

USER MANUAL

DIR-130

VERSION 1.1



Manual Overview

This manual contains the following sections:

- Section 1** - “Product Overview” describes what is included with the DIR-130 router, and things to consider before installing (page 1).
- Section 2** - “Installation” describes how to install the router on your network (page 6).
- Section 3** - “Configuration” describes how to configure the settings on your DIR-130 router (page 10).
- Section 4** - “Troubleshooting” explains how to resolve common issues (page 56).
- Section 5** - “Appendix” contains networking basics, technical specifications, technical support information, warranty, GNU general public license, and registration information (page 60).

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

Manual Revisions

Revision	Date	Description
1.0	February 8, 2007	<ul style="list-style-type: none">• DIR-130 Revision A1 with firmware version 1.00
1.1	September 5, 2007	<ul style="list-style-type: none">• Updated for firmware version 1.10• Added Windows Vista™ support

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Package Contents

<p>D-Link DIR-130 8-port VPN Router</p>	
<p>Power Adapter</p>	
<p>Ethernet Cable</p>	
<p>CD-ROM</p>	

Note: Using a power supply with a different voltage rating than the one included with the DIR-130 will cause damage and void the warranty for this product.

System Requirements

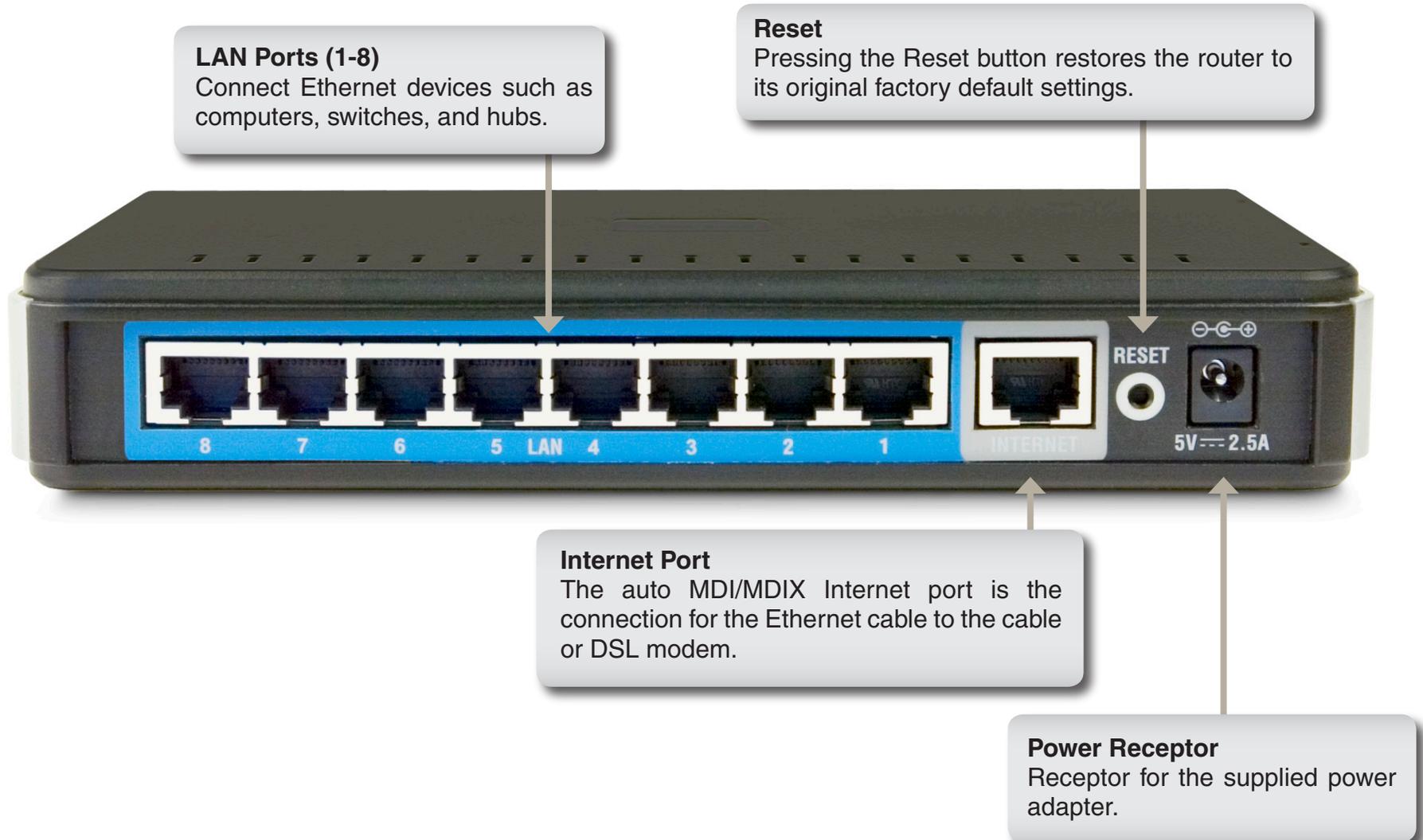
Network Requirements	<ul style="list-style-type: none">• An Ethernet-based Cable or DSL modem• 10/100 Ethernet devices
Web-based Configuration Utility Requirements	<p>Computer with the following:</p> <ul style="list-style-type: none">• Windows®, Macintosh, or Linux-based operating system• An installed Ethernet adapter <p>Browser Requirements:</p> <ul style="list-style-type: none">• Internet Explorer 6.0 or higher• Mozilla 1.7.12 or higher• Firefox 1.5 or higher• Safari 1.0 or higher (with Java 1.3.1 or higher)• Flock 0.7.14 or higher• Opera 6.0 or higher <p>Windows® Users: Make sure you have the latest version of Java installed. Visit www.java.com to download the latest version.</p>

Features

- **Advanced Firewall Features** - The Web-based user interface displays a number of advanced network management features including:
 - **Parental Controls** - Easily applied content filtering based on MAC Address, URL, and/or Domain Name.
 - **Filter Scheduling** - These filters can be scheduled to be active on certain days or for a duration of hours or minutes.
 - **Secure Multiple/Concurrent Sessions** - The DIR-130 can pass through VPN sessions. It supports multiple and concurrent IPsec and PPTP sessions, so users behind the DIR-130 can securely access corporate networks.
- **User-friendly Setup Wizard** - Through the easy-to-use web-based user interface, the DIR-130 allows you to control what information is accessible to those on the network, whether from the Internet or from your company's server. Configure your router to your specific settings within minutes.

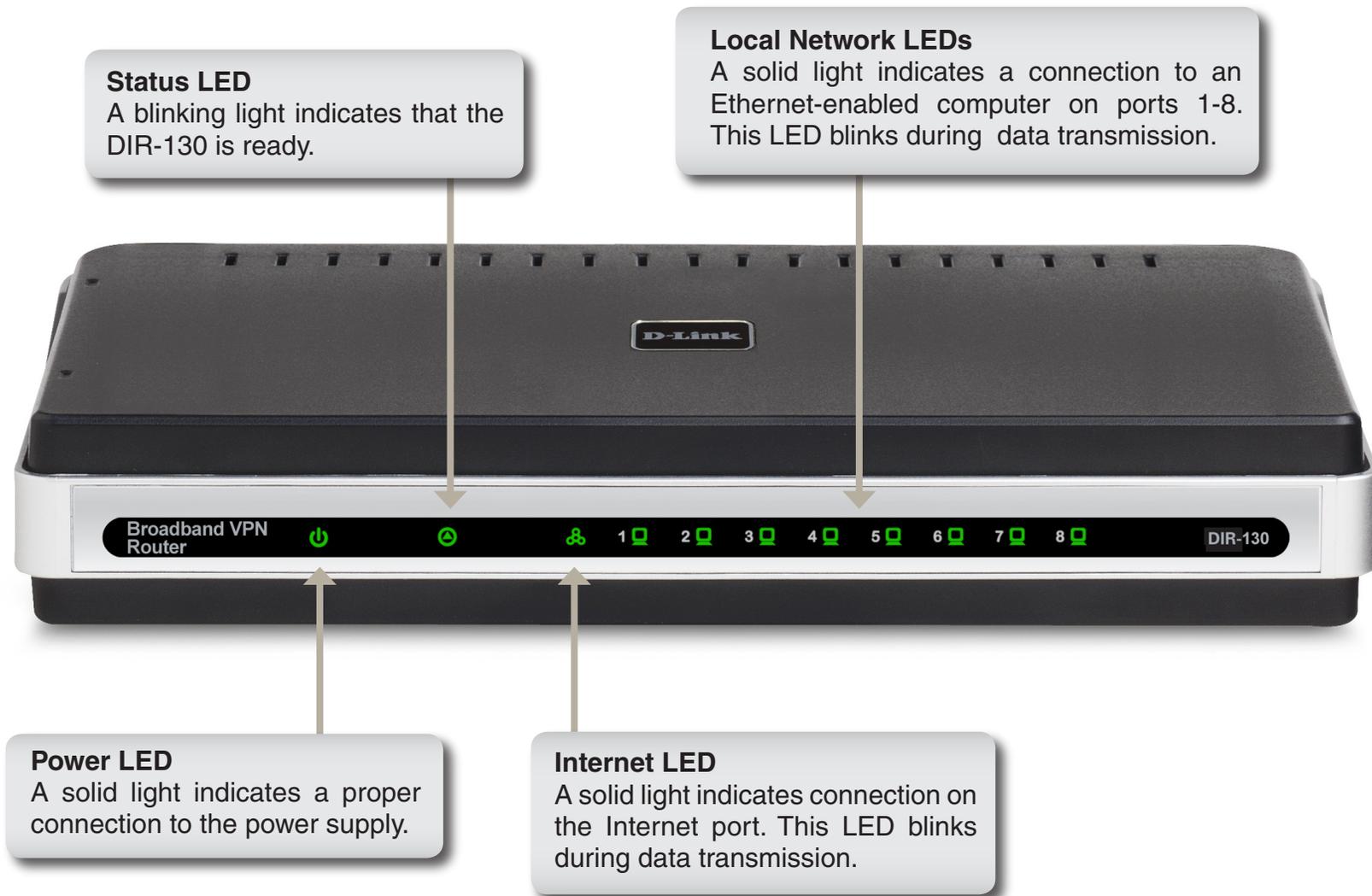
Hardware Overview

Connections



Hardware Overview

LEDs



Installation

This section will walk you through the installation process.

Before you Begin

Please configure the router with the computer that was last connected directly to your modem. Also, you can only use the Ethernet port on your modem. If you were using the USB connection before using the router, then you must turn off your modem, disconnect the USB cable and connect an Ethernet cable to the Internet port on the router, and then turn the modem back on. In some cases, you may need to call your ISP to change connection types (USB to Ethernet).

If you have DSL and are connecting via PPPoE, make sure you disable or uninstall any PPPoE software such as WinPoet, Broadjump, or Enternet 300 from your computer or you will not be able to connect to the Internet.

Connect to Cable/DSL/Satellite Modem

If you are connecting the router to a cable/DSL/satellite modem, please follow the steps below:

1. Place the router in an open and central location. Do not plug the power adapter into the router.
2. Turn the power off on your modem. If there is no on/off switch, then unplug the modem's power adapter. Shut down your computer.
3. Unplug the Ethernet cable (that connects your computer to your modem) from your computer and place it into the Internet port on the router.
4. Plug an Ethernet cable into one of the four LAN ports on the router. Plug the other end into the Ethernet port on your computer.
5. Turn on or plug in your modem. Wait for the modem to boot (about 30 seconds).
6. Plug the power adapter to the router and connect to an outlet or power strip. Wait about 30 seconds for the router to boot.
7. Turn on your computer.
8. Verify the link lights on the router. The power light, Internet light, and the LAN light (the port that your computer is plugged into) should be lit. If not, make sure your computer, modem, and router are powered on and verify the cable connections are correct.
9. Refer to page 10 to configure your router.

Connect to Another Router

If you are connecting the D-Link router to another router to use as a switch, you will have to do the following before connecting the router to your network:

- Disable UPnP™
- Disable DHCP
- Change the LAN IP address to an available address on your network. The LAN ports on the router cannot accept a DHCP address from your other router.

To connect to another router, please follow the steps below:

1. Plug the power into the router. Connect one of your computers to the router (LAN port) using an Ethernet cable. Make sure your IP address on the computer is 192.168.0.xxx (where xxx is between 2 and 254). Please see the **Networking Basics** section for more information. If you need to change the settings, write down your existing settings before making any changes. In most cases, your computer should be set to receive an IP address automatically in which case you will not have to do anything to your computer.
2. Open a web browser and enter **http://192.168.0.1** and press **Enter**. When the login window appears, set the user name to **Admin** and leave the password box empty. Click **Log In** to continue.
3. Click on **Advanced** and then click **Advanced Network**. Uncheck the Enable UPnP checkbox. Click **Save Settings** to continue.
4. Click **Setup** and then click **Network Settings**. Uncheck the Enable DHCP Server server checkbox. Click **Save Settings** to continue.
5. Under Router Settings, enter an available IP address and the subnet mask of your network. Click **Save Settings** to save your settings. Use this new IP address to access the configuration utility of the router in the future. Close the browser and change your computer's IP settings back to the original values as in Step 1.

