USER MANUAL
DSL-320B

VERSION 1.0

Power   Status   LAN   DSL

ADSL Modem   **DSL-320B**

D-Link®

BROADBAND

Table of Contents

Package Contents

- DSL-320B ADSL Modem
- Power Adapter
- CD-ROM with User Manual
- One twisted-pair telephone cable used for ADSL connection
- One straight-through Ethernet cable
- One Quick Installation Guide

Note: Using a power supply with a different voltage rating than the one included
with the DSL-320B will cause damage and void the warranty for this product.
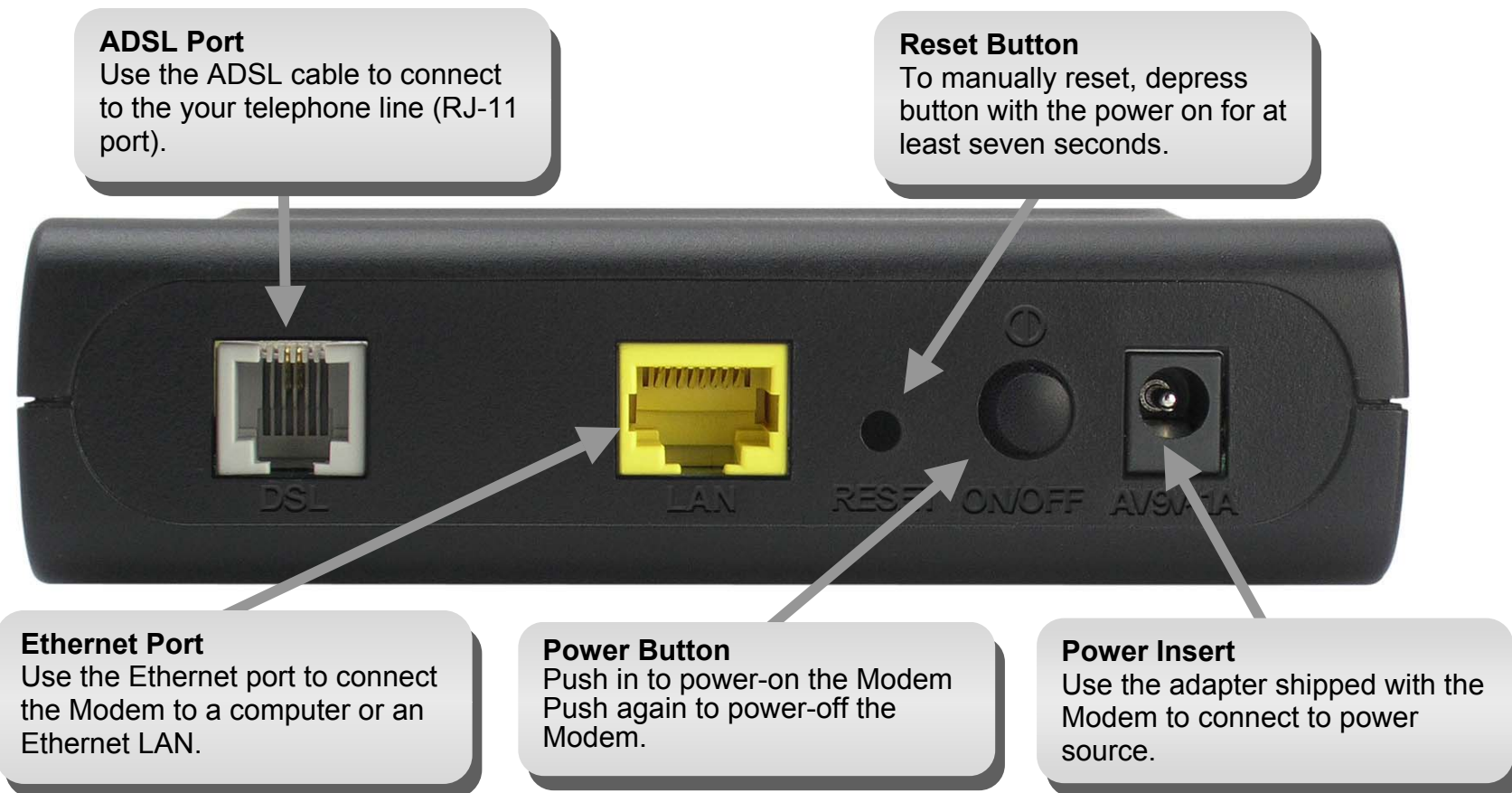
System Requirements

- ADSL Internet service
- Computer with:
    - 200MHz Processor
    - 64MB Memory
    - CD-ROM Drive
    - Ethernet Adapter with TCP/IP Protocol Installed
    - Internet Explorer v6 or later, FireFox v1.5, or Safari 1.3 or above
    - Windows 2000/XP/Vista
- D-Link Click'n Connect Utility

Features

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

- **DHCP Support –** Dynamic Host Configuration Protocol automatically and dynamically assigns all LAN IP settings to each host on your network. This eliminates the need to reconfigure every host whenever changes in network topology occur.

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

- **ATM (Asynchronous Transfer Mode) –** The Modem supports Bridged Ethernet over ATM (RFC1483) and PPP over ATM (RFC 2364).

- **Precise ATM Traffic Shaping –** Traffic shaping is a method of controlling the flow rate of ATM data cells. This function helps to establish the Quality of Service for ATM data transfer.

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

- **Telnet Connection –** The Telnet enables a network manager to access the Modem's management software remotely.

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

•

Hardware Overview
Connections

ADSL Port
Use the ADSL cable to connect to the your telephone line (RJ-11 port).

Reset Button
To manually reset, depress button with the power on for at least seven seconds.

Ethernet Port
Use the Ethernet port to connect the Modem to a computer or an Ethernet LAN.

Power Button
Push in to power-on the Modem Push again to power-off the Modem.

Power Insert
Use the adapter shipped with the Modem to connect to power source.

Hardware Overview
LEDs

DSL
A steady green light indicates a valid ADSL connection. This will light after the ADSL negotiation process has been settled. A blinking green light indicates activity on the WAN (ADSL) interface.

Power
A steady green light indicates the unit is powered on. When the device is powered off this remains dark.

Power   Status   LAN   DSL

ADSL Modem   DSL-320B

Status
Lights steady green during power on self-test (POST). Once the connection status has been settled, the light will blink green. If the indicator lights steady green after the POST, the system has failed and the device should be rebooted.

LAN
A solid green light indicates a valid link on startup. This light will blink when there is activity currently passing through the Ethernet port.

Installation

This section will walk you through the installation process. Placement of the Modem is very important. Do not place the Modem in an enclosed area such as a closet, cabinet, or in the attic or garage.

Before You Begin

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

Installation Notes

In order to establish a connection to the Internet it will be necessary to provide information to the Modem that will be stored in its memory. For some users, only their account information (Username and Password) is required. For others, various parameters that control and define the Internet connection will be required. You can print out the two pages below and use the tables to list this information. This way you have a hard copy of all the information needed to setup the Modem. If it is necessary to reconfigure the device, all the necessary information can be easily accessed. Be sure to keep this information safe and private.

