

MR2800-W

AMR MODEM CARD

User's Manual

Version 1.2

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Preface

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

This manual contains the information to guide you setup your modem successfully.

Chapter 2 - Before You Begin check through with you the minimum system requirements needed for you to install your MR2800-W modem card. It also contains the safety and installation notes that you need to be conscious of.

Chapter 3 - Setting Up Your Modem contains 3 sub-sections, **Configuring Your Modem**, **Installing Your Modem** and **Connecting Your Modem**. Please follow strictly to the sequence of setting up.

Chapter 4 - Installing the Modem Driver contains screen shots in every installation steps that enable you to install your modem driver easily. The operating systems that are supported by the driver are Windows® 95, 98, 98 Second Edition, Me, NT®4.0 and Windows® 2000.

Chapter 5 - Verifying Your Modem gives instructions to verify if the modem driver has been successfully installed.

With the sections **Frequently Asked Questions (FAQ)** and **Troubleshooting Guide**, you should be able to setup your modem in a breeze!

For further technical details on your card, you may refer to the **ReadMe.txt** file found in your **MR2800-W Installation CD**.

Chapter 1...

Introducing MR2800-W

Congratulations on your purchase of MR2800-W Modem!

With the MR2800-W alone, you can perform a comprehensive range of modem-related functions including data communications, sending and receiving of faxes.

The intensive demands of today's Internet applications will no longer be a bottleneck.

Using MR2800-W, you can now download graphic intensive web pages, high bandwidth audio and video files as well as large file size software programs at speeds of up to 56Kbps.

Chapter 2...

Before You Begin

This chapter contains information that you need to know before installing your modem. It is important that you go through them.

2.1 Minimum System Requirements

- IBM PC-based computer with Intel® Celeron™ 366MHz Socket 370 processor
- 1 free AMR-Bus slot
- 1 CD-ROM drive
- 32MB RAM
- 10MB hard disk space (system files and modem drivers only)
- Windows® 95 / 98 / 98 Second Edition / Me / NT®4.0 / 2000

2.2 Safety Precaution

- Do not remove your card from its protective bag until you are ready to install it.
- Always try to hold your card by its edges. Avoid touching any electronic components on your card.
- Static electricity can cause permanent damage to your card. To prevent such a damage, you must ground yourself during the installation:
 - » Use a grounding strap - a coiled wire with a clip at one end and an elastic strap at the other. Wear the strap around your wrist and attach the clip to any non-painted metal surface of your computer chassis.
 - » If you do not have a grounding strap, touch any non-painted surface of your computer chassis before you begin installation, and again every minute or so until the installation is completed.

2.3 Installation Notes

- The graphics and screens illustrations shown in this easy start may differ from what you see in your system, but the steps still apply.
- A screwdriver is required (to open up your computer chassis).
- The documentation for your computer should come in handy during the installation. Have it ready by your side.
- If you have an existing *non* Plug-and-Play modem installed in your computer, you must first un-install its modem driver before you remove the card. Refer to the documentation of your existing modem for details.

If your existing modem is Plug-and-Play, you may proceed to install your new modem.

Chapter 3...

Setting Up Your Modem

This chapter contains information on how to configure, install and connect your modem card for Internet surfing.

3.1 Configuring Your Modem



1. Static electricity can cause permanent damage to your card. You have to ground yourself during the installation by touching any non-painted surface of the computer's chassis every minute or so.
2. It is important that you carry out the following steps to configure your modem card **BEFORE** proceeding to install it.
3. Power off your computer and any connected devices before connecting your modem card!

MR2800-W Modem Card needs to be configured as either **Primary** or **Secondary** device before you can proceed to install the card on your PC.

To determine the choice of configuration, you need to refer to the **BIOS Setup details on your Motherboard User's Manual**. Check for the **presence of AC'97 Audio**** setting in the BIOS Setup. (Not all motherboards will support AC'97 Audio).

** your system may show **AC'97 Audio controller**

- a) If **AC'97 Audio is present**, (that is you can see it in the BIOS Setup of your motherboard User's Manual), you may configure your card as *either* **Primary** or **Secondary** device.
 - i) If **AC'97 Audio** is **Enabled**, you must configure your card as a **Secondary** device.



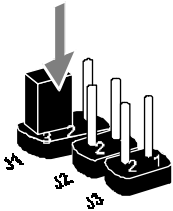
Some systems may have additional onboard audio chips. 'AC'97 Audio' and 'Onboard Audio' are two different options in the BIOS Setup. When system is using Onboard Audio, AC'97 Audio is disabled.

- ii) If **AC'97 Audio** is **Disabled**, you must configure your card as a **Primary** device.

(See **Figure 1.1 - Configuring MR2800-W Modem Card for Primary/Secondary Device**)

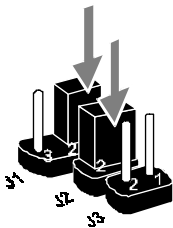
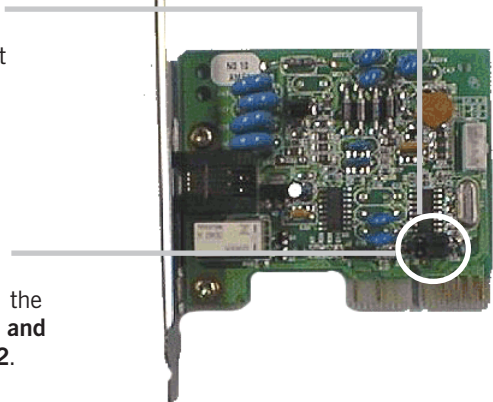
- b) If **AC'97 Audio is not present** (that is you are not able to see it in the BIOS Setup of your motherboard User's Manual), you must configure your card as **Primary** device.

(See **Figure 1.1 - Configuring MR2800-W Modem Card for Primary/Secondary Device**)



To configure as a **Primary** device:

On your card, insert the jumper onto **Pin 2 and 3** for **J1**.



To configure as a **Secondary** device:

On your card, insert the jumpers onto **Pin 1 and 2** for both **J1** and **J2**.

