Apollo

User's Guide

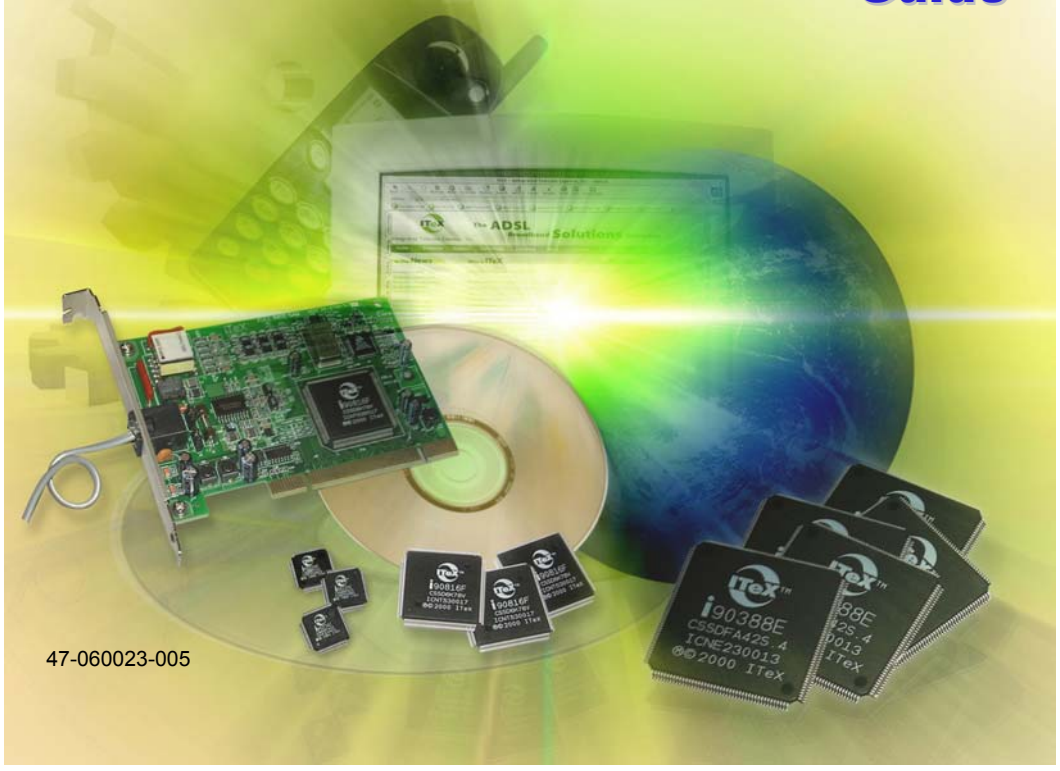

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Table of Contents

Congratulations! 1
Step 1 – Know Your PC's Operating System 1
Step 2 – Determine Your Connection Settings 2
Step 3 – Install the ADSL Modem Card 3
Step 4 – Install the Drivers and Make a Connection 5
Windows 95A 6
Windows 95B 9
Windows 98, 98SE 12
Windows Millennium 14
Windows NT4.0 - RFC1483 or RFC1577 21
Windows NT4.0 - RFC2364 or RFC2516 23
Windows 2000 29
Windows XP 36

Appendix

Standard Utility 41
- Un-Installer 41
- Diagnostic Tools 43

XP Utility (for Windows XP only) 44
- Un-installer 45
- Diagnostic Tools 46

Connection Guide 51
Common Problems and Solutions 53
Connector & Jumper-pin Configuration Guide 55
System Requirements & Compliance Information 56
Copyright & Regulatory Information 56
Safety Instructions 56
FCC Statement 57
User License Agreement 58

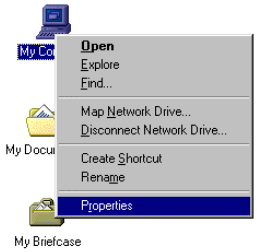
Congratulations!

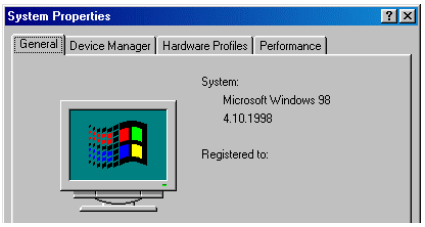
You are about to accelerate into ADSL technology. Your new ADSL modem card is an internal Asymmetric Digital Subscriber Line (ADSL) PCI modem card, which conveniently plugs into your computer system. The modem connects directly to your telephone line via a standard connector.
This guide is designed to walk you through installation of your ADSL Modem card in the easiest and quickest way possible. Please follow the instructions carefully.

Step 1 – Know Your PC's Operating System

You will need to know the exact version of Microsoft Windows installed in your computer. If you do not know or are unsure, please proceed as follows to determine your version of the Microsoft Operating System.

On your desktop, right-click on **My Computer**, and select **Properties**. The version number of the Microsoft Windows Operating System installed in your computer will be displayed on the **General** tab. Refer to the following table for more detailed information.





Windows OS	System Properties Description	Release (Microsoft Web)
Win 95A	4.00.950A	Windows 95 OSR1
Win 95B	4.00.950B	Windows 95 OSR2
Win 98	4.10.1998	Window 98
Win 98SE	4.10.2222A	Windows 98 2nd Edition
Win Me	4.90.3000	Windows Millennium
Win NT	4.00.1381	Windows NT 4.0
Win 2000	5.00.2195	Windows 2000
Win XP	Version 2002	Windows XP

If you have questions regarding your PC system and the Microsoft Windows Operating System, please contact your original PC manufacturer or Microsoft for assistance.

Before installing the ADSL PCI Modem Card, it is important to verify that the ADSL data port RJ-11 jack is configured so that the center two pins, pins 3 and 4, are used for ADSL data. If the ADSL data port installation uses pins 2 and 5 for data, consult the Connector & Jumper-pin Configuration Guide located in the Appendix.

Step 2 – Determine Your Connection Settings

You need to know your PC system's **Windows OS** and **Internet Protocol** supplied by your ADSL service provider. Refer to the following chart for your ADSL Driver.

Protocol Selection		
RFC1483	⇨	Bridged Ethernet over ATM
RFC1577	⇨	Classical Internet Protocol over ATM
RFC2364	⇨	Point-to-Point Protocol over ATM
RFC2516	⇨	Point-to-Point Protocol over Ethernet

ADSL Driver Selection	RFC1483	RFC1577	RFC2364	RFC2516
Win 95A & 95B	1483w95	1577w95	2364w95	2516w95
Win 98 & 98SE	1483w98	1577w98	2364w98	2516w98
Win 2000	1483w2K	1577w2K	2364w2K	2516w2K
Windows Millennium	1483wMe	1577wMe	2364wMe	2516wMe
Win NT 4.0	1483wNT	1577wNT	2364wNT	2516wNT
Win XP	1483wXP	1577wXP	2364wXP	2516wXP

Having determined the ADSL Driver you will be installing, you now need to gather the connection information supplied by your ADSL service provider.

VPI value: _____
VCI value: _____
Framing: ❑ VC/MUX ❑ LLC/SNAP
Mode: ❑ ANSI T1.413 ❑ ITU G.lite ❑ ITU G.dmt

For **RFC1483** or **RFC1577**	For **RFC2364** or **RFC2516**
Host:	**User Name:**
Domain:	**Password:**
Gateway:	**Host or IP Address:**
IP Address:	
Subnet Mask:	
DNS or server address:	

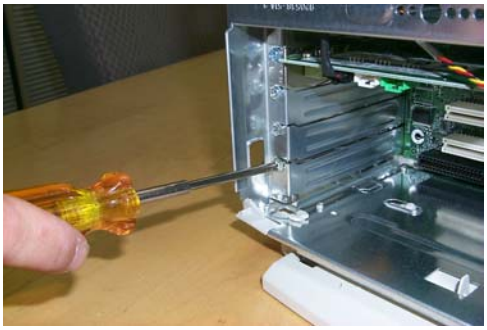
Step 3 – Install the ADSL Modem Card

Caution: *To avoid possible damage to your modem card, touch the metal chassis of your PC system to remove any static charge that may exist from your fingers, and then remove your ADSL modem card from the protective anti-static bag.*

1. Shut down your computer and **switch the power off**.
2. **Unplug the power cord** for your computer from the electrical outlet.

3. **Remove the cover** from your systems chassis (see your PC manufacturer's manual).

4. **Unscrew "metal slot cover bracket"** from an unused PC motherboard PCI connector (a PCI connector is usually white in color).



5. Gently and evenly **insert the PCI modem card** into your empty PCI slot.

6. Make sure the card is firmly seated, and then **secure the card with the bracket screw.**

7. **Replace the cover** of your computer system and **connect your ADSL phone line** to the connector port on the modem card. Then plug the other end of the cable into your ADSL -phone service.

Step 4 – Install the Drivers and Make a Connection

You will be installing drivers and then proceeding to make an Internet connection. This process requires you to enter information as prompted by the Microsoft Installation Wizard.

NOTE: You may need the Microsoft Windows Operating System installation files (CAB files) to complete the installation. The CAB files are contained in the Microsoft's system CD-ROM. Some systems may have already installed the CAB files to the hard drive, but you should have the Microsoft Windows CD-ROM handy just in case.

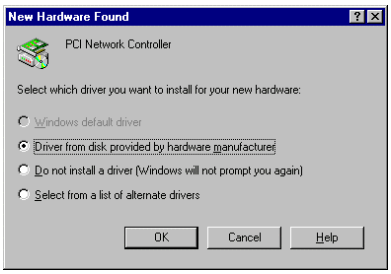
Proceed now to the installation procedure for the Windows Operating System installed in your computer.

Windows 95A..... 6
Windows 95B..... 9
Windows 98, 98SE..... 12
Windows Millennium..... 14
Windows NT – RFC1483 and RFC1577 21
Windows NT – RFC2364 and RFC2516 23
Windows 2000 29
Windows XP 36

Windows 95A

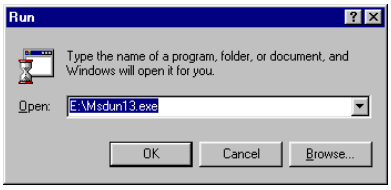
After installing the ADSL modem card, plug the power cable back into the PC system and turn the power on.
Before you proceed to install drivers, you may need to upgrade your Dial-Up Networking (DUN) application to version 1.3 or above. The Microsoft DUN is conveniently contained on your ADSL Driver CD-ROM.

1. After restart, the **New Hardware Found** window will detect the ADSL modem as a **PCI Network Controller.** At this time, **CANCEL** the **New hardware found** window**.**

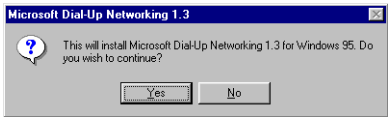


2. At your desktop, click **Start**, and then select **Run**.

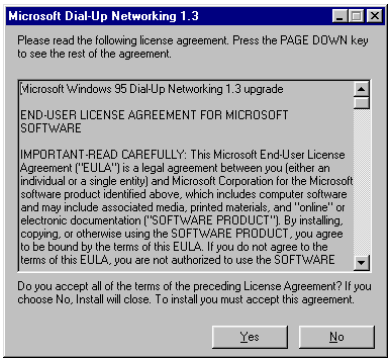
3. The **Run** window appears. Click on **Browse** and locate the drive that contains your ADSL CD-ROM. Then locate and select the **MSDUN13.EXE** file. The **MSDUN13.EXE** appears in the Open box. Click **OK**.



