

# **RECSPEED-2021P<sup>TM</sup>**

## ADSL PCI NIC Installation Guide

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### **FCC Statement**

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

- ✓ Reorient or relocated 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.
- ✓ Shielded cables must be used to comply with FCC regulations.

### **WARNING (Part 15, Section 15.21)**

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

# Table of Contents

<b><u>BEFORE YOU START!</u></b>	<b>1</b>
<b><u>STEP 1 – GATHER SYSTEM AND SERVICE CONNECTION INFORMATION</u></b>	<b>2</b>
<u>SYSTEM REQUIREMENTS</u>	2
<u>DETERMINING YOUR OPERATING SYSTEM</u>	2
<u>DETERMINING YOUR INTERNET SERVICE PROTOCOL</u>	3
<u>DETERMINING YOUR CONNECTION ADDRESS AND CONFIGURATION</u>	3
<b><u>STEP 2 – INSTALL THE ADSL MODEM CARD</u></b>	<b>4</b>
<u>HARDWARE INSTALLATION</u>	4
<b><u>STEP3 – INSTALL THE DRIVERS AND ESTABLISH AN INTERNET SERVICE CONNECTION</u></b>	<b>5</b>
<u>DRIVER INSTALLATION AND INTERNET SERVICE CONNECTION</u>	5
<u>POINT TO POINT PROTOCOL OVER ATM (RFC 2364) – WINDOWS 95A</u>	6
<u>POINT TO POINT PROTOCOL OVER ATM (RFC 2364) – WINDOWS 95B</u>	8
<u>MAKING AN INTERNET CONNECTION FOR POINT TO POINT SERVICE – WIN95</u>	10
<u>POINT TO POINT PROTOCOL OVER ATM (RFC 2364) – WINDOWS 98, 98A</u>	10
<u>POINT TO POINT PROTOCOL OVER ATM (RFC 2364) - WINDOWS 2000</u>	12
<u>POINT TO POINT PROTOCOL OVER ATM (RFC 2364) – WINDOWS NT 4.0</u>	13
<u>CLASSICAL INTERNET PROTOCOL OVER ATM (RFC1577) - WINDOWS 95A</u>	15
<u>CLASSICAL INTERNET PROTOCOL OVER ATM (RFC1577) - WINDOWS 95B</u>	16
<u>MAKING AN INTERNET CONNECTION FOR IPoA - WIN 95A, 95B</u>	17
<u>CLASSICAL INTERNET PROTOCOL OVER ATM (RFC1577) - WINDOWS 98, 98A</u>	18
<u>CLASSICAL INTERNET PROTOCOL OVER ATM (RFC1577) - WINDOWS 2000</u>	19
<u>CLASSICAL INTERNET PROTOCOL OVER ATM (RFC1577) - WINDOWS NT 4.0</u>	20
<u>BRIDGED ETHERNET OVER ATM (RFC 1483) – WINDOWS 95A</u>	21
<u>BRIDGED ETHERNET OVER ATM (RFC 1483) – WINDOWS 95B</u>	22
<u>BRIDGED ETHERNET OVER ATM (RFC 1483) – WINDOWS 98, 98A</u>	23
<u>MAKING AN INTERNET CONNECTION FOR BRIDGED ETHERNET ON WIN 95, 98, 2000</u>	24
<u>Internet 300 Installing</u>	24
<u>BRIDGED ETHERNET OVER ATM (RFC 1483) - WINDOWS 2000</u>	35
<u>BRIDGED ETHERNET OVER ATM (RFC 1483) – WINDOWS NT 4.0</u>	36
<b><u>APPENDIX A - DIAGNOSTIC TOOLS</u></b>	<b>37</b>
<u>HARDWARE DIAGNOSTICS</u>	37
<u>CONFIGURING THE CONNECTION SERVICE</u>	38

[CONNECTOR PINOUT](#)..... 39

[APPENDIX B - TROUBLE SHOOTING](#).....40

[APPENDIX C - REMOVING RECSPEED-2021P DRIVERS \(VER 2.1.0\)](#).....42

[WINDOWS 95, 98](#).....42

[WINDOWS 2000](#).....42

[WINDOWS NT4.0](#).....43

[REMOVING RECSPEED-2021P DRIVERS \(VER 2.1.2\)](#).....43

[APPENDIX D - SYSTEM REQUIREMENTS & COMPLIANCE INFORMATION](#).....43

## Before you Start!

The RECSPEED-2021P Installation Guide tells you everything you need to know to install and use the RECSPEED-2021P ADSL modem card. This guide is designed to walk you through the installation of the

RECSPEED-2021P ADSL card and drivers, and then through the establishment of an Internet service connection.

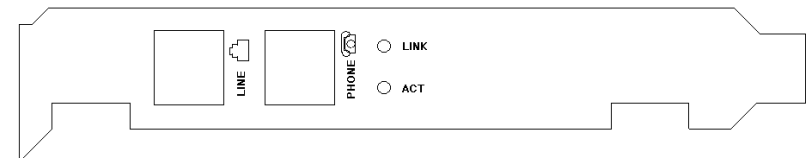
This is a (3) step process.

### Step 1 – Gather system and service connection information

### Step 2 – Install the ADSL modem card

### Step 3 – Install the drivers and establish an Internet service connection

- **If you're a beginner to the Internet** – or if you're experienced but have never installed an ADSL PCI card before – Start at the beginning and work your way carefully through the instructions. It is important to gather all the information required before you actually install the PCI card and ADSL drivers.
- **If you're familiar with installing PCI cards and drivers** - you may be able to browse the chapters to get the basics - However, it is still important to gather all the information required before you actually install the PCI card and ADSL drivers.
- If you feel like enjoying Internet and Telephone simultaneously , One of the Modem ports (**LINE** port) can be connected to **ADSL Line** , the other (**PHONE** port), **telephone Line**



- When ADSL Link is connected to DSLAM equipment, “**LINK**” lamp is on
- While the RECSPEED-2021P ADSL Modem receives the data, “**ACT**” lamp blinks

## **Step 1 – Gather system and service connection Information**

### **System Requirements**

Make sure your PC system meets **ALL** of the following minimum hardware and software requirements:

#### **Hardware:**

- ☐ IBM PC/AT or compatible
- ☐ Pentium 100Mhz or faster
- ☐ 30Mbytes available hard disk space or more
- ☐ 2x CD-ROM drive or better
- ☐ 32Mbyte available system memory or more

#### **Software:** Your Operating System must be one of the following:

- ☐ Microsoft Windows 95.x – 95A, 95B
- ☐ Microsoft Windows 98.x – 98, 98A
- ☐ Microsoft Windows 2000 x – 2000 NT
- ☐ Microsoft NT – NT 4.0 Service Pack 3

### **Determining Your 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 the desktop, right click **My Computer**. Then 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.

<u>Version</u>	<u>System Description</u>	<u>Release Name</u>
Win 95A	4.00.950A	Windows 95 OSR1
Win 95B	4.00.950B	Windows 95 OSR2
Win 98	4.10.1998	Window 98
Win 98A	4.10.2222A	2 <sup>nd</sup> Edition Windows 98 2 <sup>nd</sup> Edition
Win 2000	5.00 2195	Windows 2000 NT
Win NT	4.00.1381	Windows NT 4.0

## Determining Your Internet Service Protocol

Your Internet service protocol will be one of the following. Contact your Internet Service Provider (ISP) if you are unsure of your service type.

RFC 1483 ⇒ **Bridged Ethernet over ATM**

RFC 2364 ⇒ **Point-to-Point Protocol over ATM**

RFC 1577 ⇒ **Classical Internet Protocol over ATM**

## Determining Your Connection Address and Configuration

You will need to know the connection address and configuration for your Internet service. Find your Internet Service Protocol below and proceed gathering the connection address and configuration. If you are unsure or do not have all the information, please contact your Internet Service Provider (ISP).

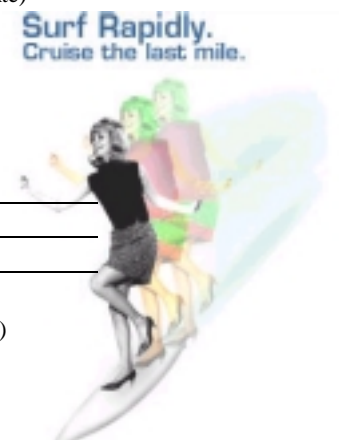
- **RFC1483 - Bridged Ethernet over ATM** service requires the following information:

IP Address	_____ . _____ . _____
Subnet Mask	_____ . _____ . _____
Gateway	_____ . _____ . _____
(Domain Name Service) DNS Host	_____
DNS Domain	_____
DNS Server	_____ . _____ . _____
VPI value	VPI = ____ (Default VPI=0)
VCI value	VCI = ____ (Default VCI=35)
ADSL Mode Type	ANSI T1.413 Issue 2 ITU G.992.1 Annex A (G.dmt) ITU G.992.2 Annex A (G.lite)

- **RFC2364 – Point-to-Point Protocol over ATM**
- **RFC1577 – Classical Internet Protocol over ATM**

services require the following information:

User Name	_____
Password	_____
Logon Domain	_____
VPI value	VPI = ____ (Default VPI=0)
VCI value	VCI = ____ (Default VCI=35)



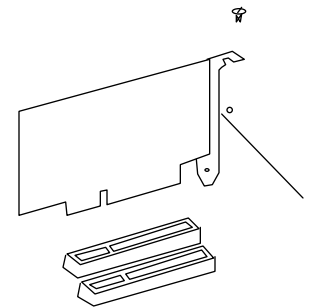
ADSL Mode Type    ANSI T1.413 Issue 2  
                              ITU G.992.1 Annex A (G.dmt)  
                              ITU G.992.2 Annex A (G.lite)

## **Step 2 – Install the ADSL modem card**

### **Hardware Installation**

**WARNING!** To avoid possible damage to your **RECSPEED-2021P** card you need to use an anti-static grounding device or hold onto the metal chassis of the PC to provide anti-static grounding.

1. Shut down the system and switch the power **off**.
2. Unplug the AC power cable from the PC.
3. Remove the cover from the PC chassis.
4. Unscrew the “slot cover bracket” from an unused PCI slot.
5. Insert the card into an empty PCI slot.
6. Firmly press the RECSPEED-2021P ADSL card into the slot and secure the card to the chassis with the chassis bracket screw.
7. Connect one end of a phone cable to the RJ-11 port on the RECSPEED-2021P ADSL card and plug the other end of the cable into the ADSL data service.
8. Replace the cover of the PC chassis



**NOTE:** Before you plug the power cable back into the PC system and turn the power on. Go to the next section (Step 3) and determine the section/page you need to be on to begin installing the drivers.





