#### **D-Link**<sup>®</sup>



# **User Manual**

#### **ADSL 2+ Modem with Ethernet Router**

DSL-2540B

# **Table of Contents**

General Information	4
Package Contents	4
Important Safety Instructions	5
Front Panel View	6
Rear Panel View	7
Installing the Router	8
Installation Diagram	10
Configuring Your Computer	11
Windows <sup>®</sup> XP	11
Mac	12
Log In To The Router	13
Setup	14
Setup	<b>14</b> 14
Setup Setup Wizard Internet Setup	<b>14</b> 14 17
Setup Setup Wizard Internet Setup ATM PVC Configuration	<b>14</b> 14 17 
Setup Setup Wizard Internet Setup ATM PVC Configuration Connection Type	<b>14</b> 14 17 18 19
Setup Setup Wizard Internet Setup ATM PVC Configuration Connection Type PPP over Ethernet (PPPoE)	<b>14</b> 14 17 18 19 
Setup Setup Wizard Internet Setup ATM PVC Configuration Connection Type PPP over Ethernet (PPPoE) Network Address Translation Settings (PPPoE)	<b>14</b> 14 17 18 19 20 21
Setup Setup Wizard Internet Setup ATM PVC Configuration Connection Type PPP over Ethernet (PPPoE) Network Address Translation Settings (PPPoE) Setup Summary (PPPoE)	<b>14</b> 14 17 18 19 20 21 21
Setup Setup Wizard Internet Setup ATM PVC Configuration Connection Type PPP over Ethernet (PPPoE) Network Address Translation Settings (PPPoE) Setup Summary (PPPoE) MAC Encapsulation Routing or DHCP	<b>14</b> 14 17 
Setup Mizard Setup Wizard Internet Setup ATM PVC Configuration Connection Type PPP over Ethernet (PPPoE) Network Address Translation Settings (PPPoE) Setup Summary (PPPoE) MAC Encapsulation Routing or DHCP Network Address Translation Settings (MER/DHCP)	<b>14</b> 14 17 18 19 20 21 21 23 24
Setup Mizard Setup Wizard Internet Setup ATM PVC Configuration Connection Type PPP over Ethernet (PPPoE) Network Address Translation Settings (PPPoE) Setup Summary (PPPoE) MAC Encapsulation Routing or DHCP Network Address Translation Settings (MER/DHCP) Setup Summary (MER/DHCP)	14 14 17 18 19 20 21 21 23 24 25
Setup Mizard Setup Wizard Internet Setup ATM PVC Configuration Connection Type PPP over Ethernet (PPPoE) Network Address Translation Settings (PPPoE) Setup Summary (PPPoE) MAC Encapsulation Routing or DHCP Network Address Translation Settings (MER/DHCP) Setup Summary (MER/DHCP) Bridging	14 14 17 18 19 20 21 21 21 22 24 25 26

Local Network	
Time and Date	
Advanced Setup	
Port Forwarding	
Port Triggering	
DMZ Host	
Parental Control	
Block MAC Address	
Filtering Options	
Incoming IP Filtering Setup	
Outgoing IP Filtering Setup	
Bridge Eiltering Setup	
DNS	
– Network Tools	
Port Mapping	
IGMP	
Oueue Configuration	
Quality of Service	
ADSL Setting	
TB-069	
MAC Clone	
Bouting	
Static Boute	
Default Gateway.	50
RIP	51

#### Table of Contents

Schedules	52
Maintenance	53
System	53
Firmware Update	54
Access Control	55
Account Password	55
Services	56
IP Address	57
Diagnostics	58
System Log	59
Logout	60
Status	61
Device Info	61
DHCP Clients	62
Logs	63
Statistics	64
Route Info	65
Troubleshooting	66
Networking Basics	68
Check your IP address	68
Statically Assign an IP address	69
Contacting Technical Support	70
Warranty	71
Registration	75

# **General Information**

The D-Link DSL-2540B is an ADSL2+ router offering the convenience of 4 LAN ports for additional computers. This user manual provides you with a simple and easy-to-understand format to install and configure your router.

## Package Contents



ADSL2+ Modem with Ethernet Router

12VDC, 1A DC CEC-compliant switching power adapter

RJ-11 telephone cable

RJ-45 Ethernet cable



Installation CD-ROM

OIG

*Note:* Using a power supply with a different voltage rating than the one included with the DSL-2540B will cause damage and void the warranty for this product.

## **Important Safety Instructions**

- Place your router on a flat surface close to the cables in a location with sufficient ventilation.
- To prevent overheating, do not obstruct the ventilation openings of this equipment.
- Plug this equipment into a surge protector to reduce the risk of damage from power surges and lightning strikes.
- Operate this equipment only from an electrical outlet with the correct power source as indicated on the adapter.
- Do not open the cover of this equipment. Opening the cover will void any warranties on the equipment.
- Unplug equipment first before cleaning. A damp cloth can be used to clean the equipment. Do not use liquid/aerosol cleaners or magnetic/static cleaning devices.
- To reduce the risk of fire, use only No. 26 AWG (or a larger diameter/smaller AWG) RJ-11 telephone cable.

#### **Front Panel View**



1	Power LED	<ul><li>A solid green light indicates the unit is powered on.</li><li>A red light indicates a malfunction.</li></ul>
2	2 LAN LEDs • A solid light indicates a connection to an Ethernet-enabled computer of 1-4. This LED blinks during data transmission.	
3	DSL LED	<ul> <li>A solid light indicates the DSL is synchronized.</li> <li>A flashing LED indicates the modem is attempting to synchronize with the DSL provider.</li> </ul>
4	Internet LED	<ul> <li>A solid green light indicates that the modem has an IP address and is connected to the Internet.</li> <li>A red light indicates that the modem does not have an IP address or authentication has failed.</li> <li>No light indicates that an ADSL connection is not present or the modem is in bridge mode.</li> </ul>

#### **Rear Panel View**



1	DSL Line	Connect to an active telephone line (RJ-11).
2	2 LAN Ports (1-4) • Connect Ethernet devices such as computers, switches, and hubs.	
3	Reset	• Pressing the Reset button for 5 seconds restores the modem to its original factory default settings.
4	Power Receptor	Receptor for the supplied power adapter.
5	ON/OFF	Press this button to turn the unit on or off.

# **Installing the Router**

#### **Connect the ADSL and Telephone Lines**

• Connect an RJ-11 cable between the wall phone jack and the ADSL port on the rear panel of the router.

#### Connect the PC to the Router

- To use the Ethernet connection, connect the Ethernet cable from the computer directly to the router. Connect one end of the Ethernet cable to the port labeled LAN on the back of the router and attach the other end to the Ethernet port of your computer.
- If your LAN has more than one computer, you can attach one end of an Ethernet cable to a hub or a switch and the other to the Ethernet port (labeled LAN) on the router. Note that either a crossover or straight-through Ethernet cable can be used. The router automatically recognizes the type of connection that is required.

#### **Connect the Power Adapter**

• Complete the process by connecting the supplied 12VAC, 1A power adapter to the POWER connector on the back of the device and plug the adapter into a wall outlet or power strip. Then turn on and boot up your PC and any LAN devices, such as hubs or switches, and any computers connected to them.

# **Installation Diagram**

#### **Desktop Computer**



# **Configuring Your Computer**

Prior to accessing the router through the LAN port, note the following necessary configurations:

- Your PC's TCP/IP address: 192.168.1.x (where "x" is any number between 2 and 254)
- The router's default IP address: 192.168.1.1
- Subnet mask: 255.255.255.0

Below are the procedures for configuring your computer. Follow the instructions for the operating system that you are using.

# Windows<sup>®</sup> XP

- 1. In the Windows taskbar, click on the **Start** button then go to **Control Panel** and then click **Network Connections**.
- 2. In the **Network Connections** window, right click on the **Local Area Connection** icon and click on **Properties**.
- 3. Listed in the Local Area Connection window are the installed network components. Make sure the box for Internet Protocol (TCP/ IP) is checked and then click on Properties.
- 4. In the Internet Protocol (TCP/IP) Properties dialog box, click on the radio buttons labeled **Obtain an IP address automatically** and **Obtain DNS server address automatically.**
- 5. Click on **OK** twice to save your changes and then close the Control Panel.

#### Mac

These are instructions for configuring your Mac OS X operating system

- 1. In the Mac OS X Dock, click on the **System Preferences** icon.
- 2. Under Internet & Network, click Network. In the Show menu, select Built-in Ethernet or Ethernet (Depending on your Mac OS version.)
- 3. Click the TCP/IP tab.
- 4. In the Configure menu, select Using DHCP.
- 5. Click Apply Now and Save if your computer prompts you to save changes.

# Log In To The Router

This section will explain how to log in to your router using the following steps:

1. Launch your web browser.

2. Enter the URL http://192.168.1.1 in the address bar and press Enter.

A login screen like the one below will be displayed after you connect to the user interface.

Product Page: DSL-2540B	Firmware Version: BCM-3.10L.NA.2010051
D-Link	
LOGIN	
Welcome to DSL-2540B Web Management Username : admin  Password : Remember my login info. on this compute Login	er

*Note:* Use *admin/admin* as default for username and password.

