

# USER MANUAL

DSL-2740B

VERSION 2.1



**D-Link**<sup>®</sup>

**BROADBAND**

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# Package Contents

- DSL-2740B Wireless ADSL Router
- 2 non-detachable Antennas(MIMO 2x2)
- Power Adapter
- CD-ROM with Installation Wizard, User Manual, and Special Offers
- One twisted-pair telephone cable used for ADSL connection
- One straight-through Ethernet cable
- One Quick Installation Guide

**Note:** Using a power supply with a different voltage rating than the one included with the DSL-2740B will cause damage and void the warranty for this product.



# System Requirements

## 1. ADSL Internet service

Computer with:

- 200MHz Processor
- 64MB Memory
- CD-ROM Drive
- Ethernet Adapter with TCP/IP Protocol Installed
- Windows win7/vista/XP/2000
- MAC OS
- Internet Explorer v6 or later, FireFox v1.5

## 2. D-Link Click's Connect Utility

Computer with:

- Windows win7/vista/XP/2000



# Introduction

## **HIGH-SPEED ADSL2/2+ INTERNET CONNECTION**

Latest ADSL2/2+ standards provide Internet transmission of up to 24Mbps downstream, 1Mbps upstream.

## **HIGH-PERFORMANCE WIRELESS**

Embedded 802.11n technology for high-speed wireless connection, complete compatibility with 802.11b/g wireless devices

## **TOTAL SECURITY**

Firewall protection from Internet attacks, user access control, WPA/WPA2 wireless security.

## **ULTIMATE INTERNET CONNECTION**

The DSL-2740B ADSL2+ router is a versatile, high-performance remote router for home and the small office. With integrated ADSL2/2+ supporting up to 24Mbps download speed, firewall protection, Quality of Service (QoS), 802.11n wireless LAN and 4 Ethernet switch ports, this router provides all the functions that a home or small office needs to establish a secure and high-speed remote link to the outside world.

## **ULTIMATE WIRELESS CONNECTION WITH MAXIMUM SECURITY**

This router provides maximize wireless performance by connecting this router to computer interfaces and stay connected from virtually anywhere at home and in the office. The router can be used with 802.11b/g/n wireless networks to enable significantly improved reception. It supports WPA/WPA2 and WEP for flexible user access security and data encryption methods.

## **FIREWALL PROTECTION & QoS**

Security features prevents unauthorized access to the home and office network, be it from the wireless devices or from the Internet. The router provides firewall security using Stateful Packet Inspection (SPI) and hacker attack logging for Denial of Service (DoS) attack protection. SPI inspects the contents of all incoming packet headers before deciding what packets are allowed to pass through. Router access control is provided with packet filtering based on port and source/destination MAC/IP addresses. For Quality of Service (QoS), the router supports multiple priority queues to enable a group of home or office users to experience the benefit of smooth network connection of inbound and outbound data without concern of traffic congestion. This QoS support allows users to enjoy high ADSL transmission for applications such as VoIP and streaming multimedia over the Internet.

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

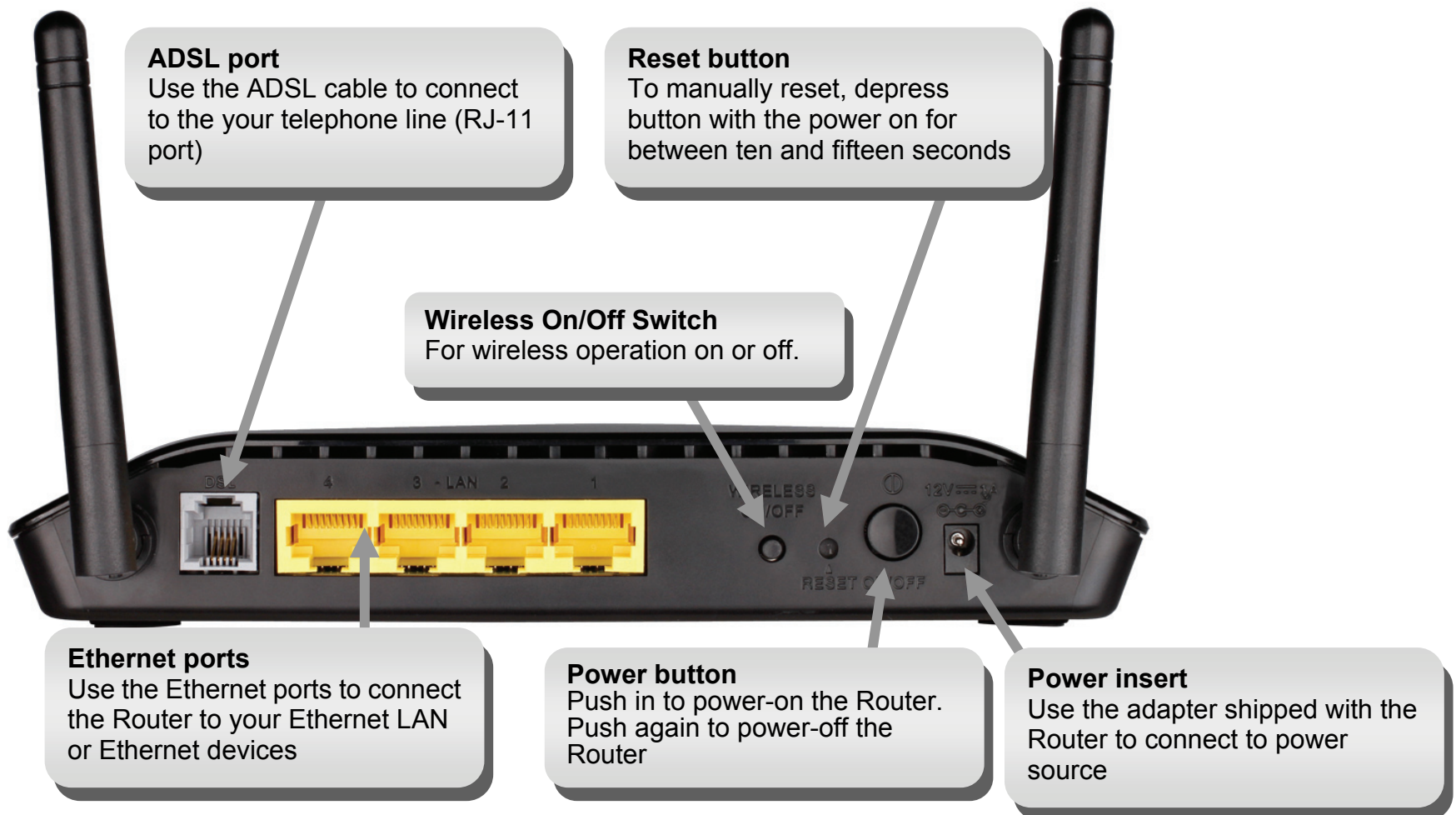
# Features

- **Faster Wireless Networking** - The DSL-2740B provides up to 300Mbps\* wireless connection with other 802.11n wireless clients. This capability allows users to participate in real-time activities online, such as video streaming, online gaming, and real-time audio.
- **Compatible with 802.11b and 802.11g Devices** - The DSL-2740B is still fully compatible with the IEEE 802.11b and g standards, so it can connect with existing 802.11b and g PCI, USB and Cardbus adapters.
- **DHCP Support** - Dynamic Host Configuration Protocol automatically and dynamically assigns all LAN IP settings to each host on your network. This eliminates the need to reconfigure every host whenever changes in network topology occur.
- **Network Address Translation (NAT)** - For small office environments, the DSL-2740B allows multiple users on the LAN to access the Internet concurrently through a single Internet account. This provides Internet access to everyone in the office for the price of a single user. NAT improves network security in effect by hiding the private network behind one global and visible IP address. NAT address mapping can also be used to link two IP domains via a LAN-to-LAN connection.
- **Precise ATM Traffic Shaping** - Traffic shaping is a method of controlling the flow rate of ATM data cells. This function helps to establish the Quality of Service for ATM data transfer.
- **High Performance** - Very high rates of data transfer are possible with the Router. Up to 24Mbps downstream bit rate using the G.dmt standard. (For ADSL2+)
- **Full Network Management** - The DSL-2740B incorporates SNMP (Simple Network Management Protocol) support for web-based management and text-based network management via Telnet connection.
- **Easy Installation** - The DSL-2740B 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.

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

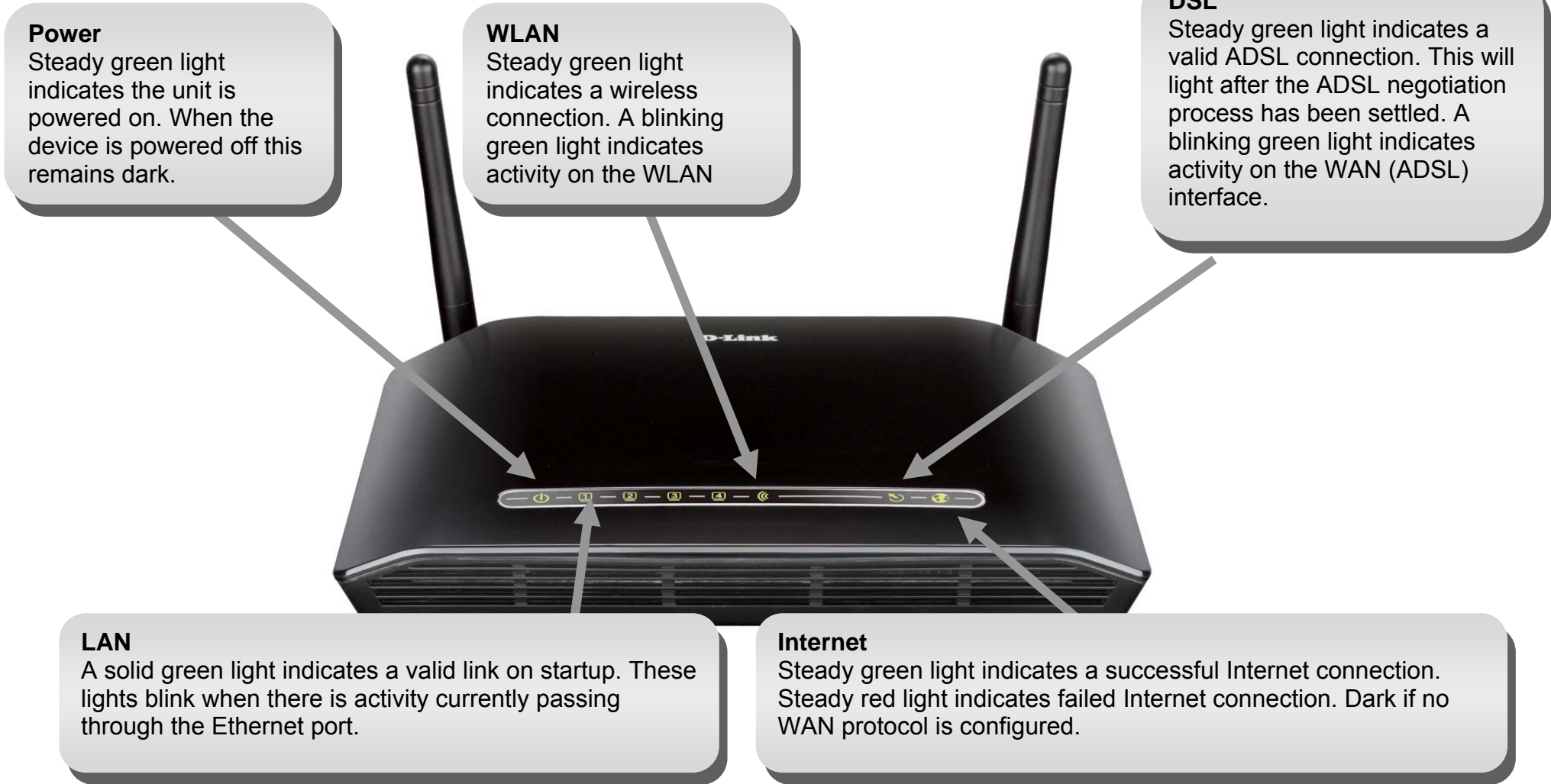
# Hardware Overview

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

## **Operating Systems**

The DSL-2740B 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, and Windows XP.

## **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.

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

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

### **802.11 Wireless LAN Configuration**

All the 802.11 wireless LAN settings may be configured on a single page using the web-based manager. For basic wireless communication you need to decide what channel to use and what SSID to assign. These two settings must be the same for any wireless workstations or other wireless access point that communicate with the DSL-2740B through the wireless interface.

Security for wireless communication can be accomplished in a number of ways. The DSL-2740B supports WPA (Wi-Fi Protected Access), WPA2, and mixed WPA/WPA2. Wireless access can also be controlled by selecting MAC addresses that are allowed to associate with the device. Please read the section on Wireless Configuration.

### **Additional Software**

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

If your 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.

# 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. It is commonly in the form `user@isp.co.uk`. 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/PPoA (PPPoE LLC, PPoA LLC or PPoA 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. However, if you are instructed to specify the modulation type used for the Router, you may choose among the numerous options available on the Modulation Type drop-down menu on the ADSL Configuration window (Advanced > ADSL)

## **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) 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 Settings window of the web management interface.

# Information you will need about DSL-2740B

## **Username**

This is the Username needed 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-2740B**

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-2740B**

This is the subnet mask used by the DSL-2740B, 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-2740B to this Ethernet port using an Ethernet cable. You can also use the Ethernet ports on the DSL-2740B to connect to other computer or Ethernet devices.

## **DHCP Client status**

Your DSL-2740B ADSL 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-2740B 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-2740B Wireless ADSL Router.

# Wireless Installation Considerations

DSL-2740B lets you access your network using a wireless connection from virtually anywhere within the operating range of your wireless network. Keep in mind, however, that the number, thickness and location of walls, ceilings, or other objects that the wireless signals must pass through, may limit the range. Typical ranges vary depending on the types of materials and background RF (radio frequency) noise in your home or business. The key to maximizing wireless range is to follow these basic guidelines:

1. Keep the number of walls and ceilings between the D-Link router and other network devices to a minimum - each wall or ceiling can reduce your adapter's range from 3-90 feet (1-30 meters.) Position your devices so that the number of walls or ceilings is minimized.
2. Be aware of the direct line between network devices. A wall that is 1.5 feet thick (.5 meters), at a 45-degree angle appears to be almost 3 feet (1 meter) thick. At a 2-degree angle it looks over 42 feet (14 meters) thick! Position devices so that the signal will travel straight through a wall or ceiling (instead of at an angle) for better reception.
3. Building Materials make a difference. A solid metal door or aluminum studs may have a negative effect on range. Try to position access points, wireless routers, and computers so that the signal passes through drywall or open doorways. Materials and objects such as glass, steel, metal, walls with insulation, water (fish tanks), mirrors, file cabinets, brick, and concrete will degrade your wireless signal.
4. Keep your product away (at least 3-6 feet or 1-2 meters) from electrical devices or appliances that generate RF noise.
5. If you are using 2.4GHz cordless phones or X-10 (wireless products such as ceiling fans, lights, and home security systems), your wireless connection may degrade dramatically or drop completely. Make sure your 2.4GHz phone base is as far away from your wireless devices as possible. The base transmits a signal even if the phone is not in use.



# Device Installation

The DSL-2740B Wireless ADSL Router maintains three separate interfaces, an Ethernet LAN, a wireless LAN and an ADSL Internet (WAN) connection. Carefully consider the Router's location suitable for connectivity for your Ethernet and wireless devices. You must have a functioning broadband connection via a bridge device such as a Cable or ADSL modem in order to use the Router's WAN function.

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, direct sunlight 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, desktop, or other stable platform. If possible, 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. Push down the Power button, and you should see the Power LED indicator light up and remain lit.
3. If the Ethernet port is connected to a working device, check the Ethernet Link/Act LED indicators 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 installing the device, some settings may need to be changed before the Router can establish a connection.

# Factory Reset Button

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

1. Press and hold the reset button while the device is powered off.
2. Turn on the power.
3. Wait for 10~15 seconds and then release the reset button.

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

# Network Connections

## Connect ADSL 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 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.

