D-Link®

DSL-200 ADSL USB Modem

User's Guide

Wichtige Sicherheitshinweise

1. Bitte lesen Sie sich diese Hinweise sorgfältig durch.

2. Heben Sie diese Anleitung für den spätern Gebrauch auf.

3. Vor jedem Reinigen ist das Gerät vom Stromnetz zu trennen. Vervenden Sie keine Flüssig-oder Aerosolreiniger. Am besten dient ein angefeuchtetes Tuch zur Reinigung.

4. Um eine Beschädigung des Gerätes zu vermeiden sollten Sie nur Zubehörteile verwenden, die vom Hersteller zugelassen sind.

5. Das Gerät is vor Feuchtigkeit zu schützen.

6. Bei der Aufstellung des Gerätes ist auf sichern Stand zu achten. Ein Kippen oder Fallen könnte Verletzungen hervorrufen. Verwenden Sie nur sichere Standorte und beachten Sie die Aufstellhinweise des Herstellers.

7. Die Belüftungsöffnungen dienen zur Luftzirkulation die das Gerät vor Überhitzung schützt. Sorgen Sie dafür, daß diese Öffnungen nicht abgedeckt werden.

8. Beachten Sie beim Anschluß an das Stromnetz die Anschlußwerte.

9. Die Netzanschlußsteckdose muß aus Gründen der elektrischen Sicherheit einen Schutzleiterkontakt haben.

10. Verlegen Sie die Netzanschlußleitung so, daß niemand darüber fallen kann. Es sollete auch nichts auf der Leitung abgestellt werden.

11. Alle Hinweise und Warnungen die sich am Geräten befinden sind zu beachten.

12. Wird das Gerät über einen längeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen. Somit wird im Falle einer Überspannung eine Beschädigung vermieden.

13. Durch die Lüftungsöffnungen dürfen niemals Gegenstände oder Flüssigkeiten in das Gerät gelangen. Dies könnte einen Brand bzw. Elektrischen Schlag auslösen.

14. Öffnen Sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von authorisiertem Servicepersonal geöffnet werden.

15. Wenn folgende Situationen auftreten ist das Gerät vom Stromnetz zu trennen und von einer qualifizierten Servicestelle zu überprüfen:

    a – Netzkabel oder Netzstecker sint beschädigt.

    b – Flüssigkeit ist in das Gerät eingedrungen.

    c – Das Gerät war Feuchtigkeit ausgesetzt.

    d – Wenn das Gerät nicht der Bedienungsanleitung ensprechend funktioniert oder Sie mit Hilfe dieser Anleitung keine Verbesserung erzielen.

    e – Das Gerät ist gefallen und/oder das Gehäuse ist beschädigt.

    f – Wenn das Gerät deutliche Anzeichen eines Defektes aufweist.

16. Bei Reparaturen dürfen nur Orginalersatzteile bzw. den Orginalteilen entsprechende Teile verwendet werden. Der Einsatz von ungeeigneten Ersatzteilen kann eine weitere Beschädigung hervorrufen.

17. Wenden Sie sich mit allen Fragen die Service und Repartur betreffen an Ihren Servicepartner. Somit stellen Sie die Betriebssicherheit des Gerätes sicher.

Limited Warranty

Hardware:

D-Link warrants its hardware products to be free from defects in workmanship and materials, under normal use and service, for the following periods measured from date of purchase from D-Link or its Authorized Reseller:

Product Type	Warranty Period
Complete products	One year
Spare parts and spare kits	90 days

The one-year period of warranty on complete products applies on condition that the product's Registration Card is filled out and returned to a D-Link office within ninety (90) days of purchase. A list of D-Link offices is provided at the back of this manual, together with a copy of the Registration Card. Failing such timely registration of purchase, the warranty period shall be limited to 90 days.

If the product proves defective within the applicable warranty period, D-Link will provide repair or replacement of the product. D-Link shall have the sole discretion whether to repair or replace, and replacement product may be new or reconditioned. Replacement product shall be of equivalent or better specifications, relative to the defective product, but need not be identical. Any product or part repaired by D-Link pursuant to this warranty shall have a warranty period of not less than 90 days, from date of such repair, irrespective of any earlier expiration of original warranty period. When D-Link provides replacement, then the defective product becomes the property of D-Link.

Warranty service may be obtained by contacting a D-Link office within the applicable warranty period, and requesting a Return Material Authorization (RMA) number. If a Registration Card for the product in question has not been returned to D-Link, then a proof of purchase (such as a copy of the dated purchase invoice) must be provided. If Purchaser's circumstances require special handling of warranty correction, then at the time of requesting RMA number, Purchaser may also propose special procedure as may be suitable to the case.

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. The package must be mailed or otherwise shipped to D-Link with all costs of mailing/shipping/insurance prepaid; D-Link will ordinarily reimburse Purchaser for mailing/shipping/insurance expenses incurred for return of defective product in accordance with this warranty. D-Link shall never be responsible for any software, firmware, information, or memory data of Purchaser contained in, stored on, or integrated with any product returned to D-Link pursuant to this warranty.

Any package returned to D-Link without an RMA number will be rejected and shipped back to Purchaser at Purchaser's expense, and D-Link reserves the right in such a case to levy a reasonable handling charge in addition mailing or shipping costs.

Software:

Warranty service for software products may be obtained by contacting a D-Link office within the applicable warranty period. A list of D-Link offices is provided at the back of this manual, together with a copy of the Registration Card. If a Registration Card for the product in question has not been returned to a D-Link office, then a proof of purchase (such as a copy of the dated purchase invoice) must be provided when requesting warranty service. The term "purchase" in this software warranty refers to the purchase transaction and resulting license to use such software.
D-Link warrants that its software products will perform in substantial conformance with the applicable product documentation provided by D-Link with such software product, for a period of ninety (90) days from the date of purchase from D-Link or its Authorized Reseller. D-Link warrants the magnetic media, on which D-Link provides its software product, against failure during the same warranty period. This warranty applies to purchased software, and to replacement software provided by D-Link pursuant to this warranty, but shall not apply to any update or replacement which may be provided for download via the Internet, or to any update which

may otherwise be provided free of charge.

D-Link's sole obligation under this software warranty shall be to replace any defective software product with product which substantially conforms to D-Link's applicable product documentation. Purchaser assumes responsibility for the selection of appropriate application and system/platform software and associated reference materials. D-Link makes no warranty that its software products will work in combination with any hardware, or any application or system/platform software product provided by any third party, excepting only such products as are expressly represented, in D-Link's applicable product documentation as being compatible. D-Link's obligation under this warranty shall be a reasonable effort to provide compatibility, but D-Link shall have no obligation to provide compatibility when there is fault in the third-party hardware or software. D-Link makes no warranty that operation of its software products will be uninterrupted or absolutely error-free, and no warranty that all defects in the software product, within or without the scope of D-Link's applicable product documentation, will be corrected.

LIMITATION OF WARRANTIES

IF THE D-LINK PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, THE CUSTOMER'S SOLE REMEDY SHALL BE, AT D-LINK'S OPTION, REPAIR OR REPLACEMENT. THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. D-LINK NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION MAINTENANCE OR USE OF D-LINK'S PRODUCTS

D-LINK SHALL NOT BE LIABLE UNDER THIS WARRANTY IF ITS TESTING AND EXAMINATION DISCLOSE THAT THE ALLEGED DEFECT IN THE PRODUCT DOES NOT EXIST OR WAS CAUSED BY THE CUSTOMER'S OR ANY THIRD PERSON'S MISUSE, NEGLECT, IMPROPER INSTALLATION OR TESTING, UNAUTHORIZED ATTEMPTS TO REPAIR, OR ANY OTHER CAUSE BEYOND THE RANGE OF THE INTENDED USE, OR BY ACCIDENT, FIRE, LIGHTNING OR OTHER HAZARD.

LIMITATION OF LIABILITY

IN NO EVENT WILL D-LINK BE LIABLE FOR ANY DAMAGES, INCLUDING LOSS OF DATA, LOSS OF PROFITS, COST OF COVER OR OTHER INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES ARISING OUT THE INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE OR INTERRUPTION OF A D- LINK PRODUCT, HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY. THIS LIMITATION WILL APPLY EVEN IF D-LINK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

IF YOU PURCHASED A D-LINK PRODUCT IN THE UNITED STATES, SOME STATES DO NOT ALLOW THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

D-Link Offices for Registration and Warranty Service

The product's Registration Card, provided at the back of this manual, must be sent to a D-Link office. To obtain an RMA number for warranty service as to a hardware product, or to obtain warranty service as to a software product, contact the D-Link office nearest you. An addresses/telephone/fax list of D-Link offices is provided in the back of this manual.

Table of Contents

ABOUT THIS USER'S GUIDE

This user's guide tells you how to install your DSL-200 ADSL USB Modem and use it to connect to the Internet.

ADSL services are provided by, and sold by a variety of businesses. Your ADSL service provider may be your telephone company, an Internet service provider (ISP), a business that specializes in providing network services or a combination of any of these. This guide uses the generic term, DSL service provider, to refer to any business or agent that provides DSL service.

Overview of the User's Guide

♦ Chapter 1 – *Introduction* provides a brief description of ADSL technology and a general description of the Modem and its features.

♦ Chapter 2 - *Modem Installation* provides instructions for the physical installation of the Modem and cable connections.

♦ Chapter 3 – *Software Installation* is a step-by-step description of the installation of the software driver needed for Modem operation.

♦ Chapter 4 – *Monitoring the Modem* describes the various status monitoring functions available with the Modem.

♦ Appendix A – *Technical Specifications* is a list of specifications for the Modem.

♦ Appendix B – *Uninstalling the Modem* describes the steps necessary to uninstall the Modem and its driver.

BEFORE YOU START

In addition to the Modem hardware and software drivers, you will need some information before you begin to install the device. Your DSL service provider will give you the information required for a successful ADSL connection. You will use this information when you decide which driver to install and when you configure the Modem. In order to avoid problems please read this section and make sure you understand all the prerequisites for proper installation of your new Modem.

Operating Systems

The D-Link DSL-200 can be used with PCs running Microsoft® Windows 98, Windows 98 Second Edition, Windows 2000, or Windows Millennium Edition.

USB Port

In addition to the Windows OS, you will need a USB (Universal Serial Bus) type B port on your computer. These are commonly installed on newer computers, however older PCs may require an additional installation.

ADSL Service

In order to use the Modem you must first have ADSL service established with a DSL service provider.

There are four standards used for ADSL connections known as ANSI T1.413 issue 2, G.Lite, G.dmt and G.hs. The standards differ somewhat as to data transfer speed or bit rate. For user convenience, the Modem supports the G.hs Auto-handshake ADSL standard. This allows the Modem to operate with either type of connection.