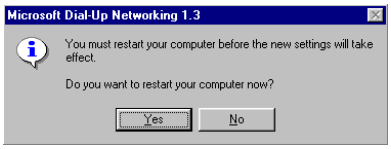
4. The **Microsoft Dial-Up Networking 1.3** window appears with the message **This will install Microsoft Dial-Up Networking 1.3 for Windows 95. Do you wish to continue?** Click **Yes**.



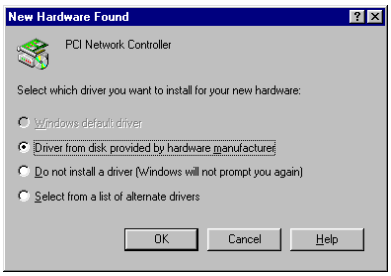
5. An **End-User License Agreement** will appear. To accept, click **Yes**.



6. Again in the Microsoft Dial-Up Networking 1.3 window, you will be asked: **Do you want to restart your computer now?** Click Yes.

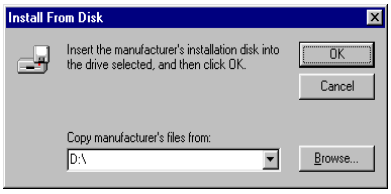


NOTE: You may need the Microsoft Windows Operating System installation files (CAB files) to complete the installation. The CAB files are contained in the Microsoft's system CD-ROM. Some systems may have already installed the CAB files to the hard drive, but you should have the CD-ROM handy just in case.



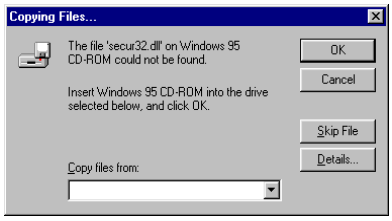
7. The **New Hardware Found** window will again detect the ADSL modem card as a **PCI Network Controller.** This time, select the **Driver from disk provided by hardware manufacturer** option. Click **OK**.

Insert the ADSL Driver CD-ROM into your systems CD drive now.



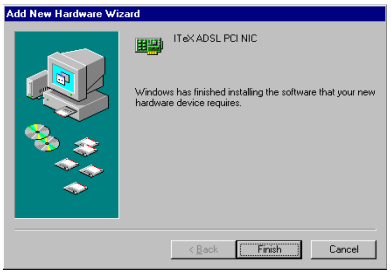
8. The **Install From Disk** window appears. Click **Browse** to locate the driver on your CD-ROM for the protocol supported by your ADSL provider: **1483w95, 1577w95, 2516w95** or **2364w95.** (The example uses "D" as the CD-ROM drive letter. Your drive letter may differ.) Then click **OK**.

NOTE: During the installation process you may be asked to insert your **Windows 95** CD. Insert the **Windows 95** CD into the CD drive and click **OK**.

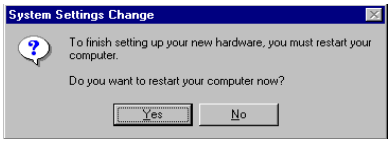


NOTE: If during the file copying process a file is reported as "not found" enter the path with the CD Drive letter and **:\Win95** (Ex: D:\Win95).

10. At the conclusion of the ADSL modem driver installation, the **Add New Hardware Wizard** window appears and displays your newly installed **ITeX ADSL PCI NIC** software. Click **Finish.**



11. The **System Settings Change** window appears. For the PC system to set up the **ITeX ADSL PCI NIC**, a system **Restart** is required. Click **Yes**.



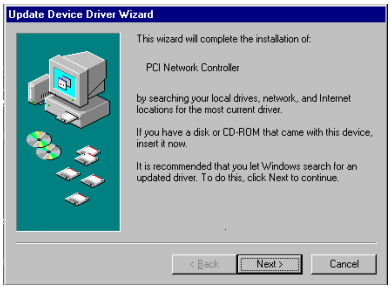
NOTE: After restarting the system, the Diagnostic Tool icon (See Appendix) is active and monitoring connectivity.

12. You must now set the ADSL Configuration. **Go to page 15.**

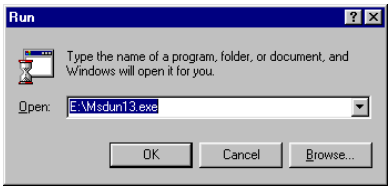
Windows 95B

After installing the ADSL modem card, plug the power cable back into the PC system and turn the power on. Before you proceed to install the driver you may need to upgrade your Dial-Up Networking (DUN) application to version 1.3 or above. The Microsoft DUN is conveniently contained on your ADSL Driver CD-ROM.

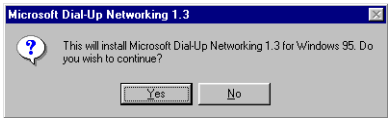
1. After restart, the **Update Device Driver Wizard** will detect the ADSL modem card as a **PCI Network Controller.** At this time, **CANCEL** the **Update Device Driver Wizard** window**.**



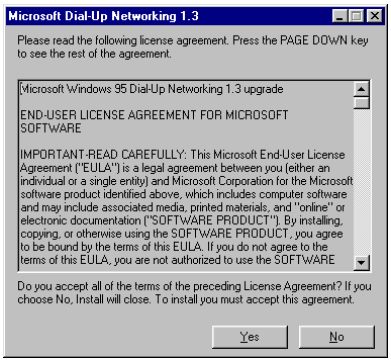
2. At your desktop, click **Start**, and then select **Run**.
3. The **Run** window appears. Click on **Browse** and locate the drive that contains your ADSL CD-ROM. Then locate and select the **MSDUN13.EXE** file. The **MSDUN13.EXE** then appears in the Open box. Click **OK**.



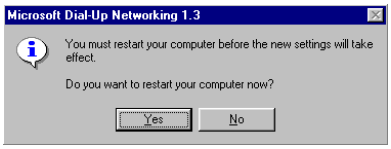
4. The **Microsoft Dial-Up Networking 1.3** window appears with the message **This will install Microsoft Dial-Up Networking 1.3 for Windows 95. Do you wish to continue?** Click **Yes**.



5. An **End-User License Agreement** will appear. To accept, click **Yes**.

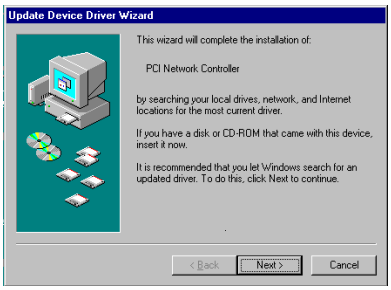


6. Again back in the **Microsoft Dial-Up Networking 1.3** window, you will be asked **Do you want to restart your computer now?** Click **Yes**.



NOTE: You may need the Microsoft Windows Operating System installation files (CAB files) to complete the installation. The CAB files are contained in the Microsoft's system CD-ROM. Some systems may have already installed the CAB files to the hard drive, but you should have the CD-ROM handy just in case.

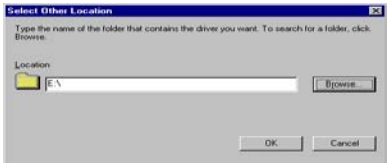
7. The **Update Device Driver Wizard** will again detect the ADSL modem card as a **PCI Network Controller**, click **Next**.



Insert the ADSL Driver CD-ROM into your systems CD drive now.

8. The **Update Device Driver Wizard** will appear and indicate that **Windows was unable to locate a driver for this device**. Click **Other Locations**.

9. The **Select Other Location** window appears. Click **Browse** to locate the driver on your CD-ROM for the protocol supported by your ADSL provider: **1483w95, 1577w95, 2364w95** or **2516w95.** (The example uses "E" as the CD-ROM drive letter. Your drive may have a different letter.) Then click **OK**.



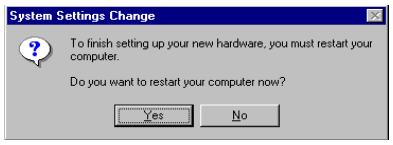
10. The **Update Device Driver Wizard** will then find the **ITeX ADSL PCI NIC.** Click **Finish**.

NOTE: During the installation process you may be asked to insert your Windows 95 CD-ROM. Insert the CD-ROM into the drive. Click **OK**.

NOTE: If during the file copying process a file is reported as **not found,** enter the path (this example uses "E" as the CD-ROM drive letter, your drive letter may differ) and: **Win95** (Ex: **E:\Win95**).

12. At the conclusion of the ADSL modem driver installation, the **Add New Hardware Wizard** window appears and displays your newly installed **ITeX ADSL PCI NIC** software. Click **Finish.**

13. The **System Settings Change** window appears. For the PC system to set up the **ITeX ADSL PCI NIC** driver, a system **Restart** is required. Click **Yes**.



NOTE: After restarting the system, the **Diagnostic Tool** icon (See Appendix) is active and monitoring connectivity.

14. You must now set the ADSL Configuration. **Go to page 15.**

Windows 98, 98SE

After installing the ADSL modem card, plug the power cable back into the PC system and turn the power on.

1. The **Add New Hardware Wizard** window will automatically appear to indicate that a new **PCI Network Controller** has been found. Click **Next**.

Insert the ADSL Driver CD-ROM into your systems CD-ROM drive now.

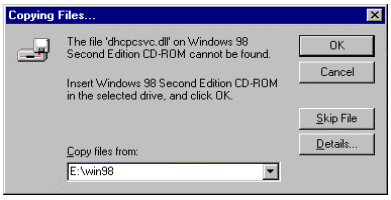
2. Still in the **Add New Hardware Wizard**, you will be asked **What do you want Windows to do?** Select the **Search for the best driver for your device** option, then click **Next**.

3. Select **Specify a location** and click **Browse** to locate the driver on your CD-ROM for the protocol supported by your ADSL provider: **1483w98, 1577w98, 2364w98** or **2516w98.** Click **Next.**

4. The **Add New Hardware Wizard** will appear and indicate the **ITeX ADSL PCI NIC** has been recognized and will install a new driver. Click **Next**.

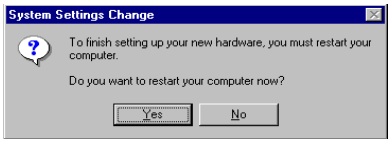
5. If prompted to insert your Windows CD, do so at this time, then click **OK.**

6. Enter the CD drive letter (the example uses "E" as the CD-ROM drive letter, your drive letter may differ) and then **:\Win98** (Ex: **E:\Win98**) and click **OK**.



7. At the conclusion of the ADSL modem driver installation, the **Add New Hardware Wizard** window appears again and displays your newly installed **ITeX ADSL PCI NIC** software. Click **Finish**

8. The **System Settings Change** window appears. For the PC system to set up the **ITeX ADSL PCI NIC** driver, a system **Restart** is required. Click **Yes**.



NOTE: After restarting the system, the **Diagnostic Tool** icon (See Appendix) is active and monitoring connectivity.

9. You must now set the ADSL configuration. **Go to page 15.**

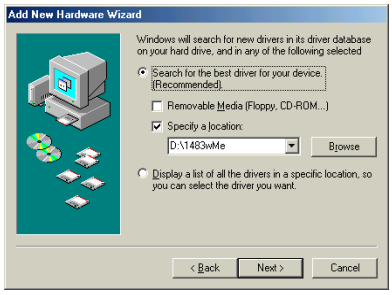
Windows Millennium

NOTE: After installing the ADSL modem card, plug the power cable back into the PC system and turn the power on.

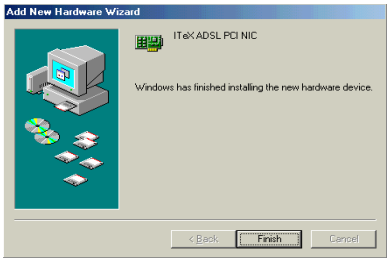
1. The **Add New Hardware Wizard** window will automatically appear to indicate that a new **PCI Network Controller** has been found. Select the **Specify the location of the driver** option. Click **Next**.

