ADSL USB Modem

Easy Start
(Read Me First)

Version 1.4

Protocols Discussed:

RFC 1483
RFC 1577
RFC 2364
RFC 2516

Contents...

Windows® Me, 98, 98 Second Edition and Windows® 2000 supported

Part 15 FCC Compliance Statement

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

1.	This device may not cause harmful interference, and

2.	This device must accept any interference received, including interference that may cause undesired operation.

Operating Environment

For Home or Office Use

Notice

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

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

Caution

To comply with the limits for the Class B digital device according to Part 15 of FCC Rules, this device must be installed in computer equipment certified to comply with the Class B limits. All cables used to connect the computers and peripherals must be shielded and grounded. Operation with non-certified/shielded cables may result in radio/TV interference.

Modification

Any modification not expressly approved by the manufacturer of this device could void the user's authority to operate the device.

Party Responsible for Product Compliance:

Aztech Labs, Inc.
45645 Northport Loop East
Fremont, CA 94538, U.S.A.

Part 68 FCC Compliance Statement
(FCC ID : 4J2SNG-47095-DL-N)

This equipment complies with Part 68 of the FCC Rules. On the equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to your telephone company.

Connection to the telephone network should be made by using standard modular telephone jack type RJ11.

The REN is useful to determine the quantity of devices you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, the sum of the RENs of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area.

If your telephone equipment causes harm to the telephone network, the telephone company may discontinue your service temporarily. If possible, they will notify you in advance. But if advance notice is not practical, you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC.

Your telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

In the event this equipment should fail to operate properly, disconnect the unit from the telephone line. Try using another FCC approved telephone in the same telephone jack. If the trouble persists, call the telephone company repair service bureau. If the trouble does not persist and appears to be with this unit, disconnect the unit from the telephone line and discontinue use of the unit until it is repaired. Please note that the telephone company may ask that you disconnect this equipment from the telephone network until the problem has been corrected or until you're sure that the equipment is not malfunctioning.

This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs.

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via a telephone fax machine unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or individual sending message and the telephone number of the sending machine or such business, or entity, or individual.

This user information can be programmed in the communication software you are using with your equipment.

Repair or Service Information

In the event of the need for service or repair, carefully package the unit along with a note of the problem and send it to the address below or the authorized service center nearest you. Be sure to include your address (not a P.O Box), telephone number and best time to call.

Attn: *Aztech Labs, Inc.*
45645 Northport Loop East
Fremont, CA 94538, U.S.A.

Industry Canada Information

NOTICE: The Industry Canada label identifies certified equipment. This certification means the equipment meets telecommunications network protective, operational and safety requirements as described in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

NOTICE:

The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all of the devices does not exceed 5.

Product warranty does not apply to damage caused by lightning, power surges or wrong voltage.

Safety Guidelines

- Keep the modem away from fluid, direct sunlight and excessive heat
- During times of lightning strike/thunderstorm, do not use the modem
- This product is for use only in UL Listed computers
- To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord
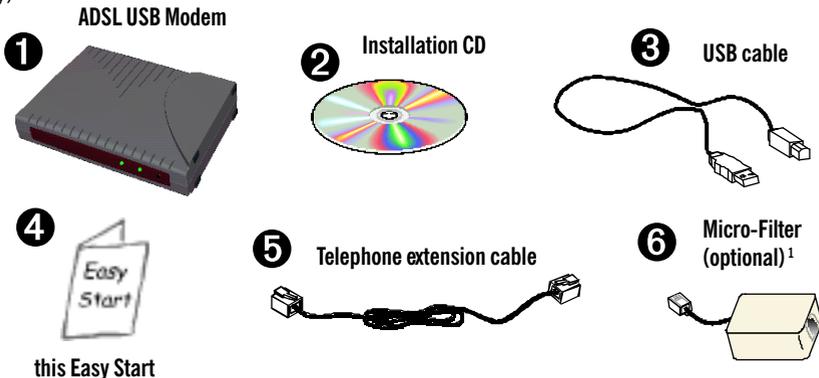
About this Easy Start

This booklet contains information on setting up your ADSL USB Modem*.* It touches on the key installation procedures to help you setup your modem in a breeze!