Network Protocol and the Software Driver

The protocol used for your ADSL service will determine the particular software driver to be installed. You will need to select one driver to operate the Modem. Ask your DSL service provider to assist you in selecting either the LAN (Local Area Network) or WAN (Wide Area Network) driver to operate the Modem.

Specifically, if your ADSL service uses the protocol defined by **RFC 2364**, *PPP over ATM Adaptation Layer 5*, then you will need to install the WAN driver. If the protocol used for your ADSL service is defined by **RFC 1483**, *Multiprotocol Encapsulation over ATM Adaptation Layer 5 (Bridged Ethernet)*, then you will need to install the LAN driver.

The drivers are fundamentally different in the way they function with the PC. The PC/Modem relationship can be summarized as follows:

WAN driver – The WAN driver causes the Modem to appear to the PC as an ordinary dial-up modem. The Modem employs the Dial-Up Networking software used by conventional analog modems even though there is no actual dialing or any activity in the voice band frequencies on the telephone line. This driver supports RFC 2364 PPP over ATM with PVC connections.

LAN driver - The LAN driver causes the modem to appear to the PC as a LAN or Ethernet device. Connection is automatic, similar to a connection to an Ethernet device. This driver supports RFC 1483 "Bridged Ethernet" with PVC connections. PPP over Ethernet (RFC 2516) connections are possible with installation of additional client software.
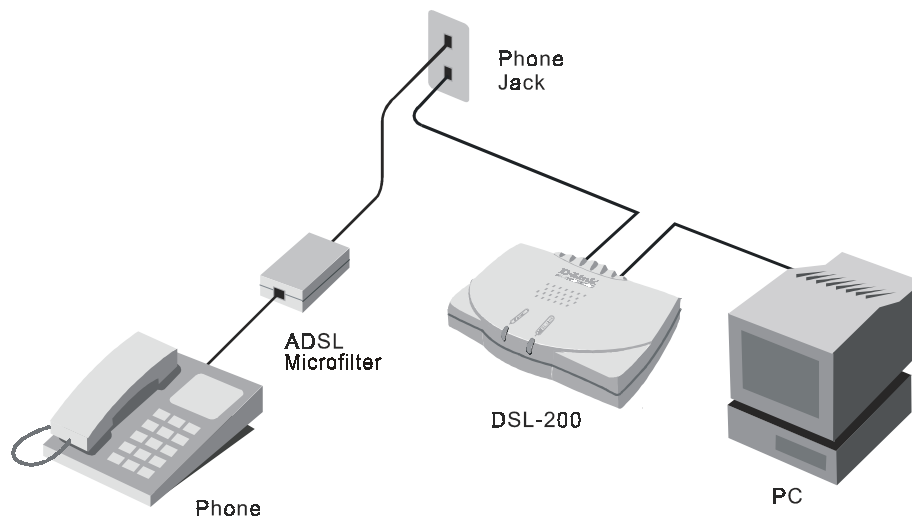
Microfilters and Splitters

Most ADSL clients will be required to install a simple device that prevents the ADSL line from interfering with regular telephone services. These devices are commonly referred to as microfilters or sometimes called (inaccurately) line splitters. They are easy to install and use standard telephone connectors and cable.

Some DSL service providers will send a telecommunications technician to modify the telephone line, usually at the point where the phone line enters the building. If a technician has divided or split your telephone line into two separate lines - one for regular telephone service and the other for ADSL – then you do not need to use any type of filter device. Follow the instructions given to you by your ADSL service provider about where and how you should connect the Modem to the ADSL line.

Microfilters

Unless you are instructed to use a "line splitter" (see below), it will be necessary to install a microfilter (low pass filter) device for each telephone or telephone device (answering machines, Faxes etc.) that share the line with the ADSL service. Microfilters are easy-to-install, in-line devices, which attach to the telephone cable between the telephone and wall jack. Microfilters that install behind the wall plate are also available. A typical in-line microfilter installation is shown in the diagram on the next page.

Note: Do not install the microfilter between the Modem and the telephone jack. Microfilters are only intended for use with regular telephones, Fax machines and other regular telephone devices.

Line Splitter

If you are instructed to use a "line splitter", you must install the device between the Modem and the phone jack. Use standard telephone cable with standard RJ-11 connectors. The splitter has three RJ-11 ports used to connect to the wall jack, the Modem and if desired, a telephone or telephone device. The connection ports are typically labeled as follows:

Line - This port connects to the wall jack.

ADSL – This port connects to the Modem.

Phone – This port connects to a telephone or other telephone device.

The diagram below illustrates the proper use of the splitter.
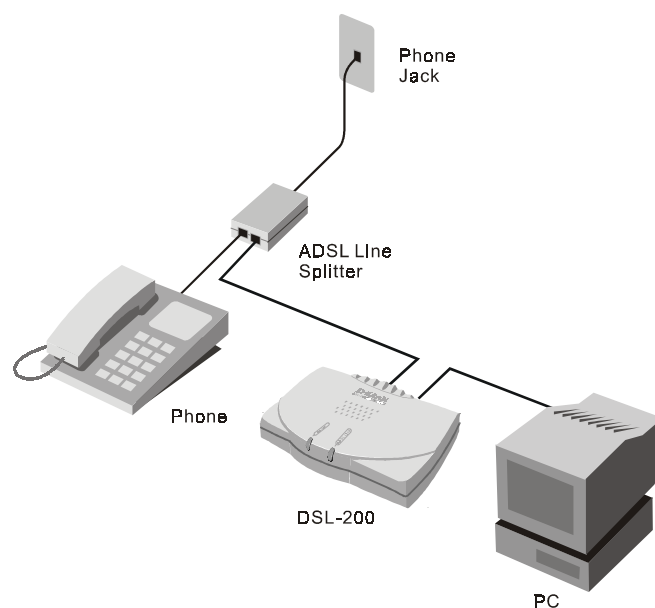
Encapsulation Method

It may be necessary to use an encapsulation method that is different from the default method. The protocol used for your connection, and thus the driver you use will determine which encapsulation method is used. If your DSL service provider does not specify, use the default encapsulation method.

Modulation Method

It may also be necessary to use a modulation method that is different from the default method. If your DSL service provider does not specify, use the default modulation method.

Additional Information

WAN Driver Users If you are using the WAN driver, you must supply user account information (user name and password) to make the final network connection.

LAN Driver Users If you are using the LAN driver, you may be required to manually configure your IP settings. Your DSL service provider will tell you if you need to configure your PCs IP settings.

Unpacking

Open the shipping carton and carefully remove all items. In addition to this User's Guide, ascertain that you have:
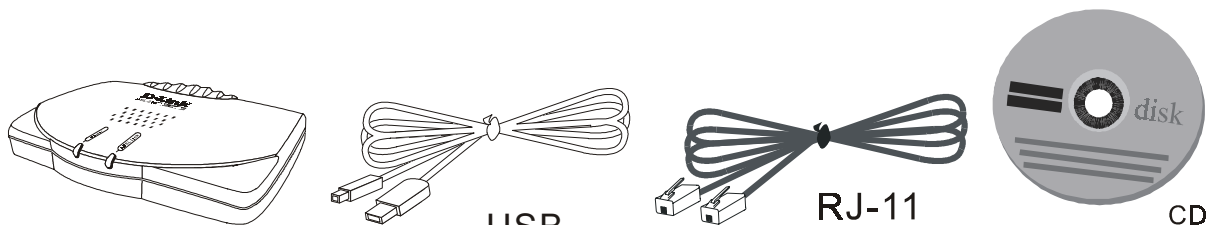
| 1. Modem | 2. USB Cable | 3. ADSL Cable | 4. Installation CD |

1. D-Link DSL-200 USB Modem

2. USB cable

3. ADSL cable or connector

4. Installation CD-ROM

Use the tables provided here to record the information you need to install the Modem.

SETTINGS TABLE (all users)	
VPI:	**VCI:**
Software Driver: The driver used depends on the connection protocol used for your network services.	Select one: RFC 2364 PPP over ATM = WAN driver RFC 1483 Ethernet over ATM = LAN driver

Encapsulation Method:
(choose one)
	WAN Driver:
	
	   RFC 2364 PPPoATM NULL Encapsulation
	
	   RFC 2364 PPPoATM LLC Encapsulation
	
	LAN Driver:
	
	   RFC 1483 IPoATM Bridged LLC Encapsulation
	
	   RFC 1483 IPoATM Bridged VC Encapsulation
	
	   RFC 1483 IPoATM Routed LLC Encapsulation
	
	   RFC 1483 IPoATM Routed VC Encapsulation

Modulation Method: (choose one)	T1.413 Multimode G.Lite G.DMT

ACCOUNT INFORMATION (WAN driver users only)
User Name:
Password:

IP CONFIGURATION (LAN driver only)
IP Address:
Subnet Mask:
Gateway:
DNS Host Name:
DNS Domain:
DNS Server:

1

INTRODUCTION

ADSL modem technology is a relatively new technology and may be unfamiliar to the reader. In this section, we introduce you to ADSL technology and give a brief description of its key attributes. We also give a general description of the D-Link DSL-200 USB Modem and its main features.

What is ADSL?

Asymmetric Digital Subscriber Line (ADSL) is an access technology that utilizes ordinary copper telephone lines to enable broadband high-speed digital data transmission and interactive multimedia applications for business and residential customers. Using existing phone lines avoids the need for adding expensive new cable.

ADSL modems use digital coding techniques that greatly increase the bandwidth capacity of telephone lines without interfering with regular telephone services. For the ADSL modem user, this means much faster data communications. ADSL modems make it possible to enjoy benefits such as high-speed Internet access, telecommuting, collaborative computing, distance learning, movies on demand and multi-player video gaming without experiencing any loss of quality or disruption of voice/fax telephone capabilities.

ADSL provides a dedicated service over a single telephone line operating at speeds of up to 8 Mbps downstream (to the user) and up to 640 Kbps upstream, depending on the type of service and local telephone line conditions. These conditions are ideal for many user applications. A secure point-to-point connection is established between the user and the central office of the local telephone company. The user is always connected, thus eliminating dial-up time and simplifying connectivity issues.

D-Link ADSL devices incorporate the recommendations of the ADSL Forum (www.adsl.com) regarding framing, data format, and upper layer protocols.

Modem Description and Operation

The DSL-200 ADSL USB Modem is easy to install and use. Please note that you must first install the software driver for the device by following the instructions in Chapter 3. Once the driver has been installed you can connect the Modem to your computer. The Modem connects directly to any functional USB port on a PC with standard USB cable.

Software drivers for D-Link ADSL USB Modems can be fully upgraded by simply loading newer versions onto your PC. This will allow you to update the modem and use new features and enhancements as they are developed and standardized. Online information regarding the latest downloadable software and improvements can be found at **http://tsd.dlink.com.tw**.