Insert the ADSL Driver CD-ROM into your systems CD-ROM drive now.

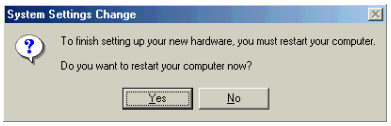
2. Still in the **Add New Hardware Wizard**, click the scroll arrow to locate the driver on your CD-ROM for the protocol supported by your ADSL provider: **1483wMe, 1577wMe, 2364wMe or 2516wMe.** (The example uses "D" as the CD-ROM drive letter. Drive letters may vary.) Then click **Next**.



3. The **Add New Hardware Wizard** has now finished installing the new hardware device. Click **Finish**



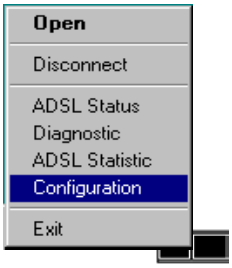
4. The **System Setting Change** window appears. Click **Yes** to restart your PC system to allow the new changes to take effect.



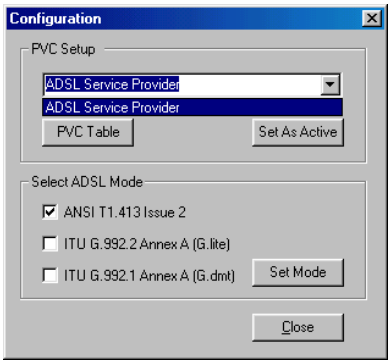
5. You must now set the ADSL configuration. **Go to page 15.**

Setting the ADSL Configuration Win95, Win98, WinMe

1. After your PC has rebooted, right-click on the **Diagnostic Tool Icon** (see Appendix), and select the **Configuration** option**.**

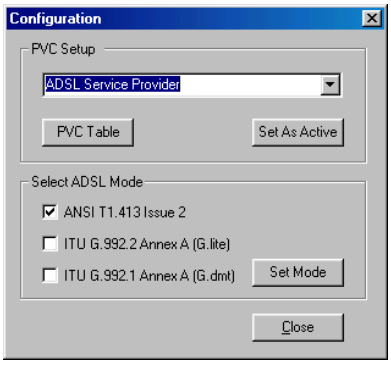


2. When the Configuration window appears, scroll through the **PVC setup** section to locate the service you will be connecting to. Then click **Set As Active.**

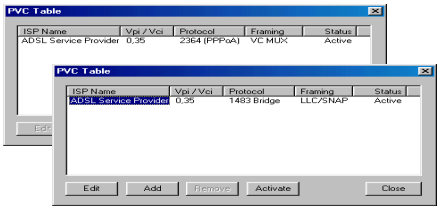


3. In the **Select ADSL Mode** section, select the mode(s) recommended by your ADSL service provider. Then click **Set Mode**.

4. When you have set both the **PVC Setup** and **ADSL Mode,** click **Close.**



NOTE: To modify, add, or remove ISP settings from the **Configuration** window, in the **PVC Setup** section, click on the **PVC Table** button. The **PVC Table** window then appears for the Protocol you are using.



5. The **PVC Setup** window appears. Click **Yes** to restart your PC system and to allow the new changes to take effect.

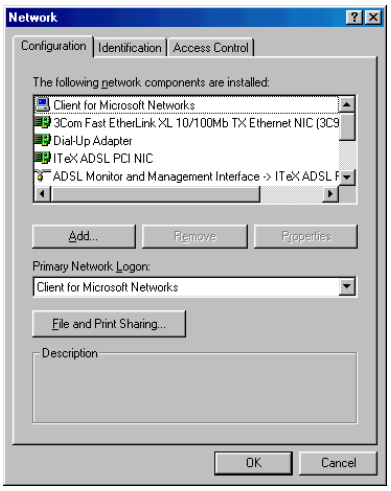
6. You must now make an ADSL connection, proceed to the section for the protocol you are using as follows:

RFC1483 and RFC1577 **Go to page 17.**
RFC2364 and RFC2516 **Go to page 20.**

Making an ADSL connection

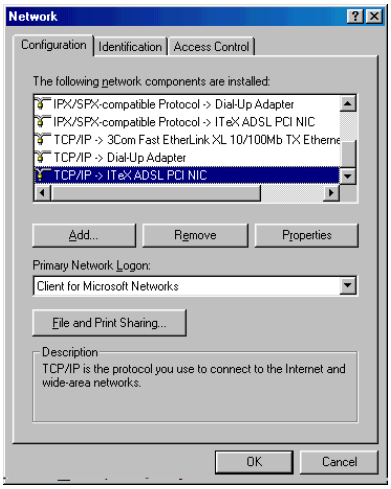
RFC1483 or RFC1577 - Win95, Win98, WinMe

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

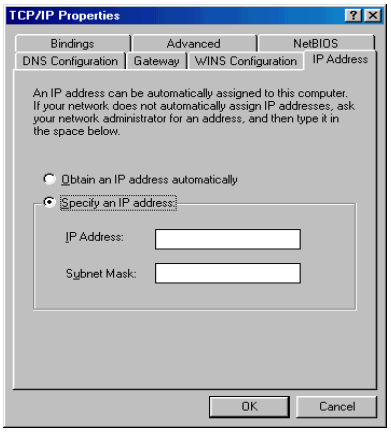


2. The **Network** window appears. Select the component window and verify that **ITeX ADSL PCI NIC** is present.

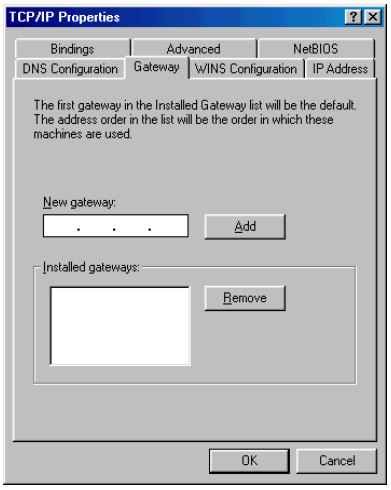
3. Scroll the installed network component window and select **TCP/IP →ITeX ADSL PCI NIC.** Then click the **Properties** button.



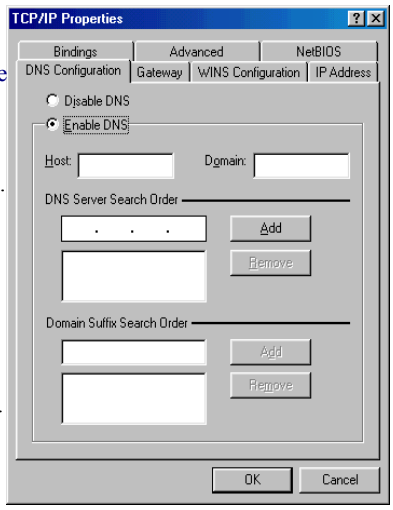
4. The **TCP/IP Properties** window will appear. Select the **IP Address** tab and then select the **Specify an IP Address** option. Enter the **IP Address** and **Subnet Mask** settings supplied by your ADSL provider.



5. To setup a new gateway, select the **Gateway** tab, and then enter the setting in the **New Gateway** section. Click **Add**.

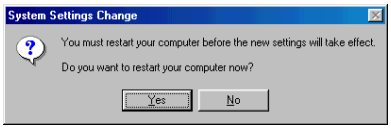


6. Select the **DNS Configuration** tab. Select the **Enable DNS** option.
   NOTE: You now need to have available the **Host**, **Domain** and **DNS** settings supplied by your ADSL service provider.
7. Enter your host name into **Host:** box.
8. Enter your domain name into **Domain:** box.
9. Enter **DNS** number into **DNS Server Search Order** box and click **Add**. If you have more than one **DNS** number, repeat this step.
10. After setting all the necessary TCP/IP properties, click **OK.**



11. The **Network** window appears (not shown). Click **OK**.

12. The **System Setting Change** window appears. You will be asked if you want to restart your computer. Click **Yes**.



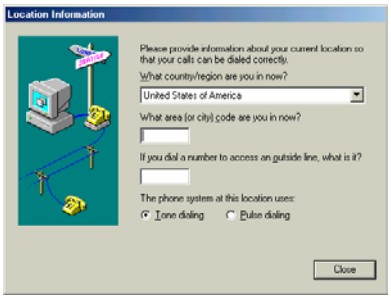
Congratulations, you are done. Your ADSL Internet connection is established!

Making an ADSL Connection

RFC2364 or RFC2516 – Win95, Win98, WinMe

1. After your PC restarts, the **Location Information** window may appear (See NOTE below). Enter the area code and phone number given to you by your ADSL service provider.

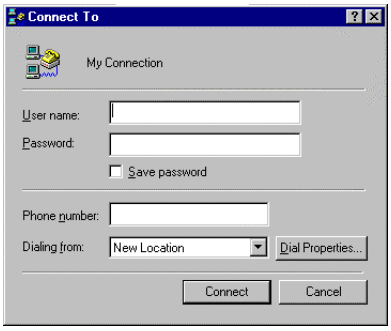
   NOTE: This screen may not appear on Windows operating systems 95 or 98.



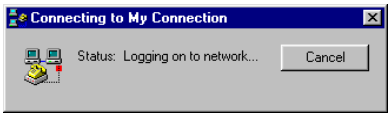
2. Double-click on the **ADSL Connect** icon that appears on your desktop.

ADSL Connect

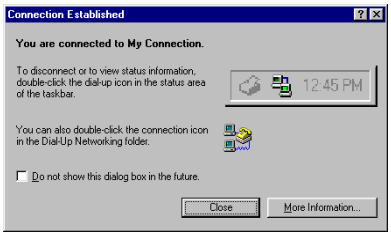
3. The **Connect To** window appears. Enter the **User Name**, **Password** and **Phone number** supplied by your Internet service provider (ISP). Then click **Connect**.



4. The **Connecting to My Connection** window appears. The message Logging on to network confirms a valid connecting process.

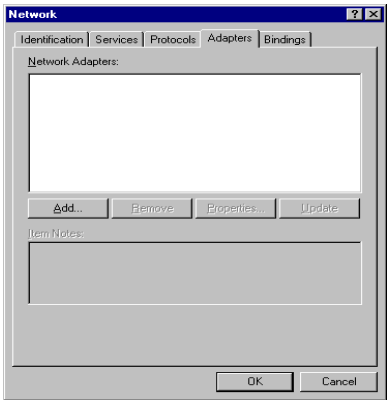


5. The **Connection Established** window appears. Internet service is now established. Click **Close** and then the Diagnostic tool icon will appear on the task bar.



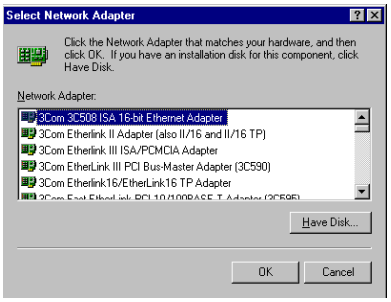
Windows NT4.0 - RFC1483 or RFC1577

1. Right-Click on the **Network Neighborhood** icon, and select **Properties.**
2. The Network window appears. Select the **Adapters** tab and then click **Add**.

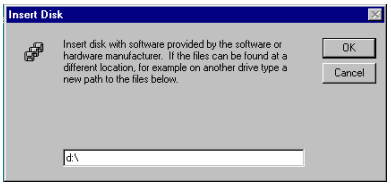


Insert ADSL Driver CD-ROM into your system's CD drive now.