Package

Please check that you have the following items in your package. If you found any missing items, please contact your dealer immediately.

(The actual cables that are included with your package may differ in appearance from country to country)

❶ **ADSL USB Modem**

❷ **Installation CD**

❸ **USB cable**

❹ **this Easy Start**

Easy Start

❺ **Telephone extension cable**

❻ **Micro-Filter (optional)** [1]

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1 *Micro-Filter is only required for product model with* **'(M)'**. *If you are unsure of your product model, refer to the label at the bottom of your modem casing. The Micro-Filter may or may not be bundled with your package, depending on country purchased. If it is not bundled, you may purchased it separately from your dealer.*

LED Indicators

❷ ADSL LINK
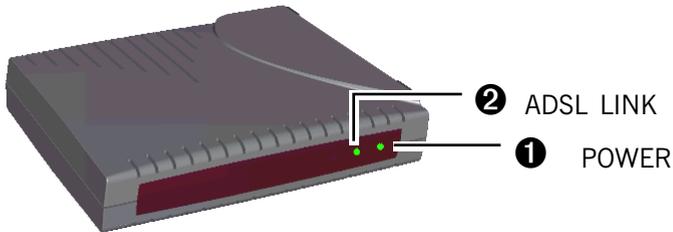
❶ POWER

❶ POWER

| LEDs Activity	Descriptions
Lights up	When you have connected your modem to the computer. Your computer must also be powered on for the LED to light up.
Off	i. You have not connected your modem to your computer. See **Step 1 - Connecting Your ADSL USB Modem**. ii. You have not powered on your computer. If problem persists, contact your dealer immediately.

❷ ADSL LINK

LEDs Activity	Descriptions
Flashes	Your modem is trying to establish an ADSL connection.
Lights up	When the ADSL connection is established.
If the **ADSL Link LED** keeps flashing and does not remain lit up, it could be that your ADSL services has not been activated. Please contact your ADSL Service Provider.	

Step 1: Connecting the ADSL USB Modem

With the "Hot Swap" feature in this modem, you can connect your modem to your computer anytime, without having to power off your system!

Carry out the connections as illustrated.
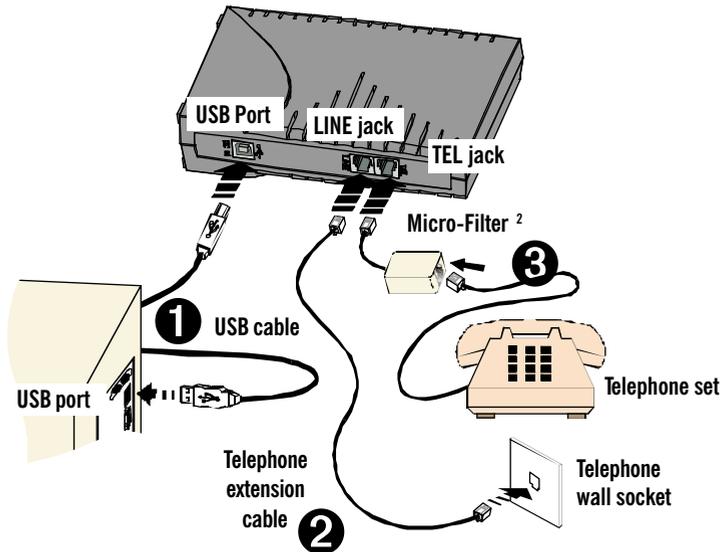
❶ Connect one end of the **USB cable** ( ) to the **USB Port** on your **modem** and the other end ( ) to the **USB port** of **your computer**.