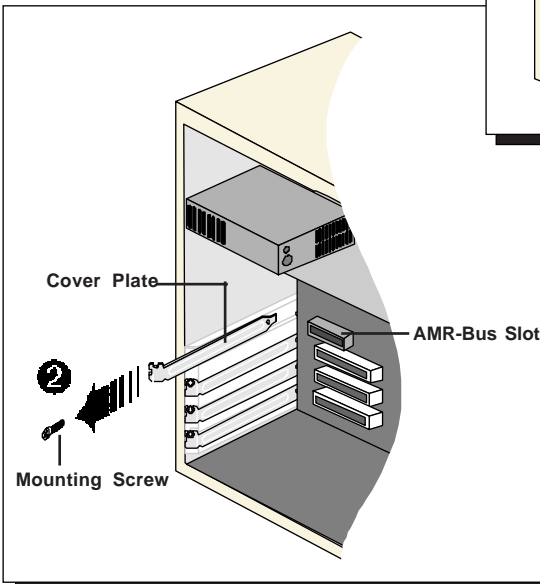
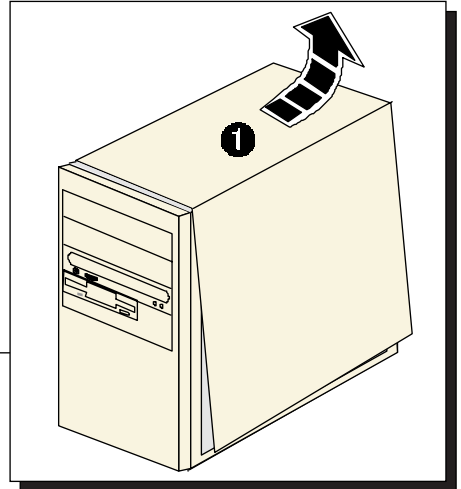
Figure 1.1 - Configuring MR2800-W Modem Card for Primary/Secondary Device

3.2 Installing Your Modem



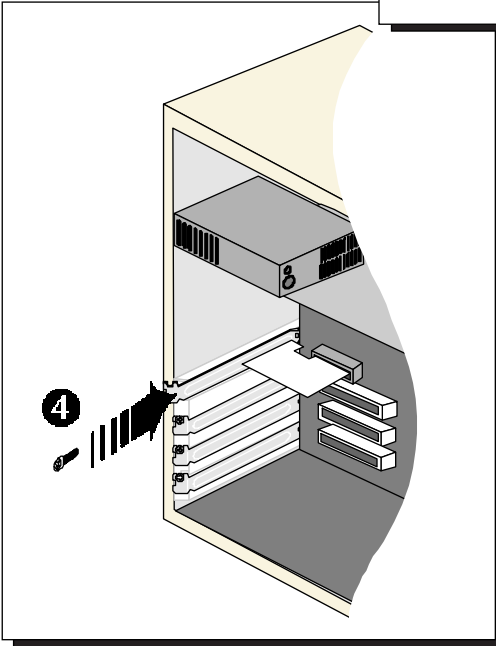
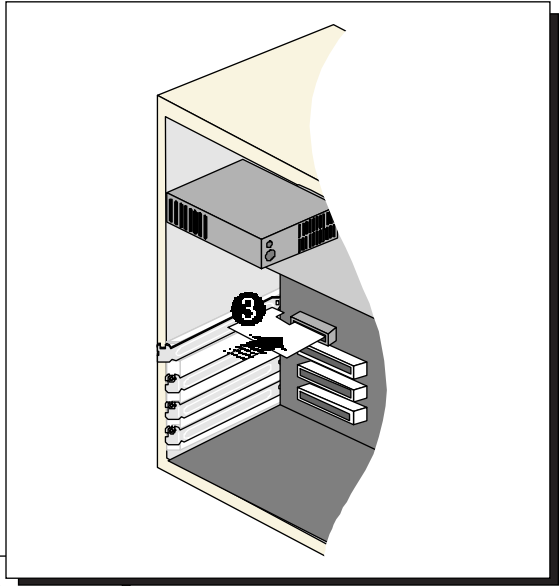
Power off your computer and any connected devices before installing your modem!

- 1 Remove the cover of your computer.



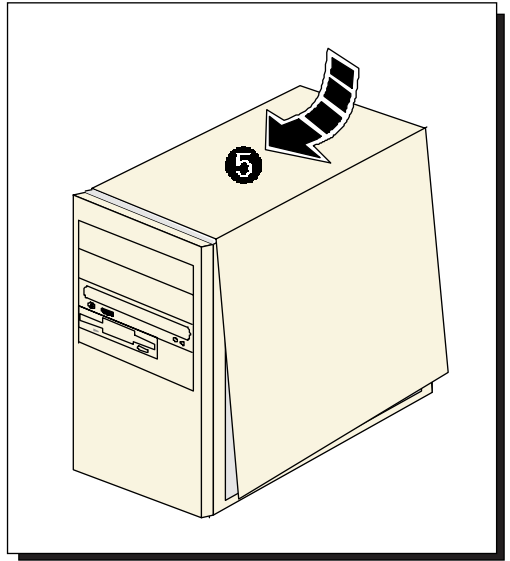
- 2 Locate the AMR-Bus slot and remove its cover plate. Keep the mounting screw to secure your card later.

- 3** Align your card with the AMR-Bus slot and firmly push it in. If the card does not slide in, do not force it. Make sure that the card is lined up properly and try again.

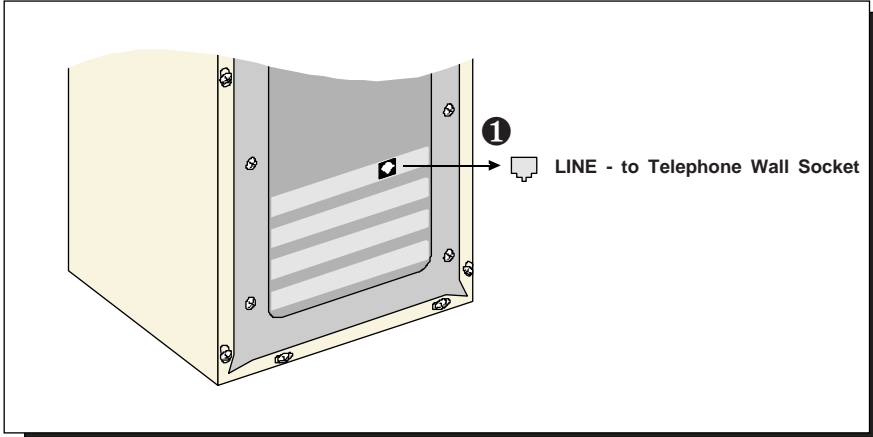


- 4** Secure your card to your computer chassis with the mounting screw.