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

Operating Systems
The DSL-320B uses an HTML-based web interface for setup and management. The Web configuration manager may be accessed using any operating system capable of running web browser software, including Windows 98 SE, Windows ME, Windows 2000, Windows XP, and Windows Vista.

Web Browser

Any common Web browser can be used to configure the Modem using the Web configuration management software. The program is designed to work best with more recently released browsers such as Opera, Microsoft Internet Explorer® version 6.0, Netscape Navigator® version 6.2.3, or later versions. The Web browser must have JavaScript enabled. JavaScript is enabled by default on many browsers. Make sure JavaScript has not been disabled by other software (such as virus protection or web user security packages) that may be running on your computer.

Ethernet Port (NIC Adapter)

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

Additional Software

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

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

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

Information you will need from your ADSL service provider

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

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

WAN Setting / Connection Type
These settings describe the method your ADSL service provider uses to transport data between the Internet and your computer. Most users will use the default settings. You may need to specify one of the following WAN Setting and Connection Type configurations (Connection Type settings listed in parenthesis):
- PPPoE/PPoA (PPPoE LLC, PPPoE VC-Mux, PPPoA LLC or PPPoA VC-Mux)
- Static IP Address (1483 Routed IP LLC or 1483 Routed IP VC-Mux)
- Bridge Mode (1483 Bridged IP LLC or 1483 Bridged IP VC Mux)

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

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

VPI

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

VCI

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

Information you will need about DSL-320B

Username

This is the Username needed access the Modem's management interface. When you attempt to connect to the device through a web browser you will be prompted to enter this Username. The default Username for the Modem is "admin." The user cannot change this.

Password

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

LAN IP addresses for the DSL-320B

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

LAN Subnet Mask for the DSL-320B

This is the subnet mask used by the DSL-320B, and will be used throughout your LAN. The default subnet mask is 255.255.255.0. This can be changed later.

Information you will need about your LAN or computer:

Ethernet NIC
If your computer has an Ethernet NIC, you can connect the DSL-320B to this Ethernet port using an Ethernet cable. You can also use the Ethernet ports on the DSL-320B to connect to other computer or Ethernet devices.

DHCP Client status
Your DSL-320B ADSL Modem is configured, by default, to be a DHCP server. This means that it can assign an IP address, subnet mask, and a default gateway address to computers on your LAN. The default range of IP addresses the DSL-320B will assign are from 192.168.1.2 to 192.168.1.254. Your computer (or computers) needs to be configured to obtain an IP address automatically (that is, they need to be configured as DHCP clients.)

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

Once you have the above information, you are ready to setup and configure your DSL-320B ADSL Modem.

Device Installation

The DSL-320B connects two separate physical interfaces, an ADSL (WAN) and an Ethernet (LAN) interface. Place the Modem in a location where it can be connected to the various devices as well as to a power source. The Modem should not be located where it will be exposed to moisture or excessive heat. Make sure the cables and power cord are placed safely out of the way so they do not create a tripping hazard. As with any electrical appliance, observe common sense safety procedures.

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

Power on Modem

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

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

Factory Reset Button

The Modem may be reset to the original factory default settings by using a ballpoint or paperclip to gently push down the reset button in the following sequence:
1. Press and hold the reset button while the device is powered off.
2. Turn on the power.
3. Wait for 5~8 seconds and then release the reset button.

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

Network Connections

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

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

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

Computer to Modem Connection
You can connect the Modem directly to a 10/100BASE-TX Ethernet adapter card (NIC) installed on a PC using the Ethernet cable provided.

Setup

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

Web-based Configuration Utility

Connect to the Modem
To configure the WAN connection used by the Modem it is first necessary to communicate with the Modem through its management interface, which is HTML-based and can be accessed using a web browser. The easiest way to make sure your computer has the correct IP settings is to configure it to use the DHCP server in the Modem. The next section describes how to change the IP configuration for a computer running a Windows operating system to be a DHCP client.

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

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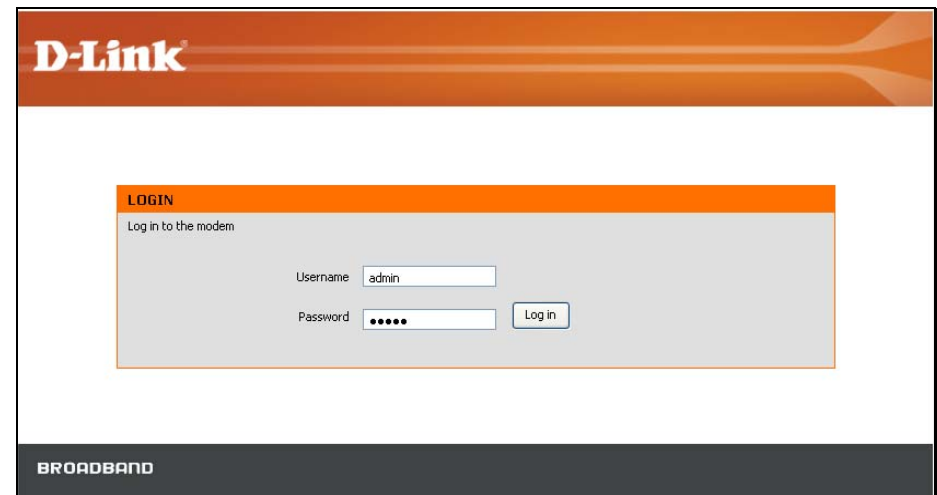
Quick Setup

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

QUICK SETUP
Click the **Setup Wizard** link at the top of the window of the Modem's opening page to launch a series of setup windows.

Alternatively, you can tick the Manual Setup check box and click the desired setting option radio button in the middle of the window. The manual ADSL connection setup is described later in this manual.