❷ Connect one end of the **telephone extension cable** to the **Line Jack** on your **modem** and the other end to the **telephone wall socket**.

❸ A **telephone set** can be connected to the **Tel Jack** on your modem. (This optional connection enables you to use your telephone and your modem concurrently.)

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2   *Micro-Filter is only required for product model with* '**(M)**'. *If you are unsure of your product model, refer to the label at the bottom of your modem casing. For details on the usage of the Micro-Filter, please refer to the Troubleshooting section,* '**Do I need to use Micro-Filter when using ADSL?**'

Step 2: Installing the ADSL USB Modem Driver

The following contains the driver installation instructions for protocols **RFC 1483, RFC 1577, RFC 2364** and **RFC 2516**. You only need to install one of them, as determined by your ADSL Service Provider.

> 1. **For Windows® 9x users**, depending on your system's configurations, you may be prompted for your **Windows CD-ROM** during the driver installation. Have it ready by your side.
>
> 2. **The screen shots, screens information and steps illustrated in this manual serve only as a guide. The exact information and steps you see on your system may vary, depending on your system configurations. For any dissimilarities, follow closely to the instructions as prompted on your PC screen.**

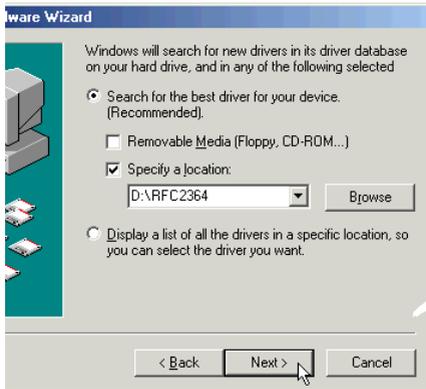## 2.1 Installing the ADSL USB Modem Driver - For Windows® Me

Power on your computer (if it is not powered on during connection). If you have connected the USB cable from your computer to your modem as illustrated in Step 1, you will be prompted with the following window to install the driver.

i. Place the **Installation CD** into your CD-ROM Drive.

Select **Specify the location of the driver (Advanced)** and click **Next**.

(RFC2364 protocol is used as an illustration throughout this manual. Replace it accordingly with your assigned one.)
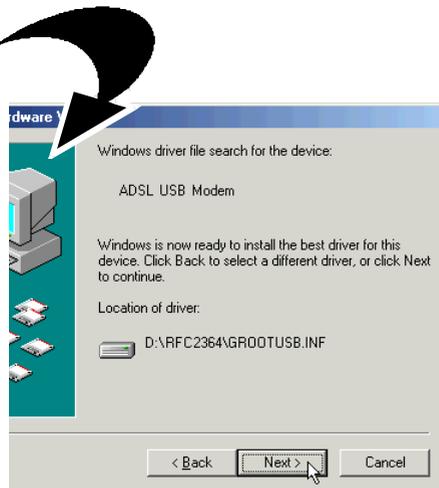

ii.   Select **Specify a location**.

       Click **Browse** and navigate to the required protocol folder, (e.g. **\RFC2364**) on your Installation CD.

       Click **Next**.

iii.   Click **Next** again to proceed installation with the specified driver.

iv.   Click **Finish** and proceed with the second stage of installation - **Step 3: Running ADSL Modem Setup Program**.
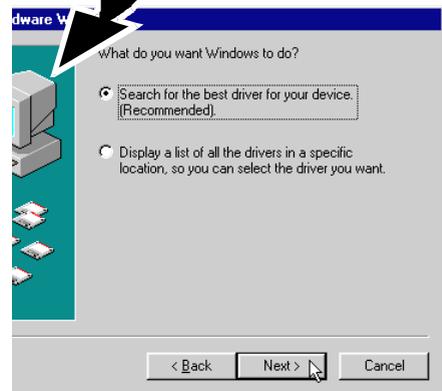
2.2 Installing the ADSL USB Modem Driver - For Windows® 98 Second Edition / 98

Power on your computer (if it is not powered on during connection). If you have connected the USB cable from your computer to your modem as illustrated in Step 1, you will be prompted with the following window to install the driver.

i. Place the Installation CD into your CD-ROM Drive and click **Next**.

ii. Select **Search for the best driver for your device (Recommended)** and click **Next**.