Product Features

The D-Link DSL-200 Modem provides the following features:

G.hs compliant (Auto-handshake)

G.dmt full rate compliant

G.lite compliant

♦ RFC 1483 *(Bridged Ethernet)* compliant
♦ RFC 2364 *PPP over ATM* compliant

Compatible with all RFC 2516 *PPP over Ethernet* compliant equipment

Compatible with all T1.413 issue 2 (full rate DMT over analog POTS), and CO DSLAM equipment

Compliant with USB Specification Revision 1.1
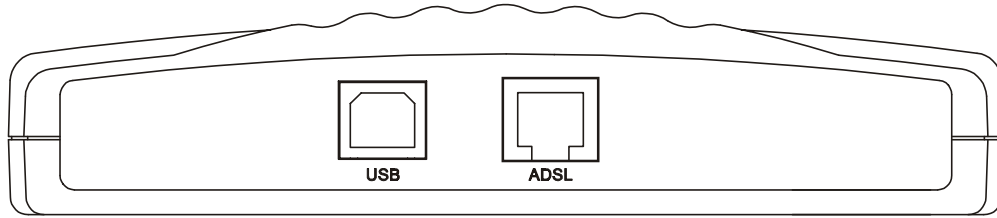
USB interface to PC host

Plug and Play installation

Easy to upgrade software
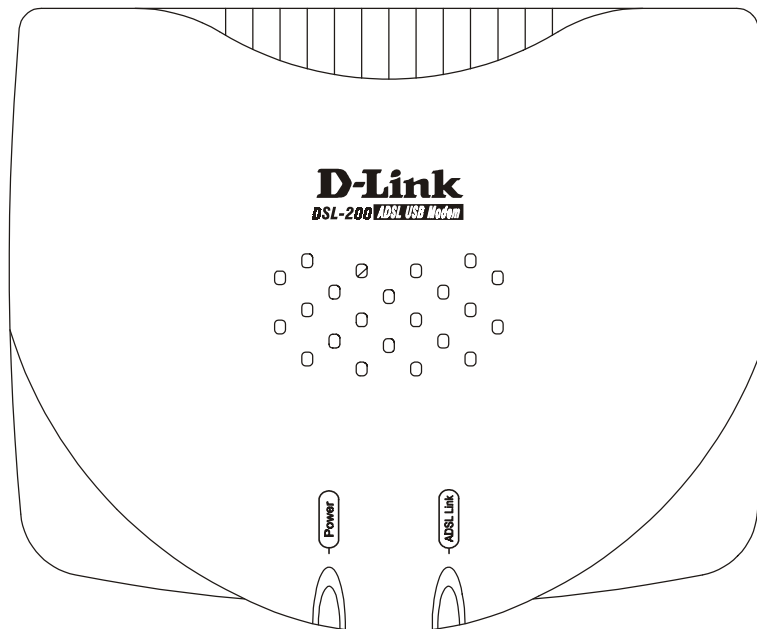
GUI based configuration and diagnostic tool

♦ Supports up to sixteen simultaneous ATM virtual connections

Rear Panel

Connect both the ADSL cable and the USB cable at the rear of the Modem.

Front Panel

LED Indicators

There are two LED indicators on the Modem:

♦ **Power** - This indicates that the Modem is powered on.

♦ **ADSL Link** – This indicates a valid ADSL link has been established.

2

MODEM INSTALLATION

Before you connect the USB cable, you must install the driver. See the next chapter for driver installation instructions. The only cable you should connect initially is the ADSL cable.

Place the Modem in a location so that you are able to view the LEDs. It should be placed in an area that is clean, dry and ventilated. Make certain it is not placed near a heat source.

Connect the ADSL

You can begin installing the Modem by performing the following steps:

Insert the Installation CD into the CD-ROM drive.

Insert one end of the ADSL cable (26 AWG twisted-pair telephone cable) into the telephone wall jack (RJ-11 port).

Insert the other end of the ADSL cable into the ADSL port (RJ-11 port) on the Modem.

Follow the software installation instructions in Chapter 3.

DO NOT CONNECT THE USB CABLE!

You must install the software driver before you connect the device to your computer via the USB cable. You will be prompted to connect the device during the installation. Connecting the USB cable at this point will initiate the *Found New Hardware* process.

3

SOFTWARE INSTALLATION

The DSL-200 can be used with the following operating systems:

♦ Microsoft Windows 98

♦ Microsoft Windows 98 Second Edition

♦ Microsoft Windows 2000

♦ Microsoft Windows Millennium Edition

The procedures for each system are slightly different so be sure to follow the instructions provided for your PC's operating system.

The Microsoft Plug and Play feature will automatically detect the modem after it has been installed. A new window will appear for each step of the installation.

Once you have the driver installed and the Modem is connected, you should verify that the ADSL service is working.

If you wish uninstall the Modem see Appendix B for instructions.

What Driver to Install

You will need to select one driver (see Step 5) to operate the Modem. Which driver you use will depend on the particular protocol used to provide your ADSL service. Ask your DSL service provider to assist you in selecting either the WAN or LAN driver to operate the Modem. Only one driver should be installed.

If your ADSL service uses the protocol defined by **RFC 2364**, *PPP over ATM Adaptation Layer 5*, then you will need to install the WAN driver. If the protocol used for your ADSL service is defined by **RFC 1483**, *Multiprotocol Encapsulation over ATM Adaptation Layer 5*, then you will need to install the LAN driver.

Install the Software Driver

You can install the software driver on a PC running either the Windows 98, Windows 98 Second Edition, Windows 2000 or Windows Millennium Edition operating system. You have a choice of two different drivers, the LAN (Local Area Network) or WAN (Wide Area Network) driver. The instructions in this chapter can be used for either the LAN or WAN driver, the installation procedure is identical for both. If you are not sure which driver you should install, see the previous section *What Driver to Install* for more information.

Install the Driver

Before starting the software setup process, exit all Windows applications currently opened on your PC. The software driver installation procedure is identical for Windows 98/98SE, Windows Me and Windows 2000. It is therefore described in the same section.

DO NOT CONNECT THE USB CABLE. You must install the software driver before you connect the device to your computer via the USB cable. You will be prompted to connect the device during the installation. Connecting the USB cable at this point will initiate the *Found New Hardware* process.

To install the software driver for the Modem, follow these steps:

1. Insert the DSL-200 Installation CD into the CD-ROM drive. Double-click on My Computer icon located on your desktop. Double-click on the CD-ROM icon.

2. Double-click **Setup.exe** to start the installation procedure. A notification message will appear indicating that the setup process has begun.

3. The **Welcome** window recommends that you exit all other programs before you run the Setup program. Make sure you have quit all other programs and click **Next**.
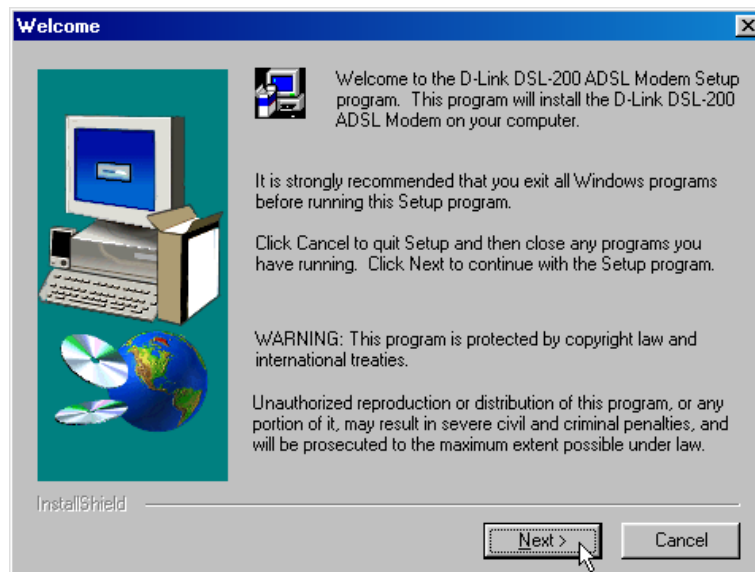
4. In the Select ISP window, select 'Other Service Provider', and then click **Next**.
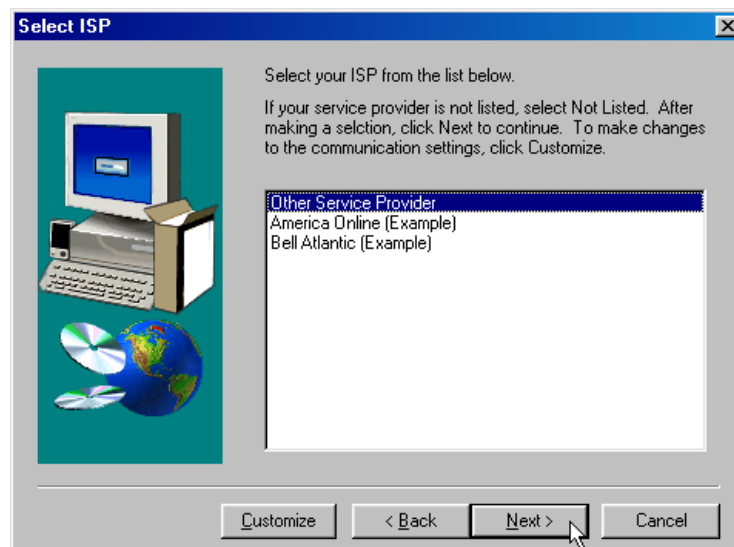
5. In the **Select Driver Type** window, choose the driver that best suits your ADSL connection, and then click **Next**. By default the WAN driver will be selected.
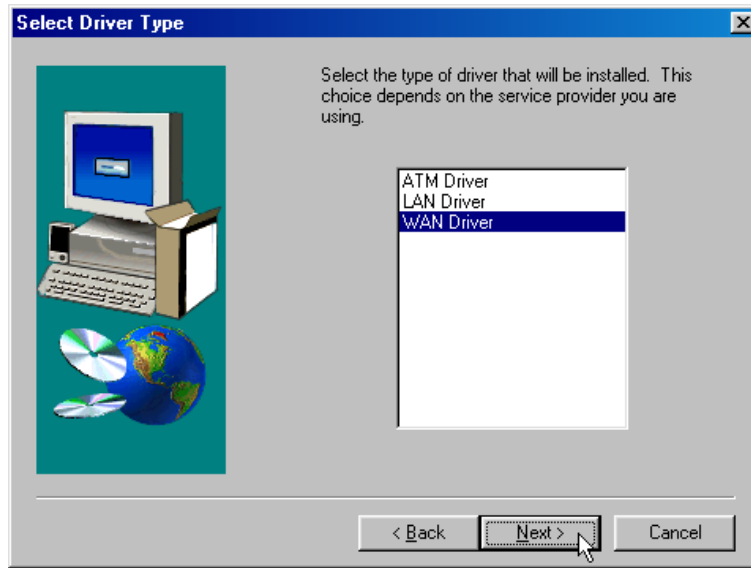