• The admin account can perform all functions (username / password: admin / admin).

*Note:* Passwords can be changed at any time.

3. Enter your user name and password, and then click OK to display the user interface.

*Note:* This manual has been prepared using the admin user name.

# Setup

This section will show you how to configure your new D-Link wireless router using the web-based configuration utility. Please prepare your DSL account information provided by your Internet Service Provider (ISP).

## **Setup Wizard**

To quickly configure your router, click **Setup Wizard**.



#### Click Next to continue.

#### WELCOME TO D-LINK SETUP WIZARD

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

Next

• Step 1 :	Change Device Login Password
• Step 2 :	Set Time and Date
	Cables Tabasa & Casa a shine

Step 3	•	Secup Internet	connection
Stop 4		Completed and	Doctort

Cancel

Create a new password and click **Next** to continue or click **Skip** to keep your current password.

STEP 1: CHANGE DEVICE LOGIN PASSWORD $\rightarrow$ 2	2 → 3 → 4
The factory default password of this router is admin. To hel choose a new password. If you do not wish to choose a ne to proceed to next step.	p secure your network, D-Link recommends that you should w password now, just click "Skip" to continue. Click "Next"
Current Password	
New Password	:
Confirm Password	

Skip

Cancel

Back

Next

In this section you may configure, update, and maintain the correct time for the internal system clock. Set the time zone that you are in and set the NPT (Network Time Protocol) Server. Select the time zone from the drop-down menu and then click **Next** to continue.

1 $\rightarrow$ STEP 2: SET TIME AND DATI	E→3→4
The Time Configuration option allows you clock. From this section you can set the Daylight Saving can also be configured to	u to configure, update, and maintain the correct time on the internal system time zone that you are in and set the NTP (Network Time Protocol) Server. automatically adjust the time when needed.
TIME SETTINGS	
First NTP time server : Second NTP time server :	Automatically synchronize with Internet time servers           Intp1.dlink.com           None
TIME CONFIGURATION	
Current Router Time : Time Zone : Daylight Saving Offset : Daylight Saving Dates :	Sat Jan 1 00:31:59 2000 (GMT-12:00) International Date Line West Enable Daylight Saving -2:00 Month Week Day Time Start Jan 1st Sun 12 am 2 End Jan 1st Sun 12 am 2
L	Back Next Cancel

Select your Country and Internet Service provider from the drop-down menus. If your Country or ISP is not on the list, please select "**others**". Refer to your DSL account information and select the proper Protocol and Connection Type. Next, enter your ISP assigned VPI and VCI settings.

Alternatively, you may check the box labeled Enable DSL Auto-Scan. Click **Next** to continue.

	Country :	(Click to Select) 💌	
Int	ernet Service Provider :	(Click to Select) 🔽	
	Protocol :	(Click to Select) 💉	
	Connection Type :	(Click to Select) 😒	
	VPI:	(Enter a number)	(0-255)
	VCI :	(Enter a number)	(32-65535)
		Enable DSL Auto-scan	

Click **Connect** to save your settings. Once the router is finished rebooting, click **Continue**. Please allow 1-2 minutes to connect.

Close your browser window and reopen it to test your Internet connection. It may take a few tries to initially connect to the Internet.

To log out of the router's user interface at any time during the setup, click on the **Logout** button. A confirmation screen will appear confirming that you really want to log out.

e the browser.		
	Logout	
6	e the browser.	e the browser.

#### **Internet Setup**

Internet Setup is an advanced version of the Setup Wizard. If you want to manually configure your DSL connection, consider going through this advanced setup for a more comprehensive configuration. Configure the DSL settings as provided by your ISP.

Click on the **Add** button if you want to add a new connection for the Wide Area Network (WAN) interface and to proceed to the ATM PVC Configuration screen. The ATM PVC Configuration screen allows you to configure your Internet connection.

Find your account settings from your ISP before you proceed.



## **ATM PVC Configuration**

**VPI/VCI:** These values are required for all DSL connection types and are provided by your ISP.

**Service** Use the default setting unless otherwise instructed by **Category:** your ISP.

**Peak Cell Rate:** This value depends on the Service Category selected. Please check if your ISP requires this value.

Sustainable This value depends on the Service Category is selected.Cell Rate: Please check if your ISP requires this value.

Maximum This value depends on the Service Category selected. Burst Size: Please check if your ISP requires this value.

**Enable QoS:** Use the default setting unless otherwise instructed by your ISP. For more information about QoS, see the Quality of Service section in this user manual.



## **Connection Type**

This field shows the types of network protocols and encapsulation modes that can be configured.

Connection Type: Select the connection type that your ISP has instructed to use.

- PPP over ATM (PPPoA)
- PPP over Ethernet (PPPoE)
- MAC Encapsulation Routing (MER)/DHCP
- IP over ATM (IPoA)
- Bridging

PPP over Ethernet (PPPoE)
LLC/SNAP-BRIDGING

PPPoE, MER (also referred to as DHCP) and Bridging are the most common connection types in North America. To set up a PPPoE, MER or Bridging connection, follow the instructions on the following pages of this user manual. PPPoA and IPoA are more widely utilized in other regions. Setup for PPPoA and IPoA are similar to PPPoE and MER, respectively.

Encapsulation Mode: Use the default setting unless otherwise instructed by your ISP.

Note: These settings are ISP dependant. For information regarding proper configuration, contact your ISP.

## **PPP over Ethernet (PPPoE)**

PPP Username: Enter your username as provided by your ISP.

- PPP Password: Enter your password as provided by your ISP.
  - **Confirm PPP** Retype the password you entered above. Password:
- Authentication Use the default setting unless otherwise instructed by your ISP. Method:
- **Dial on Demand** Allows you to manually connect to the Internet so you are not (With Idle permanently connected. Idle timeout timer is included. **Timeout Timer**):
  - **MTU:** Use the default setting of 1492 unless otherwise instructed by your ISP.
- PPP IP extension: Used by some ISPs. Check with your ISP to see if it is required.

Keep Alive: Keeps you connected to your ISP even when no activity is present for a certain period of time.

Use Static IP Select if your ISP has provided you with a static IP address. If selected, you will be asked to enter the static IP address. Address:

**Obtain default** This is the default option. If your ISP has provided you with a static default gateway, select **Use the following default gateway**. gateway Select Use IP Address and enter the default gateway that your ISP has provided. Alternately, you may choose to select Use WAN

CONNECTION TYPE  Protocol: PPP over Ethernet (PPPOE)  Encapsulation Mode: LLC/SNAP-BRIDGING  PPP USERNAME AND PASSWORD  PPP USERNAME AND PASSWORD  PPP USERNAME AND PASSWORD  PPP Password: PPP Passwo			
Protocie PPP over Ethernet (PPPoE)  ■	CONNECTION TYPE		
PPP USERNAME AND PASSWORD   PPP Username:   PPP Jassword:   PPP Password:   Confirm PPP Password:   Authentication Method:   Autro   Authentication Method:   Autro   Dial On Demand (With Idle Timeout Timer):   Inactivity Timeout:   30   MTU Size:   1492   (1370-1492)   PPP IP Extension:   Keep Alive:   Use Static IP Address:   IP Address:   Use the following default gateway:   Use Remote WAN IP Address:   Use WAN Interface:	Protocol: Encapsulation Mode:	PPP over Ethernet (PPPoE)	<b>×</b>
PPP Username:   PPP Password:   PPP Password:   Confirm PPP Password:   Authentication Method:   Autro   Authentication Method:   Autro   Dial On Demand (With Idle Timeout Timer):   Inactivity Timeout:   30   (minutes [1-4320])   MTU Size:   1492   (1370-1492)   PPP IP Extension:   Keep Alive:   Use Static IP Address:   IP Address:   Use the following default gateway:   Use Remote WAN IP Address:   Use WAN Interface:	PPP USERNAME AND PASSWORD		
Use WAN Interface: br_0_0_35/ v	PPP Username: PPP Password: Confirm PPP Password: Authentication Method: Dial On Demand (With Idle Timeout Timer): Inactivity Timeout: MTU Size: PPP IP Extension: Keep Alive: Use Static IP Address: IP Address: Obtain default gateway auto Use the following default gateway auto		(minutes [1-4320]) (1370-1492)
	Use wan interface:	0_0_35/	

## **Network Address Translation Settings (PPPoE)**

- **Enable NAT:** Select if you would like to share your internet connection with multiple computers. The router will share your DSL connection with wired and wirelessly connected computers.
- **Enable Firewall:** Select if you would like to utilize the firewall to help protect you from unwanted internet threats.
- NETWORK ADDRESS TRANSLATION SETTINGS

  Enable NAT: 
  Enable Firewall: 
  Enable IGMP Multicast: 
  Enable WAN Service: 
  Service Name: pppoe\_0\_0\_35

  Next Cancel
- **Enable IGMP** Use the default setting unless otherwise instructed by your ISP **Multicast:**
- **Enable WAN** This option is Enabled by default. Deselecting this option will cause your DSL connection to be disabled. **Service:**

Service Name: Enter any name that will help you identify your connection. This field will not affect your connection.