(RFC2364 protocol is used as an illustration throughout this manual. Replace it accordingly with your assigned one.)

iii. Select **Specify a location**. Click **Browse** and navigate to the required protocol folder (e.g. **\RFC2364**) on your Installation CD.

Click **Next**.

dware Wizard

Windows driver file search for the device:

ADSL USB Modem

Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue.

Location of driver:

D:\2364\GROOTUSB.INF

< <u>B</u>ack   Next >   Cancel

iv.   Click **Next** to proceed installation with the specified driver.

dware W

ADSL USB Modem

Windows has finished installing the software that your new hardware device requires.

< <u>B</u>ack   Finish   Cancel

v.   Click **Finish** and proceed with the second stage of installation - **Step 3: Running ADSL Modem Setup Program**.
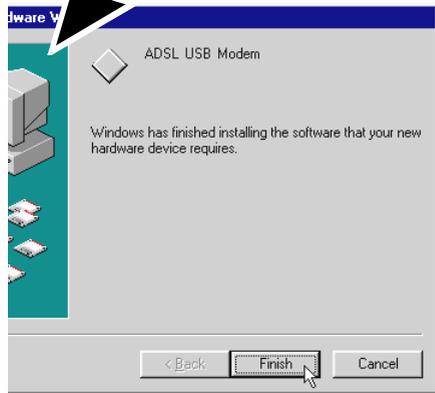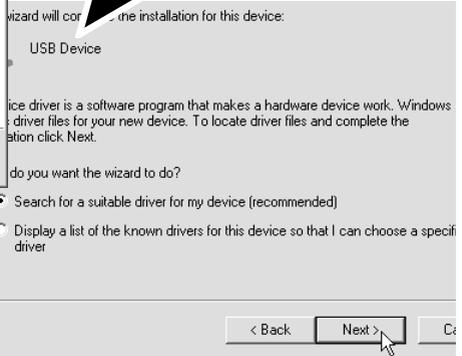
2.3   Installing the ADSL USB Modem Driver - For Windows® 2000

Power on your computer (if it is not powered on during connection). If you have connected the USB cable from your computer to your modem as illustrated in Step 1, you will be prompted with the following window to install the driver.

i.   Place the Installation CD onto your CD-ROM Drive and click **Next**.

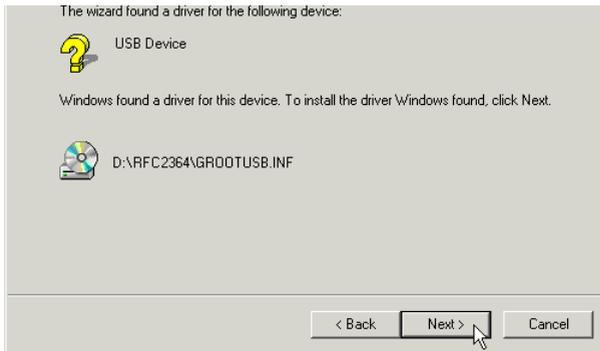ii.   Select **Search for a suitable driver for my device (recommended)** and click **Next**.

iii.   Select **Specify a location** and click **Next**.

(RFC2364 protocol is used as an illustration throughout this manual. Replace it accordingly with your assigned one.)

iv.   Click **Browse** and navigate to the required protocol folder (e.g. **RFC2364**) on your Installation CD.

Click **OK**.

v.   Click **Next** again to proceed installation with the specified driver.

vi.   Click **Finish** and proceed with the second stage of installation. See **Step 3: Running ADSL Modem Setup Program**.