6. In the **Communication Settings** window you must provide the PVC settings, **Encapsulation** method and **Modulation** method for configuring the Modem. Type in the VPI and VCI values in their respective fields.
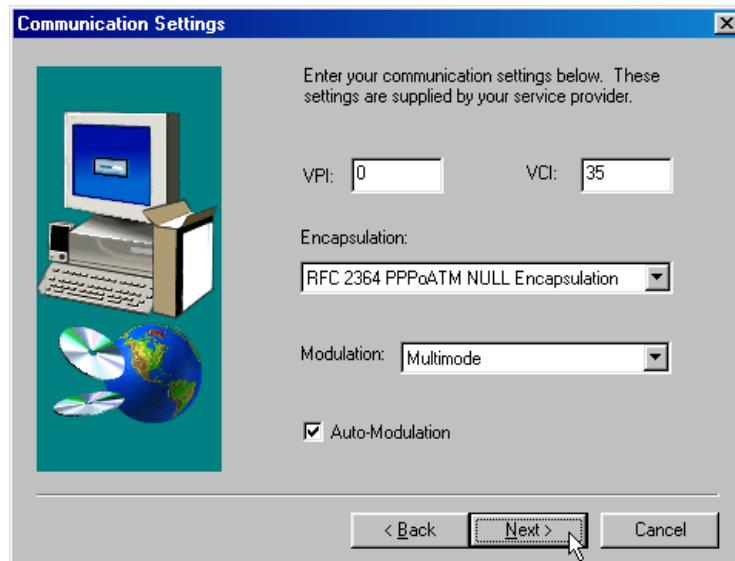
7. In the same window, select the proper **Encapsulation** method using the pull-down menu. You will select the encapsulation setting that is appropriate for the driver you are installing.

    If you are installing the WAN driver and your service provider does not specify an encapsulation setting, use RFC 2364 PPPoATM NULL Encapsulation.

    If you are using the LAN driver, select the appropriate RFC 1483 encapsulation setting. If your service provider has not specified an encapsulation setting, use RFC 1483 IPoATM Bridged LLC Encapsulation.
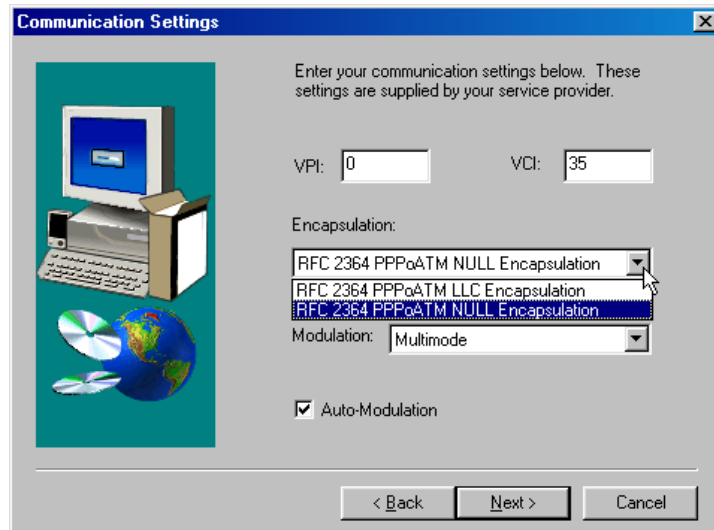
8. Again in the same window, select the proper Modulation settings using the drop-down menu. Your service provider will give you the appropriate Modulation settings. Choose either **T1.413**, **Multimode**, **G.Lite** or **G.DMT**. If your service provider has not specified a modulation setting, use Multimode. Click **Next** to continue.
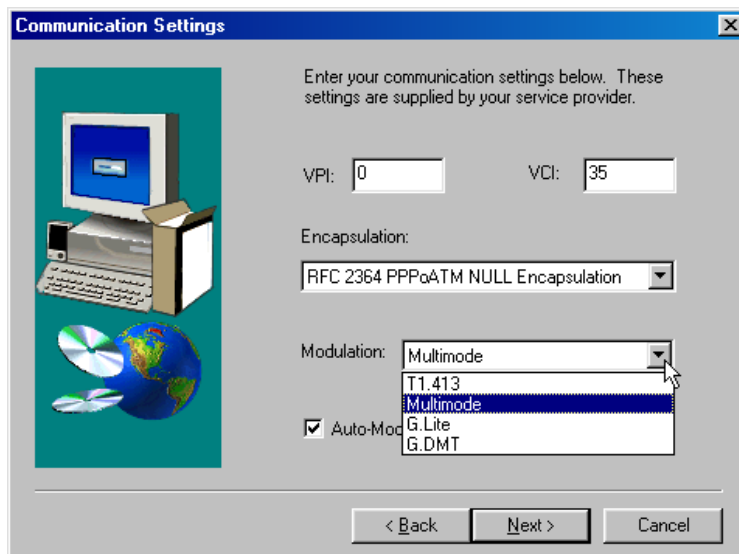
9. The **Start Copying Files** window appears. Click **Next** to copy the needed driver files.
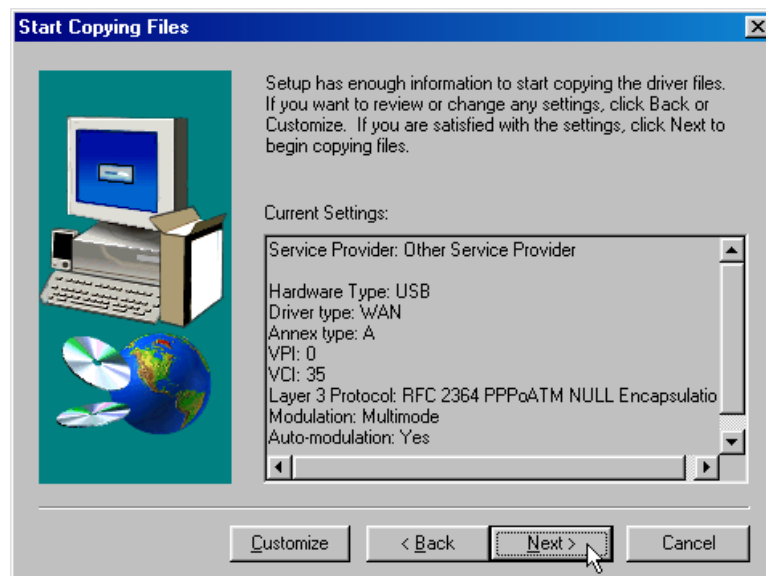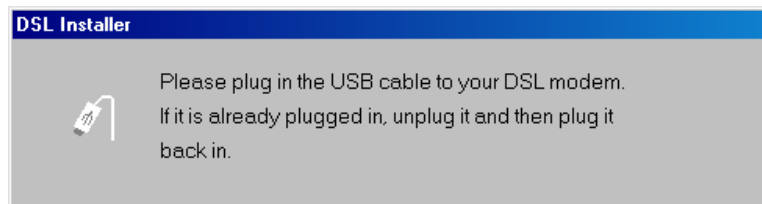

> **Note:** *For Windows 2000 applications, the "Digital Signature Not Found" window may appear warning that the installation software is not a digitally signed version. A digital signature is not necessary; D-Link has tested the software with Windows 2000. Click **Yes** to allow the installation to continue.*

10. In the Setup Complete window, click Finish.

11. The DSL Installer window asks you to plug in the Modem. Plug the rectangular end of the USB cable into the USB port of your PC, and then plug the square end of the USB cable into the USB port of the ADSL Modem. The USB Modem will be detected and messages will be displayed as the modem software is installed.
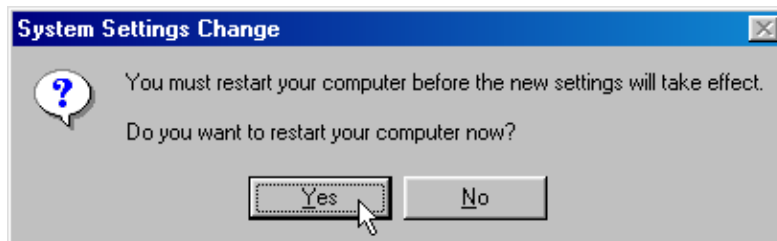
DSL Installer

Please plug in the USB cable to your DSL modem.
If it is already plugged in, unplug it and then plug it back in.

Note: For Windows 2000 applications, the "Digital Signature Not Found" window will appear again.

*Click **Yes** to allow the installation to continue.*

For Windows 2000 applications, the "Found New Hardware Wizard" window indicates the modem has been installed and suggests you reboot the system to have new settings take effect. Click **Finish**.

12. You now need to restart the computer to complete the installation of the driver. You may do this now by clicking Yes.

System Settings Change

You must restart your computer before the new settings will take effect.

Do you want to restart your computer now?

[Yes]   [No]

A new icon (two arrows) appears in the System Tray on your desktop.

Verify the ADSL Connection

Before you continue to the final step, you should make sure that the ADSL connection has been established. This can be done easily using the Modem's ADSL connection monitoring feature described below.

Desktop Monitoring

A new icon will appear in the System Tray of your desktop. These colored arrows will help you monitor the status of your ADSL connection. The table below summarizes how to interpret the icon indicator.

System Tray Icon	ADSL Status
	Training Both arrows will alternate yellow and brown in color while during the negotiation of the ADSL connection
	Connection Established Both arrows appear dark green when the connection has been establish (and no data is being passed in either direction)
	Transmitting Data The Up arrow appears light green when data is being transmitted
	Receiving Data The Down arrow appears light green when data is being transmitted
	Error Two red arrows indicate an error has occurred. The connection may have been lost.

LED Indicators

The other way to verify that the ADSL connection has been established is to view the ADSL Link indicator on the Modem. This LED will light up when the ADSL connection has been established. The other LED indicator on the front of the device, the Power LED will light up when the USB cable is inserted.

4

CONNECT TO THE INTERNET

Now that the driver has been installed you are ready to connect to the Internet by way of the DSL service provider's network backbone. Follow the instructions that are appropriate for the driver you have installed and the operating system of your PC.

If you have installed the WAN driver:

You will use a Dial-Up process that should be familiar to anyone who has installed a conventional analog modem. The Modem does not actually "dial-up" to establish an Internet connection, but it uses the same dial-up software as a convenient way to establish communication.

If you have installed the LAN driver:

Please see section titled Connect to Internet – LAN Driver Users on page ??.