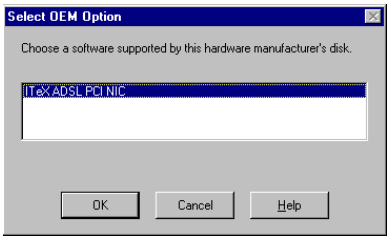
3. The **Select Network Adapter** window appears. Click **Have Disk**.



4. The **Insert Disk** window appears. In the driver folder location, type in the protocol supported by your ADSL provider: **Ex. 1483wNT or 1577wNT.** (The example uses "d" as the CD-ROM drive letter. Your drive may have a different letter.) Click **OK**.

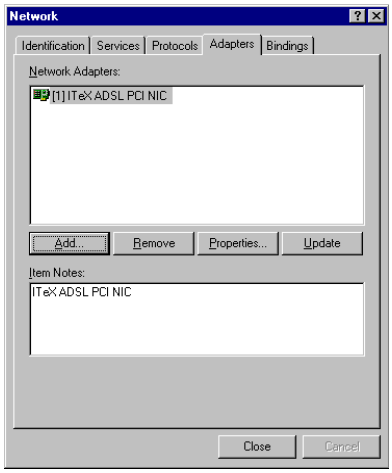


5. The **Select OEM Option** window will find **ITeX ADSL PCI NIC**. Click **OK**.

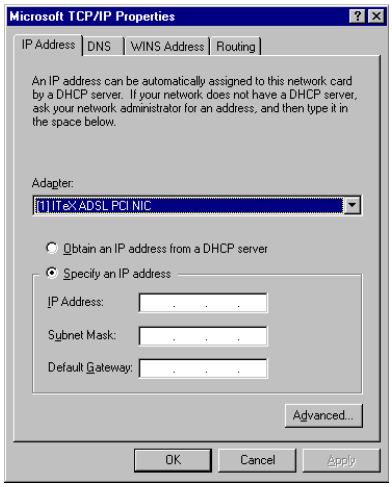


6. The **Network** window will appear. Click the **Adapters** tab to verify that **ITeX ADSL PCI NIC** has been found. Click on the **Protocols** tab and verify that **ADSL Management and Monitor Interface** is present. When you have verified these items, click **Close.**

   NOTE: To review the Network window properties at any time, right-click the **Network Neighborhood** icon and select **Properties.**



7. The **Microsoft TCP/IP Properties** window appears. Select **Specify an IP address**. Enter in the **IP Address, Subnet Mask**, and **Default Gateway** supplied by your ADSL service provider. Click **OK.**



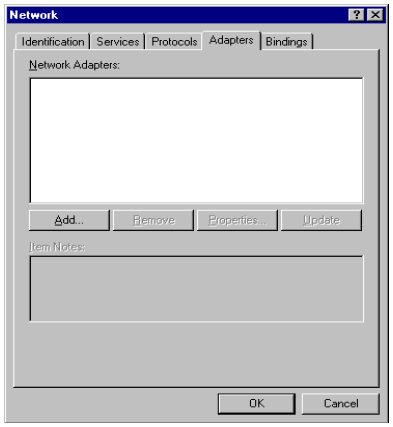
8. The **Network Settings Change** window appears. You must now re-start your computer for the settings to take effect. Click **Yes**.

9. You must now set the ADSL configuration**. Go to page 26.**

Windows NT4.0 - RFC2364 and RFC2516

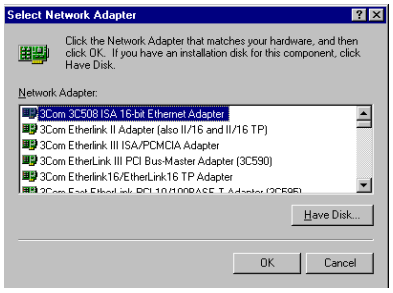
1. Right-click on the **Network Neighborhood** icon, and select **Properties.**

2. The Network window appears. Select the **Adapters** tab and then click **Add**.

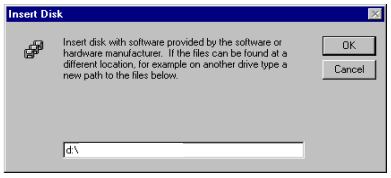


Insert the ADSL Driver CD-ROM into your system's CD drive now

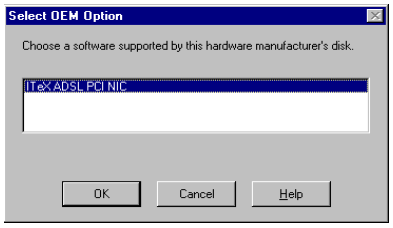
3. The **Select Network Adapter** window appears. Click **Have Disk**.



4. The **Insert Disk** window appears. In the driver folder location, type in the protocol supported by your ADSL provider: **2364wNT or 2516wNT.** (The example uses "d" as the CD-ROM drive letter. Your drive may have a different letter.) Click **OK**.

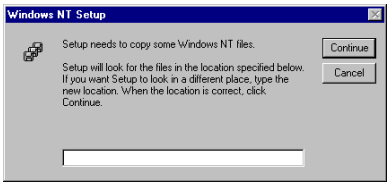


5. The **Select OEM Option** window will find **ITeX ADSL PCI NIC**. Click **OK**.

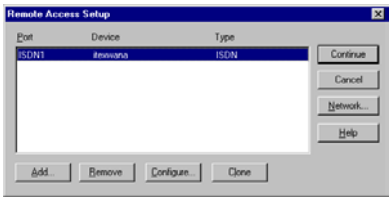


6. The **Setup Message** window appears. Click **OK**.

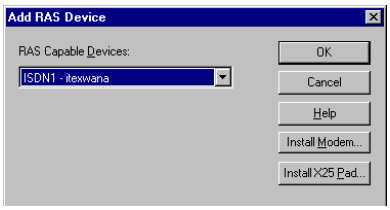
7. The **Windows NT Setup** window appears. Insert your NT4.0 CD-ROM into the PC system CD drive, and type in "D:\i386". Click **Continue**.



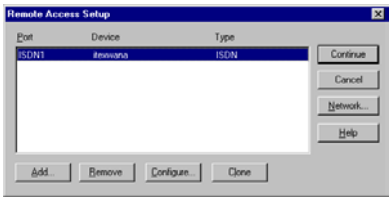
8. The **Remote Access Setup** window appears. Click **Add.**



9. The **Add RAS Device** window appears. Scroll to locate and select **IDSN1-itexwana**. Then Click **OK**.

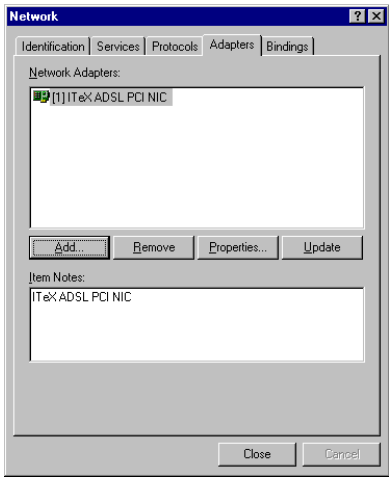


10. The **Remote Access Setup** window appears. Click **Continue.**

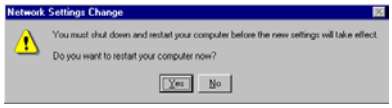


11. The **Network** window will appear. Click the **Adapters** tab to verify that **ITeX ADSL PCI NIC** has been found. Click on the **Protocols** tab and verify that the **ADSL Management and Monitor Interface** is present. Then click **Close.**

    NOTE: To review the **Network** window properties at any time, right-click the **Network Neighborhood** icon and select **Properties**.



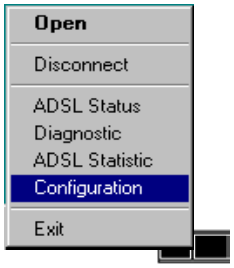
12. The **Network Settings Change** window appears. You must now re-start your computer for the settings to take effect. Click **Yes**.



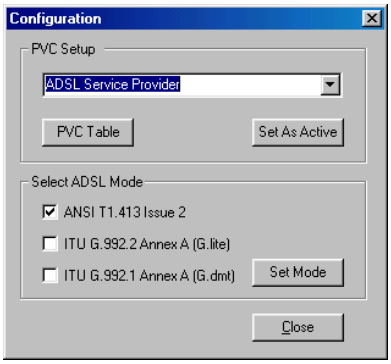
13. You must now set the ADSL configuration. **Go to page 26**.

Setting the ADSL Configuration – Win NT4.0

1. After your PC has rebooted, right-click on the **Diagnostic Tool** Icon (see Appendix), and select the **Configuration** option**.**

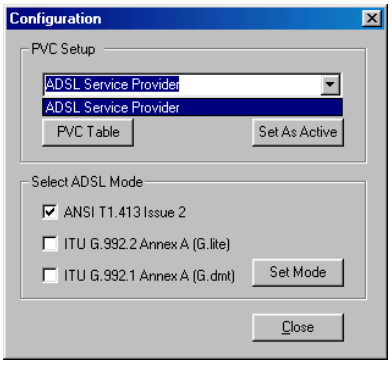


2. When the **Configuration** window appears, scroll through the **PVC setup** section to locate the service you will be connecting to. Then click **Set as Active.**

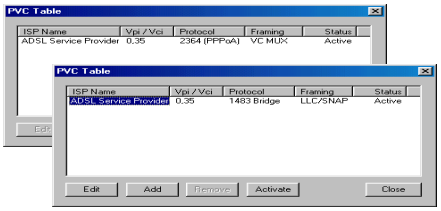


3. In the **Select ADSL Mode** section, select the mode(s) recommended by you ADSL service provider. Then click **Set Mode.**

4. When you have set both the **PVC Setup** and **ADSL Mode,** click **Close.**



NOTE: To modify, add, or remove ISP settings from the **Configuration** window, in the **PVC Setup** section, click on the **PVC Table** button. The **PVC Table** window then appears for the Protocol you are using.



5. The **PVC Setup** window appears. Click **Yes** to restart your PC system and to allow the new changes to take effect.

6. You must now make an ADSL connection. **Go to page 28.**

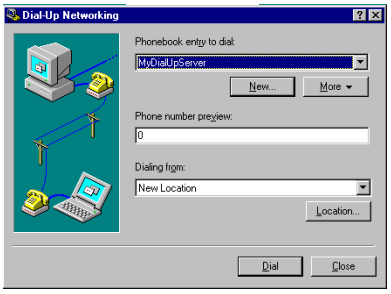
Windows NT4.0

Creating a Dial-up Network Connection

1. Double-click on the **ADSL Connect** icon that appears on your desktop.

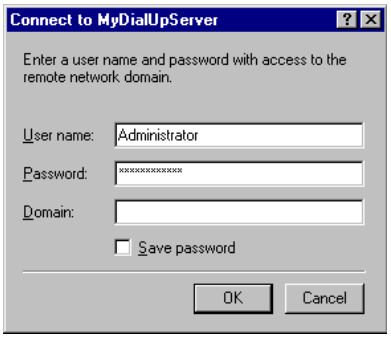
ADSL Connect

2. The **Dial-Up Networking** window appears and prompts for the phone number of the dial-up server. Unless instructed to enter a phone number by the ADSL service provider, enter zero "0". Click Dial.

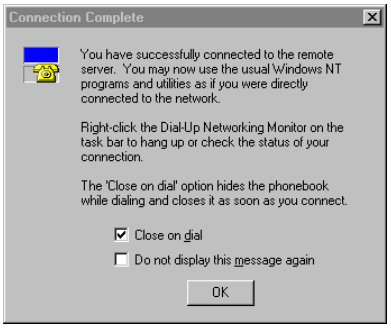


3. The **Connect to MyDialUpServer** window appears. Enter the **User name, Password** and **Domain** supplied by your ADSL service provider. Click **OK**.