Click Next.

# Setup Summary (PPPoE)

Confirm the settings on this page match the settings provided by your ISP. To make any changes, click **Back**.

If your settings are correct, click **Apply**.

Note: After clicking Apply, you will have to reboot the router in order to activate your connection

Make sure that the settings below	v match the settings provided by your ISP.				
Click "Apply" to save these setting NOTE: You need to reboot to a over this interface.	ps. Click "Back" to make any modifications. Activate this WAN interface and further configure services				
SETUP - SUMMARY					
VPI / VCI:	0 / 35				
Connection Type:	PPPoE				
Service Name: ppppe 0 0 35					
Service Category:	UBR				
Service Category: IP Address:	UBR Automatically Assigned				
Service Category: IP Address: Service State:	UBR Automatically Assigned Enabled				
Service Category: IP Address: Service State: NAT:	UBR Automatically Assigned Enabled Enabled				
Service Category: IP Address: Service State: NAT: Firewall:	UBR Automatically Assigned Enabled Enabled Enabled				
Service Category: IP Address: Service State: NAT: Firewall: IGMP Multicast:	UBR Automatically Assigned Enabled Enabled Enabled Disabled				

## **MAC Encapsulation Routing or DCHP**

CO

W/

This page allows you to configure your MER/DHCP connection.

Obtain an This is the default option. If your ISP has provided you with a static IP address, select
 automatically: Use the following IP address. Enter the IP address and Subnet Mask that your ISP has provided.

Obtain defaultThis is the default option. If your ISP hasgatewayprovided you with a static default gateway,automatically:select Use the following default gateway.Select Use Remote WAN IP Address and<br/>enter the default gateway that your ISP has<br/>provided. Alternately, you may choose to<br/>select Use WAN Interface.

Obtain DNS This is the default option. If your ISP server addresses has provided you with static DNS server automatically: addresses, select Use the following DNS server addresses. Enter the Preferred and Alternate (if available) DNS server addresses that your ISP has provided.

NNECTION TYPE	
Protocol: Encapsulation Mode:	MAC Encapsulation Routing (MER) V
N IP SETTINGS	
<ul> <li>Obtain an IP address aut</li> <li>Use the following IP address:</li> <li>WAN IP Address:</li> <li>WAN Subnet Mask:</li> <li>Obtain default gateway a</li> <li>Use the following default</li> <li>Use Remote WAN IP Address:</li> <li>Use WAN Interface:</li> </ul>	automatically gateway: ddress: br_0_0_35/ ✓
<ul> <li>Obtain DNS server addres</li> <li>Use the following DNS server:</li> <li>Preferred DNS server:</li> <li>Alternate DNS server:</li> </ul>	sses automatically rver addresses:

## Network Address Translation Settings (MER/DHCP)

- Enable NAT: Select if you would like to share your internet connection with multiple computers. The router will share your DSL connection with wired and wirelessly connected computers.
- **Enable Firewall:** Select if you would like to utilize the firewall to help protect you from unwanted internet threats.
- NETWORK ADDRESS TRANSLATION SETTINGS

  Enable NAT: 
  Enable Firewall: 
  Enable IGMP Multicast: 
  Enable WAN Service: 
  Service Name: mer\_0\_0\_35

  Next Cancel
- Enable IGMP Use default setting unless otherwise instructed by your ISP. Multicast:
- **Enable WAN** This option is Enabled by default. Deselecting this option will cause your DSL connection to be disabled. **Service:**
- Service Name: Enter any name that will help you identify your connection. This field will not affect your connection.

Click Next.

# Setup Summary (MER/DHCP)

Confirm the settings on this page match the settings provided by your ISP. To make any changes, click Back.

If your settings are correct, click Apply.

*Note:* After clicking Apply, you will have to reboot the router in order to activate your connection.

Make sure that the settings below match the settings provided by your ISP. Click "Apply" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface. SETUP - SUMMARY VPI / VCI: 0 / 35 Connection Type: MER Service Name: mer_0_0_35 Service Category: UBR IP Address: Automatically Assigned Service State: Enabled NAT: Enabled Firewall: Enabled Firewall: Disabled	WAN						
Click "Apply" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface. SETUP - SUMMARY VPI / VCI: 0 / 35 Connection Type: 0 / 35 Connection Type: MER Service Name: mer_0_0_35 Service Category: UBR IP Address: Automatically Assigned Service State: Enabled NAT: Enabled Firewall: Enabled IGMP Multicast: Disabled	Make sure that the settings belo	ow match the settings provided by your ISP.					
SETUP - SUMMARY         VPI / VCI:       0 / 35         Connection Type:       MER         Service Name:       mer_0_0_35         Service Category:       UBR         IP Address:       Automatically Assigned         Service State:       Enabled         NAT:       Enabled         Firewall:       Enabled         IGMP Multicast:       Disabled	Click "Apply" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.						
VPI / VCI:0 / 35Connection Type:MERService Name:mer_0_0_35Service Category:UBRIP Address:Automatically AssignedService State:EnabledNAT:EnabledFirewall:EnabledIGMP Multicast:Disabled	SETUP - SUMMARY						
VPI / VCI:0 / 35Connection Type:MERService Name:mer_0_0_35Service Category:UBRIP Address:Automatically AssignedService State:EnabledNAT:EnabledFirewall:EnabledIGMP Multicast:Disabled							
Connection Type:MERService Name:mer_0_0_35Service Category:UBRIP Address:Automatically AssignedService State:EnabledNAT:EnabledFirewall:EnabledIGMP Multicast:Disabled	VPI / VCI:	0 / 35					
Service Name:mer_0_0_35Service Category:UBRIP Address:Automatically AssignedService State:EnabledNAT:EnabledFirewall:EnabledIGMP Multicast:Disabled	Connection Type:	MER					
Service Category:UBRIP Address:Automatically AssignedService State:EnabledNAT:EnabledFirewall:EnabledIGMP Multicast:Disabled	Service Name:	mer_0_0_35					
IP Address:     Automatically Assigned       Service State:     Enabled       NAT:     Enabled       Firewall:     Enabled       IGMP Multicast:     Disabled	Service Category:	UBR					
Service State:     Enabled       NAT:     Enabled       Firewall:     Enabled       IGMP Multicast:     Disabled	IP Address:	Automatically Assigned					
NAT:     Enabled       Firewall:     Enabled       IGMP Multicast:     Disabled	Service State:	Enabled					
Firewall:     Enabled       IGMP Multicast:     Disabled	NAT:	Enabled					
IGMP Multicast: Disabled	Firewall:	Enabled					
	IGMP Multicast:	Disabled					
Quality Of Service: Disabled	Quality Of Service:	Disabled					

## Bridging

- Enable WAN This option is Enabled by default. DeselectingService: this option will cause your DSL connection to be disabled.
- Service Name: Enter any name that will help you identify your connection. This field will not affect your connection.

Click Next.

CONNECTION TYPE	
Protocol: Encapsulation Mode:	Bridging
BRIDGE SETTINGS	
Enable Bridge Service: Service Name:	✓ br_0_0_35
Next C	ancel

# Setup Summary (Bridging)

Confirm the settings on this page match the settings provided by your ISP. To make any changes, click **Back**.

If your settings are correct, click **Apply**.

*Note:* After clicking *Apply*, you will have to reboot the router in order to activate your connection.

#### WAN

Make sure that the settings below match the settings provided by your ISP.

Click "Apply" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.

# SETUP - SUMMARY VPI / VCI: 0 / 35 Connection Type: Bridge Service Name: br\_0\_0\_35 Service Category: UBR IP Address: Not Applicable Service State: Enabled

#### Local Network

You can configure the DSL Modem IP address and Subnet Mask for the LAN interface. This section is optional and you do not need to change any of the settings here to get your network up and running.

Click the **Apply** button to save the LAN configuration data. The router will automatically reboot to apply the new configuration.



## **Time and Date**

The Time Configuration option allows you to configure, update, and maintain the correct time on the internal system clock. In 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.



# **Advanced Setup**

This section is an advanced version of the quick setup. If you want to make specific configurations to your router such as Port Forwarding, Parental Controls, DNS, Quality of Service (QoS), etc., consider going through this advanced setup for a more comprehensive configuration.

## **Port Forwarding**

Port forwarding allows you to direct incoming traffic from the WAN side to the internal server with a private IP address on the LAN side.



Select the Service Name and enter the IP server Address, then click Apply.

#### PORT FORWARDING SETUP Remaining number of entries that can be configured: 32 Server Name : Select a Service : (Click to Select) \* O Custom Server : Schedule : Always 💟 <u>View Available Schedules</u> Server IP Address : 192.168.1. External Port Start External Port End Protocol Internal Port Start Internal Port End ~ TCP ~ TCP TCP \* TCP ~ TCP × TCP × \* TCP

Apply Cancel

~

~

\*

Y

~

тср тср

TCP

TCP

TCP

<

>

# **Port Triggering**

If you configure port triggering for a certain application, you must determine a so-called trigger port and the protocol (TCP or UDP) that this port uses. You then assign the public ports that are to be opened for the application to this trigger port. You can select known Internet services or manually assign ports or port blocks.