Dial-Up Connection (WAN Driver Only)

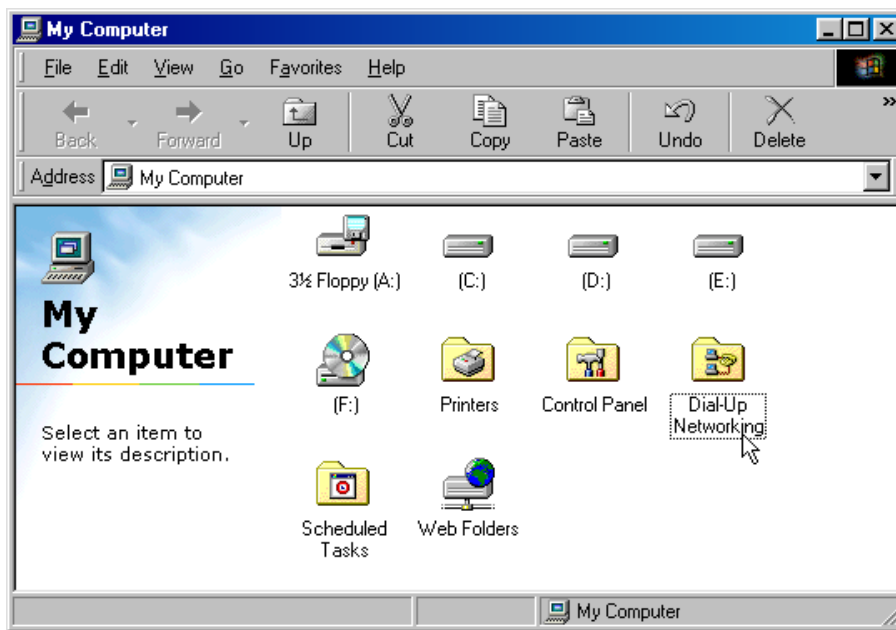The Procedures for the different operating systems differ slightly so each system is presented in its own section.

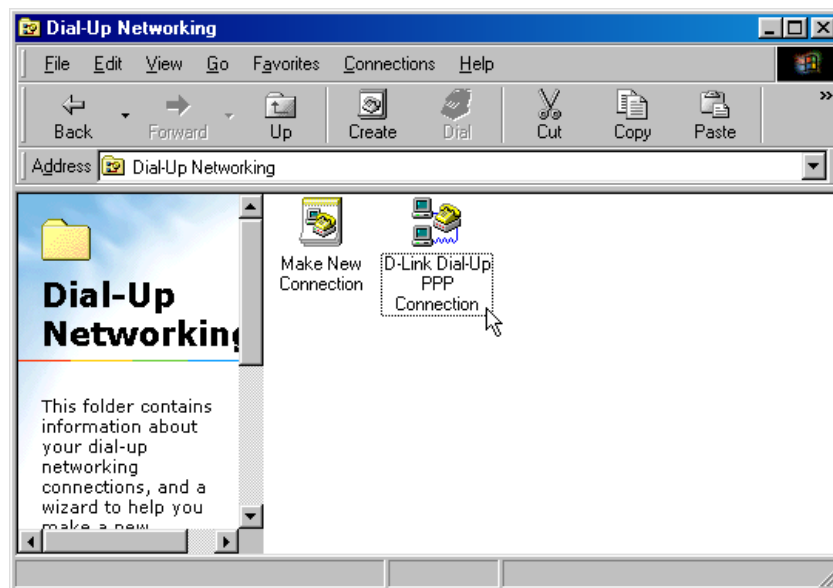### Dial-Up Connection for Windows 98 (WAN Driver Only)

1. From the Windows desktop double-click on the My Computer icon.
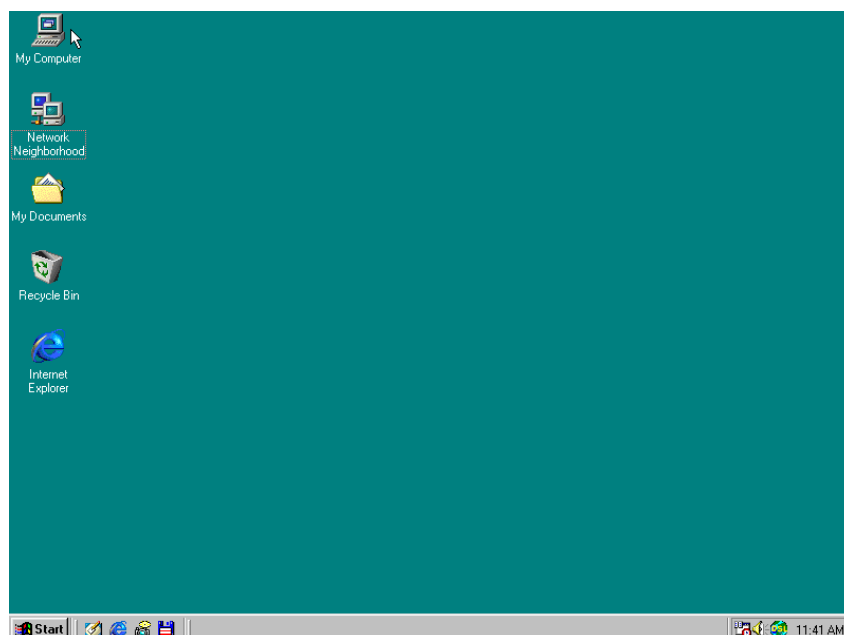
2. In the My Computer folder double-click the Dial-Up Networking folder.

3. In the Dial-Up Networking folder double-click the D-Link Dial-Up PPP Connection icon.

4. In the **Connect To** window type in the correct User name and Password given to you by your ADSL or network service provider. Check the Save password box if do not want to retype the password if you need to reconnect. The Phone number field will display the VPI/VCI values you entered earlier. **DO NOT** change the numbers in the Phone number field. Click **Connect**. It may take a few seconds for the connection to be established.

5. Once the negotiation of the ADSL connection is complete, the **Connection Established** window will appear. Click **Close**. You may now launch your web browser to access the Internet.
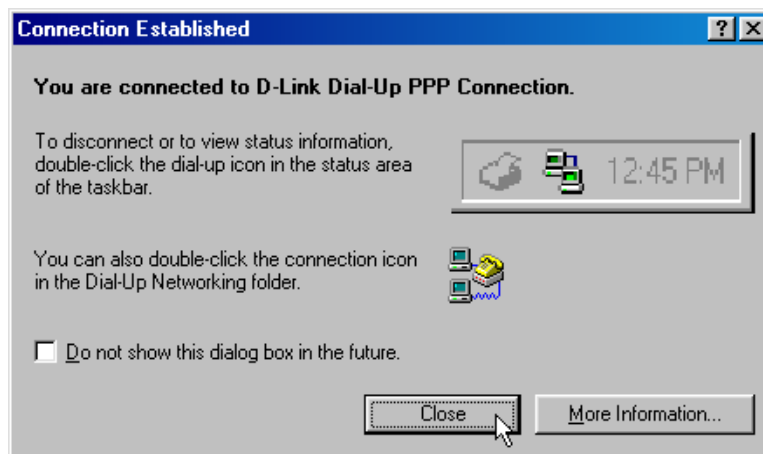
Dial-Up Connection for Windows 2000 (WAN Driver Only)

1. From the Start Menu on your desktop, bring the cursor to the Settings icon and then to the Control Panel folder. Double-click on the Network and Dial-up Connection folder.

2. Double-click on the D-Link Dial-Up PPP Connection icon.

3. In the **Connect D-Link Dial-Up PPP Connection** window type in the correct User name and Password given to you by your ADSL network service provider. Check the Save Password box if do not want to retype the password should you need to reconnect. Click **Dial**. It may take a few minutes for the connection to be established.
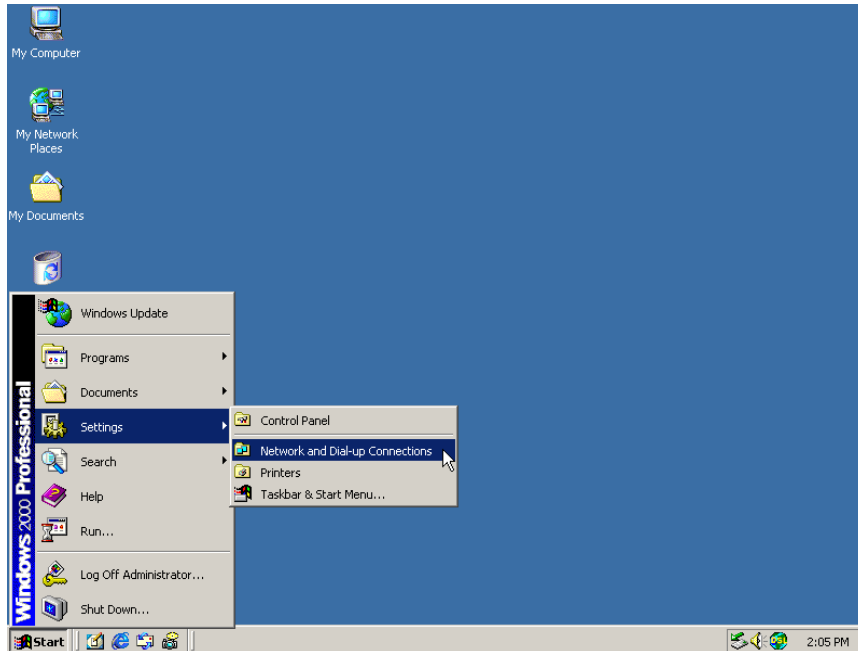

