

MDP3880 56K PCI Modem

User's Manual

Version 1.0

Contents

1.	Introducing MDP3880-U	4
2.	Before You Begin	5
2.1	Package	5
2.2	Minimum System Requirements	5
2.3	Safety Precaution	6
2.4	Installation Notes	6
3.	Setting Up Your Modem	7
3.1	Installing Your Modem	7
3.2	Connecting Your Modem for Internet Access	10
4.	Installing Your Modem Driver	11
4.1	Installing Your Modem Driver - For Windows® 95	11
4.2	Installing Your Modem Driver - For Windows® 98	13
4.3	Installing Your Modem Driver - For Windows® Me	15
4.4	Installing Your Modem Driver - For Windows NT® 4.0	17
4.5	Installing Your Modem Driver - For Windows® 2000	18
5.	Verifying Your Modem	21
5.1	Verifying Your Modem - For Windows® 95/98/Me	21
5.2	Verifying your Modem - For Windows NT® 4.0	23
5.3	Verifying Your Modem - For Windows® 2000	24

- 6. Uninstalling Your Modem Driver 26**
 - 6.1 Uninstalling Your Modem Driver - For Windows® 95 / 98 / NT® 4.0 ... 26
 - 6.2 Uninstalling Your Modem Driver - For Windows® Me 27
 - 6.3 Uninstalling Your Modem Driver - For Windows® 2000 27

- Appendix A - Frequently Asked Questions 28**

- Appendix B - Troubleshooting Guide 31**

- Appendix C - Technical Specifications 35**
 - C.1 Drivers support 35
 - C.2 Integrated 56000BPS Data/Fax Modem 35
 - C.3 Interfaces 36
 - C.4 Environmental 36

Chapter 1...

Introducing MDP3880-U

Thank you for buying the **MDP3880-U 56K PCI Modem**.

With MDP3880-U 56K PCI Modem, 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. You can now download graphic-intensive web pages, high bandwidth audio and video files and 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 Package

Ensure that you have the following items in your package. For any missing items, please contact your dealer immediately.

- MDP3880-U Modem Card
- MDP3880-U Easy Start
- MDP3880-U Installation CD-ROM
- 1 telephone extension cable

2.2 Minimum System Requirements

- PC-based computer with Pentium® 166 processor
- PCI Bus slot
- 16MB RAM
- 10MB hard disk space (system files and modem drivers only)
- CD-ROM drive
- Windows® 95 / 98 / Me or
Windows NT®4.0 / 2000

2.3 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 while installing the card:
 - » Use a grounding strap, which is 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's chassis.
 - » If you do not have a grounding strap, touch any non-painted surface of the computer's chassis before you begin installation, and again every minute or so until the installation is completed.

2.4 Installation Notes

- The graphics and screen shots shown in this manual may differ from what you see in your system, but the steps still apply.
- A Philips-type screwdriver is required for your card installation.
- 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 drivers before you remove the modem. Refer to your existing documentation for more details on this.
If your existing modem is *Plug-and-Play*, you may proceed to install your new modem.

Chapter 3...

Setting Up Your Modem

This chapter guides you on connecting your modem to your computer as well as connecting your phone line for Internet access.