DSL-2540B	SETUP	ADV/	ANCED	MAINTENANO	E	STATUS	i.	HELP
ort Forwarding	PORT TRIGGE	RING					He	elpful Hint
Port Triggering DMZ Parental Control Filtering Options	Some applications remote parties. Po on the LAN initiate allows the remote the LAN side using	require that spec rt Trigger dynami is a TCP/UDP conr party from the W the "Open Ports"	ific ports in the Ri ically opens up th nection to a remo AN side to establ '.	outer's firewall be "Open Ports" in te party using the sh new connectio	opened for acc the firewall whe "Triggering Por ns back to the a	ess by the en an appl rts". The R application	e use cation one outer and on exp	e this feature if trying to exe e of the listed twork applicat d it is not mmunicating a pected.
INS	Some applications	such as games, v	ideo conferencing	, remote access a	applications and	i others re	quire Ch	eck the Applic
letwork Tools	that specific ports the port settings f	in the Router's fir rom this screen by	ewall be opened y selecting an exi	for access by the sting application o	applications. Yo r creating your	ou can cor own (Cus	figure for	a list of prede
IAC Clone	application) and cl	ick "Apply" to add	it.				app	plications.
Routing	A maximum of	32 entries can l	be configured.				wh	en the rule wi
schedules	PORT TRIGGE	RING					see	the schedule ed in the list of
ogout			to to the				sch Ad	redules, go to
	Application	Trig	ger	Open	5	Schedule F	ule 50	hedules scr
	Name	Protocol	Port Range	Protocol Por	tkande		cre	eate a new sch
	Name PORT TRIGGE	Protocol RING ber of entries t	Port Range Start End Add	figured :32	rt End		Mc	aate a new sch one
	PORT TRIGGE Remaining num Select an Custom a	Protocol RING ber of entries t Application pplication	Port Range Start End Add that can be con lame : : [Click :	Frotocol Por Star figured :32 o Select)	t Kange t End		Mo	ate a new sch
	PORT TRIGGE Remaining num • Select an • Custom a	Protocol RING Application M application pplication Sche	Port Range Start End Add that can be con lame : : [Click: : [Alwaya edule : [Alwaya	figured :32 o Select) View Availab	t End		Mo	ate a new sch
	PORT TRIGGE Remaining num	Protocol RING ber of entries t Application pplication Sche Trigger Port End	Port Range Start End Add that can be con lame : : [Click: : edule : Alvaya Trigger Protocol	figured :32 o Select) View Availab Open Port Start	Kange     tt End	Ope	en pcol	ore
	PORT TRIGGE Remaining num Select an Custom aj Trigger Port Start	Protocol RING ber of entries t Application pplication Sche Trigger Port End	Port Range Start End Add that can be con lame : : [Click: :	figured :32 o Select) View Availab Open Port	Kange     tk End      Schedules      Open Port End	Opi Prote	en kool	ope
	PORT TRIGGE Remaining num Select an Custom a: Trigger Port Start	Protocol RING Application Application pplication Sche Trigger Port	Port Range Start End Add that can be con lame : : [Click   : [Click   : [Alwayn Protocol TCP V]	figured :32 Select) View Availab Open Port	V Kange t End Schedules Open Port End	Opp Prote TCP		opre
	PORT TRIGGE Remaining num • Select an • Custom al Trigger Port Start	Protocol RIHG RIHG Application Application pplication Sche Trigger Port End	Add Carl Carl Carl Carl Carl Carl Carl Carl	Fredecol Por Star figured :32 o Select) Very Availab Open Port Start	Kange     t End     Schedules     Open Port End     Contact Schedules	Opt Prote TCP TCP	in cre Ho in col i v v v v	ate a new sch
	PORT TRIGGE Remaining num © Select an © Custom al Trigger Port Start	Protocol RINC Application 1 application ppication Schot Inigger Port	Port Range Start End Add that can be con- fame : : : : : : : : : : : : : : : : : : :	Fretocol Por Star figured :32 o Select) View Availab Open Port Start	Kange     Kange     Kange     Konge     K	Ор Ргоба ТСР ТСР ТСР ТСР		ate a new sch
	PORT TRIGGE Remaining num © Select an © Custom al Trigger Port Start	Protocol RINC RINC Application 1 application Sche Trigger Port End	Port Range Start End Add that can be con- kame : : [Clck : ] Trigger Protocol TCP W TCP W TCP W TCP W	figured :32 o Salect) View Availab Open Port Star	trange     t End	Орн Ргови ТСР ТСР ТСР ТСР ТСР	n No No No No No No No No No No No No No	ate a new sch
	PORT TRIGGE Remaining num © Select an Custom al Trigger Port Start	Protocol RING RING Application h application pplication Schu Trigger Port End	Port Range           Start         End           Add           that can be containe :           :         [Clck           :         [Clck	figured :32  View Availab  View Availab  Open Port  Open Port  Open I open I open	Kange     Kange     Kange     Konge     K	ор Реобл ТСР ТСР ТСР ТСР ТСР ТСР		ore
	PORT TRIGGE Remaining num © Select an Custom al Trigger Port	Protocol RING RUNG RUNG RUNG RUNG RUNG RUNG RUNG RU	Port Range           Start         End           Add           that can be containe :           :         Clek           :         Add           that can be containe :           :         Clek           :         Add           Trigger         Protocol           TCP         W	figured :32  Select)  Very Availab  Open Port  Select	trange     t End     f	<mark>Орр Ргода</mark> ТСР ТСР ТСР ТСР ТСР ТСР ТСР	er kol v v v v v v v v v v v v v	ore

#### **DMZ Host**

The demilitarized military zone (DMZ) host feature allows one local computer to be exposed to the Internet. This function is applicable for:

• Users who want to use a special-purpose Internet service, such as an on-line game or video conferencing program, that is not in the port forwarding list and for which no port range information is available.

• Users who are not concerned with security and wish to expose one computer to all services without restriction.

**Note:** A DMZ host is not protected by the firewall and may be vulnerable to attack. This may also put other computers in the home network at risk. Hence, when designating a DMZ host, you must consider the security implications and and take the appropriate precautions.

You can set up a client in your local network as a DMZ host. Your

#### DMZ

The DSL Router will forward IP packets from the WAN that do not belong to any of the applications configured in the Port Forwarding table to the DMZ host computer.

Enter the computer's IP address and click "Apply" to activate the DMZ host.

Clear the IP address field and click "Apply" to deactivate the DMZ host.

DMZ HOST		
DMZ Host IP Address :		
	Apply Cancel	

device then forwards all incoming data traffic from the Internet to this client. You can, for example, operate your own Web server on one of the clients in your local network and make it accessible to Internet users. As the exposed host, the local client is directly visible to the Internet and therefore particularly vulnerable to attacks (for example, hacker attacks). Enable this function only when necessary (for example, to operate a Web server) and when other functions (for example, port forwarding) are inadequate. In this case, you should take appropriate measures for the clients concerned.

Note: Only one PC per public IP address can be setup as an exposed host.

#### **Parental Control**

Click on **Advanced** > **Parental Control** and the following page will appear.

Click **Block MAC Address** to continue and be directed to the next page.

Product Page: DSL-2540	В		) <u>Site</u>	Map Firmware Version	: BCM-3.10L.NA.20100514
D-Lini	C				
DSL-2540B	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Port Forwarding					
DMZ	PARENTAL CONTR	COL BLOCK MAC AL	JURESS		
Parental Control	Uses MAC address to I	mplement hitering.			
Filtering Options			Block MAC Address		
DNS					
Network Tools					
MAC Clone					
Routing					
Schedules					
Logout					

#### **Block MAC Address**

In this page, you can add a time of day restriction to a particular LAN device connected to the Router. The Browser's MAC Address automatically displays the MAC address of the LAN device where the browser is running. To restrict other LAN device, click Other MAC Address and enter the MAC address of the another LAN device. To obtain the MAC address of a Windows based PC, enter ipconfig /all in the DoS window.

BLOCK MAC ADDRESS	
This page adds a time of day restriction to PC's MAC Address" automatically displays running. To restrict another LAN device, address of the other LAN device. To find command prompt window and type "ipcor	r Ib entries can be connigured to a special LAN device connected to the router. The "Curre s the MAC address of the LAN device where the browser is click the "Other MAC Address" button and enter the MAC I out the MAC address of a Windows-based PC, open a nfig /all".
BLOCK MAC ADDRESS	
Username	MAC Schedule
	[Add]
TIME OF DAY RESTRICTION	
User Name	:
Ourrent PC's MAC Address	: 00:1F:29:98:50:E9
Other MAC Address	(XXXXXXXXXXXXX)
<ul> <li>Schedule Rule</li> <li>Manual Schedule</li> </ul>	: Always View Available Schedules
Day(s)	: O All Week ③ Select Day(s)
	Sun Mon Tue Wed
All Day - 24 hrs	:
Start Time	: (hour:minute, 24 hour time)
End Time	: (hour:minute, 24 hour time)
Ì	Apply Cancel

# **Filtering Options**

This screen allows you to choose the Filtering Options you would like to access. You may select: **Inbound IP Filtering**, **Outbound IP Filtering** or **Bridge Filtering** to be directed to the page.

