your network as they request Internet access.

Configure the parameters in this page as described below.

**IP Address:** Enter the specified IP address in the IP pool range, which is assigned to the host.

**Mac Address:** Enter the MAC address of a host on the LAN.

**Add:** After entering the IP address and MAC address, click this button to add them to the DHCP Static IP Table.

**Delete Selected:** Select a row in the DHCP Static IP Table, then click it, this row is deleted.

**Undo:** Click it to refresh this page.

**DHCP Static IP Table:** It shows the assigned IP address based on the MAC address.

**DHCP STATIC IP CONFIGURATION**

This page lists the fixed IP/MAC address on your LAN. The device distributes the number configured to hosts on your network as they request Internet access.

**DHCP STATIC IP SETTINGS**

IP Address:

Mac Address:  (ex. 00E086710502)

**DHCP STATIC IP TABLE:**

Select	IP Address	MAC Address
--------	------------	-------------

# Internet Setup

## Channel Configuration

Choose **Setup > Internet Setup > Channel Config**. The **Channel Configuration** page appears. You may configure the parameters for the channel operation modes of your ADSL Router.

Configure the parameters in this page as described below.  
 Default Route Selection: You can select **Auto** or **Specified**.

VPI: The virtual path between two points in an ATM network, ranging from **0** to **255**.

VCI: The virtual channel between two points in an ATM network, ranging from **32** to **65535** (**1** to **31** are reserved for known protocols).

Encapsulation: You can choose **LLC** and **VC-Mux**.

Channel Mode: You can choose **1483 Bridged**, **1483 MER**, **PPPoE**, **PPPoA**, **1483 Routed** or **IPoA**.

Enable NAPT: Select it to enable Network Address Port Translation (NAPT) function. If you do not select it and you want to access the Internet normally, you must add a route on the uplink equipment. Otherwise, the access to the Internet fails. Normally, it is enabled.

Enable IGMP: You can enable or disable Internet Group Management Protocol (IGMP) function.

802.1q: You can select **Disable** or **Enable**. If enabled, you need to enter the VLAN ID.

VLAN ID: The value ranges from **1** to **4095**.

IP Protocol: When any channel mode except 1483 Bridged is selected, select an IP protocol from **IPv4/IPv6**, **IPv4** and **IPv6**.

**PPP Settings:**

CHANNEL CONFIGURATION

This page is used to configure the parameters for the channel operation modes of your ADSL Modem/Router. Note : When connect type of PPPoE and PPPoA only is "Manual", the "Connect" and "Disconnect" button will be enable.

DEFAULT ROUTE SELECTION

Default Route Selection:  Auto  Specified

CHANNEL CONFIGURATION

VPI:  VCI:  Encapsulation:  LLC  VC-Mux  
 Channel Mode:  Enable NAPT:  Enable IGMP:   
 802.1q:  Disable  Enable VLAN ID(1-4095):

---

PPP Settings: User Name:  Password:   
 Type:  Idle Time (min):

---

WAN IP Settings: Type:  Fixed IP  DHCP  
 Local IP Address:  Remote IP Address:   
 Netmask:

Default Route:  Disable  Enable  Auto  
 Unnumbered

CURRENT ATM VC TABLE:

Select	Inf	Mode	VPI	VCI	Encap	NAPT	IGMP	DRo	IP A	Rem	Net	Use	Unn	Stat	Edit
<input type="radio"/>	pppoe1	PPPoE	8	35	LLC	On	Off	Off	0.0.0.0	0.0.0.0	25 5.25 5.25 5	test	---	dow n	

## Configuration

---

**User Name:** Enter the correct user name for PPP dial-up, which is provided by your ISP.

**Password:** Enter the correct password for PPP dial-up, which is provided by your ISP.

**Type:** You can choose **Continuous**, **Connect on Demand** or **Manual**.

**Idle Time (min):** If the type is set to **Connect on Demand**, you need to enter the idle timeout time. Within the preset minutes, if the router does not detect the flow of the user continuously, the router automatically disconnects the PPPoE connection.

### **WAN IP Settings:**

**Type:** You can choose **Fixed IP** or **DHCP**. If select **Fixed IP**, you should enter the local IP address, remote IP address and subnet mask. If select **DHCP**, the router is a DHCP client, the WAN IP address is assigned by the remote DHCP server.

**Local IP Address:** Enter the IP address of WAN interface provided by your ISP.

**Remote IP Address:** Enter the IP address of gateway provided by your ISP.

**Netmask:** Enter the subnet mask of the local IP address.

**Default Route:** Routing table entry is not clearly specified in the routing, as to any network prefix forwarding address.

**Unnumbered:** Select this checkbox to enable IP unnumbered function.

### **IPv6 WAN Setting:**

**Address Mode:** When the channel mode is not set to **1483 Bridged**, configure this interface as supporting Slaac or Static to generate wan ipv6 addresses.

**Enable DHCPv6 Client:** You may enable or disable dhcpv6 client on this interface. After enabling it, user may specify the dhcpv6 client request an address or prefix.

After a PPPoE ATM VC is added to the table, click  in the **PPPoE** mode, the page shown in the right figure appears. In this page, you can configure parameters of this PPPoE PVC.

Configure the parameters in this page as described below.

**Protocol:** It displays the protocol type used for this WAN connection.

**ATM VCC:** The ATM virtual circuit connection assigned for this PPP interface (VPI/VCI).

**Login Name:** The user name provided by your ISP.

**Password:** The password provided by your ISP.

**Authentication Method:** You can choose **AUTO**, **CHAP**, or **PAP**.

**Connection Type:** You can choose **Continuous**, **Connect on Demand**, or **Manual**.

**Idle Time (s):** If choose **Connect on Demand**, you need to enter the idle timeout time. Within the preset minutes, if the router does not detect the flow of the user continuously, the router automatically disconnects the PPPoE connection.

**Bridge:** You can select **Bridged Ethernet**, **Bridged PPPoE**, or **Disable Bridge**.

**AC-Name:** The accessed equipment type.

**Service-Name:** The service name.

**802.1q:** You can select **Disable** or **Enable**. After enable it, you need to enter the VLAN ID. The value ranges from 1 to 4095.

**Source Mac address:** The MAC address you want to clone.

**MAC Clone:** Click it to enable the MAC Clone function with the MAC address that is configured.

## ATM Settings

Choose **Setup > Internet Setup > ATM Settings**. The **ATM Settings** page appears. You may configure the parameters for the ATM of your ADSL Router. Here you may change the setting for VPI, VCI and QoS, etc.

Configure the parameters in this page as described below.

**VPI:** The virtual path identifier of the ATM PVC.

**VCI:** The virtual channel identifier of the ATM PVC.

**QoS:** The QoS category of the PVC. You can choose **UBR**, **CBR**, **rt-VBR**, or **nrt-VBR**.

**PCR:** Peak cell rate (PCR) is the maximum rate at which cells can be transmitted along a connection in the ATM network. Its value ranges from 1 to 65535.

**CDVT:** Cell delay variation tolerance (CDVT) is the amount of delay permitted between ATM cells (in microseconds). Its value ranges from 0 to 4294967295.

**SCR:** Sustained cell rate (SCR) is the maximum rate that traffic can pass over a PVC without the risk of cell loss. Its value ranges from 0 to 65535.

**MBS:** Maximum burst size (MBS) is the maximum number of cells that can be transmitted at the PCR. Its value ranges from 0 to 65535.

**ATM SETTINGS**

This page is used to configure the parameters for the ATM of your ADSL Router. Here you may change the setting for VPI, VCI, QoS etc ...

**ATM SETTING**

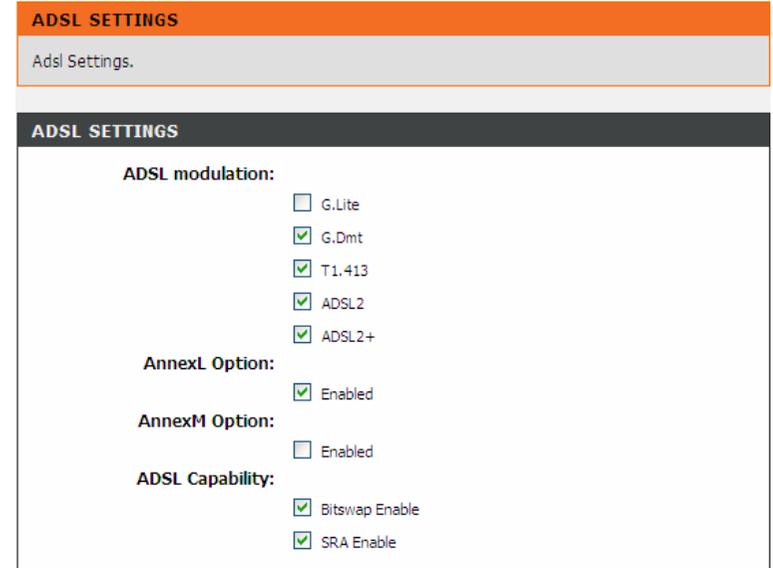
**VPI:** 
**VCI:** 
**QoS:**

**PCR:** 
**CDVT:** 
**SCR:** 
**MBS:**

Select	VPI	VCI	QoS	PCR	CDVT	SCR	MBS
<input type="radio"/>	8	35	UBR	6144	0	---	---

## ADSL Settings

Choose **Setup > Internet Setup > ADSL Settings**. The **ADSL Settings** page appears. This page contains a modulation and capability section to be specified by your ISP. Consult with your ISP to select the correct settings for each. Click **Apply Changes** to finish.



**ADSL SETTINGS**

Adsl Settings.

**ADSL SETTINGS**

**ADSL modulation:**

- G.Lite
- G.Dmt
- T1.413
- ADSL2
- ADSL2+

**AnnexL Option:**

- Enabled

**AnnexM Option:**

- Enabled

**ADSL Capability:**

- Bitswap Enable
- SRA Enable

## PVC Auto Search

Choose **Setup > Internet Setup > PVC Auto Search**. The **Auto PVC Configuration** page appears. You may configure PVC auto detect function. Here you can add/delete auto PVC search table.