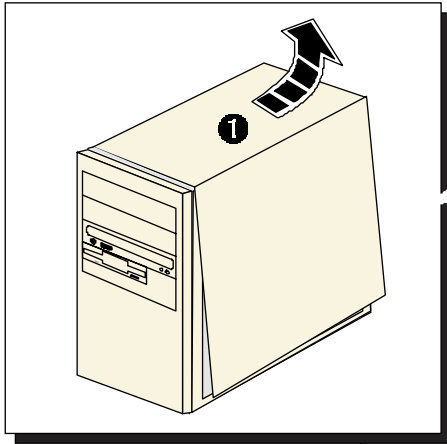
3.1 Installing Your Modem



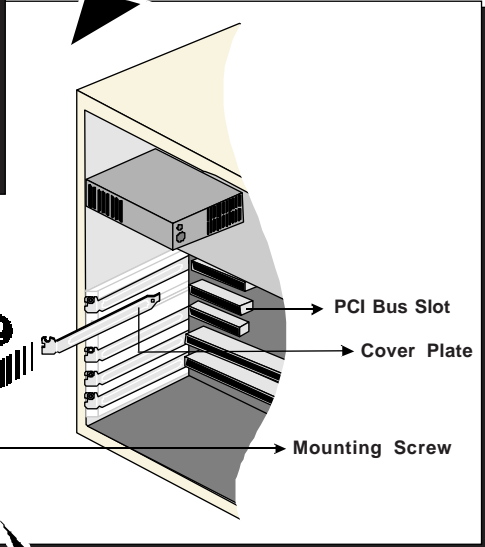
You need to remove any existing modem installed in your computer. Note that if the modem is non-Plug-n-Play, you need to un-install its modem driver before you remove it. Check your existing modem documentation for details on this.



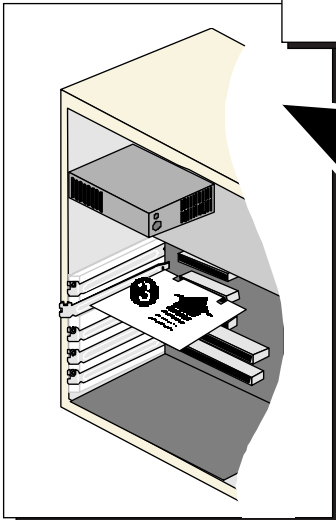
Power off your computer and any connected devices before installing your modem!




1 Remove the cover of your computer.

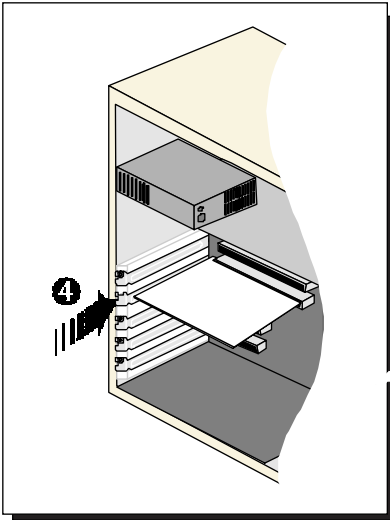


2 Locate any available PCI Bus Slot and remove its cover plate. Keep the mounting screw to secure your card later.



3 Align your card with the selected PCI Bus slot and firmly push it into the slot. If the card does not slide in, do not force it. Make sure that the card is aligned properly and try again.

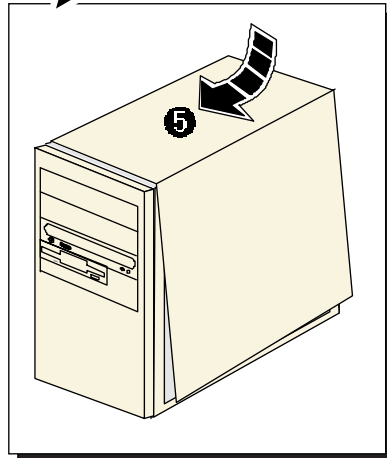
 The diagrams illustrated may not reflect the exact location of the PCI Bus Slots in your computer.