The Modem allows you to change the Web manager's language settings using the drop-down menu on the left side of the window. The choices are: *English*, *Spanish*, *French*, *Italian*, and *German*. Please note that in some markets, only English is supported at this time.
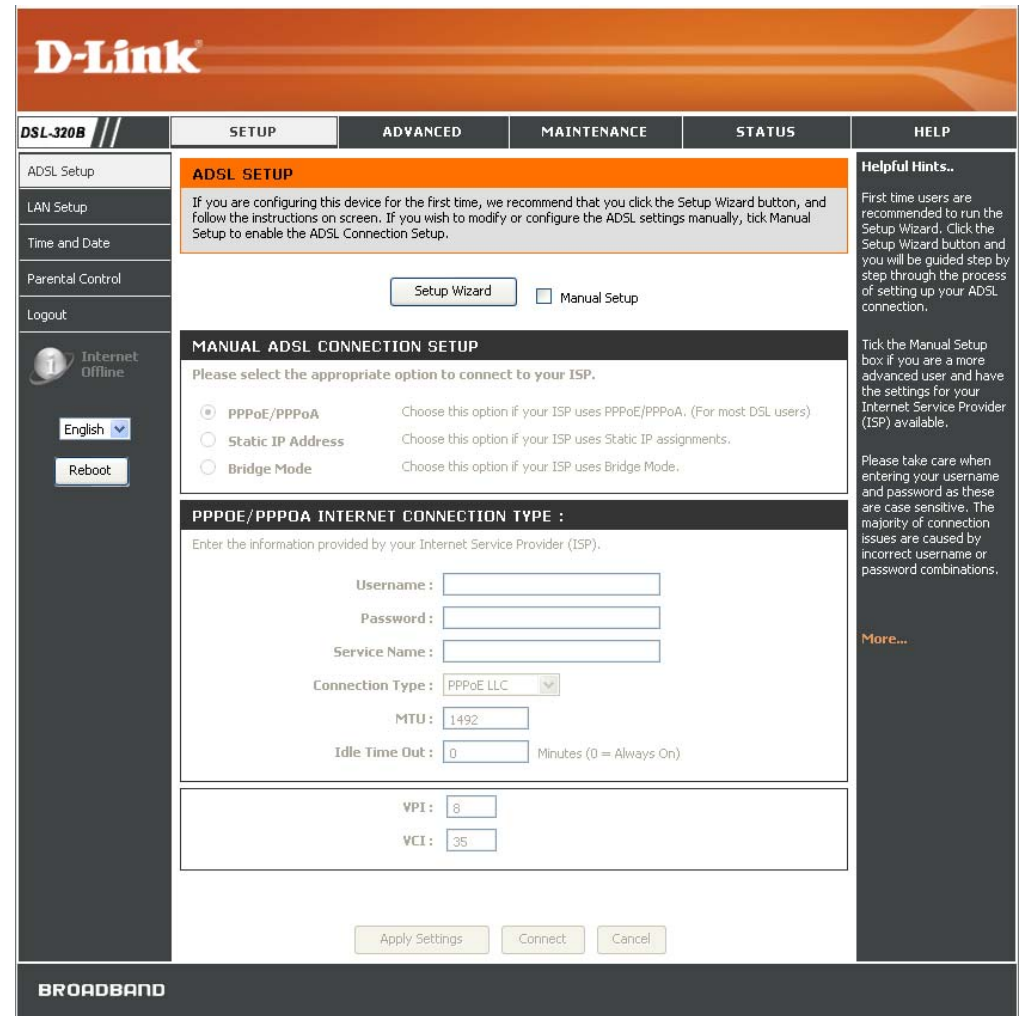
QUICK SETUP – OPENING WINDOW
The first window of the Setup Wizard lists the basic steps in the process. These steps are as follows:

1. Change the Modem password.
2. Configure the connection to the Internet.
3. Save the new configuration settings and reboot the system.
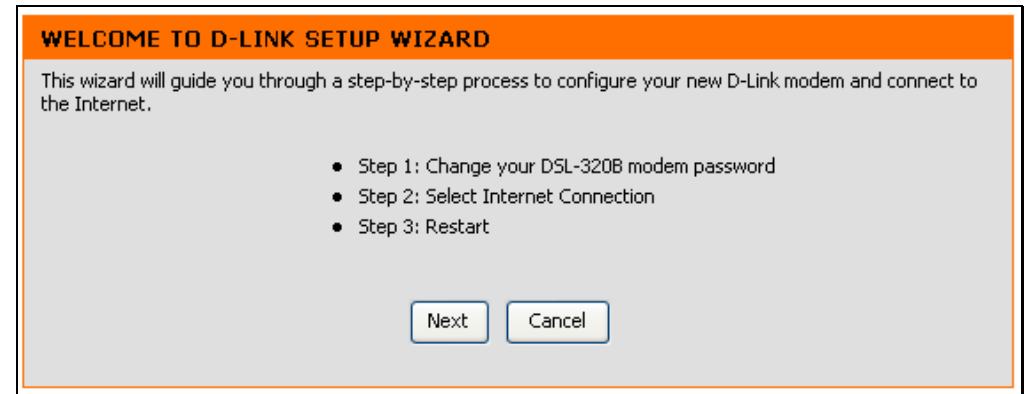
QUICK SETUP – CHANGE YOUR MODEM PASSWORD
This window of the Setup Wizard is used to change the Modem password. D-Link recommends to help secure your network, the user change the Current Password from the factory default "admin." The New Password should be between 1 and 16 alphanumeric characters. Once you have filled out the fields in this window, including re-typing the new password in the Confirm Password field, click the **Next** button to continue.

If you do not want to change the password, click the **Skip** button to proceed to the next step.
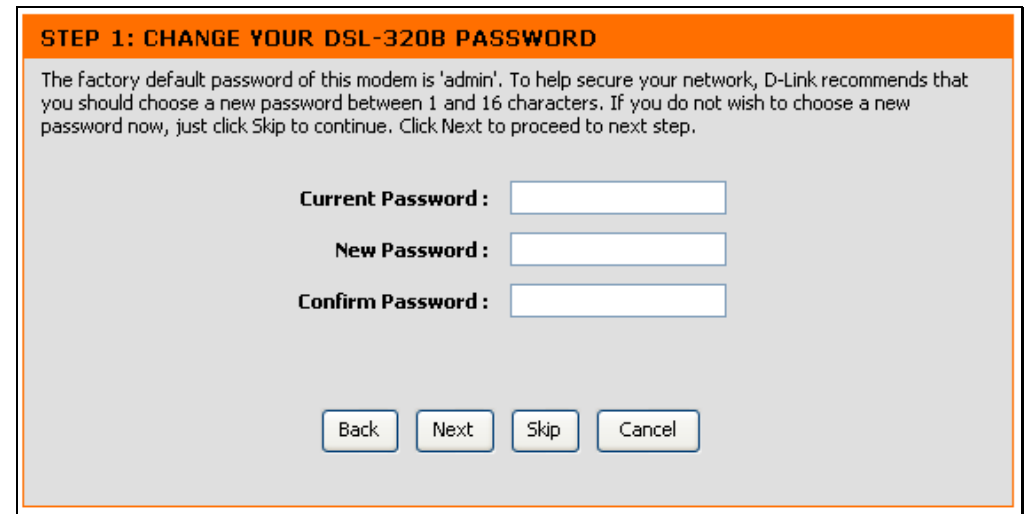
QUICK SETUP – SELECT THE INTERNET CONNECTION TYPE
Now use the drop-down menus to select the Country, ISP Provider, and Connection Type used for the Internet connection, and enter VPI and VCI values if applicable. Your ISP has given this information to you—any information that is not required for your provider will automatically be grayed out in this window and subsequent Quick Setup windows.

The Connection Type options are *1483 Bridged IP LLC*, *1483 Bridged IP VC-Mux, 1483 Routed IP LLC*, *1483 Routed IP VC-Mux*, *PPPoE LLC*, *PPPoE VC-Mux*, *PPPoA LLC*, and *PPPoA VC-Mux*.