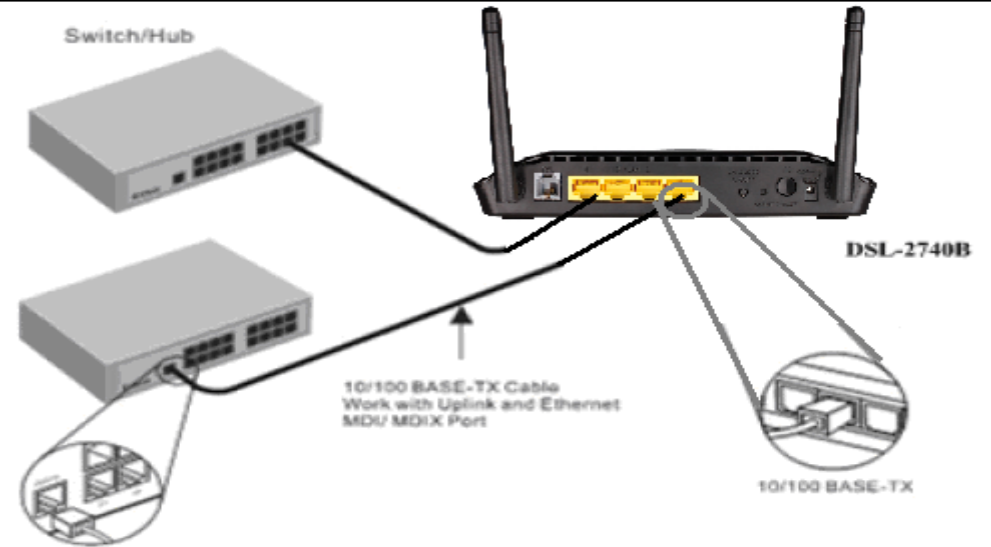
## Connect Router to Ethernet

The Router may be connected to a single computer or Ethernet device through the 10BASE-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 cable 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.

## Section 2 - Installation

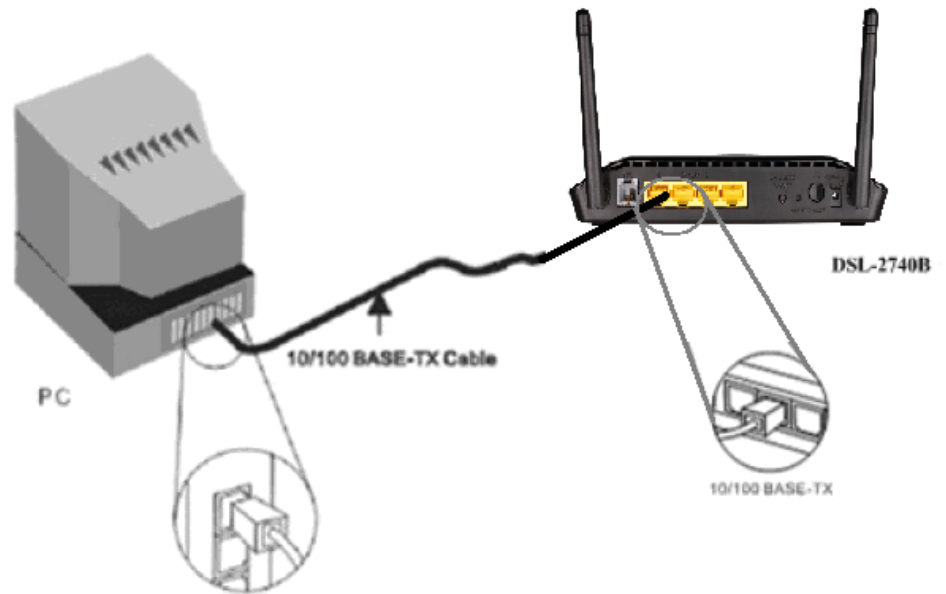
### Hub or Switch to Router Connection

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



### Computer to Router Connection

You can connect the Router directly to a 10/100BASE-TX Ethernet adapter card (NIC) installed on a PC using the Ethernet cable provided as shown in this diagram.



# 1. Configuration

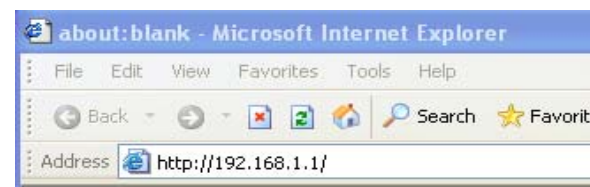
This section will show you how to configure your new D-Link wireless router using the web-based configuration utility.

## 1-1 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. The easiest way to make sure your computer has the correct IP settings is to configure it to use the DHCP server in the Router. 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).



Picture a -1

## Section 3 - Configuration

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 **Troubleshooting** section for assistance.



Picture a-2

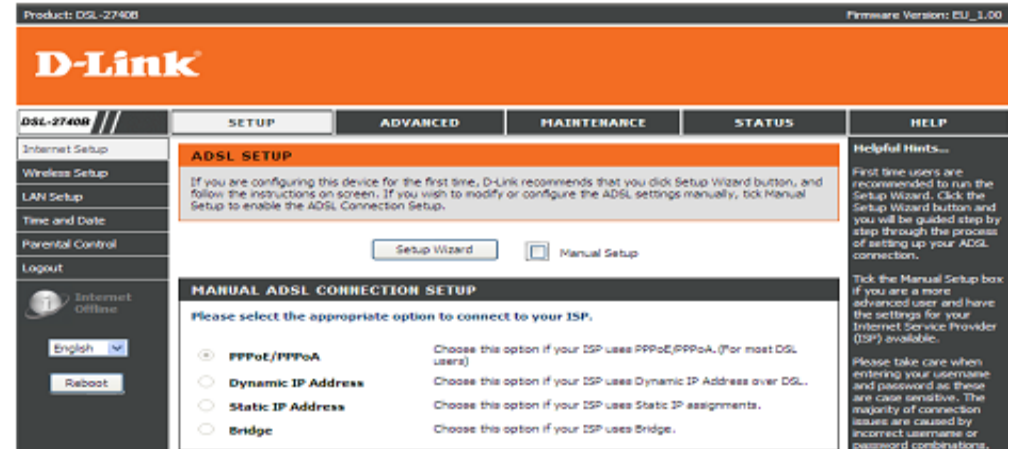
# SETUP

This chapter is concerned with using your computer to configure the WAN connection. The following chapter describes the various windows used to configure and monitor the Router including how to change IP settings and DHCP server setup.

# WIZARD

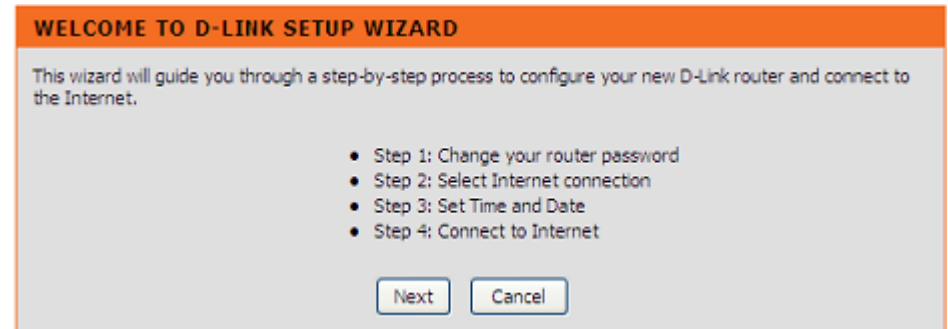
## ADSL SETUP

Click on the **Setup Wizard** button to launch the **Setup Wizard**.



## WELCOME TO D-LINK SETUP WIZARD

There are four steps to configuring your router. Click on the **Next** button to continue.



## Section 3 - Configuration

### STEP 1: CHANGE YOUR DSL-2740B PASSWORD

The default password is "admin", in order to secure your network, please modify the password. Note: Confirm Password must be same as "New Password". Of course, you can click on the **Skip** to ignore the step.

**STEP 1: CHANGE YOUR PASSWORD**

The factory default password of this router is 'admin'. 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: SELECT INTERNET CONNECTION TYPE

Please select your **Country** and **ISP Provider**, **VPI/VCI**, **Connection Type**.

If you can not find the country and ISP in the list below; you can select "**Others**", and then input the "**VPI**" and "**VCI**" and Connection Type.

Please enter the VPI/VCI numbers if provided by the ISP.

Click on the **Next** button to go to the next **Setup Wizard** window.

**STEP 2: SELECT INTERNET CONNECTION TYPE**

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 "Other".

Country:

ISP Provider:

VPI:

VCI:

Connection Type:

## STEP 2: SELECT INTERNET CONNECTION TYPE

Please Type **IP Address**, **Subnet Mask** and **Default Gateway** which are provided by your ISP.

Select to **Enable** or **Disable** in the **Obtain default gateway automatically** option.

If you choose **Disable** in the **Obtain default gateway automatically** option, please type **Primary DNS Server** and **Secondary DNS Server** which could also be provided by your ISP.

## STEP 2: SELECT INTERNET CONNECTION TYPE

You have selected Static IP Internet connection. Please enter the appropriate information below as provided by your ISP. The Auto PVC Scan feature will not work in all cases so please enter the VPI/VCI numbers if provided by the ISP. Click **Next** to continue.

Auto PVC Scan :

VPI :

VCI :

IP Address :

Subnet Mask :

Connection Type :

Obtain default gateway automatically :

Default Gateway :

DNS Relay Selection :

Primary DNS Server :

Secondary DNS Server :

Back

Next

Cancel



## STEP 3: SET TIME AND DATE

### TIME SETTING:

Please enable the **Automatically synchronize with Internet time servers** if you want to use time server.

You can use the default time server web site or type any web server name you want on the **First NTP time server** and the **Second NTP time server**.

Please select the time zone of your country on the **Time Zone** option.

If you need to use the daylight saving, just choose the **Enable Daylight Saving**. Daylight saving is a period from late Spring to early Fall.

Set how many hours to change the time for Daylight saving Offset.

Configure Daylight Saving Dates, Daylight Saving time starts in the most parts of the **United States** on the second Sunday of March. Each time zone in the United States starts Daylight Saving time at 2 A.M. Thus, in the United States you must use **March, Second, Sunday, at 2:00 A.M.**

Daylight Saving time starts in the **European Union** on the last Sunday of March. Thus, in European Union, you must select **March, Last, Sunday**. The time must depend on your country's time zone. For example, In Germany you must type 2 because Germany's time zone is 1 hour ahead of GMT or UTC (GMT+1). Thus, in Germany you must use **March, Last, Sunday, at 1:00 A.M.**

Daylight Saving time ends in the most parts of the United States on the First Sunday of November. Each time zone in the United States must use

## STEP 3: SET TIME AND DATE

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

### TIME SETTINGS

Automatically synchronize with Internet time servers

First NTP time server: ntp.dlink.com.tw

Second NTP time server: ntp1.dlink.com

### TIME CONFIGURATION

Current Router Time : Thursday, January 1, 1970 01:52:17 AM

Time Zone : (GMT-08:00) Pacific Time, Tijuana

Enable Daylight Saving :

Daylight Saving Offset : -2:00

Daylight Saving Dates :

	Month	Week	Day	Time
Start	Jan	1st	Sun	12 am
End	Jan	1st	Sun	12 am

### Section 3 - Configuration

Daylight Saving time at 2:00 A.M. Thus, in the United States you must set **November, First, Sunday, at 2:00 A.M.**

Daylight Saving time ends in the European Union on the Last Sunday of October. For instance, in Germany you must type 2 because Germany's time zone is 1 hour ahead of GMT (GMT+1). Thus, in Germany you must use **March, Last, Sunday, at 1:00 A.M.**

#### SET THE DATE AND TIME MANAULLY

You can also use the **Copy Your Computer's Time Settings** to synchronize the Date and Time to your local PC. Or, you also can adjust **Year/Month/Day/Hour/Minute/Second** manually.

Please click the **Apply** button to save the configuration.

#### STEP 4: CONNECT TO INTERNET

Push the **APPLY** button to use the configuration.

The screenshot displays a web-based configuration interface for a router. At the top, a dark header reads "SET THE DATE AND TIME MANAULLY". Below this, the "Date And Time:" section contains six dropdown menus: Year (2005), Month (Jan), Day (1), Hour (7 am), Minute (50), and Second (27). A button labeled "Copy Your Computer's Time Settings" is positioned below these fields. Further down, an "Apply" button is visible. Below the main configuration area, a section titled "STEP 4: CONNECT TO INTERNET" features a light gray background with instructional text: "Setup completed. Click Back to review or modify settings. Click Apply to submit current settings on router. If your Internet connection does not work, 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." At the bottom of this section are three buttons: "Back", "Apply", and "Cancel".

# INTERNET SETUP

To access the **INTERNET SETUP** (WAN) settings window, click on the **INTERNET Setup** button in the **SETUP** directory and select the **Manual Setup** to configure the MANUAL ADSL interface in this page:

## INTERNET SETUP

If you want to type connection configuration for various types, please enable the **Manual Setup**.

### ADSL SETUP

If you are configuring this device for the first time, D-Link recommends that you click Setup Wizard button, and follow the instructions on screen. If you wish to modify or configure the ADSL settings manually, tick Manual Setup to enable the ADSL Connection Setup.

Setup Wizard

Manual Setup

## MANUAL ADSL CONNECTION SETUP

### PPPoE/PPPoA

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

### Dynamic IP Address

Choose this option if your ISP uses Dynamic IP Address over DSL.

### Static IP Address

Choose this option if your ISP uses Static IP assignments.

### Bridge

Choose this option if your ISP uses Bridge.

## MANUAL ADSL CONNECTION SETUP

Please select the appropriate option to connect to your ISP.

- PPPoE/PPPoA** Choose this option if your ISP uses PPPoE/PPPoA.(For most DSL users)
- Dynamic IP Address** Choose this option if your ISP uses Dynamic IP Address over DSL.
- Static IP Address** Choose this option if your ISP uses Static IP assignments.
- Bridge** Choose this option if your ISP uses Bridge.

## Section 3 - Configuration

### For PPPoE/PPPoA connection

Type in the **Username** and **Password** (and PPPoE Service Name, if required by your ISP).

Type service name which is from your ISP on the **Servername** option.

Choose **PPPoE LLC/Snap-Bridging**, **PPPoE VC-mux**, **PPPoA LLC/encapsulation** and **PPPoA VC-mux**.

Set MTU value which you want but should be less than 1492 on the **MTU**

Set the time which your data doesn't pass through the connection, it will be disconnected on the **Idle Time Out**. The default time is 0 and it means it is always on.

#### PPP IP Extension:

Router passes the obtained IP address to the local PC and acts as a bridge only modem.

Click on the **Next button** to go to the next window.

#### PPPOE/PPPOA INTERNET CONNECTION TYPE :

Enter the information provided by your Internet Service Provider (ISP).

**Username :**

**Password :**

**Servername :**

**Connection Type :**

**MTU :**

**Idle Time Out :**  Minutes  
(0 = Always On)

**PPP IP Extension :**

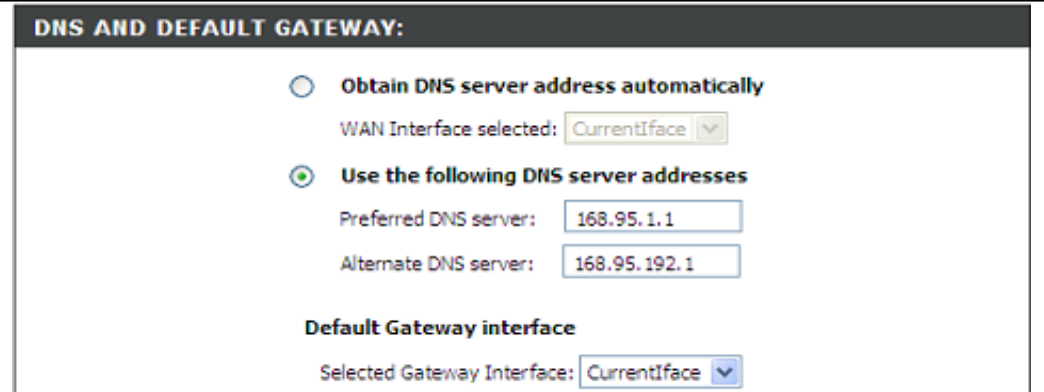
## Section 3 - Configuration

### DNS AND DEFAULT GATEWAY

Select **Obtain DNS server address automatically** to get DNS from your ISP.

Or

Select **Use the following DNS server addresses** to type the DNS IPs in the **Preferred DNS server** and **Alternate DNS server**.



**DNS AND DEFAULT GATEWAY:**

Obtain DNS server address automatically  
WAN Interface selected: CurrentInterface

Use the following DNS server addresses  
Preferred DNS server: 168.95.1.1  
Alternate DNS server: 168.95.192.1

**Default Gateway interface**  
Selected Gateway Interface: CurrentInterface

Set PVC values which are from your ISP on **VPI/VCI**

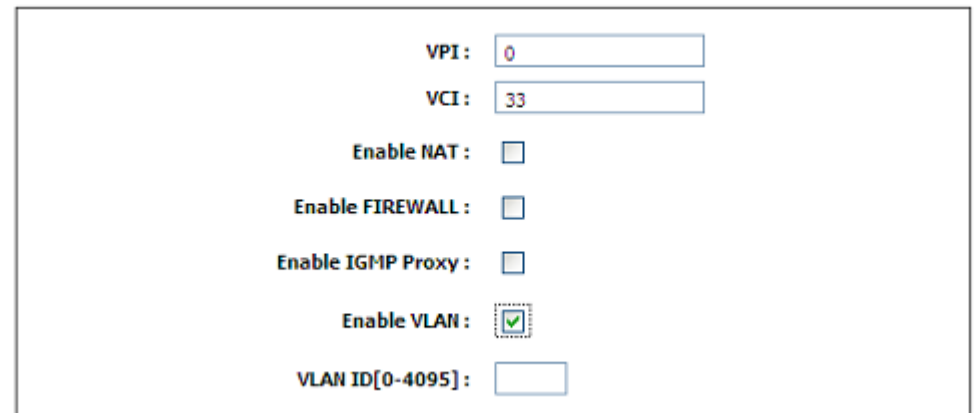
Enable the **Enable NAT** when you want to have WAN and LAN.