Step 3: Running ADSL Modem Setup Program

i.   At the following **Welcome** prompt, click **Next**. The detection of the hardware will begin.

For Windows® Me

Upon copying files complete, click **Finish** to complete the installation. Restart when prompted.

For Windows® 98 Second Edition / 98

You may be prompted for the Windows CD-ROM. Place the Windows CD-ROM into your CD-ROM Drive and click **OK**.

At the prompt for files location, enter the path of your Windows CD-ROM (e.g D:\win98) in the text box and click **OK**.

Restart when prompted.

For Windows® 2000

You may be prompted with a **Digital Signature Not Found** window twice. Click **Yes** on both occasions to proceed.

Click **Finish** to complete the installation.

ii.   Proceed with **Step 4 - Verifying the ADSL USB Modem** to verify if your driver has been installed successfully.
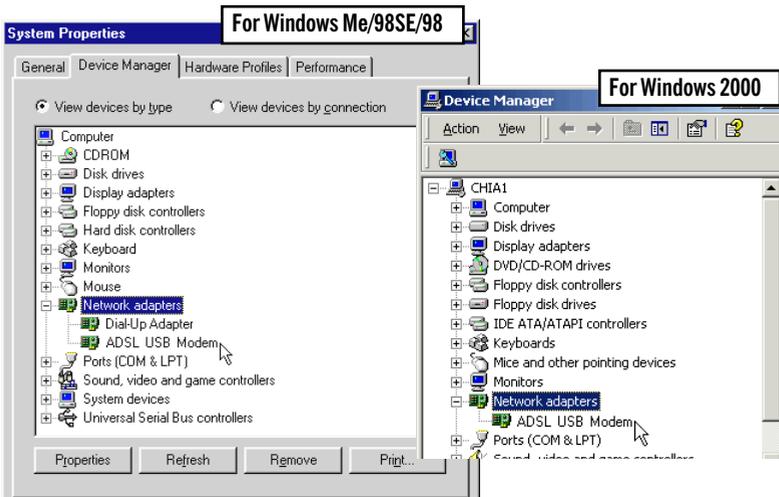
Step 4: Verifying the ADSL USB Modem

i.   Ensure that your computer is powered on.

ii.   From your Windows desktop, right-click on **My computer** icon and select **Properties**.

     For Windows® Me / 98 Second Edition / 98

     Select the **Device Manager** tab. Double-click on **Network adapters**.

     For Windows® 2000

     Click on the **Hardware** tab and **Device Manager** button.

iii.   You should see **ADSL USB Modem** listed. This means that your modem has been installed successfully.

     If you see an exclamation mark displayed besides your modem device, it means that you have not installed your driver properly. Click on the device and select **Remove**. *Install your driver again.*

     If your modem device is not listed at all, it also means that you did not install the driver properly. Install your driver again.

If you are installing **RFC1577** protocol, please proceed with **Step 5 - Configuring the IP Settings**. For the rest of the protocols, please proceed with **Step 6 - Establishing the Internet Connection**.

Step 5: Configuring the IP Settings
(For RFC 1577 protocol only)
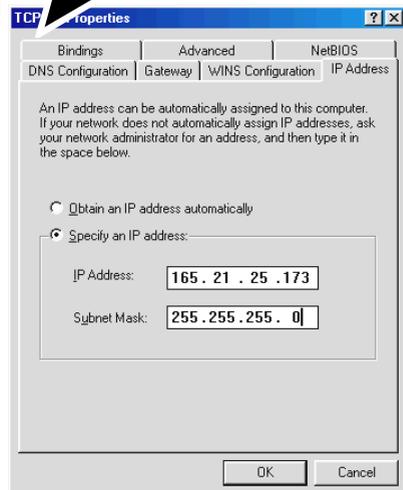
5.1   Configuring the IP Settings
### - For Windows® Me / 98 Second Edition / 98