**AUTO PVC CONFIGURATION**

This page is used to configure pvc auto detect function. Here you can add/delete auto pvc search table.

Probe WAN PVC

VPI:  VCI:

**CURRENT AUTO-PVC TABLE**

PVC	VPI	VCI
0	0	35
1	8	35
2	0	43
3	0	51
4	0	59
5	8	43
6	8	51
7	8	59
8	0	33
9	1	32

## Time and Date

Choose **Setup > Time and Date**. The **System Time Configuration** page appears. In the page, you can configure, update and maintain the correct time on the internal system clock. You can set the time zone that you are in and the Network Time Protocol (NTP) server. You can also configure daylight saving to automatically adjust the time when needed.

Configure the parameters in this page as described below.

**System Time:** Displays the time currently maintained by the router. If this is incorrect, use the following options to configure the time correctly.

**Time Zone:** Select your local time zone from the dropdown list.

**Daylight:** Adjust the clock for daylight savings time.

**Mode:** To synchronize the time automatically with the Internet or your own computer, you may select **Set Time Manually**, **Copy Computer Time** or **Set NTP Server Manually**.

**Get GMT Time:** Synchronize to Greenwich Mean Time.

When the mode is set to **Set NTP Server Manually**, the right page will appear.

Configure the parameters in this page as described below.

**State:** Select **Enable** to synchronize the time automatically with Internet or your own computer.

**Server:** Select a Network Time Server for synchronization from the dropdown list. You may set two servers.

**Interval:** Specify the interval for synchronization with the time server.

**SYSTEM TIME CONFIGURATION**

This page is used to configure the system time and Network Time Protocol(NTP) server. Here you can change the settings or view some information on the system time and NTP parameters.

**SYSTEM TIME**

**System Time:** 2014 Year Jan Month 21 Day 11 Hour 54 min 47 sec

**Time Zone:** (GMT+08:00) China, Hong Kong, Australia Western, Singapore, Taiwan, Russia

**DayLight:** LocalTIME

**Mode:** Copy Computer time

Apply Changes    Reset

**START NTP:**

**NTP Start:** Get GMT Time

**NTP CONFIGURATION:**

**State:**  Disable  Enable

**Server:** ntp1.dlink.com

**Server2:** None

**Interval:** Every 1 hours

**GMT time:** Thu Jan 1 3:30:19 1970

## Advanced

This section includes advanced features for network management, security and administrative tools to manage the device. You can view status and other information used to examine performance and for troubleshooting.

### Access Control List

Multiple connections are required by some applications, for example, internet games, video conferencing and Internet telephony. These applications have difficulties working through NAT (Network Address Translation). This section is used to open multiple ports or a range of ports in your router and redirect data through those ports to a single PC on your network.

## Access Control List

Choose **Advanced > Access Control List > Access Control List**. The page shown in the right figure appears. In this page, you can permit the data packets from LAN or WAN to access the router. You can configure the IP address for Access Control List (ACL). If ACL is enabled, only the effective IP address in the ACL can access the router.

**Note:** If you select **Enable** in ACL capability, ensure that your host IP address is in ACL list before it takes effect.

Configure the parameters in this page as described below.

**Direction Select:** Select the router interface. You can select **LAN** or **WAN**. In this example, **LAN** is selected.

**LAN ACL Switch:** Select it to enable or disable ACL function.

**IP Address:** Enter the IP address of the specified interface. Only the IP address that is in the same network segment with the IP address of the specified interface can access the router.

**Services Allowed:** You can choose the following services from LAN: **Web, Telnet, SSH, TFTP, SNMP** and **PING**. You can also choose all the services.

**Add:** After setting the parameters, click it to add an entry to the **Current ACL Table**.

**Reset:** Click it to refresh this page.

**ACL CONFIGURATION**

You can specify what services are accessible form LAN or WAN parts. Entries in this ACL table are used to permit certain types of data packets from your local network or Internet network to the Gateway. Using of such access control can be helpful in securing or restricting the Gateway management.

**ACL CONFIGURATION -- DIRECTION**

Direction Select:  LAN  WAN

**LAN ACL SWITCH CONFIGURATION**

LAN ACL Switch:  Enable  Disable

**ACL SETTINGS**

IP Address:  -  (The IP 0.0.0.0 represent any IP )

Services Allowed:  
 Any

**CURRENT ACL TABLE**

Select	Direction	IP Address/Interface	Service	Port	Action
0	WAN	0.0.0.0	ping	--	<input type="button" value="Delete"/>
1	WAN	0.0.0.0	web	80	<input type="button" value="Delete"/>
2	WAN	0.0.0.0	telnet	23	<input type="button" value="Delete"/>
3	WAN	0.0.0.0	tftp	69	<input type="button" value="Delete"/>

## Configuration

When the direction of data packets is set to **WAN**, the page shown in the right figure appears.

Configure the parameters in this page as described below.

**Direction Select:** Select the router interface. You can select **LAN** or **WAN**. In this example, **WAN** is selected.

**WAN Setting:** You can choose **Interface** or **IP Address**.

**WAN Interface:** Choose the interface that permits data packets from WAN to access the router.

**Services Allowed:** You can choose the following services from WAN: **Web**, **Telnet**, **SSH**, **TFTP**, **SNMP** and **PING**. You can also choose all the services.

**Add:** After setting the parameters, click it to add an entry to the **Current ACL Table**.

**Reset:** Click it to refresh this page.

### ACL CONFIGURATION

You can specify what services are accessible from LAN or WAN parts. Entries in this ACL table are used to permit certain types of data packets from your local network or Internet network to the Gateway. Using of such access control can be helpful in securing or restricting the Gateway management.

#### ACL CONFIGURATION -- DIRECTION

Direction Select:  LAN  WAN

#### ACL SETTINGS

WAN Setting:

WAN Interface:

Services Allowed:

- web
- telnet
- ssh
- ftp
- tftp
- snmp
- ping

#### CURRENT ACL TABLE

Select	Direction	IP Address/Interface	Service	Port	Action
0	WAN	0.0.0.0	ping	--	<input type="button" value="Delete"/>
1	WAN	0.0.0.0	web	80	<input type="button" value="Delete"/>
2	WAN	0.0.0.0	telnet	23	<input type="button" value="Delete"/>
3	WAN	0.0.0.0	tftp	69	<input type="button" value="Delete"/>

## Access Control List IPv6

Choose **Advanced > Access Control List > Access Control List IPv6**. The page shown in the following figure appears. For configuration method, refer to the section of Access Control List.

### Port Triggering

Choose **Advanced > Port Triggering**. The page shown in the right figure appears. Port Triggering is a special form of Port Forwarding in which it requires an outgoing connection before allowing incoming connections on a single or multiple ports. Port Triggering is mostly used when your computer is behind a NAT router. It gives more flexibility than static port forwarding because you don't need to set it up for a specific computer.

Click the **Usual Application Name** drop-down menu to choose the application you want to set up for port triggering. When you have chosen an application the default Trigger settings will populate the table below.

If the application you want to set up isn't listed, click the **User-defined Application Name** radio button and type in a name for the trigger in the Custom application field. Configure the **Start Match Port, End Match Port, Trigger Protocol, Start Relate Port, End Relate Port, Open Protocol and Nat type**.

Click the **Apply changes** button to finish.

**NAT PORTTRIGGER**

Some applications require that specific ports in the Router's firewall be opened for access by the remote parties. Port Trigger dynamically opens up the "Relate Port" in the firewall when an application on the LAN initiates a TCP/UDP connection to a remote party using the "Match Port". The Router allows the remote party from the WAN side to establish new connections back to the application on the LAN side using the "Relate Port".

Entries in this table are used to restrict certain types of data packets from your local network to Internet through the Gateway. Use of such filters can be helpful in securing or restricting your local network.

**NAT PORT TRIGGER STATUS**

**Nat Port Trigger:**  Enable  Disable

**APPLICATION TYPE**

**Usual Application** Select One ▾

**Name:** \_\_\_\_\_

**User-defined Application Name:** \_\_\_\_\_

Start Match Port	End Match Port	Trigger Protocol	Start Relate Port	End Relate Port	Open Protocol	Nat Type
		UDP ▾			UDP ▾	outgoing ▾
		UDP ▾			UDP ▾	outgoing ▾
		UDP ▾			UDP ▾	outgoing ▾
		UDP ▾			UDP ▾	outgoing ▾
		UDP ▾			UDP ▾	outgoing ▾
		UDP ▾			UDP ▾	outgoing ▾
		UDP ▾			UDP ▾	outgoing ▾
		UDP ▾			UDP ▾	outgoing ▾
		UDP ▾			UDP ▾	outgoing ▾

**CURRENT PORTTRIGGER TABLE**

ServerName	Trigger Protocol	Direction	Match Port	Open Protocol	Relate Port	Action

## Port Forwarding

This function is used to open ports in your device and redirect data through those ports to a single PC on your network (WAN-to-LAN traffic). It allows remote users to access services on your LAN, such as FTP for file transfers or SMTP and POP3 for e-mail. The device accepts remote requests for these services at your global IP address. It uses the specified TCP or UDP protocol and port number, and redirects these requests to the server on your LAN with the LAN IP address you specify. Note that the specified private IP address must be within the available range of the subnet where the device is in.

Choose **Advanced > Port Forwarding**. The page shown in the right figure appears.

Click the **Usual Service Name** drop-down menu to choose the service you want to set up for port forwarding. When you have chosen a service, the default settings will populate the table below.

If the service you want to set up isn't listed, select the **User-defined Service Name** radio button and type in a service name. Configure the **Protocol**, **WAN Setting**, **WAN Interface**, **WAN Port**, **LAN Open Port** and **LAN IP Address**.

Click the **Apply changes** button to finish.

PORT FORWARDING

Port Forwarding allows you to direct incoming traffic from the WAN side (identified by Protocol and WAN port) to the internal server with a private IP address on the LAN side. Select Usual Service Name, and enter the LAN IP address and click "Apply Changes" to forward IP packets for this service to the specified server.