Enable the **Enable Firewall** when you want to have the basic filter function, for example, ICMP ping to DSL-2740B.

Enable the **Enable IGMP Proxy** when you want to let IAD to play as a IGMP proxy which can help proxy server to send IGMP query packets to the IPTV clients.

Enable VLAN and type the VLAN ID (0-4095) which your ISP assigns.

Click on the **Apply** button.



VPI: 0  
VCI: 33

Enable NAT:   
Enable FIREWALL:   
Enable IGMP Proxy:   
Enable VLAN:   
VLAN ID[0-4095]:

# WIRELESS

Use this section to configure the wireless settings for your D-Link router. Please note that changes made in this section will also need to be duplicated onto your wireless clients and PC.

To access the **WIRELESS** (WLAN) settings window, click on the **Wireless Setup** button in the **SETUP** directory.

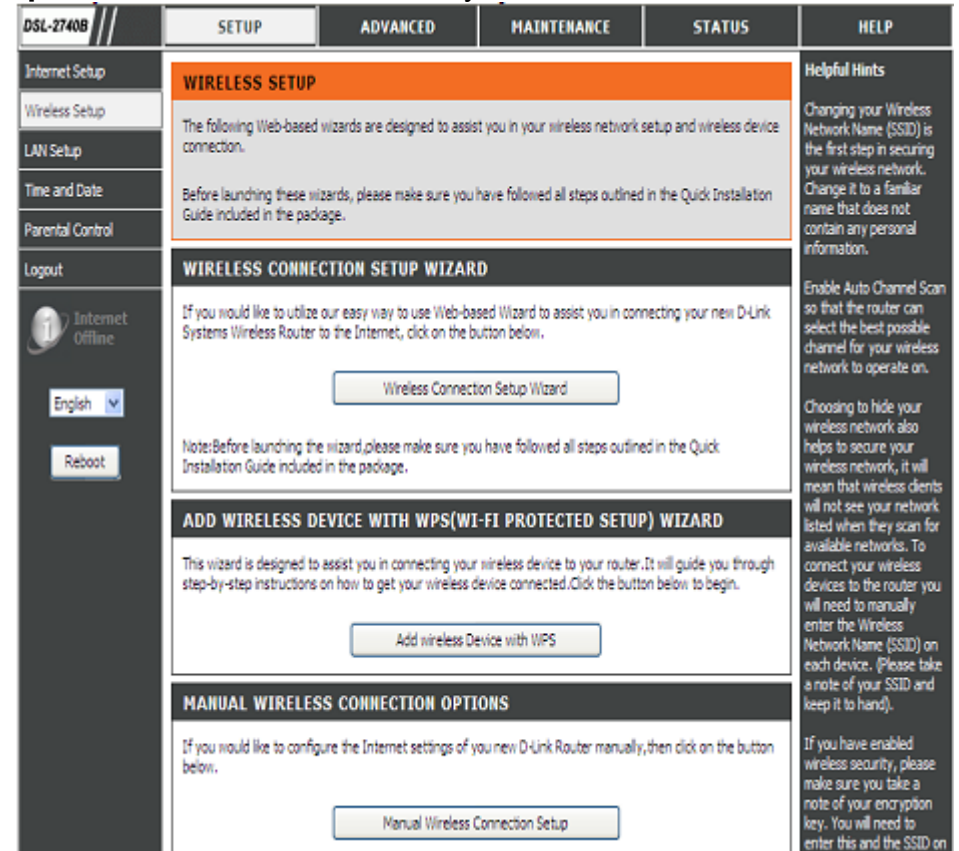
## Wireless Network Setting

Click on the **Wireless Connection Setup Wizard** button to setup the wireless connection in an easy way. It will use Web-based Wizard to assist you in connecting to your new D-Link Systems Wireless Router.

**Note:** Before launching the wizard, please make sure you have followed all steps outlined in the Quick Installation Guide included in the package.

Click on the **Add Wireless Device with WPS** button. This wizard is designed to assist you in connecting your wireless device to your router with WPS. It will guide you through step-by-step instructions on how to get your wireless device connected.

If you would like to configure the Internet settings of you new D-Link Router manually, then click on the **Manual Wireless Connection Setup** button.



## Section 3 - Configuration

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

**Enable Your Wireless Network** Your wireless network is enabled by default. You can simply uncheck the below checkbox to disable wireless

**Network Name (SSID)** identifies members of the Service Set. Accept the default name or change it to something else. If the default SSID is changed, all other devices on the wireless network must also use the same SSID.

In order to protect your network from hackers and unauthorized users, we adapt Auto (WPA or WPA2) for your wireless security mode. We provide user a random pre-shared key by automatically. You can also set it manually if you do not prefer the key we generate.

Type a string (8-63 characters, such as a~z, A~Z, or 0~9.) on the **Pre-Shared** key.

Click **Prev** to go back to previous page.

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

Click **Cancel** button to return to the main menu of Wireless Setup page.

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

Your wireless network is enabled by default. You can simply uncheck the below checkbox to disable wireless.

**Enable Your Wireless Network**

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

**Wireless Network Name (SSID) :**   
(1-32 characters)

In order to protect your network from hackers and unauthorized users, we adapt Auto(WPA or WPA2) for your wireless security mode.

**Wireless Security Mode :** **Auto (WPA or WPA2)**

**Pre-Shared Key :**   
(8-63 characters, such as a~z, A~Z, or 0~9.)

**Note:** We provide user a random pre-shared key by automatically. You can also set it manually if you do not prefer the key we generate.



## Section 3 - Configuration

### Add Wireless Device with WPS

The wizard shows the option to setup WPS by **Auto** or **Manual**.

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

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

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

Click **Cancel** button to return to the main menu of Wireless Setup page.

### Add Wireless Device with WPS (Automatically)

This page allows you to select PIN or PBC to use WPS method.

**PIN**- Enter the PIN code from your wireless device and click the below **Connect** button to start the handshaking.

**PBC**- Please press the **Connect** button on your wireless device and presses the **Connect** button below within 120 seconds to start the handshaking.

Click **Prev** to go back to previous page.

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

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

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

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

- Auto -- Select this option if your wireless device supports WPS(Wi-Fi Protected Setup)
- Manual -- Select this option will display the current wireless settings for you to configure the wireless device manually

Next Cancel

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

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

- PIN (Personal Identification Number)

- PBC (Push Button Configuration)

- PIN :  Please enter the PIN from your wireless device and click the below "Connect" button
- PBC Please press the push button on your wireless device and press the "Connect" button below within 120 seconds

Prev Connect



## Section 3 - Configuration

### Add Wireless Device with WPS (WI-FI PROTECTED SETUP) WIZARD

This page will count down the timer and please start WPS on the wireless device you are adding in time.

### Add Wireless Device with WPS (Manually)

This screen shows the information for the SSID, Wireless Security Mode and the Network key and allow you to modify the current setting, if you select **Auto** in the previous page, you won't see this page and please refer to next column.

Please type network name on the **Network Name SSID**.

Please type network key on the **Network Key**

Click **OK** button to process the next page.

### Add Wireless Device with WPS (WI-FI PROTECTED SETUP)

Finally it will show all the configurations. You can check if it is exact, please click the **Next** button.

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

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

#### VIRTUAL PUSH BUTTON

Please press down the Push Button (Physical or virtual) on the wireless device you are adding to your wireless network within 79seconds ...

Station associated, processing WPS

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

The Auto(WPA or WPA2) key must meet one of the following guidelines:

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

Network Name (SSID) :

Network Key :

Prev

Next

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

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

Network Name(SSID) : D-Link5985

Wireless Security Mode : Auto(WPA or WPA2)

Network Key : 12345678

Prev

Next

## Section 3 - Configuration

### Manual WIRELESS Connection Setup SETTINGS

Click on the **Enable Wireless** box to allow the router to operate in the wireless environment. You can use the **Add New** button to set the schedule.

The **SSID** identifies members of the Service Set. Accept the default name or change it to something else. If the default SSID is changed, all other devices on the wireless network must also use the same SSID.

**Enable Auto Channel Scan** so that the router can select the best possible channel for your wireless network to operate on.

The **Wireless Channel** can let you select the channel of your access point. Channel availability is different for different countries due to their regulation.

Select **802.11 Mode** to operate in b/g/n mode. Or select specified mode to use. **802.11b only**, **802.11g only**, **802.11n only**.

**Mixed 802.11g and 802.11b** which means DSL-2740B will detect the clients to use 802.11g or 802.11b to synchronize.

**Mixed 802.11n, 802.11g and 802.11b** which means DSL-2740B will detect the clients to use 802.11n, 802.11g or 802.11b to synchronize.

**Channel Width**, Choose 20MHz or Auto 20/40MHz to decide the Transmission Rate.

**Transmission Rate**, suggest keeping the Best (automatic) selection. This is related to Receive Sensitivity as follows,

	MANRATE	HT20/GI=0	HT40/GI=0	HT40/GI=1
MCS 0	0x80	6.5Mbps	13.5Mbps	X

#### WIRELESS NETWORK SETTINGS

**Enable Wireless:**  Always Add New

**Wireless Network Name (SSID):**

**Wireless Channel:**

**802.11 Mode:**

**Channel Width:**

**Transmission Rate:**

**Visibility Status:**

#### WIRELESS NETWORK SETTINGS

**Enable Wireless:**  Always Add New

**Wireless Network Name (SSID):**

**Wireless Channel:**

**802.11 Mode:**

**Channel Width:**

**Transmission Rate:**  (Mbit/s)

**Visibility Status:**  Visible  Invisible

### Section 3 - Configuration

MCS 1	0x81	13Mbps	27Mbps	X
MCS 2	0x82	19.5Mbps	40.5Mbps	X
MCS 3	0x83	26Mbps	54Mbps	X
MCS 4	0x84	39Mbps	81Mbps	X
MCS 5	0x85	52Mbps	108Mbps	X
MCS 6	0x86	58.5Mbps	121.5Mbps	X
MCS 7	0x87	65Mbps	135Mbps	150Mbps
MCS 8	0x88	13Mbps	27Mbps	X
MCS 9	0x89	26Mbps	54Mbps	X
MCS 10	0x8a	39Mbps	81Mbps	X
MCS 11	0x8b	52Mbps	108Mbps	X
MCS 12	0x8c	78Mbps	162Mbps	X
MCS 13	0x8d	104Mbps	216Mbps	X
MCS 14	0x8e	117Mbps	243Mbps	X
MCS 15	0x8f	130Mbps	270Mbps	300Mbps

If you only use the Transmission rate of the 20MHz, please refer to the right picture.

The screenshot shows the D-Link DSL-2740B web interface. The main navigation bar includes 'DSL-2740B', 'SETUP', and 'ADVANCED'. The left sidebar contains 'Wizard', 'Internet Setup', 'Wireless Settings', 'Local Network', 'Time and Date', and 'Logout'. The main content area is titled 'WIRELESS NETWORK SETTINGS' and includes the following fields:

- Enable Wireless:
- Wireless Network Name (SSID):
- Country:
- Wireless Channel:
- 802.11 Mode:
- Bandwidth:
- Transmission Rate:  (Mbit/s)
- Hide Wireless Network:

Below the settings is the 'WIRELESS SECURITY MODE' section, which states: "To protect your privacy you can configure wireless security features. This device supports three wireless security modes including: WEP, WPA, WPA2 and Auto. The WEP mode is the original wireless encryption standard. WPA provides a higher level of security."

On the right side of the interface, there are tabs for 'MAINTENANCE', 'STATUS', and 'HELP'. A 'Helpful Hints' section provides instructions on changing the SSID and enabling Auto Channel Scan.

If you want to use the max. rate 150Mbps or the max. rate 300Mbps on 40MHz, please choose the **Channel Width:** Auto 20/40MHz

Choose Visible or Invisible to decide if you want to show its SSID.



## WIRELESS SECURITY Mode

To protect your privacy you can configure wireless security features. This device supports three wireless security modes including: WEP, WPA-Personal, and WPA-Enterprise. WEP is the original wireless encryption standard. WPA provides a higher level of security. WPA-Personal does not require an authentication server. The WPA-Enterprise option requires an external RADIUS server.

### WIRELESS SECURITY MODE

To protect your privacy you can configure wireless security features. This device supports three wireless security modes including: WEP, WPA-Personal, and WPA-Enterprise. WEP is the original wireless encryption standard. WPA provides a higher level of security. WPA-Personal does not require an authentication server. The WPA-Enterprise option requires an external RADIUS server.

Security Mode :  ▼

## WIRELESS SECURITY MODE - WEP

**WEP (Wireless Encryption Protocol)** encryption can be enabled for security and privacy. WEP encrypts the data portion of each frame transmitted from the wireless adapter using one of the predefined keys. The router offers 64 or 128 bit encryption with four keys available.

Select **WEP Key Length** from the drop-down menu. (**128 bit** is stronger than **64 bit**)

Specify the encryption key from the **Current Network Key** drop-down menu.

Enter the key into the **WEP Key** field 1~4. (Key length is outlined at the bottom of the window.)

Select **Authentication** type from the drop-down menu. (**Shared** is better than **Open**)

Click on the **Apply Settings** button to apply settings.

### WEP

**If you choose the WEP security option this device will ONLY operate in Legacy Wireless mode (802.11B/G). This means you will NOT get 11N performance due to the fact that WEP is not supported by the Draft 11N specification.**

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

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

**WEP Key Length:** 128 bit (26 hex digits)  **(length applies to all keys)**

**WEP Key 1:**

**WEP Key 2:**

**WEP Key 3:**

**WEP Key 4:**

**Default WEP Key:** WEP Key 1

**Authentication:** Open

Please take note of your SSID and security Key as you will need to duplicate the same settings to your wireless devices and PC.



## WIRELESS SECURITY MODE – WPA-Personal

Use **WPA** or **WPA2** mode to achieve a balance of strong security and best compatibility. This mode uses WPA for legacy clients while maintaining higher security with stations that are WPA2 capable. Also the strongest cipher that the client supports will be used. For best security, use **WPA2 Only** mode. This mode uses AES (CCMP) cipher and legacy stations are not allowed access with WPA security. For maximum compatibility, use **WPA Only**. This mode uses TKIP cipher. Some gaming and legacy devices work only in this mode.

According to the WiFi Alliance 11N specification, Wi-Fi Protected Setup is not full supported under WPA Only mode. We will disable your Wi-Fi Protected Setup if you use WPA Only mode.

Choose **Auto(WPA or WPA2) / WPA2 only / WPA only** on the **WPA Mode**

Type the value seconds on the **Group Key Update Interval**. The default value is 1800.

Type the string on the **Pre-Shared Key**

Click the **Apply Settings** button to save the configuration.

**WPA**

Use **WPA** or **WPA2** mode to achieve a balance of strong security and best compatibility. This mode uses WPA for legacy clients while maintaining higher security with stations that are WPA2 capable. Also the strongest cipher that the client supports will be used. For best security, use **WPA2 Only** mode. This mode uses AES(CCMP) cipher and legacy stations are not allowed access with WPA security. For maximum compatibility, use **WPA Only**. This mode uses TKIP cipher. Some gaming and legacy devices work only in this mode.

To achieve better wireless performance use **WPA2 Only** security mode (or in other words AES cipher).

**WPA Mode :** Auto (WPA or WPA2) ▼

**Group Key Update Interval :** 0 (seconds)

**PRE-SHARED KEY**

**Pre-Shared Key :**

Please take note of your SSID and security Key as you will need to duplicate the same settings to your wireless devices and PC.

Apply Settings Cancel

## WIRELESS SECURITY MODE – WPA-Enterprise

### 802.1x

Some network-security experts now recommend that wireless networks use 802.1X security measures to overcome some weaknesses in standard WEP applications. A RADIUS server is used to authenticate all potential users. .

Enter your RADIUS server data: **IP Address**, **Port**, and **Key**.

Click on the **Save Settings** button to apply settings.

#### EAP (802.1X)

When WPA enterprise is enabled, the router uses EAP (802.1x) to authenticate clients via a remote RADIUS server.

**Authentication Timeout:**  (minutes)

**RADIUS server IP Address:**

**RADIUS server Port:**

**RADIUS server Shared Secret:**

Please take note of your SSID and security Key as you will need to duplicate the same settings to your wireless devices and PC.