4. Once the negotiation of the ADSL connection is complete, the **Connection Complete** window will appear. Click **OK**. You may now launch your web browser to access the Internet.
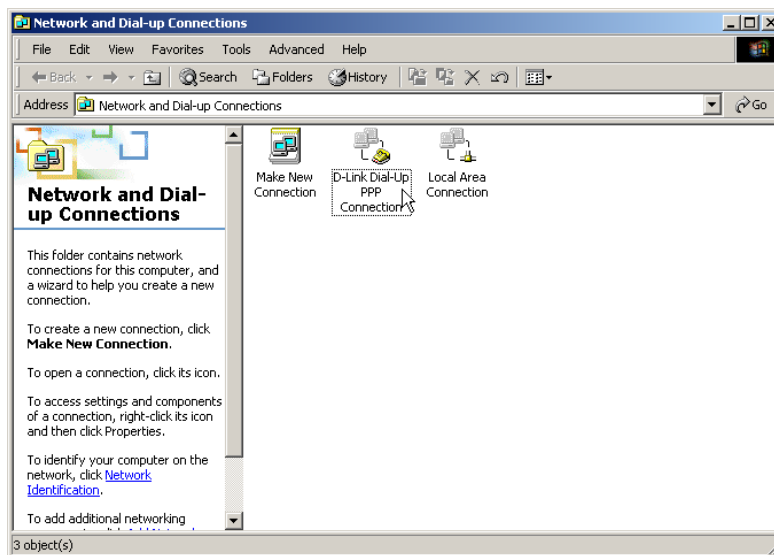
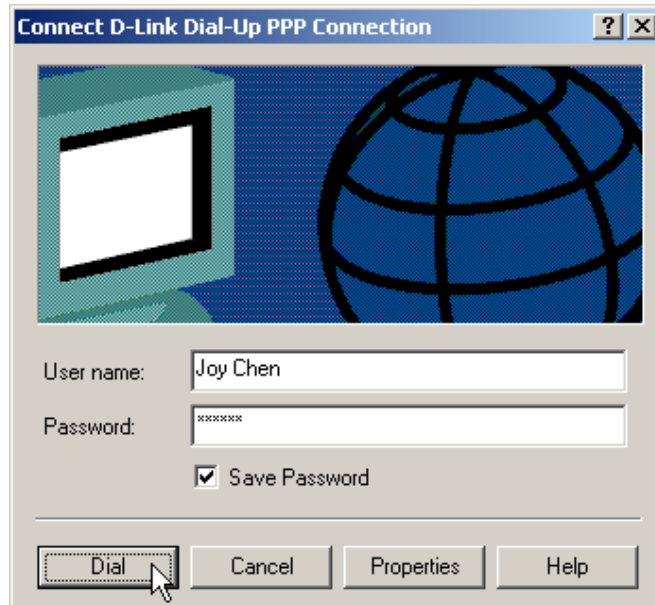**Dial-Up Connection for Windows Me (WAN Driver Only)**

1. From the Start Menu on your desktop, bring the cursor to the Settings icon and then to the Control Panel folder. Double-click on the Network and Dial-up Connection folder.
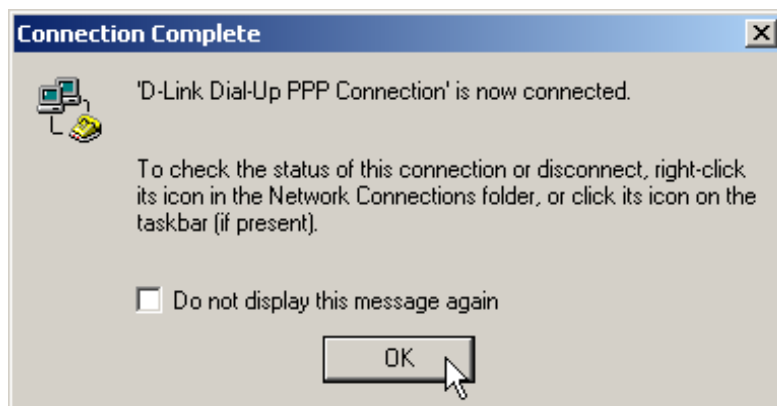

2. Double-click on the D-Link Dial-Up PPP Connection icon.

3. In the **Connect To** window, select "D-Link Dial-Up PPP Connection" from the pull-down menu and type in the correct User name and Password given to you by your ADSL or network service provider. Check the "Save password" box if do not want to retype the password for reconnection. Click **Dial**. It may take a few seconds for the connection to be established.
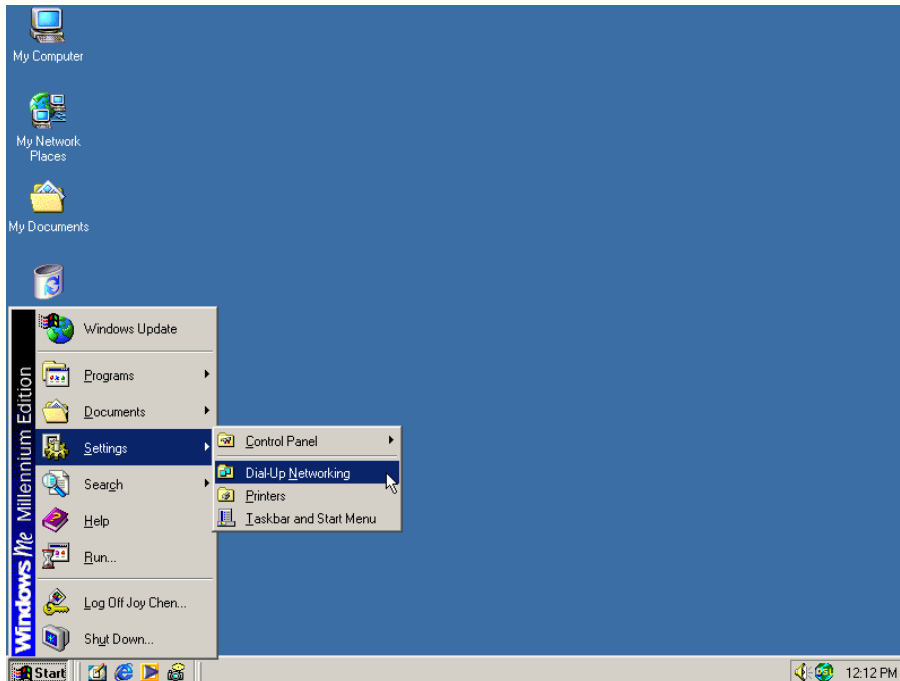

4. Once the negotiation of the ADSL connection is complete, the **Connection Established** window will appear. Click **Close**. You may now launch your web browser to access the Internet.
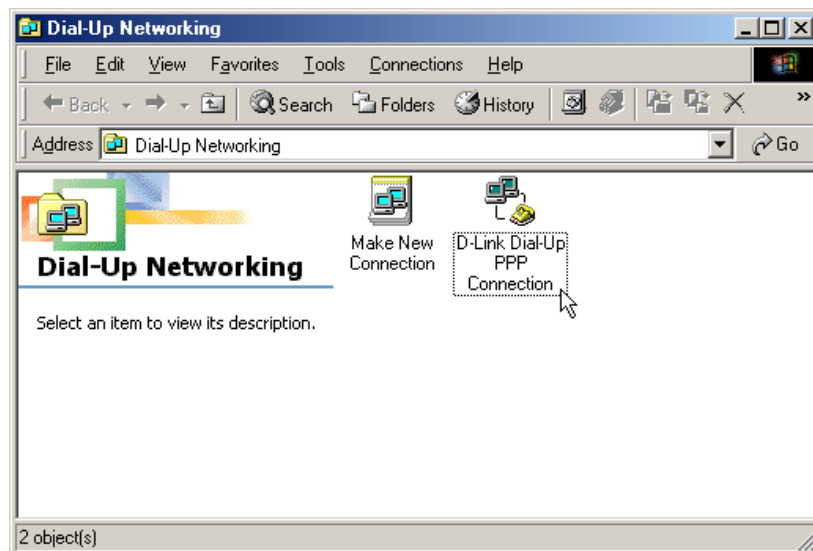
Connect to Internet - LAN Driver Users

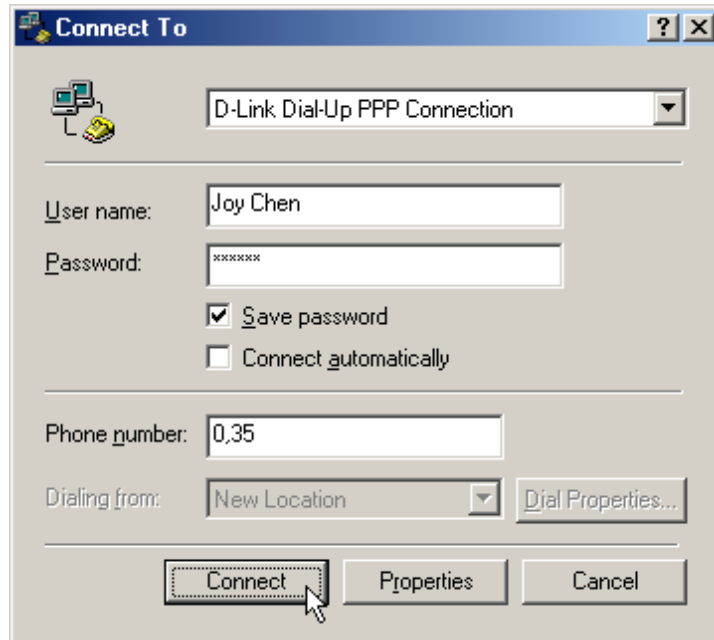If your ADSL connection uses either the RFC 1483 or the RFC 1577 protocol, you must set your own TCP/IP configuration. The following information will be provided to you by your DSL service provider:

IP Address,

Subnet Mask,

Gateway

DNS Host Name

DNS Domain

DNS Server

Windows 98 or Windows Me (LAN Driver)

Follow these steps if you are using the RFC 1483 or RFC 1577 protocol on a computer running Windows 98 or Windows Me.

1. From the Start menu, select Settings, Control Panel, and then double-click on the Network icon.

2. The **Network** window appears. Select the **Configuration** tab, scroll down the installed network components list and click on **TCP/IP→ D-Link DSL-200 USB ADSL Modem**

3. Click the **Properties** button.

4. The **TCP/IP Properties** window will appear. Select the **IP Address** tab and then select the **Select an IP address** option. Enter the **IP Address** and **Subnet Mask** settings given to you by your ISP or ADSL service provider.

5. Select the **Gateway** tab and enter the IP settings in the **New gateway** field. Click **Add**.

6. Select the **DNS Configuration** tab. Select the **Enable DNS** option.

7. Type in your host name in the **Host:** field.

8. Type in your domain name in the **Domain:** field.

9. Enter the **DNS** settings in the **DNS Server Search Order** field and click **Add**. If you have more than one DNS IP address, repeat this step. You can have up to 3 DNS servers listed here.

10. After all the TCP/IP information has been entered, click **OK**.

11. The **Network** window again appears, click **OK**.

12. The **System Settings Change** window appears. You need to restart your computer for the changes to go into effect. Click **Yes**.

Windows 2000 (LAN Driver)

1. Double-click on the My Computer icon, then the Control Panel icon, and then the Network and Dial-up Connections icon.

2. The Network and Dial-up Connections window appears. Right click on the Local Area Connection for the D-Link DSL-200 USB ADSL Modem.

3. The Local Area Connection window appears. Click on Internet Protocol (TCP/IP), then click on Properties.

4. The Internet Protocol (TCP/IP) window appears. Under the General tab, select Use the following IP address. Enter the IP address, Subnet Mask, and Default Gateway given to you by your ISP or ADSL service provider. Click OK.

5. The General tab will again appear. Click OK.

The **Network and Dial-up Connection** window appears. Close this window to complete the connection.