### **Step3 – Install the drivers and establish an Internet service connection**

#### **Driver Installation and Internet Service Connection**

Refer to the following chart and locate your connection protocol with your corresponding Operating System (OS). Then proceed to appropriate section/page.

##### **To install point to point Protocol over ATM Service (RFC 2364)**

Win95 A	Go to page 6
Win95B	Go to page 7
Win98, 98A	Go to page 10
Win 2000	Go to page 11
NT 4.0	Go to page 13

##### **To install Classical IP over ATM Service (RFC 1577)**

Win95 A	Go to page 15
Win95B	Go to page 16
Win98, 98A	Go to page 18
Win 2000	Go to page 19
NT 4.0	Go to page 20

##### **To install Bridged Ethernet protocol over ATM Service (RFC 1483)**

Win95 A	Go to page 22
Win95B	Go to page 22
Win98, 98A	Go to page 23
Win 2000	Go to page 36
NT 4.0	Go to page 37

**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. Some systems may have already installed the CAB files to the hard drive, but you should have the Microsoft CD handy just in case.

## Point to Point Protocol over ATM (RFC 2364) – Windows 95A

After installing the RECSPEED-2021P card, plug the power cable back into the PC system and turn the power on.

1. The **New Hardware Found** window will detect the card as a **PCI Network Controller**. Select the **Driver from disk provided by hardware manufacturer** option. Click **OK**.
2. Insert the **RECSPEED-2021P ADSL MODEM** CD into the drive.
3. The **Install From Disk** window appears. In the text entry bar labeled **Copy manufacture's files from:** type in your systems CD drive location letter ( **D** for example ), followed by a colon ( : ), then a back-slash ( \ ), followed by the RFC2364 driver for Windows 95 . For example, type in: **D:\PPPoA\Win95** Then click **OK**.
4. When the **Service Option** window appears, click **Advanced**
5. The **Service Options** window shows the **Connection Address.& select ADSL mode**. Enter in the **VPI** and **VCI** values provided by your ISP. Make sure the **Framing** is set to **VC MUX**  
In the **Select ADSL Mode** section , select the mode(s) recommended by your ADSL service provider. Click on the mode(s) required and then click **ok**

**NOTE:** The service mode type will be one of the following

ANSI T1.413 Issue 2

ITU G. 992.2 Annex A (G.lite)

ITU G. 992.1 Annex A (G.dmt)

The previous **Service Option** window will appear, click **Next**.

**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 <CD Drive letter> and :\**Win95** (e.g. **D:\Win95**)

**IMPORTANT!** You will need to upgrade your Dial-Up Networking (DUN) application to version 1.3 or above. The Microsoft DUN is conveniently contained on you RECSPEED-2021P ADSL MODEM CD-ROM. The next section explains how to install the DUN.

6. At your desktop, click **Start**, and select **Run** from the menu. The **Run** window appears.
7. Specify the path for the MSDUN13.EXE file in the **Open** box i.e. <CD drive Letter> ( **D** for example ) and then the DUN file name :\**MSDUN13.EXE** (e.g. **D:\MSDUN13.EXE**) and click **OK**.
8. The **Microsoft Dial-Up Networking 1.3** window appears with the message **This will install Microsoft Dial-Up Networking 1.3 for Windows 95**. Click **Yes**.
9. An **End-User License Agreement** will appear. Click **Yes**.
10. 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 be asked to restart your computer system again. Click **Yes**.

**NOTE:** After you restart your system, the Microsoft Dial-Up Networking should be installed. However, It is possible to have Dial-Up Networking installed, but not have the Dial-Up Networking components activated. The next procedure is for verifying that your DUN components are active.

11. At the task bar click **Start, Settings, Control Panel** and double-click on **Add/Remove Programs**.
12. In **Add/Remove Programs Properties**, choose the **Windows Setup** Tab and wait for Setup to complete the search for all installed components. Select (i.e. highlight) the **Communications** component and click **Details**.
13. If **Dial-Up Networking** is installed, then a **check mark** will appear next to the entry.
14. To select Dial-Up Networking, place a **check mark** next to the DUN component, click **OK**.

**NOTE:** The Windows CD-ROM maybe required to complete the installation. Have the Windows CD-ROM ready for use.

15. The **Dial-up Networking** window appears, click **OK**.
16. You must now restart your PC system.
17. At the conclusion of the RECSPEED-2021P driver installation, the **Diagnostic Tool** icon (Appendix A) is active and monitoring connectivity. You must now make a network connection.  
**Go to page 10.**

## Point to Point Protocol over ATM (RFC 2364) – Windows 95B

After installing the RECSPEED-2021P card, plug the power cable back into the PC system and turn the power on.

1. The **Update Device Driver Wizard** will detect the RECSPEED-2021P ADSL NIC as a **PCI Network Controller**, click **Next**
2. Insert the **RECSPEED-2021P ADSL MODEM** CD into you systems CD drive.
3. The **Update Device Driver Wizard** window appears. Click **Other Locations**.
4. The **Select Other Location** window appears. In the text entry bar labeled **Location**, type in your systems CD drive location letter ( **D** for example ), followed by a colon ( : ), then a back-slash ( \ ), followed by the RFC2364 driver for Windows 95 . For example, type in: **D:\PPPoA\Win95** Then click **OK**.
5. The **Update Device Driver Wizard** window appears. Click **Finish**.
6. The **Insert Disk** window appears. Insert the **RECSPEED-2021P ADSL PCI NIC** CD. Click **OK**.
7. The **Copying Files** window appears. Again type in your systems CD drive location letter and driver e.g. **D:\Win95** Then click **OK**.
8. When the **Service Option** window appears, click **Advanced**  
The **Service Options** window shows the **Connection Address** & select **ADSL mode** Enter in the **VPI** and **VCI** values provided by your ISP. Make sure the **Framing** is set to **VC MUX**  
In the **Select ADSL Mode** section , select the mode(s) recommended by your ADSL service provider. Click on the mode(s) required and then click **ok**

**NOTE:** The service mode type will be one of the following

ANSI T1.413 Issue 2

ITU G. 992.2 Annex A (G.lite)

ITU G. 992.1 Annex A (G.dmt)

9. The previous **Service Option** window will appear, click **Next**.

**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 <CD Drive letter> and : \ **Win95** (e.g. **D:\Win95**)

**IMPORTANT!** You will need to upgrade your Dial-Up Networking (DUN) application to version 1.3 or above. The Microsoft DUN is conveniently contained on you RECSPEED-2021P ADSL MODEM CD-ROM. The next section explains how to install the DUN.

10. At your desktop, click **Start**, and select **Run** from the menu. The **Run** window appears.
11. Specify the path for the MSDUN13.EXE file in the **Open** box i.e. <CD drive Letter> ( **D** for

example) and then the DUN file name **:\MSDUN13.EXE** (e.g. **D:\MSDUN13.EXE**) and click **OK**.

12. The **Microsoft Dial-Up Networking 1.3** window appears with the message **This will install Microsoft Dial-Up Networking 1.3 for Windows 95**. Click **Yes**.
13. An **End-User License Agreement** will appear. Click **Yes**.
14. 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 be asked to restart your computer system again. Click **Yes**.

**NOTE:** After you restart your system, the Microsoft Dial-Up Networking should be installed. However, It is possible to have Dial-Up Networking installed, but not have the Dial-Up. Networking components activated. The next procedure is for verifying that your DUN components are active.

15. At the task bar click **Start, Settings, Control Panel** and double-click on **Add/Remove Programs**.
16. In **Add/Remove Programs Properties**, choose the **Windows Setup** Tab and wait for Setup to complete the search for all installed components. Select (i.e. highlight) the **Communications** component and click **Details**.
17. If **Dial-Up Networking** is installed, then a **check mark** will appear next to the entry.
18. To select Dial-Up Networking, place a **check mark** next to the DUN component, click **OK**.
19. **NOTE:** The Windows CD-ROM maybe required to complete the installation. Have the Windows CD-ROM ready for use.
20. The **Dial-up Networking** windows appears, click **OK**.
21. You must now restart your PC system.
22. At the conclusion of the RECSPEED-2021P driver installation, the **Diagnostic Tool** icon (Appendix A ) is active and monitoring connectivity. You must now make a network connection.  
**Go to page 10.**

## Making an Internet Connection for Point to Point Service – Win95

**NOTE:** This section is for Win95A, 95B users only.

1. Double-click the **My Computer** icon on the desktop. Then double-click the **Dial-Up Networking** icon.
2. The **Dial-Up Networking** window appears. Double-click on the **Make New Connection** icon.
3. The **Make New Connection** window appears. The default name for the computer you are dialing is **My Connection**. However, You can name the connection anything you wish. In the **Select a device** bar, use the scroll down menu to locate the **RECSPEED-2021P ADSL PCI NIC**, then click **Next**.
4. A new **Make New Connection** window appears. Enter in the **Host Name or IP Address** provided by your ISP, otherwise enter (0) zero, and click **Next**.
5. Another **Make New Connection** window appears. It will indicate that **You have successfully created a new Dial-Up Networking connection called “My Connection”**. Click **Finish**.
6. The new connection will appear in the **Dial-Up Networking** window. Double-click the new connection e.g. **“My Connection”** icon to begin a Dial-Up session.
7. The **Connect To** window appears. Enter the **User Name** and **Password** supplied by your Internet service provider (ISP). Then click **Connect**.
8. The **Connecting to My Connection** window appears. The message **Logging on to network** confirms a valid connecting process.
9. The **Connection Established** window appears. Internet service is now established. Click **Close** and the **Diagnostic tool** icon appears on the task bar.

Congratulations, you are done. Your RECSPEED-2021P the Internet is established!

## Point to Point Protocol over ATM (RFC 2364) – Windows 98, 98A

After installing the RECSPEED-2021P 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 and indicate that a new **PCI Network Controller** has been found. Click **Next**.
2. Then select **Search for the best driver for your device. (Recommended)**, click **Next**.
3. Insert the CD labeled **RECSPEED-2021P ADSL MODEM** into your CD drive.
4. Then select **Specify a location** and in the text entry bar type in your systems CD drive location letter ( **D** for example ), followed by a colon ( **:** ), then a back slash ( **\** ), followed by the RFC 2364 driver for Windows 98 . For example, type in: **D:\PPPoA\Win98** Then click **Next**.
5. The **Add New Hardware Wizard** will appear and indicate the **RECSPEED-2021P ADSL PCI NIC**. Click **Next**.
6. When the **Service Option** window appears, click **Advanced**.
7. The **Service Options** window now indicates the **Connection Address & select ADSL mode**. Enter

in the **VPI** and **VCI** values provided by your ISP. Make sure the **Framing** is set to **VC MUX**. In the **Select ADSL Mode** section, select the mode(s) recommended by your ADSL service provider. Click on the mode(s) required and then click **ok**.