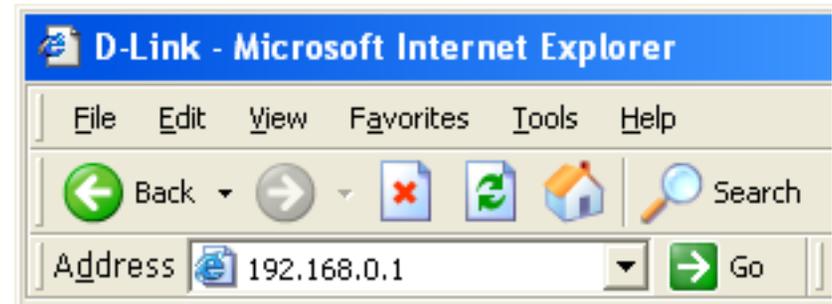
6. Disconnect the Ethernet cable from the router and reconnect your computer to your network.
7. Connect an Ethernet cable in one of the LAN ports of the router and connect it to your other router. Do not plug anything into the Internet port of the D-Link router.
8. You may now use the other 7 LAN ports to connect other Ethernet devices and computers.

Configuration

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

Web-based Configuration Utility

To access the configuration utility, open a web-browser such as Internet Explorer and enter the IP address of the router (192.168.0.1).



Enter **admin** as the User name field and enter the password in the Password field. Leave the password blank by default.

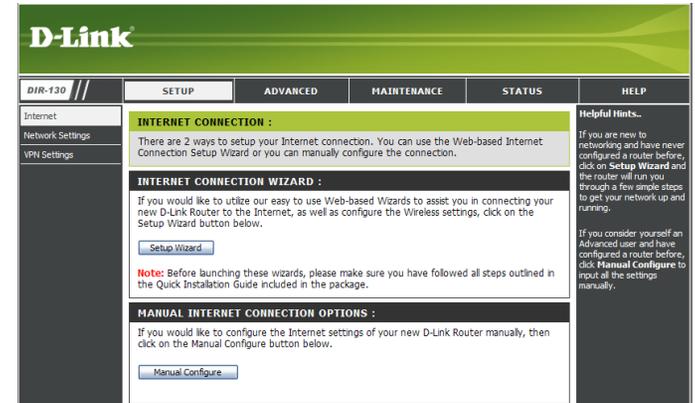
If you get a **Page Cannot be Displayed** error, please refer to the **Troubleshooting** section for assistance.



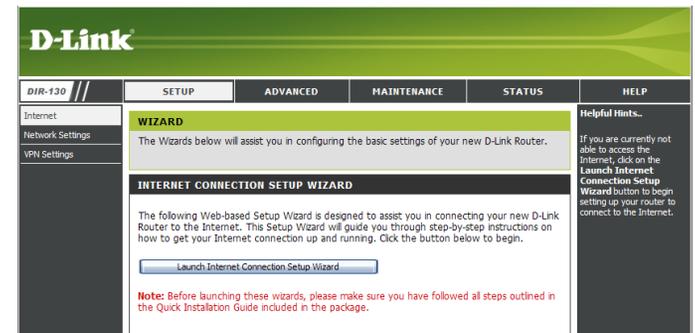
Setup Wizard

You may click **Setup Wizard** to quickly configure your router.

If you want to enter your settings without running the wizard, click **Manual Configure** and skip to page 16.



Click **Launch Internet Connection Setup Wizard** to begin.



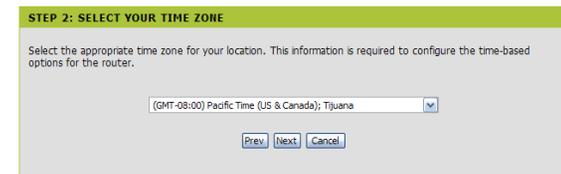
Click **Next** to continue.



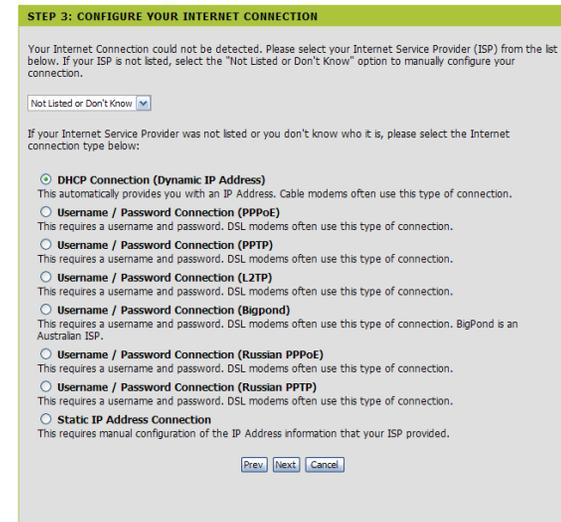
Create a new password and then click **Next** to continue.



Select your time zone from the drop-down menu and then click **Next** to continue.



Select the type of Internet connection you use and then click **Next** to continue.



If you selected Dynamic, you may need to enter the MAC address of the computer that was last connected directly to your modem. If you are currently using that computer, click **Clone Your PC's MAC Address** and then click **Next** to continue.

The Host Name is optional but may be required by some ISPs. The default host name is the device name of the Router and may be changed.

If you selected PPPoE, enter your PPPoE username and password. Click **Next** to continue.

Select **Static** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses.

Note: Make sure to remove your PPPoE software from your computer. The software is no longer needed and will not work through a router.

If you selected PPTP, enter your PPTP username and password. Click **Next** to continue.

DHCP CONNECTION (DYNAMIC IP ADDRESS)

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

MAC Address : - - - - - (Optional)

Host Name :

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

SET USERNAME AND PASSWORD CONNECTION (PPPOE)

To set up this connection you will need to have a Username and Password from your Internet Service Provider. If you do not have this information, please contact your ISP.

Address Mode : Dynamic IP Static IP

IP Address :

User Name :

Password :

Verify Password :

Service Name : (Optional)

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

SET USERNAME AND PASSWORD CONNECTION (PPTP)

To set up this connection you will need to have a Username and Password from your Internet Service Provider. You also need PPTP IP address. If you do not have this information, please contact your ISP.

Address Mode : Dynamic IP Static IP

PPTP IP Address :

PPTP Subnet Mask :

PPTP Gateway IP Address :

PPTP Server IP Address

(may be same as gateway) :

User Name :

Password :

Verify Password :

If you selected L2TP, enter your L2TP username and password. Click **Next** to continue.

SET USERNAME AND PASSWORD CONNECTION (L2TP)

To set up this connection you will need to have a Username and Password from your Internet Service Provider. You also need L2TP IP address. If you do not have this information, please contact your ISP.

Address Mode: Dynamic IP Static IP

L2TP IP Address :

L2TP Subnet Mask :

L2TP Gateway IP Address :

L2TP Server IP Address (may be same as gateway) :

User Name :

Password :

Verify Password :

If you selected Static, enter your network settings supplied by your Internet provider. Click **Next** to continue.

SET STATIC IP ADDRESS CONNECTION

To set up this connection you will need to have a complete list of IP information provided by your Internet Service Provider. If you have a Static IP connection and do not have this information, please contact your ISP.

IP Address :

Subnet Mask :

Gateway Address :

Primary DNS Address :

Secondary DNS Address :

If you selected Big Pond, select your authentication server from the drop down menu. You will also need to enter your Big Pond username and password. Click **Next** to continue.

SET USERNAME AND PASSWORD CONNECTION (BIGPOND)

To set up this connection you will need to have a Username and Password from your Internet Service Provider. You also need BigPond IP address. If you do not have this information, please contact your ISP.

Auth Server : sm-server

Bigpond Server IP Address (may be same as gateway) :

Bigpond User Name :

Bigpond Password :

Bigpond Verify Password :

If you selected Russian PPPoE, enter your PPPoE username and password. Click **Next** to continue.

Select **Static** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses.

Note: Make sure to remove your PPPoE software from your computer. The software is no longer needed and will not work through a router.

SET USERNAME AND PASSWORD CONNECTION (RUSSIAN PPPoE)

To set up this connection you will need to have a Username and Password from your Internet Service Provider. If you do not have this information, please contact your ISP.

Address Mode: Dynamic IP Static IP

IP Address:

User Name:

Password:

Verify Password:

Service Name: (Optional)

WAN Physical Address Mode: Dynamic IP Static IP

WAN Physical IP Address:

WAN Physical Subnet Mask:

WAN Physical Primary DNS Address:

WAN Physical Secondary DNS Address:

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

If you selected Russian PPTP, enter your PPTP username and password. Click **Next** to continue.

SET USERNAME AND PASSWORD CONNECTION (RUSSIAN PPTP)

To set up this connection you will need to have a Username and Password from your Internet Service Provider. You also need PPTP IP address. If you do not have this information, please contact your ISP.

PPTP Server IP Address (may be same as gateway):

User Name:

Password:

Verify Password:

WAN Physical Address Mode: Dynamic IP Static IP

WAN Physical IP Address:

WAN Physical Subnet Mask:

WAN Physical Gateway IP Address:

WAN Physical Primary DNS Address:

WAN Physical Secondary DNS Address:

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.

SETUP COMPLETE!

The Setup Wizard has completed. Click the Connect button to save your settings and restart the router.

Manual Configuration

Dynamic (Cable)

My Internet Connection: Select **Dynamic IP (DHCP)** to obtain IP Address information automatically from your ISP. Select this option if your ISP does not give you any IP numbers to use. This option is commonly used for Cable modem services.

Host Name: The Host Name is optional but may be required by some ISPs.

MAC Address: The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Clone Your PC's MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

DNS Addresses: Enter the Primary and Secondary DNS server IP address(es) assigned by your ISP.

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1500 is the default MTU.

D-Link

DIR-130 // SETUP ADVANCED MAINTENANCE STATUS HELP

Internet
Network Settings
VPN Settings

INTERNET CONNECTION

Use this section to configure your Internet Connection type. There are several connection types to choose from: Static IP, DHCP, PPPoE, PPTP, L2TP, BigPond, Russian PPPoE and Russian PPTP. If you are unsure of your connection method, please contact your Internet Service Provider.

Note: If using the PPPoE option, you will need to remove or disable any PPPoE client software on your computers.

Save Settings Don't Save Settings

INTERNET CONNECTION TYPE :

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

My Internet Connection is :

DYNAMIC IP (DHCP) INTERNET CONNECTION TYPE :

Use this Internet connection type if your Internet Service Provider (ISP) didn't provide you with IP Address information and/or a username and password.

Host Name :

MAC Address : - - - - - (optional)

Clone MAC Address

Primary DNS Address :

Secondary DNS Address : (optional)

MTU :

Helpful Hints..

When configuring the router to access the Internet, be sure to choose the correct **Internet Connection Type** from the drop down menu. If you are unsure of which option to choose, please contact your **Internet Service Provider (ISP)**.

If you are having trouble accessing the Internet through the router, double check any settings you have entered on this page and verify them with your **Internet Service Provider (ISP)** if needed.

Internet Setup

PPPoE (DSL)

Choose PPPoE (Point to Point Protocol over Ethernet) if your ISP uses a PPPoE connection. Your ISP will provide you with a username and password. This option is typically used for DSL services. Make sure to remove your PPPoE software from your computer. The software is no longer needed and will not work through a router.

My Internet Connection: Select **PPPoE (Username/Password)** from the drop-down menu.

Address Mode: Select **Static** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select **Dynamic**.

User Name: Enter your PPPoE user name.

Password: Enter your PPPoE password and then retype the password in the next box.

Service Name: Enter the ISP Service Name (optional).

IP Address: Enter the IP address (Static PPPoE only).

MAC Address: The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Clone MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

DNS Addresses: Enter the Primary and Secondary DNS Server Addresses (Static PPPoE only).

Maximum Idle Time: Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable Auto-reconnect.

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1492 is the default MTU.

Connect Mode: Select either **Always-on**, **On-Demand**, or **Manual**.

The screenshot shows the D-Link DIR-130 web interface. The main navigation tabs are SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The current page is titled "INTERNET CONNECTION" and contains the following sections:

- INTERNET CONNECTION TYPE :** A dropdown menu set to "PPPoE (Username / Password)".
- PPPoE :** A section for entering ISP information. It includes:
 - Radio buttons for "Dynamic PPPoE" (selected) and "Static PPPoE".
 - Fields for "User Name", "Password", and "Retype Password" (masked with asterisks).
 - A field for "Service Name" with "(optional)" text.
 - An "IP Address" field set to "0.0.0.0".
 - A "MAC Address" field with a "Clone MAC Address" button.
 - Fields for "Primary DNS Address" and "Secondary DNS Address" (optional).
 - A "Maximum Idle Time" field set to "5" minutes.
 - An "MTU" field set to "1492".
 - A "Connect mode select" section with radio buttons for "Always-on", "Manual", and "Connect-on demand" (selected).

Helpful Hints on the right side of the page state: "When configuring the router to access the Internet, be sure to choose the correct Internet Connection Type from the drop down menu. If you are unsure of which option to choose, please contact your Internet Service Provider (ISP)." and "If you are having trouble accessing the Internet through the router, double check any settings you have entered on this page and verify them with your ISP if needed."

Internet Setup

PPTP

Choose PPTP (Point-to-Point-Tunneling Protocol) if your ISP uses a PPTP connection. Your ISP will provide you with a username and password. This option is typically used for DSL services.