- 5 Replace the cover of your computer.



3.3 Connecting Your Modem



- 1 Connect one end of the **telephone extension cable** to your **modem card** and the other end to your **telephone wall socket**.

This completes the setting up of your modem. Please proceed to the next chapter to install your modem driver.

Chapter 4...

Installing Your Modem Driver

This chapter contains information on how to install the modem driver in Windows® 95, 98, 98 Second Edition, Me, NT®4.0 and Windows® 2000.

4.1 Installing Your Modem Driver For Windows® 95



1

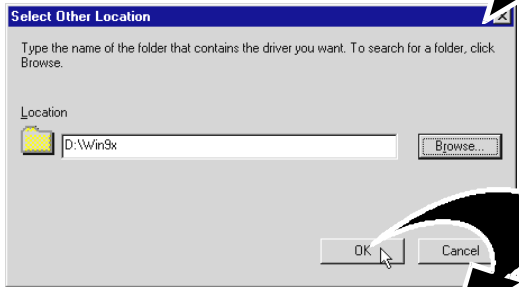
Start your Windows. Windows will detect your newly-installed modem and prompts for its driver.

Place the **Installation CD** into CD-ROM drive and click **Next**.



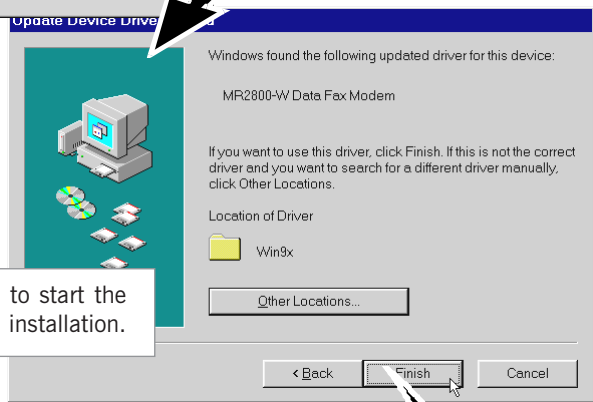
2

Click **Other Locations...** to specify the driver path.



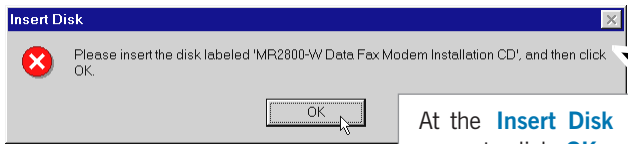
3

Click **Browse...** . Navigate to 'Win9x' directory on your Installation CD and click **OK**.
Click **OK** again to proceed.



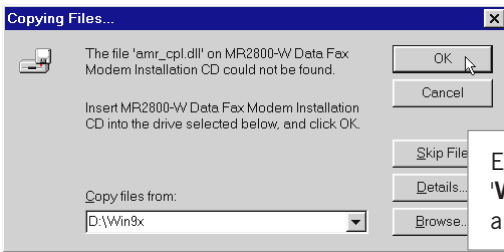
4

Click **Finish** to start the installation.



5

At the **Insert Disk** prompt, click **OK**.



6

Ensure that the path specifies **'Win9x'** on your Installation CD and click **OK**.

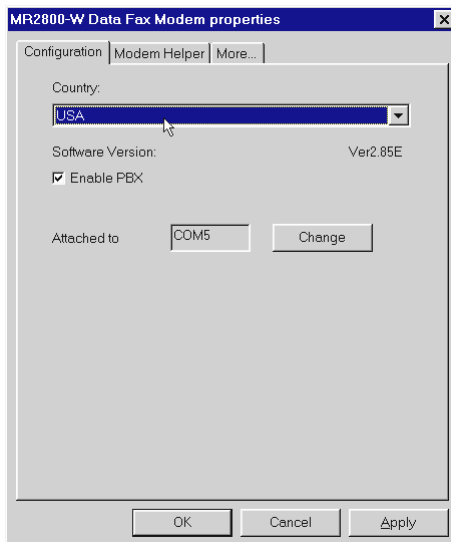
Windows will start copying the files.

7

To ensure your modem functions in a stable condition, check the country setting for your modem. It has to follow the country you are currently in.

From the **Control Panel** (**Start** > **Settings**), double-click on the **Modem Country Selection** icon.

At the **Country** field, select the country that you are currently in. Click **Apply**, followed by **OK**.



This completes the driver installation in Windows® 95. Please proceed to the next chapter to verify your card.

4.2 Installing Your Modem Driver - For Windows® 98 / 98 Second Edition

Start your Windows. Windows will detect your newly-installed modem and prompts for its driver.

1

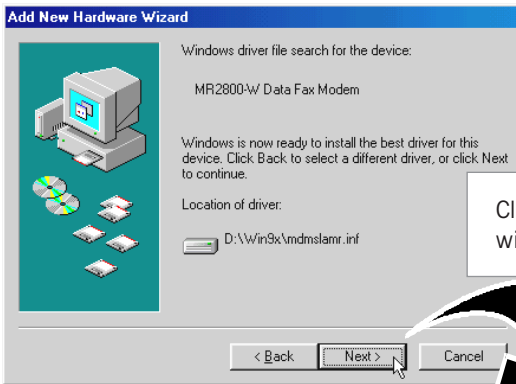
Place the **Installation CD** into CD-ROM drive and click **Next**.

2

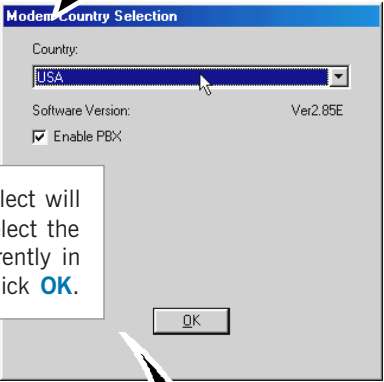
Click the option **'Search for the best driver for your device. (Recommended).'** and click **Next**.