PORT FORWARDING SETUP

Usual Service Name AUTH ▼

User-defined Service Name

Protocol TCP ▼

WAN Setting Interface ▼

WAN Interface pppoe1 ▼

WAN Port  (ex. 5001:5010)

LAN Open Port

LAN IP Address

Add
Modify

CURRENT PORT FORWARDING TABLE

Select	Server Name	Protocol	Local IP Address	Local Port	WAN IP Address	WAN Port	State	Action

# DMZ

DMZ is the abbreviation of the Demilitarized Zone. Since some applications are not compatible with NAT, the device supports the use of a DMZ IP address for a single host on the LAN. This IP address is not protected by NAT and it is visible to agents on the Internet with the correct type of software. Note that any client PC in the DMZ is exposed to various types of security risks. If you use the DMZ, take measures (such as client-based virus protection) to protect the remaining client PCs on your LAN from possible contamination through DMZ.

Choose **Advanced** > **DMZ**. The page shown in the right figure appears.

In the DMZ Host IP Address, input the LAN IP address of the LAN computer that you want to have unrestricted Internet communication. If this computer obtains its address automatically using DHCP, then you may want to make a static reservation on the Setup-->Local Network-->DHCP Reserved page so that the IP address of the DMZ computer does not change.

Click **Apply** to save the settings.

**DMZ**

A Demilitarized Zone is used to provide Internet services without sacrificing unauthorized access to its local private network. Typically, the DMZ host contains devices accessible to Internet traffic, such as Web (HTTP ) servers, FTP servers, SMTP (e-mail) servers and DNS servers.

**DMZ CONFIGURATION**

Enable DMZ

**DMZ Host IP Address:**

## Parent Control

You may create a list of websites that you would like the devices on your network to be denied access to. **URL Block** allows you to quickly create a list of all websites that you wish to stop users from accessing. **MAC Filter** allows you to control when clients or PCs connected to the device are allowed to access the Internet.

### URL Block

Choose **Advanced > Parental Control > URL Block**. The **URL Block** page shown in the right figure appears. You may deny certain websites from being accessed during the "schedule" you specified. Here you can add/delete filtered URL.

**Note:** To use this feature, the time of router must be correct. Please set in the section of Time and Date.

In the field **Schedule Mode**, you may select an existing schedule schedule for when the rule will be enabled, or manually set a schedule. After setting, click **Add Filter** to add the URL into the **URL Blocking Table**. To add schedules, refer to the section of Schedules.

**URL BLOCK**

This page is used to configure the blocked URL in specified time. Here you can add/delete filtered URL. Firstly, you should enable URL Blocking Capability.

Note: To use this feature, the time of router must be correct, please set in SETUP -- Time and Date.

**URL BLOCKING CAPABILITY**

**URL Blocking Capability:**  Disable  Enable

**URL BLOCKING**

**Block Any URL**

**Keyword:**

**Schedule Mode**  Existing Schedule  Manual Schedule

**Schedule:**

**Days:**  EveryDay  
 Sun  Mon  Tue  Wed  
 Thu  Fri  Sat

**All day(24Hour):**

**Time:** From  :  To  :   
(e.g. From 09:21 To 18:30)

**URL BLOCKING TABLE:**

Select	Filtered URL	Days	Time	Rule Name

# MAC Block

Choose **Advanced > Parental Control > MAC Block**. The **URL Block** page shown in the right figure appears. You may block a LAN device connected to the router in the specified time section.

In the field **Rule Name**, input a name that is meaningful to you, then enter a MAC address that you want to deny access to the Internet, and set the days and hours, and click Add Rule to add the MAC into the **MAC Blocking Table**.

**MAC BLOCK**

This page is used to block a LAN device connected to the router in the specified time section. To find out the MAC address of a Windows-based PC, open a command prompt window and type "ipconfig /all".

**MAC BLOCKING**

**Rule Name:**

**MAC Address:**  (Ex. 00:E0:86:71:05:02)

**Days:**  Everyday  
 Sun  Mon  Tue  Wed  
 Thu  Fri  Sat

**All day(24Hour):**

**Time:** From  :  To  :   
 (e.g. From 09:21 To 18:30)

**MAC BLOCKING TABLE:**

Select	Rule name	MAC	Days	Time

## Schedules

Choose **Advanced > Parental Control > Schedules**. The **Schedules** page shown in the right figure appears. You may add or delete scheduling rules to be applied for URL block.

In the field **Rule Name**, give the schedule a name that is meaningful to you, such as "Weekday rule". Set the **Day(s)** and time field, and click **Add Rules** to save the new rule in the following Rules Table.

SCHEDULES

Schedule allows you to create scheduling rules to be applied for URL block.

ADD SCHEDULE RULE

**Rule Name:**

**Days:**  Everyday  
 Sun  Mon  Tue  Wed  
 Thu  Fri  Sat

**All day(24Hour):**

**Time:** From  :  To  :   
(e.g. From 09:21 To 18:30)

RULES TABLE:

Select	Rule Name	Days	Time

# Filtering Options

Filters can be configured to manage your incoming and outgoing traffic.

## IP/Port Filter

When you use the Port Triggering or Port Forwarding features to open specific ports to traffic from the Internet, you could be increasing the exposure of your LAN to cyber-attacks from the Internet. In these cases, you can limit that exposure by specifying the IP addresses of Internet hosts that you trust to access your LAN through the ports that you have opened.

Choose **Advanced > Filtering Options > IP/Port Filter**. The **IP/Port Filtering** page shown in the right figure appears.

Direction **Upstream (Downstream)** means packets outgoing (incoming) from (to) router. The Source IP addresses are LAN-side (WAN-side) addresses and the Destination IP addresses are WAN-side (LAN-side) addresses. Select the rule action, specify at least one of the following criteria: protocol, source/destination IP address, subnet mask and source/destination port.

Click the **Apply Changes** to save a finished rule in the Rules List. The **Current Filter Table** shows detailed information about each created IP filter.

**Note:** The settings only apply when the firewall is enabled.

**IP/PORT FILTERING**

Entries in this table are used to restrict certain types of data packets from your local network to Internet through the Gateway. Use of such filters can be helpful in securing or restricting your local network.

**DEFAULT ACTION STATUS**

Outgoing Default Action:  Permit  Deny  
 Incoming Default Action:  Permit  Deny

**RULE CONFIGURATION**

Rule Action:  Permit  Deny  
 Protocol: IP  
 Direction: Upstream  
 Source IP Address:  Mask Address: 255.255.255.255  
 Dest IP Address:  Mask Address: 255.255.255.255  
 SPort:  -  DPort:  -   
 Enable:

**CURRENT FILTER TABLE**

Rule	Protocol	Source IP/Mask	SPort	Dest IP/Mask	DPort	State	Direction	Action

## IPv6/Port Filter

Choose **Advanced > Filtering Options > IPv6/Port Filter**. The **IP/Port Filtering** page shown in the right figure appears. You may restrict certain types of ipv6 data packets between LAN-side and WAN-side.

For detailed configuration, you may refer to the section of IP/Port Filter.

**IP/PORT FILTERING**

Entries in this table are used to restrict certain types of ipv6 data packets from your local network to Internet through the Gateway. Use of such filters can be helpful in securing or restricting your local network.

DEFAULT ACTION STATUS

**Outgoing Default Action:**  Permit  Deny

**Incoming Default Action:**  Permit  Deny

RULE CONFIGURATION

**Rule Action:**  Permit  Deny

**Protocol:** IPv6

**Direction:** Upstream

**Source IPv6 Address:**

**Dest IPv6 Address:**

**SPort:**  -

**Enable:**

**Icmp6Type:** PING6

**Prefix Length:**

**Prefix Length:**

**DPort:**  -

Apply Changes Reset Help

CURRENT FILTER TABLE

Rule	Protocol	Source IPv6/Prefix	SPort	Dest IPv6/Prefix	DPort	ICMP6Type	State	Direction	Action

# MAC Filter

Choose **Advanced > Filtering Options > MAC Filter**. The **MAC Filtering** page shown in the right figure appears. You may create a list of MAC addresses that you would either like to allow or deny access to your network.

**MAC FILTERING**

Entries in this table are used to restrict certain types of data packets from your local network to Internet through the Gateway. Use of such filters can be helpful in securing or restricting your local network.

---

**DEFAULT POLICY**

**Outgoing Default Policy:**  Deny  Allow

**Incoming Default Policy:**  Deny  Allow

---

**ADD FILTER**

**Direction:** Outgoing

**Action:**  Deny  Allow

**Source MAC:**  (ex. 00E086710502)

**Destination MAC:**  (ex. 00E086710502)

---

**CURRENT MAC FILTER TABLE**

Select	Direction	Source MAC	Destination MAC

## DoS Settings

Denial-of-Service Attack (DoS attack) is a type of attack on a network that is designed to bring the network to its knees by flooding it with useless traffic.

Choose **Advanced > DoS Settings**. The **DOS Settings** page shown in the right figure appears. Select the **Enable DoS Prevention** checkbox, select the options below, and click **Apply Changes** to finish.

**DOS SETTINGS**

A "denial-of-service" (DoS) attack is characterized by an explicit attempt by hackers to prevent legitimate users of a service from using that service.

**DOS CONFIGURATION**

**Enable DoS Prevention**

**Whole System Flood: SYN**  **Packets/Second**

**Whole System Flood: FIN**  **Packets/Second**

**Whole System Flood: UDP**  **Packets/Second**

**Whole System Flood: ICMP**  **Packets/Second**

**Per-Source IP Flood: SYN**  **Packets/Second**

**Per-Source IP Flood: FIN**  **Packets/Second**

**Per-Source IP Flood: UDP**  **Packets/Second**

**Per-Source IP Flood: ICMP**  **Packets/Second**

**TCP/UDP PortScan**  **Sensitivity**

**ICMP Smurf**

**IP Land**

**IP Spoof**

**IP TearDrop**

**PingOfDeath**

**TCP Scan**

**TCP SynWithData**

**UDP Bomb**

**UDP EchoChargen**

**Enable Source IP Blocking**  **Block time (sec)**

## DNS

Domain Name System (DNS) is an Internet service that translates the URL/domain name into the corresponding IP address. Since URL/Domain Names are alphabetical, they are easier to remember. But the Internet is based on IP address. For example, the URL/Domain Name www.dlink.com is actually 192.168.0.123.