Address Mode: Select **Static** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select **Dynamic**.

IP Address: Enter the IP address (Static PPTP only).

Subnet Mask: Enter the Primary and Secondary DNS Server Addresses (Static PPTP only).

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

DNS: The DNS server information will be supplied by your ISP (Internet Service Provider.)

Server IP/Name: Enter the Server IP provided by your ISP (optional).

PPTP Account: Enter your PPTP account (username).

PPTP Password: Enter your PPTP password and then retype the password in the next box.

Maximum Idle Time: Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable Auto-reconnect.

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1450 is the default MTU.

Connect Mode: Select either **Always-on**, **On-Demand**, or **Manual**.

The screenshot shows the D-Link DIR-130 web interface. The top navigation bar includes 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'Internet' section is active, displaying the 'INTERNET CONNECTION' configuration page. The page title is 'INTERNET CONNECTION' and it includes a note about PPPoE options. Below the note are 'Save Settings' and 'Don't Save Settings' buttons. The 'INTERNET CONNECTION TYPE' section shows a dropdown menu set to 'PPTP (Username / Password)'. The 'PPTP' section contains fields for 'Dynamic IP' (selected) and 'Static IP', 'IP Address', 'Subnet Mask', 'Gateway', 'DNS', 'Server IP/Name', 'PPTP Account', 'PPTP Password', 'PPTP Retype password', 'Maximum Idle Time' (set to 5 minutes), 'MTU' (set to 1450), and 'Connect mode select' (set to 'Connect-on demand'). A 'Helpful Hints...' sidebar on the right provides additional instructions.

Internet Setup

L2TP

Choose L2TP (Layer 2 Tunneling Protocol) if your ISP uses a L2TP connection. Your ISP will provide you with a username and password. This option is typically used for DSL services.

Address Mode: Select **Static** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select **Dynamic**.

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

Subnet Mask: Enter the Subnet Mask supplied by your ISP (Static only).

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

DNS: Enter the Primary and Secondary DNS Server Addresses (Static L2TP only).

Server IP/Name: Enter the Server IP provided by your ISP (optional).

L2TP Account: Enter your L2TP account (username).

L2TP Password: Enter your L2TP password and then retype the password in the next box.

Maximum Idle Time: Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable Auto-reconnect.

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1450 is the default MTU.

Connect Mode: Select either **Always-on**, **On-Demand**, or **Manual**.

The screenshot shows the D-Link DIR-130 web interface. The top navigation bar includes 'DIR-130', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar has 'Internet', 'Network Settings', and 'VPN Settings'. The main content area is titled 'INTERNET CONNECTION' and contains the following sections:

- INTERNET CONNECTION TYPE :** A dropdown menu set to 'L2TP (Username / Password)'. Below it, text reads: 'Choose the mode to be used by the router to connect to the Internet.'
- L2TP :** A section for entering ISP information. It includes:
 - Radio buttons for 'Dynamic IP' (selected) and 'Static IP'.
 - Input fields for 'IP Address', 'Subnet Mask', and 'Gateway', all containing '0.0.0.0'.
 - An input field for 'DNS'.
 - Input fields for 'Server IP/Name', 'L2TP Account', and 'L2TP Password'.
 - An input field for 'L2TP Retype password'.
 - A 'Maximum Idle Time' field set to '5' minutes.
 - An 'MTU' field set to '1450'.
 - 'Connect mode select' radio buttons for 'Always-on', 'Manual', and 'Connect-on demand' (selected).

On the right side, there is a 'Helpful Hints...' section with text: 'When configuring the router to access the Internet, be sure to choose the correct Internet Connection Type from the drop down menu. If you are unsure of which option to choose, please contact your Internet Service Provider (ISP). If you are having trouble accessing the Internet through the router, double check any settings you have entered on this page and verify them with your ISP if needed.'

Internet Setup

Big Pond (Australia)

My Internet Connection: Select BigPond (Australia) from the drop-down menu.

Username: Enter your BigPond username.

Password: Enter your BigPond password and then retype the password in the next box.

Auth Server: Select the type of authentication server being used from the drop-down menu.

Login Server IP: Enter the IP address of the login server.

MAC Address: The default MAC Address is set to the Internet's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Clone Your PC's MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

The screenshot shows the D-Link DIR-130 web interface. The top navigation bar includes 'DIR-130', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar lists 'Internet', 'Network Settings', and 'VPN Settings'. The main content area is titled 'INTERNET CONNECTION' and contains the following sections:

- INTERNET CONNECTION:** A text block explaining the connection types and a note about PPPoE. Below it are 'Save Settings' and 'Don't Save Settings' buttons.
- INTERNET CONNECTION TYPE :** A section with the instruction 'Choose the mode to be used by the router to connect to the Internet.' and a dropdown menu for 'My Internet Connection is:' set to 'BigPond (Australia)'.
- BIGPOND :** A section titled 'Enter the information provided by your Internet Service Provider (ISP).' containing:
 - User Name:
 - Password:
 - Retype Password:
 - Auth Server:
 - Login Server IP/Name: (optional)
 - MAC Address: (optional)
 - A 'Clone MAC Address' button.

On the right side, there is a 'Helpful Hints..' section with text: 'When configuring the router to access the Internet, be sure to choose the correct Internet Connection Type from the drop down menu. If you are unsure of which option to choose, please contact your Internet Service Provider (ISP). If you are having trouble accessing the Internet through the router, double check any settings you have entered on this page and verify them with your ISP if needed.'

Internet Setup

Static (assigned by ISP)

Select Static IP Address if all the Internet port's IP information is provided to you by your ISP. You will need to enter in the IP address, subnet mask, gateway address, and DNS address(es) provided to you by your ISP. Each IP address entered in the fields must be in the appropriate IP form, which are four octets separated by a dot (x.x.x.x). The router will not accept the IP address if it is not in this format.

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

Subnet Mask: Enter the Subnet Mask assigned by your ISP.

ISP Gateway: Enter the Gateway assigned by your ISP.

MAC Address: The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Clone MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

DNS Servers: The DNS server information will be supplied by your ISP (Internet Service Provider.)

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1500 is the default MTU.

The screenshot shows the D-Link DIR-130 web interface. The top navigation bar includes 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar shows 'Internet', 'Network Settings', and 'VPN Settings'. The main content area is titled 'INTERNET CONNECTION' and contains the following sections:

- INTERNET CONNECTION:** A text box explaining that this section is for configuring the Internet Connection type (Static IP, DHCP, PPPoE, PPTP, L2TP, BigPond, Russian PPPoE, and Russian PPTP). A note states that using PPPoE requires removing or disabling PPPoE client software on computers. There are 'Save Settings' and 'Don't Save Settings' buttons.
- INTERNET CONNECTION TYPE:** A section with the instruction 'Choose the mode to be used by the router to connect to the Internet.' A dropdown menu shows 'My Internet Connection is : Static IP'.
- STATIC IP ADDRESS INTERNET CONNECTION TYPE:** A section for entering static address information. It includes input fields for:
 - IP Address : 0.0.0.0 (assigned by your ISP)
 - Subnet Mask : 0.0.0.0
 - ISP Gateway Address : 0.0.0.0
 - MAC Address : 00 - 00 - 00 - 00 - 00 - 00 (optional), with a 'Clone MAC Address' button below it.
 - Primary DNS Address :
 - Secondary DNS Address : (optional)
 - MTU : 1500

On the right side, there is a 'Helpful Hints..' section with text: 'When configuring the router to access the Internet, be sure to choose the correct Internet Connection Type from the drop down menu. If you are unsure of which option to choose, please contact your Internet Service Provider (ISP). If you are having trouble accessing the Internet through the router, double check any settings you have entered on this page and verify them with your ISP if needed.'

Internet Setup

Russian PPPoE (DSL)

Choose **Russian PPPoE** (Point to Point Protocol over Ethernet) if your ISP uses a PPPoE connection. Your ISP will provide you with a username and password. This option is typically used for DSL services. Make sure to remove your PPPoE software from your computer. The software is no longer needed and will not work through a router.

Address Mode: Select **Static** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select **Dynamic**.

User Name: Enter your PPPoE user name.

Password: Enter your PPPoE password and then retype the password in the next box.

Service Name: Enter the ISP Service Name (optional).

IP Address: Enter the IP address (Static PPPoE only).

MAC Address: The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Clone MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

Maximum Idle Time: Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable Auto-reconnect.

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1492 is the default MTU.

Connect Mode: Select either **Always-on**, **On-Demand**, or **Manual**.

WAN Physical Setting: In most cases, select Dynamic PPPoE. Select Static PPPoE if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses.

DNS Addresses: Enter the Primary and Secondary DNS Server Addresses (Static PPPoE only).

The screenshot shows the D-Link DIR-130 web interface. The main navigation bar includes 'DIR-130 //', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'Internet' section is active, showing the 'INTERNET CONNECTION' configuration page. The page title is 'INTERNET CONNECTION'. Below the title, there is a note: 'Use this section to configure your Internet Connection type. There are several connection types to choose from: Static IP, DHCP, PPPoE, PPTP, L2TP, BigPond, Russian PPPoE and Russian PPTP. If you are unsure of your connection method, please contact your Internet Service Provider.' A sub-note states: 'Note: If using the PPPoE option, you will need to remove or disable any PPPoE client software on your computers.' There are 'Save Settings' and 'Don't Save Settings' buttons. The 'INTERNET CONNECTION TYPE' section shows 'My Internet Connection is: Russian PPPoE (Dual Access)'. The 'RUSSIAN PPPoE' section prompts for information from the ISP, including 'User Name', 'Password', 'Retype Password', 'Service Name (optional)', 'IP Address', 'MAC Address', 'Clone MAC Address' button, 'Maximum Idle Time' (5 minutes), 'MTU' (1492), and 'Connect mode select' (Always-on, Manual, Connect-on demand). The 'WAN PHYSICAL SETTING' section shows 'Dynamic IP' selected and 'Static IP' unselected, with 'IP Address' and 'Subnet Mask' fields. The 'DNS SETTING' section shows 'Primary DNS Address' and 'Secondary DNS Address (optional)' fields.

Internet Setup

Russian PPTP

Choose **Russian PPTP** (Point-to-Point-Tunneling Protocol) if your ISP uses a PPTP connection. Your ISP will provide you with a username and password. This option is typically used for DSL services.

Address Mode: Select **Static** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select **Dynamic**.

Server IP/Name: Enter the Server IP provided with your ISP.

PPTP Account: Enter your PPTP account (username).

PPTP Password: Enter your PPTP password and then retype the password in the next box.

Maximum Idle Time: Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable Auto-reconnect.

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

Connect Mode: Select either **Always-on**, **On-Demand**, or **Manual**.

WAN Physical Setting: Select Static IP if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses.

IP Address: Enter the Server IP provided by your ISP (optional).

Subnet Mask: Enter the Subnet Mask supplied by your ISP (Static IP only).

Gateway: Enter the Gateway Address provided by your ISP (Static IP only)

Clone MAC Setting: Click the Clone MAC Address button to copy the MAC Address from your PC.

DNS Setting: Enter the Primary and Secondary DNS Server Addresses (Static IP only).

The screenshot shows the D-Link DIR-130 web interface. The top navigation bar includes 'D-Link', 'DIR-130', and tabs for 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar shows 'Internet', 'Network Settings', and 'VPN Settings'. The main content area is titled 'INTERNET CONNECTION' and contains the following sections:

- INTERNET CONNECTION TYPE :** A dropdown menu is set to 'Russian PPTP (Dual Access)'. Below it, text reads: 'Choose the mode to be used by the router to connect to the Internet. My Internet Connection is : Russian PPTP (Dual Access)'. There are 'Save Settings' and 'Don't Save Settings' buttons.
- RUSSIAN PPTP :** A section for entering ISP information. Fields include:
 - Server IP/Name : [text input]
 - PPTP Account : [text input]
 - PPTP Password : [password input]
 - PPTP Retype password : [password input]
 - Maximum Idle Time : 5 [spin] Minutes
 - MTU : 1450 [spin]
 - Connect mode select : Always-on Manual Connect-on demand
- WAN PHYSICAL SETTING :** Radio buttons for 'Dynamic IP' (selected) and 'Static IP'. Below are fields for IP Address (0.0.0.0), Subnet Mask (0.0.0.0), and Gateway (0.0.0.0).
- CLONE MAC SETTING :** A MAC Address field with a 'Clone MAC Address' button.
- DNS SETTING :** Fields for Primary DNS Address and Secondary DNS Address (optional).

Helpful Hints on the right side of the page state: 'When configuring the router to access the Internet, be sure to choose the correct Internet Connection Type from the drop down menu. If you are unsure of which option to choose, please contact your Internet Service Provider (ISP). If you are having trouble accessing the Internet through the router, double check any settings you have entered on this page and verify them with your ISP if needed.'

Network Settings

This section will allow you to change the local network settings of the router and to configure the DHCP settings.

Router IP Address: Enter the IP address of the router. The default IP address is 192.168.0.1.

If you change the IP address, once you click Apply, you will need to enter the new IP address in your browser to get back into the configuration utility.

Default Subnet Mask: Enter the Subnet Mask. The default subnet mask is 255.255.255.0.