Click the **Next** button when you are finished to proceed to the next Setup Wizard window.

QUICK SETUP – SELECT THE INTERNET CONNECTION TYPE
If the following Setup Wizard window appears, please select the connection type used by your ISP and then click the **Next** button. Most users, however, will be sent directly to a Setup Wizard window for their specific Internet connection type based on the information entered in the previous Setup Wizard window.

QUICK SETUP – PPPOE/PPPOA CONFIGURATION

Type in the User Name and Password used to identify and verify your account to the ISP. If you are instructed to change the VPI or VCI number, type in the correct setting in the available entry fields. Most users will not need to change these settings. The Internet connection cannot function if these values are incorrect.

Some users may have to adjust the Connection Type from the drop-down menu at the bottom of this Setup Wizard window. The available connection and encapsulation types are *PPPoE LLC*, *PPoE VC-Mux*, *PPPoA LLC*, and *PPPoA VC-Mux*.

Click **Next** to go to the last Setup Wizard window.

STEP 2: SELECT INTERNET CONNECTION TYPE

You have selected PPPoE/PPPoA Internet connection. Please enter the appropriate information below as provided by your ISP.

Please enter the information exactly as shown taking note of upper and lower cases.

Click Next to continue.

Username :

Password :

VPI :

VCI :

Connection Type : PPPoE LLC

Back   Next   Cancel

QUICK SETUP – STATIC IP CONFIGURATION
Enter values for VPI, VCI, IP Address, Subnet Mask, Default Gateway IP address, Preferred DNS Server IP address, and Alternate DNS Server IP address as instructed by your ISP. The Internet connection cannot function if these values are incorrect.

Select the specific Connection Type from the drop-down menu. The available connection and encapsulation types are *1483 Routed IP LLC* and *1483 Routed IP VC-Mux*.

Click **Next** to go to the last Setup Wizard window.

QUICK SETUP – BRIDGE MODE CONFIGURATION
If you are instructed to change the VPI or VCI numbers, type in the correct setting in the available entry fields. The Internet connection cannot function if these values are incorrect.

Select the specific Connection Type from the drop-down menu. The available connection and encapsulation types are *1483 Bridged IP LLC* and *1483 Bridged IP VC-Mux*.

Click **Next** to go to the last Setup Wizard window.

QUICK SETUP – FINISH & RESTART CONFIRMATION
Finally you can confirm that the setup process is completed. If you are satisfied that you have entered all the necessary information correctly, click the **Restart** button to save the new configuration settings and restart the Modem. If you need to change settings from a previous window, click the **Back** button.
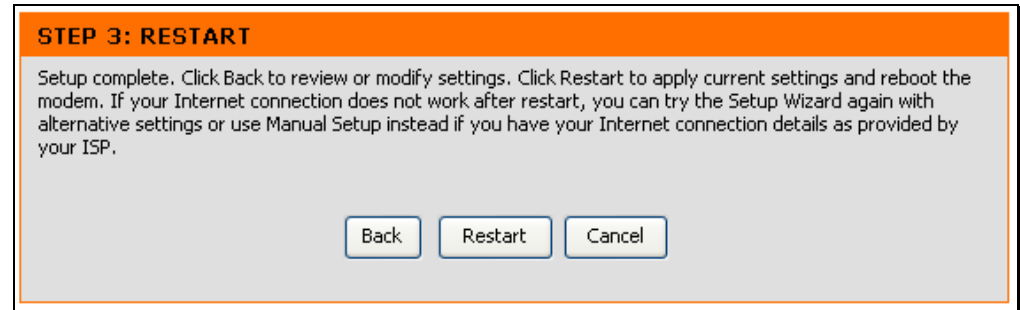
QUICK SETUP – REBOOT CONFIRMATION DIALOG
Click the **OK** button to proceed with the Modem reboot.
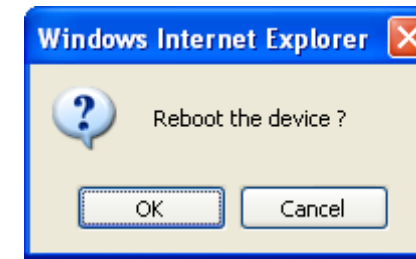
QUICK SETUP – REBOOT TIME INDICATOR
The following window opens to indicate the amount of time it will take to reboot the Modem.
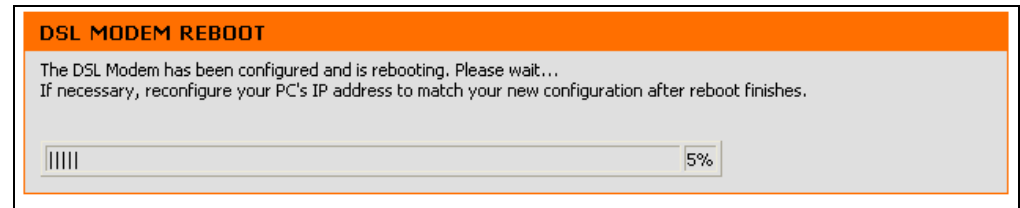
QUICK SETUP – REBOOT CONFIRMATION DIALOG
Click **OK** to continue.
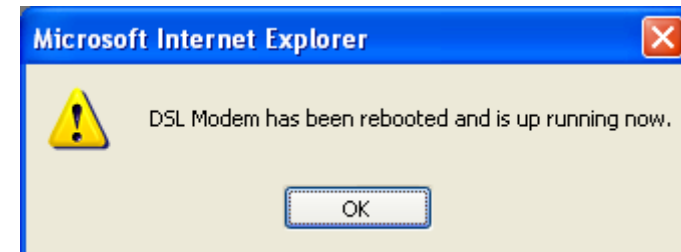
ADSL Setup

To access the **ADSL Setup** window, simply login to the Modem or click either **ADSL Setup** in the **Setup** directory or **Setup** on the tool bar at the top of the Web manager window. Tick the Manual Setup check box located next to the Setup Wizard button to display the following window:

To configure the Modem's basic configuration settings without running the Setup Wizard, you can access the windows used to configure ADSL Setup, LAN Setup, Time and Date, and Parental Control settings directly from the **Setup** directory.

To access the **ADSL Setup** windows for Manual ADSL Connection Setup for PPPoE/PPPoA, Static IP Address, and Bridge Mode, click on the **ADSL Setup** link button on the left side of the first window that appears when you successfully access the web manager.

The Modem allows you to change the Web manager's language settings using the drop-down menu on the left side of the window. The choices are: *English*, *Spanish*, *French*, *Italian*, and *German*. Please note that in some markets, only English is supported at this time.