   Note: If this screen persists and a connection logon error is reported, confirm that the correct User name and Password are entered and try the connection again. Also verify that the connection address is correct.



4. The **Connection Complete** window is displayed at the completion of a successful Dial-Up logon. Choose a display behavior and click **OK** to close.

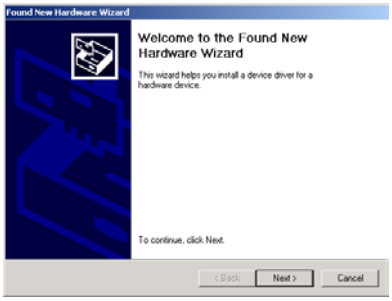


Congratulations, you are done. Your ADSL connection is established!

Windows 2000

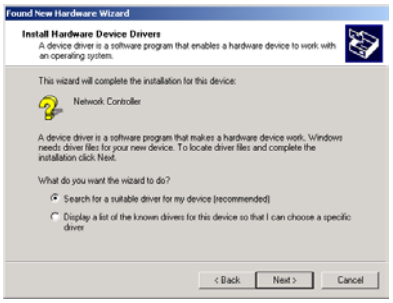
After installing the ADSL modem card, plug the power cable back into the PC system and turn the power on.

1. After installing the ADSL modem card, power on the PC system. After start-up, the **Found New Hardware Wizard** will appear. Click **Next**.

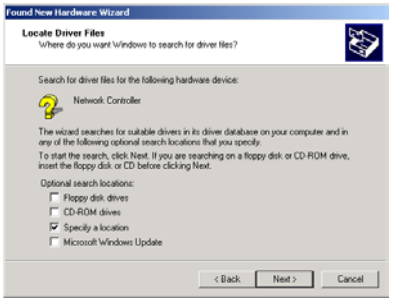


Insert the ADSL Driver CD-ROM into your system's CD drive now

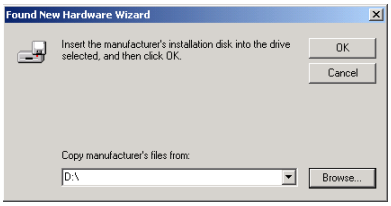
2. Still in the **Found New Hardware Wizard**, select the **Search for a suitable driver for my device** option. Click **Next**.



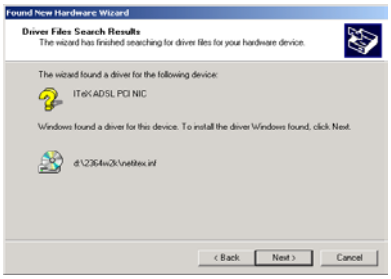
3. Next you will be prompted for software drivers. Select **Specify a location.** Click **Next**.



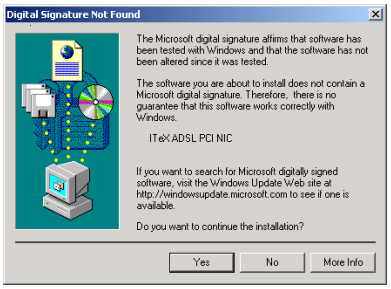
4. Click **Browse** to locate the driver on your CD-ROM for the protocol supported by your ADSL provider: **1483w2K, 1577w2K, 2364w2K** or **2516w2K.** (The example uses "D" as the CD-ROM drive letter. Your drive may have a different letter.) Click **OK**



5. The **Found New Hardware Wizard** will then display the driver you selected, click **Next**.



6. The **Digital Signature Not Found** window appears, and shows **ITeX ADSL PCI NIC**. You will be asked; **Do you want to continue installation?** Click **Yes**.



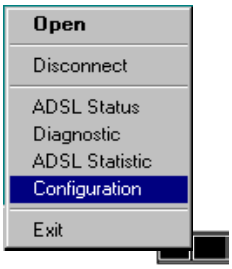
7. The **Found New Hardware Wizard** will prompt that **Windows has finished installing the software for this device**. Click Finish.

   NOTE: You may be asked if you want to restart your computer, if so click **Yes.** If you are not asked, you need to restart your computer manually at this time.

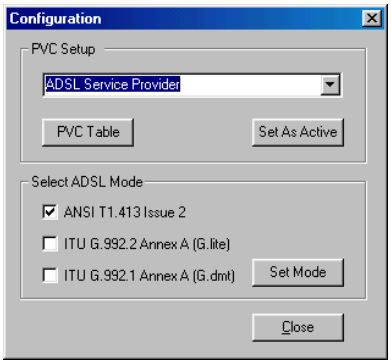
8. You must now set the ADSL configuration. **Go to page 31.**

Setting the ADSL Configuration – Win 2000

1. After your PC has rebooted, right-click on the **Diagnostic Tool Icon** (see Appendix), and select the **Configuration** option**.**

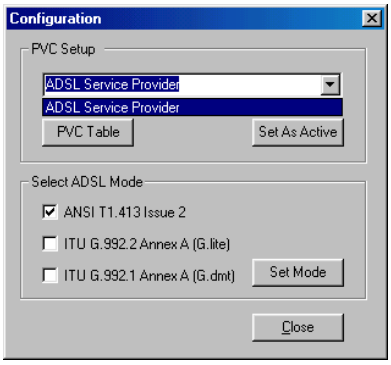


2. When the **Configuration** window appears, scroll through the **PVC setup** section to locate the service you will be connecting to. Then click **Set As Active**.

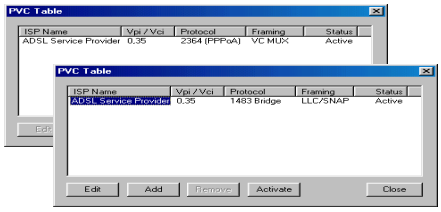


3. In the **Select ADSL Mode** section, select the mode(s) recommended by you ADSL service provider. Then click **Set Mode**.

4. When you have set both the **PVC Setup** and **ADSL Mode,** click **Close.**



NOTE: To modify, add, or remove ISP settings from the **Configuration** window, in the **PVC Setup** section, click on the **PVC Table** button. The **PVC Table** window then appears for the Protocol you are using.



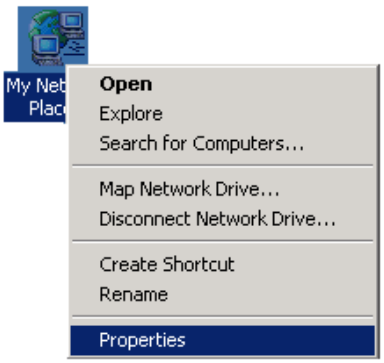
5. The **PVC Setup** window appears. Click **Yes** to restart your PC system and to allow the new changes to take effect.

6. You must now make an ADSL connection, proceed to the section for the protocol you are using as follows:

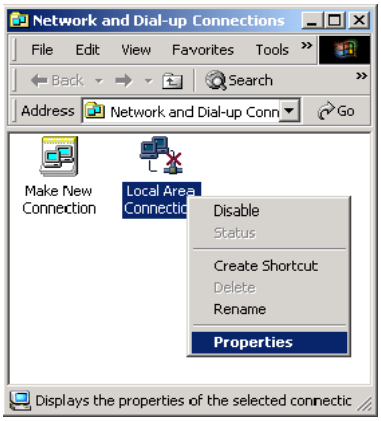
RFC1483 or RFC1577 Go to page 33.
RFC2364 or RFC2516 Go to page 35.

Making an ADSL Connection - RFC1483 or RFC1577

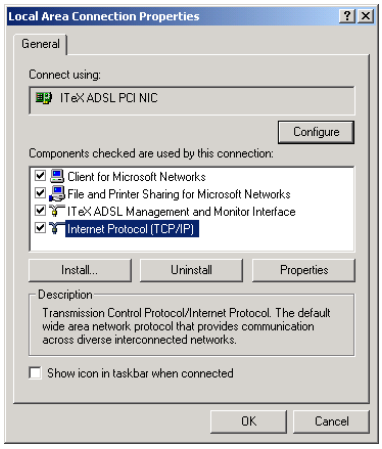
1. Right – click **My Network Places** and select **Properties.**



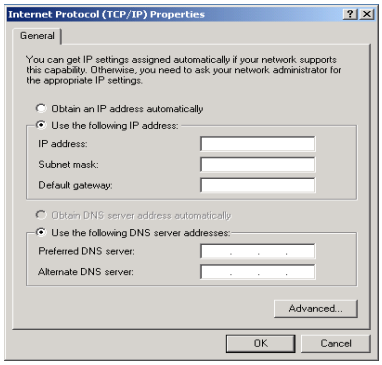
2. The **Network and Dial-up Connections** window appears. Right-click on the **Local Area Connection,** and then click on **Properties**.



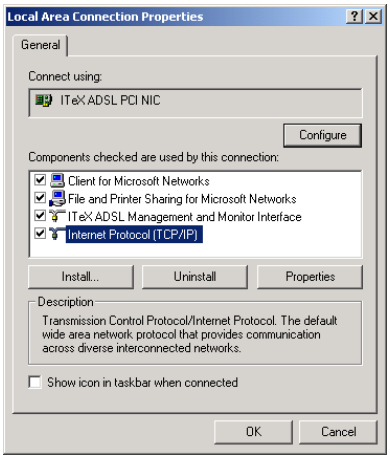
3. The **Local Area Connection Properties** window appears. Click on **Internet Protocol (TCP/IP)**, then click on **Properties**.



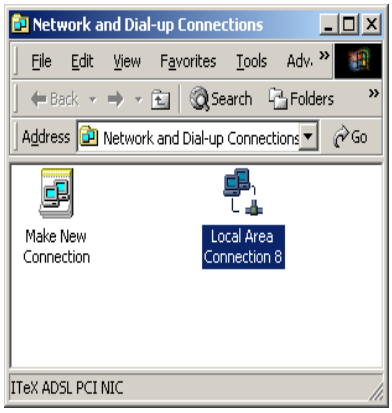
4. The **Internet Protocol (TCP/IP) Properties** window appears. Under the **General** tab, enable **Use the following IP address**. The default settings for IP configurations will turn from **gray** to **white**. Enter in the **IP address**, **Subnet Mask**, and **Default Gateway** supplied by your ADSL service provider. Click **OK**.



5. The previous **General Tab** window appears. Click **OK**.



6. The **Network and Dial-up Connections** window appears. Close this window and your connection is complete.



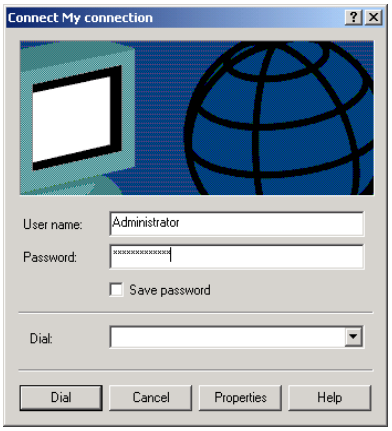
Congratulations, you are done. Your ADSL Internet connection is established!

Making an ADSL Connection - RFC2364 or RFC2516

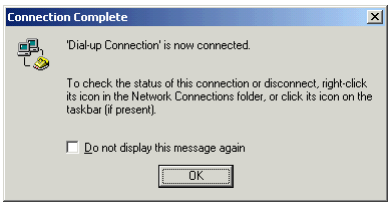
1. Double-click on the **ADSL Connect** icon that appears on your desktop.

ADSL Connect

2. The **Connect My connection** window will appear. Enter your **User Name, Password** and **Phone Number** supplied by your ADSL service provider. You are now ready to make a network connection. Click **Dial**.