## DNS

Choose **Advanced > DNS > DNS**. The **DNS Configuration** page shown in the right figure appears. You may configure the IP addresses of DNS servers for DNS Relay.

Configure the parameters in this page as described below.

**Attain DNS Automatically:** Select it, the router accepts the first received DNS assignment from one of the PPPoA, PPPoE or MER enabled PVC(s) during the connection establishment.

**Set DNS Manually:** Select it, enter the IP addresses of the primary and secondary DNS server.

**Apply Changes:** Click it to save the settings of this page.

**Reset Selected:** Click it to start configuring the parameters in this page.

The screenshot shows the 'DNS CONFIGURATION' page. At the top, there is an orange header with the text 'DNS CONFIGURATION'. Below this is a grey box containing the text: 'This page is used to configure the DNS server ip addresses for DNS Relay.' Below the grey box is another header with the text 'DNS CONFIGURATION' in white on a dark background. The main content area has two radio button options: 'Attain DNS Automatically' (which is selected) and 'Set DNS Manually'. Below these options are three input fields labeled 'DNS 1:', 'DNS 2:', and 'DNS 3:'. The 'DNS 1:' field contains the text '0.0.0.0'. At the bottom of the form are two buttons: 'Apply Changes' and 'Reset Selected'.

## IPv6 DNS

Choose **Advanced > DNS > IPv6 DNS**. The **IPv6 DNS Configuration** page shown in the right figure appears. You may configure the ipv6 addresses of DNS servers.

Configure the parameters in this page as described below.

**Attain DNS Automatically:** Select it, the router accepts the first received DNS assignment from one of the PPPoA, PPPoE or MER enabled PVC(s) during the connection establishment.

**Set DNS Manually:** Select it, enter the IP addresses and choose the WAN interface of the primary, the secondary and the tertiary DNS server.

**Interface:** The router accepts received packet assignment from one of the PPPoA, PPPoE or MER enabled PVC(s).

**Apply Changes:** Click it to save the settings of this page.

**Reset Selected:** Click it to start configuring the parameters in this page.

**IPv6 DNS CONFIGURATION**

This page is used to configure the DNS server ipv6 addresses.

**IPv6 DNS CONFIGURATION**

Attain DNS Automatically  
 Set DNS Manually

DNS 1:  Interface:   
 DNS 2:  Interface:   
 DNS 3:  Interface:

## Dynamic DNS

The device supports dynamic domain name service (DDNS). The dynamic DNS service allows a dynamic public IP address to be associated with a static host name in any of the many domains, and allows access to a specified host from various locations on the Internet. Click a hyperlinked URL in the form of hostname.dyndns.org and allow remote access to a host. Many ISPs assign public IP addresses using DHCP, so locating a specific host on the LAN using the standard DNS is difficult. For example, if you are running a public web server or VPN server on your LAN, DDNS ensures that the host can be located from the Internet even if the public IP address changes. DDNS requires that an account be set up with one of the supported DDNS service providers (DyndDNS.org or dlinkddns.com).

Choose **Advanced > Dynamic DNS**. The **Dynamic DNS Configuration** page shown in the right page appears.

Configure the parameters in this page as described below.  
 DDNS provider: Select a dynamic DNS service provider from the pull-down list.

**Hostname:** Enter the host name that you registered with your DDNS service provider.

**Username:** Enter the username provided by your service provider.

**Password:** Enter the password provided by your service provider.

Click **Add** to save the settings to the **Dynamic DDNS Table**.  
**Note:** In some cases DDNS service requires you to open the WAN http service. Refer to Access Control List-> Access Control List.

DYNAMIC DNS CONFIGURATION

This page is used to configure the Dynamic DNS address from DynDNS.org or TZO. Here you can Add/Remove to configure Dynamic DNS.

DDNS CONFIGURATION

**DDNS provider:**

**Hostname:**

**Interface:**

**Enable:**

---

**DynDns Settings:**

**Username:**

**Password:**

---

**TZO Settings:**

**Email:**

**Key:**

DYNAMIC DDNS TABLE

Select	State	Service	Hostname	Username	Interface

## Network Tools

The router provides following tools: **Port Mapping, IGMP Proxy, IP QoS, UPnP, SNMP, TR-069, Software Forbidden, ARP Binding, Client Limit, and Telnet.**

## Port Mapping

Port Mapping supports a single (LAN) port or multiple (LAN) ports to be formed as a group and mapped to a PVC (which is associated w/ a VLAN). As a result, each group of LAN ports will perform as an independent (logical) network (like a broadcast domain) among whom traffic broadcast would be prevented. This feature is useful while you would like to form multiple independent (logical) networks for multimedia applications at home. For instance, you can map PVC1 to port 1~3 to create a network (broadcast domain) for PCs for Internet, and map PVC2 to port 4 to create another network (broadcast domain) for IPTV service (devices). By using this feature (w/ multiple PVCs), data traffic and IPTV traffic would not affect each

other.

Choose **Advanced > Network Tools > Port Mapping**. The **Port Mapping Configuration** page shown in the right figure appears.

Follow the steps to manipulate a mapping group.

**Step 1** Select a group from the table.

**Step 2** Select interfaces from the available WAN and LAN interface groups and add it to the interface group list using the arrow buttons to manipulate the required mapping of the ports.

**Step 3** Click **Apply** button to save the changes.

**Note:** The selected interfaces will be removed from their existing groups and added to the new group.

**PORT MAPPING CONFIGURATION**

To manipulate a mapping group:

1. Select a group from the table.
2. Select interfaces from the available/grouped interface list and add it to the grouped/available interface list using the arrow buttons to manipulate the required mapping of the ports.
3. Click "Apply Changes" button to save the changes.

**Note that the selected interfaces will be removed from their existing groups and added to the new group.**

**PORT MAPPING CONFIGURATION**

Port Mapping:  Disable  Enable

**WAN**

Add >

**Interface group**

**LAN**

< Del

Select	Interfaces	Status
Default	LAN1,USB0,pppoe1	Enabled
Group1 <input type="radio"/>		--
Group2 <input type="radio"/>		--
Group3 <input type="radio"/>		--
Group4 <input type="radio"/>		--

Apply

## IGMP Proxy

IGMP allows support for efficient multicasting -- transmission of identical content, such as multimedia, from a source to a number of recipients.

IGMP proxy enables the system to issue IGMP host messages on behalf of hosts that the system discovered through standard IGMP interfaces. The system acts as a proxy for its hosts when you enable it.

Choose **Advanced > Network Tools > IGMP Proxy**. The **IGMP Proxy Configuration** page shown in the right figure appears.

Configure the parameters in this page as described below.

**Multicast allowed:** Enable multicast proxy, only for route mode.

**Robust Count:** Allows tuning for the expected packet loss on a link. It determines how many times a startup query should be xmitted.

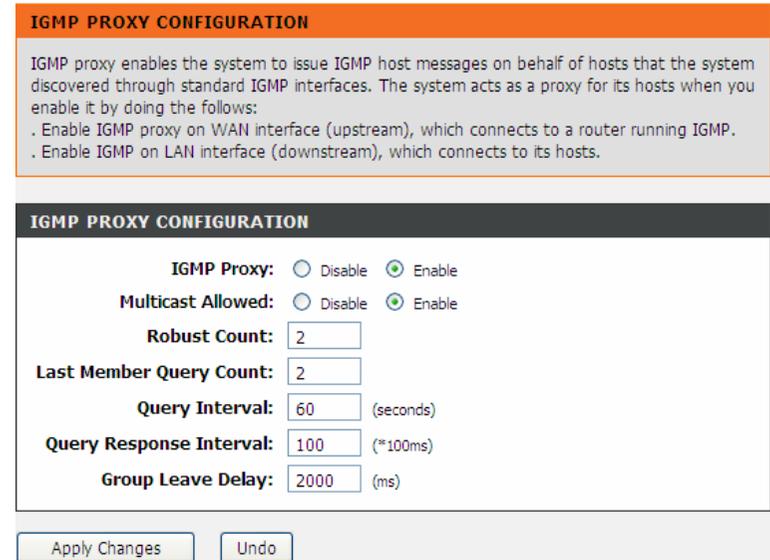
**Last Member Query Count:** This parameter specifies the times the device sends the query message.

**Query Interval:** The device sends query messages to check IGMP user periodically. The unit is second.

**Query Response Interval:** The device waits for the IGMP user’s reply. The unit is 100 \* millisecond.

**Group Leave Delay:** The duration for the modem to cease forwarding multicast packets after a corresponding IGMP "Leave Group" message has been successfully offered to the modem.

Click **Apply Changes** to save the settings.



## IP QoS

Quality of Service is a feature that allows you to allocate or guarantee the throughput or speed of Internet for certain computers. This is a very useful feature for sensitive applications such as VoIP whereby it will assist in preventing dropped calls. Large amounts of non-critical data can be scaled so that they do not affect sensitive real-time applications such as VoIP or Streaming.

## Configuration

Choose **Advanced > Network Tools > IP QoS**. The **IP QoS** page shown in the right figure appears. Entries in the **QoS Rule List** are used to assign the precedence for each incoming packet based on physical LAN port, TCP/UDP port number, source IP address, destination IP address and other information.

**Step 1** Enable IP QoS and click **Apply** to enable IP QoS function.

**Step 2** Click **add rule** to add a new IP QoS rule.

**IP QoS**

Entries in this table are used to assign the precedence for each incoming packet based on specified policy.  
Config Procedure:  
1: set traffic rule.  
2: assign the precedence or add marker for different stream.