# LOCAL NETWORK

You can configure the LAN IP address to suit your preference. Many users will find it convenient to use the default settings together with DHCP service to manage the IP settings for their private network. The IP address of the Router is the base address used for DHCP. In order to use the Router for DHCP on your LAN, the IP address pool used for DHCP must be compatible with the IP address of the Router. The IP addresses available in the DHCP IP address pool will change automatically if you change the IP address of the Router.

To access the **Local Network** setting window, click on the **Local Network** button in the **SETUP** directory.

## ROUTER SETTINGS

To change the **Router IP Address** or **Subnet Mask**, type in the desired values.

The screenshot shows the DSL-2740B web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar lists menu items: Internet Setup, Wireless Setup, LAN Setup (highlighted), Time and Date, Parental Control, and Logout. The main content area is titled 'LAN SETUP' and contains a sub-section 'ROUTER SETTINGS'. Under 'ROUTER SETTINGS', there are two input fields: 'Router IP Address' with the value '192.168.1.1' and 'Subnet Mask' with the value '255.255.255.0'. A 'Save Settings' button is visible at the bottom right of the form. A 'Helpful Hints...' sidebar on the right provides additional information about DHCP server configuration.

## DHCP SERVER SETTINGS (OPTIONAL)

The **Enable DHCP Server** is selected by default for the Router's Ethernet LAN interface.

Set the **DHCP IP Address Range** and the default is from 192.168.1.2 to 192.168.1.254. The IP address pool can be up to 253 IP addresses.

Set the value hours on the **DHCP Lease Time**

If you don't want DSL-2740B to be the DHCP server, you can enable **DHCP relay** to pass the DHCP discover packets of the clients to another DHCP server.

Please set the DHCP server IP address on the **DHCP Server IP Address**.

The screenshot shows the 'DHCP SERVER SETTINGS (OPTIONAL)' configuration page. The title bar is dark grey with white text. Below the title, there is a descriptive paragraph: 'Use this section to configure the built-in DHCP Server to assign IP addresses to the computers on your network.' The form contains several fields: 'Enable DHCP Server' with an unchecked checkbox, 'DHCP IP Address Range' with input boxes containing '192.168.1.2' and '192.168.1.254', 'DHCP Lease Time' with an empty input box and '(hours)' text, 'DHCP Relay' with an unchecked checkbox, and 'DHCP Server IP Address' with an empty input box. A 'Save Settings' button is located at the bottom right of the form.

### Section 3 - Configuration

#### ADD/EDIT DHCP RESERVATION (OPTIONAL)

Select the **Enable** to let you reserve the **IP Address** for the designated PC with the configured **MAC Address**.

The **Computer Name** can help you recognize the PC with the **MAC Address**, such as "Father's Laptop".

Clicking on the **Copy Your PC's MAC Address** button to help you get the Mac address from the PC you are using now browsing this web page.

Click on the **Save button** to save the settings

#### DHCP RESERVATIONS LIST

After saved the DHCP reservation, the **DHCP RESERVATIONS LIST** will list the configuration.

The **NUMBER OF DYNAMIC DHCP CLIENTS** shows how many DHCP clients (PC or Laptop) connected to the router currently.

Click on the **Save Settings** button. You will be asked to reboot by a pop-up window. Click on the **OK** to reboot the router.

#### ADD/EDIT DHCP RESERVATION (OPTIONAL)

Enable :

Computer Name :

IP Address :

MAC Address :

#### DHCP RESERVATIONS LIST

	Enable	Computer Name	MAC Address	IP Address
<input type="checkbox"/>	Enable	Father	00:18:8B:BF:5A:F4	192.168.1.5

#### NUMBER OF DYNAMIC DHCP CLIENTS : 1

Computer Name	MAC Address	IP Address	Expire Time
06967NBWINXPSP2	00:18:8B:BF:5A:F2	192.168.1.2	23 hours, 57 minutes, 7 seconds

## Section 3 - Configuration

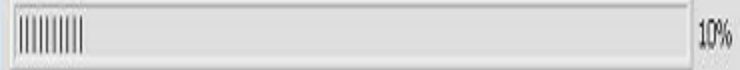
### LAN SETUP

Do not turn the Router off while it is rebooting.

You might need to re-configure your PC NIC settings to enter the Router's web manager after reboot.

#### DSL ROUTER REBOOT

The DSL Router has been configured and is rebooting. Please wait...  
If necessary, reconfigure your PC's IP address to match your new configuration after reboot finishes.



# TIME

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

To access the **TIME** setting window, click on the **Time and Date** button in the **SETUP** directory

## TIME

Check the **Enable NTP Server**.

Select specific time server to use from the **NTP Server Used** drop-down menu. Or, you can type the specific NTP server name.

Select your operating time zone from the **Time Zone** drop-down menu.

If you need to use the daylight saving, just choose the **Enable Daylight Saving**. Daylight saving is a period from late Spring to early Fall.

Set how many hours to change the time for Daylight saving Offset.

Configure Daylight Saving Dates, Daylight Saving time starts in the most parts of the **United States** on the second Sunday of March. Each time zone in the United States starts Daylight Saving time at 2 A.M. Thus, in the United States you must use **March, Second, Sunday, at 2:00 A.M.**

Daylight Saving time starts in the **European Union** on the last Sunday of March. Thus, in European Union, you must select **March, Last, Sunday**. The time must depend on your country's time zone. For

The screenshot displays the D-Link DSL-2740B web interface. The top navigation bar includes 'DSL-2740B', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar contains links for 'Internet Setup', 'Wireless Setup', 'LAN Setup', 'Time and Date', 'Parental Control', and 'Logout'. The main content area is titled 'TIME' and contains the following sections:

- TIME SETTINGS:**
  - Automatically synchronize with Internet time servers:
  - First NTP time server: ntp.dlink.com.tw
  - Second NTP time server: ntp1.dlink.com
- TIME CONFIGURATION:**
  - Current Router Time: Thursday, January 1, 1970 03:42:55 AM
  - Time Zone: (GMT-08:00) Pacific Time, Tijuana
  - Enable Daylight Saving:
  - Daylight Saving Offset: -2:00
  - Daylight Saving Dates:
 

	Month	Week	Day	Time
Start	Jan	1st	Sun	12 am
End	Jan	1st	Sun	12 am

On the right side, there is a 'Helpful Hints...' section with text: 'Making sure you have the correct time and date will enable you to accurately set up the Time Restrictions in the Parental Control section.' and a 'More...' link.

### Section 3 - Configuration

example, In Germany you must type 2 because Germany's time zone is 1 hour ahead of GMT or UTC (GMT+1). Thus, in Germany you must use **March, Last, Sunday, at 1:00 A.M.**

Daylight Saving time ends in the most parts of the United States on the First Sunday of November. Each time zone in the United States must use Daylight Saving time at 2:00 A.M. Thus, in the United States you must set

**November, First, Sunday, at 2:00 A.M.**

Daylight Saving time ends in the European Union on the Last Sunday of October. For instance, in Germany you must type 2 because Germany's time zone is 1 hour ahead of GMT (GMT+1). Thus, in Germany you must use **March, Last, Sunday, at 1:00 A.M.**

### SET THE DATE AND TIME MANAULLY

You can also use the **Copy Your Computer's Time Settings** to synchronize the Date and Time to your local PC. Or, you also can adjust **Year/Month/Day/Hour/Minute/Second** manually.

Please click the **Apply** button to save the configuration.

**SET THE DATE AND TIME MANAULLY**

Date And Time :

Year: 2005    Month: Jan    Day: 1

Hour: 3 am    Minute: 42    Second: 56

Copy Your Computer's Time Settings

Apply

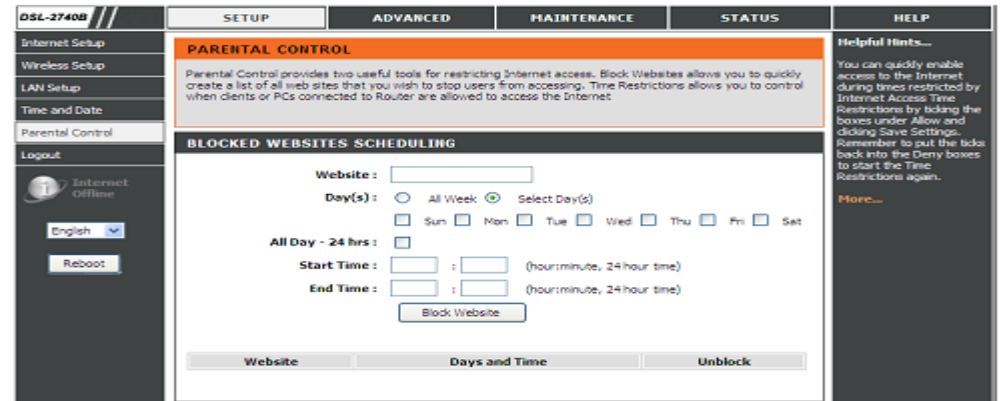
# PARENTAL CONTROL

Parental Control provides two useful tools for restricting Internet access. Block Websites allows you to quickly create a list of all web sites that you wish to stop users from accessing. Time Restrictions allows you to control when clients or PCs connected to Router are allowed to access the Internet

## BLOCKED WEBSITES SCHEDULING

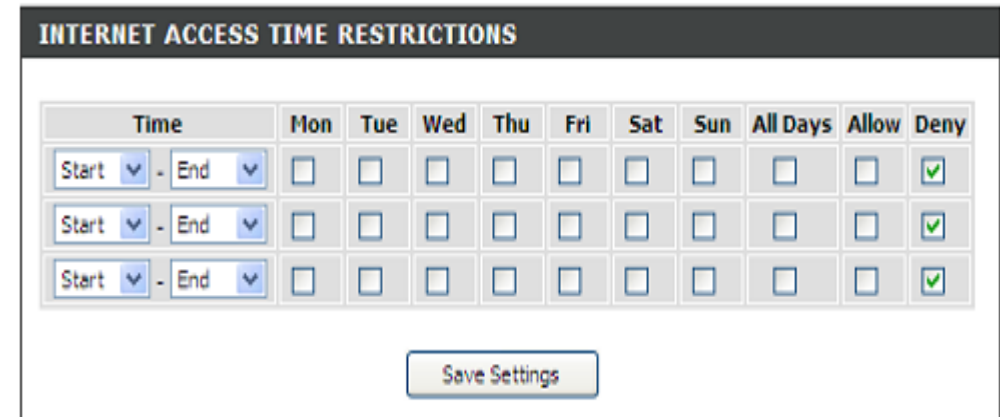
Please type the website name which you want to block on the **Website**

Please set the day and time. After finish, please click on the **Block Website** button and then it will show in list.



## INTERNET ACCESS TIME RESTRICTIONS

You can have the schedule plan to decide the internet access time restrictions.



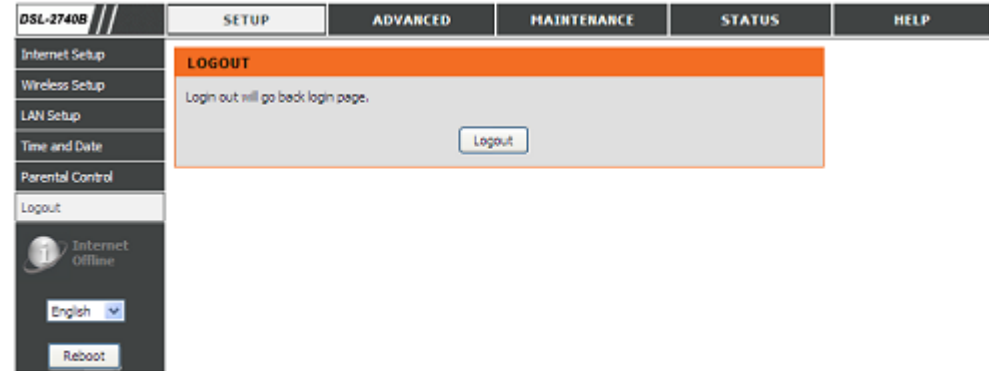
# LOGOUT

The **LOGOUT** page enables you to logout of your router configuration and closes the browser.

To access the **LOGOUT** setting window, click on the **Logout** button in the **SETUP** directory

## LOGOUT

Click on the **Logout** button to logout of the router configuration settings and close the browser.



# ADVANCED

This chapter includes the more advanced features used for network management and security as well as administrative tools to manage the router, view status and other information used to examine performance and for troubleshooting.

## PORT FORWARDING

Use the **PORT FORWARDING** window to open ports in your router and re-direct data through those ports to a single PC on your network (WAN-to-LAN traffic). The Port Forwarding function allows remote users to access services on your LAN such as FTP for file transfers or SMTP and POP3 for e-mail. The DSL-2740B will accept remote requests for these services at your Global IP Address, using the specified TCP or UDP protocol and port number, and then redirect these requests to the server on your LAN with the LAN IP address you specify. Remember that the specified Private IP Address must be within the useable range of the subnet occupied by the Router.

To access the **PORT FORWARDING** settings window, click on the **PORT FORWARDING** button in the **ADVANCED** directory

### PORT FORWARDING RULES CONFIGURATION

Select a name from the **Application Name** drop-down menu for a pre-configured application or type a name in the **Name** input box to define your own application.

Select a name from the **Computer Name** drop-down menu or type an IP address in the **IP address** input box to appoint the PC to receive the forwarded packets.

The **External Port** shows the ports opened for remote users in the WAN side of the router. The **TCP/UDP** means the protocol type of the opened ports.

The **Internal Port** shows the ports opened in the PC with the appointed **IP Address**. The **TCP/UDP** means the protocol type of the opened ports.



# APPLICATION RULES

This option is used to pre-configure single or multiple trigger ports on your router that will automatically activate when the router senses data sent to the Internet from one of these applications.

## APPLICATION RULES CONFIGURATION

Select a name from the **Application Name** drop-down menu for a pre-configured application or type a name in the **Name** input box to define your own application.

It will appear the Trigger and Firewall ports after you choose the application name by the drop-down menu.

Choose the Use Interface and click the **Add/Apply** button to save the configuration, and then it will be added in the list.

The screenshot displays the 'APPLICATION RULES' configuration page on a D-Link DSL-2740B router. The page is divided into several sections:

- Navigation Menu:** Located on the left, it includes options like Port Forwarding, Application Rules (selected), QoS Setup, Outbound Filter, Inbound Filter, Wireless Filter, DNS Setup, Firewall & DMZ, Advanced Internet, Advanced Wireless, Advanced LAN, SNMP Setup, Remote Management, Routing Setup, TR-069 Client, Wi-Fi Protected Setup, Power Management, and Logout. There is also an 'Internet Offline' indicator at the bottom.
- Page Header:** Shows 'DSL-2740B' and navigation tabs for 'SETUP', 'ADVANCED' (selected), 'MAINTENANCE', 'STATUS', and 'HELP'.
- APPLICATION RULES Section:**
  - DESCRIPTION:** Explains that this option is used to pre-configure trigger ports that activate when data is sent to the Internet from specific applications.
  - CONFIGURATION FORM:**
    - Remaining number of rules that can be created:** 16
    - Name:** An input field for a custom application name.
    - Application Name:** A dropdown menu for selecting predefined applications.
    - Port:** A dropdown menu for selecting the trigger port.
    - Traffic Type:** A dropdown menu for selecting the traffic type (e.g., TCP).
    - Use Interface:** A dropdown menu for selecting the WAN interface.
    - Firewall:** A dropdown menu for selecting the firewall port.
    - Buttons:** 'Add/Apply' button to save the configuration.
- ACTIVE APPLICATION RULES Section:** A table listing currently active rules with columns: Name, Trigger Port, Traffic Type, Firewall Port, Traffic Type, WAN Interface, Edit, and Remove.
- Helpful Hints...** A sidebar on the right providing additional information and a 'More...' link.

# QOS SETUP

Quality of Service Setup can be used to improve data flow for different applications by prioritizing the network traffic based on selected criteria.

## QOS SETUP

You have to define the service ports. For example,

**VoIP(RTP)** is from 700(**Start Port**) to 900(**End Port**)

**H.323** is 1720

**FTP** is from 20(**Start Port**) to 21(**End Port**)

**MSN messenger** is from 1863(**Start Port**) to 1864(**End Port**)

## WIRELESS QOS SETUP

You can choose **Enable** or **Disable** to decide if the data has the WMM on the **WMM(Wi-Fi Multimedia)**

**WMM No Acknowledge** means that the receiver doesn't have to send back the Acknowledge packet.

The screenshot displays the configuration interface for a D-Link DSL-2740B router. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar lists various configuration options, with 'QoS Setup' selected. The main content area is divided into two sections:

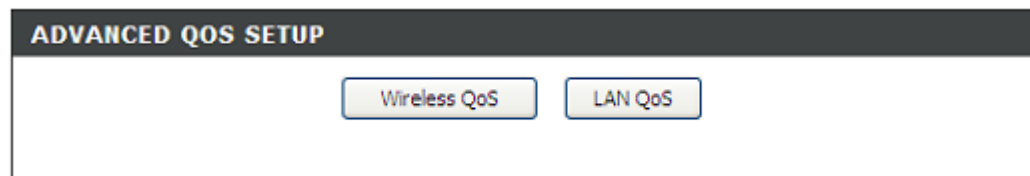
- QOS SETUP:** This section features a header with the title 'QOS SETUP' and a descriptive paragraph. Below it, there are several rows of settings, each with a checkbox and two input fields for 'Start Port' and 'End Port':
  - VOIP(RTP) :  Start Port:  End Port:
  - H.323 :  Start Port:  End Port:
  - FTP :  Start Port:  End Port:
  - MSN messenger :  Start Port:  End Port:
  - IPSEC(VPN Passthru) :
  - RTSP(Video Streaming) :
  - MMS :
 A 'Save Settings' button is located at the bottom of this section.
- WIRELESS QOS SETUP:** This section contains two settings, each with a dropdown menu:
  - WMM(Wi-Fi Multimedia): Enabled
  - WMM No Acknowledgement: Enabled
 An 'Apply WME Settings' button is positioned at the bottom.