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

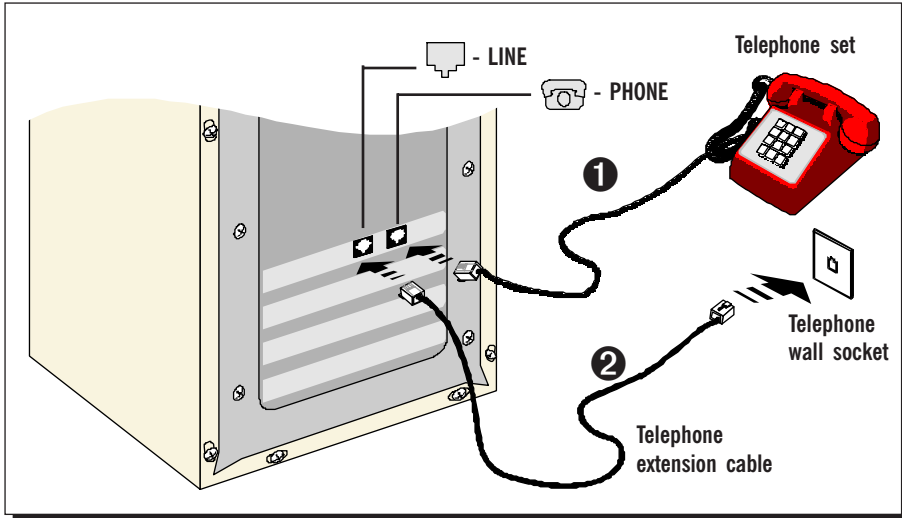


5 Replace the cover of your computer.



This completes your modem card installation. Please proceed to the next section to connect the card for Internet access.

3.2 Connecting Your Modem for Internet Access



- 1 Connect a **telephone set** to the **PHONE jack** of the modem card.
(This optional connection eliminates the need to switch between your telephone set and your modem if they are sharing the same telephone wall socket.)
- 2 Connect one end of the **telephone extension cable** to the **LINE jack** of your modem and the other end to the **telephone wall socket**.

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

Chapter 4...

Installing Your Modem Driver

This chapter guides you step-by-step with screen shots on how to install the modem driver required to run your modem. Operating systems described are Windows® 95, 98, Me, Windows NT® 4.0 and 2000.



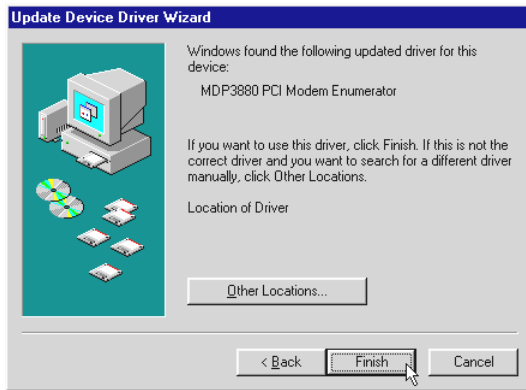
The screen shots and screens information illustrated in this manual serve only as a guide. The exact information you see on your system may vary, depending on your system configurations. For any dissimilarities, follow closely to the instructions as prompted on your PC screen !

4.1 Installing Your Modem Driver For Windows® 95

1. Power on your computer to start Windows. Windows will detect your newly-installed modem and an **Update Device Driver Wizard** window will appear.



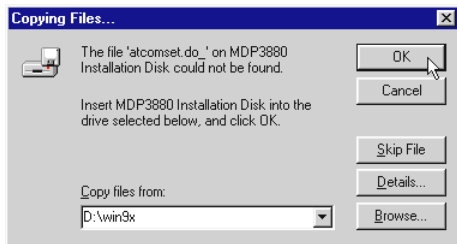
Place your **Installation CD** into your CD-ROM drive and click **Next**.



2. Windows will now prompt you that the modem driver has been found. Click **Finish** to proceed.



3. When the **Insert Disk** window appears, click **OK**.



4. The **Copying Files...** window will appear. Click **Browse** and navigate to '\Win9x' directory on your CD-ROM and click **OK**.

This completes the installation of the modem driver in Windows® 95. You may now proceed to the next chapter to verify your modem.

4.2 Installing Your Modem Driver For Windows® 98

1. Power on your computer to start Windows. Windows will detect your newly-installed modem and an **Add New Hardware Wizard** window will appear.