i.   From your Windows desktop, right-click on the **Network Neighborhood** icon. Select **Properties**.
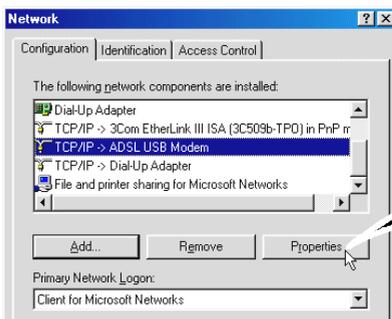

ii.   From the **Configuration** tab, select **TCP/IP-> ADSL USB Modem** and click **Properties**.

iii.   Select the **IP Address** tab.

Click **Specify an IP address**.

Enter the addresses as given by your ADSL Service Provider and click **OK**.

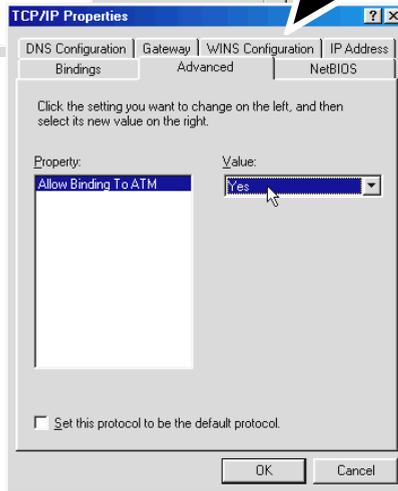(Addresses shown here are for examples only.)
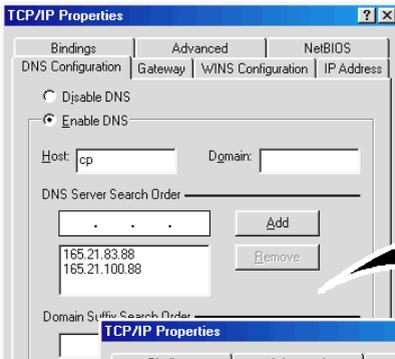
iv. Select **DNS Configuration** tab.

Click **Enable DNS**.

Enter the **Host** name.

Enter the **DNS Server Search Order**. addresses and click **Add**. (Values to be provided by your ADSL Service Provider)
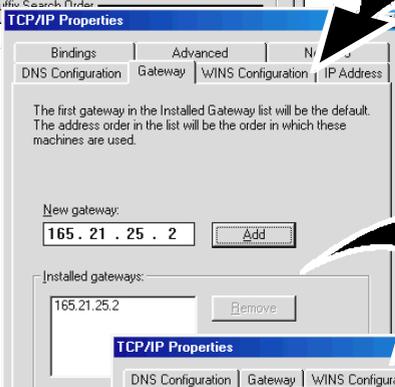
v. Select the **Gateway** tab.

Enter the **New Gateway** address assigned by your ADSL Service Provider and click **Add**.

vi. Select **Advanced** tab.

Select **Yes** from the **Value** drop-down list and click **OK**.

Proceed with **Step 6** to set the VPI and VCI values.

5.2   Configuring the IP Settings - For Windows® 2000

i.   From your Windows desktop, right-click on the icon **My Network Places**. Select **Properties**.

At the **Network and Dial-up Connections** window, double-click on the **Local Area Connection** icon.