5

MONITORING THE MODEM

Once you have installed the Modem you can monitor the status of the ADSL connection by clicking on the connection icon in your System Tray or click on the DSL-200 icon in the Control Panel folder.

Clicking on either icon will bring up the following window:

The bright green circle under "Link Status" indicates a valid link. Identical bright green circles under **Transmitting** and **Receiving** indicate data activity on the ADSL line. The Data Rate tells you the rate at which data is being transmitted or received.

Click on the System Info tab of the DSL-200 Modem monitor window to see the Current Driver and Firmware Release version as well as the Control Panel Version currently employed by the device.
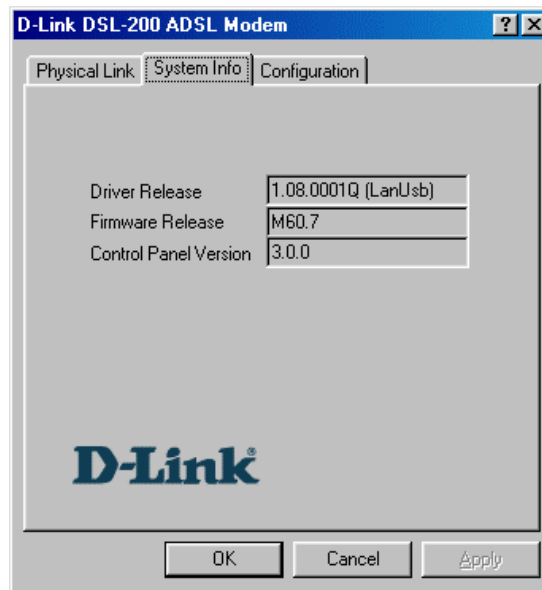
Clicking on the Configuration tab will provide you with the configuration values currently employed by the Modem, including, the Modulation, the connection protocol, the Encapsulation method and the VPI/VCI pair used for the ADSL.

6
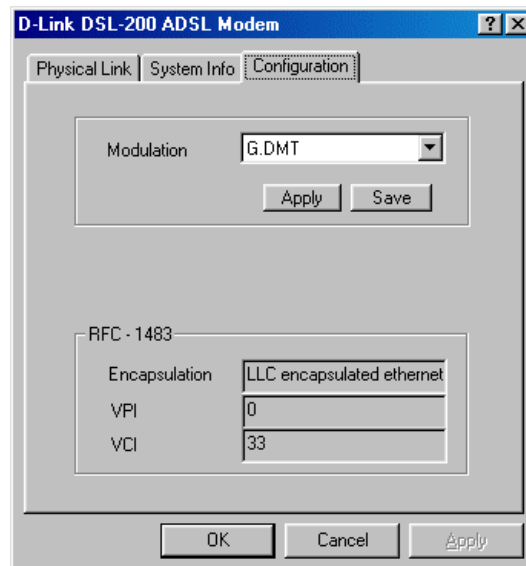
CHANGING MODEM CONFIGURATION

Once the Modem and software have been installed the communication settings may be easily updated by performing the following steps:

1. From your PC desktop click **Start** – **Programs** – **D-Link DSL-200 ADSL Modem** – **Configure**. A notification message will appear indicating that the setup process has begun.
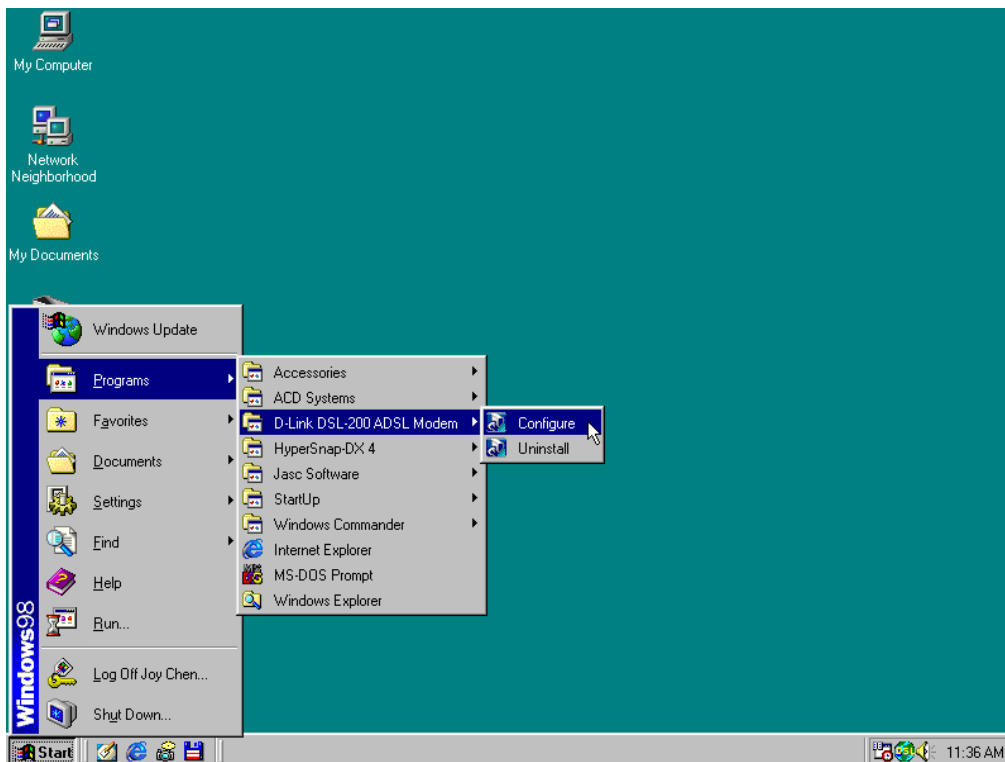
2. Click **Settings** from the "DSL Modem Installer" window.

3. The "Communication Settings" window will be displayed. Make the necessary changes to the VPI, VCI, Encapsulation type and/or Modulation type and click **Apply**.
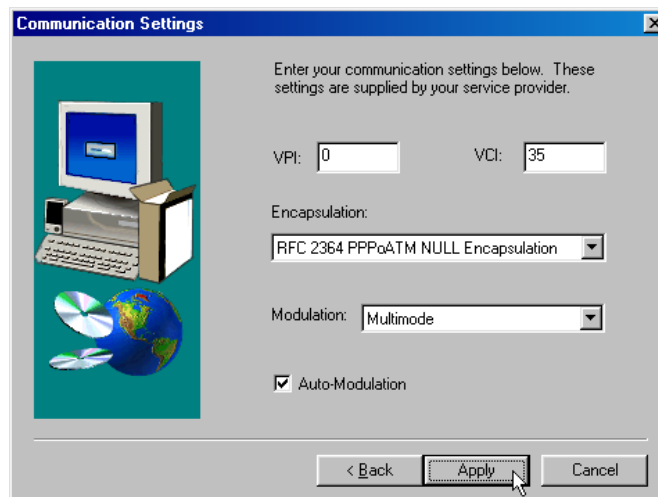
4. The new settings will be applied after restarting the computer. If you want to restart now click **Finish**. If you do not want to restart now select the "No, I will restart my computer later." option and then click **Finish**.

A

TECHNICAL SPECIFICATIONS

General	
Standards:	ANSI T1.413 issue 2 ITU G.992.1 (G.dmt) ITU G.992.2 (G.lite) ITU G.994.1 (G.hs) USB 1.1 specifications
Protocol:	RFC 2364 PPP over ATM Adaptation Layer 5 RFC 1483 Multiprotocol Encapsulation over ATM Adaptation Layer 5
Data Transfer Rate:	G.dmt full rate downstream: up to 8Mbps G.dmt full rate upstream: up to 640Kbps G.lite ADSL downstream: up to 1.5Mbps G.lite ADSL upstream: up to 512Kbps
Software Drivers:	Microsoft Windows 98, Windows 98 Second Edition Windows 2000, Windows Millennium Edition
Media Interface Exchange:	ADSL interface: RJ-11 connector for connection to 26 AWG twisted-pair telephone line Host interface: USB Type B port for upstream connection to USB host

Physical and Environmental	
Power Consumption:	2.5 watts (max.)
Operating Temperature:	0º to 40º C (32º to 104º F)
Storage Temperature:	-40º to 70º C (-40º to 158º F)
Humidity:	5% - 95% non-condensing
Dimensions:	139.5mm x 114.5mm x 27.2mm (5.49in x 4.51in x 1.07in)
Weight:	200gm (0.422lbs)
EMI:	FCC Class B, CE Class B, C-Tick, VCCI, BSMI Class B
Safety:	UL/CUL, TUV

B

UNINSTALLING THE MODEM

If you need to uninstall the Modem, use the Uninstall program available in the DSL-200 Modem folder. Failure to use the Uninstall program can leave files in the system that can cause problems with future installations, including problems with reinstallation of the Modem.

> **IMPORTANT:** *Do not remove the Modem using the device manager. You must use the Uninstall Program to remove the device.*

Using the Uninstall Program

Use the Uninstall program accessible from both Windows 98/98SE desktops. The procedure is the same for both operating systems.

1. Access the Uninstall program from the Start menu go to the D-Link DSL-200 ADSL Modem folder and select the Uninstall option.
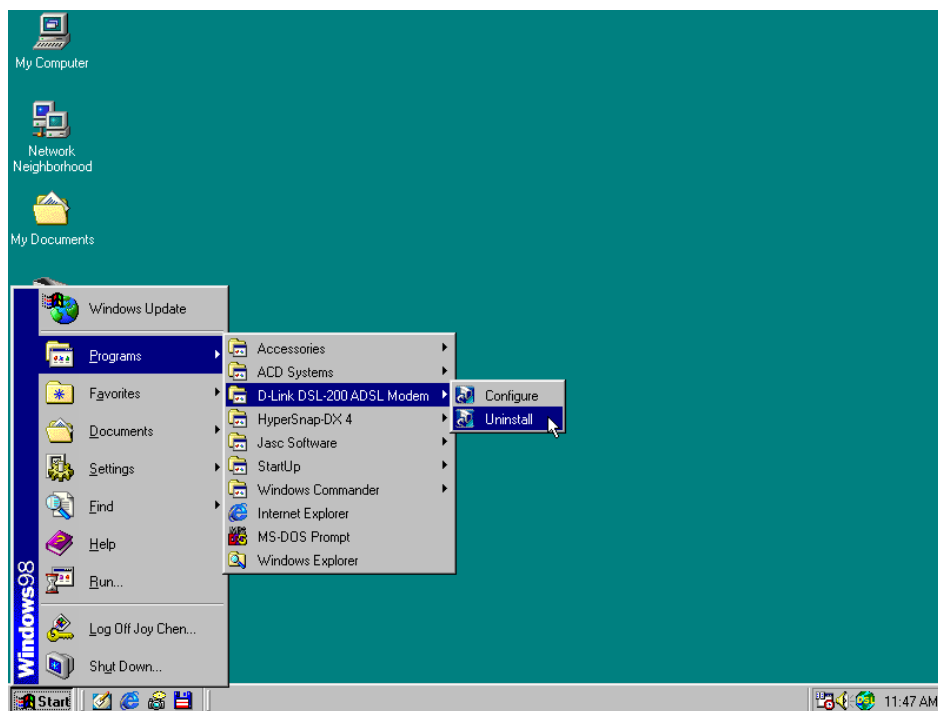
2. From the DSL Modem Installer window select Remove.