Local Domain Name: Enter the Domain name (optional).

Enable DNS Relay: Uncheck the box to transfer the DNS server information from your ISP to your computers. If checked, your computers will use the router for a DNS server.

D-Link

DIR-130 // SETUP ADVANCED MAINTENANCE STATUS HELP

Internet
Network Settings
VPN Settings

NETWORK SETTINGS :

Use this section to configure the internal network settings of your router and also to configure the built-in DHCP Server to assign IP addresses to the computers on your network. The IP Address that is configured here is the IP Address that you use to access the Web-based management interface. If you change the IP Address here, you may need to adjust your PC's network settings to access the network again.

Save Settings Don't Save Settings

ROUTER SETTINGS :

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

Router IP Address : 192.168.0.1
Default Subnet Mask : 255.255.255.0
Local Domain Name :
Enable DNS Relay :

Helpful Hints..

If you already have a DHCP server on your network or are using static IP addresses on all the devices on your network, uncheck **Enable DHCP Server** to disable this feature.

In order to ensure that devices on your network are always assigned the same IP address, add a **DHCP Reservation** for each device.

DHCP Server Settings

The router has a built-in DHCP (Dynamic Host Control Protocol) server. The DHCP Server will automatically assign an IP address to the computers on the LAN/private network. Be sure to set your computers to be DHCP clients by setting their TCP/IP settings to “Obtain an IP Address Automatically.” When you turn your computers on, they will automatically load the proper TCP/IP settings provided by the router. The DHCP Server will automatically allocate an unused IP address from the IP address pool to the requesting computer. You must specify the starting and ending address of the IP address pool.

Enable DHCP Server: Check this box to enable the DHCP server on your router. Uncheck to disable this function.

DHCP IP Address Range: Enter the starting and ending IP addresses for the DHCP server’s IP assignment.

Note: If you statically (manually) assign IP addresses to your computers or devices, make sure the IP addresses are outside of this range or you may have an IP conflict.

DHCP Lease Time: The length of time for the IP address lease. Enter the Lease time in minutes.

DHCP SERVER SETTINGS :			
Use this section to configure the built-in DHCP Server to assign IP addresses to the computers on your network.			
Enable DHCP Server :	<input checked="" type="checkbox"/>		
DHCP IP Address Range :	<input type="text" value="100"/>	to	<input type="text" value="150"/> (addresses within the LAN subnet)
DHCP Lease Time :	<input type="text" value="86400"/>	(minutes)	
DYNAMIC DHCP CLIENT LIST :			
Host Name	IP Address	MAC Address	Expired Time

DHCP Reservation

If you want a computer or device to always have the same IP address assigned, you can create a DHCP reservation. The router will assign the IP address only to that computer or device.

Note: This IP address must be within the DHCP IP Address Range.

DHCP Reservations List: Check the box under the first column to enable the reservation.

Computer Name: Enter the computer name or select from the drop-down menu (last column) and click <<.

IP Address: Enter the IP address you want to assign to the computer or device. This IP Address must be within the DHCP IP Address Range.

MAC Address: Enter the MAC address of the computer or device.

Copy Your PC's MAC Address: If you want to assign an IP address to the computer you are currently on, click this button to populate the fields.

Save: Click **Save** to save your entry. You must click **Save Settings** at the top to activate your reservations.

50 - DHCP RESERVATIONS LIST :

Remaining number of DHCP Reservations that can be configured: 50 [More...](#)

	Computer Name	IP Address	MAC Address	
1. <input type="checkbox"/>	<input type="text"/>	192. 168. 0. <input type="text"/>	00:00:00:00:00:00	<< Computer Name ▼
2. <input type="checkbox"/>	<input type="text"/>	192. 168. 0. <input type="text"/>	00:00:00:00:00:00	<< Computer Name ▼
3. <input type="checkbox"/>	<input type="text"/>	192. 168. 0. <input type="text"/>	00:00:00:00:00:00	<< Computer Name ▼
4. <input type="checkbox"/>	<input type="text"/>	192. 168. 0. <input type="text"/>	00:00:00:00:00:00	<< Computer Name ▼
5. <input type="checkbox"/>	<input type="text"/>	192. 168. 0. <input type="text"/>	00:00:00:00:00:00	<< Computer Name ▼
6. <input type="checkbox"/>	<input type="text"/>	192. 168. 0. <input type="text"/>	00:00:00:00:00:00	<< Computer Name ▼

VPN Settings

The DIR-130 supports IPSec, PPTP, and L2TP VPN as the Server Endpoint.

Add VPN Profile: Select **IPSec** or **PPTP/L2TP** from the drop-down menu and then click **Add**.

The screenshot shows the D-Link DIR-130 web interface for VPN Settings. The interface includes a navigation menu on the left with options for Internet, Network Settings, and VPN Settings. The main content area is titled "VPN SETTINGS" and contains an "ADD VPN PROFILE" section. This section features a dropdown menu labeled "Select a type" with "IPSec - Internet Protocol Security" and "PPTP/L2TP" as options, and an "Add" button. Below the dropdown is a table with columns for "Enable", "Name", and "Type". A "Helpful Hints.." section on the right provides additional information about the supported VPN protocols.

Enable	Name	Type

IPSec Settings

Enable: Check this box to enable IPSec.

Name: Enter a name for your VPN.

Local Net/ Mask: Enter the local (LAN) subnet and mask.
(ex. 192.168.0.0/24)

Remote IP: Select Site to Site or Remote User for the required VPN configuration.

- **Site to Site** - Network-to-network VPN in which two entire LAN networks are virtually connected across the Internet. If selected, enter the destination gateway IP address in the box which is the public WAN IP or host address of the remote VPN server endpoint.
- **Remote User** – Client-to-server VPN in which remote VPN clients can connect to the router from the Internet and access Local Network resources.

Remote Local LAN Net/ Mask: If **Site to Site** is selected, enter the Destination subnet and mask of the remote network.
(ex. 192.168.1.0/24)

Authentication: Select Pre-shared Key or X.509 Certificate Authentication. One of these two authentication methods must be selected.

- **Pre-shared Key** - Manually enter ASCII passphrase in box.
- **X.509 Certificate** - For certificate authentication, certificates must be manually uploaded to the router. See the “Certificates” section for details.

The screenshot shows the D-Link DIR-130 web interface for configuring VPN-IPSEC. The main heading is 'VPN - IPSEC' with a sub-heading 'Use this section to create and configure your VPN-IPSec page.' Below this are 'Save Settings' and 'Don't Save Settings' buttons. The 'IPSEC SETTING' section includes:

- Enable
- Name:
- Local Net /Mask:
- Remote IP: Remote User Site to Site
- Remote Local LAN Net /Mask:
- Authentication: Pre-shared Key X.509 Certificate
 - Local Identity:
 - Certificates:
- XAUTH
 - Server mode
 - Authentication database:
 - Client mode
 - User Name:
 - Password:
- Local ID:
- Remote ID:

Helpful Hints... The DIR-130 supports IPSec as the Server Endpoint. IPSec (Internet Protocol Security) is a set of protocols defined by the IETF (Internet Engineering Task Force) to provide IP security at the network layer. An IPSec based VPN, such as that of the DIR-130, is made up of two basic parts: - Internet Key Exchange security protocol (IKE) - IPSec protocol (AH/ESP/both). The first part, IKE, is the initial negotiation phase, where the two endpoints agree on which methods will be used to provide security for the underlying IP traffic. Furthermore, IKE is used to manage connections. Each SA is unidirectional, so there will be at least two SA per IPSec connection.

- Additional Authentication Methods (Optional)

XAUTH - Check this box to include additional username and password authentication requirements for the VPN. Select **Server Mode** or **Client Mode**.

- **Server Mode** - Select a group from the Authentication database drop-down menu containing the list of user credentials permitted.
- **Client Mode** - Enter the user name and password if required by the remote VPN server endpoint configured in xAuth Server Mode.

Local/Remote ID - Check this box to include additional ID authentication requirements for the VPN using a specific IP Address, FQDN, ASN1, or a Custom String.

- **Local ID** - Select one of the options from the drop-down menu. Enter an ID to identify and authenticate the local VPN endpoint.
- **Remote ID** - Select one of the options from the drop-down menu. Enter an ID to identify and authenticate the remote VPN endpoint.

Main / Aggressive Mode: Select Main Mode or Aggressive Mode for IKE Phase 1 negotiation.

- **Main Mode** - Select this option to configure the standard negotiation parameters for IKE Phase 1 of the VPN Tunnel. (Recommended Setting)
- **Aggressive Mode** - Select this option to configure IKE Phase 1 of the VPN Tunnel to carry out negotiation in a shorter amount of time. (Not Recommended - Less Secure)

NAT-T Enable: Check this box to enable NAT Traversal. Enabling this option will allow IPSec traffic from this endpoint to traverse through the translation process during NAT. The remote VPN endpoint must also support this feature and it must be enabled to function properly over the VPN.

Keep Alive / DPD: Select **None**, **Keep Alive**, or **DPD** (Dead Peer Connection).

- **None** - Select this option to disable Keep Alive.
- **Keep Alive** - Select this option to send random ping requests from this endpoint to the remote endpoint keeping the tunnel established during long idle periods of inactivity.
- **DPD** - Select this option to delete the VPN tunnel if there is no traffic detected. The VPN will re-establish once traffic is again sent through the tunnel.

DH Group: Select a DH Group from the drop-down menu. As the DH Group number increases, the higher the level of encryption implemented for Phase 1.

IKE Proposal List: Select the Cipher and Hash from the drop-down menus. The proposal listing is evaluated in order with #1 being the first proposal to attempt in IKE negotiation.

IKE Lifetime: Enter the number of seconds for the IKE Lifetime. The period of time to pass before establishing a new IKE security association (SA) with the remote endpoint. The default value is 28800.

PFS Enable: Check to enable or uncheck to disable. PFS is an additional security protocol.

PFS DH Group: Select a PFS DH Group from the drop-down menu. As the DH Group number increases, the higher the level of encryption implemented for PFS.

IPSec Proposal List: Select the Cipher and Hash from the drop-down menus. The proposal listing is evaluated in order with #1 being the first proposal to attempt in IPSec negotiation.

IPSec Lifetime: Enter the number of seconds for the IPSec Lifetime. The period of time to pass before establishing a new IPSec security association (SA) with the remote endpoint. The default value is 3600.

The screenshot displays the configuration interface for a VPN tunnel, divided into two phases:

PHASE 1 :

- Mode: Main mode Aggressive mode
- NAT-T Enable:
- Keep Alive / DPD: none Keep Alive DPD (Dead Peer Detection)
- DH Group: 2 - modp 1024-bit
- IKE Proposal List:

Cipher	Hash
#1: 3DES	MD5
#2: 3DES	MD5
#3: 3DES	MD5
#4: 3DES	MD5
- IKE Lifetime: 28800 Seconds

PHASE 2 :

- PFS Enable: Perfect Forward Secrecy PFS
- PFS DH Group: 2 - modp 1024-bit
- IPSec Proposal List:

Cipher	Hash
#1: 3DES	MD5
#2: 3DES	MD5
#3: 3DES	MD5
#4: 3DES	MD5
- IPSec Lifetime: 3600 Seconds

PPTP/L2TP Settings

PPTP uses TCP port 1723 for its control connection and uses GRE (IP protocol 47) for the PPP data. PPTP supports data encryption by used MPPE.

L2TP uses UDP protocol to transport the PPP data. This is often encapsulated in IPsec encryption instead of MPPE.

Enable Setting: Check this box to enable.

Name: Enter a name for your VPN.

Connection Type: Select **PPTP**, **L2TP**, or **L2TP over IPsec**.

VPN Server IP: Enter the VPN Server IP address which is the LAN IP of the router. (i.e. 192.168.0.1).

Remote IP Range: Assign a range of IP addresses. The assigned IP range should be on the same IP network but not the in the same range as your DHCP IP range.

For example, if your network is 192.168.0.xxx and you set the DHCP range to 192.168.0.100-200, the remote IP range cannot be within 192.168.0.100-200.

Authentication Protocol: Select the desired authentication protocol (PAP/CHAP/MS-CHAP v2).

MPPE Encryption Mode: Select the level of encryption (None/40-bit/128-bit).

Authentication Database: Select a user group from the drop-down menu. You can create user groups in the **Advanced > User Group** section.

D-Link

DIR-130 // SETUP ADVANCED MAINTENANCE STATUS HELP

Internet
Network Settings
VPN Settings

VPN - PPTP/L2TP SERVER

Use this section to configure your VPN-PPTP/L2TP Server settings.

Save Settings Don't Save Settings

PPTP/L2TP SETTING :

Enable setting :

Name :

Connection type : PPTP L2TP L2TP over IPsec

VPN Server IP :

Remote IP range : -

Authentication Protocol : PAP CHAP MSCHAP v2

MPPE Encryption Mode : RC4 None 40 bit 128 bit

Authentication database :

Helpful Hints..

PPTP uses TCP port 1723 for its control connection and uses GRE (IP protocol 47) for the PPP data. PPTP supports data encryption by using MPPE.

L2TP uses UDP to transport the PPP data, this is often encapsulated in IPsec for encryption instead of using MPPE.

For more details information about configuring VPN Endpoint Server in your DIR-130, please visit the support menu.