3

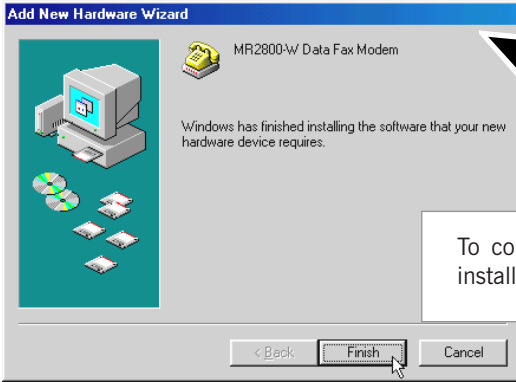
For the source of your driver, click the option **'Specify a location'**. Click **Browse...** to navigate to **'\Win9x'** directory on your Installation CD and click **OK**. Click **Next**.



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



A window for Country Select will be displayed. Select the country that you are currently in and click **OK**.



To complete the driver installation, click **Finish**.

This completes the driver installation in Windows® 98 / 98 Second Edition. Please proceed to the next chapter to verify your modem.

4.3 Installing Your Modem Driver - For Windows® Me

Start your Windows. Windows will detect your newly-installed modem and prompts for its driver.

1

Place the **Installation CD** into your CD-ROM drive.

Click the option '**Specify the location of the driver (Advanced)**' and click **Next**.

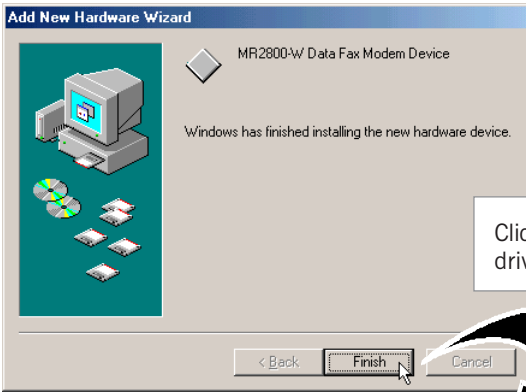
2

Select '**Specify a location**'. Click **Browse**. Navigate to '**WinMe**' directory on your Installation CD click **Next**.

3

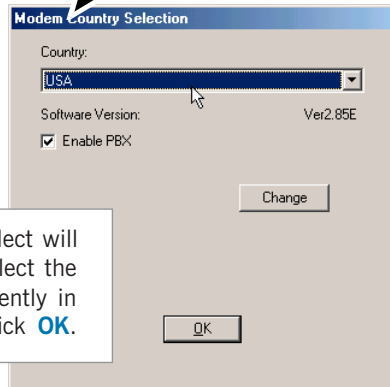
Windows will prompt that it has located the driver.

Click **Next** to proceed.



4

Click **Finish** to complete the driver installation.



5

A window for Country Select will be displayed. Select the country that you are currently in and click **OK**.

This completes the driver installation in Windows® Me. Please proceed to the next chapter to verify your modem card.

4.4 Installing Your Modem Driver For Windows NT® 4.0

From your Windows taskbar, click **Start** > **Run**. Click **Browse** and navigate to 'winNT4\setup.exe' on your Installation CD and click **OK**.

1

Welcome to the MR2800-W Data Fax Modem Setup program. This program will install MR2800-W Data Fax Modem on your computer.

It is strongly recommended that you exit all Windows programs before running this Setup program.

Click Cancel to quit Setup and then close any programs you are running. Click Next to continue with the Setup program.

WARNING: This program is protected by copyright law and international treaties.

Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.

< Back **Next >** Cancel

Click **Next** to proceed with the installation.

2

Choose a Comm Port for your modem (Leave default if not sure).

COM3
 COM4
 COM5
 COM6

Once you have selected the Port, press the Next button.

Select the COM Port for your modem and click **Next**.

< Back **Next >** Cancel

3

Modem System Information:

Following is a summary of your modem setup:

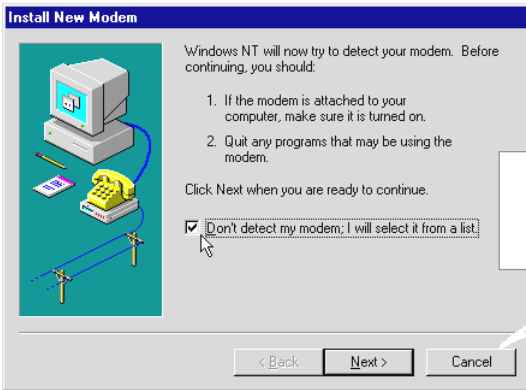
Manufacturer: AZT
Model: MR2800-W Data Fax Modem
Selected Port: COM3

To continue setup, follow these steps:

1. Click 'Next'.
2. Check the box "Don't detect my modem, I will select it from a list".
3. Click 'Next'.
4. Choose the manufacturer 'AZT' and model 'MR2800-W Data Fax Modem' from the list.
5. Click 'Next' and follow the instructions on the screen.

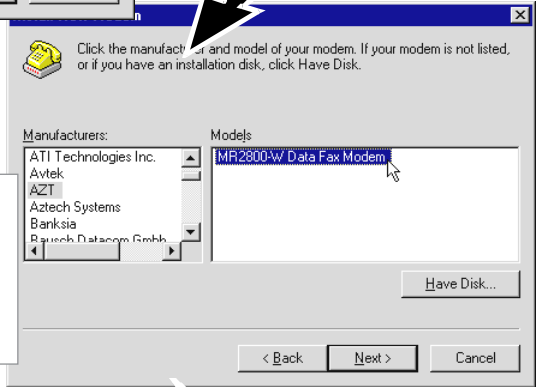
< Back **Next >** Cancel

Click **Next** to proceed.