**NOTE:** The service mode type will be one of the following

ANSI T1.413 Issue 2

ITU G. 992.2 Annex A (G.lite)

ITU G. 992.1 Annex A (G.dmt)

8. The previous **Service Option** window will appear, click **Next**.
9. If prompted to insert your Windows CD do so at this time then click **OK**. Enter the <CD drive Letter> and then **:\Win98** (e.g. **D:\Win98**) and click **OK**.
10. At the conclusion of the **RECSPEED-2021P ADSL NIC** driver installation, click **Finish**.
11. For the PC system to set up the **RECSPEED-2021P ADSL NIC**, a system **Restart** is required. Click **Yes**.

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

12. You must now make a dial-up network connection. At the **Task bar**, click on **Start**, and then select **Programs, Accessories, Communications**, followed by **Dial-Up Networking**.
13. The **Dial-Up Networking** window appears. Double-click the **Make New Connection** icon.
14. The **Make New Connection** window appears. The default name for the computer you are dialing is **My Connection**. However, You can name the connection anything you wish. In the **Select a device** bar, use the scroll down menu to locate the **RECSPEED-2021P ADSL PCI NIC**, then click **Next**.
15. A new **Make New Connection** window appears. Enter in the **Host Name or IP Address** provided by your ISP, otherwise enter (0) zero, and click **Next**.
16. Another **Make New Connection** window appears. It will indicate that **You have successfully created a new Dial-Up Networking connection called “My Connection”**. Click **Finish**.
17. The new **“My Connection”** will appear in the **Dial-Up Networking** window. Double-click the new **“My Connection”** icon to begin a Dial-Up session.
18. The **Connect To** window appears indicating **“My Connection”**. Type in the **User name** and **Password** supplied by your Internet Service Provider (ISP). Click **Connect**.
19. The **Connection Established** window will appear indicating **You are connected to “My Computer”**. Click **Close** and the **Diagnostic tool** icon appears on the task bar.

## Point to Point Protocol over ATM (RFC 2364) - Windows 2000

1. The **Add New Hardware Wizard** will detect the **RECSPEED-2021P ADSL NIC** as a **PCI Network Controller**, click **Next**.
2. Still in the **Add New Hardware Wizard** window, select **Search for the best driver for your device. (Recommended)**, click **Next**.
3. Again in the **Add New Hardware Wizard** window, select **Specify a location option**, then click **Next**.
4. Insert the CD labeled **RECSPEED-2021P ADSL MODEM** into your systems CD drive, then type **D:\PPPoA\Win2000** (D for example). And then click **Next**.
5. The **Add New Hardware Wizard** will find the driver, click **Next**.
6. When the **Add New Hardware Wizard** ask about additional installation, click **Yes**.
7. When the **Service Options** window appears, click **Advanced**.  
The **Service Options** window now indicates the Network Protocol and PVC setting section. Type your provided values from service provider in the VPI and VCI columns. And then make sure the Framing setting as **VC MUX**. In the **Select ADSL Mode** section, select the mode(s) recommended by your ADSL service provider. Click on the mode(s) required and then click **Ok**.  
  
**NOTE:** The service mode type will be one of the following  
ANSI T1.413 Issue 2  
ITU G. 992.2 Annex A (G.lite)  
ITU G. 992.1 Annex A (G.dmt)
8. The previous **Service Options** window will appear, click **Next**.  
  
**NOTE:** During the installation process you may be asked to insert your Windows 2000 CD. Insert the Windows 2000 CD into your systems CD drive and click **OK**.
9. The **Add New Hardware Wizard** appears, click **Finish**.
10. When the **System Settings Change** window appears and asks; Do you want to restart your computer now? Click **Yes**.
11. You will find new icon on your monitor.



## Point to Point Protocol over ATM (RFC 2364) – Windows NT 4.0

**NOTE:** To perform the installation, logon as **Administrator**. TCP/IP protocol must be installed prior to the driver installation. At the **Network** window select the **Protocols** tab and verify that the TCP/IP is present.

1. On the Desktop, double-click **My Computer**, and then double-click **Control Panel**.
2. In the **Control Panel** window, double-click the **Network** icon then select the **Adapters** tab. Click **Add**.
3. The **Select Network Adapter** window appears. Click **Have Disk**.
4. Insert the CD labeled **RECSPEED-2021P ADSL MODEM** into your systems CD drive.
5. The **Insert Disk** window appears. In the text entry bar type in your systems CD drive location letter ( **D** for example ), followed by a colon ( : ), then a back slash ( \ ), followed by the RFC2364 driver for Windows NT 4.0. For example, type in: **D:\PPPoA\NT4.0** Then click **OK**.
6. The **Select OEM Option** window will find the **RECSPEED-2021P ADSL PCI NIC**, Click **OK**.
7. When the **Service Option** window appears, click **Advanced**.
8. The **Service Options** window appears indicating the **Connection Address &. select ADSL mode**. Enter in the **VPI** and **VCI** values provided by your ISP. Make sure the **Framing** is set to **VC MUX**. In the **Select ADSL Mode** section , select the mode(s) recommended by your ADSL service provider. Click on the mode(s) required and then click **ok**.

**NOTE:** The service mode type will be one of the following

ANSI T1.413 Issue 2

ITU G. 992.2 Annex A (G.lite)

ITU G. 992.1 Annex A (G.dmt)

9. The previous **Service Option** window will appear, click **Next**.
10. The **Setup message** window appears. It prompts **Remote Access Services (RAS)** will now be installed. Click **OK**.

**NOTE:** You may be asked to insert your Windows NT CD. Insert the **Windows NT CD** into the CD drive and click **OK**. The **Windows NT Setup** window will appear. Enter the path <CD Drive letter> and **:i386** (e.g. **D:\i386**). Click **Continue**.

11. The **Add RAS Device** window appears. Click **OK**.
12. The **Remote Access Setup** window appears showing **itexwana ....** Click **Network**.
13. The **Network Configuration** window appears showing the **Dial out Protocols**: Select and **check** ( ) the **TCP/IP** protocol. Click **OK**.
14. The **Network** window will appear. Click the **Adapters** tab to verify that the **RECSPEED-2021P ADSL PC NIC** has been found. Click on the **Protocols** tab and verify that the **ADSL Management and Monitor Interface** is present. Click on the **Services** tab to verify that the **Remote Access Service** is present. Then click **Close**.

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

**NOTE:** If no previous network devices have been installed, then the Network Neighborhood icon will not be present on the desktop. To open the Network window, double-click **My Computer** then **Control Panel** then **Network**.

15. The **Network Settings Change** window appears. It prompts **Do you want to restart your computer now?** Click **Yes**.

**NOTE:** After the system restarts the **Diagnostic Tools** icon will appear on the task bar. Both panels of the **Diagnostic Tool** icon should appear black signifying a good connection.

16. You must now make a dial-up network connection. To begin a dial-up connection, double-click **My Computer**, then double-click **Dial-Up Networking**.

**NOTE:** If this is the first dial-up connection created, the **Location Information** window will appear. Enter in an area code (e.g. 408) for your region, then click **Close**. The Dial-Up Networking window appears, Click **OK** to add an entry. Enter a name for the New phonebook entry (e.g. **MyDialUpServer**) and click **Next**. When the **Server** window appears click **Next**.

17. The **Dial-Up Networking** window prompts for the phone number of the dial-up server. Unless instructed to enter a phone number by the ISP, enter zero "0" Still at the **Dial-Up Networking** window, click **More**.
18. The **Edit Phonebook Entry** window appears. Select the **Security** tab and verify that **Accept only Microsoft encrypted authentication** is selected. Click **OK**. The previous **Dial-Up Networking** window appears, click **Dial**.
19. The **Connect to MyDialUpServer** window appears. Enter the **User name**, **Password** and **Domain** supplied by your Internet Service Provider (ISP). 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.

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

## Classical Internet Protocol over ATM (RFC1577) - Windows 95A

After installing the **RECSPEED-2021P** card, plug the power cable back into the PC system and turn the power on.

- ✓ **CLOSE** the **New Hardware Found** window. The next section explains how to install the DUN.
- ✓ At your desktop, click **Start**, and select **Run** from the menu. The **Run** window appears.
- ✓ Specify the path for the MSDUN13.EXE file in the **Open** box and click **OK**.
- ✓ The **Microsoft Dial-Up Networking 1.3** window appears with the message **This will install Microsoft Dial-Up Networking 1.3 for Windows 95**. Click **Yes**.
- ✓ An **End-User License Agreement** will appear. Click **Yes**.
- ✓ Back in the **Microsoft Dial-Up Networking 1.3** window. You will be asked **Do you want to restart your computer now?** Click **Yes**.

1. The **New Hardware Found** window will detect the card as a **PCI Network Controller**. Select the **Driver from disk provided by hardware manufacturer** option. Click **OK**.
2. Insert the **RECSPEED-2021P Drivers** CD into the drive.
3. The **Install From Disk** window appears. Type in your systems CD drive location letter ( **D** for example ), followed by a colon ( **:** ), then a back-slash ( **\** ), followed by the RFC1577 driver for Windows 95. For example, type in: **D:\IPoA\Win95** Then click **OK**.
4. When the **Service Option** window appears, click **Advanced**
5. The **Service Options** window now displays the **Connection Address** and **Select ADSL Mode** sections.

- ✓ In the **Network Protocol and PVC Setting** section, select the **Classical IP over ATM** and then enter in the **VPI** and **VCI** values provided by your ADSL service provider.
- ✓ In the **Select ADSL Mode** section, select the mode(s) recommended by your ADSL service provider. Click on the mode(s) required and then click **OK**.