**IP QoS CONFIGURATION**

IP QoS:  disable  enable

Schedule Mode:

Apply Changes

**QoS RULE LIST**

src MAC	dest MAC	src IP	sPort	dest IP	dPort	proto	phy port
---------	----------	--------	-------	---------	-------	-------	----------

**QoS RULE LIST(CONTINUE)**

IPP	TOS	DSCP	TC	802.1p	Prior	IPP Mark	TOS Mark	DSCP Mark	TC Mark	802.1p Mark	sel
-----	-----	------	----	--------	-------	----------	----------	-----------	---------	-------------	-----

Delete Add Rule

## UPnP

UPnP (Universal Plug and Play) is a networking architecture that provides compatibility among networking equipment, software, and peripherals. This router has optional UPnP capability, and can work with other UPnP devices and software. The system acts as a daemon when you enable UPnP. Leave the UPnP option enabled as long as the LAN has other UPnP applications.

Choose **Advanced > Network Tools > UPnP**. The **UPnP Configuration** page shown in the right figure appears.

**UPnP CONFIGURATION**

This page is used to configure UPnP. The system acts as a daemon when you enable UPnP.

**UPnP CONFIGURATION**

UPnP:  Disable  Enable

WAN Interface:

Apply Changes

# SNMP

SNMP (Simple Network Management Protocol) provides a means to monitor status and performance and set configuration parameters. It enables a management station to configure, monitor and receive trap messages from network devices.

Choose **Advanced > Network Tools > SNMP**. The **SNMP Protocol Configuration** page shown in the right figure appears. You may change the settings for system description, trap IP address and community name.

The following table describes the parameters of this page:

Field	Description
Enable SNMP	Select it to enable SNMP function. You need to enable SNMP, and then you can configure the parameters of this page.
Trap IP Address	Enter the trap IP address. The trap information is sent to the corresponding host.
Community Name (Read-only)	The network administrators must use this password to read the information of this router.
Community Name (Read-Write)	The network administrators must use this password to configure the information of the router.

**SNMP PROTOCOL CONFIGURATION**

This page is used to configure the SNMP protocol. Here you may change the setting for system description, trap ip address, community name, etc..

**SNMP PROTOCOL CONFIGURATION**

Enable SNMP

**System Description** ADSL SoHo Router

**System Contact**

**System Name** ADSL

**System Location**

**Trap IP Address**

**Community name (read-only)** public

**Community name (read-write)** public

## TR-069

TR-069 is a WAN management protocol. It is a bidirectional SOAP/HTTP based protocol providing the communication between the ADSL router and an Auto Configuration Server (ACS) to monitor status and performance and to set configuration parameters from WAN side.

## Configuration

Choose **Advanced > Network Tools > TR-069**. The **TR-069 Configuration** page shown in the right figure appears. You may change the setting for the ACS's parameters

Configure the parameters in this page as described below.

### ACS Configuration

**URL:** The URL of the auto-configuration server to connect to.

**User Name:** The user name for logging in to the ACS.

**Password:** The password for logging in to the ACS.

**Periodic Inform Enable:** Select **Enable** to periodically connect to the ACS to check configuration updates.

**Periodic Inform Interval:** Specify the amount of time between connections to ACS.

### Connection Request

**User Name:** The connection username provided by TR-069 service.

**Password:** The connection password provided by TR-069 service.

### Debug

**Show Message:** Select **Enable** to display ACS SOAP messages on the serial console.

**CPE sends GetRPC:** Select **Enable**, the router contacts the ACS to obtain configuration updates.

**Skip MReboot:** Specify whether to send an MReboot event code in the inform message.

**Delay:** Specify whether to start the TR-069 program after a short delay.

**Auto-Execution:** Specify whether to automatically start the TR-069 after the router is powered on.

### Certificate Management

**CPE Certificate Password:** The certificate password of the router.

**CPE Certificate:** Enter the CPE Certificate file. Click it to browse and upload the certificate for the router.

**CA Certificate:** Click it to browse and upload the CA certificate for the router.

**TR-069 CONFIGURATION**

This page is used to configure the TR-069 CPE. Here you may change the setting for the ACS's parameters.

**ACS CONFIGURATION**

Enable:

URL:

User Name:

Password:

Periodic Inform Enable:  Disable  Enable

Periodic Inform Interval:  seconds

**CONNECTION REQUEST**

User Name:

Password:

Path:

Port:

**DEBUG**

ACS Certificates CPE:  No  Yes

Show Message:  Disable  Enable

CPE Sends GetRPC:  Disable  Enable

Skip MReboot:  Disable  Enable

Delay:  Disable  Enable

Auto-Execution:  Disable  Enable

**CERTIFICATE MANAGEMENT**

CPE Certificate Password:

CPE Certificate:

CA Certificate:

## Software Forbidden

Choose **Advanced > Network Tools > Software Forbidden**. The **Software Forbidden** page shown in the right figure appears. You may config some software to be forbidden to deny the ip packets of it.

To forbid one specified PC (or some PCs) from using an application, select the application you want to prohibit, and input a single IP address or IP addresses in range. When Single IP is selected, IP 0.0.0.0 represent for any IP. In this situation, all PCs connected to this router will deny the selected software.

Configure the parameters in this page as described below.

**Current Forbidden Software List:** A list of currently forbidden applications for accessing the network.

**Add Forbidden Software:** Select an application to be forbidden from accessing the network.

## ARP Binding

This function realizes the binding of IP addresses and MAC addresses to avoid ARP address cheats. Choose **Advanced > Network Tools > ARP Binding**. The **ARP Binding Configuration** page shown in the right figure appears.

Configure the parameters in this page as described below.

**IP Address:** An IP address to be bound.

**Mac Address:** An MAC address to be bound.

**Add:** Click this icon to add an ARP binding.

**Delete Selected:** Delete a selected setting from the list.

**Undo:** Reconfigure the above setting.

**ARP Binding Table:** A list of all the current ARP binding settings.

## Client Limit

Choose **Advanced > Network Tools > Client Limit**. The **Client Limit Configuration** page shown in the right figure appears. You may configure the capability of forcing how many devices can access to the Internet.

 Disable  Enable'. At the bottom is a blue 'Apply Changes' button."/>

## Telnet

Choose **Advanced > Network Tools > Telnet**. The **Telnet Configuration** page shown in the right figure appears. In this page, you can enable or disable telnet function. After proper setting, click **Apply Changes** to take the setting into effect. After enable telnet, you can log in to the router through telnet to manage the router.

 Disable  Enable'. At the bottom is a blue 'Apply Changes' button."/>

## Routing

Under this menu, static route, IPv6 static route, and RIP type routing configurations can be performed.

### Static Route

Choose **Advanced > Routing > Static Route**. The **Routing Configuration** page shown in the right figure appears. This page is used to configure the routing information. You may add or delete IP routes.

Configure the parameters in this page as described below.

**Enable:** Select it to use static IP routes.

**Destination:** Enter the IP address of the destination device.

**Subnet Mask:** Enter the subnet mask of the destination device.

**Next Hop:** Enter the IP address of the next hop in the IP route to the destination device.

**Metric:** The metric cost for the destination.

**Interface:** The interface for the specified route.

**Add Route:** Click it to add the new static route to the **Static Route Table**.

**Update:** Select a row in the **Static Route Table** and modify the parameters. Then click it to save the settings temporarily.

**Delete Selected:** Select a row in the **Static Route Table** and click it to delete the row.

**Show Routes:** Click it, the **IP Route Table** appears. You can view a list of destination routes commonly accessed by your network.

**Static Route Table:** A list of the previously configured static IP routes.

**ROUTING CONFIGURATION**

This page is used to configure the routing information. Here you can add/delete IP routes.

**HOST**

Enable

Destination

Subnet Mask

Next Hop

Metric

Interface

Add Route
Update
Delete Selected
Show Routes

**STATIC ROUTE TABLE**

Select	State	Destination	Subnet Mask	NextHop	Metric	Itf

Click **Show Routes**, the page shown in the right figure appears. The table shows a list of destination routes commonly accessed by your network.

**IP ROUTE TABLE**

This table shows a list of destination routes commonly accessed by your network.

CURRENT IP ROUTING TABLE			
Destination	Subnet Mask	NextHop	Interface
192.168.1.1	255.255.255.255	*	e1

Refresh Close

## IPv6 Static Route

Choose **Advanced > Routing > IPv6 Static Route**. The **IPv6 Routing Configuration** page shown in the right figure appears. This page is used to configure the routing information. You can add or delete IP routes.

Configure the parameters in this page as described below.

**Destination:** Enter the IPv6 address of the destination device.

**Prefix Length:** Enter the prefix length of the IPv6 address.

**Next Hop:** Enter the IP address of the next hop in the IPv6 route to the destination address.

**Interface:** The interface for the specified route.

**Add Route:** Click it to add the new static route to the **IPv6 Static Route Table**.

**Delete Selected:** Select a row in the **IPv6 Static Route Table** and click it to delete the row.

**IPv6 ROUTING CONFIGURATION**

This page is used to configure the ipv6 routing information. Here you can add/delete IPv6 routes.

**CONFIGURATION**

Destination

Prefix Length

Next Hop

Interface

Add Route Delete Selected

**IPv6 STATIC ROUTE TABLE**

Select	Destination	NextHop	Interface
--------	-------------	---------	-----------

# RIP

Enable this function if you are using this device as a RIP-enabled router to communicate with others using Routing Information Protocol (RIP). This page is used to select the interfaces on your devices that use RIP, and the version of the protocol used.

Choose **Advanced > Routing > IPv6 Static Route**. The **IPv6 Routing Configuration** page shown in the right figure appears.

Configure the parameters in this page as described below.

**RIP:** Select **Enable**, the router communicates with other RIP-enabled devices.

**Apply:** Click it to save the settings of this page.

**Interface:** Choose the router interface that uses RIP.

**Receive Version:** Choose the interface version that receives RIP messages. You can choose **RIP1**, **RIP2**, or **Both**.