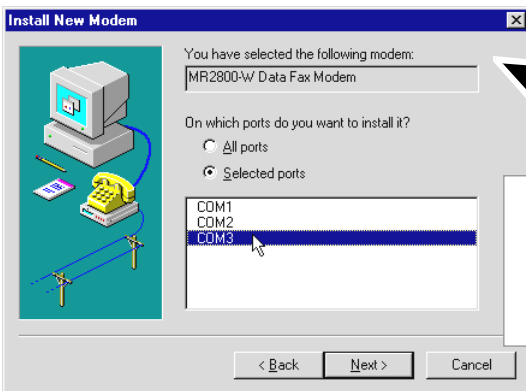
4

Select the option '**Don't detect my modem; I will select it from a list.**' and click **Next**.



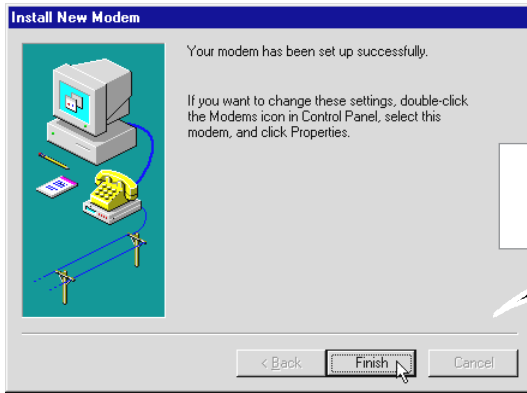
5

From **Manufacturers** field, scroll down the list to locate **AZT**. Click on **AZT** and select **MR2800-W Data Fax Modem** from **Models** field. Click **Next**.



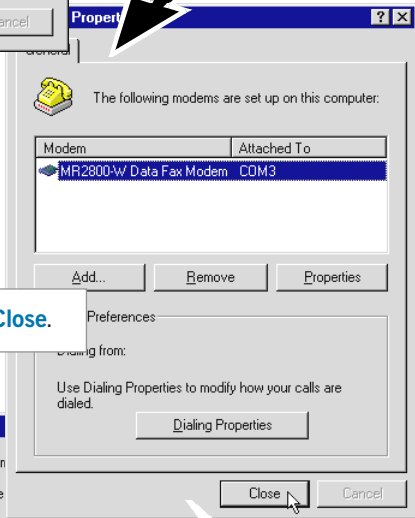
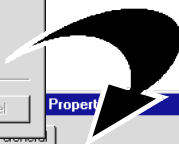
6

Click on the COM port that you have selected for your modem previously on **page 22**. Click **Next** to start the installation.



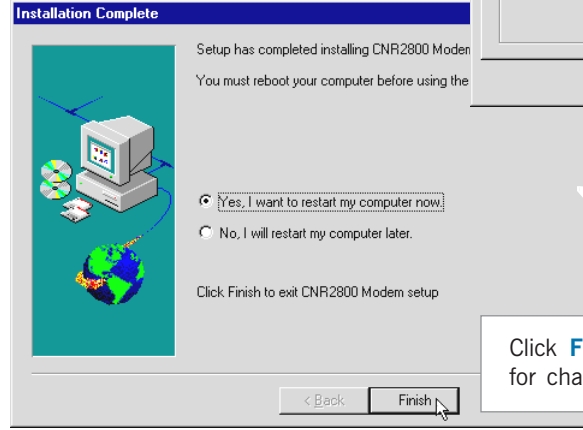
7

Click **Finish** to complete the driver installation.



8

Click **Close**.



9

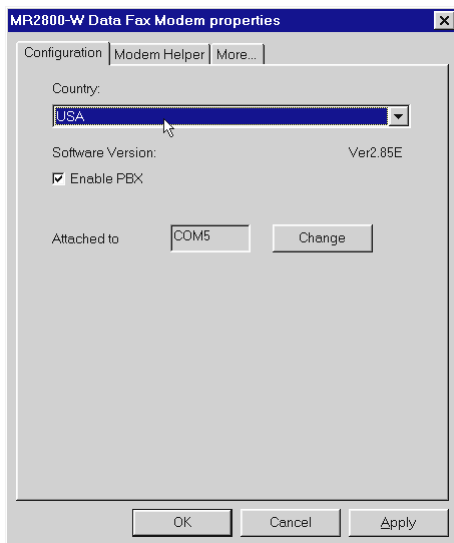
Click **Finish** to restart your system for changes to take effect.

10

To ensure your modem functions in a stable condition, check the country setting for your modem. It has to follow the country you are currently in.

From the **Control Panel** (**Start > Settings**), double-click on the **Modem Country Selection** icon.

At the **Country** field, select the country that you are currently in. Click **Apply**, followed by **OK**.



This completes the driver installation in Windows NT®4.0. Please proceed to the next chapter to verify your modem card.

4.5 Installing Your Modem Driver For Windows® 2000

Power on your computer to start Windows. Windows will detect your newly-installed modem card.

1

Welcome to the Found New Hardware Wizard

This wizard helps you install a device driver for a hardware device.

To continue, click Next.

< Back **Next >** Cancel

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

2

PCI Device

This wizard will complete the installation for this device:

device driver is a software program that enables a hardware device to work with your system.

What do you want the wizard to do?

Search for a suitable driver for my device (recommended)

Display a list of the known drivers for this device so that I can choose a specific driver

< Back **Next >** Cancel

Click the option **'Search for a suitable driver for my device (recommended).'** and click **Next**.

3

Found New Hardware Wizard

Locate Driver Files

Where do you want Windows to search for driver files?

Search for driver files for the following hardware device:

PCI Device

The wizard searches for suitable drivers in its driver database on your computer and in any of the following optional search locations that you specify. To start the search, click Next. If you are searching on a floppy disk or CD-ROM drive, insert the floppy disk or CD before clicking Next.