On the right side of the interface, there is a 'Helpful Hints...' section with explanatory text and a 'More...' link.

## ADVANCED QOS SETUP

Click the **Wireless QoS** button to set wireless data priority.

Click the **LAN QoS** button to set Ethernet data priority.



## WIRELESS QOS RULES CONFIGURATION

Type the policy name on the **Name**

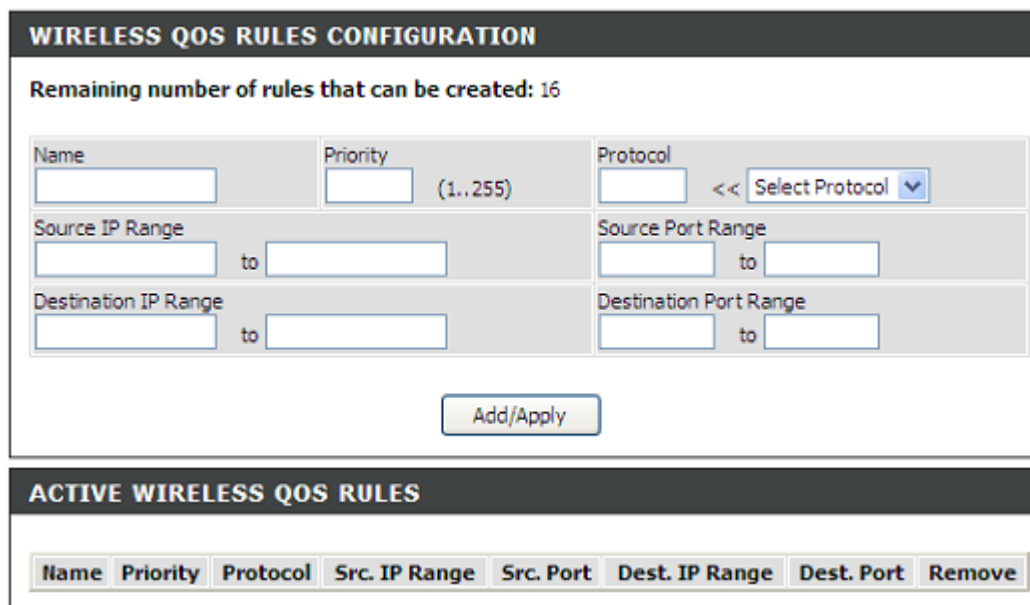
Set the priority value on the **Priority**

Select the **Protocol**, ANY, ICMP, TCP and UDP.

Set the **Source IP Range** and the **Destination IP Range**.

Set the **Source Port Range** and the **Destination Port Range**.

Click the **Add/Apply** button to add the policy to the list.



## LAN QOS RULES CONFIGURATION

Type the policy name on the **Name**

Set the priority value on the **Priority**

Select the **Protocol**, ANY, ICMP, TCP and UDP.

Set the **Source IP Range** and the **Destination IP Range**.

Set the **Source Port Range** and the **Destination Port Range**.

Click the **Add/Apply** button to add the policy to the list.

### LAN QOS RULES CONFIGURATION

Remaining number of rules that can be created: 16

Name	Priority	Protocol
<input type="text"/>	<input type="text"/> (1..7)	<input type="text"/> << Select Protocol <input type="button" value="v"/>
Source IP Range	Source Port Range	
<input type="text"/> to <input type="text"/>	<input type="text"/> to <input type="text"/>	
Destination IP Range	Destination Port Range	
<input type="text"/> to <input type="text"/>	<input type="text"/> to <input type="text"/>	

### ACTIVE LAN QOS RULES

Name	Priority	Protocol	Src. IP Range	Src. Port	Dest. IP Range	Dest. Port	Remove
------	----------	----------	---------------	-----------	----------------	------------	--------

# OUTBOUND FILTER

By default, all outgoing IP traffic from the LAN is allowed. The Outbound Filter allows you to create a filter rule to block outgoing IP traffic by specifying a filter name and at least one condition below. All of the specified conditions in this filter rule must be satisfied for the rule to take effect.

## ADD OUTBOUND IP FILTER

Type the filter name on the **Filter Name**.

Choose ICMP, TCP/UDP, TCP or UDP on the **Protocol**.

Type **Source IP address**, **Source Subnet Mask** and **Source Port**(port or port::port means from which port to which port)

Type **Destination IP address**, **Destination Subnet Mask** and **Destination Port**(port or port::port means from which port to which port)

Set the policy schedule on the **Schedule**, Always or never, or **View Available Schedules**

Please click **Add/Apply** button to add the policy in the list.

# INBOUND FILTER

By default, all incoming IP traffic from the internet network is allowed. The Inbound Filter allows you to create a filter rule to filter incoming IP traffic by specifying a filter name and at least one condition below. All of the specified conditions in this filter rule must be satisfied for the rule to take effect.

## ADD OUTBOUND IP FILTER

Type the filter name on the **Filter Name**.

Choose ICMP, TCP/UDP, TCP or UDP on the **Protocol**.

Type **Source IP address, Source Subnet Mask and Source Port(port or port::port means from which port to which port)**

Type **Destination IP address, Destination Subnet Mask and Destination Port(port or port::port means from which port to which port)**

Set the policy schedule on the Schedule, Always or never, or **View Available Schedules**

Please click **Add/Apply** button to add the policy in the list.

The screenshot shows the 'OUTBOUND IP FILTER' configuration page in the D-Link DSL-2740B web interface. The page is divided into several sections:

- Navigation Sidebar:** Includes links for Port Forwarding, Application Rules, QoS Setup, Outbound Filter (selected), Inbound Filter, Wireless Filter, DNS Setup, Firewall & DMZ, Advanced Internet, Advanced Wireless, Advanced LAN, SNMP Setup, Remote Management, Routing Setup, TR-069 Client, Wi-Fi Protected Setup, Power Management, and Logout.
- Page Header:** Shows 'DSL-2740B' and tabs for 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'.
- OUTBOUND IP FILTER Section:**
  - Header:** 'OUTBOUND IP FILTER' (highlighted in orange).
  - Description:** 'By default, all outgoing IP traffic from the LAN is allowed. The Outbound Filter allows you to create a filter rule to block outgoing IP traffic by specifying a filter name and at least one condition below. All of the specified conditions in this filter rule must be satisfied for the rule to take effect.'
  - Form Fields:**
    - Filter Name:
    - Protocol:
    - Source IP address:
    - Source Subnet Mask:
    - Source Port (port or port:port):
    - Destination IP address:
    - Destination Subnet Mask:
    - Destination Port (port or port:port):
    - Schedule:  [View Available Schedules](#)
  - Buttons:** 'Add/Apply' button.
- ACTIVE OUTBOUND IP FILTER Section:**
  - Table:**

Name	Protocol	Src. Addr./Mask	Src. Port	Dest. Addr./Mask	Dest. Port	Schedule	Remove
- Helpful Hints... Sidebar:**
  - Give each rule a Name that is meaningful to you.
  - Each rule can Deny outgoing traffic from the LAN.
  - The Source IP addresses are LAN-side address and the Destination IP address are WAN-side address.
  - Click the Save button to store a finished rule in the Rules List.
  - Click the Remove checkbox in the Rules List then click on the Remove button to permanently remove a rule.
  - [More...](#)

# WIRELESS FILTER

This feature can let you add a policy to deny or allow WLAN devices connected to the router

## WIRELESS FILTER POLICY

You can choose the Disable/ Allow All/ Deny All of **Wireless Filter Policy**.

**Disable:** You don't want to launch the feature.

**Allow All:** Support Wlan devices make connection, except the mac address which is added in the filter table.

**Deny All:** Support deny all Wlan devices make connection, except the mac address which is added in the filter table.

## WIRELESS FILTER

Type filter name on the **FILTER NAME**

Type wireless mac address on the **Wireless MAC Address**

**WIRELESS FILTER - MAXIMUM 32 ENTRIES CAN BE ADDED.**

Please click the Add/Apply button to add the policy in the list.

The screenshot shows the router's configuration interface. At the top, there are tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains a menu with options like Port Forwarding, Application Rules, QoS Setup, Outbound Filter, Inbound Filter, Wireless Filter (highlighted), DNS Setup, Firewall & DMZ, Advanced Internet, Advanced Wireless, Advanced LAN, SNMP Setup, Remote Management, Routing Setup, TR-069 Client, Wi-Fi Protected Setup, Power Management, and Logout. The main content area is titled 'WIRELESS FILTER' and includes a description: 'This page adds a Mac address filter to deny or allow special WLAN devices connected to the router.' Below this is the 'WIRELESS FILTER POLICY' section, which allows selecting a policy: 'Disabled' (selected), 'Allow All' (with a sub-note: 'Support Wlan devices make connection, except the mac address which is added in the filter table.'), and 'Deny All' (with a sub-note: 'Support deny all Wlan devices make connection, except the mac address which is added in the filter table.'). There are input fields for 'Filter Name' and 'Wireless MAC Address', and an 'Add/Apply' button. At the bottom, a message states 'WIRELESS FILTER - MAXIMUM 32 ENTRIES COULD BE ADDED.' and a table with columns for Name, MAC, Edit, and Remove is visible.



# DNS SETUP

The DNS is used to resolve the DNS name to IPs. You can type or get automatically.

The Dynamic DNS feature allows you to host a server (Web, FTP, Game Server, etc...) using a domain name that you have purchased (for example: www.whateveryournameis.com) with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IP addresses. Using a DDNS service provider, your friends can enter your host name to connect to your game server and your friends don't mind what your IP address is, and then just type the DDNS name to reach. You can use the D\_Link DDNS server, <https://www.dlinkddns.com> to have a free DDNS.

To access the **DNS** setting window, click on the **DNS** button under the **ADVANCED** tab.

## DNS SERVER CONFIGURATION

If you are using the Router for DHCP service on the LAN and are using DNS servers on the ISP's network, check **Obtain DNS server address automatically** box.

If you have DNS IP addresses provided by your ISP, enter these IP addresses in the available entry fields for the **Primary DNS Server** and the **Secondary DNS Server**.

DSL-2740B	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Port Forwarding	<div style="border: 1px solid black; padding: 5px;"> <p><b>DNS SETUP</b></p> <p>The Dynamic DNS feature allows you to host a server (Web, FTP, Game Server, etc...) using a domain name that you have purchased (www.whateveryournameis.com) with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IP addresses. Using a DDNS service provider, your friends can enter your host name to connect to your game server no matter what your IP address is.</p> <p><a href="https://www.dlinkddns.com">Sign up for D-Link's Free DDNS service at www.DlinkDNS.com.</a></p> <hr/> <p><b>DNS SERVER CONFIGURATION</b></p> <p><input checked="" type="radio"/> Obtain DNS server address automatically</p> <p><input type="radio"/> Use the following DNS server addresses</p> <p>Preferred DNS server : <input type="text"/></p> <p>Alternate DNS server : <input type="text"/></p> </div>				Helpful Hints...
Application Rules					<p>If "Obtain DNS server address automatically" radio is selected, this router will accept the first received DNS assignment from one of the PPPoA, PPPoE or MER/DHCP enabled PVC(s) during the connection establishment. If the checkbox is not selected, enter the Preferred and optional Alternate DNS server IP addresses.</p> <p>DDNS stands for Dynamic DNS. By creating a static hostname, users will be able to point to this in order to access a dynamic IP address from anywhere in the world.</p> <p><a href="#">More...</a></p>
QoS Setup					
Outbound Filter					
Inbound Filter					
Wireless Filter					
DNS Setup					
Firewall & DMZ					
Advanced Internet					
Advanced Wireless					
Advanced LAN					
SNMP Setup					
Remote Management					
Routing Setup					
TR-069 Client					
Wi-Fi Protected Setup					



### Section 3 - Configuration

To access the **DDNS** setting window, click on the **DDNS** button under the **ADVANCED** tab.

#### DDNS CONFIGURATION

Please enable the **Enable Dynamic DNS** if you want to use DDNS.

Choose which DDNS web site to use on the **Server Address**.

Type which Host name which you registered with your DDNS service provider. on the **Host Name**.

Please choose which interface name to use on the **Interface**.

Type the username/password on the **username/password** for your DDNS account.

After configure the DNS settings as desired, click on the **Apply** button to apply settings.

#### DDNS CONFIGURATION

Enable Dynamic DNS :

Server Address : dlinkddns.com(Free) ▼

Host Name :

Interface : \_undefined/undefined ▼

Username :

Password :

Apply Settings

Cancel

# FIREWALL & DMZ

The router already provides a simple firewall by virtue of the way NAT works. By default NAT does not respond to unsolicited incoming requests on any port, thereby making your WAN invisible to Internet cyber attackers.

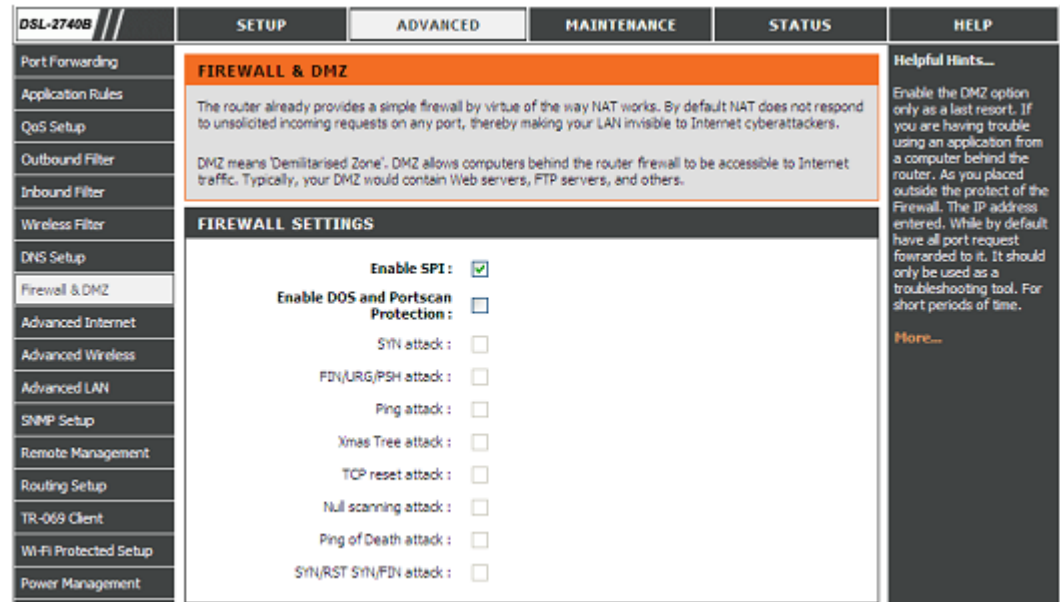
DMZ means 'Demilitarised Zone'. DMZ allows computers behind the router firewall to be accessible to Internet traffic. Typically, your DMZ would contain Web servers, FTP servers, and others.

## FIREWALL SETTING

Enable the SPI on the **Enable SPI**

Enable the DOS and Portscan on the **Enable DOS and Portscan Protection**

Choose the **SYN attack, FIN/URG/PSH attack, Ping attack, Xmas Tree attack, TCP reset attack, Null scanning attack, Ping of Death attack and SYN/RST SYN/FIN attack.**



## Section 3 - Configuration

### DMZ SETTING

Please enable the **Enable DMZ** and type the DMZ client IP on the **DMZ IP Address**. Or you also can choose the DMZ host by the up-down menu.

### APPLICATION LEVEL GATEWAY (ALG) CONFIGURATION

Please choose the PPTP, IPSec(VPN Passthrough), RTSP(Online Video Streaming), Windows/MSN Messenger, FTP, H.323(Video Conferencing), SIP, Wake-On-LAN and MMS.

#### DMZ SETTING

The DMZ (Demilitarized Zone) option lets you set a single computer on your network outside of the router. If you have a computer that cannot run Internet applications successfully from behind the router, then you can place the computer into the DMZ for unrestricted Internet access.