**NOTE:** The service mode type will be one of the following:

ANSI T1.413 Issue 2-----Default mode setting  
ITU G.992.2 Annex A (G.lite)  
ITU G.992.1 Annex A (G.dmt)

6. The previous **Service Option** window will appear, click **Next**.

**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 <CD Drive letter> and **:\Win95** (e.g. **D:\Win95**)

7. The **System Setting Change** window appears. Click **Yes** to restart your computer now.
  8. At the conclusion of the RECSPEED-2021P driver installation, the **Diagnostic Tool** icon (Appendix A) is active and monitoring connectivity. You must now make a network connection.
- Go to page 17.**

## **Classical Internet Protocol over ATM (RFC1577) - Windows 95B**

After installing the **RECSPEED-2021P** card, plug the power cable back into the PC system and turn the power on.

1. The **Update Device Driver Wizard** will detect the RECSPEED-2021P as a **PCI Network Controller**, click **Next**.
2. Insert the **RECSPEED-2021P Drivers** CD into your system's CD drive.
3. The **Update Device Driver Wizard** will appear and indicate that **Windows was unable to locate a driver for this device**. Click **Other Locations**.
4. The **Select Other Location** window appears. In the text entry bar labeled **Location**, type in your system's CD drive location letter ( **D** for example ), followed by a colon ( **:** ), then a back-slash ( **\** ), followed by the RFC1577 driver for Windows 95. For example, type in: **D:\IPoA\Win95** Then click **OK**.
5. The **Update Device Driver Wizard** will then find the RECSPEED-2021P ADSL PCI NIC. Click **Finish**.
6. The **Insert Disk** window appears. Insert the **RECSPEED-2021P Drivers** CD. Click **OK**.
7. The **Copying Files** window appears. Again type in your system's CD drive location letter and driver e.g. **D:\IPoA\Win95** Then click **OK**.
8. When the **Service Option** window appears, click **Advanced**
9. The **Service Options** window now displays the **Connection Address** and **Select ADSL Mode** sections.
  - ✓ In the **Network Protocol and PVC Setting** section, select the **Classical IP over ATM** setting and then enter in the **VPI** and **VCI** values provided by your ADSL service provider.
  - ✓ In the **Select ADSL Mode** section, select the mode(s) recommended by your ADSL service provider. Click on the mode(s) required and then click **OK**.

**NOTE:** The service mode type will be one of the following:

ANSI T1.413 Issue 2-----Default mode setting  
ITU G.992.2 Annex A (G.lite)  
ITU G.992.1 Annex A (G.dmt)

10. The previous **Service Option** window will appear, click **Next**.

**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 <CD  
Drive letter> and **:\Win95** (e.g. **D:\Win95**)

11. At the conclusion of the RECSPEED-2021P driver installation, the **Diagnostic Tool** icon (Appendix A) is active and monitoring connectivity. You must now make a network connection.

**Go to page 17.**

## **Making an Internet Connection for IPoA - Win 95A, 95B**

This section describes how to configure the ADSL network service when your PC is running Microsoft Windows 95A, 95B.

1. You must now make a network connection. 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 **Configuration** tab, scroll the installed network component window and find **RECSPEED-2021P ADSL PCI NIC**.

**NOTE:** If the RECSPEED-2021P ADSL PCI NIC is present go to step 3. If the RECSPEED-2021P ADSL PCI NIC is

not present, click **Add**. The **Select Network Component Type** window appears. Select **Protocol**, and click **Add**. The **Select Network Protocol** window appears. In the **Manufactures** section, select **Microsoft**. In the **Network Protocols** section, select **TCP/IP** then click **OK**.

3. When the **Network** window appears select the **Configuration** tab, scroll the installed network component window and select **TCP/IP ➔ RECSPEED-2021P ADSL PCI NIC**.
4. Still at the **Network** window, click the **Configuration** tab, select **TCP/IP ➔ RECSPEED-2021P ADSL PCI NIC**.  
Then click the **Properties** button.
5. 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.
6. To setup a new gateway, select the **Gateway** tab enter, the setting in the **New Gateway** section and click **Add**.
7. Select **DNS Configuration** tab. Select the **Enable DNS** option.

**NOTE:** You now need to have available the **Host, Domain** and **DNS** settings provided by your ADSL service provider.

8. Enter your host name into **Host:** box.
9. Enter your domain name into **Domain:** box.
10. Enter **DNS** number into **DNS Server Search Order** box and click **Add**. If you have more

than one **DNS** numbers, repeat this step.

11. After setting all the necessary TCP/IP properties, click **OK**.

12. The **Network** window appears. Click **OK**.

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

## **Classical Internet Protocol over ATM (RFC1577) - Windows 98, 98A**

After installing the **RECSPEED-2021P** 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 and indicate that a new **PCI Network Controller** has been found. Click **Next**.

2. Then select **Search for the best driver for your device. (Recommended)**, click **Next**.

3. Insert the CD labeled **RECSPEED-2021P Drivers** into your CD drive.

4. Then select **Specify a location** and in the text entry bar type in your systems CD drive location letter ( **D** for example ), followed by a colon ( : ), then a back slash ( \ ), followed by the RFC 1577 driver for Windows 98 2<sup>nd</sup> Edition. For example, type in:

**D:\IPoA\Win98** Then click **Next**.

5. The **Add New Hardware Wizard** will appear and indicate the **RECSPEED-2021P ADSL PCI NIC**. Click **Next**.

6. The **Service Option** window appears, click **Advanced**.

7. The **Service Options** window now displays the **Network Protocol and PVC Setting** and **Select ADSL Mode** sections.

✓ In the **Network Protocol and PVC Setting** section, select the **Classical IP over ATM** setting and then enter in the **VPI** and **VCI** values provided by your ADSL service provider.

✓ In the **Select ADSL Mode** section, select the mode(s) recommended by your ADSL service provider. Click on the mode(s) required and then click **OK**.

**NOTE:** The service mode type will be one of the following:

ANSI T1.413 Issue 2-----Default mode setting

ITU G.992.2 Annex A (G.lite)

ITU G.992.1 Annex A (G.dmt)

8. The previous **Service Option** window will appear, click **Next**

9. If prompted to insert the CD do so at this time then click **OK**. Enter the <CD drive Letter> and then **:\Win98** (e.g. **D:\Win98**) and click **OK**.

10. At the conclusion of the **RECSPEED-2021P** driver installation, click **Finish**.

11. For the PC system to set up the **RECSPEED-2021P**, a system **Restart** is required. Click **Yes**.

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

12. You must now make a network connection. From the **Start** menu on the tool bar, select **Settings, Control Panel**, and then double click on the **Network** icon.

13. The **Network** window appears. Select the **Configuration** tab, scroll the installed network component window and find **RECSPEED-2021P ADSL PCI NIC**.

**NOTE:** If the **RECSPEED-2021P ADSL PCI NIC** is not present, click **Add**. The **Select Network Component Type** window appears. Select **Protocol**, and click **Add**. The **Select Network Protocol** window appears. In the **Manufactures** section, select **Microsoft**. In the **Network Protocols** section, select **TCP/IP** then click **OK**.

14. When the **Network** window appears select the **Configuration** tab, scroll the installed network component window and select **TCP/IP → RECSPEED-2021P ADSL PCI NIC**.

15. Still in the **Network** window, with the **TCP/IP → RECSPEED-2021P ADSL PCI NIC** selected, click

**Properties**. Select the **Advanced** tab. The Binding to ATM value should be set to **YES**, then click **OK**.

16. Still at the **Network** window, click the **Configuration** tab, select **TCP/IP → RECSPEED-2021P ADSL PCI NIC**. Then click the **Properties** button.

17. 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.

18. To setup a new gateway, select the **Gateway** tab enter, the setting in the **New Gateway** section and click **Add**.

19. To configure the Domain Name Server, select the **Enable DNS** option. Enter the Host and Domain settings. Enter the DNS Server Search Order and click **Add**.

20. Once all the TCP/IP properties have been set, click **OK** to return to the Network window.

21. Click **OK** to close the Network window.

22. When prompted "Do you want to restart your computer now?" Click **Yes**.

## **Classical Internet Protocol over ATM (RFC1577) - Windows 2000**

1. The **Add New Hardware Wizard** will detect the **RECSPEED-2021P ADSL NIC** as a **PCI Network Controller**, click **Next**.

2. Still in the **Add New Hardware Wizard** window, select **Search for the best driver for your device. (Recommended)**, click **Next**

3. Again in the **Add New Hardware Wizard** window, select **Specify a location option**, then click **Next**.

4. Insert the CD labeled **RECSPEED-2021P ADSL MODEM** into your system's CD drive, then type **F:\IPoA\Win2000** (F for example). And then click **Next**.

5. The **Add New Hardware Wizard** will find the driver, click **Next**.

6. When the **Add New Hardware Wizard** asks about additional installation, click **Yes**.

7. When the **Service Options** window appears, click **Advanced**.

The **Service Options** window now indicates the Network Protocol and PVC setting section. Type your provided values from service provider in the VPI and VCI columns. And then make sure the Framing setting is **VC MUX**. In the **Select ADSL Mode** section, select the mode(s) recommended by your ADSL service provider. Click on the mode(s) required and then click **Ok**.

**NOTE:** The service mode type will be one of the following

ANSI T1.413 Issue 2

ITU G. 992.2 Annex A (G.lite)

ITU G. 992.1 Annex A (G.dmt)

8. The previous **Service Options** window will appear, click **Next**.

**NOTE:** During the installation process you may be asked to insert your Windows 2000 CD. Insert the Windows 2000 CD into your system's CD drive and click **OK**.

9. The **Add New Hardware Wizard** appears, click **Finish**.

10. When the **System Settings Change** window appears and asks; Do you want to restart your computer now? Click **Yes**.

11. You will find new icon on your monitor.

## **Classical Internet Protocol over ATM (RFC1577) - Windows NT 4.0**

**NOTE:** To perform the installation, TCP/IP protocol must be installed prior to the driver installation. On the control panel, double click **Network**. At the **Network** window select the **Protocols** tab and verify that the TCP/IP is present.

After installing the **RECSPEED-2021P** card, plug the power cable back into the PC system and turn the power on.

1. At the desktop, double click **My Computer**, double click **Control Panel**, double click **Network** and then select the **Adapters** tab and click **Add** (to add new adapters).



2. In the **Select Network Adapter** window click **Have Disk**.
3. Insert the **RECSPEED-2021P Drivers** CD into your computers CD drive.
4. The **Insert Disk** window appears. In the text entry bar type in your systems CD drive location letter ( **D** for example ), followed by a colon ( : ), then a back slash ( \ ), followed by the RFC1577 driver for Windows NT 4.0. For example, type in: **D:\IPoA\NT4.0** Then click **OK**.
5. The **Select OEM Option** window will find the **RECSPEED-2021P ADSL PCI NIC**. Click **OK**.
6. When the **Service Option** window appears, click **Advanced**.
7. The **Service Options** window now displays the **Connection Address** and **Select ADSL Mode** sections.