Optional search locations:

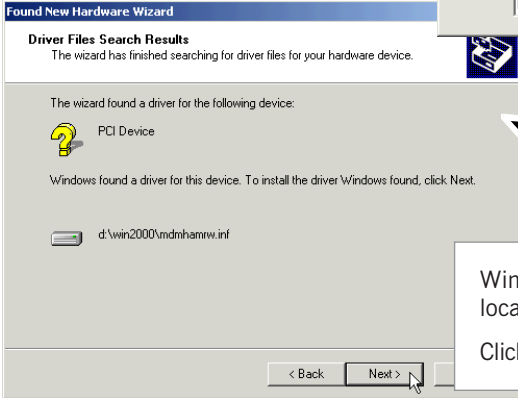
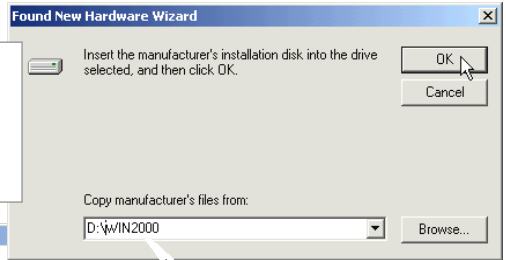
- Floppy disk drives
- CD-ROM drives
- Specify a location
- Microsoft Windows Update

< Back **Next >** Cancel

For the source of your modem driver, click **'Specify a location'** and click **Next**.

4

Click **Browse...** and navigate to '**Win2000**' directory on your Installation CD and click **OK**.

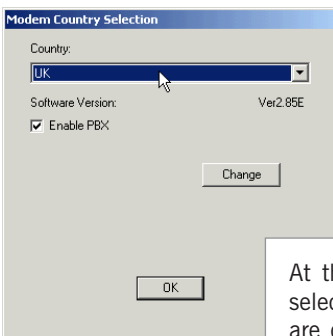


Windows will prompt that it has located the driver.

Click **Next** to proceed.



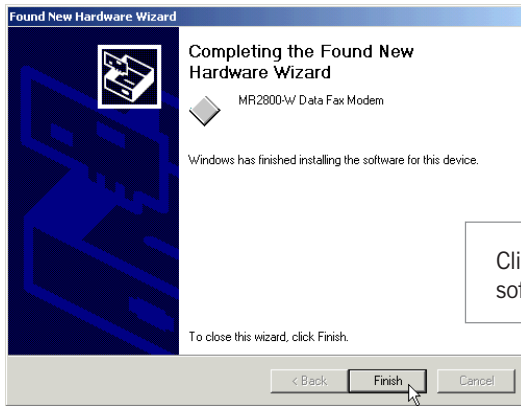
You may be prompted with **Digital Signature Not Found** dialog box. (This happens when Windows detected a newer version of the modem driver.) Click **Yes** to proceed.



6

Allow some time for Windows to copy the required files.

At the country select prompt, select the country that you are currently in and click **OK**.



Click **Finish** to complete the software installation.

This completes the driver installation in Windows® 2000. Please proceed to the next chapter to verify your modem.

Chapter 5...

Verifying Your Modem

This chapter contains information on how to test your modem card in Windows® 95, 98, 98 Second Edition, Me, NT®4.0 and Windows® 2000.

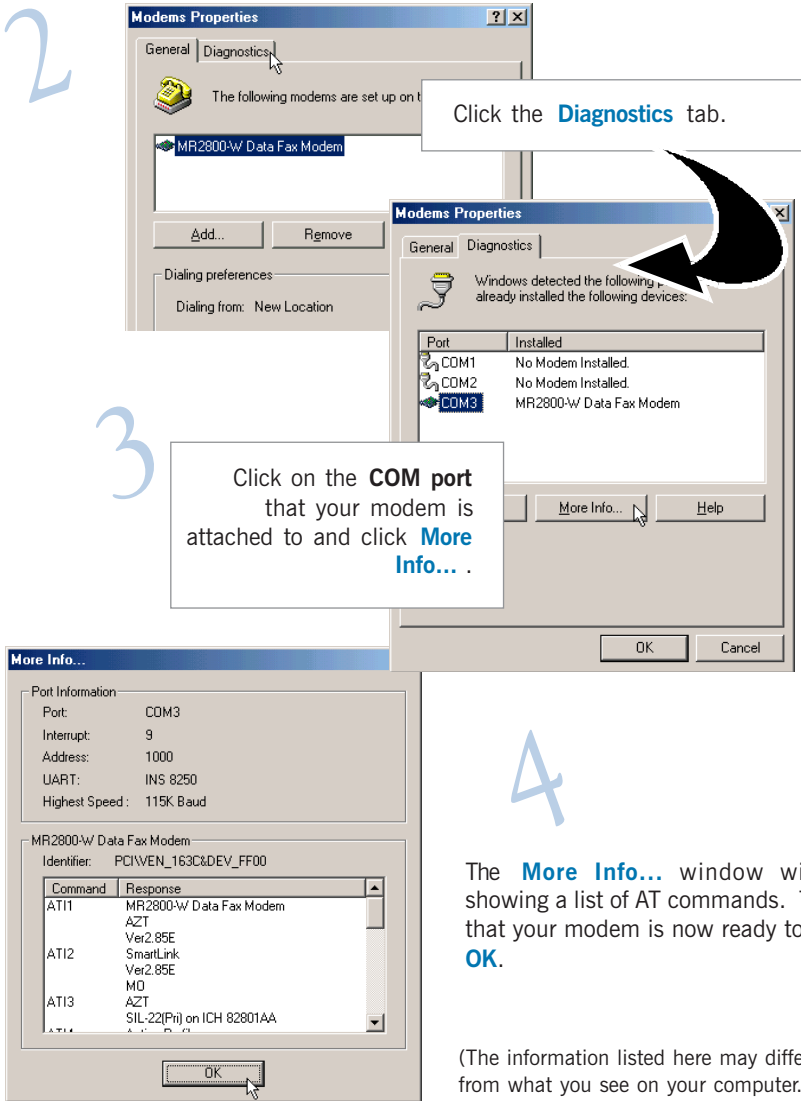


The testing procedures for MR2800-W Modem in Windows® 95, 98, 98 Second Edition and Windows® Me are similar. The following screen shots are based on Windows® Me. For any dissimilarities, follow closely to the instructions as prompted on your computer screen.

5.1 Verifying Your Modem - For Windows® 95 / 98 / 98 Second Edition / Me



From the Windows taskbar, click **Start** > **Settings** > **Control Panel**. Double-click on the **Modems** icon.