3. The **Connection complete** window appears, click **OK**.



Congratulations, you are done. Your ADSL connection is established!

Windows XP

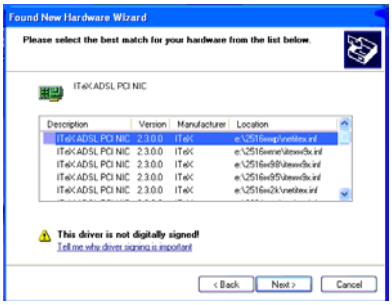
After installing the ADSL modem card, plug the power cable back into the PC system and turn the power on.

Insert the ADSL Driver CD-ROM into your system's CD drive now

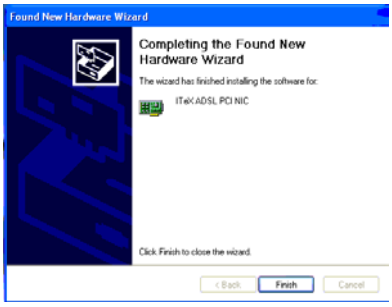
1. Upon your system's reboot, the **Found New Hardware Wizard** appears. Click **Next**.

2. Select the correct protocol, for Windows XP, given to you by your ADSL service provider. Click **Next.**

   A Microsoft window may appear at this time. Click "**Continue Anyway**".



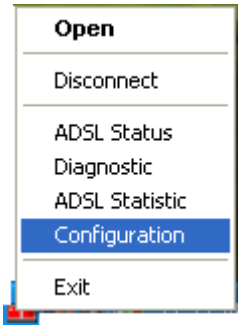
3. **Completing the Found New Hardware Wizard** appears. Click **Next** to complete the installation of your **ITeX Apollo Modem**.



4. You must now set the ADSL configuration. **Go to page 37.**

Setting the ADSL Configuration – Windows XP

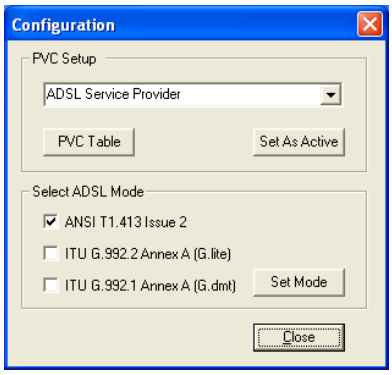
1. Right-click on the Diagnostic Tool Icon (see Appendix), and select **Configuration.**



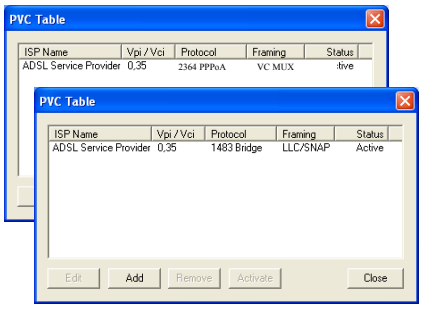
2. When the **Configuration** window appears, scroll through the **PVC setup** section to locate the service you will be connecting to. Then click **Set As Active**.

3. In the **Select ADSL Mode** section, select the mode(s) recommended by you ADSL service provider. Then click **Set Mode**.

4. When you have set both the **PVC Setup** and **ADSL Mode,** click **Close.**



NOTE: To modify, add, or remove ISP settings from the Configuration window, in the PVC Setup section, click on the PVC Table button. The PVC Table window then appears for the Protocol you are using.

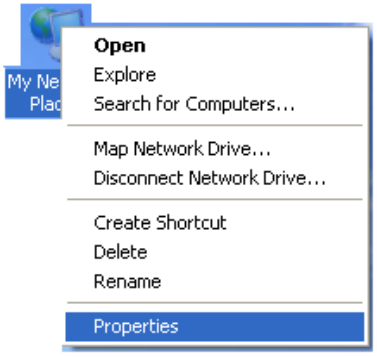


5. You must now make an ADSL connection, proceed to the section for the protocol you are using as follows:

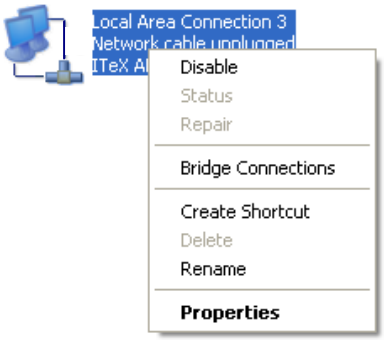
RFC1483 or RFC1577 **Go to page 38.**
RFC2364 or RFC2516 **Go to page 40.**

Making an ADSL Connection - RFC1483 or RFC1577

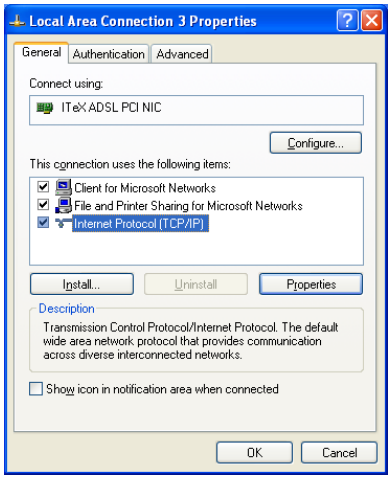
1. Right – click on **My Network Places** and select **Properties.**



2. Right – click the **Local Area Connection** that contains the **ITeX ADSL PCI NIC**. Select **Properties.**

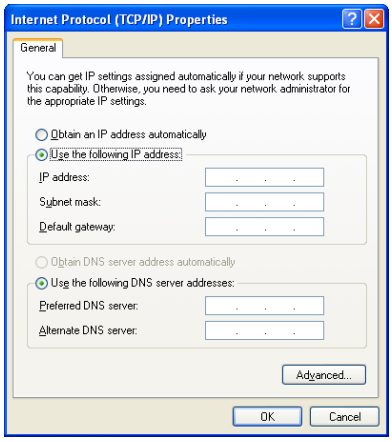


3. The **Local Area Connections Properties** window appears. Click **Internet Protocol (TCP/IP).** Click **Properties.**



4. Select "**Use the following IP address:"** Enter the **IP Address, Subnet mask, and Default gateway** given to you by your ADSL service provider.

5. After you have entered the information, click **OK** and **Close** any remaining connection windows**.**

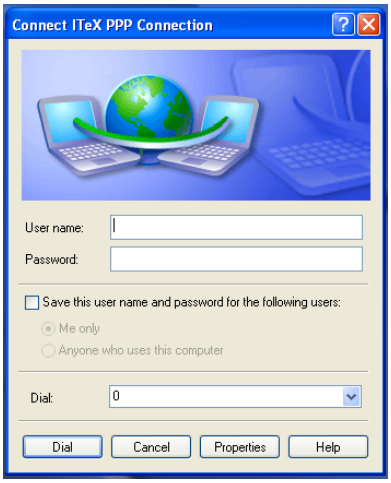


Congratulations, you are done. Your ADSL connection is established!

Making a Connection - RFC2364 or RFC2516

1. Double – click the ADSL connection icon that appears on the desktop.

2. Enter the **User name, Password,** and **Dial-up** number given to you by your ADSL service provider. Click **Dial.**



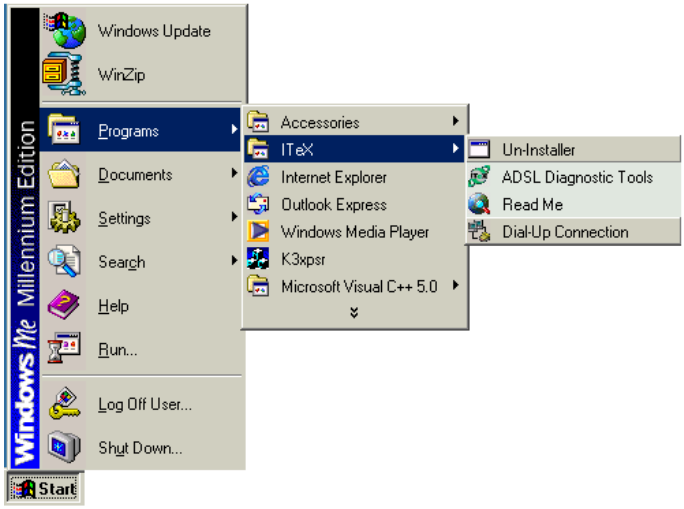
Congratulations, you are done. Your ADSL connection is established!

Standard ADSL Utility

Win 98, Win Me, Win 2000, Win NT 4.0

To access the ADSL Utility window:

1. Click on the **Start** menu and select **Programs**.
2. Select the **ITeX** option.
3. Four options appear if you have installed protocols RFC2364 or RFC2516: **ADSL Diagnostic Tools**, **Dial-Up Connection**, **Read Me,** and **Un-Installer** (protocols RFC1483 and RFC1577 display **Diagnostic Tools**, **Read Me**, and **Un-installer** only).



Un-Installer – This option un-installs the modem from your PC. For the correct instructions on how to use this utility, see the **Standard Un-Installer** section.

ADSL Diagnostic Tools – If, in the event you have deleted the **Diagnostic Tools** icon on the taskbar, this option launches the **Diagnostic Tools** utility icon back onto the taskbar. For the correct instructions on how to operate the **Diagnostic Tools**, see the **Diagnostic Tools** section.

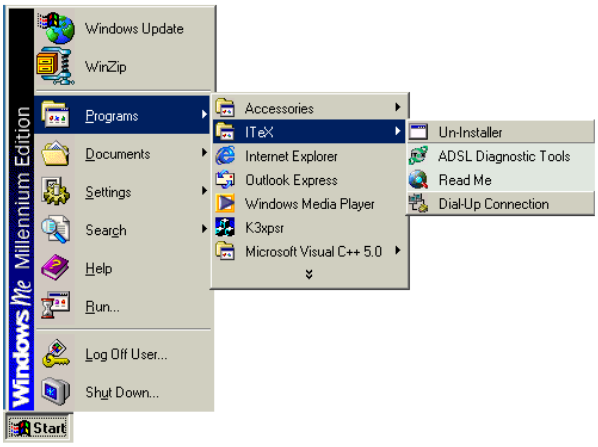
Read Me – The Read-Me file supplies more information about ITeX and the Apollo driver.

Dial-Up Connection (RFC2364 and RFC2516 only) – If, in the event you have deleted the Dial-up connection icon on your desktop, this option launches the Dial-Up connection application.

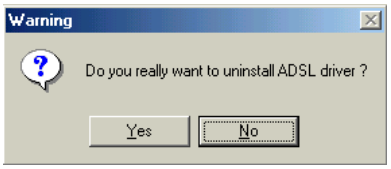
Standard Un-Installer

Win 98, Win Me, Win 2000, Win NT 4.0

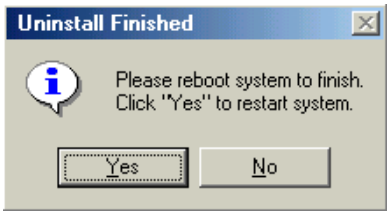
1. On the desktop, click the **START** Menu on the **Task Bar.**
2. Select **Programs**. The programs window appears.
3. Select the **ITeX** tab, and then click on the **Un-Installer** Tab.



4. A **Warning** window appears. Click **Yes** to proceed.



5. The **Uninstall Finished** window appears. Click **Yes** to restart your computer and allow the changes to take effect.