If you have previously installed Network Card(s) and/or Modem Card(s) in your system, you will see more than one Local Area Connection icons displayed. Double-click on one of the icons. From the Connect using field at the Properties dialog box, you should see ADSL USB Modem listed (see below for illustration). If not, double-click another Local Area Connection icon and check.
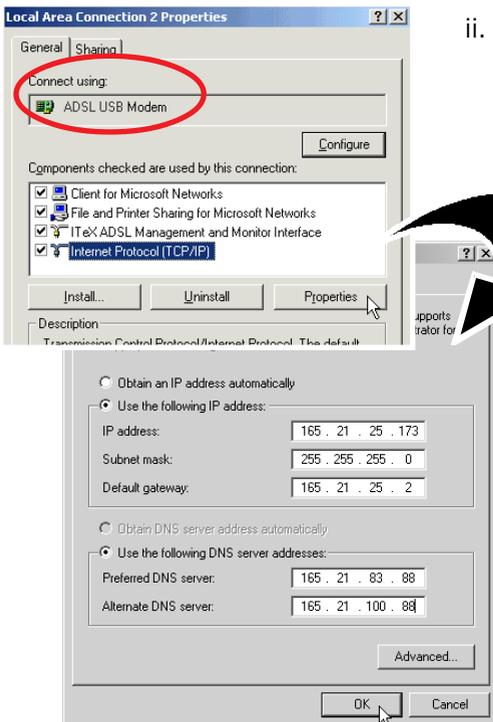
ii.   Ensure that the field **Connect Using** indicates **ADSL USB Modem**.

Select **Internet Protocol (TCP/IP)** and click **Properties**.

iii.   Click **Use the following IP address**. Enter the addresses as given by your ADSL Service Provider and click **OK**.

Click **OK** again to close.

Restart your system when prompted. Proceed with **Step 6 - Establishing the Ethernet Connection**.

(Addresses shown here are for examples only.)

Step 6: Setting the PVCs values

Different Service Providers have different settings for their VPI and VCI. Check with your ADSL Service Provider for the values and follow the below instructions to change, if necessary.

i.   From your Windows taskbar, click **Start** > **Programs** > **ADSL USB Modem** > **Configure**.

ii.   Click **Settings** to change the VPI, VCI values and encapsulation.

Step 7: Establishing the Internet Connection
(for RFC 2364 and RFC 2516 only)

> **For RFC 1483 and RFC 1577, you need to install a third-party dial-up software (e.g. WinPoET) to connect to the Internet.**

i.   To connect to the Internet, double-click shortcut icon **ADSL USB Modem Dial-up** on the Windows desktop.

      (The shortcut icon was created when you installed the modem driver successfully.)

ii.   Enter your **user name** and **password**. Click **Connect**.

      [You can also connect to your ADSL Service Provider from **Control Panel** > **Dial-up Networking** (Windows Me & 2000) or **My Computer** > **Dial-up Networking** (Windows 98).]

iii. Upon successful dial-up, you should be able to see an icon ( )

      displayed on the Windows system tray.   Double-click on the icon.

      Duration indicates the amount of time you are connected to the Internet. You may click **Disconnect** to end your session.

If you are not able to connect to the Internet, proceed to run the **DSL Test** as described in the following section.

Running DSL Test

(Run this test only if you are not able to establish your Internet connection.)
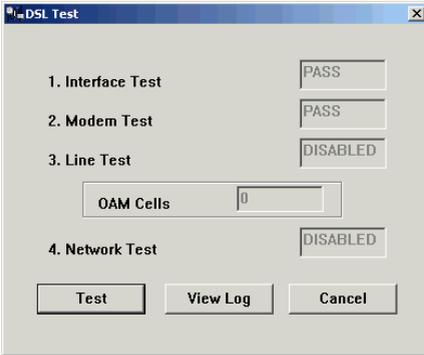
i.   From your Windows desktop, double-click on the **DSL Test** shortcut.

(The shortcut icon is created when you have successfully installed the modem driver. You can also run **DSL Test** by clicking on **Start** > **Programs** > **ADSL USB Modem** > **DSL Test**.)

ii.   Click **Test**. If the current test failed, subsequent tests will be skipped. Proceed to fix the problem before running **DSL Test** again.

RFC 2364 and RFC 2516 protocols users should get a **PASS** for the **Interface Test** and **Modem Test**.

RFC 1483 and RFC 1577 protocols users should get a **PASS** for the **Interface Test**.