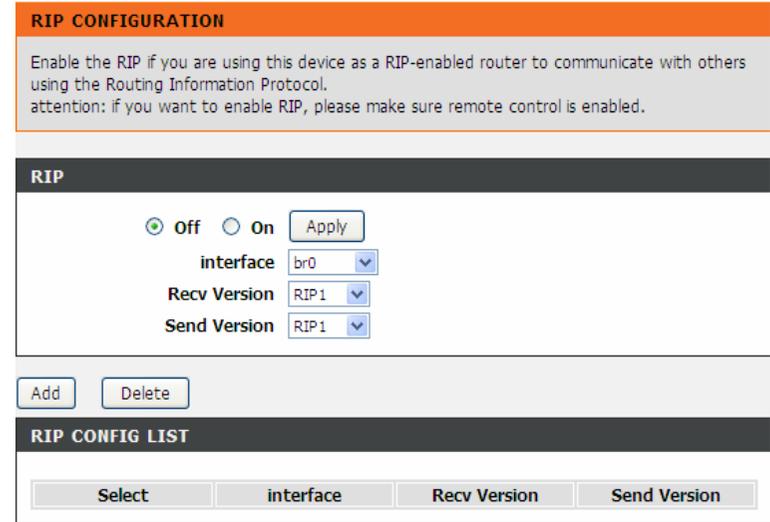
- Choose **RIP1** indicates the router receives RIP v1 messages.
- Choose **RIP2** indicates the router receives RIP v2 messages.
- Choose **Both** indicates the router receives RIP v1 and RIP v2 messages.

**Send Version:** The working mode for sending RIP messages. You can choose **RIP1** or **RIP2**.

- Choose **RIP1** indicates the router broadcasts RIP1 messages only.
- Choose **RIP2** indicates the router multicasts RIP2 messages only.

**Add:** Click it to add the RIP interface to the **Rip Config List**.

**Delete:** Select a row in the **Rip Config List** and click it to delete the row.



# NAT

Under this menu, NAT ALG (Application Layer Gateway), NAT Exclude IP, NAT Forwarding, FTP ALG Config and NAT IP Mapping can be performed.

## NAT ALG

Choose **Advanced > NAT > NAT ALG**. The **NAT ALG and Pass-Through** page shown in the right figure appears. Choose the NAT ALG and Pass-Through options, and then click **Apply Changes**.

**NAT ALG AND PASS-THROUGH**  
Setup NAT ALG and Pass-Through configuration

**RIP CONFIG LIST**

- IPsec Pass-Through  Enable
- L2TP Pass-Through  Enable
- PPTP Pass-Through  Enable
- FTP  Enable
- H.323  Enable
- SIP  Enable
- RTSP  Enable
- ICQ  Enable
- MSN  Enable

Apply Changes    Reset

## NAT Exclude IP

Choose **Advanced > NAT > NAT Exclude IP**. The **NAT EXCLUDE IP** page shown in the right figure appears. In the page, you can configure some source IP addresses which use the purge route mode when accessing the Internet through the specified interface.

**NAT EXCLUDE IP**  
In the page ,you can config some source ip address which use the purge route mode when access internet through the specified interface.

**CONFIG**

interface

IP Range  -

Apply Changes    Reset

**CURRENT NAT EXCLUDE IP TABLE**

WAN Interface	Low IP	High IP	Action
---------------	--------	---------	--------

## NAT Forwarding

Choose **Advanced > NAT > NAT Forwarding**. The **NAT Forwarding** page shown in the right figure appears.

Entries in this table allow you to automatically redirect common network services to a specific machine behind the NAT firewall. These settings are only necessary if you wish to host some sort of server like a web server or mail server on the private local network behind your Gateway's NAT firewall.

Under 1483MER or 1483Routed mode, if NAPT (Network Address Port Translation) is enabled, the **Local IP Address** is configured as 192.168.1.3 and the **Remote IP Address** is configured as 202.32.0.2, the PC with the LAN IP 192.168.1.3 will use 202.32.0.2 when it is connected to the Internet via the router without NAPT control.

**NAT FORWARDING**

Entries in this table allow you to automatically redirect common network services to a specific machine behind the NAT firewall. These settings are only necessary if you wish to host some sort of server like a web server or mail server on the private local network behind your Gateway's NAT firewall.

**SETTING**

Local IP Address

Remote IP Address

Enable

**CURRENT NAT PORT FORWARDING TABLE**

Local IP Address	Remote IP Address	State	Action
------------------	-------------------	-------	--------

Configure the parameters in this page as described below.

**Local IP Address:** Input a local IP address.

**Remote IP Address:** Input a remote IP address.

**Enable:** Enable the current configured rule.

**Apply Changes:** Submit the configurations.

**Reset:** Cancel the modification and reconfigure the settings.

**Current NAT Port Forwarding Table:** Current configuration rule list.

## FTP ALG Config

The common port for FTP connection is port 21, and a common ALG monitors the TCP port 21 to ensure NAT pass-through of FTP. By enabling this function, when the FTP server connection port is not a port 21, the FTP ALG module will be informed to monitor other TCP ports to ensure NAT

## Configuration

pass-through of FTP.

Choose **Advanced > NAT > FTP ALG Config**. The **FTP ALG Configuration** page shown in the right figure appears.

Configure the parameters in this page as described below.

**FTP ALG port:** Set an FTP ALG port.

**Add Dest Ports:** Add a port configuration.

**Delete Selected DestPort:** Delete a selected port configuration from the list.

Select	Ports
<input type="radio"/>	21

## NAT IP Mapping

Choose **Advanced > NAT > NAT IP Mapping**. The **NAT IP Mapping** page shown in the right figure appears.

Entries in the **Current NAT IP Mapping Table** allow you to configure one IP pool for a specified source IP address from LAN, so one packet whose source IP is in range of the specified address will select one IP address from the pool for NAT.

Local Start IP	Local End IP	Global Start IP	Global End IP	Action
----------------	--------------	-----------------	---------------	--------

# Maintenance System

Choose **Maintenance > System**. The page shown in the right figure appears. In this page you can reboot your router or save your router configuration to a file on your computer in case you have to reset your router to factory default settings. You can restore your router settings from a previously saved configuration file.

You may also reset your router to factory default settings. Resetting your router to factory default settings will delete your current configuration.

Configure the parameters in this page as described below.

**Reset to default:** This option restores all configuration settings back to the settings that were in effect at the time the router was shipped from the factory. All settings will be lost. If you want to save your router configuration settings, use the **Backup Settings** option below.

**Save and reboot:** This will save all your settings and restart the router.

**Back settings:** Save your configurations in a file on your computer so that it may be accessed again later if your current settings are changed. Be sure to save the configuration before performing a firmware update.

**Update settings:** Click **Browse** to select the configuration file of device and click **Update Settings** to begin restoring the device configuration.

**Note:** Do not turn off your device or press the **Reset** button while an operation in this page is in progress.

The screenshot displays the Maintenance System web interface with three distinct sections:

- COMMIT/REBOOT:** This section contains the instruction "Click the button below to reboot the router or reset it to factory default settings." Below this instruction are two buttons: "Reset to default" and "Save and reboot".
- BACKUP SETTINGS:** This section contains the instruction "Back up DSL Router configurations. You may save your router configurations to a file on your PC." followed by a red note: "Note: Please always save configuration file first before viewing it." Below this is a single button labeled "Back Settings".
- UPDATE SETTINGS:** This section contains the instruction "Update DSL Router settings. You may update your router settings using your saved files." Below this is a form with a text input field labeled "Settings File Name :", a "Browse..." button, and an "Update Settings" button.

## Firmware Update

Choose **Maintenance > Firmware Update**. The page shown in the right figure appears. This page displays your device firmware version and information that will be helpful for D-Link technicians in case you require any technical support.

The procedure for updating the firmware is as follows.

**Step 1** Click **Browse...** to search the file.

**Step 2** Click **Update Firmware** to update the configuration file.

**Step 3** 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. Refer to the section of **System**.

UPGRADE FIRMWARE

**Step 1:** Obtain an updated firmware 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 Firmware" button once to upload the new image file.

**NOTE:** The update process takes about 2 minutes to complete, and your DSL Router will reboot. Please DO NOT power off your router before the update is complete.

---

SELECT FILE

**Current Firmware Version:** SE\_1.00  
**Current Firmware Date:** May 3 2013 10:34:11

**Firmware File Name:**

## Password

Choose **Maintenance > Password**. The page shown in the right figure appears. You may modify your router password needed to access this Web management interface. For security reasons, it is recommended that you change the default admin and user passwords of the router. The password you choose should be between 1 and 16 characters in length. If you forget your device password, the only solution is to reset your router to factory default settings and you will lose all your device configuration settings.

Configure the parameters in this page as described below.

**Root:** The root account is fixed, having full access to the Web-based management interface.

**User:** The user account has the privilege to view configuration settings and statistics and update the router's firmware.

USER ACCOUNT CONFIGURATION

This page is used to add user account to access the web server of ADSL Router. Empty user name or password is not allowed.

---

CONFIGURATION

**User Name:**

**Privilege:**

**Old Password:**

**New Password:**

**Confirm Password:**

**Idle logout time:**  (1-60min)

---

USER ACCOUNT TABLE

Select	User Name	Privilege	Idle Time
<input type="radio"/>	admin	root	5
<input type="radio"/>	user	user	5

# Diagnostics

## Ping

Choose **Maintenance > Diagnostics > Ping**. The page shown in the right figure appears. This page allows you to ping a Host to test whether your router can be connected to the network.

Configure the parameters in this page as described below.

**Host:** Enter the valid IP address or domain name.

**Ping:** Click it to start to Ping.

The screenshot shows the 'PING DIAGNOSTIC' configuration page. At the top is an orange bar with the text 'PING DIAGNOSTIC'. Below it is a grey bar with the text 'This page is used to ping.'. Underneath is a dark grey bar with the text 'HOST'. Below that is a white area containing a text input field and a button labeled 'PING'.

## Ping6

Choose **Maintenance > Diagnostics > Ping6**. The page shown in the right figure appears. The target Address can be a domain or IPv6 address.

Configure the parameters in this page as described below.

**Target Address:** Enter an IP address for Ping6 diagnosis.

**Interface:** Enter an interface through which the Ping6 diagnosis is performed.

The screenshot shows the 'PING6 DIAGNOSTIC' configuration page. At the top is an orange bar with the text 'PING6 DIAGNOSTIC'. Below it is a grey bar with the text 'Ping6 Diagnostic'. Underneath is a white area containing the labels 'Target Address:' and 'Interface:'. 'Target Address:' is followed by a text input field, and 'Interface:' is followed by a dropdown menu. At the bottom of the white area is a button labeled 'PING'.