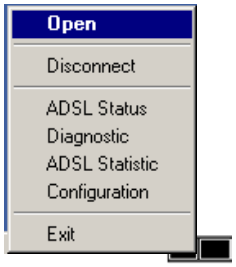


Standard Diagnostic Tools

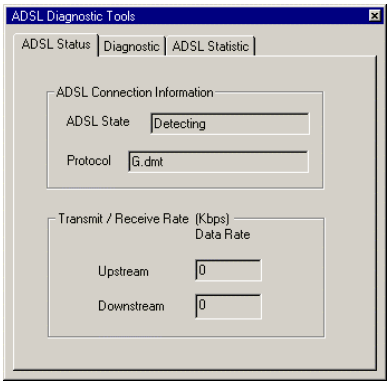
Win 98, Win Me, Win 2000, Win NT 4.0

The **Diagnostic Tool** icon allows the user to monitor the ADSL connectivity and run diagnostic tests. The **Diagnostic Tool** icon is displayed on the task bar as shown.

1. Right - click the ADSL modem diagnostic tool icon, and then select **Open**.

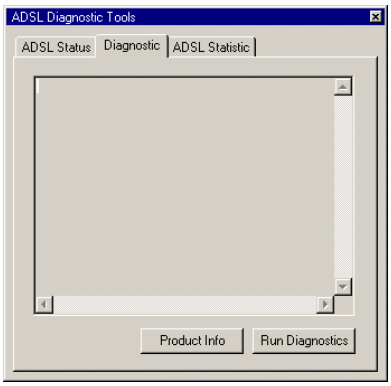


The ADSL Diagnostic Tool window appears on your desktop. The three tabs of the Diagnostic Tool appear: **ADSL Status**, **Diagnostic**, and **ADSL Statistics**.



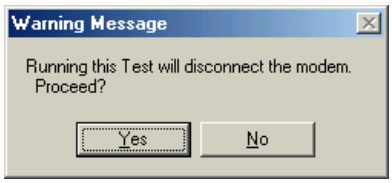
The **ADSL Status** tab displays the current status of the ADSL connection, including the current ADSL State, ADSL Protocol in use, and the Transmit/Receive Rate for upstream and downstream data.

2. To run diagnostics click on the **Diagnostic** tab. The blank **Diagnostic** window appears.

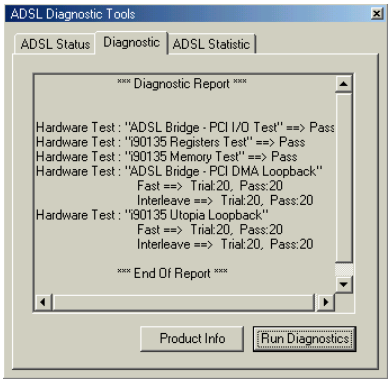


3. Click **Run Diagnostics** to begin the diagnostic test.

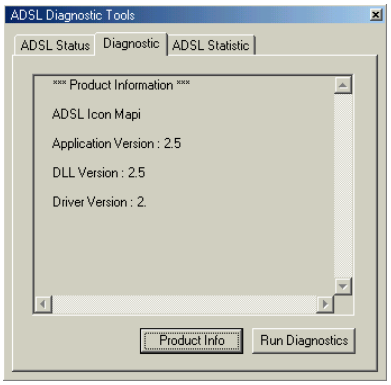
4. A **Warning Message** appears. Click **Yes** to run the test and disconnect your modem. Click **No** if you do not wish to disconnect or run the test.



5. The **Diagnostic Report** appears with the test results. All tests must "pass" for a functional test of the Apollo modem card.

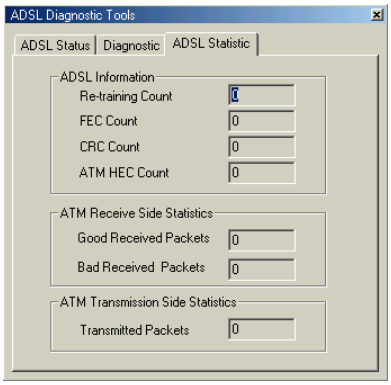


6. You may obtain driver information as well by clicking the **Product Info** tab.



NOTE: To reconnect your modem right - click the **Diagnostic Tool** icon on the task bar, and select **Connect**.

7. The **ADSL Statistic** tab provides you with detailed information on your ADSL modem connection.



Re-training Count tracks the number of ADSL connections performed.

FEC Count tracks the forward error correction count.

CRC Count tracks the number of CRC errors.

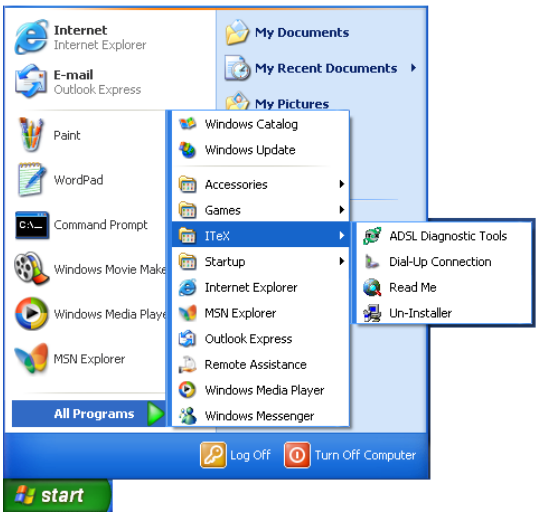
ATM HEC Count (Header Error Control) errors are recorded as an indication of ATM packet accuracy.

As a measure of packet transfer performance, the **ATM Receive Side** and **ATM Transmission Side Statistics** (Packet Errors) are counted.

XP Utility

To access the ADSL Utility window:

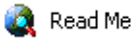
1. Click on the **Start** menu and select **All Programs**.
2. Select the **ITeX** option.
3. Four options appear if you have installed protocols RFC2516 or RFC2364: **ADSL Diagnostic Tools**, **Dial-Up Connection**, **Read Me,** and **Un-Installer** (protocols RFC1483 and RFC1577 display **Diagnostic Tools**, **Read Me**, and **Un-installer** only).



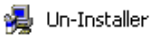
ADSL Diagnostic Tools – If, in the event you have deleted the Diagnostic Tools icon on the taskbar, this option launches the Diagnostic Tools utility icon back onto the taskbar. For the correct instructions on how to operate the Diagnostic Tools, see the **XP Diagnostic Tools** section.

Dial-Up Connection (for RFC2364 or RFC2516 only)– In the event you have deleted the Dial-up connection icon on your desktop, this option launches the Dial-up connection application.

Read Me – The Read-Me file supplies more information about ITeX and the Apollo driver.



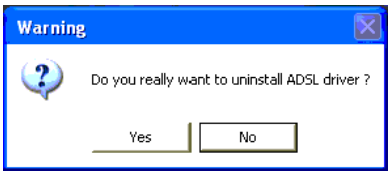
Un-Installer - This option un-installs the modem from your PC. For the correct instructions on how to use this utility, see the **XP Un-Installer** section.



XP Un-Installer

1. On the desktop, click the **START** Menu on the **Task Bar.**
2. Select **All Programs**. The programs window appears.
3. Select the **ITeX** tab, and then click on the **Un-Installer** Tab.

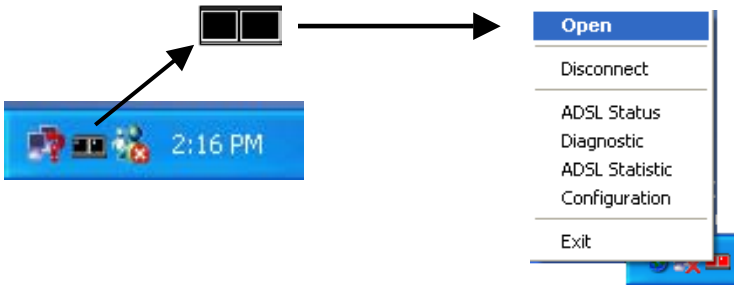
4. A **Warning** message may appear. Click **Yes** to un-install your Apollo modem and allow the changes to take effect.



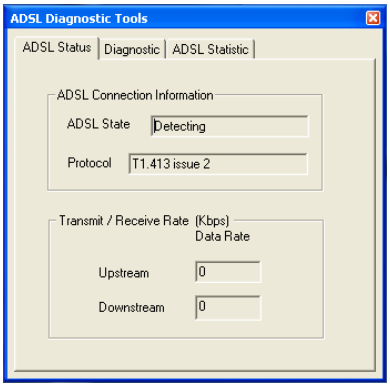
XP Diagnostic Tools

The **Diagnostic Tool** icon allows the user to monitor the ADSL connectivity and run diagnostic tests. The **Diagnostic Tool** icon is displayed on the task bar as shown.

1. Right - click the ADSL modem diagnostic tool icon, and then select **Open**.



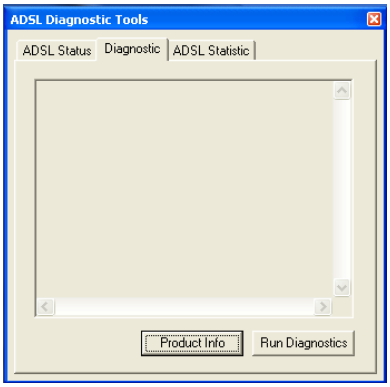
The ADSL Diagnostic Tool window appears on your desktop. The three tabs of the Diagnostic Tool appear: **ADSL Status**, **Diagnostic**, and **ADSL Statistics**.



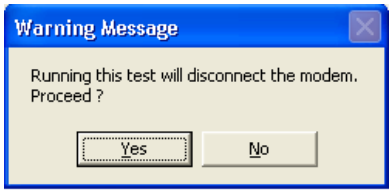
The **ADSL Status** tab displays the current status of the ADSL connection, including the current ADSL State, ADSL Protocol in use, and the Transmit/Receive Rate for upstream and downstream data.

2. To run diagnostics click on the **Diagnostic** tab. The blank **Diagnostic** window appears.

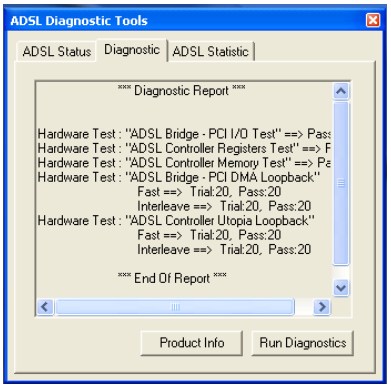
3. Click **Run Diagnostics** to begin the diagnostic test.



4. A **Warning Message** appears. Click **Yes** to run the test and disconnect your modem. Click **No** if you do not wish to disconnect or run the test.

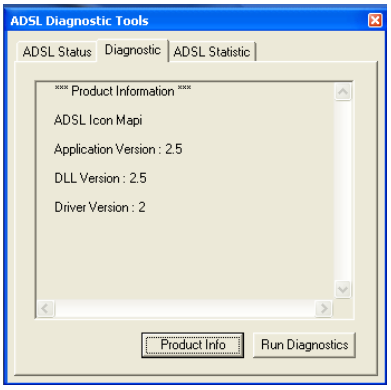


5. The **Diagnostic Report** appears with the test results. Click **No** if you do not wish to disconnect or run the test.

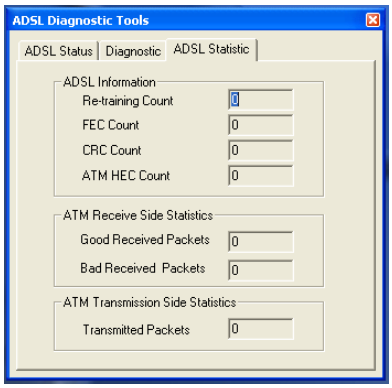


6. You may obtain driver information as well by clicking the **Product Info** tab.

NOTE: (to reconnect your modem right click the **Diagnostic Tool** icon on the task bar, and select **Connect**).