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

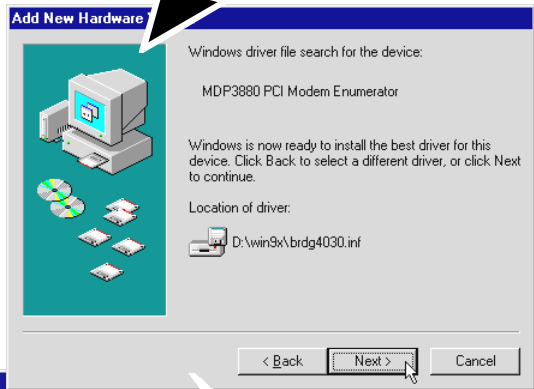
2. The next window prompt will ask for your modem driver. Click the option **'Search for the best driver for your device (Recommended).'** and click **Next**.





- At the next prompt, click the option 'Specify a location'. Click **Browse** and navigate to 'Win9x' directory on your CD-ROM and click **Next**.

- To start the driver installation, click **Next** again.



- To complete the driver installation, click **Finish** and restart your system, if prompted.



This completes the installation of the modem driver in Windows® 98. You may proceed now proceed to the next chapter to verify your modem.

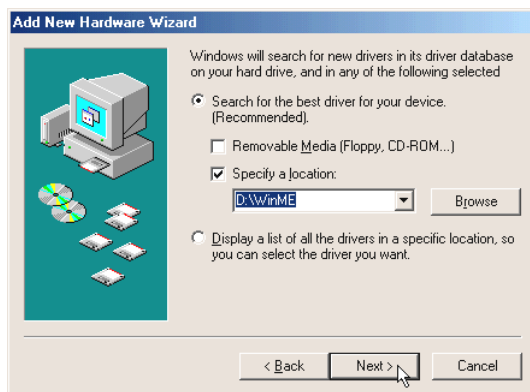
4.3 Installing Your Modem Driver For Windows® Me

1. Power on your computer to start Windows. Windows will detect your newly-installed modem and an **Add New Hardware Wizard** will appear.

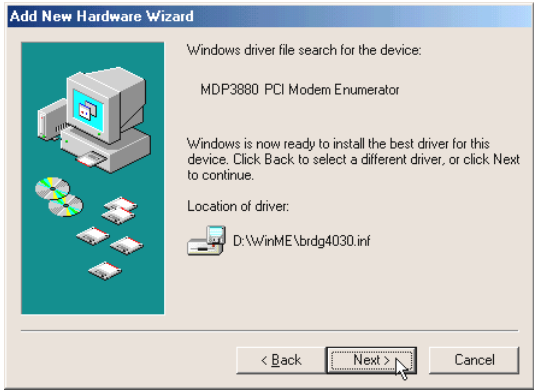


Place your Installation CD into your CD-ROM drive. Select the option '**Specify the location of the driver (Advanced)**' and click **Next**.

2. Select **Specify a location**. Click **Browse** and navigate to '**WinME**' directory on your CD-ROM and click **Next**.



- Windows will prompt that it has located the driver. Click **Next** to start the driver installation.



- Allow some time for Windows to install the driver. Upon completion, click **Finish**.



This completes the installation of the modem driver in Windows® Me. You may now proceed to the next chapter to verify your modem.

4.4 Installing Your Modem Driver For Windows NT® 4.0

1. Power on your computer to start Windows. Place your **Installation CD** into your CD-ROM drive.
2. From the Windows taskbar, click **Start** > **Run...** .
3. From the dialog box, click **Browse** and navigate to '**Winnt4**' directory on your CD-ROM. Select the file **setup.exe** and click **OK**.
4. From the **Modem Board Installation Wizard**, click **Next** to install the driver.
5. Click **Next** to proceed.
6. To complete the driver installation, click **Finish** and restart your system.

This completes the installation of the modem driver in Windows NT® 4.0. You may now proceed to the next chapter to verify your modem.

4.5 Installing Your Modem Driver For Windows® 2000

1. Power on your computer to start Windows. Windows will detect your newly-installed modem and a **Found New Hardware Wizard** will appear. Click **Next**.



If '**New Hardware Found Wizard**' is not prompted when you power up your system, carry out the following steps to install your modem driver. Otherwise, please continue from **step 2**.