**Note:** Putting a computer in the DMZ may expose that computer to a variety of security risks. Use of this option is only recommended as a last resort.

Enable DMZ :

DMZ IP Address :  << Computer Name

#### APPLICATION LEVEL GATEWAY (ALG) CONFIGURATION

PPTP :

IPSec (VPN Passthrough) :

RTSP (Online Video Streaming) :

Windows/MSN Messenger :

FTP :

H.323 (Video Conferencing) :

SIP :

Wake-On-LAN :

MMS :

Apply Settings Cancel

# ADVANCED INTERNET

The Multiple PVC Settings allow you to **Add**, **Delete** or **Edit** multiple PVCs connection for advanced ADSL service. The Advanced ADSL settings allow you to choose which ADSL modulation settings your modem router will support.

D-Link do not recommend that you change these settings unless directed to do so by your ISP.

## MULTIPLE PVC SETTINGS

Please click the **Add** button to add the multiple PVC

DSL-2740B	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP															
Port Forwarding	<p><b>ADVANCED ADSL</b></p> <p>The Multiple PVC Settings allow you to <b>Add</b>, <b>Delete</b> or <b>Edit</b> multiple PVCs connection for advanced ADSL service.</p> <p>The Advanced ADSL settings allow you to choose which ADSL modulation settings your modem router will support.</p> <p>D-Link do not recommend that you change these settings unless directed to do so by your ISP.</p>				<p>Helpful Hints...</p> <p>Do not change these settings unless directed by your ISP. By default the D-Link router will determine your best connection. You do not need to change any settings unless instructed by D-Link Technical Support.</p> <p><a href="#">More...</a></p>															
Application Rules																				
QoS Setup																				
Outbound Filter																				
Inbound Filter																				
Wireless Filter																				
DNS Setup	<p><b>MULTIPLE PVC SETTINGS</b></p> <table border="1"> <thead> <tr> <th>VPI/VCI</th> <th>Service</th> <th>Protocol</th> <th>IGMP</th> <th>Iat</th> <th>State</th> <th>Edit</th> <th>Action</th> </tr> </thead> <tbody> <tr> <td colspan="8" style="text-align: center;"> <input type="button" value="Add"/> <input type="button" value="Delete"/> </td> </tr> </tbody> </table>				VPI/VCI	Service	Protocol	IGMP	Iat	State	Edit	Action	<input type="button" value="Add"/> <input type="button" value="Delete"/>							
VPI/VCI	Service	Protocol	IGMP	Iat	State	Edit	Action													
<input type="button" value="Add"/> <input type="button" value="Delete"/>																				
Firewall & DMZ																				
Advanced Internet																				
Advanced Wireless																				
Advanced LAN																				

### ADVANCED ADSL SETTINGS

Please select following ADSL profile to link.

G.Dmt, G.lite, T1.413, ADSL2, AnnexL, ADSL2+, Annex M

Please choose the **Inner pair** or **Outer pair** on the **Select the phone line pair below**.

Please select to enable Bitswap and SRA on the Capability.

#### ADVANCED ADSL SETTINGS

- G.Dmt Enabled
- G.lite Enabled
- T1.413 Enabled
- ADSL2 Enabled
- AnnexL Enabled
- ADSL2+ Enabled
- AnnexM Enabled

**Select the phone line pair below:**

- Inner pair
- Outer pair

**Capability :**

- Bitswap Enable
- SRA Enable

# ADVANCED WIRELESS

These options are for users that wish to change the behavior of their 802.11g wireless radio from the standard setting. D-Link does not recommend changing these settings from the factory default. Incorrect settings may impair the performance of your wireless radio. The default settings should provide the best wireless radio performance in most environments.

## ADVANCED WIRELESS SETTINGS

If you need to change the default behavior,

Please type the value on the **Fragmentation Threshold**

Please type the value on the **RTS Threshold**

Please type the value on the **DTIM Interval**

Please type the value on the **Beacon Interval**

Please choose 20%, 40%, 60%, 80% and 100% on the **Transmit Power**.

## GUEST WIRELESS SETTING

DSL-2740B	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Port Forwarding	<b>ADVANCE WIRELESS</b>				<b>Helpful Hints...</b> By default these options need not to be changed for this router to operate with Wireless. For the option Transmit Power is the radio signal strength. You will need to decrease the power if you add a new high gain antenna, as this will exceed operating limits.  <a href="#">More...</a>
Application Rules	These options are for users that wish to change the behaviour of their 802.11g wireless radio from the standard setting. D-Link does not recommend changing these settings from the factory default. Incorrect settings may impair the performance of your wireless radio. The default settings should provide the best wireless radio performance in most environments.				
QoS Setup	<b>ADVANCE WIRELESS SETTINGS</b>				
Outbound Filter	Wireless Band: <b>2.4GHz Band</b> Fragmentation Threshold: <input type="text" value="2346"/> (256..2346) RTS Threshold: <input type="text" value="2347"/> (0..2347) DTIM Interval: <input type="text" value="1"/> (1..255) Beacon Interval: <input type="text" value="100"/> (20..1000) Transmit Power: <input type="button" value="100%"/>				
Inbound Filter	<b>GUEST WIRELESS SETTINGS</b>				
Wireless Filter	Enable Wireless Guest Network: <input type="checkbox"/> Wireless Network Name (SSID): <input type="text" value="ath1_Guest1"/> Visibility Status: <input checked="" type="radio"/> Visible <input type="radio"/> Invisible AP Isolation: <input type="button" value="Off"/>				
DNS Setup					
Firewall & DMZ					
Advanced Internet					
Advanced Wireless					
Advanced LAN					
SNMP Setup					
Remote Management					
Routing Setup					
TR-069 Client					
Wi-Fi Protected Setup					
Power Management					

### Section 3 - Configuration

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Please enable the **Enable Wireless Guest Network**

Type SSID on the **Wireless Network Name**

Please choose **Visible** or **Invisible** on the **Visibility Status**

Please select **Off/On** on the AP Isolation.

# ADVANCED LAN

These options are for users that wish to change the LAN settings. D-Link does not recommend changing these settings from factory default. Changing these settings may affect the behavior of your network.

## UPNP

Please select the **Enable UPnP** when you want to have Universal Plug and Play (UPnP) supports peer-to-peer Plug and Play functionality for network devices.

## BLOCK ICMP PING

Enable the WAN Ping Respond on the **Enable WAN Ping Respond**.

Please select **Allow All** or **Deny All** on the **WAN Ping Inbound Filter** and you can also type a string on the **Details** to describe the action.

## MULTICAST STREAMS

Please enable the **Enable Multicast Streams (IGMP)** to let IGMP stream can pass through DSL-2740B.

DSL-2740B	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Port Forwarding	<b>ADVANCED LAN</b>				<b>Helpful Hints...</b> UPnP is used for many popular Audio Visual software. It allows the auto discovery of your device on the network. If you feel that UPnP is security concern we give you the option to disable it here. Block ICMP Ping should be enabled so that the router does not respond to malicious Internet requests. Multicast streams are used by advance network functions like IPTV and distributed by your ISP. <a href="#">More...</a>
Application Rules	These options are for users that wish to change the LAN settings. D-Link does not recommend changing these settings from factory default. Changing these settings may affect the behaviour of your network.				
QoS Setup	<b>UPNP</b>				
Outbound Filter	Universal Plug and Play(UPnP) supports peer-to-peer Plug and Play functionality for network devices. <b>Enable UPnP :</b> <input checked="" type="checkbox"/>				
Inbound Filter	<b>BLOCK ICMP PING</b>				
Wireless Filter	If you enable this feature, the Internet port of your router will respond to ping requests from the Internet that are directed to your ISP assigned public IP address. <b>Enable WAN Ping Respond :</b> <input type="checkbox"/> <b>WAN Ping Inbound Filter :</b> <input type="text" value="Allow All"/> <b>Details :</b> <input type="text"/>				
DNS Setup	<b>MULTICAST STREAMS</b>				
Firewall & DMZ	<b>Enable Multicast Streams (IGMP) :</b> <input type="checkbox"/>				
Advanced Internet	<input type="button" value="Apply Settings"/> <input type="button" value="Cancel"/>				
Advanced Wireless	Internet Offline				
Advanced LAN					
SNMP Setup					
Remote Management					
Routing Setup					
TR-069 Client					
Wi-Fi Protected Setup					
Power Management					
Logout					



# SNMP SETUP

Simple Network Management Protocol (SNMP) allows a management application to retrieve statistics and status from the SNMP agent in this device.

Select the desired values and click "Apply" to configure the SNMP options.

## SNMP CONFIGURATION

Please enable the **SNMP Agent**

Please type the **Read Community**, **Set Community** to match to the SNMP requirier.

Please type **System Name**, **System Location** and **System Contact** to describe the DSL-2740B's related information.

Please type the trap IP on the **Trap Manager IP**

Please click the **Apply** button to save the configurations.

DSL-2740B	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Port Forwarding	<b>SNMP</b> Simple Network Management Protocol (SNMP) allows a management application to retrieve statistics and status from the SNMP agent in this device.  Select the desired values and click "Apply" to configure the SNMP options.				<b>Helpful Hints...</b> Provides a means to monitor status and performance as well as set configuration parameters.  <a href="#">More...</a>
Application Rules	<b>SNMP -- CONFIGURATION</b>				
QoS Setup	Enable SNMP Agent: <input type="checkbox"/>				
Outbound Filter	Read Community: <input type="text" value="public"/>				
Inbound Filter	Set Community: <input type="text" value="private"/>				
Wireless Filter	System Name: <input type="text" value="DSL2740B"/>				
DNS Setup	System Location: <input type="text" value="unknown"/>				
Firewall & DMZ	System Contact: <input type="text" value="unknown"/>				
Advanced Internet	Trap Manager IP: <input type="text" value="0.0.0.0"/>				
Advanced Wireless	<input type="button" value="Apply"/> <input type="button" value="Cancel"/>				
Advanced LAN	Internet Offline				
SNMP Setup					
Remote Management					
Routing Setup					
TR-069 Client					
Wi-Fi Protected Setup					
Power Management					
Logout					

# REMOTE MANAGEMENT

This section allows you to enable/disable remote access to the router from the Internet. Advanced access control allows you to configure access via specific services. Most users will not need to change any of these settings.

## REMOTE MANAGEMENT SETTINGS

Please enable the **ENABLE Remote Management**

Please type the port number which you want to replace the original port.

Please select **Allow All** or **Deny All** on the **Remote Admin Inbound Filter**

Please type a string to describe the action on the **Details**.

DSL-2740B	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Port Forwarding	<b>REMOTE MANAGEMENT</b>				<p><a href="#">Helpful Hints...</a></p> <p>Remote Management by default should be disabled. However if you wish to login and manage your Router from another Internet device than you can enable the router to accept such commands from the Internet port. This option may be useful if your network administrator is not onsite or Technical Support request such access.</p> <p><a href="#">More...</a></p>
Application Rules	<p>This section allows you to enable/disable remote access to the router from the Internet. Advanced access control allows you to configure access via specific services. Most users will not need to change any of these settings.</p>				
QoS Setup	<b>REMOTE MANAGEMENT SETTINGS</b>				
Outbound Filter	<p>Enable Remote Management: <input type="checkbox"/></p>				
Inbound Filter	<p>Remote Admin Port: <input type="text"/></p>				
Wireless Filter	<p>Remote Admin Inbound Filter: <span>Allow All</span> ▼</p>				
DNS Setup	<p>Details: <input type="text"/></p>				
Firewall & DMZ					
Advanced Internet					
Advanced Wireless					

### REMOTE ACCESS CONTROL

Please select the **Service** to enable on **LAN** or **WAN**.

Please click the **Apply Settings** button to save the configuration.

REMOTE ACCESS CONTROL		
Service	LAN	WAN
FTP	<input type="checkbox"/> Enabled	<input type="checkbox"/> Enabled
HTTP	<input checked="" type="checkbox"/> Enabled	<input type="checkbox"/> Enabled
ICMP	<input checked="" type="checkbox"/> Enabled	<input type="checkbox"/> Enabled
SNMP	<input checked="" type="checkbox"/> Enabled	<input type="checkbox"/> Enabled
SSH	<input type="checkbox"/> Enabled	<input type="checkbox"/> Enabled
TELNET	<input type="checkbox"/> Enabled	<input type="checkbox"/> Enabled
TFTP	<input type="checkbox"/> Enabled	<input type="checkbox"/> Enabled

# ROUTING SETUP

Enter the destination network address, subnet mask, gateway AND/OR available WAN interface then click "Apply" to add the entry to the routing table.

**A maximum 32 entries can be configured** Allows you to configure RIP (Routing Information Protocol). To activate RIP for the device, select the 'Enabled' radio button for Global RIP Mode. To configure an individual interface, select the desired RIP version and operation, followed by placing a check in the 'Enabled' checkbox for the interface. Click the 'Apply' button to save the configuration, and to start or stop RIP based on the Global RIP mode selected.

## ROUTING -- STATIC ROUTE

Please click the **Add** or **Edit** button to set a static routing policy in the list.

Please type the **Destination Network Address** and **Subnet Mask**.

Please select to type the **Gateway IP** or the **interface** to be the routing interface.

Click the Apply the button to save the configuration.

## ROUTING -- RIP CONFIGURATION

Please choose the **Version** and **Operation**, and then decide to **Enable** or not.

**DSL-2740B** // SETUP ADVANCED MAINTENANCE STATUS HELP

**ROUTING -- STATIC ROUTE**

Enter the destination network address, subnet mask, gateway AND/OR available WAN interface then click "Apply" to add the entry to the routing table.

**A maximum 32 entries can be configured**

Allows you to configure RIP (Routing Information Protocol). To activate RIP for the device, select the 'Enabled' radio button for Global RIP Mode. To configure an individual interface, select the desired RIP version and operation, followed by placing a check in the 'Enabled' checkbox for the interface. Click the 'Apply' button to save the configuration, and to start or stop RIP based on the Global RIP mode selected.

	Destination	Subnet Mask	Gateway	Interface
<input type="checkbox"/>	192.168.2.0	255.255.255.0	192.168.1.254	

Add Edit Delete

**ROUTING -- RIP CONFIGURATION**

Interface	VPI/VCI	Version	Operation	Enabled
loae0	0/33	2	Passive	<input type="checkbox"/>

Apply Cancel

**Helpful Hints...**  
You can select what gateway to use, by interface or by specifying a gateway.  
Enabling RIP provides a protocol that determines the best path to a target by estimating the distance in number of hops or intermediate routers.  
More...

# TR-069

The WAN management protocol **TR-069** allows an Auto-Configuration Server (ACS) to perform auto-configuration, provision, collection, and diagnostics to this device.

To access the **TR-069** Configuration window, click on the **TR-069** button under the **ADVANCED** tab.

## TR-069

TR-069 is a WAN management protocol which allows your ISP to perform monitoring, configuration and firmware upgrade on your router remotely.

**Inform:** Select to enable or disable TR-069 client functionality.

**Inform Interval:** Interval (seconds) between two **Inform** messages.

**ACS URL:** Enter the URL of your ISP's ACS

**ACS User Name:** Enter the authentication user name

**ACS Password:** Enter the authentication password

**Connection Request User Name:** Enter the authentication user name for the ACS to login

**Connection Request Password:** Enter the authentication password for the ACS to login

The screenshot shows the router's configuration interface for the TR-069 Client. The interface is divided into several sections:

- Navigation Bar:** Includes tabs for SETUP, ADVANCED (selected), MAINTENANCE, STATUS, and HELP.
- Left Sidebar:** Lists various configuration categories such as Port Forwarding, Application Rules, QoS Setup, Outbound Filter, Inbound Filter, Wireless Filter, DNS Setup, Firewall & DMZ, Advanced Internet, Advanced Wireless, Advanced LAN, SNMP Setup, Remote Management, Routing Setup, TR-069 Client (highlighted), Wi-Fi Protected Setup, Power Management, and Logout.
- TR-069 CLIENT Overview:** A summary box explaining that the WAN Management Protocol (TR-069) allows an Auto-Configuration Server (ACS) to perform auto-configuration, provision, collection, and diagnostics. It instructs the user to select desired values and click "Apply" to configure the TR-069 client options.
- TR-069 CLIENT -- CONFIGURATION:** A detailed configuration form with the following fields:
  - Enable Inform:** A checkbox that is currently unchecked.
  - Inform Interval:** A text input field containing the value "300".
  - ACS URL:** An empty text input field.
  - ACS User Name:** A text input field containing the value "admin".
  - ACS Password:** A password input field with masked characters "\*\*\*\*\*".
  - Connection Request User Name:** A text input field containing the value "admin".
  - Connection Request Password:** A password input field with masked characters "\*\*\*\*\*".
- Buttons:** "Apply" and "Cancel" buttons are located at the bottom of the configuration form.
- Helpful Hints:** A sidebar on the right provides additional information, stating that it offers a means to monitor status and performance as well as set configuration parameters from the WAN side. A "More..." link is also present.