- ✓ In the **Network Protocol and PVC Setting** section, select **Classical IP over ATM** and then enter in the **VPI** and **VCI** values provided by your ADSL service provider.
- ✓ In the **Select ADSL Mode** section, select the mode(s) recommended by your ADSL service provider. Click on the mode(s) required and then click **OK**.

**NOTE:** The service mode type will be one of the following:

- ANSI T1.413 Issue 2-----Default mode setting
- ITU G.992.2 Annex A (G.lite)
- ITU G.992.1 Annex A (G.dmt)

8. The previous **Service Option** window will appear, click **Next**.
9. Then the **Network** window will appear, click **Close**.
10. The **Microsoft TCP/IP Properties** window will appear and prompt the user for information. In the Adapters selection be sure to select RECSPEED-2021P ADSL PCI NIC. When not connecting to a DHCP server.
11. Enter the **IP address** provided by ADSL service provider.
12. Enter the **Subnet Mask** provided by your ADSL service provider.
13. Enter the **Default Gateway** address.
14. Select the DNS Configuration tab and enter the **Host Name**
15. Then enter the **Domain Name** (e.g. pacbell.net)

**NOTE:** Use the DNS Service Search and Domain Suffix Search to locate the Host Name and Domain. Click **Add** to save the address. Repeat the process for additional DNS entries.

16. Click **OK** to update the changes.
17. The system must be restarted for the changes to take effect. Click **Yes** to restart.

## **Bridged Ethernet over ATM (RFC 1483) – Windows 95A**

1. The **New Hardware Found** wizard will detect the **RECSPEED-2021P** as a **PCI Network Controller**. Select the **Driver from disk provided by hardware manufacturer** option. Click **OK**.

2. Insert the **RECSPEED-2021P ADSL MODEM** CD into your computer's CD drive.
  3. The **Install From Disk** window appears. In the text entry bar type in your system's CD drive location letter ( **D** for example ), followed by a colon ( : ), then a back slash ( \ ), followed by the RFC1483 driver for Windows 95. For example, type in: **D:\BEoA\Win95**. Then click **OK**.
  4. When the **Service Option** window appears, click **Advanced**.
  5. The **Service Options** window appears indicating the **Connection Address**. & **select ADSL mode**. Enter in the **VPI** and **VCI** values provided by your ISP. Make sure the **Framing** is set to **LLC/SNAP**.  
In the **Select ADSL Mode** section, select the mode(s) recommended by your ADSL service provider. Click on the mode(s) required and then click **ok**.
- NOTE:** The service mode type will be one of the following
- ANSI T1.413 Issue 2
  - ITU G. 992.2 Annex A (G.lite)
  - ITU G. 992.1 Annex A (G.dmt)
6. The previous **Service Option** window will appear, click **Next**.

**NOTE:** During the installation process you may be asked to insert your Windows 95 CD. Insert the **Windows 95 CD** into your system's CD drive and click **OK**. If during the file copying process a file is reported as “not found” enter the path <CD Drive letter> and :**\Win95** (e.g. **D:\Win95**)

7. At the conclusion of the RECSPEED-2021P driver installation, the **Diagnostic Tool** icon (see Appendix A) will appear disabled on the task bar. You must now **Restart** the PC system to complete the installation; the **Diagnostic Tool** will then become active.
8. Proceed to Making an Internet connection for Bridged Ethernet. **Go to page 25**.

## Bridged Ethernet over ATM (RFC 1483) – Windows 95B

1. The **Add New Hardware Wizard** will detect the RECSPEED-2021P ADSL NIC as a **PCI Network Controller**, click **Next**.
2. Insert the **RECSPEED-2021P ADSL MODEM** CD into the CD-ROM drive.
3. The **Update Device Driver Wizard** will detect the **RECSPEED-2021P ADSL PC NIC**. Click **Other Locations**.
4. When **Select Other Location** window appears, in the text entry bar type in your system's CD drive location letter ( **D** for example ), followed by a colon ( : ), then a back slash ( \ ), followed by the RFC1483 driver for Windows 95. For example, type in: **D:\BEoA\Win95**. Then click **OK**.
5. When the **Service Option** window appears, click **Advanced**.
6. The **Service Options** window appears indicating the **Connection Address**.& **select ADSL mode**. Enter in the **VPI** and **VCI** values provided by your ISP. Make sure the **Framing** is set to **LLC/SNAP**.  
In the **Select ADSL Mode** section, select the mode(s) recommended by your ADSL service provider. Click on the mode(s) required and then click **ok**.

**NOTE:** The service mode type will be one of the following

ANSI T1.413 Issue 2

ITU G. 992.2 Annex A (G.lite)

ITU G. 992.1 Annex A (G.dmt)

7. The previous **Service Option** window will appear, click **Next**.

**NOTE:** During the installation process you may be asked to insert your Windows 95 CD. Insert the **Windows 95 CD** into your systems CD drive and click **OK**. If during the file copying process a file is reported as “not found” enter the path <CD Drive letter> and :\\Win95 (e.g. **D:\\Win95**)

8. Proceed to Making an Internet connection for Bridged Ethernet. **Go to page 25**.

### **Bridged Ethernet over ATM (RFC 1483) – Windows98, 98A**

1. The **Add New Hardware Wizard** will detect the RECSPEED-2021P ADSL NIC as a **PCI Network Controller**, click **Next**.
2. Still in the **Add New Hardware Wizard** you will be prompted **What do you want Windows to do?** Select the **Search for the best driver for your device**. Click **Next**.
3. Again in the **Add New Hardware Wizard**, select the **Specify a location** option and then type in your systems CD drive location letter ( **D** for example ), followed by a colon ( : ), then a back slash ( \\ ), followed by the RFC1483 driver for Windows 98 . For example, type in: **D:\\BEoA\\Win98** Then click **Next**.
4. The **Add New Hardware Wizard** will then find the **RECSPEED-2021P ADSL PC NIC**, click **Next**.
5. When the **Service Option** window appears, click **Advanced**.  
The **Service Options** window now indicates the **Connection Address.& select ADSL mode** Enter in the **VPI** and **VCI** values provided by your ISP. Make sure the **Framing** is set to **LLC/SNAP**, In the **Select ADSL Mode** section , select the mode(s) recommended by your ADSL service provider. Click on the mode(s) required and then click **ok**

**NOTE:** The service mode type will be one of the following

ANSI T1.413 Issue 2

ITU G. 992.2 Annex A (G.lite)

ITU G. 992.1 Annex A (G.dmt)

6. The previous **Service Option** window will appear, click **Next**.

**NOTE:** During the installation process you may be asked to insert your Windows 98 CD. Insert the **Windows 98 CD** into your systems CD drive and click **OK**. If during the file copying process a file is reported as “not found” enter the path <CD Drive letter> and :\\Win98 (e.g. **D:\\Win98**)

7. The **Add New Hardware Wizard** appears, click **Finish**.
8. When the System Settings Change window appears and asks; **Do you want to restart your computer now?** Click **Yes**.
9. Proceed to Making an Internet connection for Bridged Ethernet. **Go to page 25**.

## **Making an Internet Connection for Bridged Ethernet on Win 95, 98, 2000**

### **EnterNet 300 Installing**

EnterNet 300 v. 1.34 for Windows is desktop connectivity software used by the world's largest and most reputable ISPs to enable their end-user customers to gain access to their high-speed Internet access services. World wide, more users rely on EnterNet for high speed Internet access than any other PPPoE desktop connectivity product.

EnterNet 300 for Windows provides the user with the following capabilities:

PPPoE client software to access high-speed "broadband" Internet access services like DSL, cable modem, and fixed wireless, and compatibility with Sybergen's Sygate Internet connection sharing software .

A rich compliment of application controls to tailor EnterNet to the specific needs and desires of both the host ISP and the end user.

Extensive, built-in diagnostics tools to help technical support personnel quickly determine and correct the cause of technical difficulties.

### **System Requirements**

EnterNet 300 for Windows minimum system requirements include:

- Microsoft Windows 9x, Windows NT 4.0, or Windows 2000
- Pentium™ class processor or equivalent
- Recommended minimum of 16MB RAM
- Minimum of 4MB free hard drive space
- Microsoft-compatible Ethernet adapter with an NDIS 3.0 or higher compliant driver.

### **Optional**

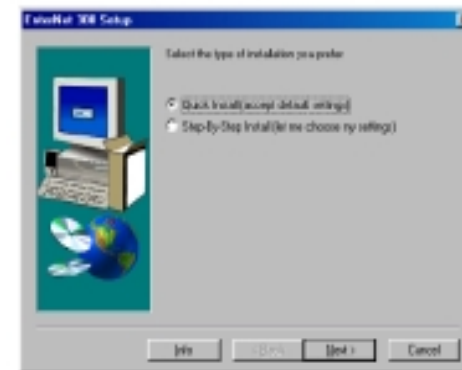
Microsoft Dial-Up Networking version 1.2c or later, with a minimum of one profile established. (Required to support EnterNet's optional Dial-on-Demand feature.)

### **Installing EnterNet 300 from a CD**

To install EnterNet 300 when received as a stand-alone application on a CD-ROM, locate and run the file named setup.exe in the root directory of the CD-ROM. Follow the on-screen instructions, as described below in "The EnterNet Installer, Step-by-Step".

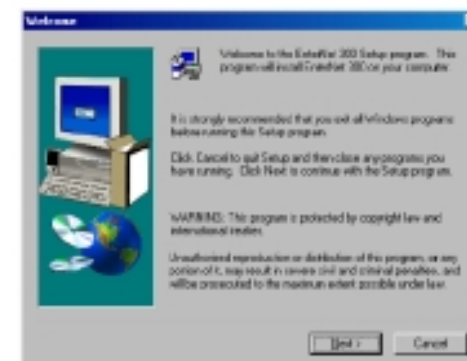
### **The "EnterNet 300 Setup" Panel**

Before the EnterNet installation process gets underway, you will be presented with the EnterNet 300 setup panel. This panel allows you to choose between an automatic or manual installation process. If you select the radio button marked "Quick Install," the EnterNet installation process will require no further input from you until the Setup Complete panel appears at the end of the installation. If you select the radio button marked "Step-by-Step" install, the EnterNet installer will guide you step-by-step through the process of choosing the install location and other EnterNet settings as the application is installed.