Click the PPPoE/PPPoA radio button to access the first Manual ADSL Connection Setup window:
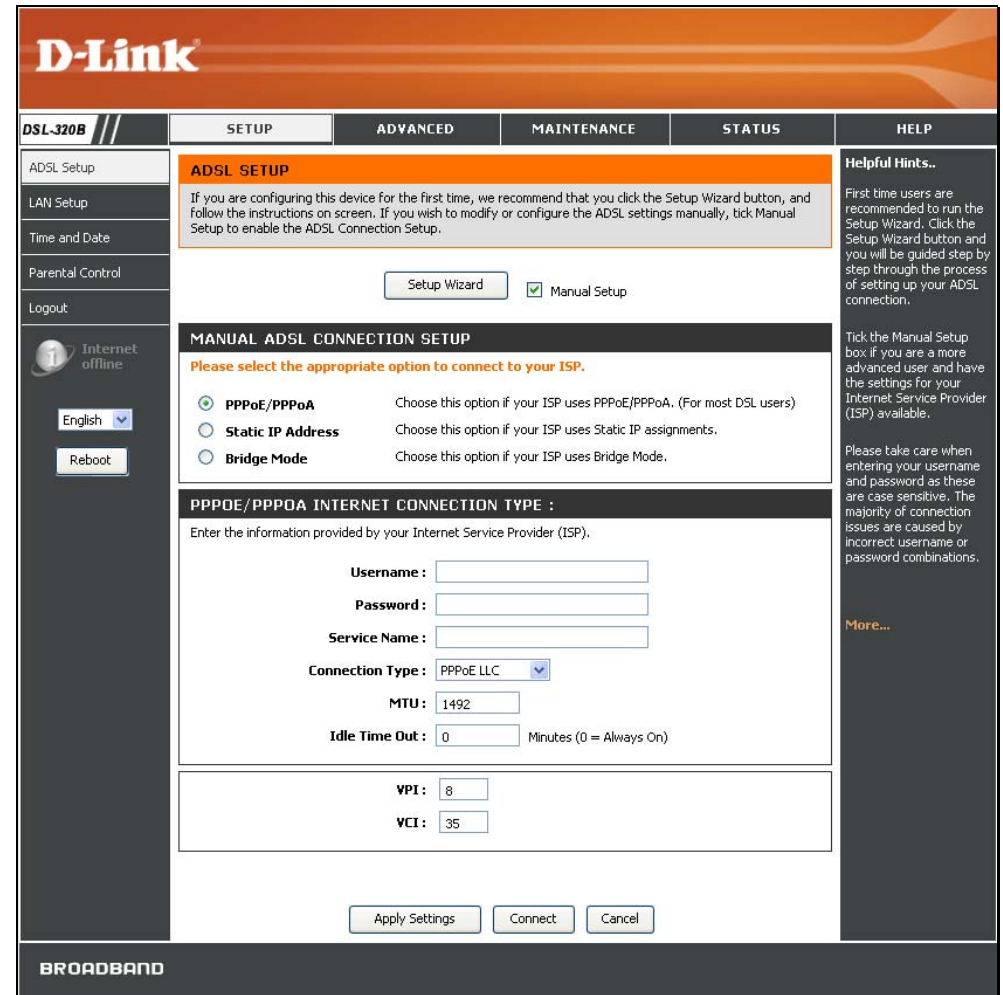
PPPoE/PPPoA

To configure a PPPoE or PPPoA type WAN connection, follow these steps:

1. Type the Username and Password used for your ADSL account. A typical User Name will be in the form "user1234@isp.co.uk." The Password may be assigned to you by your ISP or you may have selected it when you set up the account with your ISP. The Service Name field is used for the name of your Internet Service Provider. This is optional.
2. Choose the Connection Type from the drop-down menu. This defines both the connection protocol and encapsulation method used for your ADSL service. The available options are *PPPoE LLC*, *PPPoE VC-Mux, PPPoA LLC* and *PPPoA VC-Mux.* If you have not been provided specific information for the Connection Type setting, leave the default setting.
3. Leave the MTU value at the default setting unless you have specific reasons to change this.
4. Some users will want to set an Idle Time Out. This is an age-out value, in minutes, before the Modem times out.
5. If you are instructed to change the VPI or VCI values, type in the values assigned for your account.
6. When you are satisfied that all the WAN settings are configured correctly, click the **Apply Settings** button. This will save the settings and reboot the Modem to let your changes take effect.
7. Upon restarting, the Modem should automatically establish the WAN connection. If it does not, click the **Connect** button at the bottom of this window.

Static IP Address

When the Modem is configured to use Static IP Address assignment for the WAN connection, you must manually assign a global IP Address, Subnet Mask, and Default Gateway IP address used for the WAN connection.
.
To configure a Static IP Address WAN connection, follow these steps:

1. Change the IP Address, Subnet Mask, and Default Gateway as instructed by your ISP. These are the global IP settings for the WAN interface. This is the "visible" IP address of your account. Your ISP should have provided these IP settings to you. If your ISP also asks you to change DNS server IP addresses, enter the Preferred DNS Server and Alternate DNS Server information manually.
2. Choose the Connection Type from the drop-down menu. This defines both the connection protocol and encapsulation method used for your ADSL service. The available options are *1483 Routed IP LLC* and *1483 Routed IP VC-Mux.* If you have not been provided specific information for this setting, leave the default setting.
3. If you are instructed to change the VPI or VCI values, type in the values assigned for your account.
4. When you are satisfied that all the WAN settings are configured correctly, click the **Apply Settings** button. This will save the settings and reboot the Modem to let your changes take effect.
5. Upon restarting, the Modem should automatically establish the WAN connection.

Bridge Mode

For Bridged connections it will be necessary for most users to install additional software on any computer that will use the Modem for Internet access. The additional software is used for the purpose of identifying and verifying your account, and then granting Internet access to the computer requesting the connection. The connection software requires the user to enter the User Name and Password for the ISP account. This information is stored on the computer, not in the Modem.
.
To configure a Static IP Address WAN connection, follow these steps:

1. Choose the Connection Type from the drop-down menu. This defines both the connection protocol and encapsulation method used for your ADSL service. The available options are *1483 Bridged IP LLC* and *1483 Bridged IP VC-Mux.* If you have not been provided specific information for this setting, leave the default setting.
2. If you are instructed to change the VPI or VCI values, type in the values assigned for your account.
3. When you are satisfied that all the WAN settings are configured correctly, click the **Apply Settings** button. This will save the settings and reboot the Modem to let your changes take effect.

4. Upon restarting, the Modem should automatically establish the WAN connection.

LAN Setup

To access the **LAN Setup** window, click the **LAN Setup** button in the **Setup** directory.

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

To change the LAN Modem IP Address or Subnet Mask, type in the desired values in the Modem Settings section and click the **Apply Settings** button. Your web browser should automatically be redirected to the new IP address. You will be asked to login again to the Modem's web manager.

The DHCP server is enabled by default for the Modem's Ethernet LAN interface. DHCP service will supply IP settings to workstations configured to automatically obtain IP settings that are connected to the Modem though the Ethernet port. When the Modem is used for DHCP it becomes the default gateway for DHCP client connected to it. Keep in mind that if you change the IP address of the Modem the range of IP addresses in the pool used for DHCP on the LAN will also be changed. The IP address pool can be up to 253 IP addresses.