# WIFI PROTECTED SETUP

Wi-Fi Protected Setup is used to easily add devices to a network using a PIN or button press.

Devices must support Wi-Fi Protected Setup in order to be configured by this method.

## WI-FI PROTECTED SETUP

Please select to **Enable** or **Lock Wireless Security Settings**

You also can click the **Set to Configured** button to set configured

## PIN SETTINGS

Choose to click the **Reset PIN to Default** button or **Generate New PIN** button to show the PIN on the **Current PIN**.

## ADD WIRELESS STATION

Please click the **Add Wireless Device with WPS** button to set the WPS.

DSL-2740B	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Port Forwarding	<b>WI-FI PROTECTED SETUP</b>				<b>Helpful Hints...</b> Enable if other wireless devices you wish to include in the local network support Wi-Fi Protected Setup. Only "Admin" account can change security settings. Lock Wireless Security Settings after all wireless network devices have been configured.  Click Add Wireless Device Wizard to use Wi-Fi Protected Setup to add wireless devices to the wireless network.  More...
Application Rules	Wi-Fi Protected Setup is used to easily add devices to a network using a PIN or button press.  Devices must support Wi-Fi Protected Setup in order to be configured by this method.				
QoS Setup	<b>WI-FI PROTECTED SETUP</b>  <input checked="" type="checkbox"/> Enable <input type="checkbox"/> Lock Wireless Security Settings  WPS Configuration State : Unconfigured <span>Set to Configured</span>				
Outbound Filter	<b>PIN SETTINGS</b>				
Inbound Filter	Current PIN : 14992315 <span>Reset PIN to Default</span> <span>Generate New PIN</span>				
Wireless Filter	<b>ADD WIRELESS STATION</b>				
DNS Setup	<span>Add Wireless Device with WPS</span>				
Firewall & DMZ	<span>Apply</span> <span>Cancel</span>				
Advanced Internet					
Advanced Wireless					
Advanced LAN					
SNMP Setup					
Remote Management					
Routing Setup					
TR-069 Client					
Wi-Fi Protected Setup					
Power Management					
Logout					

# POWER MANAGEMENT

This feature allows you to control of Hardware modules to evaluate power consumption. Use the control buttons to select the desired option, click Apply and check the status response.

## MIPS CPU CLOCK

You can choose **Auto**, **1/8 of full speed ASYNC**, **1/4 of full speed ASYNC**, **1/2 of full speed ASYNC**, **Full speed ASYNC**, **Full speed SYNC** and it will show on the **Status**. It can control the CPU's handling data speed.

## WAIT INSTRUCTION WHEN IDLE

The CPU can wait for the coming data to handle or idle.

Please **Enable** the feature if necessary.

## DRAM SELF REFRESH

DRAM can clear any non-processing tasks automatically. Please **Enable** the feature if necessary.

Please click the **Apply** button to save the settings.

The screenshot shows the configuration page for the DSL-2740B router. The left sidebar lists various settings, with 'Power Management' selected. The main content area is titled 'POWER MANAGEMENT' and contains three sections:

- MIPS CPU CLOCK:** Features radio buttons for 'Auto', '1/8 of full speed ASYNC', '1/4 of full speed ASYNC', '1/2 of full speed ASYNC', 'Full speed ASYNC', and 'Full speed SYNC'. The 'Auto' option is selected, and the status is 'Auto'.
- WAIT INSTRUCTION WHEN IDLE:** Has a checked checkbox for 'Enable' and a status of 'Enabled'.
- DRAM SELF REFRESH:** Has a checked checkbox for 'Enable' and a status of 'Enabled'.

An 'Apply' button is located at the bottom of the configuration area. A 'Helpful Hints...' sidebar on the right provides additional context for the power management features.



# MAINTENANCE

Click on the **MAINTENANCE** tab to reveal the window buttons for various functions located in this directory.

## PASSWORD

The factory default password of this router is 'admin'. To help secure your network, D-Link recommends that you should choose a new password.

### SET PASSWORD (OPTIONAL)

Please type the **Current Password**, **New Password**, **Confirm Password** and the **Idle Time Out**.

Please click the **Apply Settings** button to save the settings.

### GRAPHIC LOG-IN AUTHENTICATION (CAPTCHA)

To enhance your router login security, you can enable CAPTCHA.

Please click the **Apply Settings** button to save the configuration.

The screenshot shows the web interface for a D-Link DSL-2740B router. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE (selected), STATUS, and HELP. The left sidebar contains a menu with options like Password, Save/Restore Settings, Firmware Update, Diagnostics, System Log, Schedules, Logout, Internet Online, English, and Reboot. The main content area is titled 'PASSWORD' and contains the following text: 'The factory default password of this router is 'admin'. To help secure your network, D-Link recommends that you should choose a new password.' Below this is a section titled 'SET PASSWORD (OPTIONAL)' with the instruction: 'To change the router password, please type in the current password, then the new password twice.' This section includes four input fields: 'Current Password', 'New Password', 'Confirm Password', and 'Idle Time Out' (set to 10). There are 'Apply Settings' and 'Cancel' buttons. Below this is another section titled 'GRAPHIC LOG-IN AUTHENTICATION (CAPTCHA)' with the text: 'To enhance your router login security, you can enable CAPTCHA.' It features a checkbox labeled 'Enable CAPTCHA' which is currently unchecked, and 'Apply Settings' and 'Cancel' buttons. On the right side of the interface, there is a 'Helpful Hints...' section with text explaining the purpose of the password change and a 'More...' link.



# SAVE/RESTORE SETTINGS

Once the router is configured and you can save the configuration settings to a configuration file on your hard drive. You also have the option to load configuration settings, or restore the factory default settings.

## SAVE/RESTORE CONFIGURATION

Please click the **Save** button on the **Save Settings to Local Hard Drive**.

Please click **Browse** button to choose the configurations file and then click the **Update Settings** button to upload.

If necessary, please click the **Restore Device** button to have the default settings.

DSL-2740B	SETUP	ADVANCED	MAINTENANCE	STATUS
Password Save/Restore Settings Firmware Update Diagnostics System Log Schedules Logout Internet Online English Reboot	<h3>SAVE/RESTORE SETTINGS</h3> <p>Once the router is configured you can save the configuration settings to a configuration file on your hard drive. You also have the option to load configuration settings, or restore the factory default settings.</p> <h4>SAVE/RESTORE CONFIGURATION</h4> <p>Save Settings to Local Hard Drive : <input type="button" value="Save"/></p> <p>Load Settings From Local Hard Drive : <input type="text"/> <input type="button" value="Browse..."/></p> <p><input type="button" value="Update Settings"/></p> <p>Restore To Factory Default Settings : <input type="button" value="Restore Device"/></p>			

# FIRMWARE UPDATE

Use the **FIRMWARE UPGRADE** window to load the latest firmware for the device. Note that the device configuration settings may return to the factory default settings, so make sure you first save the configuration settings with the **SAVE/RESTORE SETTINGS** window described above.

To access the **FIRMWARE UPGRADE** setting window, click on the **Firmware Update** button under the **MAINTENANCE** tab.

## FIRMWARE INFORMATION

It shows **Board ID**, **Software Version**, **Bootloader(CEF) Version** and **Wireless Driver Version**

## FIRMWARE UPGRADE

To upgrade firmware, click on the **Browse...** button to search for the firmware file and then click the **Upload** button to begin copying the file. The Router will load the file and restart automatically.

The screenshot shows the D-Link DSL-2740B web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, and STATUS. The MAINTENANCE tab is selected. The left sidebar contains options like Password, Save/Restore Settings, Firmware Update, Diagnostics, System Log, Schedules, and Logout. Below the sidebar, there is an 'Internet Online' status indicator, a language dropdown set to 'English', and a 'Reboot' button. The main content area is titled 'FIRMWARE UPDATE' and contains a warning: 'Note: Please do not update the firmware on this router unless instructed to do so by D-Link technical support or your ISP.' Below this is the 'FIRMWARE INFORMATION' section, which displays the following details: Board ID: AW4339U, Software Version: EU\_1.00, Bootloader (CEF) Version: 1.0.37-106.5, and Wireless Driver Version: CR-LSDK-1.4.0.112. The 'FIRMWARE UPGRADE' section includes another warning: 'Note: Some firmware upgrades reset the configuration options to factory defaults. Before performing an upgrade, be sure to save the current configuration from the Maintenance -> Save/Restore Settings screen.' Below the warning, it states: 'To upgrade the firmware, your PC must have a wired connection to the router. Enter the name of the firmware upgrade file, and click on the Upload button.' At the bottom, there is an 'Upload:' label, a text input field, a 'Browse...' button, and an 'Upload' button.

# DIAGNOSTICS

Your router is capable of testing your DSL connection. The individual tests are listed below. If a test displays a fail status, click "Return Diagnostics Tests" at the bottom of this page to make sure fail status is consistent. If the test continues to fail, click "Help" and follow the troubleshooting procedures.

## SYSTEM CHECK

There are **Test your eth0/eth1/eth2/eth3 Connection**, **Test your Wireless Connection** and **Test ADSL Synchronization** and they will show **PASS** or **FAIL**

## INTERNET CONNECTIVITY CHECK

There are **Ping ISP Default Gateway/ Primary DNS server** and they will show **PASS** or **FAIL**

Please click the **Test** button to Diagnostic the above test items.

**DSL-2740B** // **SETUP** **ADVANCED** **MAINTENANCE** **STATUS**

**DIAGNOSTICS**

Your router is capable of testing your DSL connection. The individual tests are listed below. If a test displays a fail status, click "Return Diagnostics Tests" at the bottom of this page to make sure fail status is consistent. If the test continues to fail, click "Help" and follow the troubleshooting procedures.

**SYSTEM CHECK**

Test your eth0 Connection:	FAIL	<a href="#">Help</a>
Test your eth1 Connection:	PASS	<a href="#">Help</a>
Test your eth2 Connection:	FAIL	<a href="#">Help</a>
Test your eth3 Connection:	FAIL	<a href="#">Help</a>
Test your Wireless Connection:	PASS	<a href="#">Help</a>
Test ADSL Synchronization:	PASS	<a href="#">Help</a>

**INTERNET CONNECTIVITY CHECK**

Ping ISP Default Gateway:	FAIL
Ping Primary DNS server:	FAIL

# SYSTEM LOG

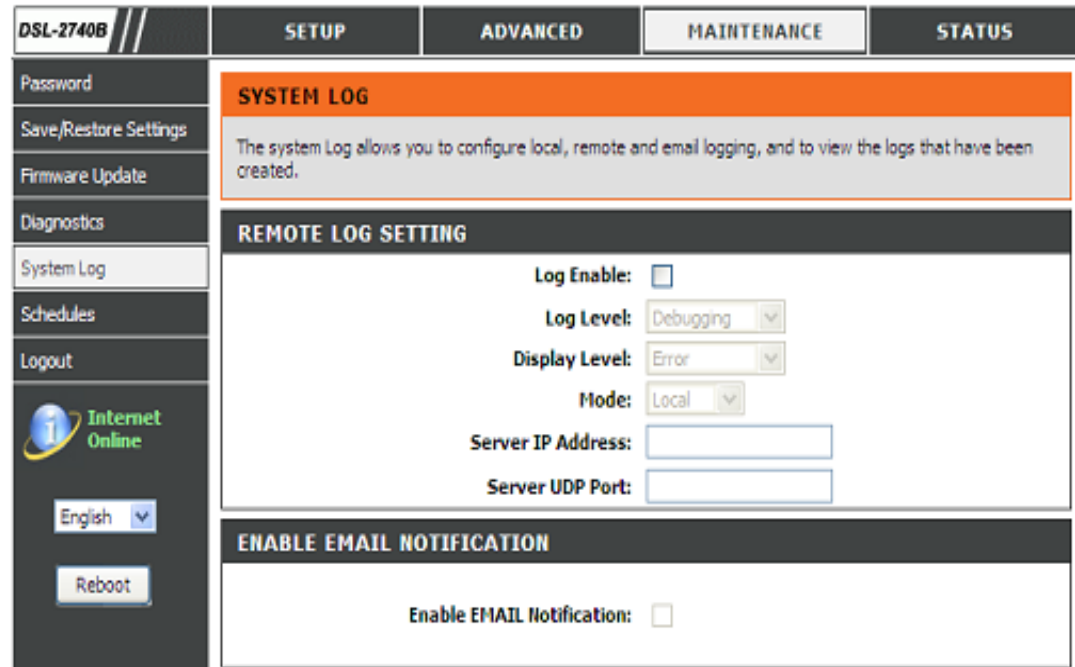
The system Log allows you to configure local, remote and email logging, and to view the logs that have been created.

## REMOTE LOG SETTING

- Log Level:** All events above or equal to the selected level will be logged.
- Display Level:** All logged events above or equal to the selected level will be displayed.
- Mode:** Display mode of system log. Local: Display on local host only Remote: Send log file to remote system log server only
- Server IP Address:** IP address of the remote system log server
- Server UDP Port:** UDP port number of the remote system log server

## ENABLE EMAIL NOTIFICATION

Please enable. If any logs occur, the system will send mail to the mail address you set.



## EMAIL SETTINGS

Please type the **From MAIL Address**, **To MAIL Address** and **SMTP Server Address**.

Please Enable the **Enable Authentication** and then set the **Account Name**, **Account Password** and **Verify Password**.

## EMAIL LOG WHEN FULL

Please Enable the **On Log Full**. When the log file is full, the system will send mail to the mail address you set.

## VIEW SYSTEM LOG

The system will show logs in the list by **Date/Time**, **Facility**, **Severity** and **Message**.

Please click the **Apply Settings** button to save the configuration.

The screenshot displays a configuration window with three main sections:

- EMAIL SETTINGS:** Contains input fields for 'From MAIL Address', 'To MAIL Address', and 'SMTP Server Address'. It also includes a checkbox for 'Enable Authentication', and input fields for 'Account Name', 'Account Password', and 'Verify Password'.
- EMAIL LOG WHEN FULL:** Contains a single checkbox labeled 'On Log Full'.
- VIEW SYSTEM LOG:** Features a table header with four columns: 'Date/Time', 'Facility', 'Severity', and 'Message'. The table body is currently empty.

At the bottom of the window, there are two buttons: 'Apply Settings' and 'Cancel'.

# SCHEDULE

Schedule allows you to create scheduling rules to be applied for your firewall.

Maximum of 16 entries

## SCHEDULE RULE

Please click the **Add** or **Edit** button to configure the schedule policy.

## ADD SCHEDULE RULE

Please type the **Name**

Please choose **all week** or **Sun, Mon, Tue, Wed, Thu, Fri** or **Sat**.

Please set the **Start Time** and **End Time**.

Please type the **Apply** button to save the configuration.

The screenshot shows the D-Link DSL-2740B web interface. The top navigation bar includes 'DSL-2740B', 'SETUP', 'ADVANCED', 'MAINTENANCE', and 'STATUS'. The left sidebar contains links for 'Password', 'Save/Restore Settings', 'Firmware Update', 'Diagnostics', 'System Log', 'Schedules', and 'Logout'. The main content area is titled 'SCHEDULE' and contains the following elements:

- SCHEDULE** header with a description: "Schedule allows you to create scheduling rules to be applied for your firewall." and "Maximum of 16 entries".
- SCHEDULE RULE** table with columns: Rule Name, Sun, Mon, Tue, Wed, Thu, Fri, Sat, Start, Stop.
- Buttons: Add, Edit, Delete.
- ADD SCHEDULE RULE** form with fields for:
  - Name: [Text Input]
  - Day(s):  All Week  Select Day(s)
  - Day selection:  Sun  Mon  Tue  Wed  Thu  Fri  Sat
  - All Day - 24 hrs:
  - Start Time: [Hour] : [Minute] (hour:minute, 24 hour time)
  - End Time: [Hour] : [Minute] (hour:minute, 24 hour time)
- Buttons: Apply, Cancel.

# STATUS

Click on the **STATUS** tab to reveal the window buttons for various functions located in this directory. The **DEVICE STATUS** window is the first item in the **STATUS** directory. Use these windows to view system information and monitor performance.


## DEVICE INFO

The **Device Info** page displays a summary overview of your router status, including: Device software version and summary of your Internet configuration (both wireless and Ethernet status).

To access the **DEVICE STATUS LOG** setting window, click on the **Device Info** button in the **STATUS** directory.

### GENERAL

This window displays **current system time**, the **firmware version** and the **Released Date**.

DSL-2740B	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Device Info	<b>DEVICE STATUS</b>				<b>Helpful Hints...</b> This page shows a summary overview of your router status, including device software version, Internet configuration as well as wireless and Ethernet status.  <a href="#">More...</a>
Connected Clients	The Device Status page allows you to check the status of your Internet connection, Wireless LAN and LAN.				
Statistics	<b>GENERAL</b>				
Routing Info	Time : Friday, January 2, 1970 07:07:14 AM Software Version : EU_1.00 Release Date : July 19 , 2010				
Logout					
 Internet Online					

## Section 3 - Configuration

### INTERNET INFO

This window displays WAN information including IP address, Mask, Default Gateway, Primary/Secondary DNS Server.