Port Forwarding

This section allows you to open a single port or a range of ports.

Name: Enter a name for the rule or select an application from the drop-down menu. Select an application and click << to populate the fields.

IP Address: Enter the IP address of the computer on your local network that you want to allow the incoming service to. If your computer is receiving an IP address automatically from the router (DHCP), your computer will be listed in the “Computer Name” drop-down menu. Select your computer and click <<.

Port: Enter a port or port range for the public and private port.

Traffic Type: Select the type of protocol you would like to assign to the rule.

Schedule: The schedule of time when the Virtual Server Rule will be enabled. The schedule may be set to Always, which will allow the particular service to always be enabled. You can create your own times in the **Maintenance > Schedules** section.

The screenshot shows the D-Link DIR-130 web interface. The top navigation bar includes 'DIR-130', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar lists various configuration options: Port Forwarding, Application Rules, Network Filter, Website Filter, Firewall Settings, Advanced Network, Routing, Certificates, and User Group. The main content area is titled 'PORT FORWARDING RULES' and contains the following text: 'The Port Forwarding option is used to open a single port or a range of ports through your firewall and redirect data through those ports to a single PC on your network.' Below this text are two buttons: 'Save Settings' and 'Don't Save Settings'. The main configuration area is titled '25 - PORT FORWARDING RULES' and contains a table with three rows, each representing a rule. Each row has a checkbox, a 'Name' field with a '<<' button and a dropdown menu for 'Application Name', an 'IP Address' field with a '<<' button and a dropdown menu for 'Computer Name', a 'Port' section with 'Public Port' and 'Private Port' fields, and a 'Traffic Type' dropdown menu. The 'Schedule' dropdown menu is also present for each rule. On the right side of the page, there is a 'Helpful Hints' section with the following text: 'Check the Application Name drop down menu for a list of pre-defined applications that you can select from. If you select one of the pre-defined applications, click the arrow button next to the drop down menu to fill out the appropriate fields. You can select your computer from the list of DHCP clients in the Computer Name drop down menu, or enter the IP address manually of the computer you would like to open the specified port to. In order to apply a schedule to a Port Forwarding Rule, you must first define a schedule on the Maintenance > Schedules page. This feature allows you to open a range of ports to a'.

	Name	Application Name	IP Address	Computer Name	Public Port	Private Port	Traffic Type	Schedule
1. <input type="checkbox"/>		<< Application Name		<< Computer Name			TCP	Always
2. <input type="checkbox"/>		<< Application Name		<< Computer Name			TCP	Always
3. <input type="checkbox"/>		<< Application Name		<< Computer Name			TCP	Always

Application Rules

Some applications require multiple connections, such as Internet gaming, video conferencing, Internet telephony and others. These applications have difficulties working through NAT (Network Address Translation). Special Applications makes some of these applications work with the DIR-130. If you need to run applications that require multiple connections, specify the port normally associated with an application in the “Trigger Port” field, select the protocol type as TCP or UDP, then enter the firewall (public) ports associated with the trigger port to open them for inbound traffic.

Name: Enter a name for the rule. You may select a pre-defined application from the drop-down menu and click <<.

Trigger: This is the port used to trigger the application. It can be either a single port or a range of ports.

Firewall: This is the port number on the Internet side that will be used to access the application. You may define a single port or a range of ports. You can use a comma to add multiple ports or port ranges.

Traffic Type: Select the protocol of the firewall port (**TCP**, **UDP**, or **Any**).

Schedule: The schedule of time when the Application Rule will be enabled. The schedule may be set to Always, which will allow the particular service to always be enabled. You can create your own times in the **Maintenance > Schedules** section.

The screenshot shows the D-Link DIR-130 web interface. The top navigation bar includes 'DIR-130', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar lists menu items: Port Forwarding, Application Rules, Network Filter, Website Filter, Firewall Settings, Advanced Network, Routing, Certificates, and User Group. The main content area is titled 'APPLICATION RULES' and contains the following text:

APPLICATION RULES :
The Application Rules section is used to open single or multiple ports in your firewall when the router senses data sent to the Internet on a outgoing "Trigger" port or port range. Special Application rules apply to all computers on your internal network.

Buttons: Save Settings, Don't Save Settings

25 - APPLICATION RULES

	Port	Traffic Type	Schedule
1. <input type="checkbox"/>	Trigger: <input type="text"/> Firewall: <input type="text"/>	TCP	Always
2. <input type="checkbox"/>	Trigger: <input type="text"/> Firewall: <input type="text"/>	TCP	Always
3. <input type="checkbox"/>	Trigger: <input type="text"/> Firewall: <input type="text"/>	TCP	Always

Helpful Hints..
Check the **Application Name** drop down menu for a list of pre-defined applications that you can select from. If you select one of the pre-defined applications, click the arrow button next to the drop down menu to fill out the appropriate fields.
In order to apply a schedule to an Application Rule, you must first define a schedule on the **Maintenance > Schedules** page.

MAC Filters

Use MAC (Media Access Control) Filters to allow or deny LAN (Local Area Network) computers by their MAC addresses from accessing the Network. You can either manually add a MAC address or select the MAC address from the list of clients that are currently connected to the router. You may enter up to 25 rules.

Configure MAC Filtering: Select **Turn MAC Filtering Off**, **Turn MAC filtering on and ALLOW computers listed to access the network**, or **Turn MAC filtering on and DENY computers listed to access the network** from the drop-down menu.

MAC Address: Enter the MAC address you would like to filter. To find the MAC address on a computer, please refer to the Networking Basics section in this manual.

DHCP Client: Select a DHCP client from the drop-down menu and click << to copy that MAC Address.

Clear: Click to delete the settings of the filter rule.

D-Link

DIR-130 // SETUP ADVANCED MAINTENANCE STATUS HELP

MAC FILTERING :

The MAC (Media Access Control) Address filter option is used to control network access based on the MAC Address of the network adapter. A MAC address is a unique ID assigned by the manufacturer of the network adapter. This feature can be configured to ALLOW or DENY network/Internet access.

Save Settings Don't Save Settings

25 - MAC FILTERING RULES

Configure MAC Filtering below:

Turn MAC Filtering OFF

	MAC Address		DHCP Client List	
1.	<input type="text"/>	<<	Computer Name	CLEAR
2.	<input type="text"/>	<<	Computer Name	CLEAR
3.	<input type="text"/>	<<	Computer Name	CLEAR
4.	<input type="text"/>	<<	Computer Name	CLEAR
5.	<input type="text"/>	<<	Computer Name	CLEAR

Helpful Hints..

Create a list of MAC addresses that you would either like to allow or deny access to your network.

Computers that have obtained an IP address from the router's DHCP server will be in the DHCP Client List. Select a device from the drop down menu and click the arrow to add that device's MAC to the list.

Click the **CLEAR** button to remove the MAC address from the MAC Filtering list.

Website Filters

Website Filters are used to deny LAN computers from accessing specific web sites by the URL or domain. A URL is a specially formatted text string that defines a location on the Internet. If any part of the URL contains the blocked word, the site will not be accessible and the web page will not display. To use this feature, enter the text string to be blocked and click **Save Settings**. The text to be blocked will appear in the list. To delete the text, click the **Clear the List Below** button.

Configure Website Filtering: Select **Turn Website Filtering Off**, **Turn Website filtering on and ALLOW computers listed to access the network**, or **Turn Website filtering on and DENY computers listed to access the network** from the drop-down menu.

Website URL/ Domain: Enter the keywords or URLs that you want to block (or allow). Any URL with the keyword in it will be blocked or allowed.

Schedule: The schedule of time when the selected rule will be enabled. The schedule may be set to **Always**, which will allow the filter to always be enabled. You can create your own times in the **Maintenance > Schedules** section.

The screenshot shows the D-Link DIR-130 web interface. The top navigation bar includes 'DIR-130 //', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar lists various settings: Port Forwarding, Application Rules, Network Filter, Website Filter, Firewall Settings, Advanced Network, Routing, Certificates, and User Group. The main content area is titled 'WEBSITE FILTERING RULES' and contains the following text: 'The Website Filter option allows you to set-up a list of Websites that the users on your network will either be allowed or denied access to.' Below this text are two buttons: 'Save Settings' and 'Don't Save Settings'. A section titled '50 - WEBSITE FILTERING RULES' contains a dropdown menu for 'Configure Website Filtering below:' set to 'Turn Website Filtering OFF' and a 'Clear the list below...' button. Below this is a table with 30 rows for entering website URLs and domains, each with a dropdown menu set to 'Always'.

	Website URL/Domain		Website URL/Domain	
1.	<input type="text"/>	Always	26.	<input type="text"/>
2.	<input type="text"/>	Always	27.	<input type="text"/>
3.	<input type="text"/>	Always	28.	<input type="text"/>
4.	<input type="text"/>	Always	29.	<input type="text"/>
5.	<input type="text"/>	Always	30.	<input type="text"/>

Helpful Hints..
Create a list of Websites that you would like the devices on your network to be allowed or denied access to.
Keywords can be entered in this list in order to block any URL containing the keyword entered.

Firewall Settings

DMZ

A firewall protects your network from the outside world. The D-Link DIR-130 offers a firewall protection such as SPI (Stateful Packet Inspection) and NAT/PAT (Network Address Translation/Port Address Translation). Sometimes you may want a computer exposed to the outside world for certain types of applications. If you choose to expose a computer, you can enable DMZ (Demilitarized Zone). This option will expose the chosen computer completely to the outside world.

Enable DMZ Host: If an application has trouble working from behind the router, you can expose one computer to the Internet and run the application on that computer.

Note: Placing a computer in the DMZ may expose that computer to a variety of security risks. This option is only recommended as a last resort.

DMZ IP Address: Specify the IP address of the computer on the LAN that you want to have unrestricted Internet communication. If this computer obtains its IP address automatically using DHCP, be sure to make a static reservation on the **Internet > DHCP** page so that the IP address of the DMZ machine does not change.

Schedule: The schedule of time when the DMZ will be enabled. The schedule may be set to Always, which will allow the DMZ to always be enabled. You can create your own times in the **Maintenance > Schedules** section.

The screenshot shows the D-Link DIR-130 web interface. The top navigation bar includes 'DIR-130', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'ADVANCED' tab is selected, and the 'Firewall Settings' page is displayed. The page is divided into three main sections:

- FIREWALL SETTINGS :** This section contains a text box explaining that the Firewall settings allow setting up a list of allowed Web sites. Below the text are two buttons: 'Save Settings' and 'Don't Save Settings'.
- DMZ HOST :** This section explains the DMZ (Demilitarized Zone) option, which allows setting a single computer on the network outside the router for unrestricted Internet access. It includes a **Note** about security risks. The configuration options are:
 - Enable DMZ Host:
 - DMZ IP Address: << Computer Name
 - Schedule:
- Helpful Hints..** This sidebar contains two paragraphs of advice:
 - Only enable the DMZ option as a last resort. If you are having trouble using an application from a computer behind the router, first try opening ports associated with the application in the Virtual Server or Port Forwarding sections.
 - For each rule you can create a name and control the direction of traffic. You can also allow or deny a range of IP Addresses, the protocol and a port range.
 - In order to apply a schedule to a Firewall rule, you must first define a schedule on the **Maintenance > Schedules** page.

Firewall Settings

Firewall Rules

Up to 75 Firewall Rules can be created to control the incoming and outgoing traffic on your router. For each rule you can create a name and control the direction of traffic. You can also allow or deny a range of IP Addresses, protocol and a port range. In order to apply a schedule to a Firewall Rule, you must first define a schedule on the **Maintenance > Schedules** page. The first 2 Firewall Rules are default and cannot be changed.

Name: Enter a name for your Firewall Rule.

Schedule: Select a schedule from the drop-down menu. In order to apply a schedule to a Firewall Rule, you must first define a schedule on the **Maintenance > Schedules** page.

Source/Dest: This setting controls the direction of traffic. To control incoming traffic, set the Source Interface to WAN and the Dest Interface to LAN. To control outgoing traffic, set the Source Interface to LAN and the Dest Interface to WAN.

IP Address Range: Enter the IP Address Range for both the Source Interface and Dest Interface. These IP Address Ranges will be either allowed or denied, depending on the selected action.

Protocol: Select a protocol from the drop-down menu. The protocol that is selected will be either allowed or denied, depending on the selected action.

Port Range: Enter a Port Range. The Port Range that is entered will be either allowed, or denied, depending on the selected action.

75 - FIREWALL RULES

Remaining number of firewall rules that can be configured: 75 [More...](#)

	Name	Action	Schedule
	Default	<input type="radio"/> Allow <input checked="" type="radio"/> Deny	Always
1. <input checked="" type="checkbox"/>	Source Interface: WAN IP Address Range: 0.0.0.0/0	Protocol: ALL	Port Range: 0 ~ 65535
	Dest Interface: LAN IP Address Range: 0.0.0.0/0		
2. <input checked="" type="checkbox"/>	Source Interface: LAN IP Address Range: 0.0.0.0/0	Protocol: ALL	Port Range: 0 ~ 65535
	Dest Interface: WAN IP Address Range: 0.0.0.0/0		
3. <input type="checkbox"/>	Name: <input type="text"/> Source Interface: * IP Address Range: <input type="text"/>	Action: <input checked="" type="radio"/> Allow <input type="radio"/> Deny Protocol: TCP	Schedule: Always Port Range: <input type="text"/> ~ <input type="text"/>
	Dest Interface: * IP Address Range: <input type="text"/>		
4. <input type="checkbox"/>	Name: <input type="text"/> Source Interface: * IP Address Range: <input type="text"/>	Action: <input checked="" type="radio"/> Allow <input type="radio"/> Deny Protocol: TCP	Schedule: Always Port Range: <input type="text"/> ~ <input type="text"/>
	Dest Interface: * IP Address Range: <input type="text"/>		

Advanced Network Settings

UPnP: Click on the checkbox to enable Universal Plug and Play (UPnP™). UPnP provides compatibility with networking equipment, software and peripherals.