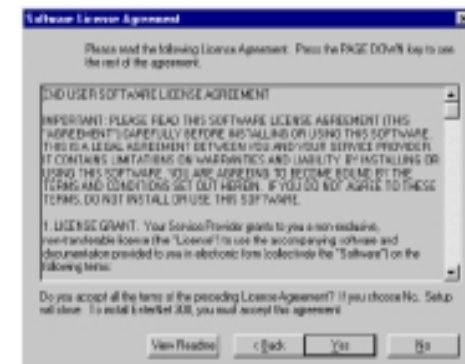
### The “Welcome” Panel

If you are installing EnterNet 300 for the first time, or if you were presented the “Existing Installation Detected” panel and you clicked the “Yes” button, the next panel you will encounter is the EnterNet “Welcome” panel. This panel will advise you to exit all other programs before proceeding with the installation process.



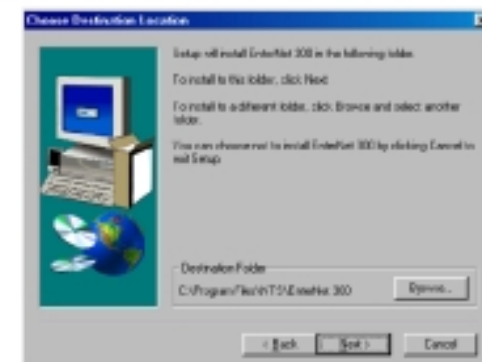
### The “Software License Agreement Panel” (continued)

This panel presents you with an opportunity to view the EnterNet ReadMe file, which contains helpful information about installing EnterNet and getting support for it. Clicking the “View ReadMe” button will launch your default text editor (usually Microsoft Notepad) and open the EnterNet ReadMe file for your review. The installer will remain paused while you review the file. You should close the ReadMe file before proceeding with EnterNet installation. This panel also presents the Software License Agreement, the terms of which you must accept in order to proceed with EnterNet installation. By pressing the “Yes” button you are indicating that you have read, understand, and agree to comply with the terms and conditions of the Software License Agreement.



### The “Choose Destination Location” Panel

Here you are informed of the program's default installation directory. Click the Next button to accept the default installation location (recommended), or click Browse to specify a different installation location.



### The “Choose Folder” Panel

If you wish to install EnterNet to other than the default installation folder, clicking the Browse button on the Choose Destination Location panel will present the “Choose Folder” panel. You can either manually type the path to the desired installation location in the Path window, or you can navigate to the desired folder in the Directories tree. If the folder where you wish to install EnterNet does not yet exist, you will need to create it with Windows Explorer before you can select it here. If you need to create the folder, do so now. Before the newly created folder will appear in the Choose Folder panel, you must close Choose Folder and click the Browse button on the “Choose Destination Location” panel again. Once the desired installation location is reflected in the Path window, click the OK button to close the Choose Folder panel and resume EnterNet installation.

NOTE: Installing EnterNet on a network drive, as would occur if the installation location were selected from the Network button on the Choose Folder panel, is not supported.

### **The "Question" Panel**

The EnterNet installer will present you with the option of automatically creating a shortcut to the EnterNet application during the installation process. Click "Yes" if you wish to create a shortcut on your desktop. Your Service Provider may have elected not to present this option.

### **The "EnterNet 300 Setup" Panel (Optional Dial-on-Demand)**

If your ISP has pre-configured EnterNet to provide you the option to install EnterNet's optional Dial-on-Demand feature, you will be presented with the "EnterNet 300 Setup" panel. To learn more about this optional feature, see the "EnterNet Dial-on-Demand" section of this User's Guide. The options presented by "EnterNet 300 Setup" panel are:

- Yes: If you wish to install EnterNet's optional Dial-on-Demand feature, click this button.  
NOTE: Familiarity with MS DUN and the Windows Connection Wizard will be helpful when installing Dial-on-Demand.
- Info: Clicking this button will launch the EnterNet Help facility, presenting the Topic that discusses Dial-on-Demand. The installer will remain paused while you review the Help facility. It is advisable to close the Help facility before continuing with EnterNet installation.
- No: Some users will not care to activate Dial-on-Demand. Click this button to skip Dial-on-Demand activation and proceed with the installation process. EnterNet will function normally in all respects.



### **The "Setup Complete" Panel**

When the EnterNet installer has completed its tasks, you will be presented with this final panel. Please note that a system restart is required after installing EnterNet. The requisite restart may take longer than usual. This is due to the remaining, behind-the-scenes tasks being performed by the EnterNet installer and by Windows. This process may result in as much as two minutes of apparent inactivity, depending on the speed and configuration of your system.

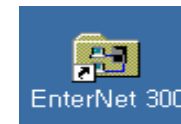
### Summary

By successfully completing the above steps you have installed EnterNet 300 for Windows. You may now begin using EnterNet to establish a connection to your ISP.

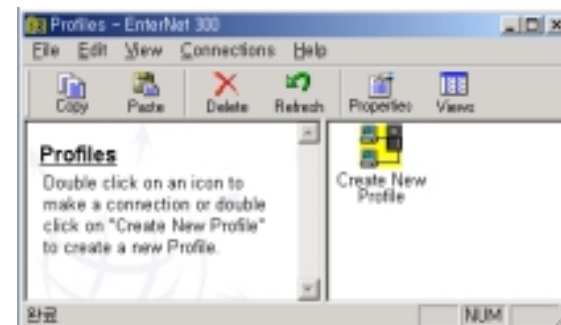
The next section of this User's Guide, "Getting Help with EnterNet", describes ways you can learn more about EnterNet 300 for Windows. Review the getting help section if you like, or jump ahead to "Opening the EnterNet Folder" if you would like to get started right away using EnterNet 300.

### Opening the EnterNet Folder

You can easily access EnterNet by launching either the EnterNet 300 shortcut on your desktop (if your service provider pre-configured the EnterNet installer to place one there, and you answered "Yes" when the installer asked if you want the shortcut installed) or you can launch EnterNet 300 from the Windows Start menu. From the Windows Start menu, navigate to the folder where the EnterNet 300 application was installed. By default, the Start menu path will be: Start\Programs\NTS EnterNet 300.



Launching either of the above Windows shortcuts will start the EnterNet folder application, which is where you will create and launch the Connection Profiles and Profiles that serve to provide EnterNet with programmatic information about each specific profile, and to authenticate you onto the desired network.

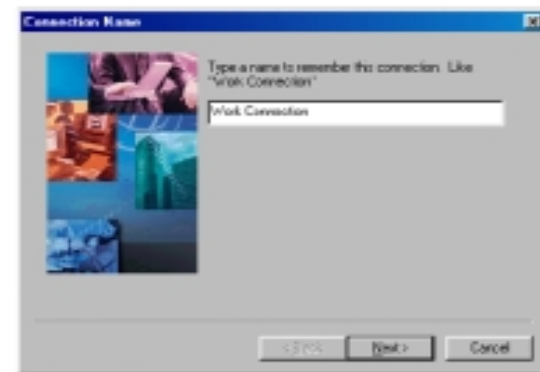


### Connection Name

The first step in creating your profile is to choose a name. Enter the desired name (i.e., "DSL Connection", "Work Connection", etc.) in the text field of the Connection Name panel. When you have finished, click Next to continue.

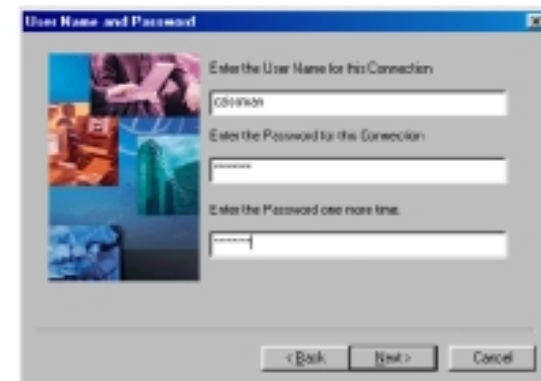
Note: The name you give your connection need not be the same as the User Name that will be associated with the profile.





### **User Name and Password**

Your profile's User name and Password will be used to authenticate you as a valid network user. They are both case-sensitive: "Password" and "PASSWORD" differ from "password." You must enter them exactly as they are specified. When you have finished, click Next to continue. If you wish to modify information entered on a previous panel, click Back.



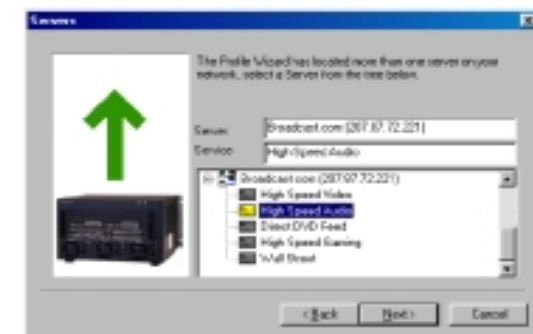
### The "Locate Servers" Panel

The next panel to be displayed will be the Locate Servers panel. This panel will inform you that EnterNet is ready to attempt to locate servers and services.



### Entering the Server Selection

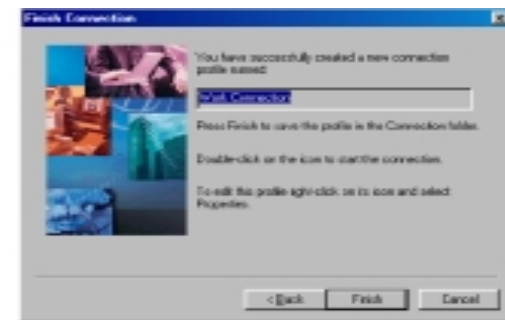
The EnterNet application displays a list of network servers and services that may be accessible to you via the network. These values are discovered by EnterNet automatically and listed in the window. It also enables you to select a specific network server and the available services provided by that server. The Server and Services fields are left blank by default, which means the first available server will respond to your request for a connection. You should leave these fields blank unless otherwise instructed by your service provider or Network Administrator.



### Finishing the Profile

The last panel the Profile Wizard will display is the Finish Connection panel. In the text field you will find the name of your profile as it was entered in the first panel of the Profile Wizard. If you are satisfied that you have correctly completed the Connection Profile, click the Finish button. You may click the Back button to review and change any of the information you provided to the Profile Wizard.

Once you have clicked the Finish button, your new profile will appear in the right-hand pane of the EnterNet folder (the same window as the Create New Profile icon).