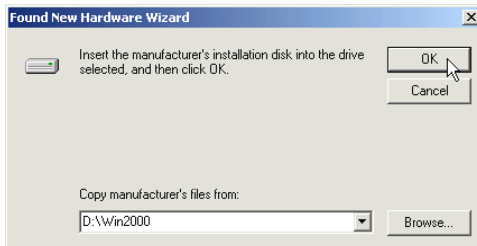
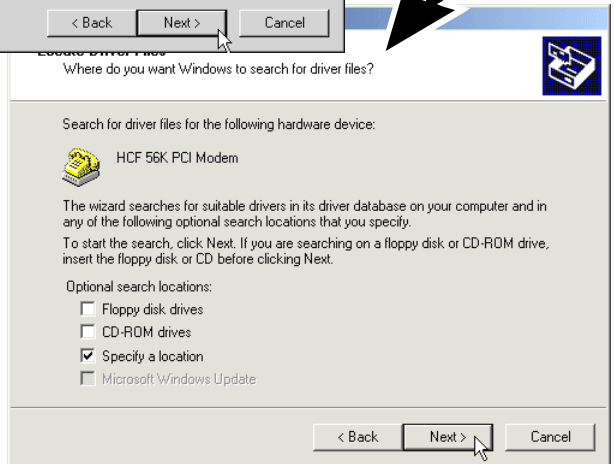
- a. From your Windows taskbar, click **Start > Settings > Control Panel**. Double-click **System** icon.
- b. Select the **Hardware** tab and click **Device Manager** button.
- c. From the list of devices, double-click on **Modem**. You will see **HCF 56K PCI Modem** listed. Double-click on it and select the **Driver** tab.
- d. Place your **Installation CD** into the CD-ROM drive and click the **Update Driver..** button.
- e. From the **Update Device Driver Wizard**, click **Next**.
- f. Accept the default settings and click **Next**.
- g. Specify your driver location and click **Next**.
- h. Click **Next** again to begin the driver installation.
- i. To complete the installation, click **Finish** when prompted.

This completes the installation of the modem driver in Windows® 2000. You may now proceed to the next chapter to verify your modem.

- Place the **Installation CD** into your CD-ROM drive. Select the option **'Search for a suitable driver for my device (recommended)'** and click **Next**.

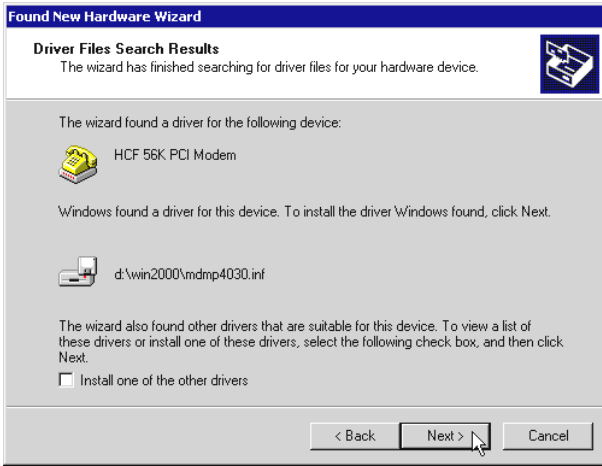


- Click the option **'Specify a location'**. Click **Next**.



- Click **Browse** and navigate to **'\Win2000'** directory on your CD-ROM and click **OK**.

5. Click **Next** again to proceed installation with the driver found.



5. You may be prompted with **New Signature Not Found** dialog box, This occurs when Windows detected a newer version of your driver.
Click **Yes** to proceed.
6. At the following prompt, click **Finish** to complete the installation.



This completes the installation of the modem driver in Windows® 2000. You may now proceed to the next chapter to verify your modem.

Chapter 5...