Enable WAN Ping Respond: Unchecking the box will not allow the DIR-130 to respond to pings. Blocking pings may provide some extra security from hackers. Check the box to allow the Internet port to be “pinged”.

WAN Port Speed: You may set the port speed of the Internet port to **10Mbps**, **100Mbps**, or **Auto**. Some older cable or DSL modems may require you to set the port speed to **10Mbps**.

D-Link

DIR-130 // SETUP ADVANCED MAINTENANCE STATUS HELP

Port Forwarding
Application Rules
Network Filter
Website Filter
Firewall Settings
Advanced Network
Routing
Certificates
User Group

ADVANCED NETWORK SETTINGS :

If you are not familiar with these Advanced Network settings, please read the help section before attempting to enable or disable them.

Save Settings Don't Save Settings

UPNP :

Universal Plug and Play (UPnP) supports peer-to-peer Plug and Play functionality for network devices.

Enable UPnP :

WAN PING :

If you enable this feature, the WAN port of your router will respond to ping requests from the Internet that are sent to the WAN IP Address.

Enable WAN Ping Respond :

WAN PORT SPEED

WAN Port Speed : Auto 10/100Mbps

Helpful Hints..

For added security, it is recommended that you disable the **WAN Ping Respond** option. Ping is often used by malicious Internet users to locate active networks or PCs.

If you are having trouble receiving multicast streams from the Internet, make sure the Multicast Stream option is enabled.

Routing

This section allows you to define static routes for the WAN types of Static IP, Dynamic IP, Russian PPPoE, and Russian PPTP with ISPs that require these parameters. Up to 50 Static Routing Rules can be defined.

Interface: Select **WAN** or **WAN_Physical** from the drop down menu. Only select **WAN_Physical** if your Internet connection type is *Russian PPPoE* or *Russian PPTP*.

Destination Address: Enter the destination address for the static routing rule.

Subnet Mask: Enter the subnet mask for the static routing rule.

Gateway: Enter the gateway for the static routing rule.

Metric: Enter the metric for the static routing rule.

D-Link

DIR-130 // SETUP ADVANCED MAINTENANCE STATUS HELP

ROUTING SETTINGS :

This section allows you to define static routes for the WAN types of Static IP, Dynamic IP, Russian PPPoE and Russian PPTP with ISPs that require such setup.

Save Settings Don't Save Settings

50 - STATIC ROUTING RULES

Remaining number of static routings that can be configured: 50 [More...](#)

	Interface	Destination Address	Subnet Mask	Gateway	Metric
1.	WAN				
2.	WAN				
3.	WAN				
4.	WAN				
5.	WAN				
6.	WAN				
7.	WAN				
8.	WAN				
9.	WAN				
10.	WAN				

Helpful Hints..

Use this page to define static routes.

Be sure to enter a destination address, subnet mask, gateway and metric for each static route you want to define.

Choose either WAN or WAN-Physical in the Interface drop-down menu (only for Russian PPPoE and PPTP).

Certificates

This section is used to configure Certificates that are used with an IPSec based VPN. You can configure local certificates and the certificates of remote peers. Select one of the three options from the drop-down menu: **Local Certificate & Private key**, **Certificate of Remote Peers**, or **Certificate Authorities**.

Local Certificate & Private Key: Select this option from the drop-down menu to configure your local certificates. Enter a name for the certificate. Click the browse button to look for the Private Key and the certificate on your computer.

Certificate of Remote Peers: Select this option from the drop-down menu to configure the certificates of remote peers. Enter a name for the certificate. Click the browse button on your computer to look the Private Key on your computer.

Certificate Authorities: Select this option from the drop-down menu to configure Certificate Authority (CA) files to be used with your router. Enter a name for the CA file. Click the browse button to look for the CA file on your computer.

D-Link

DIR-130 // SETUP ADVANCED MAINTENANCE STATUS HELP

Port Forwarding
Application Rules
Network Filter
Website Filter
Firewall Settings
Advanced Network
Routing
Certificates
User Group

CERTIFICATES SETTINGS :
This section is used to configure Certificates that are used with an IPSec based VPN. You can configure local certificates and the certificates of remote peers.
Save Settings Don't Save Settings

CERTIFICATES SETTINGS :
Local Certificate & Private Key Select certificate type
Name :
Private Key : Browse...
Certificate : Browse...

LOCAL IDENTITIES (CERTIFICATES TO WHICH YOU HAVE THE PRIVATE KEY)

Name	Subject	Validity	Issuer

CERTIFICATES OF REMOTE PEERS

Name	Subject	Validity	Issuer

CERTIFICATE AUTHORITIES

Name	Subject	Validity	Issuer

Helpful Hints..
Select "Local Certificate & Private Key" from the Certificates Settings drop-down menu to configure your local certificates. Enter the Name for the certificate. Click the Browse button to look for the Private Key and the certificate on your computer.
Select "Certificate of Remote Peers" from the Certificates Settings drop-down menu to configure the certificates of remote peers. Enter the Name for the certificate. Click the Browse button to look for the Private Key on your computer.
Select "Certificate Authorities" from the Certificates Settings drop-down menu to configure the CA files to be used with your router. Enter the Name for the CA file. Click the Browse button to look for the CA file on your computer.

User Groups

This section is used to configure Certificates that are used with an IPSec based VPN. You can configure local certificates and the certificates of remote peers. Select one of the three options from the drop-down menu: **Local Certificate & Private key**, **Certificate of Remote Peers**, or **Certificate Authorities**.

Authentication Select a user group from the menu and click the **Database**: EDIT button to configure that group.

Group Name: Enter a name for the user group. Click the **Clear the list below** button to erase all of the user names and passwords for the user group.

User Name: Enter the User Name.

Password: Enter the Password.

Administrator Settings

This page will allow you to change the Administrator password. You can also enable Remote Management.

Admin Password: Enter a new password for the administrator login. Only the administrator can make changes to the settings.

Enable Remote Management: Remote management allows the router to be configured from the Internet by a web browser. A username and password is still required to access the Web-Management interface. In general, only a member of your network can browse the built-in web pages to perform Administrator tasks. This feature enables you to perform Administrator tasks from the remote (Internet) host.

IP Address: Enter the IP address of the remote computer. You may enter * to allow a connection from any Internet address.

Port: The port number used to access the DIR-130. Example: http://x.x.x.x:8080 whereas x.x.x.x is the Internet IP address of the DIR-130 and 8080 is the port used for the Web Management interface. The schedule may be set to **Always**, which will allow the filter to always be enabled. You can create your own times in the **Maintenance > Schedules** section.

The screenshot displays the D-Link DIR-130 web management interface. At the top, there is a navigation menu with tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains a list of configuration options: Admin Setup, Time And Date, System, Firmware, Dynamic DNS, System Check, Schedules, and Log Settings. The main content area is titled 'ADMINISTRATOR SETTINGS' and contains the following sections:

- ADMINISTRATOR SETTINGS :** A message states, "There is one account that can access the router's management interface. This account is **admin**." Below this, it says "Admin has read/write access." There are two buttons: "Save Settings" and "Don't Save Settings".
- ADMINISTRATOR :** This section contains three input fields: "Login name" (pre-filled with "admin"), "New Password" (masked with dots), and "Confirm Password" (masked with dots).
- REMOTE MANAGEMENT :** This section includes:
 - "Enable Remote Management" with an unchecked checkbox.
 - "IP Address" with a text box containing an asterisk (*).
 - "Port" with a text box containing "80", a dropdown menu showing "<< 80", and another dropdown menu set to "Always".

On the right side, a "Helpful Hints..." sidebar provides the following text: "For security reasons, it is recommended that you change the Login Name and Password for the Administrator and User accounts. Be sure to write down the new Login Names and Passwords to avoid having to reset the router in the event that they are forgotten." Below this, it says: "When enabling Remote Management, you can specify the IP address of the computer on the Internet that you want to have access to your router, or you can enter an asterisk (*) to allow access to any computer on the Internet."

Time and Date

The Time and Date page allows you to configure, update, and maintain the correct time and date on the internal system clock. From this section you can set the time zone that you are in and set the Time Server. Daylight Saving can also be configure to automatically adjust the time when needed.

Time Zone: Select the Time Zone from the drop-down menu.

Enable Daylight Saving: Check the checkbox to enable daylight savings time.

Sync. Your computer's time settings: Click this button to copy the time settings from your computer.

Automatic Time and Date Configuration: Check the box to use NTP (Network Time Protocol) server. NTP synchronizes computer clock times in a network of computers. This will only connect to a server on the Internet, not a local server.

NTP Server Used: Select an NTP server from the drop-down menu.

Manual: To manually input the time, enter the values in these fields for the Year, Month, Day, Hour, Minute, and Second and then click **Save Settings**.

D-Link

DIR-130 // SETUP ADVANCED MAINTENANCE STATUS HELP

TIME AND DATE :

Time Configuration

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 adjust the time when needed.

Save Settings Don't Save Settings

TIME CONFIGURATION :

Time : **Wednesday, January 02, 2002 9:02:53 PM**

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

Enable Daylight Saving : Sync. your computer's time settings

AUTOMATIC TIME AND DATE CONFIGURATION :

Automatically synchronize with D-Link's Internet time server

NTP Server Used : ntp1.dlink.com Update Now

SET THE DATE AND TIME MANUALLY :

Year 2002 Month Jan Day 2

Hour 21 Minute 02 Second 42

Helpful Hints..

If you plan on using the scheduling feature of this router, then making sure the time is correct is extremely important. Either enter the time manually by clicking the **Sync. your computer's time settings** button, or use the **Automatic Time and Date Configuration** option to have your router synchronize with a time server on the Internet.

System Settings

Save Settings to Local Hard Drive: Use this option to save the current router configuration settings to a file on the hard disk of the computer you are using. First, click the **Save Configuration** button. You will then see a file dialog, where you can select a location and file name for the settings.

Load Settings from Local Hard Drive: Use this option to load previously saved router configuration settings. First, click the **Browse** button to find a previously save file of configuration settings. Then, click the **Restore Configuration from File** button to transfer those settings to the router.

Restore to Factory Default Settings: This option will restore all configuration settings back to the settings that were in effect at the time the router was shipped from the factory. Any settings that have not been saved will be lost, including any rules that you have created. If you want to save the current router configuration settings, use the **Save Configuration** button above.

Reboot the DIR-130: Click to reboot the router.

The screenshot shows the D-Link DIR-130 web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar lists menu items: Admin Setup, Time And Date, System, Firmware, Dynamic DNS, System Check, Schedules, and Log Settings. The main content area is titled 'SYSTEM SETTINGS' and contains the following text and buttons:

The current system settings can be saved as a file onto the local hard drive. The saved file or any other saved setting file created by your router can be uploaded into the unit.

SYSTEM SETTINGS :

Save Settings To Local Hard Drive :

Load Settings From Local Hard Drive :

Restore To Factory Default Settings :

Reboots the DIR-130 :

On the right side, there is a 'Helpful Hints..' section with the following text:

Once your router is configured the way you want it, you can save these settings to a configuration file that can later be loaded in the event that the router's default settings are restored. To do this, click the **Save** button next to where it says Save Settings to Local Hard Drive.

Update Firmware

You can upgrade the firmware of the router here. Make sure the firmware you want to use is on the local hard drive of the computer. Click on **Browse** to locate the firmware file to be used for the update. Please check the D-Link support site for firmware updates at <http://support.dlink.com>. You can download firmware upgrades to your hard drive from the D-Link support site.

Browse: After you have downloaded the new firmware, click **Browse** to locate the firmware update on your hard drive. Click **Apply** to complete the firmware upgrade.

The screenshot shows the D-Link DIR-130 web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE (selected), STATUS, and HELP. The left sidebar lists various configuration options, with 'Firmware' selected. The main content area is titled 'FIRMWARE UPGRADE :'. It contains the following text:

There may be new firmware for your DIR-130 to improve functionality and performance. [Click here to check for an upgrade on our support site.](#)

To upgrade the firmware, locate the upgrade file on the local hard drive with the Browse button. Once you have found the file to be used, click the Save Settings button below to start the firmware upgrade.

CURRENT FIRMWARE INFO :

Current Firmware Version 1.10
Firmware Date Aug 8 2007

Check Online Now for Latest Firmware Version

UPDATE SETTING :

Update:

On the right side, there is a 'Helpful Hints...' section with the following text:

Firmware updates are released periodically to improve the functionality of your router and also to add features. If you run into a problem with a specific feature of the router, check our support site by clicking on the [Click here to check for an upgrade on our support site](#) link and see if an updated firmware is available for your router.