### Modifying a Profile

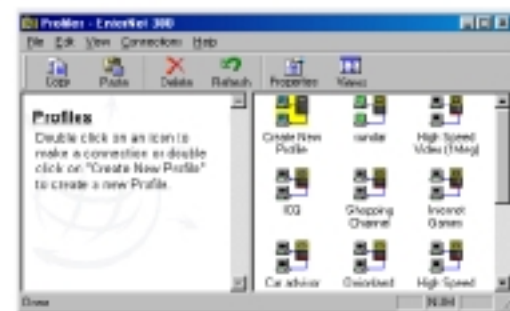
You can modify the information entered for a Connection Profile at any time by right-clicking on the desired Profile icon in the EnterNet folder and selecting Properties from the pop-up menu. If you have already launched the profile you wish to modify, right-click on the profile's system tray icon and select Properties from the pop-up menu.

### Advertised Services

Services carried and advertised by your service provider will be discovered by EnterNet automatically and, if you have enabled the "Show advertised services in main folder" option on the Application Settings panel, they will be displayed as icons in the right-hand pane of the EnterNet folder; the same place where Connection Profiles are displayed. Service Profiles can be distinguished from Connection Profiles by the small red bar they feature.

Before you can use a Service Profile, you must configure it. To configure a Service Profile, double-click its icon in the EnterNet folder and provide the requested information. Service Profiles are differentiated from Connection Profiles by the red bar Service Profiles feature. You will be able to identify Service Profiles that you have configured by the green 'screens' on their EnterNet folder icons. Un-configured Service Profiles have black screens. Sample Connection Profiles and Service Profiles appear below.

Note: Most servers do not advertise Services and thus Service Profiles may not appear in the folder, even though you have elected to display them.



## Making the Connection

### Connecting with EnterNet

Once your Connection Profile has been saved, an icon representing it will appear in the right-hand pane of the EnterNet folder. Double-clicking on this icon will invoke the Connect panel, on which the User Name and Password are displayed. It will also result in the appearance of an EnterNet icon in the Windows system tray, which is by Windows default present in the lower right corner of your computer's screen. To establish a connection, ensure that the User Name and Password presented on the Connect panel are correct, and then click the Connect button. Once you have clicked the Connect button, EnterNet's system tray icon will change. See the user's guide section titled "System Tray" for more information about the various states of the EnterNet system tray icon.

Once a connection has been successfully established, the Connection panel will disappear from your screen. If the attempt to establish a connection fails, the Connection panel will remain on your screen and a message indicating the reason for the failure will be present in the Messages window of the Connection panel, directly above the Connect button. By double-clicking the message, you will be presented with an activity log for this session, at the bottom of which will be the error message that was in the Messages window. This information will help you and your service provider determine and correct the problem that led to your connection failure. You will find more information about error messages in the "Connection Errors" section of this User's Guide.



### System Tray Icon

Once you have launched an EnterNet Connection Profile, EnterNet will place a status icon in the Windows system tray, which by Windows default appears in the lower right corner of your screen, at the end of the Windows taskbar.

The EnterNet status icon provides you with information about the current state of your connection. The icons reflect the following information:

- Connection status
- Send data status

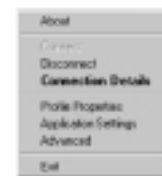
- Receive data status
- Network Health (see “Advanced Diagnostics”)

Refer to the images below to better understand the meaning of each EnterNet system tray icon state.

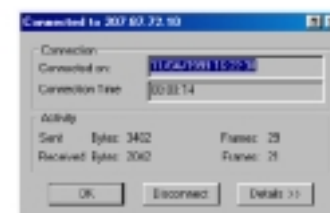


#### Disconnecting with EnterNet

There are several ways to disconnect with EnterNet. If you want both to terminate your session and close the Active Connection Profile, right-click on the EnterNet system tray icon and select Exit from the pop-up menu. If you want to terminate your session but leave the active Connection Profile open, either select Disconnect from the system tray pop-up menu, or select Connection Details, and press the Disconnect button when the Connection Details panel appears (See Connection Details).



System Tray Menu



Connection Details Panel

## Bridged Ethernet over ATM (RFC 1483) - Windows 2000

1. The **Add New Hardware Wizard** will detect the **RECSPEED-2021P ADSL NIC** as a **PCI Network Controller**, click **Next**.
2. Still in the **Add New Hardware Wizard** window, select **Search for the best driver for your device. (Recommended)**, click **Next**
3. Again in the **Add New Hardware Wizard** window, select **Specify a location option**, then click **Next**.
4. Insert the CD labeled **RECSPEED-2021P ADSL MODEM** into your systems CD drive, then type **F:\BEoA\Win2000** (F for example). And then click **Next**.
5. The **Add New Hardware Wizard** will find the driver, click **Next**.
6. When the **Add New Hardware Wizard** ask about additional installation, click **Yes**.
7. When the **Service Options** window appears, click **Advanced**.  
The **Service Options** window now indicates the Network Protocol and PVC setting section. Type your provided values from service provider in the VPI and VCI columns. And then make sure the Framing setting as **LLC/SNAP**. In the **Select ADSL Mode** section, select the mode(s) recomanded by your ADSL service provider. Click on the mode(s) required and then click **Ok**.  
  
**NOTE:** The service mode type will be one of the following  
ANSI T1.413 Issue 2  
ITU G. 992.2 Annex A (G.lite)  
ITU G. 992.1 Annex A (G.dmt)
8. The previous **Service Options** window will appear, click **Next**.  
  
**NOTE:** During the installation process you may be asked to insert your Windows 2000 CD. Insert the Windows 2000 CD into your systems CD drive and click **OK**.
9. The **Add New Hardware Wizard** appears, click **Finish**.
10. When the **System Settings Change** window appears and asks; Do you want to restart your computer now? Click **Yes**.
11. You will find new icon on your monitor

## Bridged Ethernet over ATM (RFC 1483) – Windows NT 4.0

**NOTE:** To perform the installation, logon as **Administrator**. TCP/IP protocol must be installed prior to the driver installation. At the **Network** window select the **Protocols** tab and verify that the TCP/IP is present.

1. At the desktop, double click **My Computer**, double click **Control Panel**, double click **Network** and then select the **Adapters** tab and click **Add** (to add new adapters).
2. In the **Select Network Adapter** window click **Have Disk**.
3. Insert the **RECSPEED-2021P ADSL MODEM** CD into your computers CD drive.
4. The **Insert Disk** window appears. In the text entry bar type in your systems CD drive location letter ( **D** for example ), followed by a colon ( : ), then a back slash ( \ ), followed by the RFC1483 driver for Windows NT 4.0 . For example, type in: **D:\BEoA\NT4.0** Then click **OK**.
5. The **Select OEM Option** window will find the **RECSPEED-2021P ADSL PCI NIC**. Click **OK**.
6. When the **Service Option** window appears, click **Advanced**.
7. The **Service Options** window appears indicating the **Connection Address & select ADSL mode**. Enter in the **VPI** and **VCI** values provided by your ISP. Make sure the **Framing** is set to **LLC/SNAP**,

In the **Select ADSL Mode** section , select the mode(s) recommended by your ADSL service provider. Click on the mode(s) required and then click **ok**

**NOTE:** The service mode type will be one of the following

ANSI T1.413 Issue 2

ITU G. 992.2 Annex A (G.lite)

ITU G. 992.1 Annex A (G.dmt)

8. The previous **Service Option** window will appear, click **Next**.
9. Then the **Network** window will appear, click **Close**.
10. The **TCP/IP Properties** window will appear and prompt the user for information. When not connecting to a DHCP server, enter the **IP address** provided by your ISP.
11. Enter the **Subnet Mask** provided by your ISP
12. Enter the **Default Gateway** address.

**NOTE:** Consult your ISP for the TCP/IP Properties.

13. Select the DNS Configuration tab and enter the **Host Name**
14. Then enter the **Domain Name** (e.g. pacbell.net)

**NOTE:** Use the DNS Service Search and Domain Suffix Search to locate the Host Name and Domain. Click **Add** to save the address. Repeat the process for additional DNS entries.

15. Click **OK** to update the changes.
16. The system must be restarted for the changes to take effect. Click **Yes** to restart.



## Appendix A - Diagnostic Tools

On the **Diagnostic Tools** icon on the right hand side of the status bar. Right-click the icon to display the menu, then Click **Open**. The **ADSL Diagnostic Tools** window appears on the desktop. The three tabs of the Diagnostic Tools are **ADSL Status**, **Diagnostic** and **ADSL Statistics**.

**ADSL Status window** displays the current state of the RECSPEED-2021P ADSL connection, including current ADSL State, ADSL protocol in use and the net data rates for upstream and downstream data.

**NOTE:** ADSL protocols supported by the RECSPEED-2021P drivers are T1.413\_i2, G.dmt and G.lite. The protocol must be supported also by the ADSL equipment located at the central office. The RECSPEED-2021P drivers use the protocol that results in the most efficient ADSL connection.

**ADSL Diagnostic Tools** window is used for hardware testing of the RECSPEED-2021P ADSL modem Card. **ADSL Statistic** window keeps tabs on errors that that might affect overall system performance. The counts are reset whenever the PC system is restarted.

**Re-training Count** tracks the number of ADSL connections performed. Due to unexpected line condition changes, the RECSPEED-2021P drivers can retrain the connection causing the **Re-training Count** total to increment. The Diagnostic Tool icon will flash yellow while reconnecting.

**ADSL** implements Reed Solomon (RS) error checking:

FEC Count tracks the forward error correction count.

**CRC Count** tracks the accuracy of correcting data errors over each 17msec.

**ATM HEC Count** (header error check) errors are recorded as an indication of ATM packet accuracy. As a measure of packet transfer performance, the **Packet Errors** are counted and tracked against the total number of **Packets Received**. An error rate of less than 0.1% is reasonable under clean ADSL line conditions.

If you have Bad Received Packets and are concerned about your service, multiply the **Bad Received Packets** count by 1000 and compare the result with the total **Packets Received** count. If the number is smaller than the total **Packets Received** count, then the board is operating normally.

### Hardware Diagnostics

The Diagnostic Tool is used to verify the **RECSPEED-2021P** card functionality. Running the **Diagnostic** program will disconnect the NIC from the ADSL line. Close all Dial-up sessions and close all files before running the Diagnostic program. Right-click the **Diagnostic Tool icon** (located on the taskbar), then select the **Diagnostic** option. Product Information, e.g. driver revisions, are displayed by clicking the **Product Info** tab.