Product Page: DSL-2540	ЭВ		) <u>Si</u>	te Map	Firmware Version:	BCM-3.10L.NA.20100514
D-Linl	Č					
DSL-2540B	SETUP	ADVANCED	MAINTENANCE		STATUS	HELP
Port Forwarding						
DMZ	FILTERING OPTIO	NS INBOUND IP FI	ILTERING			
Parental Control	Manage incoming traff	c.				
Filtering Options			Inbound IP Filtering			
DNS						
Network Tools	FILTERING OPTIO	NS OUTBOUND IP	FILTERING			
MAC Clone	Manage outgoing traff	ic.				
Routing						
Schedules			Outbound IP Piltening			
Logout	FILTERING OPTIO	NS BRIDGE FILTE	RING			
	Uses MAC address to i	mplement filtering. Useful (	only in bridge mode.			
			Bridge Filtering			
				_		
### **Incoming IP Filtering Setup**

The Inbound Filter option is an advanced method of controlling data received from the Internet. With this feature you can configure inbound data filtering rules that control data based on an IP address range. Inbound Filters can be used with Virtual Server, Port Forwarding, or Remote Administration features.

The Add IP Filter screen will appear when you click **Add**. Enter a filter name, protocol, source address information (from the WAN side) and destination address information (to the LAN side). Select the WAN interface and when ready, click **Apply** to add the filter.

Product Page: DSL-254	DB		\$	Site Map Firmware Version	n: BCM-3.10L.NA.20100514
D-Lini	k				
DSL-2540B	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
DSL-2540B Port Forwarding DHZ Parental Control DNS Network Tools MAC Clone Routing Schedules Logout	SETUP  INCOMING IP FILTER  The screen allows you to or for the rule to take effect.  By default, all incoming IP to can be ACCEPTED by setti  ACTIVE INBOUND FILT  Name VPI/VCI Protoco  INCOMING IP FILTER  Filter Na Proto Source IP Ty Source IP Addr Source Subnet Ma Source Pot Ty Source Potention IP Ty Destination IP Ty Destination IP Ty Destination P Addr Destination P Addr Destination P Addr Mestination P Addr Sched WAAI Interfaces (Config Select All	ADVANCED  ING  easte a filter rule to id biton below. All of the Click 'Apply' to save raffic from WAN is ble ng up filters.  TER  Source Address  ING  ING  ING  ING  ING  ING  ING  I	MAINTENANCE	status         by specifying a new filter this filter rule must be satisfied and the satisfied senabled, but some IP traffic         Dest.       Schedule Rule         Port       Schedule Rule         port:port)       senabled only)         is rule.       Schedule Rule	HELP Helpful Hints Give each rule a Name that is meaningful to you. The Source IP addresses are WAN-side addresses are WAN-side addresses are UAN-side addresses are WAN-side addresses a

### **Outgoing IP Filtering Setup**

This feature allows you to create a filter rule to identify outgoing IP traffic by specifying a new filter name and at least one condition. All of the specified conditions in the filter rule must be satisfied for the rule to take effect.

This next screen will appear when you click **Add**. Enter the **Filter Name**, the **Source IP Address**, and destination information (from the WAN side). Then click **Apply** to save.

	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Port Forwarding	OUTGOING IP FILTERI	NG			Helpful Hints.
DMZ	This arrives allows you be and	nto a filtra a la ta id	antifu autorian TD traffic hu	en el frien e nem filme	Give each rule a N
Parental Control	name and at least one condit	ion below. All of the	specified conditions in this fi	lter rule must be satisf	ied you.
iltering Options	for the rule to take effect. C	ick "Apply" to save a	and activate the filter.		The Source IP
DNS	WARNING : Changing from	n one global polic	y to another will cause a	ll defined rules to b	e addresses are LAN- addresses and the
Network Tools	REMOVED AUTOMATICAL	LY! YOU WIII need	to create new rules for t	ne new policy.	Destination IP add are WAN-side
MAC Clone	By default, all outgoing IP tra up filters.	affic from LAN is allo	wed, but some IP traffic can	be <b>BLOCKED</b> by settir	9 addresses.
Dautina					Each rule can Den
Routing	ACTIVE OUTGOING IP	FILTER			LAN.
Schedules	Hanna Danhard Course	Address Courses		Deut Cabadula Dula	Select a schedule f
Logout	Name Protocol Source	Address Source F	ort Dest. Address Dest.	Port Schedule Rule	enabled. If you do
J_					see the schedule y need in the list of
		l	Add		schedules, go to the Advanced ->
					Schedules scree
	OUTGOING IP FILTERI	NG			Click the Apply by
					to store a finished
		and the second s			the Deduction
	Filter Nan	ne :			the Rules List.
	Filter Nam Protoc	ne: ol: Any	<b>V</b>		the Rules List. Click the <u>Remove</u> checkbox in the R
	Filter Nam Protoc Source IP Typ	ne: Any ol: Any oe: Any			the Rules List. Click the Remove checkbox in the Ru List then click on the Remove button to
	Filter Nam Protoc Source IP Typ Source IP Addres	ne:			the Rules List. Click the <u>Remove</u> checkbox in the R List then click on the <u>Remove</u> button to permanently remo
	Filter Nam Protoc Source IP Typ Source IP Addres Source Subnet Mas	ne:			the Rules List. Click the <u>Remove</u> checkbox in the R List then click on th <u>Remove</u> button to permanently remo rule.
	Filter Nam Protoc Source IP Typ Source IP Addres Source Subnet Mas Source Port Typ	ne: nol: Any Any N sss: sk: Any N sss: Any N			the Rules List. Click the <u>Remove</u> checkbox in the <u>R</u> List then click on the <u>Remove</u> button to permanently remo rule. More
	Filter Nam Protoc Source IP Typ Source IP Addres Source Subnet Mas Source Port Typ Source Port	ne:	(port or port	::port)	the Rules List. Click the <u>Remove</u> checkbox in the <u>R</u> List then click on th <u>Remove</u> button to permanently remo rule. More
	Filter Nam Protoc Source IP Typ Source IP Addres Source Subnet Mas Source Port Typ Source Por Destination IP Typ	ne: Any Any SSS: Any SSSS: Any SSSS Any	(port or port	uport)	the Rules List. Oick the Remove checkbox in the R List then click on the Remove button to permanetty remo rule.
	Filter Nam Protoc Source IP Typ Source IP Addres Source Subnet Mas Source Port Typ Source Po Destination IP Typ Destination IP Addres	e: Any SS: Any	(port or port	::port)	the Rules List. Oikk the Remove checkbox in the R List then cick on the Remove button to permanently remo rule.
	Filter Nam Protoc Source IP Typ Source IP Addres Source Subnet Mas Source Port Typ Source Por Destination IP Addres Destination Subnet Mas	ne: Any	(port or port	:port)	the Rules List. Olick the Remove checkbox in the R List then click on the Remove button to permanently remo rule. More
	Filter Nam Protoc Source IP Typ Source IP Addres Source Subnet Mas Source Port Typ Source Por Destination IP Addres Destination Subnet Mas Destination Port Typ	ne: Any Network of An	(port or port	:port)	the Rules List. Olick the Remove checkbox in the R List then click on the Remove button to permanetty remo rule. More
	Filter Nam Protoc Source IP Typ Source IP Addres Source Subnet Mas Source Port Typ Source Por Destination IP Addres Destination Subnet Mas Destination Port Typ Destination Port Typ	ne:	(port or port	::port)	the Rules List. Click the Remove checkbox in the R List then click on the Remove button to permanently remo rule. More

### **Bridge Filtering Setup**

Bride Filtering is only effective on ATM PVC's configured in Bridge mode. MAC filtering can forward or block traffic by MAC address. You can change the policy or add settings to the MAC filtering table using the MAC Filtering Setup screen.

If you want to add an entry to the MAC filtering table, Select **Add** from the MAC Filtering Setup screen. The Add MAC Filter screen should then appear. Select a Protocol Type, enter the Destination and Source MAC address, the necessary Frame Direction, and WAN interface (bridge mode only). Click **Apply** to save.

roduct Page: DSL-2540	)B		) <u>Site</u>	<u>Map</u> Firmware Version:	BCM-3.10L.NA.20100514
D-Lini	K				
DSL-2540B	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
ort Forwarding MZ arental Control iltering Options NS etwork Tools IAC Clone outing chedules ogout	BRIDGE FILTERIN         Bridge Filtering is only         Iayer frames will be AL         specified rules in the for         Create a filter to identi         conditions are specified         WARNING : Changin         REMOVED AUTOMAT         Bridge Filtering Global F         O ALLOW all packets         DENY all packets         DENY all packets         VPI/VCI         Protocc         Destination MAC A         Source MAC A         Frame Di         Select All	G  G  G  G  G  G  G  G  G  G  G  G  G	figured in Bridge mode. ALL dring with any of the specifi be DENIED except those m y specifying at least one cor lick 'Apply' to save and act to create new rules for t g any of specific rules listed Cancel Source MAC Frame Dire	OW means that all MAC ed rules in the following atching with any of the indition below. If multiple vate the filter. Ill defined rules to be he new policy.	Helpful Hints Create a list of MAC addresses that you would either like to allow or deny access to your network depending on the current Global Policy. Note : You must first create a <u>bridged</u> connection to use <u>Bridged</u> connection to use <u>Bridged</u> connection by going to <u>Setup</u> -> <u>Internet Setup</u> . Select a checklue for when the rule will be enabled. If you do not see the schecklue for when the rule will be enabled. If you do not see the schecklue for when the rule will be enabled. If you do not <u>Schecklue's screen</u> and create a new schecklue. Hore

## DNS

If **Obtained DNS server address automatically** is selected, this router accepts 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 primary and secondary (optional) DNS server IP addresses. The interface is as follows.