There are two options for DHCP service:
- You can use the Modem as a DHCP server for your LAN.
- You can disable DHCP service and manually configure IP settings for workstations.

You may also configure DNS settings when using the Modem in DHCP mode (**Advanced** > **DNS Setup**). When "Obtain DNS server address automatically" is clicked under DNS Server Configuration on the **DNS Setup** window, the Modem will automatically relay DNS settings to properly configured DHCP clients. To manually enter DNS IP addresses, click the "Use the following DNS server addresses" radio button and type in a Preferred DNS Server and Alternate DNS Server in the fields provided. The manually configured DNS settings will be supplied to clients that are configured to request them from the Modem.

Follow the instructions below according to which of the above DHCP options you want to use. When you have configured DHCP as you want, click the **Apply Settings** button to commit the new settings.

Use the Modem for DHCP

To use the built-in DHCP server, tick the Enable DHCP Server check box in the DHCP Server Settings (Optional) section if it is not already selected. The IP address pool settings can be adjusted. The DHCP IP Address Range starts with the lowest available IP address (default = 192.168.1.2). If you change the IP address of the Modem this will change automatically to be 1 more that the IP address of the Modem. The DHCP IP Address Range ends with the highest IP address number in the pool. Type in the DHCP Lease Time in the entry field provided. This is the amount of time in seconds that a workstation is allowed to reserve an IP address in the pool if the workstation is disconnected from the network or powered off.

Disable the DHCP Server

To disable DHCP, deselect the Enable DHCP Server check box in the DHCP Server Settings (Optional) section and click the **Apply Settings** button. Choosing this option will gray out most of the setting options on this window and require that workstations on the local network be configured manually or use another DHCP server to obtain IP settings.

If you configure IP settings manually, make sure to use IP addresses in the subnet of the Modem. You will need to use the Modem's IP address as the Default Gateway for the workstation in order to provide Internet access.

Time and Date

To access the **Time and Date** window, click the **Time and Date** button in the **Setup** directory.

The Modem allows you to configure, update, and maintain the correct time on the internal clock.

To configure system time on the Modem, click the **Copy Your Computer's Time Settings** button, or set the time and date manually by using the Date and Time drop-down menus. When you are finished, click the **Apply Settings** button to set the system time and date information.

Parental Control

To access the **Parental Control** window, click the **Parental Control** button in the **Setup** directory.
Use this window to deny access to specified websites and to set Internet access time periods.

URL or Uniform Resource Locator is a specially formatted text string that uniquely defines an Internet website. This window will allow users to block computers on the LAN from accessing certain URLs. This may be accomplished by simply entering the URL to be blocked in the Website field.

To configure this window for URL blocking, enter the website's address into the Website field, use the radio buttons to click the desired Day(s), either All Week or Select Day(s) (in which case you must tick the checkboxes for the desired individual days of the week), select the desired Start Time and End Time or tick the All Day – 24 hrs checkbox, and then click the **Block Website** button. Configured URL blocking entries are displayed in the table in the middle of the window. To remove a Blocked URL entry in the table, tick the Remove check box and then click the **Remove Selected** button. To modify a table entry, click the corresponding Edit hyperlink, make the desired changes, and then click the **Block Website** button.

This window also enables you to determine when Internet access is granted by using the settings in the Internet Access Time Restrictions section of this window. Configure Time and days of the week and then use the drop-down menu to toggle the Allow/Deny setting for each time period. Clicking the **Apply Settings** button will allow your setting to take effect.

Advanced

This chapter include the more advanced features used for network management and security.

DNS Setup

To access the **DNS Setup** window, click the **DNS Setup** button in the **Advanced** directory.

If you have not been given specific DNS server IP addresses or if the Modem is not pre-configured with DNS server information, select the "Obtain DNS server address automatically" option. Auto discovery DNS instructs the Modem to automatically obtain the DNS IP address from the ISP through DHCP. If your WAN connection uses a Static IP address, auto discovery for DNS cannot be used.

If you have DNS IP addresses provided by your ISP, click the "Use the following DNS server addresses" radio button and enter these IP addresses in the available entry fields for the Preferred DNS Server and the Alternative DNS Server. When you have configured the DNS settings as desired, click the **Apply Settings** button and then click the **Reboot** button on the left panel to let your changes take effect.

Advanced ADSL

To access the **Advanced ADSL** window, click the **Advanced ADSL** button in the **Advanced** directory.

This window allows the user to set the configuration for ADSL protocols. For most ADSL accounts the default settings *Autosense* will work. This configuration works with all ADSL implementations. If you have been given instructions to change the Modulation method used, select the desired option from the Modulation Type drop-down menu and click the **Apply Settings** button. Click the **Reboot** button on the left panel to let your changes take effect.

Leave the Capability setting at the bottom of the window unchanged unless otherwise instructed by your ISP. Both Bitswap Enable and Seemless Rate Adaption (SRA) Enable deal with tests that determine the line condition between your Modem and the ISP's Central office.

Maintenance

The **Maintenance** directory features an array of options designed to help you get the most out of your Modem.

Password

To access the **Password** window, click the **Settings** button in the **Maintenance** directory.

To change the Administrator's password, type the Current Password in the first field, the New Password in the second field, and enter the password again in the Confirm Password field to be certain you have typed it correctly. Click the **Apply Settings** button and then click the **Reboot** button on the left panel to let your changes take effect. The system User Name remains "admin," this cannot be changed using the Web manager interface.

Save/Restore Settings

To access the **Save/Restore Settings** window, click the **Save/Restore Settings** button in the **Maintenance** directory.

Once you have configured the Modem to your satisfaction, it is a good idea to back up the configuration file to your computer. To save the current configuration settings to your computer, click the **Save** button. You will be prompted to select a location on your computer to put the file. The file type is bin and may be named anything you wish.

To load a previously saved configuration file, click the **Browse** button and locate the file on your computer. Click the **Upload Settings** button to load the settings from your local hard drive. Confirm that you want to load the file when prompted. The Modem will reboot and begin operating with the configuration settings that have just been loaded.

To reset the Modem to its factory default settings, click the **Restore Device** button. You will be prompted to confirm your decision to reset the Modem. The Modem will reboot with the factory default settings including IP settings (192.168.1.1) and Administrator password (admin).

Firmware Update

To access the **Firmware Update** window, click the **Firmware Update** button in the **Maintenance** directory.

Use this window to load the latest firmware for the device. Note that the device configuration settings may return to the factory default settings, so make sure you save the configuration settings with the **Save/Restore Settings** window described on the previous page.

To upgrade firmware, type in the name and path of the file or click on the **Browse** button to search for the file. Click the **Update Firmware** button to begin copying the file. The file will load and restart the Modem automatically.

To save your current configuration file to your computer, click the **Backup Now** button. A **File Download** dialog box will open. Click the **Save** button and then designate the location for the configuration file in the **Save As** window that immediately opens. The default location is your desktop.

Note

Performing a Firmware Upgrade can sometimes change the configuration settings. Be sure to backup the Modem's configuration settings before upgrading the firmware.