**Product Information** lists the versions of the Diagnostic Tools (e.g. version 2.1) and the protocol Drivers installed (e.g. Version 1.3). The DLL version describes the software being used by both the drivers and Diagnostic Tools software.

**NOTE:** This information is helpful whenever making a technical support call. Click **Close** and exit the product information window.

Click **Run Diagnostics** to run the diagnostic program that will test PC functionality and report the status. A warning message pops up that the ADSL service will disconnect before performing the Diagnostic test. If connected to the Internet at this time, disconnect any Dial-up sessions. Click **Yes** to begin the **diagnostic** program or click **No** to exit diagnostic program.

The Diagnostic program performs a brief hardware check and displays the hardware status. If the **RECSPEED-2021P** fails the Diagnostic tests (shown below), then record the test result and contact customer support.

<b>ADSL bridge - PCI I/O Test</b>	I90188 chip test	➔	Pass
<b>I90135 Register Test</b>	I90135 chip test	➔	Pass
<b>I90135 Memory Test</b>	I90135 chip test	➔	Pass
<b>ADSL Bridge - Loopback</b>	I90188 Fast datapath	➔	Trial 20, Pass 20
	...Interleave datapath	➔	Trial 20, Pass 20
<b>I90135 Utopia Loopback</b>	I90135 Fast datapath	➔	Trial 20, Pass 20
	...Interleave datapath	➔	Trial 20, Pass 20

**NOTE:** For all loopback tests, both Trial and Pass counts equal 20 for success.

Click **Close** to exit the Diagnostic program. The modem is disconnected for these diagnostic tests. To **RECSPEED-2021P** card is functioning properly, it will automatically reconnect.

## Configuring the connection service

To view or edit the ADSL connection service address, Right-click the **Diagnostic Tool** icon (located on the taskbar), and select the **Configuration** option.

The **PVC Setup** (Permanent Virtual Connection) window displays the connection service address. Click **Close** to exit window.

To edit the **connection service address**, select and enter the VPI and VCI address in the field shown and click **PVC Setting**.

To accept a Connection Address that has been changed (and **Restart** the PC system) click **Yes**. Click **No** to quit and return to PVC setup window.

## Connector Pinout

The **RECSPEED-2021P** card is equipped with a RJ-11 jack for connection to the ADSL data port – identified by the ADSL installation. The center two pins, pins 3 and 4, are used for ADSL data. For the **RECSPEED-2021P** card to make a proper ADSL connection, the installed ADSL data port should also use pins 3 and 4 for data. If the ADSL data port installation uses pins 2 and 5 for data, then a wiring converter will be required. Do not alter or remove the wiring converter if present.



**NOTE:** Consult with your ADSL provider before attempting any wiring changes.

## Appendix B - Trouble Shooting

If you have completed the RECSPEED-2021P installation procedures and your ADSL connection is not operational, then refer to the following guidelines for assistance in getting your ADSL modem connection up and running.

	Description of Problem
1	<b>Is there a Diagnostic ICON on the taskbar?</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Try <b>Restarting</b> the PC system.</li> <li><input type="checkbox"/> Are the correct drivers installed for the Operating system used?</li> <li><input type="checkbox"/> PPPoA – If system operating system is Windows 95, is the DUN upgraded v1.3?</li> <li><input type="checkbox"/> Have you deleted the drivers and tried the installation again?</li> </ul>
2	<b>Is the NIC achieving ADSL connection?</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Try using the Diagnostic Tools <b>Connect</b> option</li> <li><input type="checkbox"/> Is the cable installed between the RECSPEED-2021P and the ADSL service?</li> <li><input type="checkbox"/> Try <b>Restarting</b> the PC system.</li> <li><input type="checkbox"/> Has any cabling adapter or wiring converter been removed?</li> </ul>
3	<b>Is the NIC constantly trying to negotiate a connection – with blinking yellow panels – but failing to reach ADSL connection?</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Select <b>Disconnect</b> from the Diagnostic Tools then try to reconnect.</li> <li><input type="checkbox"/> Restart the PC system and try to reconnect.</li> <li><input type="checkbox"/> Examine the RJ-11 connectors and cable for any deterioration.</li> <li><input type="checkbox"/> Has the wiring for your ADSL service been altered recently?</li> <li><input type="checkbox"/> Does condition change with time of day? (a possible problem with line noise)</li> <li><input type="checkbox"/> Are appliances near the PC system introducing noise into your ADSL service?</li> <li><input type="checkbox"/> Power down the PC system and re-seat the Speed Touch card.</li> </ul>
4	<b>Is the NIC achieving ADSL connection - but you can't reach the Internet?</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Is the service connection address correct?</li> <li><input type="checkbox"/> Can you PING the Internet? To run the PING command, Open DOS and type: &lt;C:\Windows\PING Gateway_Addr (e.g. C:\Windows\Ping www.microsoft.com)</li> <li><input type="checkbox"/> Ping Connects? If Yes then upgrade the Internet Browser or check the Option settings for the Internet Browser.</li> <li><input type="checkbox"/> Bridged Ethernet – Are the TCP/IP, Gateway and DNS addresses correct (refer to your ADSL or ISP provider documentation)</li> <li><input type="checkbox"/> PPPoA – For Windows 95 is the Dial-Up Network Upgrade to v1.3 installed?</li> <li><input type="checkbox"/> Win NT4.0 – Is service Pack 3.0 installed?</li> <li><input type="checkbox"/> Browser configured correctly – check your browser documentation.</li> </ul>
5	<b>How can I determine the TCP/IP address for PPPoA?</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> For Windows 95/98, run the program Ipconfig from the DOS prompt (e.g. C:\Windows\IPCONFIG) All network devices will list their TCP/IP and Gateway</li> </ul>

	Address. By knowing what network hardware is installed and configured in your PC system, any unusual TCP/IP address belongs to PPPoA.
6	<p><b>How do I tell if Service Pack 3.0 is installed on my Windows NT4.0?</b></p> <p><input type="checkbox"/> Click on the <b>Start</b> menu at the tool bar, select <b>Programs, Administrative Tools</b> and then <b>Windows NT Diagnostics</b>. Verify that Service Pack 3.0 is installed.</p> <p><input type="checkbox"/> When the system is restarting, <b>service pack 3</b> is displayed at the beginning of the driver loading sequence.</p>
7	<p><b>How do I resolve confusion about which protocol to install?</b></p> <p><input type="checkbox"/> Refer to your ADSL or ISP provider documentation</p>
8	<p><b>Can I determine which protocol is installed?</b></p> <p><input type="checkbox"/> Windows 95/98 – Yes. In the <b>Network</b> window (in the <b>Control Panel</b>) select the <b>Configuration</b> tab and look for component TCP/IP → RECSPEED-2021P ADSL PCI NIC (scroll through the list). If found, then the Bridged Ethernet drivers are installed.</p> <p><input type="checkbox"/> PPPoA for Windows 95/98 or NT4.0 – No.</p>
9	<p><b>Can I determine which upgrade of Dial-Up Network (DUN) is installed?</b></p> <p><input type="checkbox"/> There is no easy way to determine the version of the DUN. The safest approach is to install the DUN v1.3 downloaded from the Microsoft Corporation website → <a href="http://www.microsoft.com">www.microsoft.com</a></p>
10	<p><b>Must TCP/IP be loaded for both PPPoA and Bridged Ethernet protocols?</b></p> <p><input type="checkbox"/> Yes. Please carry out the TCP/IP installation procedure before loading the Speed Touch driver.</p>
11	<p><b>Driver installation resulted in unexpected errors or warnings, and you can't connect.</b></p> <p><input type="checkbox"/> Perform the driver removal procedure.</p> <p><input type="checkbox"/> Verify which version of Microsoft Windows is loaded in the PC system.</p> <p><input type="checkbox"/> Perform the RECSPEED-2021P driver removal procedure</p> <p><input type="checkbox"/> For PPPoA – Reload Dial-Up Network upgrade 1.3</p> <p><input type="checkbox"/> Install the RECSPEED-2021P driver again.</p>

## Appendix C - Removing RECSPEED-2021P Drivers (Ver 2.1.0)

### Windows 95, 98

1. To Delete **RECSPEED-2021P** drivers; on the desktop, right-click on **My Computer**, then select **Properties**, then click on the **Device Manager** tab, then double click **Network adapters**.
2. Select the **RECSPEED-2021P ADSL PCI NIC**, then click on the **Remove** button.
3. A warning message “You are about to remove this device from your system” will appear. Click **OK** to remove drivers or click **Cancel** to abort the driver removal.
4. Remove your \*.inf files under **INF** folder in the **Windows** folder for perfect driver removal
  - Location : “C:\Windows\INF”
  - Windows 98 1<sup>st</sup> : W95AMGM.inf, W95ITEX.inf
  - Windows 95/ 98 2<sup>nd</sup> : ITEXAMGM.INF, ITEXW9X.INF
5. The PC system must be restarted for the changes to take effect. Click **Yes**.

### Windows 2000

1. On the desktop; **right-click** on the Network neighborhood icon, then select **Properties**.  
Right-click on the **Local Area Connection** icon, then select **Properties**.
2. Click the **Configure** in the **Local Area Connection Properties**.
3. Select Drivers tab in the **RECSPEED-2021P ADSL PCI NIC** Properties, then click **Remove**.
4. Click **Yes**.
5. Remove your \*.inf files under **INF** folder in the **Windows** folder for perfect driver removal.  
(Location: C:\WINDOWS\INF)

## Windows NT4.0

**NOTE:** For driver removal, you need to logon as **Administrator**.

1. On the desktop; double click **My Computer**, double click **Control Panel**, double click the **Network** icon and select the **Adapters** tab.
2. Select the **RECSPEED-2021P ADSL PCI NIC**, then click **Remove**.
3. A warning message will inform you that a component is about to be removed. Click **Yes**.
4. Once the **RECSPEED-2021P ADSL PCI NIC** is removed from the adapter list, click **Close**.
5. The PC system must be restarted for the changes to take effect. Click **Yes**.

## Removing RECSPEED-2021P Drivers (Ver 2.1.2)

1. Click "Start" -> "Recsol" -> "Uninstaller"
2. The PC system must be restarted for the changes to take effect. Click **Yes**.

## Appendix D - System Requirements & Compliance Information

### *Power Requirements*

- 0.75A Max @ +5V  $\pm$  5%, 0.1A max @  $\pm$  12V,  $\pm$  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



RECSOL I&C Co. Ltd  
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