Click Save to save the new configuration.

Note: You must reboot the router to make the new configuration take effect.



## **Network Tools**

Product Page: DSL-254	0B		) <u>Sit</u>	<u>e Map</u> Firmw	are Version: I	BCM-3.10L.NA.20100514
D-Lin	K					
DSL-2540B	SETUP	ADVANCED	MAINTENANCE	STA	TUS	HELP
Port Forwarding	NETWORK TOOLS	- PORT MAPPING				
DMZ	Port Mapping supports	multiple port to RVC and b	idaina arouns. Each aroun	will perform as	an independ	ent network
Parental Control		manuple por t to P ve and bi		wiir periorin as	annicepend	enchetwork
Filtering Options			Port Mapping			
DNS						
Network Tools	NETWORK TOOLS	IGMP				
MAC Clone	Transmission of identica	al content, such as multime	dia, from a source to a nun	iber of recipier	nts.	
Routing			IGMP			
Schedules						
Logout	NETWORK TOOLS	QUEUE CONFIG				
	Allows you to add Class	ification Queue precedenc	e for QoS.			
			Queue Config			
	NETWORK TOOLS	QUALITY OF SERV.	ICE / to different interfaces. Quality of Service			
	NETWORK TOOLS	ADSL advanced settings for AD	SL.			
	NETWORK TOOLS	<b>TR-069</b> TR-069 protocol.	TR-069			

### **Port Mapping**

Port Mapping supports multiple ports to PVC and bridging groups. Each group performs as an independent network. To support this feature, you must create mapping groups with appropriate LAN and WAN interfaces using the **Add** button. The **Delete** button removes the grouping and adds the ungrouped interfaces to the Default group. Only the default group has the IP interface.



#### IGMP

If you choose to **Enable IGMP Snooping** the device can make intelligent multicast forwarding toward those hosts which request to join a specific multicast group within the broadcast domain.



### **Queue Configuration**

Click Queue Config, and the following page will appear. In this page, you can configure QoS queue. A maximum of 16 entries can be configured.

QoS Queue Configuration can allocate sixteen queues. Each of the queues can be configured for a precedence value (Lower integer values for precedence imply higher priority for this queue relative to others). The queue entry configured is used by the classifier to place ingress packets appropriately.

*Note:* Lower integer values for precedence imply higher priority for this queue relative to others.

For example, add a QoS queue entry and allocate it to a specific network interface (PVC 0/0/35). Set integer values for queue precedence to 1.

Product Page: DSL-254	0В		) <u>Site</u>	Map Firmware Version:	BCM-3.10L.NA.20100514
D-Lin	K				
DSL-2540B	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Port Forwarding	OUTFUE CONFIG				
DMZ					
Parental Control	Qos Queue Configurat	ion A maximum 16 entrie	s can be configured.		
Filtering Options	QUEUE CONFIG LI	ST			
DNS					
Network Tools	Interface Name	Description	Precedence	Queue Key Enab	ne Kemove
MAC Clone					
Routing			Add Save/Reboot		
Schedules					
Logout					

### **Quality of Service**

QoS (Quality of Service) is a method for identifying, classifying, and assigning priorities to traffic that passes through the router. This ensures that time sensitive data (e.g. video streaming) is given priority over other non-essential data.

This screen allows you to add a network traffic class rule. A rule consists of a traffic class name and at least one condition. All configured conditions must first be met before the rule takes effect. Click **Apply** to save any changes.

Product Page: DSL-254	DB			) <u>Site</u>	<u>e Map</u> Firmw	are Version: I	BCM-3.10L.NA.20100514
D-Lini	K						
DSL-2540B	SETUP	ADVANCED	MAINT	ENANCE	STA	rus	HELP
Port Forwarding		ACE.					Helpful Hints
DMZ	QUALITY OF SER					la finan dha	QoS or Quality of
Parental Control	precedence and the in	terface and optionally over	write the IP h	eader DSCP b	yte. A rule cor	isists of a	Router to help prioritise
Filtering Options	class name and at leas must be satisfied for the	st one condition below. All o he rule to take effect. Click	of the specifier "Apply" to sa	d conditions in ve and activat	this classificat te the rule.	ion rule	flow throughout your network. This is a very
DNS	Assign ATM Priority an	d/or DSCP Mark for the clas	ss				useful feature for sensitive applications
Network Tools	If non-blank value is se corresponding DSCP b	elected for "Assign Differen yte in the IP header of the	upstream page	s Code Point ( ket is overwrit	(DSCP) Mark", tten by the sel	the ected	such as VoIP whereby it will assist in preventing
MAC Clone	value.						dropped calls. Large amounts of non-critical
Routing	NETWORK TRAFF	IC CLASS RULE					data can be scaled so that they do not affect
Schedules		Traffic Cla	ss Name :				applications such as
Logout		Ru	le Order :	Last 🗸			main screen shows some
		Rul	e Status :	(Click to Select	t) 🗸		that are used with common applications
							such as VoIP, FTP and messaging programs.
	Accian Differenti	Assign Classificatio	n Queue :	(Click to Select	t) 💙		More
	Assign Differenti	area services code roi	Mark:	No Change	<b>×</b>		
		lark 802.1p if 802.1q is	enabled :	No Change 🔛			
	Enter the following cor	nditions either for IP level, !	SET-1, or for I	IEEE 802.1p, \$	SET-2.		
	SETX	Physical	LAN Port :	Any 💙			
			Protocol :	Any 💙			
	Differentiated Se	rvices Code Point (DSCI	P) Check :	Any Any	~		
		Source IP	Address:	any is			
		Source Subr	et Mask :				
		Source P	ort Type :	Any 🗸	•		
	UDP/TCP	Source Port (port or p	ort:port):				
		Destination	IP Type :	Any N			
		Destination IP	Address:				
		Destination Subn	ort Type :	Any	1		
	UDP/TCP Des	tination Port (port or p	ort:port):				
		Source MAC	Address :				
		Source M	AC Mask :				
		Destination MAC	Address :				
		Destination M	AC Mask :				
	SET-2						
		802.1p	Priority :	Any 💌			
		Apply	Cancel				

### **ADSL Setting**

In this page, you can configure the modem's ADSL modulation. Select from the settings below and click Apply.



#### TR-069

TR-69 allows a Auto-Configuration Server (ACS) to perform auto-configuration, provision, collection, and diagnostics to this device.

	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Port Forwarding	70.000		) (Jac		Helpful Hints
DMZ	TR-069				Provides a means to
Parental Control	WAN Management Protocol auto-configuration, provisio	(TR-069) allows a Aut	o-Configuration Server (ACS) nostics to this device.	to perform	monitor status and performance as well
Filtering Options	Select the desired values a	nd dick "Apply" to cont	ioure the TP-069 client option	c	set configuration parameters from WA
DNS	Select the desired values a	nd click Apply to com	igure the ric dos client option	5,	side.
Network Tools	TR-069 CLIENT CO	NFIGURATION			More
MAC Clone	Inform	Enable			
Routing	Inform Interval:	300			
Schedules	ACS URL:				
Logout	ACS User Name:	admin			
	ACS Password:	•••••			
		the second second second			
	Connection Request A	uthentication			
	Connection Request A	lame: admin			

## **MAC Clone**

This page allows you to clone your MAC Address when adding a router into your network in order to share your Internet connection.



## **Routing** Static Route

The Static Route page can be used to add a routing table (a maximum of 32 entries can be configured). To proceed, click **Add**.



For the **Static Route Add** page, enter the destination network address, subnet mask, gateway and select an available WAN interface. When complete, click **Apply**.

	Destination Network Address :	
	Subnet Mask :	
)	Use Gateway IP Address :	
	Use Interface :	LAN/br0 💌

#### **Default Gateway**

In this page, you can modify the default gateway settings. If you select **Enable Automatic Assigned Default Gateway**, this router can accept the first received default gateway assignment from one of the PPPoA, PPPoE or MER/DHCP enabled PVC(s). If the check box is not selected, you must enter the static default gateway and/or a WAN interface. Then, click **Save/Apply**.

**Note:** If the Automatic Assigned Default Gateway check box is changed from deselected to selected, you must reboot the router to obtain the automatic assigned default gateway.



RIP

To activate RIP for the device, select the **Enabled** checkbox 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.