DDNS

DDNS (Dynamic Domain Name System) is a method of keeping a domain name linked to a changing IP Address. The DDNS 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 IP addresses. Using a DDNS service provider, your friends can enter in your domain name to connect to your server no matter what your IP address is.

DDNS: Check the box to enable DDNS.

Server Address: Choose your DDNS provider from the drop down menu.

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

Username or Key: Enter the Username or Key for your DDNS account.

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

Verify Password or Key: Reenter the password or key for your DDNS account.

Timeout: The default value is 240 (hours). Do not change this value unless otherwise specified by you DDNS service provider.

D-Link

DIR-130 //

SETUP ADVANCED MAINTENANCE STATUS HELP

Admin Setup
Time And Date
System
Firmware
Dynamic DNS
System Check
Schedules
Log Settings

DYNAMIC DNS :

Dynamic DNS (Domain Name Service) is a method of keeping a domain name linked to a dynamic IP address. With most Cable and DSL connections, you are assigned a dynamic IP address and that address is used only for the duration of that specific connection.

With the DIR-130, you can setup your DDNS service and the DIR-130 will automatically update your DDNS server every time it receives a new WAN IP address.

Save Settings Don't Save Settings

DDNS SETTINGS :

Enable Dynamic DNS :

Server Address : << Select Dynamic DNS Server

Host Name :

Username or Key :

Password or Key :

Verify Password or Key :

Timeout : 240 (hours)

Status : Disconnect

Helpful Hints..

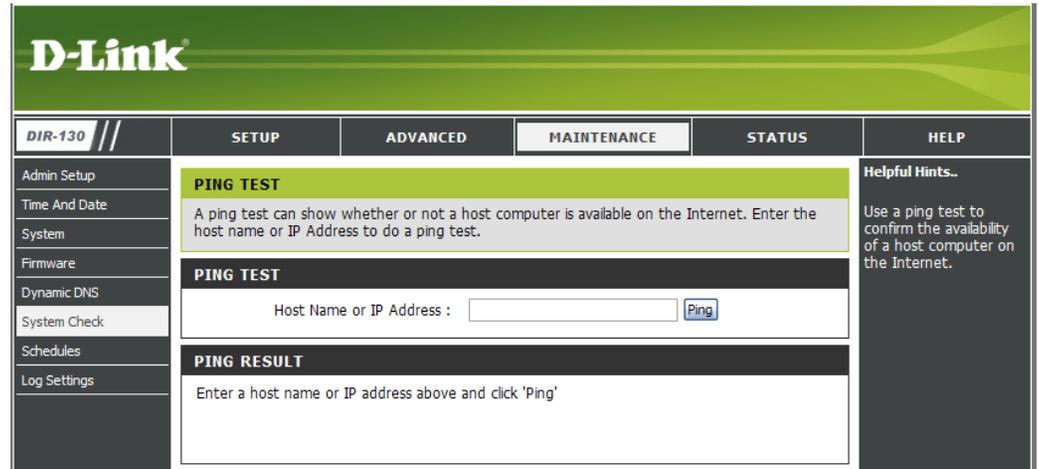
In order to use this feature you must first have a DDNS account from one of the providers in the drop down menu.

System Check

The router System Check uses a ping test to send ping packets to test if a computer in on the Internet.

Ping Test: Enter the IP address that you wish to ping and click the **Ping** button.

Ping Results: The results of your ping attempts will be displayed here.



The screenshot displays the D-Link DIR-130 web interface. The top navigation bar includes the D-Link logo and tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar lists various configuration options, with 'System Check' selected. The main content area is titled 'PING TEST' and contains the following text: 'A ping test can show whether or not a host computer is available on the Internet. Enter the host name or IP Address to do a ping test.' Below this is a form with a text input field labeled 'Host Name or IP Address :', a 'Ping' button, and a 'PING RESULT' section with the instruction 'Enter a host name or IP address above and click 'Ping''. A 'Helpful Hints...' section on the right provides additional information: 'Use a ping test to confirm the availability of a host computer on the Internet.'

Schedules

This section is used to manage schedule rules for port forwarding, firewall rules, web filtering, and remote

Name: Enter a name for your new schedule.

Days: Select a day, a range of days, or All Week to include every day.

Time: Check **All Day - 24hrs** or enter a start and end time for your schedule.

Save: Click **Save** to save your schedule. You must click **Save Settings** at the top for your schedules to go into effect.

Schedule Rules List: The list of schedules will be listed here. Click the **Edit** icon to make changes or click the **Delete** icon to remove the schedule.

D-Link

DIR-130 // SETUP ADVANCED MAINTENANCE STATUS HELP

Admin Setup
Time And Date
System
Firmware
Dynamic DNS
System Check
Schedules
Log Settings

SCHEDULES :
This section is used to manage schedule rules for port forwarding, firewall rules, web filtering and remote management.
Save Settings Don't Save Settings

ADD SCHEDULE RULE :

Name :

Day(s) : All Week Select Day(s)
 Sun Mon Tue Wed Thu Fri Sat

All Day - 24 hrs :

Start Time : : AM (hour:minute, 12 hour time)

End Time : : AM (hour:minute, 12 hour time)

Save Clear

SCHEDULE RULES LIST :

Name :	Day(s) :	Time Frame :

Helpful Hints..
After a schedule rule is defined, it can then be applied to the features of the router that support scheduling. These features include port forwarding, firewall rules, web filtering and remote management. Click on the Advanced menu item to configure these features.

Log Settings

SMTP Server/IP Address: The address of the SMTP server that will be used to send the logs.

Email Address: The email address to which the logs will be sent. Click on **Send Mail Now** to send the email.

Save Log File to Local Hard Drive: Click to save the log to your hard drive.

Log Type: Select the type of log you would like to view.

D-Link

DIR-130 //

SETUP ADVANCED MAINTENANCE STATUS HELP

Admin Setup
Time And Date
System
Firmware
Dynamic DNS
System Check
Schedules
Log Settings

LOG SETTINGS :
Logs can be saved by sending it to an admin email address.
Save Settings Don't Save Settings

LOG FILES :
SMTP Server / IP Address
Email Address
Save Log File To Local Hard Drive
Log Type System Activity
 Debug Information
 Attacks
 Dropped Packets
 Notice

Helpful Hints..
If you would like to have the router's logs emailed to you but are unsure of what to enter in the SMTP Server/IP Address field, please contact ISP.

Device Information

This page displays the current information for the DIR-130. It will display the LAN, WAN (Internet), and the firmware version of the router.

If your Internet connection is set up for a Dynamic IP address then a **Release** button and a **Renew** button will be displayed. Use **Release** to disconnect from your ISP and use **Renew** to connect to your ISP.

If your Internet connection is set up for PPPoE, a **Connect** button and a **Disconnect** button will be displayed. Use **Disconnect** to drop the PPPoE connection and use **Connect** to establish the PPPoE connection.

LAN: Displays the MAC address and the private (local) IP settings for the router.

WAN: Displays the MAC address and the public IP settings for the router.

The screenshot shows the D-Link DIR-130 web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The main content area is titled 'DEVICE INFORMATION' and contains the following details:

- DEVICE INFORMATION :** All of your Internet and network connection details are displayed on this page. The firmware version is listed below.
 - Firmware Version: 1.10**
- LAN :**
 - MAC Address : 00:1B:11:4D:78:39
 - IP Address : 192.168.0.1
 - Subnet Mask : 255.255.255.0
 - DHCP Server : Enabled
- WAN :**
 - MAC Address : 00:1B:11:4D:78:3A
 - Connection : DHCP Client Connecting
 - IP Address : 0.0.0.0
 - Subnet Mask : 0.0.0.0
 - Default Gateway : 0.0.0.0
 - DNS :

Buttons for 'DHCP Release' and 'DHCP Renew' are visible next to the WAN connection status.

Log

This page displays the log events of the router. Here you can view the logs of the router.

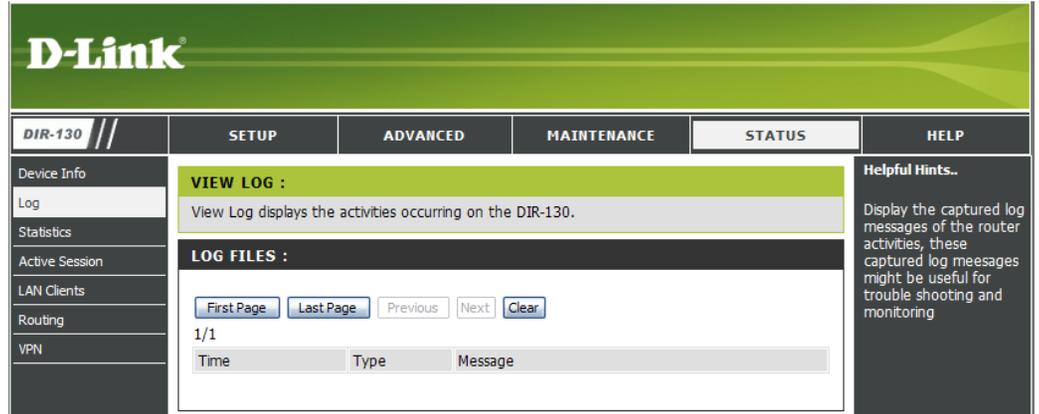
First Page: This button will direct you to the current first page of the log.

Last Page: This button will direct you to the current last page of the log.

Previous: Click to view the previous page of the log.

Next: Click to view the next page of the log.

Clear: Clears all current log content.



The screenshot displays the D-Link DIR-130 web interface. The top navigation bar includes the D-Link logo and tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains a menu with options: Device Info, Log (selected), Statistics, Active Session, LAN Clients, Routing, and VPN. The main content area is titled "VIEW LOG :" and contains the text "View Log displays the activities occurring on the DIR-130." Below this, there is a section for "LOG FILES :" with navigation buttons: First Page, Last Page, Previous, Next, and Clear. A table header is visible with columns for Time, Type, and Message. On the right side, there is a "Helpful Hints.." section with text: "Display the captured log messages of the router activities, these captured log messages might be useful for trouble shooting and monitoring."

Statistics

This page displays the current statistics of the router. Here you can view the amount of packets that pass through the router.

Refresh: This button will refresh the statistics to display updated information.

Reset: This button will reset the statistics packet count to zero for all interfaces listed.

WAN: Displays the amount of packets transmitted and received on the WAN interface.

LAN: Displays the amount of packets transmitted and received on the LAN interface.

The screenshot shows the D-Link DIR-130 web interface. The top navigation bar includes 'DIR-130', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar contains 'Device Info', 'Log', 'Statistics', 'Active Session', 'LAN Clients', 'Routing', and 'VPN'. The main content area is titled 'TRAFFIC STATISTICS :'. Below this, a text box explains that the section displays the total number of packets received and transmitted. A 'STATISTICS' table is shown with columns for 'Received' and 'Transmitted'. The table data is as follows:

	Received	Transmitted
WAN	111289 Packets	41399 Packets
LAN	4746 Packets	7460 Packets

Buttons for 'Refresh' and 'Reset' are located above the table. A 'Helpful Hints...' section on the right side of the page provides instructions on how to use the page to check traffic statistics.

Active Session

The Active Session Status menu shows the active sessions currently running on your router. The list will display the protocol, the source IP address and the destination IP address for each active session.

First Page: This button will direct you to the current first page of the active sessions.

Last Page: This button will direct you to the current last page of the active sessions.

Previous: This button will direct you to the previous page of the active sessions.

Next: This button will direct you to the next page of the active sessions.

The screenshot shows the D-Link DIR-130 web interface. The main content area displays the 'ACTIVE SESSION LIST' with a table of active sessions. The table has three columns: Protocol, Source, and Destination. The data rows are as follows:

Protocol	Source	Destination
UDP	192.168.0.1:3073	192.168.0.1:53
TCP	192.168.0.148:4666	192.168.0.1:80
TCP	192.168.0.148:4667	192.168.0.1:80
TCP	192.168.0.148:4668	192.168.0.1:80

The interface also includes navigation buttons (First Page, Last Page, Previous, Next, Refresh) and a 'Helpful Hints...' section on the right.

LAN Clients

This page displays a list of currently connected wired clients. This table also displays the connection time and MAC address of the connected wired clients.

D-Link

DIR-130 // SETUP ADVANCED MAINTENANCE STATUS HELP

Device Info
Log
Statistics
Active Session
LAN Clients
Routing
VPN

LAN CLIENTS LIST

When Dynamic DHCP and DHCP reservation client computers are connected to the router, their information will be displayed in the LAN COMPUTER.

LAN CLIENTS

IP Address	Name	MAC Address
------------	------	-------------

Helpful Hints..
Displays the current wired clients connected to the router.

Routing

This page displays a list of the default and static routes used by the router.

D-Link

DIR-130 // SETUP ADVANCED MAINTENANCE STATUS HELP

Device Info
Log
Statistics
Active Session
LAN Clients
Routing
VPN

ROUTING :

This section displays a list of the default and static routes used by your router.

Destination	Gateway	Subnet Mask	Metric	Interface
-------------	---------	-------------	--------	-----------

Helpful Hints..
Use this page to check for detailed information regarding default and static routes.

VPN

The VPN table displays a list of current PPTP, L2TP, L2TP over IPSec, and IPSec VPN sessions.