If you get a **FAIL** for **Interface** or **Modem Test**, reinstall your modem driver.

DISABLED means that the test is not applicable for your protocol.

Advanced Settings

i. Once the driver has been properly installed, you will see a new icon on your Windows system tray.

ii. Double-click it to open.

Monitor ADSL connection status

iii. You can monitor your ADSL connection status from **Physical Link** tab.

If you removed the icon from the system tray, you can open it from the **Control Panel** by double-clicking on the **ADSL USB Modem** icon.
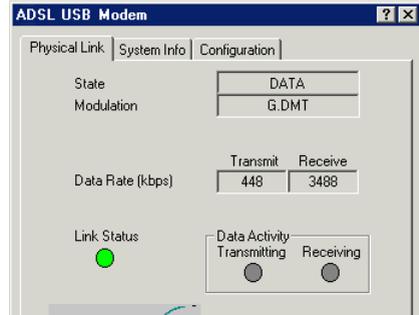
Change Modulation

iv. From the **Configuration** tab, you can change the modulation from the drop-down list.

v. Click **Apply** for changes to take effect. You will be prompted to restart connection. Click **Yes**.

vi. Click **Save** if you want the changes to be saved permanently.
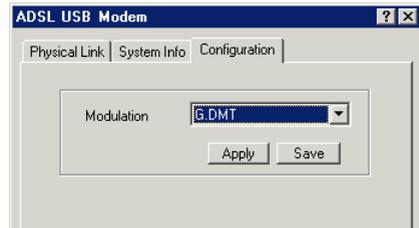
Uninstalling Your ADSL USB Modem

i   Ensure that you do not unplug the USB cable from the modem.

ii.   From your Windows desktop, click **Start** > **Programs** > **ADSL USB Modem** > **Uninstall**. Click **Remove**. Follow the instructions to uninstall the driver.

iii.   Unplug the USB cable from the modem when uninstallation is done. Restart your system when prompted.

Alternatively, you may remove your modem from the **Control Panel**:

i.   Double-click on the **Add/Remove Programs** icon.

ii.   **For Windows® Me / 98SE / 98**

        Under the **Install/Uninstall** tab, select **ADSL USB Modem** and click **Add/ Remove…** button.

        Click **Remove** to uninstall the driver. Restart your system when prompted.

        For Windows® 2000

        Select **ADSL USB Modem** and click **Change/Remove** button.

        Click **Remove** to uninstall the driver.

Troubleshooting

Q: I am not getting any connection. The modem Power LED lights up and the ADSL Link LED keeps blinking (The ADSL Link LED does not remain light up).

A: Check that the Telephone cable (RJ-11) is connected to the **LINE** jack on your modem and not to the **TEL** jack. If this problem persists, please check with your ADSL Service Provider.

Q: I am getting poor ADSL speed performance from my modem.

A: i) Place your modem away from devices or appliances such as monitors, exposed computer systems (with chassis covers removed) or another modem which exhibit magnetic fields that may cause interferences to your modem line.

ii) Ensure that Micro-Filters are used for phone sockets at different telephone points that are sharing the same phone line.

If your modem speed or performance is still unsatisfactory, please contact your ADSL Service Provider.

Q: Do I need to use Micro-Filters when using ADSL ?

A: Product model **DSL100U** has a built-in Micro-Filter. Thus, external **Micro-Filter** is not required.

For product model **DSL100U(M)**, Micro-Filter is required when you are sharing your ADSL line with your telephone set. If your house has more than one Telephone sets all sharing the same ADSL line, than each of the Telephone sets will have to be connected to a Micro-Filter (connect Micro-Filter between your Telephone set and Telephone wall socket).

Micro-Filters eliminate noise on the telephone line to ensure the best possible phone performance. If the DSL uses a different line and not sharing with your telephone, then a Micro-Filter will not be necessary.

(If you are unsure of your product model, refer to the label at the bottom of your modem casing.)

Notes