Product Page: DSL-2540	)B		♦ <u>Site</u>	<u>Map</u> Firmware Version:	BCM-3.10L.NA.20100514
D-Lini	K				
DSL-2540B	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Port Forwarding	RIP				Helpful Hints
DMZ	To activate BIP for the	device, select the "Enable	d" checkbox for Global BIP!	Mode. To configure an	Enabling RIP provides a protocol that determines
Parental Control	individual interface, se	lect the desired RIP version	and operation, followed by	/ placing a check in the	the best path to a target by estimating the
Filtering Options	or stop RIP based on t	he Global RIP Mode selecte	pply button to save the co d.	ntiguration, and to start	distance in number of hops or intermediate
DNS					routers.
Network Tools	KOOTING - KIT	51.			More
MAC Clone	Enable Global RIP	Mode			
Routing	Interface	VPI/VCI Vers	ion Operatio	n Enabled	
Schedules	br0	(LAN) 2	× Active	✓	
Logout					
		Apply	Cancel		

## **Schedules**

This section allows you to create scheduling rules to be applied to your firewall. Give each schedule a name and time that is meaningful you.



## Maintenance

This page allows you to reboot your router or save your router configuration to a file in your computer as a precation or in case you have to reset your computer to factory default settings. You will able to restore your router settings from a previously saved configuration file.

#### Product Page: DSL-2540B Site Map Firmware Version: BCM-3. 10L.NA. 20100514 **D-Link** DSL-2540B MAINTENANCE ADVANCED SETUP STATUS HELP System elpful Hints. SYSTEM -- REBOOT **Firmware Update** his page allows you to Click the button below to reboot the router eboot your router or Access Controls ive your router onfiguration to a file o Reboot Diagnostics our computer as a recaution in case yo System Log ve to reset yo outer to factory de SYSTEM -- BACKUP SETTINGS Logout ttings. You will be ab restore your route Back up DSL Router configurations. You may save your router configurations to a file on your PC. ttings from a Note: Please always save configuration file first before viewing it. reviously saved onfiguration file ere is also a functi Backup Settings w you to r r router to fact ault settings ting your rou efault settings SYSTEM -- UPDATE SETTINGS ill delete your curren onfiguration Update DSL Router settings. You may update your router settings using your saved files. Settings File Name : Browse... Update Settings SYSTEM -- RESTORE DEFAULT SETTINGS Restore DSL Router settings to the factory defaults. Restore Default Settings

### **System**

## **Firmware Update**

This page displays your device's firmware version and information that will be helpful for D-Link technicians should you need technical support. You may also upload new firmware to your router through this page.



## Access Control Account Password

In this section, you can modify your router's password which is needed to access the Web management Interface. It is recommended that you change the factory default password for security purposes. To change your password, choose between 1 and 16 characters.

Product Page: DSL-2540	B		) <u>Site</u>	Map Firmware Version:	BCM-3.10L.NA.20100514
D-Lini	Č				
DSL-2540B	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
System	ACCOUNT PASSW	ORD			Helpful Hints
Firmware Update Access Controls Diagnostics System Log Logout	Access to your DSL Ro The user name "suppor and to run diagnostics. The user name "user" o update the router's firm	uter is controlled through the second s	hree user accounts: admin, echnician to access your DS view configuration settings	support, and user. L Router for maintenance and statistics, as well as	This page allows you to modify your router password needed to access this Web management interface. For security reasons, it is recommended that you change your device's admin and user
	Use the fields below to Note: Password canno ADMINISTRATOR Use Current Pa New Pa Confirm Pa	enter up to 16 characters t contain a space. SETTINGS ssword : ssword : ssword :	and click "Apply" to change	or create passwords.	passwords from the factory default. The password you choose should be between 1 and 16 characters in length. Please make sure to choose a password you can remember or write it down and keep in a safe and separate location for future reference. If you forget your device password, the only solution is to reset your router to factory default
	WEB IDLE TIME O	Apply UT SETTINGS ne Out : 5 Apply	Cancel (5 ~ 30 minute Cancel	es)	settings and you will lose all your device configuration settings. More

#### Services

In this page, you will be able to enable or disable services from being used.

Product Page: DSL-254	0B		♦ <u>Site</u>	Map Firmware Version	: BCM-3.10L.NA.20100514
D-Lin	k				
DSL-2540B	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
System Firmware Update	SERVICES				Helpful Hints If you wish to log in
Access Controls	A Service Control List (	("SCL") enables or disables :	services from being used.		and manage your Router from another
Diagnostics	ACCESS CONTROL	SERVICES			you can enable the
System Log					commands from the
Logout	Service	LAN		WAN	option may be useful if
	HTTP	🗹 Enabled	l a	Enabled	your network administrator is not
	ICMP	🗹 Enabled	1	Enabled	on-site or Technical
	TELNET	🗹 Enabled	I	Enabled	access.
	TFTP	🗹 Enabled	ł	Enabled	More
		Apply	Cancel		

### **IP Address**

This page allows you to restrict users from accessing the local management using IP address. Check **Enable Access Control Mode** to access local management services from IP adresses contained in the Access Control List. If Access Control Mode is disabled, the system will not validate IP adresses for incoming packets.

Note: Add your IP address to the list before you enable the service.



## Diagnostics

This page displays your router's self diagnostic and connection test results. The internet connectivity status will only show PASS if you have correctly configured your Internet connection and if your router is currently online.



## System Log

The System Log screen allows you to view the system log and configure the system log options.

To view the system log, click on the **View System Log** button.



### Logout

#### Select Logout to exit the web user interface.



## Status

The status section allows you to view general and status information for your router's connection.

## **Device Info**

The Device Info page shows details of the router such as the version of the software, bootloader, LAN IP address, etc. It also displays the current status of your DSL connection.

	100 A 100 A			
DSL-2540B	SETUP AD	VANCED MAINTENANCE	STATUS	HELP
evice Info	DEVICE INFO			Helpful Hint
ICP Clients				This page display
as	This information reflects the curre	ent status of your DSL connection.		summary overvi your router state
tictics	SYSTEM INFO			including device
dustics	JIJICITIANO			summary of you
oute Info	Model Name:	DSL-2540B		Internet configu including wireles
ogout	Time and Date:	Sat Jan 1 00:35:37 2000	)	Ethernet status.
	Firmware Version:	BCM-3.10L.NA.2010051	4	More
	Connection Up Time: Downstream Line Rate (Kbps): Upstream Line Rate (Kbps):	6016 768		
	Enabled WAN Connections:			
	VPI/VCI Service Na	ame Protocol IGMP Qos	S IP Address	
	LOCAL NETWORK INFO			í,
	MAC Address:	00:26:5a:d5:6a:1b		
	IP Address:	192.168.1.1		
	Subnet Mask:	255.255.255.0		
	DUICD Courses	Frankland (		

## **DHCP Clients**

Access the DHCP Leases screen by clicking **DHCP** under **Status**. This shows the computers identified by the hostname and the MAC address that have acquired IP addresses by the DHCP server. The table will also show the time the DHCP lease will expire.

Product Page: DSL-254	0B			) <u>Site Ma</u>	p Firmware Version:	BCM-3.10L.NA.20100514
D-Lini	ĸ					
DSL-2540B	SETUP	ADVANCED	MAI	NTENANCE	STATUS	HELP
Device Info	DHCP CLIENTS					Helpful Hints
DHCP Clients Logs	This information re	flects the current DHCP	clients of your m	odem.		Displays the list of all LAN clients that are assigned IP addresses
Statistics	DHCP LEASES					by DHCP service and currently connected to
Route Info						your router.
Logout	Hostname	MAC Address	IP Address	Expi	res In	THUT CAN
	129	00:1F:29:98:50:E9	192, 168, 1, 2	23 nours, 23 minute	s, 42 seconds	
			Refresh			

## Logs

The System Log screen shows the date/time of the log, the facility that was logged, the severity level and the log message. Click on **Refresh** to view any new information that has been logged.

If the log is enabled, the system will log selected events including Emergency, Alert, Critical, Error, Warning, Notice, Informational, and Debugging. All events above or equal to the selected log level will be logged and displayed.

Product Page: DSL-2540	B		) <u>Site</u>	<u>Map</u> Firmware Version:	BCM-3.10L.NA.20100514
D-Link	C				
DSL-2540B	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Device Info	1005		2 8	51	Helpful Hints
DHCP Clients					The system log will keep
Logs	This page allows you to	view system logs.			activity. Depending on the amount of detail you
Statistics	SYSTEM LOG				include in the log, your
Route Info					limited number of log entries due to router
Logout	Date/Time	Facility	Severity	Message	memory constraints.
					You can configure the details you want to
					include in Maintenance ->
		Re	fresh		System Log.
					More

## **Statistics**

This page will display a summary of the number of packets that have passed between the WAN and the LAN since the LAN and the WAN were initialized.