(If your modem is not installed properly, the set of AT commands will not be listed. You may also be prompted by an error message, stating that it was unable to open the COM port. If this happens, re-install your modem driver. See the chapter on **Uninstalling Your Modem Driver**.)

5.2 Verifying Your Modem - For Windows NT® 4.0

1
2
3
4
5

From your Windows taskbar, click **Start** > **Programs** > **Accessories** > **HyperTerminal** > **HyperTerminal**.

Key in the required information prompted by the dialog boxes.

Click **OK** after entering any telephone number in the dialog box.

At the next dialog box prompt, click **Cancel**.

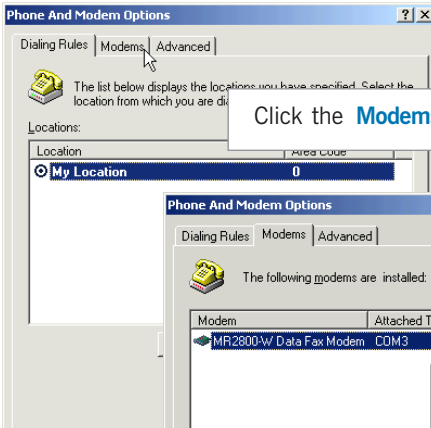
Type **'AT'** and press <**Enter**>. You should see a response **'OK'**.
Your modem is now ready to run.

5.3 Verifying Your Modem - For Windows® 2000

1

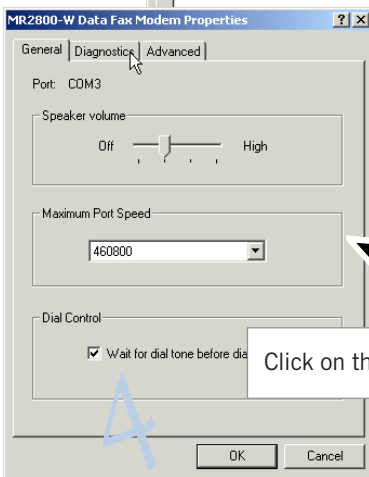
From your Windows taskbar, click **Start** > **Settings** > **Control Panel**. Double-click on the **Phone and Modem Options** icon.

2

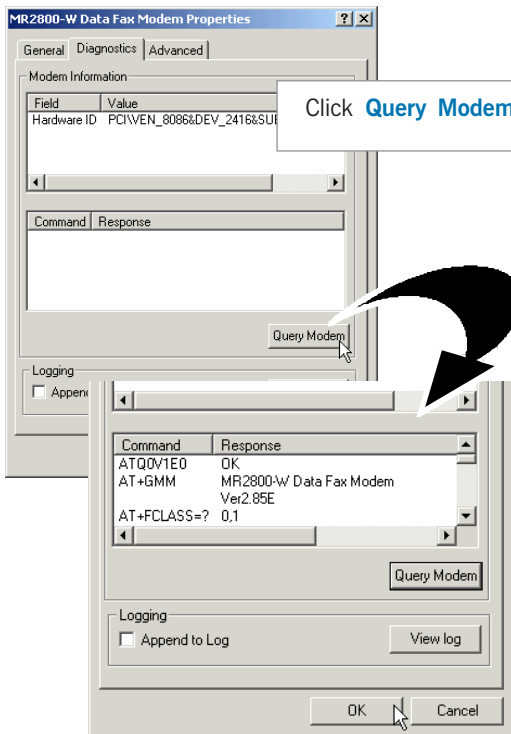


3

You will see the **MR2800-W Data Fax Modem** listed. Click on the modem and select **Properties**.



4



You should see a list of AT commands similar to the one illustrated. This indicates that your modem is successfully installed.

Click **OK**.

(The information listed here may differ from what you see on your computer.)

If your modem is not installed properly, the set of AT commands will not be listed. You may also be prompted by an error message, stating that it was unable to open the COM Port. If this happens,

- i) make sure that there is no communication software (e.g. HyperTerminal, Dial-Up Networking, etc) running.
- ii) from the Windows desktop, right-click **My Computer** icon. Select **Properties**. From the **System Properties**, select the **Hardware** tab and click **Device Manager** button. Check whether there is any yellow exclamation mark on the **Modems** device. If yes, remove and re-install your modem driver. (See the chapter on **Uninstalling Your Modem Driver**.)

Uninstalling Your Modem Driver

The following procedures are applicable to all the operating systems mentioned in this guide.

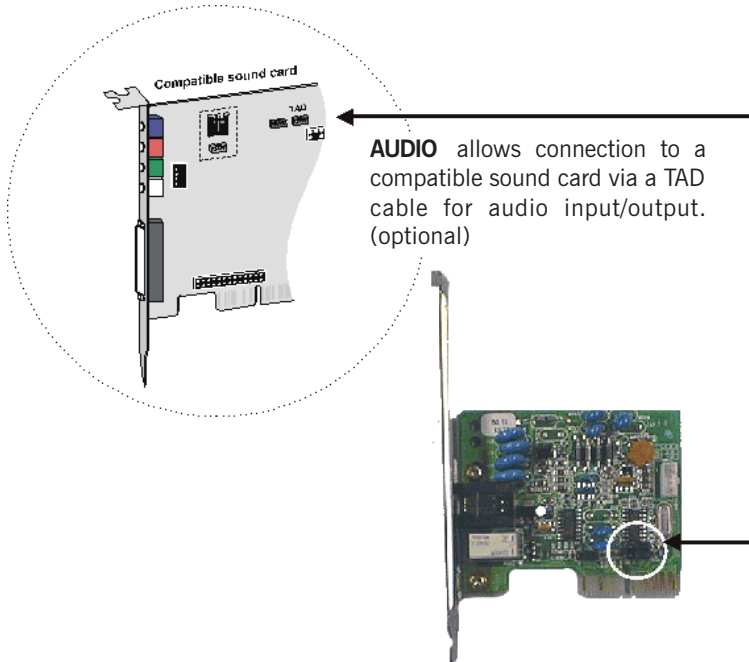
1
2

From your Windows taskbar, click **Start** > **Settings** > **Control Panel**. Double-click on the **Add/Remove Programs** icon.