The screenshot shows the D-Link DIR-130 Web Management Interface. The top navigation bar includes 'DIR-130 //', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar contains 'Device Info', 'Log', 'Statistics', 'Active Session', 'LAN Clients', 'Routing', and 'VPN'. The main content area is titled 'CONNECTED VPN TUNNEL LIST' and contains the text 'The VPN List below displays current VPN information.' Below this is a table with columns: 'Type', 'Local Information', 'Remote Information', and 'Other'. To the right of the table is a 'Helpful Hints...' section with the text 'This page displays current established VPN tunnels.'

Help

The support menu provides additional information regarding features included in the DIR-130 Web Management Interface.

The screenshot shows the D-Link DIR-130 Web Management Interface with the 'HELP' menu selected. The left sidebar contains 'Menu', 'Setup', 'Advanced', 'Maintenance', and 'Status'. The main content area is titled 'SUPPORT MENU' and lists the following sections and their sub-items:

- SETUP**
 - Internet
 - Network settings
 - VPN settings
- ADVANCED**
 - Port Forwarding
 - Application Rules
 - Network Filter
 - Website Filter
 - Firewall Settings
 - Advanced Network
 - Routing
 - Certificates
 - User Group
- MAINTENANCE**
 - Admin
 - Time and Date
 - System
 - Firmware
 - DDNS
 - System Check
 - Schedules
 - Log settings
- STATUS**
 - Device Info
 - Log
 - Statistics
 - Active Session
 - LAN Clients
 - Routing
 - VPN

Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DIR-130. Read the following descriptions if you are having problems. (The examples below are illustrated in Windows® Vista™ and 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 (192.168.0.1 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
 - Netscape 8 or higher
 - Mozilla 1.7.12 (5.0) or higher
 - Opera 8.5 or higher
 - Safari 1.2 or higher (with Java 1.3.1 or higher)
 - Camino 0.8.4 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® 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 > Control Panel**. In Windows® XP or Windows Vista™, make sure you are in Classic View. 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. You will lose all your custom settings.

To reset the router, locate the reset button (hole) on the rear panel of the unit. With the router powered on, use a paperclip to hold the button down for 10 seconds. Release the button and the router will go through its reboot process. Wait about 30 seconds to access the router. The default IP address is 192.168.0.1. When logging in, the username is **admin** and leave the password box empty. A list of the default settings can be found on page 64.

3. Why can't I connect to certain sites or send and receive e-mails when connecting through my router?

If you are having a problem sending or receiving e-mail, or connecting to secure sites such as eBay, banking sites, and Hotmail, we suggest lowering the MTU in increments of ten (Ex. 1492, 1482, 1472, etc).

Note: AOL DSL+ users must use MTU of 1400.

To find the proper MTU Size, you'll have to do a special ping of the destination you're trying to go to. A destination could be another computer, or a URL.

- Windows Vista™ users click on **Start** and type *cmd* in the **Start Search** box. Click **OK** or press **Enter**.
- Windows® NT, 2000 and XP users click on **Start**, click **Run**, and then type *cmd* in the box. Click **OK** or press **Enter**.
- Windows® 95, 98, and Me users click on **Start**, click **Run**, and then type *command*. Click **OK** or press **Enter**.
- Once the window opens, you'll need to do a special ping. Use the following syntax:

ping [url] [-f] [-l] [MTU value]

Example: **ping yahoo.com -f -l 1472**

```
C:\>ping yahoo.com -f -l 1482
Pinging yahoo.com [66.94.234.13] with 1482 bytes of data:
Packet needs to be fragmented but DF set.

Ping statistics for 66.94.234.13:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping yahoo.com -f -l 1472
Pinging yahoo.com [66.94.234.13] with 1472 bytes of data:
Reply from 66.94.234.13: bytes=1472 time=93ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=109ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=125ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=203ms TTL=52

Ping statistics for 66.94.234.13:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 93ms, Maximum = 203ms, Average = 132ms

C:\>
```

You should start at 1472 and work your way down by 10 each time. Once you get a reply, go up by 2 until you get a fragmented packet. Take that value and add 28 to the value to account for the various TCP/IP headers. For example, lets say that 1452 was the proper value, the actual MTU size would be 1480, which is the optimum for the network we're working with (1452+28=1480).

Once you find your MTU, you can now configure your router with the proper MTU size.

To change the MTU rate on your router follow the steps below:

- Open your browser, enter the IP address of your router (192.168.0.1) and click **OK**.
- Enter your username (admin) and password (blank by default). Click **OK** to enter the web configuration page for the device.
- Click on **Setup** and then click **Manual Configure**.
- To change the MTU enter the number in the MTU field and click **Save Settings** to save your settings.
- Test your e-mail. If changing the MTU does not resolve the problem, continue changing the MTU in increments of ten.

4. Why is the date on the logs incorrect?

The router has not successfully connected to a Network Time (NTP) server. Check that your Internet connection settings are correct. If you have connected for the first time, allow up to 10 minutes to connect.

If the time is off by 1 hour, make sure you have selected the correct time zone and that Daylight Savings is selected.

Refer to **Section 3 - Configuration > Time and Date** for more information.

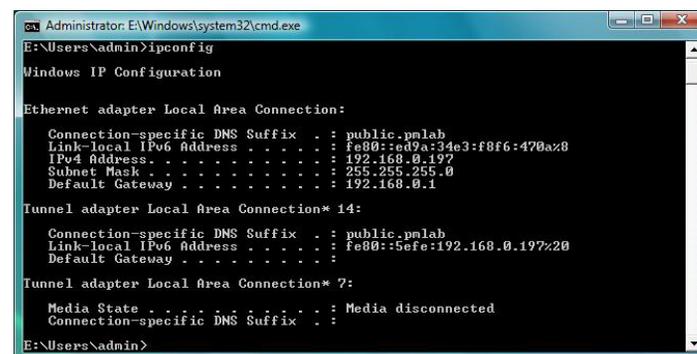
Networking Basics

Check your IP address

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

Windows Vista™ Users:

- Click **Start > All Programs > Accessories > Command Prompt**. You may need administrative access to run this application.
- For all additional prompt windows inquiring of running the command prompt application, select **Yes, OK, or Continue**.
- At the prompt, type *ipconfig* and press **Enter**.
- This will display the IP address, subnet mask, and default gateway of your adapter.



```
Administrator: E:\Windows\system32\cmd.exe
E:\Users\Admin>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : public.pmlab
    Link-local IPv6 Address . . . . . : fe80::ed9a:3463:f8f6:470az8
    IPv4 Address. . . . . : 192.168.0.197
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.0.1

Tunnel adapter Local Area Connection* 14:

    Connection-specific DNS Suffix  . : public.pmlab
    Link-local IPv6 Address . . . . . : fe80::5efe:192.168.0.197%20
    Default Gateway . . . . . :

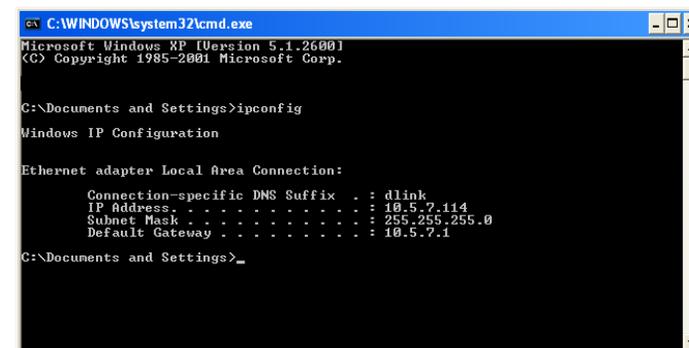
Tunnel adapter Local Area Connection* 7:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

E:\Users\Admin>
```

Windows® 2000/XP Users:

- 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.



```
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>
```

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.

Statically Assign an IP address

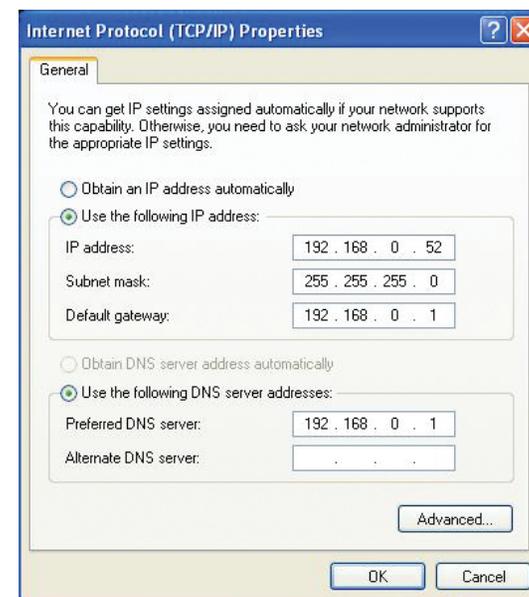
If you are not using a DHCP capable gateway/router, or you need to assign a static IP address, please follow the steps below:

Windows® XP/2000 Users

- **Windows® XP** - Click on **Start > Control Panel**. Make sure you are in Classic View. Double-click on the Network Connections icon.
Windows® 2000 – From the desktop, right-click **My Network Places > Properties**.
- Right-click on the **Local Area Connection** which represents your D-Link network adapter (or other adapter) which will be connected to your router.
- Highlight **Internet Protocol (TCP/IP)** and click **Properties**.
- Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or 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 optional (you may enter a DNS server from your ISP).
- Click **OK** to save your settings.

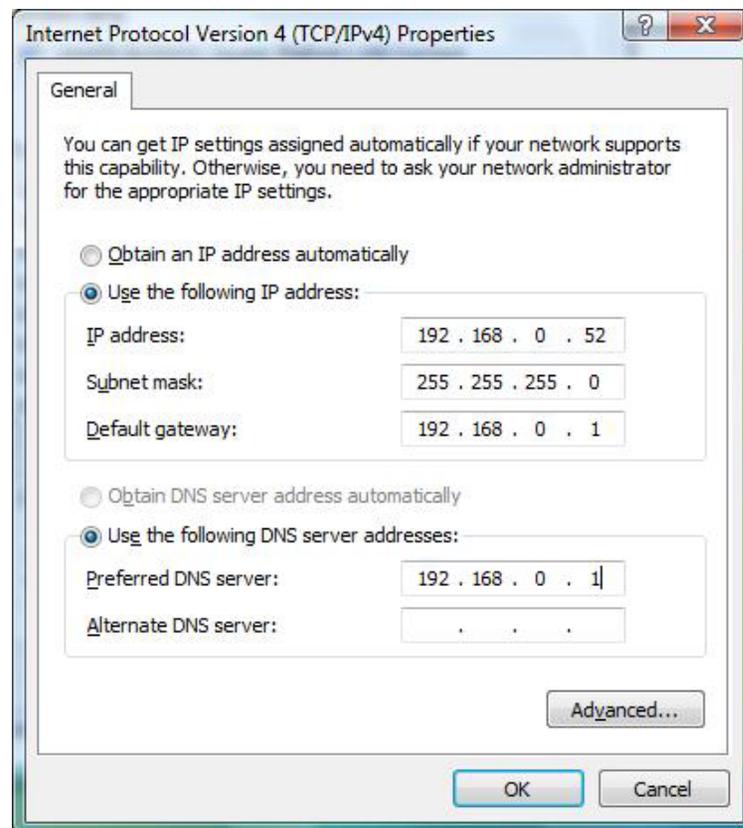


Windows Vista™ Users

- Click on **Start > Control Panel**. Make sure you are in Classic View. Double-click on the **Network and Sharing Center** icon. Along the left panel in the window, click on **Manage network connections**.
- Right-click on the **Local Area Connection** which represents your D-Link network adapter (or other adapter) which will be connected to your router.
- Highlight **Internet Protocol Version 4 (TCP /IPv4)** and click **Properties**.
- Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or 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 optional (you may enter a DNS server from your ISP).
- Click **OK** to save your settings.



Technical Specifications

Standards

- IEEE 802.3
- IEEE 802.3u

LEDs

- Power
- Status
- WAN
- LAN (1-8)

Operating Temperature

- 32°F to 104°F (0°C to 40°C)

Humidity

- 95% maximum (non-condensing)

Safety & Emissions

- FCC
- CE
- IC

Dimensions

- L = 7.6 inches
- W = 4.6 inches
- H = 1.2inches

Warranty

- 1 Year

Default Factory Settings

When you receive your router, the default factory settings are in effect as listed in the table below. You may change any of the network settings. If you perform a reset (hold the reset button on the back of the unit), the router will reset with the following settings:

Setting	Default Value
Username	admin
Password	(leave blank)
LAN IP Address	192.168.0.1
DHCP Server	Enabled
DHCP IP Range	192.168.0.100 - 192.168.0.150
Filtering / Virtual Server / DMZ / Applications	Disabled

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. DIR-130)
- Hardware Revision (located on the label on the bottom of the router (e.g. rev A1))
- 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) 354-6555

Internet Support:
<http://support.dlink.com>

For customers within Canada:

Phone Support:
(877) 354-6560

Internet Support:
<http://support.dlink.com>

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 DLink 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 DLink 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 <https://rma.dlink.com/>.

- 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. DLink 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 NONINFRINGEMENT.

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 NONCONFORMING 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:

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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 communications. 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 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.

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FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

IC statement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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