## Traceroute

Choose **Maintenance > Diagnostics > Traceroute**. The page shown in the right figure appears. You can track the route path through the information which is from your computer to the other side host on the Internet.

Configure the parameters in this page as described below.

**Host:** Enter the destination host address for diagnosis.

**NumberOfTries:** Number of repetitions.

**Timeout:** Put in the timeout value.

**Datasize:** Packet size.

**DSCP:** Differentiated Services Code Point, You should set a value between 0-63.

**MaxHopCount:** Maximum number of routes.

**Interface:** Select the interface.

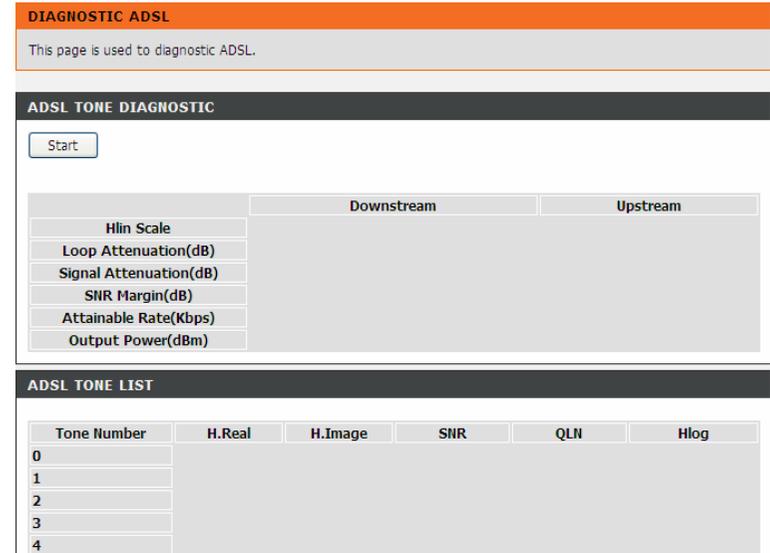
**Traceroute:** Click it to start traceroute.

The screenshot shows the 'TRACEROUTE DIAGNOSTIC' configuration page. At the top, there is an orange header with the text 'TRACEROUTE DIAGNOSTIC'. Below the header, a grey box contains the text 'This page is used to traceroute diagnostic.'. The main configuration area is titled 'TRACEROUTE' and contains several input fields: 'Host' (a text box), 'NumberOfTries' (a text box with the value '3'), 'Timeout' (a text box with the value '5000' and 'ms' next to it), 'Datasize' (a text box with the value '38' and 'Bytes' next to it), 'DSCP' (a text box with the value '0'), 'MaxHopCount' (a text box with the value '30'), and 'Interface' (a dropdown menu with 'any' selected). At the bottom of the form, there are two buttons: 'traceroute' and 'Show Result'.

# ADSL

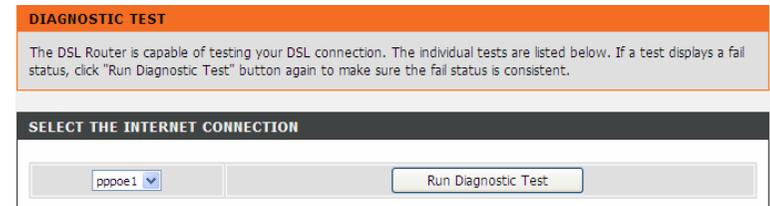
Choose **Maintenance > Diagnostics > ADSL**. The page shown in the right figure appears. It is used for ADSL tone diagnostics.

Click **Start** to start ADSL tone diagnostics.



# Diag Test

Choose **Maintenance > Diagnostics > Diag Test**. The page shown in the right figure appears. In this page, you can test the DSL connection. You can also view the LAN status connection and ADSL connection.



## System Log

Choose **Maintenance > System Log**. The page shown in the right figure appears. This section when enabled allows the system to begin logging events based on the selected log level.

The router can only keep a limited number of log entries due to router memory constraints. If you have an external SYSLOG server, you may choose to configure external logging and all log entries will be sent to your remote server.

Configure the parameters in this page as described below.

**Error:** When the system is likely to result in a module abnormality, the system generates an Error log.

**Notice:** When the system is under attack or logged in, or port status changes, the system generates a Notice log.

**Remote Log Enable:** Send system log to remote host, maybe a domain or an IP.

**Save Log to File:** You can save current log table to a file.

## Logout

Choose **Maintenance > Logout**. The page shown in the right figure appears. In this page, you can log out of the configuration page.

**LOG SETTING**

This page is used to display the system event log table. By checking Error or Notice ( or both) will set the log flag. By clicking the ">>|", it will display the newest log information below.

**SETTING**

Error:                       Notice:

**REMOTE SETTING**

Remote Log Enable:

**EVENT LOG TABLE**

Old              New

Time	Index	Type	Log Information
Page: 1/1			

**WEB LOGOUT**

This page is used to logout.

**LOGOUT**

# Status

You can view the system information and monitor performance.

## Device Information

Choose **Status > Device Info**. The page shown in the right figure appears. This page displays a summary overview of your router, including system information, DSL information, LAN Configuration, DNS information, WAN Configuration and so on.

**ADSL ROUTER STATUS**

This page shows the current status and some basic settings of the device.

**SYSTEM**

Flash Memory	4194304 (B)
RAM Memory	16777216 (B)
CPU Usage	30%
Memory Usage	12%
Active Session	0
Firmware Version	SE_1.00
Alias Name	RTL867x ADSL Modem
Uptime	0 7:54:10
Date/Time	Thu Jan 1 7:54:10 1970
Built Date	May 3 2013 10:34:11
Total Session Number	4096

**DSL**

Operational Status	--
Upstream Speed	--
Downstream Speed	--

**LAN CONFIGURATION**

IP Address	192.168.1.1
Subnet Mask	255.255.255.0
DHCP Server	Enable
MAC Address	00:E0:4C:00:00:01

**DNS STATUS**

DNS Mode	Auto
DNS Servers	
IPv6 DNS Mode	Auto
IPv6 DNS Servers	

**WAN CONFIGURATION**

Interface	VPI/VC I	Encap	Droute	Protoc ol	IP Address	Gateway	Status
pppoe1	0/38	LLC	Off	PPPoE	0.0.0.0	0.0.0.0	Down 0 0:0:0 / 0 0:0:0 <input type="button" value="connect"/>

**WAN IPV6 CONFIGURATION**

Interface	VPI/VCI	Encap	Protocol	IPv6 Address	Gateway	Droute	Status
pppoe1	0/38	LLC	PPPoE				Down

## DHCP Clients

**Choose Status > DHCP Clients.** The page shown in the right page appears. This page displays all client devices that obtain IP addresses from the device. You can view the host name, IP address, MAC address and time expired(s).

**ACTIVE DHCP CLIENT TABLE**

This table shows the assigned IP address, MAC address and time expired for each DHCP leased client.

**ACTIVE DHCP CLIENT TABLE**

Name	IP Address	MAC Address	Expiry	Type

## ADSL Driver

Choose **Status > ADSL Driver**. The page shown in the right page appears. This page displays all ADSL statistics information, including link down or on, downstream and upstream, type, line coding and so on.

**ADSL CONFIGURATION**

This page shows the setting of the ADSL Router.

**ADSL**

Adsl Line Status	ACTIVATING.
Adsl Mode	--
Channel Mode	--
Up Stream	--
Down Stream	--
Attenuation Down Stream	--
Attenuation Up Stream	--
SNR Margin Down Stream	--
SNR Margin Up Stream	--
Vendor ID	RETK
Firmware Version	2925ca26
CRC Errors	--
Up Stream BER	--
Down Stream BER	--
Up Output Power	--
Down Output Power	--
ES	--
SES	--
UAS	--

## Statistics

**Choose Status > Statistics.** The page shown in the right page appears. This is a summary of the number of packets that have passed between the WAN and the LAN since the router was last initialized.

**STATISTICS**

This page shows the packet statistics for transmission and reception regarding to network interface.

**STATISTICS**

Interface	Rx pkt	Rx err	Rx drop	Tx pkt	Tx err	Tx drop
e1	24645	0	0	34990	0	0
a0	0	0	0	0	0	0
a1	0	0	0	0	0	0
a2	0	0	0	0	0	0
a3	0	0	0	0	0	0
a4	0	0	0	0	0	0
a5	0	0	0	0	0	0
a6	0	0	0	0	0	0
a7	0	0	0	0	0	0
e2	0	0	0	0	0	0

## Route Information

**Choose Status > Route Info.** The page shown in the right page appears. This table shows a list of destination routes commonly accessed by your network.

**IP ROUTE TABLE**

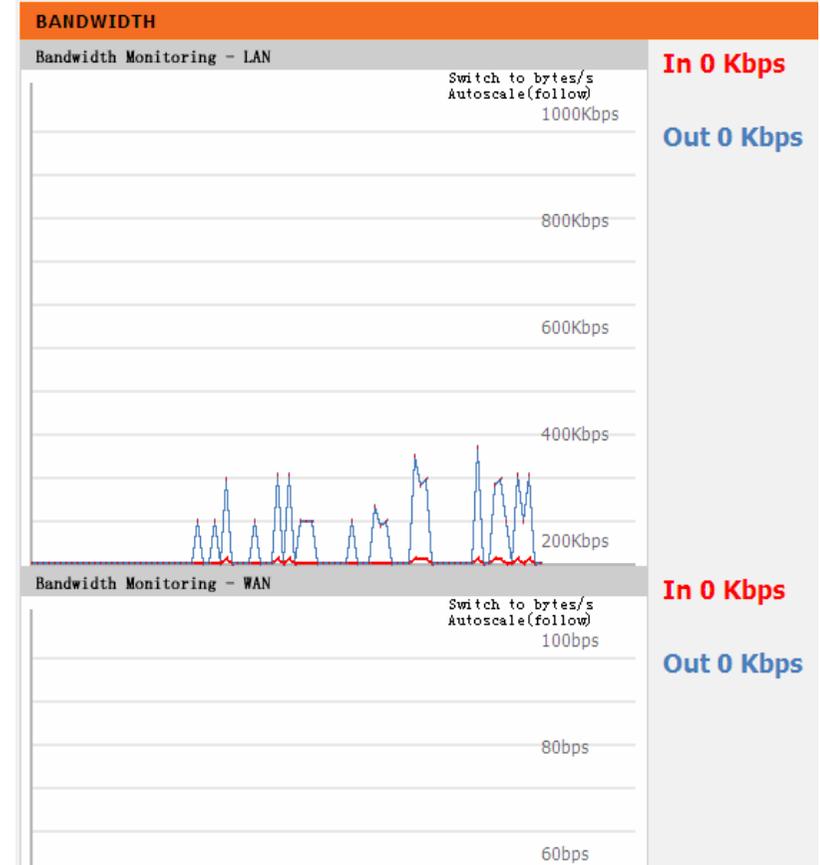
This table shows a list of destination routes commonly accessed by your network.