Product Page: DSL-2540	3			Site Map Firmware Versio	n: BCM-3.10L.NA.20100514
D-Link	C*				
DSL-2540B	SETUP	ADVANCED	MAINTENA	ANCE STATUS	HELP
Device Info	CT ATTCTTCC				Helpful Hints
DHCP Clients	STATISTICS This information reflects the current status of your DSL connection. This information reflects the current status of your DSL connection. This provide the WAN and				This is a summary of the
Logs					number of packets that have passed between
Statistics					the WAN and the LAN
Statistics					initialized.
Route Info	1				More
Logout	Interface	Received		Transmitted	
	Ethernet 51976	4 5059 0	Drops Bytes	Pkts Errs Drops	
	INTERNET Service VPI/VCI ADSL Mode: Type: Line Coding: Status:	Protocol Byter	Received 5 Pikts Errs Drops	Transmitted       Bytes     Pkts     Errs     Drops       G.DMT     Fast     Frells On     No Defect	
			Downstroom	Untroom	
	SNR Margin (dB):		17.1	19.0	
	Attenuation (dB):		24.0	12.0	
	Output Power (dBm)		11.9	9.9	
	Attainable Rate (Kbp	s):	10560	1252	
	Rate (Kbps):		6016	768	
	D (interleaver depth)	):	1	1	
	Delay (msec):		0	0	
	HEC Errors		0	0	
	OCD Errors		0	0	
	LCD Errors:		0	0	
				14. 11.	
	Total ES:		0	0	
		ADSL BER	Test Reset Statistic	-3	

## **Route Info**

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



# Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DSL-2540B. Read the following descriptions if you are having problems. (The examples below are illustrated in Windows<sup>®</sup> 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 3.0 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<sup>®</sup> XP firewall may block access to the configuration pages. Check the help files included with your firewall software for more information on disabling or configuring it.

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

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

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

To reset the router, locate the reset button (hole) on the rear panel of the unit. With the router powered on, use a paperclip to hold the button down for 10 seconds. Release the button and the router will go through its reboot process. Wait about 30 seconds to access the router. For information about logging into the router see page 12.

# **Networking Basics**

#### **Check your IP address**

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

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

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, 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.



#### 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<sup>\*</sup> XP - Click on **Start** > **Control Panel** > **Network Connections**. Windows<sup>\*</sup> 2000 - From the desktop, right-click **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 Properties.

#### Step 4

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

Example: If the router's LAN IP address is 192.168.1.1, make your IP address 192.168.1.X where X is a number between 2 and 99. Make sure that the number you choose is not in use on the network. Set Default Gateway the same as the LAN IP address of your router (192.168.1.1).

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

Step 5 Click OK twice to save your settings.

You can get IP settings assigned this capability. Otherwise, you new the appropriate IP settings.	automatically if your network supports ed to ask your network administrator fo
Obtain an IP address autom	atically
<ul> <li>Use the following IP address</li> </ul>	s:
IP address:	192.168.1.2
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	192.168.1.1
Obtain DNS server address	automatically
Output the following DNS serv	er addresses:
Preferred DNS server:	
Alternate DNS server:	
	Advanced.

# **Contacting Technical Support**

U.S. and Canadian customers can contact D-Link technical support through our web site or by phone.

Before you contact technical support, please have the following ready:

- Model number of the product (e.g. DSL-2540B)
- Hardware Revision (located on the label on the bottom of the router (e.g. rev T1))
- Serial Number (s/n number located on the label on the bottom of the router).

You can find software updates and user documentation on the D-Link website as well as frequently asked questions and answers to technical issues.

#### For customers within the United States:

Phone Support: (877) 453-5465

Internet Support: http://support.dlink.com For customers within Canada:

Phone Support: (800) 361-5265

Internet Support: http://support.dlink.ca

## Warranty

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited Warranty:

- Only to the person or entity that originally purchased the product from D-Link or its authorized reseller or distributor, and
- Only for products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, or addresses with an APO or FPO.

**Limited Warranty:** D-Link warrants that the hardware portion of the D-Link product described below ("Hardware") will be free from material defects in workmanship and materials under normal use from the date of original retail purchase of the product, for the period set forth below ("Warranty Period"), except as otherwise stated herein.

- Hardware (excluding power supplies and fans): One (1) year
- Power supplies and fans: One (1) year
- Spare parts and spare kits: Ninety (90) days

The customer's sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link's option, to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund the actual purchase price paid. Any repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement hardware need not be new or have an identical make, model or part. D-Link may, at its option, replace the defective Hardware or any part thereof with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement hardware will be warranted for the remainder of the original Warranty Period or ninety (90) days, whichever is longer, and is subject to the same limitations and exclusions. If a material defect is incapable of correction, or if D-Link determines that it is not practical to repair or replace the defective Hardware, the actual price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware or part thereof that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

Limited Software Warranty: D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days ("Software Warranty Period"), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Software Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. The customer's sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link's option, to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link's functional specifications for the Software or to refund the portion of the actual purchase price paid that is attributable to the Software. Except as otherwise agreed by D-Link in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and

conditions of the license granted by D-Link for the Software. Replacement Software will be warranted for the remainder of the original Warranty Period and is subject to the same limitations and exclusions. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software, the price paid by the original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-Link. The license granted respecting any Software for which a refund is given automatically terminates.

*Non-Applicability of Warranty:* The Limited Warranty provided hereunder for Hardware and Software portions of D-Link's products will not be applied to and does not cover any refurbished product and any product purchased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold "As-Is" without any warranty whatsoever including, without limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

*Submitting A Claim*: The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

- The customer must submit with the product as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow D-Link to confirm the same, along with proof of purchase of the product (such as a copy of the dated purchase invoice for the product) if the product is not registered.
- The customer must obtain a Case ID Number from D-Link Technical Support at 1-877-453-5465, who will attempt to assist the customer in resolving
  any suspected defects with the product. If the product is considered defective, the customer must obtain a Return Material Authorization
  ("RMA") number by completing the RMA form and entering the assigned Case ID Number at <a href="https://rma.dlink.com/">https://rma.dlink.com/</a>.
- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the product and will not ship back any accessories.
- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery ("COD") is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer and shipped to D-Link Systems, Inc., 17595 Mt. Herrmann, Fountain Valley, CA 92708. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link. Return shipping charges shall be prepaid by D-Link if you use an address in the United States, otherwise we will ship the product to you freight collect. Expedited shipping is available upon request and provided shipping charges are prepaid by the customer.
D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

What Is Not Covered: The Limited Warranty provided herein by D-Link does not cover: Products that, in D-Link's judgment, have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance; Damage that occurs in shipment, due to act of God, failures due to power surge, and cosmetic damage; Any hardware, software, firmware or other products or services provided by anyone other than D-Link; and Products that have been purchased from inventory clearance or liquidation sales or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product. While necessary maintenance or repairs on your Product can be performed by any company, we recommend that you use only an Authorized D-Link Service Office. Improper or incorrectly performed maintenance or repair voids this Limited Warranty.

**Disclaimer of Other Warranties:** EXCEPT FOR THE LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED "AS-IS" WITHOUT ANY WARRANTY OF ANY KIND WHATSOEVER INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE LIMITED TO THE DURATION OF THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISK AS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT.

Limitation of Liability: TO THE MAXIMUM EXTENT PERMITTED BY LAW, D-LINK IS NOT LIABLE UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE OR DAMAGES OF ANY CHARACTER, WHETHER DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF GOODWILL, LOSS OF REVENUE OR PROFIT, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, FAILURE OF OTHER EQUIPMENT OR COMPUTER PROGRAMS TO WHICH D-LINK'S PRODUCT IS CONNECTED WITH, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH ANY PRODUCT RETURNED TO D-LINK FOR WARRANTY SERVICE) RESULTING FROM THE USE OF THE PRODUCT, RELATING TO WARRANTY SERVICE, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY, EVEN IF D-LINK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE FOREGOING LIMITED WARRANTY IS REPAIR, REPLACEMENT OR REFUND OF THE DEFECTIVE OR NON-CONFORMING PRODUCT. THE MAXIMUM LIABILITY OF D-LINK UNDER THIS WARRANTY IS LIMITED TO THE PURCHASE PRICE OF THE PRODUCT COVERED BY THE WARRANTY. THE FOREGOING EXPRESS WRITTEN WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ANY OTHER WARRANTIES OR REMEDIES, EXPRESS, IMPLIED OR STATUTORY.

Governing Law: This Limited Warranty shall be governed by the laws of the State of California. Some states do not allow exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the foregoing limitations and exclusions may not apply. This Limited Warranty provides specific legal rights and you may also have other rights which vary from state to state.

Trademarks: D-Link is a registered trademark of D-Link Systems, Inc. Other trademarks or registered trademarks are the property of their respective owners.

Copyright Statement: No part of this publication or documentation accompanying this product may be reproduced in any form or by any means or used to make any derivative such as translation, transformation, or adaptation without permission from D-Link Corporation/D-Link Systems, Inc., as stipulated by the United States Copyright Act of 1976 and any amendments thereto. Contents are subject to change without prior notice.

Copyright 2010 by D-Link Corporation/D-Link Systems, Inc. All rights reserved.

CE Mark Warning: This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

FCC Statement: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

For detailed warranty information applicable to products purchased outside the United States, please contact the corresponding local D-Link office.

## Registration

## Register your product online at support.dlink.com/register



Product registration is entirely voluntary and failure to complete or return this form will not diminish your warranty rights.

Version 1.0 June 20, 2010