FIRMWARE UPDATE

Note: Please do not update the firmware on this modem unless instructed to do so by D-Link technical support or your ISP.

FIRMWARE INFORMATION

Currect Firmware Version : RI_1.00

Current Firmware Date : Oct 11 2007

FIRMWARE UPDATE

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

Backup Now

To update the firmware, your PC must have a wired connection to the modem. Enter the name of the firmware update file, and click on the Upload button.

Update :   Browse...

Update Firmware

Diagnostics

To access the **Diagnostic** window, click the **Diagnostics** button in the **Maintenance** directory.

This window is used to test connectivity of the Modem. A Ping test may be done through the local or external interface to test connectivity to known IP addresses. The diagnostics feature executes a series of tests of your system software and hardware connections. Use this window when working with your ISP to troubleshoot problems.

System Log

To access the **System Log** window, click the **System Log** button in the **Maintenance** directory.
The system log allows you to configure local and remote logging, and to view the logs that have been created.

To generate a system log, tick the Log check box. Select the Log Level and Display Level from the pull-down menus. The levels available are the same for each type of level: *Emergency*, *Alert, Critical, Error, Warning, Notice, Informational* and *Debugging.* Use the Mode drop-down menu to select *Local*, *Remote*, or *Both*. Click the **Apply Settings** button and then click the **Reboot** button on the left panel to allow your new settings to take effect.

Status

Use the various read-only windows to view system information and monitor performance.

Device Info

To access the **Device Info** window, click the **Device Info** button in the **Status** directory.

Use this window to quickly view basic current information about the LAN and WAN interfaces and device information including Firmware Version and MAC address.

Connected Clients

To access the **Connected Clients** window, click the **Connected Clients** button in the **Status** directory.

The Connected LAN Clients list displays active DHCP clients when the Modem is acting as a DHCP server.

Statistics

To access the **Statistics** window, click the **Statistics** button in the **Status** directory.
Use this window to monitor traffic on the Ethernet or ADSL connection.
This window also displays information concerning ADSL status.

STATISTICS
This information reflects the current status of your modem.

WAN STATISTICS

Service	VPI/VCI	Protocol	Received				Transmitted			
			Bytes	Pkts	Errs	Drops	Bytes	Pkts	Errs	Drops
nas_0_23_23	23/23	Bridge	0	0	0	0	0	0	0	424

LAN STATISTICS

Interface	Received				Transmitted			
	Bytes	Pkts	Errs	Drops	Bytes	Pkts	Errs	Drops
Ethernet	0	0	0	0	0	0	0	0

ADSL STATISTICS

Mode:	Autosense
Type:	Fast
Line Coding:	Trellis
Status:	DOWN

	Downstream	Upstream
Rate (Kbps):		
SNR Margin (dB):	0.0	0.0
Attenuation (dB):	0.0	0.0
Output Power (dBm):	N/A	N/A
Super Frames:	0	0
Super Frames Errors:	0	0
RS Words:	0	0
RS Correctable Errors:	0	0
RS Uncorrectable Errors:	0	0
HEC Errors:	0	0
OCD Errors:	0	0
LCD Errors:	0	0
Total Cells:	0	0
Data Cells:	0	0
Bit Errors:	0	0

Help

To access the **Help** window, click the **Help** directory.
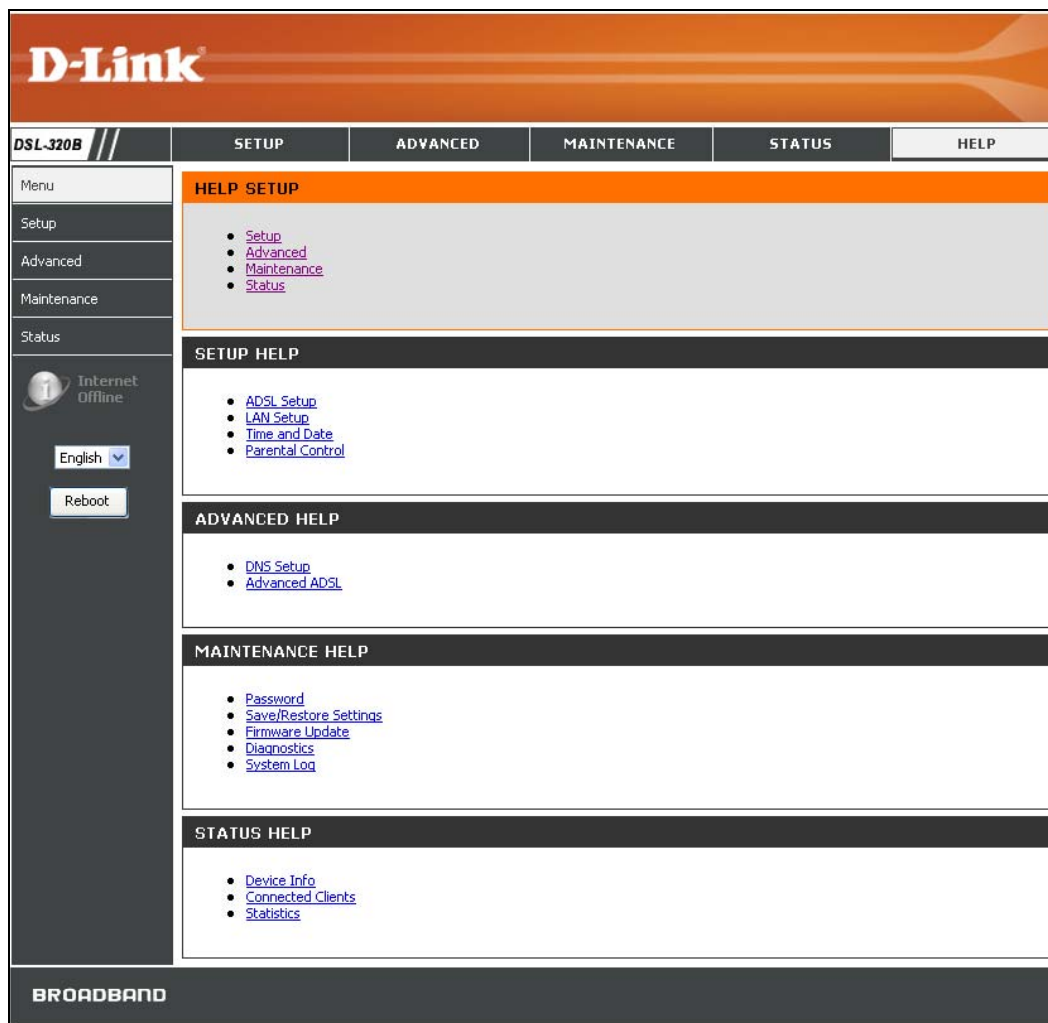
Troubleshooting

This chapter provides solutions to problems that might occur during the installation and operation of the DSL-320B. Read the following descriptions if you are having problems. (The examples below are illustrated in Windows® XP. If you have a different operating system, the screenshots on your computer will look similar to the following examples.)