**CURRENT IP ROUTING TABLE**

Destination	Subnet Mask	NextHop	Interface
192.168.1.1	255.255.255.255	*	e1

# Traffic Graphic

**Choose Status > Traffic Graphic.** The page shown in the right page appears. In this page, you can view bandwidth monitoring graphic.



# Help

In the main interface, click **Help** tab to enter the **Help** menu as shown in the right figure. This section provides detailed configuration information for the device. Click a link to view corresponding information.

The screenshot displays a web interface for the Help menu, organized into five distinct sections. Each section has a dark header bar with white text. The content of each section is as follows:

- HELP MENU** (orange header):
  - [Setup](#)
  - [Advanced](#)
  - [Maintenance](#)
  - [Status](#)
- SETUP HELP** (dark grey header):
  - [Local Network](#)
  - [Internet Setup](#)
  - [Time and Date](#)
- ADVANCED HELP** (dark grey header):
  - [Access Control List](#)
  - [Port Triggering](#)
  - [Port Forwarding](#)
  - [DMZ](#)
  - [Parental Control](#)
  - [Filtering Options](#)
  - [DOS settings](#)
  - [DNS](#)
  - [Dynamic DNS](#)
  - [Network Tools](#)
  - [Routing](#)
  - [NAT](#)
- MAINTENANCE HELP** (dark grey header):
  - [System](#)
  - [Firmware Update](#)
  - [Password](#)
  - [Diagnostics](#)
  - [System Log](#)
  - [Logout](#)
- STATUS HELP** (dark grey header):
  - [Device Info](#)
  - [DHCP Clients](#)
  - [ADSL Driver](#)
  - [Statistics](#)
  - [Route Info](#)

# Troubleshooting

This chapter provides solutions to problems that might occur during the installation and operation of the DSL-526E. Read the following descriptions if you are having problems. (The examples below are illustrated in Windows® XP. If you have a different operating system, the screenshots on your computer will look similar to the following examples.)

## 1. How to configure the DSL-526E Modem Router without the CD-ROM?

Connect your PC to the Router using an Ethernet cable.

Open a web browser and enter the address <http://192.168.1.1>

The default username is 'admin' and the default password is 'admin'.

If you have changed the password and cannot remember it, you will need to reset the Router to the factory default setting (see question 2), which will set the password back to 'admin'.

**Note:** Please refer to the next section "Networking Basics" to check your PC's IP configuration if you can't see the login windows.

## 2. How to restore the Router to the factory default settings?

Ensure the Router is powered on.

Press and hold the reset button on the back of the device for approximately 3 seconds.

This process should take around 1 to 2 minutes.

**Note:** Resetting the Router to the factory default settings will erase the current configuration settings. To reconfigure your settings, login to the Router as outlined in question 1, and then run the Wizard.

## 3. What to do if the Router does not work normally?

There are a few quick steps you can take to try and resolve any issues:

Follow the directions in Question 2 to reset the Router.

Check that all the cables are firmly connected at both ends.

Check the LEDs on the front of the Router. The Power indicator should be on, the Status indicator should flash, and the DSL and LAN indicators should be on as well.

Please ensure that the settings in the Web-based configuration manager, e.g. ISP username and password, are the same as the settings that have been provided by your ISP.

#### 4. Why the Internet connection cannot be established?

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.

#### 5. What to do if the Router can't be detected by running the installation CD?

Ensure the Router is powered on.

Check that all the cables are firmly connected at both ends and all LEDs are working correctly.

Ensure only one network interface card on your PC is activated.

Click on **Start > Control Panel > Security Center** to disable the firewall.

**Note:** There is a potential security issue if the firewall is disabled on your PC. Please remember to turn it back on once you have finished the whole installation procedure. This will enable you to surf the Internet without any problems.

# Networking Basics

## Check Your IP Address

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

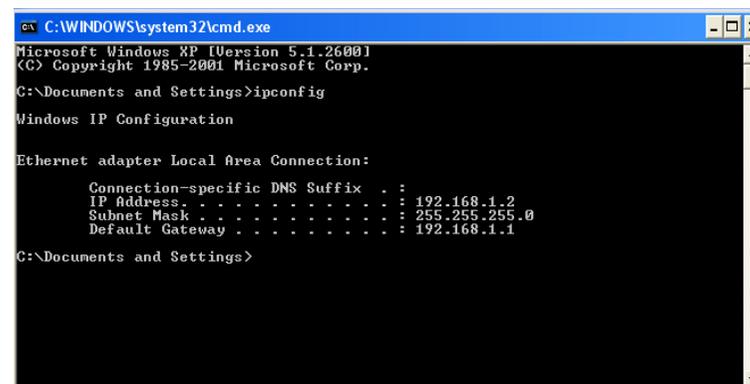
Click on **Start** **Run**. In the run box type **cmd** and click on the **OK** button.

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

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

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

If you are connecting to a wireless network at a hotspot (e.g. hotel, coffee shop, airport), please contact an employee or administrator to verify their wireless network settings.



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

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 
    IP Address . . . . . : 192.168.1.2
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1

C:\Documents and Settings>
```

# Statically Assigning an IP Address

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

## Step 1

Windows® XP - Click on **Start > Control Panel > Network Connections**.

Windows® 2000 - From the desktop, right-click on the **My Network Places > Properties**.

## Step 2

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

## Step 3

Highlight **Internet Protocol (TCP/IP)** and click on the **Properties** button.

## Step 4

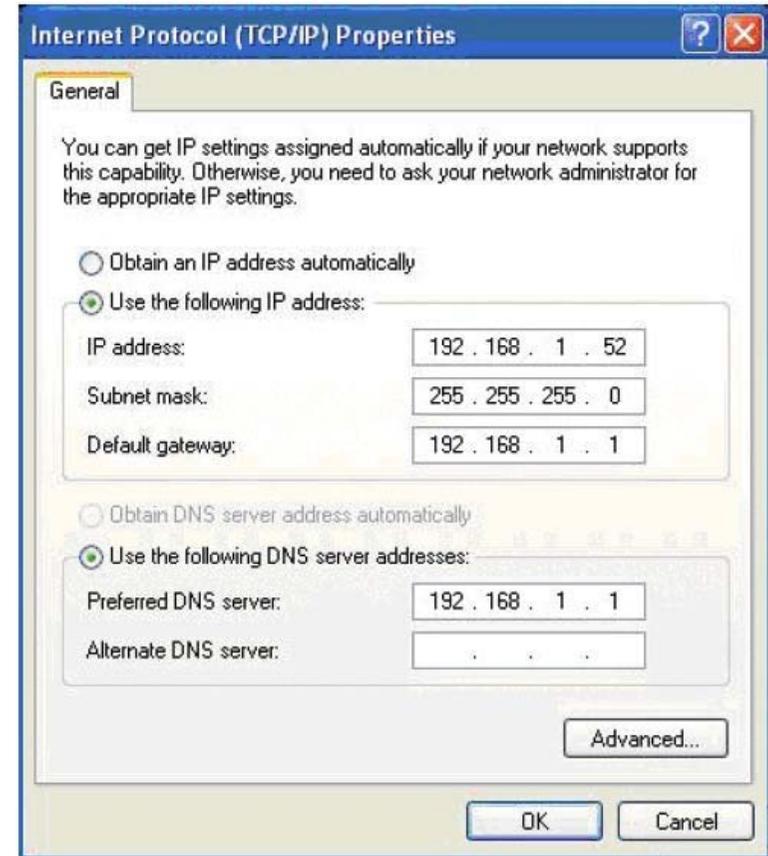
Click on the **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your router.

Example: If the router's LAN IP address is 192.168.1.1, make your IP address 192.168.1.X where X is a number between 2 and 254. Make sure that the number you choose is not in use on the network. Set the Default Gateway to be the same as the LAN IP address of your router (192.168.1.1).

Set the Primary DNS to be the same as the LAN IP address of your router (192.168.1.1). The Secondary DNS is not needed or you may enter a DNS server from your ISP.

## Step 5

Click on the **OK** button twice to save your settings.



# Technical Specifications

## 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)
- ITU G.992.5 Annex A

## 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 (ADSL2+)

## Protocols

- IEEE 802.1d Spanning Tree
- TCP/UDP
- ARP
- ICMP
- RFC1058 RIP v1
- RFC1213 SNMP v1 & v2c
- RFC1334 PAP
- RFC1389 RIP v2
- FC1577 Classical IP over ATM
- RFC1483/2684 Multiprotocol Encapsulation over ATM Adaptation Layer 5 (AAL5)
- RFC1661 Point to Point Protocol
- RFC1994 CHAP
- RFC2131 DHCP Client / DHCP Server
- RFC2364 PPP over ATM
- RFC2516 PPP over Ethernet

## 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

## Media Interface

- ADSL interface: RJ-11 connector for connection to 24/26 AWG twisted pair telephone line
- LAN interface: RJ-45 port for 10/100BASE-T Ethernet connection
- USB interface for standard USB connection