#### INTERNET INFO

Internet Connection:  ▼

Internet Connection Status:	<b>CONNECTED</b>
Internet Connection Up Time :	0 days 0 hours 22 minutes 20 seconds
Default Gateway:	10.0.0.1
Preferred DNS Server:	168.95.1.1
Alternate DNS Server:	168.95.1.1
Downstream Line Rate (Kbps):	7680
Upstream Line Rate (Kbps):	800

VPI/VCI	Service Name	Protocol	IGMP	QoS	Status	IP Address
0/38	pppoe_0_38_1	PPPoE	Disable	Disable	Enable	10.0.0.110

### WIRELESS LAN

This window displays authenticated wireless stations and their status.

#### WIRELESS LAN

Wireless Radio : ON  
MAC Address : 00:1A:2B:27:40:01  
Network NAME(SSID) : D-Link DSL-2740B  
Channel : 1  
Security Type : None



### Section 3 - Configuration

#### LOCAL NETWORK INFO

This window displays LAN information including MAC, IP address, Mask, and DHCP Server.

**LAN**  
  
MAC Address : 00:1a:2b:27:40:00  
IP Address: 192.168.1.1  
Subnet Mask : 255.255.255.0  
DHCP Server : ON

# CONNECTED CLIENTS

This feature shows all the currently connected wireless and LAN computers or PCs.

## CONNECTED WIRELESS CLIENTS

This window displays authenticated wireless stations and their status.

## CONNECTED LAN CLIENTS

This window displays all the entities which link to the LAN interface successfully.

You can choose to block which entities and click the **Block** button

## BLOCKED MAC ADDRESS

Click the Unblock button to unblock the blocked entities.

The screenshot shows the 'CONNECTED CLIENTS' page in the DSL-2740B web interface. The left sidebar contains navigation options: Device Info, Connected Clients (selected), Statistics, Routing Info, Logout, Internet Online, English (dropdown), and Reboot. The main content area has tabs for SETUP, ADVANCED, MAINTENANCE, and STATUS. The 'CONNECTED CLIENTS' section is highlighted in orange and contains a descriptive text. Below it are two sections: 'CONNECTED WIRELESS CLIENTS' (empty table) and 'CONNECTED LAN CLIENTS' (table with 2 rows and 5 columns). A 'Block' button is located below the LAN clients table. The 'BLOCKED MAC ADDRESS' section at the bottom has a table with 3 columns and an 'Unblock' button below it.

Host Name	MAC Address	IP Address	Expires In	Block
RQ-JACKY-N	00:22:64:55:f3:7a	192.168.1.2	22 hours, 26 minutes, 34 seconds	<input type="checkbox"/>
rdqa-9e9c4d6e2d	00:03:7f:be:ef:f8	192.168.1.3	15 minutes, 41 seconds	<input type="checkbox"/>

Host Name	MAC Address	Unblock

# STATISTICS

This information reflects the current status of your router.

## WAN STATISTICS

This window displays all the **Receiver** and **Transmitted** packet status on the WAN interface.

## LAN STATISTICS

This window displays all the **Receiver** and **Transmitted** packet status on the LAN interface.

The screenshot shows the D-Link DSL-2740B web interface. The top navigation bar includes 'SETUP', 'ADVANCED', 'MAINTENANCE', and 'STATUS'. The left sidebar contains 'Device Info', 'Connected Clients', 'Statistics', 'Routing Info', and 'Logout'. The main content area is titled 'STATISTICS' and contains the following information:

**WAN STATISTICS**

Interface	VPI/VCI	Protocol	Service	Received				Transmitted					
				Bytes	Pkts	Errs	Drops	Bytes	Pkts	Errs	Drops		

**LAN STATISTICS**

Interface	Received				Transmitted			
	Bytes	Pkts	Errs	Drops	Bytes	Pkts	Errs	Drops
eth0	0	0	0	0	0	0	0	0
eth1	69434	605	0	0	572645	660	0	0
eth2	0	0	0	0	0	0	0	0
eth3	0	0	0	0	0	0	0	0
ath0	0	0	0	0	14615	78	0	0

**ADSL STATISTICS**

This window displays all the **ADSL status**

**ADSL STATISTICS**

Mode:	ADSL_2plus			
Traffic Type:	ATM			
Status:	Up			
Link Power State:	LO			
	Downstream	Upstream		
Line Coding(Trellis):	On	On		
SNR Margin (0.1 dB):	306	215		
Attenuation (0.1 dB):	5	6		
Output Power (0.1 dBm):	54	93		
Attainable Rate (Kbps):	28520	1331		
	Path 0		Path 1	
	Downstream	Upstream	Downstream	Upstream
Rate (Kbps):	9085	508	0	0
MSGc (# of bytes in overhead channel message):	91	28	0	0
B (# of bytes in Mux Data Frame):	18	30	0	0
M (# of Mux Data Frames in FEC Data Frame):	1	1	0	0
T (Mux Data Frames over sync bytes):	10	1	0	0
R (# of check bytes in FEC Data Frame):	14	16	0	0
S (ratio of FEC over PMD Data Frame length):	0.665	1.8894	0.0	0.0
L (# of bits in PMD Data Frame):	3966	199	0	0
D (interleaver depth):	224	8	0	0
Delay (msec):	3.72	3.77	0.0	0.0
INP (DMT symbol):	3.16	2.57	0.0	0.0

### Section 3 - Configuration

You can click the **ADSL BER Test** button to test the ADSL connection.

You can click the Reset Statistics button to set all statistics to recount.

Super Frames:	40822	40825	0	0
Super Frame Errors:	0	0	0	0
RS Words:	39595973	1395577	0	0
RS Correctable Errors:	0	0	0	0
RS Uncorrectable Errors:	0	0	0	0
HEC Errors:	0	0	0	0
OCD Errors:	0	0	0	0
LCD Errors:	0	0	0	0
Total Cells:	14120759	786103	0	0
Data Cells:	5731	0	0	0
Bit Errors:	0	0	0	0
Total ES:	0	0		
Total SES:	0	0		
Total UAS:	19	19		

ADSL BER Test

Reset Statistics

# ROUTE INFO

To access the **ROUTE INFO** setting window, click on the **ROUTE INFO** button under the **STATUS** tab.

The Route Info section displays route information showing the IP addresses of the destination, gateway, and subnet mask as well as other route information

The screenshot shows the web interface for a D-Link DSL-2740B router. At the top, there are four tabs: SETUP, ADVANCED, MAINTENANCE, and STATUS. The STATUS tab is selected. On the left side, there is a vertical menu with options: Device Info, Connected Clients, Statistics, Routing Info (which is highlighted), and Logout. Below the menu, there is an 'Internet Offline' indicator, a language dropdown menu set to 'English', and a 'Reboot' button. The main content area displays the 'ROUTING TABLE LIST' section, which is currently empty, showing only the column headers: Destination, Subnet Mask, and Gateway.

# Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DSL-2740B. Read the following descriptions if you are having problems. (The examples below are illustrated in Windows® XP. If you have a different operating system, the screenshots on your computer will look similar to the following examples.)

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

When entering the IP address of the D-Link router (192.168.1.1 for example), you are not connecting to a website on the Internet or have to be connected to the Internet. The device has the utility built-in to a ROM chip in the device itself.

Your computer must be on the same IP subnet to connect to the web-based utility.

- Make sure you have an updated Java-enabled web browser. We recommend the following:
  - Internet Explorer 6.0 or higher
  - Firefox 1.5 or higher
- Verify physical connectivity by checking for solid link lights on the device. If you do not get a solid link light, try using a different cable or connect to a different port on the device if possible. If the computer is turned off, the link light may not be on.
- Disable any internet security software running on the computer. Software firewalls such as Zone Alarm, Black Ice, Sygate, Norton Personal Firewall, and Windows® XP firewall may block access to the configuration pages. Check the help files included with your firewall software for more information on disabling or configuring it.

## Section 4 - Troubleshooting

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

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

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

To reset the router, locate the reset button (hole) on the rear panel of the unit. With the router powered on, use a paperclip to hold the button down for 10 seconds. Release the button and the router will go through its reboot process.

Wait about 30 seconds to access the router. The default IP address is 192.168.1.1. When logging in, type in the default User Name “admin,” and the default Password “admin” then click on the OK button to access the web-based manager.



# Wireless Basics

D-Link wireless products are based on industry standards to provide easy-to-use and compatible high-speed wireless connectivity within your home, business or public access wireless networks. Strictly adhering to the IEEE standard, the D-Link wireless family of products will allow you to securely access the data you want, when and where you want it. You will be able to enjoy the freedom that wireless networking delivers.

A wireless local area network (WLAN) is a cellular computer network that transmits and receives data with radio signals instead of wires. Wireless LANs are used increasingly in both home and office environments, and public areas such as airports, coffee shops and universities. Innovative ways to utilize WLAN technology are helping people to work and communicate more efficiently. Increased mobility and the absence of cabling and other fixed infrastructure have proven to be beneficial for many users.

Wireless users can use the same applications they use on a wired network. Wireless adapter cards used on laptop and desktop systems support the same protocols as Ethernet adapter cards.

Under many circumstances, it may be desirable for mobile network devices to link to a conventional Ethernet LAN in order to use servers, printers or an Internet connection supplied through the wired LAN. A Wireless Router is a device used to provide this link.

## **What is Wireless?**

Wireless or Wi-Fi technology is another way of connecting your computer to the network without using wires. Wi-Fi uses radio frequency to connect wirelessly, so you have the freedom to connect computers anywhere in your home or office network.

## **Why D-Link Wireless?**

D-Link is the worldwide leader and award winning designer, developer, and manufacturer of networking products. D-Link delivers the performance you need at a price you can afford. D-Link has all the products you need to build your network.

## **How does wireless work?**

Wireless works similar to how cordless phone work, through radio signals to transmit data from one point A to point B. But wireless technology has restrictions as to how you can access the network. You must be within the wireless network range area to be able to connect your computer. There are two different types of wireless networks Wireless Local Area Network (WLAN), and Wireless Personal Area Network (WPAN).

### **Wireless Local Area Network (WLAN)**

In a wireless local area network, a device called an Access Point (AP) connects computers to the network. The access point has a small antenna attached to it, which allows it to transmit data back and forth over radio signals. With an indoor access point as seen in the picture, the signal can travel up to 300 feet. With an outdoor access point the signal can reach out up to 30 miles to serve places like manufacturing plants, industrial locations, college and high school campuses, airports, golf courses, and many other outdoor venues.

### **Wireless Personal Area Network (WPAN)**

Bluetooth is the industry standard wireless technology used for WPAN. Bluetooth devices in WPAN operate in a range up to 30 feet away. Compared to WLAN the speed and wireless operation range are both less than WLAN, but in return it doesn't use nearly as much power which makes it ideal for personal devices, such as mobile phones, PDAs, headphones, laptops, speakers, and other devices that operate on batteries.

### **Who uses wireless?**

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

### **Home**

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

### **Small Office and Home Office**

- Stay on top of everything at home as you would at the office
- Remotely access your office network from home
- Share the Internet connection and printer with multiple computers
- No need to dedicate office space

### **Where is wireless used?**

Wireless technology is expanding everywhere not just at home or office. People like the freedom of mobility and it's becoming so popular that more and more public facilities now provide wireless access to attract people. The wireless connection in public places is usually called "hotspots".

Using a D-Link Cardbus Adapter with your laptop, you can access the hotspot to connect to Internet from remote locations like: Airports, Hotels, Coffee Shops, Libraries, Restaurants, and Convention Centers.

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

### **Tips**

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

#### **Centralize your router or Access Point**

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

#### **Eliminate Interference**

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

#### **Security**

Don't let you next-door neighbors or intruders connect to your wireless network. Secure your wireless network by turning on the WPA security feature on the router. Refer to product manual for detail information on how to set it up.

#### **Wireless Modes**

There are basically two modes of networking:

- **Infrastructure** – All wireless clients will connect to an access point or wireless router.
- **Ad-Hoc** – Directly connecting to another computer, for peer-to-peer communication, using wireless network adapters on each computer, such as two or more D-Link wireless network adapters.

An Infrastructure network contains an Access Point or wireless router. All the wireless devices, or clients, will connect to the wireless router or access point.

An Ad-Hoc network contains only clients, such as laptops with wireless cardbus adapters. All the adapters must be in Ad-Hoc mode to communicate.

# Networking Basics

## Check your IP address

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

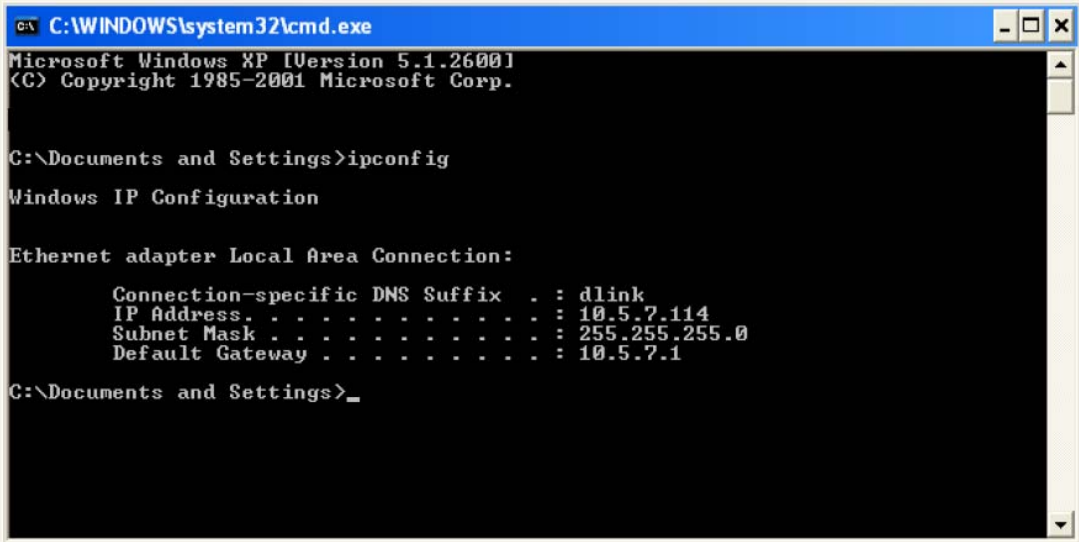
Click on **Start > Run**. In the run box type **cmd** and click on the **OK**.

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

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

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

If you are connecting to a wireless network at a 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  . : dlink
    IP Address . . . . . : 10.5.7.114
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 10.5.7.1

C:\Documents and Settings>_
```

## Statically Assign an IP address

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

### Step 1

Windows® 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 D-Link network adapter and select **Properties**.

### Step 3

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

### Step 4

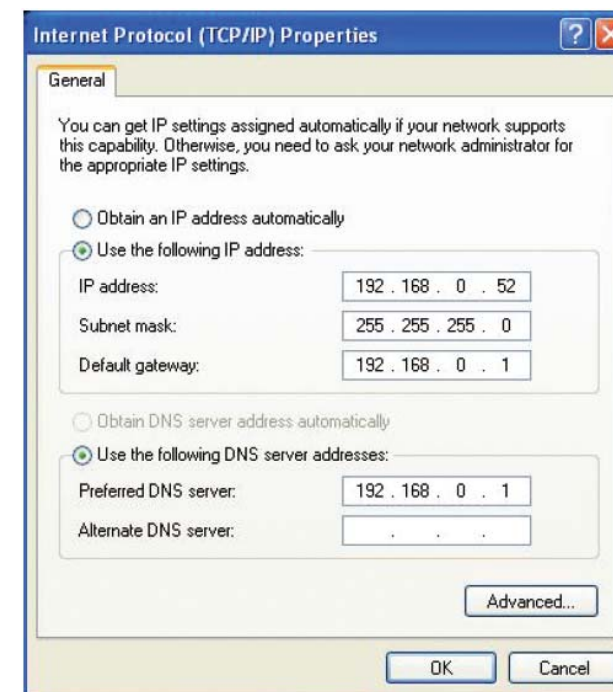
Click on the **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your router.

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

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

### Step 5

Click on the **OK** 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

## Protocols

- IEEE 802.1d Spanning Tree
- TCP/UDP
- ARP
- RARP
- ICMP
- RFC1058 RIP v1
- RFC1213 SNMP v1 & v2c
- RFC1334 PAP
- RFC1389 RIP v2
- RFC1577 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

## WIRELESS LAN

- 802.11b/g/n standards
- Wireless speed: up to 300Mbps (802.11n)
- Frequency range: 2.4 GHz to 2.484G Hz
- Antennas: 2 non-detachable dipole antennas.
- WEP data encryption
- WPA/WPA2 (Wi-Fi Protected Access) security
- Multiple SSID
- 802.11e Wireless QoS (WMM/WME)
- MAC address-based access control

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