1. **How do I configure my DSL-320B Modem without the CD-ROM?**

    - Connect your PC to the Modem using an Ethernet cable.
    - Open a web browser and enter the address http://192.168.1.1
    - The default username is 'admin' and the default password is 'admin'.
    - If you have changed the password and cannot remember it, you will need to reset the Modem to the factory default setting (see question 2), which will set the password back to 'admin'.

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

2. **How do I reset my Modem to the factory default settings?**

    - Ensure the Modem is powered on.
    - Press and hold the reset button on the back of the device for approximately 5 to 8 seconds.
    - This process should take around 1 to 2 minutes.

Note: Resetting the Modem to the factory default settings will erase the current configuration settings. To reconfigure your settings, login to the Modem as outlined in question 1, then run the Quick Setup wizard.

3. **What can I do if my Modem is not working correctly?**

There are a few quick steps you can take to try and resolve any issues:
    - Follow the directions in Question 2 to reset the Modem.
    - Check that all the cables are firmly connected at both ends.
    - Check the LEDs on the front of the Modem. The Power indicator should be on, the Status indicator should flash, and the DSL and LAN indicators should be on as well.

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

4. Why can't I get an Internet connection?

For ADSL ISP users, please contact your ISP to make sure the service has been enabled/connected by your ISP and that your ISP username and password are correct.

5. What can I do if my Modem can't be detected by running the installation CD?

- Ensure the Modem is powered on.
- Check that all the cables are firmly connected at both ends and all LEDs work correctly.
- Ensure only one network interface card on your PC is activated.
- Click on **Start** > **Control Panel** > **Security Center** to disable the firewall.

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

Networking Basics

Check Your IP Address

After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless Modem) automatically. To verify your IP address, please follow the steps below.
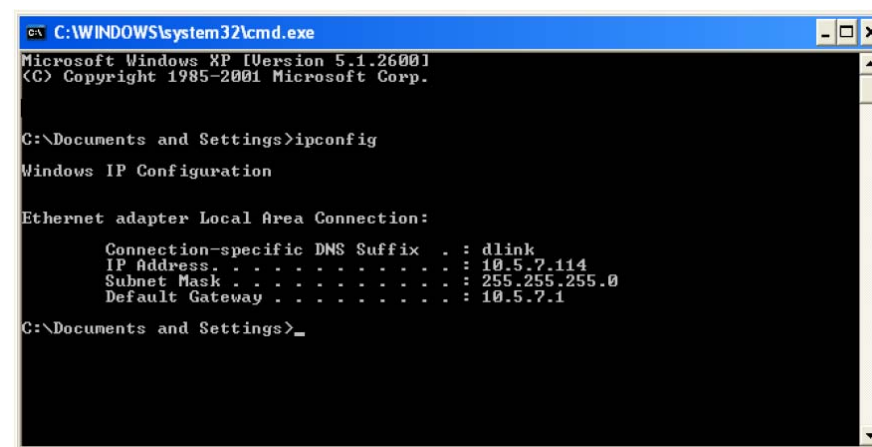
Click on **Start** > **Run**. In the run box type *cmd* and click on the **OK**.

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

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

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

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

```
C:\WINDOWS\system32\cmd.exe

Microsoft Windows XP [Version 5.1.2600]
<C> Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

        Connection-specific DNS Suffix  . : dlink
        IP Address. . . . . . . . . . . . : 10.5.7.114
        Subnet Mask . . . . . . . . . . . : 255.255.255.0
        Default Gateway . . . . . . . . . : 10.5.7.1

C:\Documents and Settings>_
```

Statically Assign An IP Address

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

Step 1
Windows® XP - Click on **Start** > **Control Panel** > **Network Connections**.
Windows® 2000 - From the desktop, right-click on the **My Network Places** > **Properties**.

Step 2
Right-click on the **Local Area Connection** which represents your D-Link network adapter and select **Properties**.

Step 3
Highlight **Internet Protocol (TCP/IP)** and click on the **Properties**.

Step 4
Click on the **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your Modem.

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

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

Step 5
Click on the **OK** twice to save your settings.
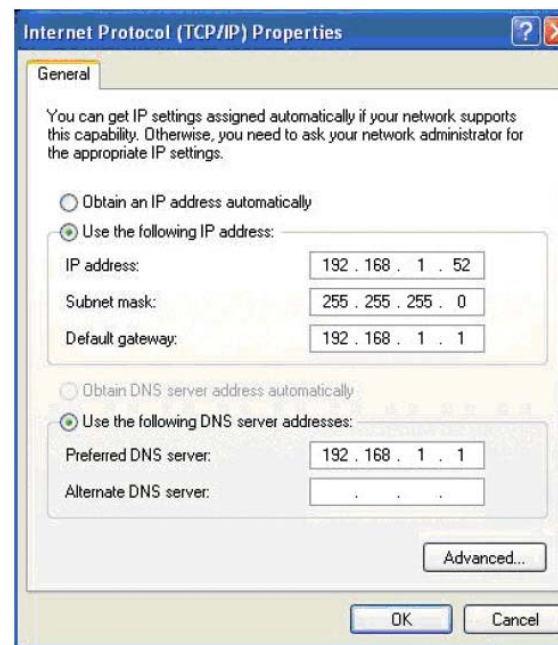
Technical Specifications

ADSL Standards
- ANSI T1.413 Issue 2
- ITU G.992.1 (G.dmt) AnnexA
- ITU G.992.2 (G.lite) Annex A
- ITU G.994.1 (G.hs)

ADSL2 Standards
- ITU G.992.3 (G.dmt.bis) Annex A
- ITU G.992.4 (G.lite.bis) Annex A

ADSL2+ Standards
- ITU G.992.5 Annex A

Protocols
- TCP/UDP
- ARP
- RARP
- ICMP
- RFC1334 PAP
- RFC1483/2684 Multiprotocol Encapsulation over ATM Adaptation Layer 5 (AAL5)
- RFC1661 Point to Point Protocol
- RFC1994 CHAP
- RFC2131 DHCP Client / DHCP Server
- RFC2364 PPP over ATM
- RFC2516 PPP over Ethernet

Data Transfer Rate
- G.dmt full rate downstream: up to 8 Mbps / upstream: up to 1 Mbps
- G.lite: ADSL downstream up to 1.5 Mbps / upstream up to 512 Kbps
- G.dmt.bis full rate downstream: up to 12 Mbps / upstream: up to 12 Mbps
- ADSL full rate downstream: up to 24 Mbps / upstream: up to 1 Mbps

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

Free Manuals Download Website

http://myh66.com

http://usermanuals.us

http://www.somanuals.com

http://www.4manuals.cc

http://www.manual-lib.com

http://www.404manual.com

http://www.luxmanual.com

http://aubethermostatmanual.com

Golf course search by state

http://golfingnear.com

Email search by domain

http://emailbydomain.com

Auto manuals search

http://auto.somanuals.com

TV manuals search

http://tv.somanuals.com