Select **MR2800-W Modem** and click **Add/Remove**.

Follow any on-screen instructions to remove the modem driver.

Card Layout



	J1	J2	J3
Primary	short Pin 2 and 3	open	open
Secondary	short Pin 1 and 2	short Pin 1 and 2	open

Table 1: Jumper Settings for Primary/Secondary Device

Frequently Asked Questions

This chapter provides the answers to some of the commonly asked questions on your modem.



What is V.90 ?



V.90 is a new standard approved by the International Telecommunication Union for “56K” analog modems. It is a compromise officially reached between the two competing standards - X2 (from 3COM/USR) and K56Flex (from Rockwell/Lucent).



How do I identify the Modem Riser card and its driver ?



The Modem Riser card has its model name printed on the serial number label located at the rear of the card.

Alternatively, you can issue an AT13 command using any Telephony Data Terminal application to get the driver version.



This modem is set to V.90. But why am I getting slow connections to my ISP ?



Majority of the telephone lines and ISP are already supporting V.90 connections. However, like all data connection, the connection is sensitive to the amount of noise present in the phone line. Hence, only very “clean” phone line can get high connection rate or throughput. You may want to check with your telephone provider.



How do I see the resources listings ? (Not applicable for Windows NT®4.0)



For Windows 95/98/98 Second Edition/Me

1. From the Windows taskbar, click **Start** > **Settings** > **Control Panel**.
2. Double-click on the **Modems** icon.
3. Click the **Diagnostics** tab. Select your product model and click **More Info...** option.

The resources used by the modem will be listed.

For Windows 2000

1. From the Windows desktop, right-click on **My Computer** icon. Select **Properties**.
2. From the **System Properties** dialog box, select Hardware tab and click **Device Manager**.
3. Double-click on the **Modems**. Select your product model. From the Device Manager toolbar, click **View** > **Resources by type**.

The resources used by the modem will be listed.



The modem hangs up when an incoming call is received.



Disable the Call Waiting function for the Online Service, Internet Connection and/or communications software you are using.



When I tried to dial out, the system gave me an error message “No Dial Tone”.



Check the Telephone Cable (PHONE) connection. If necessary, plug out the Telephone Cable and reconnect the cable.



There are incomprehensible characters appearing on the screen.



The data, parity and stop bit settings are incorrect. Try using the default values or check with your ISP.



Why does my modem always connect at 33.6Kbps and not 56Kbps or V90 ?



Check with your Internet Service Provider (ISP) to ensure that they support 56Kbps or V.90 connections. For modem with Country Selection feature, please ensure that the modem is set to your local country. To set the country select feature, see the following question.



I am using my system with the modem card in another country. Is there any settings that need to be changed ?



Yes. You need to ensure that the country setting for your modem card is correct for your location. Carry out the following steps:

1. From the Windows taskbar, click **Start** > **Settings** > **Control Panel**. Double-click on **Modem Country Selection** icon.
2. From the drop-down list, select your **current local country** and click **OK**.

Troubleshooting Guide

This chapter provides a step-by-step solutions to problems that you may encounter when using your modem.



While testing the modem, the system gave an error message saying that it was unable to open the COM Port. (Not applicable for Windows NT®4.0)



Make sure that you have closed all communication software (e.g. Hyperterminal, Dial-up Networking, etc.) when you are doing the diagnostics test.

However, if there is no communications software running, do the following:

For Windows 95/98/98 Second Edition/Me

1. From the Windows taskbar, click **Start** > **Settings** > **Control Panel**. Double-click on the **System** icon.
2. Click the **Device Manager** tab.
3. Check whether there is any yellow exclamation mark on the modem device. If yes, remove the modem device (select the device and click **Remove**) and re-install the modem driver.

For Windows 2000

1. From the Windows desktop, right-click on **My Computer** icon. Select **Properties**.
2. From the **System Properties** dialog box, select Hardware tab and click **Device Manager**.
3. Check whether there is any yellow exclamation mark on the modem device. If yes, remove the modem device (right-click on the device and click **Uninstall**) and re-install the modem driver.



My system does not detect the modem when I boot up for the first time.



Check that:

1. Your modem is fully inserted into the AMR-Bus slot.
2. You have configured your card to either **Primary** or **Secondary** device **before** you install your card.
3. The jumper settings are correctly configured for the respective device.

(For details on the configuration, please refer to **Chapter 3 - Setting Up Your Modem.**)



I cannot find AC'97 Audio (or AC'97 Audio Controller) in my system BIOS.



If the feature is not found in your system BIOS, please check with your motherboard supplier for an updated system BIOS.

Appendix D...

Technical Specifications

This chapter contains the technical specifications of your card. The information may be more useful for technically inclined users.

D.1 Main Features

D.1.1 Drivers Support

- a) Windows® 95 / 98 / 98 Second Edition / Me / NT®4.0 / 2000
- b) TAPI compliant

D.1.2 Integrated 56000 BPS Data/Fax Modem

- AMR 1.0 Compliant
- V.90
- K56Flex 56Kbps; V.34 (33.6Kbps); V.34 data modem; V.32 bis; V.32; V.23; V.22 bis; V.22; V.21
- Bell 212A and 103
- V.42 LAPM, MNP2-4 error Correction; V.42 bis and MNP5 data compression
- V.17/V.29/V.27ter and Fax Class 1 , V21 channel 2 group 3 fax mode
- Auto dialing and auto answer

- Line quality monitoring and re-train
- Tone or pulse dialing
- On board amplifier and analog-based buzzer
- Silicon DAA line interface
- Caller ID support
- Digital Line guard optional
- Handset exclusion optional

D.2 Interfaces

D.2.1 External connectors

- 1 x RJ11 Telephone socket for telephone line

D.3 Environmental

D.3.1 Temperature:

- Operating : 10 to 45 degrees Celsius (50 to 113 degrees Fahrenheit)
- Non-Operating : -25 to 70 degrees Celsius (-13 to 158 degrees Fahrenheit)

D.3.2 Humidity

- Operating: 30% to 80% Relative Humidity (non-condensing)
- Non-Operating: 10% to 95% Relative Humidity (non-condensing)



The specifications herein are subject to change without prior notification.