7. The **ADSL Statistic** tab provides you with detailed information on your ADSL modem connection.



Re-training Count tracks the number of ADSL connections performed.

FEC Count tracks the forward error correction count.

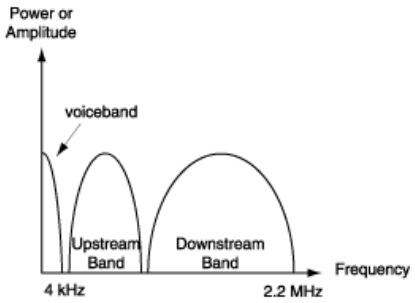
CRC Count tracks the number of CRC errors.

ATM HEC Count (Header Error Control) errors are recorded as an indication of ATM packet accuracy.

As a measure of packet transfer performance, the **ATM Receive Side** and **ATM Transmission Side Statistics** (Packet Errors) are counted.

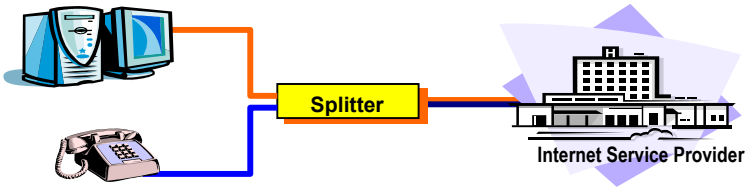
ADSL Connection Guide

The A in ADSL stands for Asymmetric. Since most home users tend to be more of a consumer of data than a producer, a slower upstream (upload) speed can be traded off for a faster downstream (download) speed. ADSL is designed to run on your standard telephone line or POTS (Plane Old Telephone System) by squeezing the voice band into the low end of the frequency spectrum, and running the ADSL digital on the high end of the frequency spectrum. ADSL therefore needs a splitter to be placed during installation to separate the two.

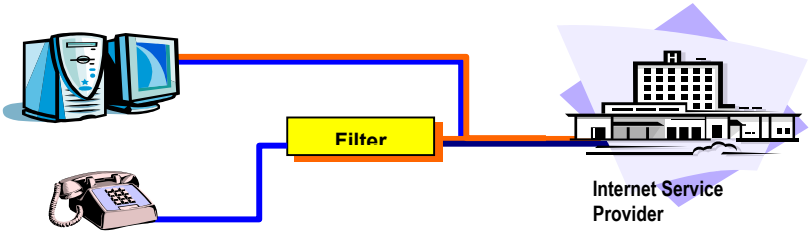


Line Splitter: A splitter is a small device that captures the first 4khz of frequency and splits them off for phone use. The rest of the data is passed onto the ADSL equipment. The splitter is the first device an ADSL line meets when it arrives at the user's premises. Splitters are usually employed at the time when ADSL lines are provisioned.

This diagram is of a basic ADSL in a home. The splitter depicted here is a small box that strips off the phone signal from the line from the ADSL Service Provider, and leaves the data (indicated by the orange line), to be routed to the data equipment, on RJ11 (phone) inside wires.



Line Filter: A separate filter may be required if an ADSL setup does not use splitters. For a splitter setup, the filter is built into the splitter. The filter is to protect the ADSL signal from being contaminated by high frequency noise added by analog phone devices, answering machines, faxes and so on. An ADSL setup, with a filter instead of a splitter, allows the data and voice signal to flow through the house phone wires, but filters it from the telephone or fax machines.



TIP: Radio frequency interference, such as a television or a cordless telephone may effect you ADSL connection. If you have such a device close to the telephone line of your computer, you should move the device.

NOTE*: ADSL service may introduce audible interference on some phone equipment.*

Common Problems and Solutions

The Diagnostic Tool icon consists of two lights side by side. The left light indicates data is being transmitted whereas the right light indicates data is being received. Some common problems with the connection can be determined as follows:

Color Code	Description
Red, Red	No ADSL connection or handshaking. Check your cable.
Black, Yellow	Handshaking (flashing yellow alternating position).
Black, Black	No data traffic or idle connection.
Black, Green	Modem card is receiving data (TX/off, RX/on).
Green, Black	Modem card is transmitting data (TX/on, RX/off).
Green, Green	Modem card is transmitting and receiving data. (TX/on, RX/on).
	Driver installation problem exists. Un-Install driver.

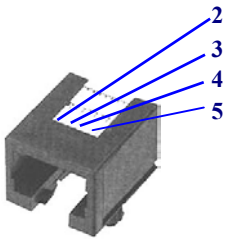
Problem	Solution
The ADSL modem diagnostic icon is not on the taskbar.	Restart the computer: 1. Save and close any open files and exit any open programs. 2. Click the Start button, and then click Shut Down. 3. In the Shut Down Windows window, click Restart and then click OK.
	If the ADSL modem diagnostic icon does not appear after you restart the computer, uninstall and reinstall the driver.
There are 2 ADSL modem diagnostic icons on the taskbar.	You may have inadvertently installed the driver twice without performing the ITeX Un-Installer procedure. Contact your ADSL Internet service provider before you uninstall any ADSL modem driver to ensure that you uninstall the appropriate driver.
The ADSL modem diagnostic icon lights are black and flashing yellow:	The ADSL modem is trying to connect to the Internet. If the modem fails to connect, ensure that the modem is connected to the telephone wall jack. You may have inadvertently or incorrectly installed a filter or line conditioner on the telephone cord that connects the modem to the telephone wall jack. Your ADSL service may be temporarily down. Contact your ADSL Internet service provider.

Both ADSL modem diagnostic icon lights are red. 	Ensure that the modem is connected to the telephone line, and that your telephone line is connected to the wall jack. Verify that the ADSL Modes selected are ANSI and G.dmt. Your ADSL service may be temporarily down. Contact your ADSL Internet service provider. Right-click the modem diagnostic icon and then click Diagnostic to run the modem diagnostics. If all tests pass, the digital circuit is functioning properly, but the analog circuit may be defective. Contact your ADSL Internet service provider. If any of the tests fail, the digital circuit is defective. Contact your ADSL Internet service provider.
You cannot connect to the Internet. 	There may be a problem with the PPPoE installation. The service is configured for Static IP. Verify that the TCP/IP Entries, gateway, and DNS are correct. Contact your ADSL service provider for further assistance. Reboot the system and make a new connection.
You can connect to the Internet but the connection unexpectedly terminates. 	The telephone line that connects the ADSL modem to the telephone wall jack may be too close to a device that emits radio frequency interference, such as a television or a cordless telephone. If you have such a device close to the telephone line or your computer, try moving the device. Contact your ADSL Internet service provider.
You hear noise or static when you use the telephone.	Ensure that you have installed the wall-mount filter or a line conditioner.
	A problem with the driver installation. Un-Install the drivers and reload them.

Connector & Jumper-pin Configuration Guide

It is important to verify that the ADSL data port RJ-11 jack is configured so that the center two pins, pins 3 and 4, are used for ADSL data. Otherwise, the ADSL PCI modem card will not make a proper connection. Your ADSL modem card features pin jumpers that enable the user to set the configuration to make the proper connection. The modem card is default set to 3 and 4.

If the ADSL data port installation uses pins 2 and 5 for data, then the jumper settings on your board will need to be reconfigured. To do this, orient your board per the diagram below (the RJ-11 connector should be facing towards you) and simply lift the jumper off of the pin setting for 3 and 4, and place it onto the pin setting for 2 and 5, or visa versa.



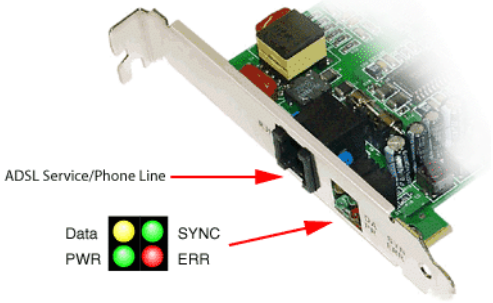
RJ-11	Jumper
3 & 4	1 & 2
2 & 5	2 & 3

Jumper (s) setting for 3&4 data pins

ADSL Modem Card LED Indicators

LED	*Status*	*Signal*	*Description*
Green Bottom	PWR	Flashing On	Initialized, idle mode (disconnect) Power Supply OK
Green Top	SYNC	Flashing fast Flashing slow	Modem Connecting Modem Connected
Yellow Top	DATA	On: TX or RX Off: no data	ATM data transmission
Red Bottom	ERR	Flash on CRC error	ATM data transmission
All four		All On	Driver not installed or modem card is defective

ADSL Modem Card Bracket



System Requirements & Compliance Certification

System Requirements

√ IBM PC/AT or compatible
√ Pentium 500Mhz or faster
√ 30Mbytes or more available hard disk space
√ 2x CD-ROM drive or better
√ 32Mbyte or more available system memory

Power Requirements

√ 0.75A Max @ +5V ± 5%, 0.1A max @ ± 12V, ± 5%

Environmental Requirements

√ Operating Temperature: 0 °C to 70°C with airflow
√ Non-operating Temperature: -10 °C to 85 °C
√ Operating Humidity: 10% to 90% non-condensing
√ Non-operating storage humidity: 5% to 95% non-condensing

Compliance Certification

√ UL 1950
√ CE approved
√ FCC Part 15 Class B

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Safety Instructions

Use the following instructions to help protect yourself and your computer.

- For use in UL – listed Personal Computers
- Caution – To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord.
- Disconnect telecommunication line during an electrical storm to avoid the remote risk of electric shock from lightning via the telephone line.
- To remove power from the computer, turn it off, and disconnect power cable from electrical outlet.
- To help avoid the potential hazard of electrical shock, do not connect or disconnect cable or perform installation and un-installation of this product.
- Handle this product with care. Holding it by the metal bracket.
- Important Safety Instructions- When using your telephone equipment, basic safety precautions should be always followed to reduce the risk of fire, electric shock and injury to persons, including the following:

  1. Do not use this product near water. For example: near a bathtub, washbowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool.
  2. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lighting.
  3. Do not use the telephone to report a gas leak in the vicinity of the leak.
  4. Using only the telephone line cord indicated in this manual.

FCC Statement

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

- Reorient or relocate 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.

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

- This device may not cause harmful interference.
- This device must accept any interference received including interference that may cause undesired operation.

FCC Part 68 Notice

This equipment complies with Part 68 of the FCC rules. On the bottom of your computer is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for your equipment. If requested, you must provide this information to the telephone company.
The REN is used to determine the quantity of devices that may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most areas, the sum of all the RENs on your telephone line should be less than five to ensure proper service from the telephone company. To be certain of the number of devices that you may connect to a line, as determined by the total RENs, contact your local telephone company.
The registration jack Universal Service Order Code (USOC) used by this equipment is RJ-11C. An FCC compliant telephone cord and modular plug is provided with this equipment. This equipment is designed to be connected to the telephone network or premises wiring using a compatible modular jack that is Part 68 compliant.
This equipment cannot be used on public coin-phone service provided by the telephone company. Connection to party line service is subject to state tariffs.
There are no user serviceable parts on the modem contained in your computer.
If your telephone equipment causes harm to the telephone network, the telephone company will notify you in advance that service may be temporarily discontinued. If advance notice is not practical, the telephone company will notify you as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.
The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of this equipment. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.
If you experience trouble with this telephone equipment, refer to the chapter titled "Getting Help" in your computer's troubleshooting documentation or, for some computers, the section titled "Contacting Dell" in your computer's online guide to find the appropriate telephone number for obtaining customer assistance. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

Fax Branding

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including fax machines, to send any message 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, identification of the business, other entity, or individual sending the message, and the telephone number of the sending machine or such business, other entity, or individual. The telephone number provided may not be a 900 number or any other number for which charges exceed local or long-distance transmission charges.

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