3. You are asked to confirm your intention to remove the device. Click Yes to uninstall the Modem.
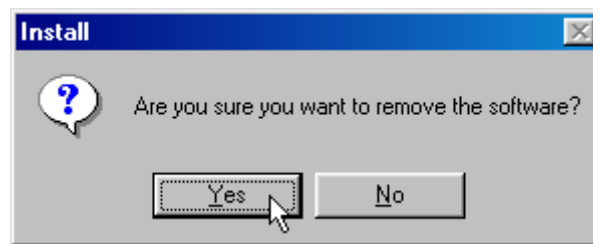
4. A new window appears and asks that you not unplug the USB cable until after the device driver has been completely removed. Click OK to proceed.
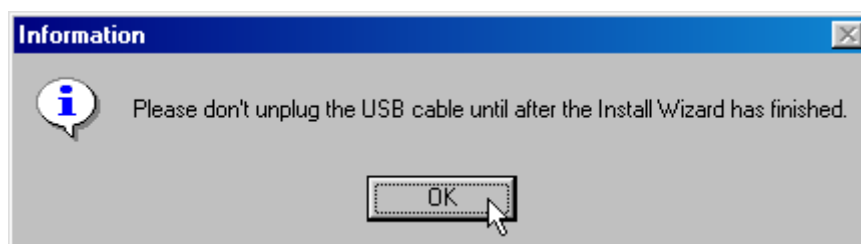
5. The final window informs you that the uninstall process is now complete. You can restart now if you wish, however do not disconnect the USB cable until the computer has shut down.

IMPORTANT: *Do not disconnect the USB cable from the Modem before the computer has been shut down or restarted.*

D-Link Offices

AUSTRALIA **D-Link Australasia**
Unit 16, 390 Eastern Valley Way, Roseville, NSW 2069 Australia
TEL: 61-2-9417-7100 FAX: 61-2-9417-1077 TOLL FREE (Australia): 1800177100
TOLL FREE (New Zealand): 0800-900900
URL: www.dlink.com.au E-MAIL: support@dlink.com.au & info@dlink.com.au

CANADA **D-Link Canada**
2180 Winston Park Drive, Oakville, Ontario, L6H 5W1 Canada
TEL: 1-905-829-5033 FAX: 1-905-829-5095 BBS: 1-965-279-8732
TOLL FREE: 1-800-354-6522
URL: www.dlink.ca FTP: ftp.dlinknet.com E-MAIL: techsup@dlink.ca

CHILE **D-Link South America**
Isidora Goyeechea 2934 of 702, Las Condes, Santiago, Chile
TEL: 56-2-232-3185 FAX: 56-2-232-0923
URL: www.dlink.cl E-MAIL: ccasassu@dlink.cl & tsilva@dlink.cl

CHINA **D-Link China**
2F, Sigma Building, 49 Zhichun Road, Haidan District, 100080 Beijing, China
TEL: 86-10-88097777 FAX: 86-10-88096789 URL: www.dlink.com.cn
E-MAIL: liweii@digitalchina.com.cn

DENMARK **D-Link Denmark**
Naverland 2, DK-2600 Glostrup, Copenhagen, Denmark
TEL: 45-43-969040 FAX:45-43-424347
URL: www.dlink.dk E-MAIL: info@dlink.dk

EGYPT **D-Link Middle East**
7 Assem Ebn Sabet Street, Heliopolis, Cairo, Egypt
TEL: 202-245-6176 FAX: 202-245-6192 URL: www.dlink-me.com
E-MAIL: support@dlink-me.com & fateen@dlink-me.com

FINLAND **D-Link Finland**
Tulli-ja Pakkahuone, Katajanokanlaituri 5, Fin – 00160 Helsinki
TEL: 358-9-62291660 FAX: 358-9-62291661 URL: www.dlink-fi.com

FRANCE **D-Link France**
Le Florilege #2, Allee de la Fresnerie, 78330 Fontenay le Fleury, France
TEL: 33-1-3023-8688 FAX: 33-1-3023-8689
URL: www.dlink-france.fr E-MAIL: info@dlink-france.fr

GERMANY **D-Link Central Europe/D-Link Deutschland GmbH**
Schwalbacher Strasse 74, 65760 Eschborn, Germany
TEL: 49-(0) 6196-7799-0 FAX: 49-(0) 6196-7799-300
URL: www.dlink.de BBS: 49-(0) 6192-971199 (analog)
BBS: 49-(0) 6192-971198 (ISDN) INFO: 00800-7250-0000 (toll free)
HELP: 00800-7250-4000 (toll free)
REPAIR: 00800-7250-8000 E-MAIL: info@dlink.de

INDIA	**D-Link India** Plot No.5, Kurla-Bandra Complex Rd., Off Cst Rd., Santacruz (E) Bombay, 400 098 India TEL: 91-22-652-6696 FAX: 91-22-652-8914 URL: www.dlink-india.com E-MAIL: service@dlink.india.com
ITALY	**D-Link Mediterraneo Srl** Via Nino Bonnet n. 6/b, 20154, Milano, Italy TEL: 39-02-2900-0676 FAX: 39-02-2900-1723 URL: www.dlink.it E-MAIL: info@dlink.it
JAPAN	**D-Link Japan** 10F, 8-8-15 Nishi-Gotanda, Shinagawa-ku, Tokyo 141, Japan TEL: 81-3-5434-9678 FAX: 81-3-5434-9868 URL: www.d-link.co.jp E-MAIL: kida@d-link.co.jp
RUSSIA	**D-Link Russia** Michurinski Prospekt 49, 117607 Moscow, Russia TEL: 7-095-737-3389 & 7-095-737-3492 FAX: 7-095-737-3390 URL: www.dlink.ru E-MAIL: vl@dlink.ru
SINGAPORE	**D-Link International** 1 International Business Park, #03-12 The Synergy, Singapore 609917 TEL: 65-774-6233 FAX: 65-774-6322 E-MAIL: info@dlink.com.sg URL: www.dlink-intl.com
S. AFRICA	**D-Link South Africa** Unit 2, Parkside 86 Oak Avenue, Highveld Technopark Centurion, Gauteng, Republic of South Africa TEL: 27 (0) 12-665-2165 FAX: 27 (0) 12-665-2186 URL: www.d-link.co.za E-MAIL: attie@d-link.co.za
SWEDEN	**D-Link Sweden** P. O. Box 15036, S-167 15 Bromma, Sweden TEL: 46-(0) 8-564-61900 FAX: 46-(0) 8-564-61901 E-MAIL: info@dlink.se URL: www.dlink.se
TAIWAN	**D-Link Taiwan** 2F, No. 119 Pao-Chung Rd, Hsin-Tien, Taipei, Taiwan TEL: 886-2-2910-2626 FAX: 886-2-2910-1515 URL: www.dlinktw.com.tw E-MAIL: dssqa@tsc.dlinktw.com.tw
U.K.	**D-Link Europe** 4th Floor, Merit House, Edgware Road, Colindale, London NW9 5AB United Kingdom TEL: 44 (0) 20-8731-5555 FAX: 44 (0) 20-8731-5511 BBS: 44 (0) 181-235-5511 URL: www.dlink.co.uk E-MAIL: info@dlink.co.uk
U.S.A.	**D-Link U.S.A.** 53 Discovery Drive, Irvine, CA 92618, USA TEL: 1-949-788-0805 FAX: 1-949-753-7033 BBS: 1-949-455-1779 & 1-949-455-9616 INFO: 1-800-326-1688 URL: www.dlink.com E-MAIL: tech@dlink.com & support@dlink.com

Registration Card

Print, type or use block letters.

Your name: Mr./Ms_____

Organization: _____Dept._____

Your title at organization:_____

Telephone:_____ Fax:_____

Organization's full address:_____

_____

Country:_____

Date of purchase (Month/Day/Year):_____

Product Model	Product Serial No.	* Product installed in type of computer (e.g., Compaq 486)	* Product installed in computer serial No.

(* Applies to adapters only)

Product was purchased from:

Reseller's name:_____

Telephone:_____ Fax:_____

Reseller's full address:_____

_____

Answers to the following questions help us to support your product:

1. Where and how will the product primarily be used?
  ☐Home ☐Office ☐Travel ☐Company Business ☐Home Business ☐Personal Use

2. How many employees work at installation site?
  ☐1 employee ☐2-9 ☐10-49 ☐50-99 ☐100-499 ☐500-999 ☐1000 or more

3. What network protocol(s) does your organization use ?
  ☐XNS/IPX ☐TCP/IP ☐DECnet ☐Others_____

4. What network operating system(s) does your organization use ?
  ☐D-Link LANsmart ☐Novell NetWare ☐NetWare Lite ☐SCO Unix/Xenix ☐PC NFS ☐3Com 3+Open
  ☐Banyan Vines ☐DECnet Pathwork ☐Windows NT ☐Windows NTAS ☐Windows '95
  ☐Others_____

5. What network management program does your organization use ?
  ☐D-View ☐HP OpenView/Windows ☐HP OpenView/Unix ☐SunNet Manager ☐Novell NMS
  ☐NetView 6000 ☐Others_____

6. What network medium/media does your organization use ?
  ☐Fiber-optics ☐Thick coax Ethernet ☐Thin coax Ethernet ☐10BASE-T UTP/STP
  ☐100BASE-TX ☐100BASE-T4 ☐100VGAnyLAN ☐Others_____

7. What applications are used on your network?
  ☐Desktop publishing ☐Spreadsheet ☐Word processing ☐CAD/CAM
  ☐Database management ☐Accounting ☐Others_____

8. What category best describes your company?
  ☐Aerospace ☐Engineering ☐Education ☐Finance ☐Hospital ☐Legal ☐Insurance/Real Estate
☐Manufacturing
  ☐Retail/Chainstore/Wholesale ☐Government ☐Transportation/Utilities/Communication ☐VAR
  ☐System house/company ☐Other_____

9. Would you recommend your D-Link product to a friend?
  ☐Yes ☐No ☐Don't know yet

10.Your comments on this product? _____
_____
_____
_____
_____

PLEASE
PLACE STAMP
HERE

TO:

D-Link ®