Verifying Your Modem

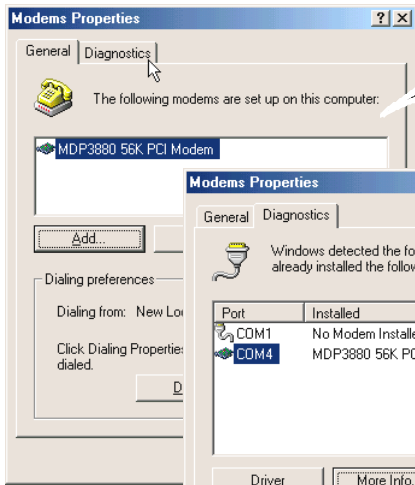
This chapter guides you on how to verify if your modem has been installed successfully. Operating system described are Windows® 95, 98, Me, Windows NT® 4.0 and 2000.

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

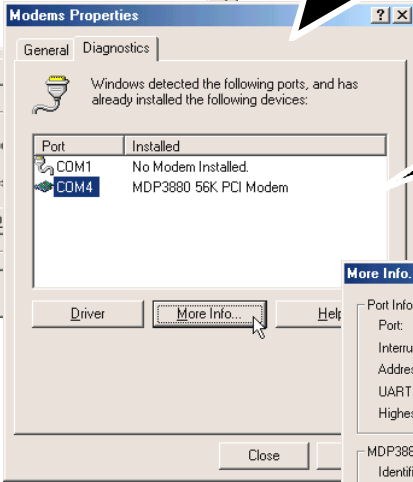


The testing procedures for Windows® 95, 98 and Me are similar. The following illustrates based on Windows® Me. For any dissimilarities, follow closely to the instructions as prompted on your PC !

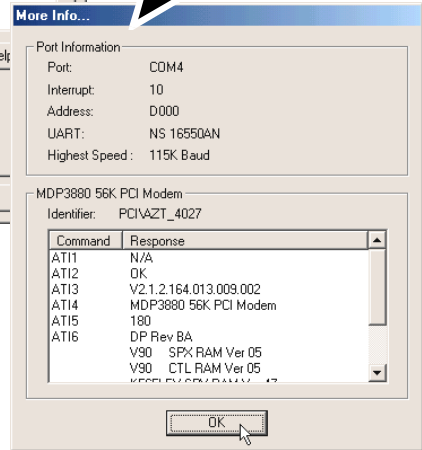
1. From your Windows taskbar, click **Start** > **Settings** > **Control Panel**. Double-click on the **Modems** icon.



2. Click the **Diagnostics** tab.



3. Select the **COM** Port that your modem is connected to.



4. Click on the **More Info...** button.
The **More Info...** window will appear, showing a list of AT commands. This means that your modem is now ready to run. Click **OK**.

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

(For modems that are 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, refer to **Troubleshooting Guide** “*While testing the modem, the system gave an error message stating that it was unable to open the COM Port*”)

This completes the verification of your modem driver in Windows® 95/98/Me. You may now refer to the documentation from your Internet Service Provider (ISP) on how to establish the connection to the Internet.

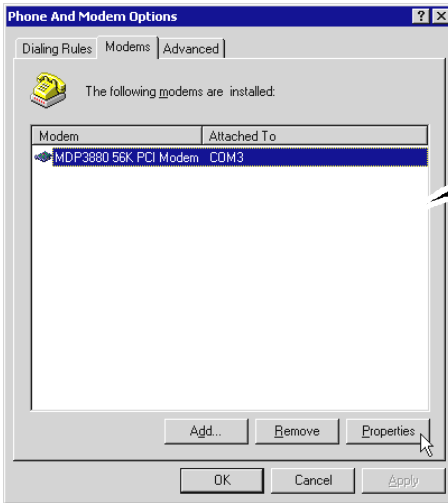
5.2 Verifying your Modem - For Windows NT® 4.0

1. From the Windows NT® taskbar, click **Start** > **Programs** > **Accessories** > **HyperTerminal** > **HyperTerminal**.
2. From the following dialog box, key in the required information and click **Close**.
3. Enter any name for the new connection and click **OK**.
4. Enter any phone number in the dialog box. Make sure that the **MDP3880 56K PCI Modem** is selected and click **OK**.
5. At the following prompt, click **Cancel**.
6. At the following window, type "**AT**" and press **Enter**. You should see a response, **OK**.

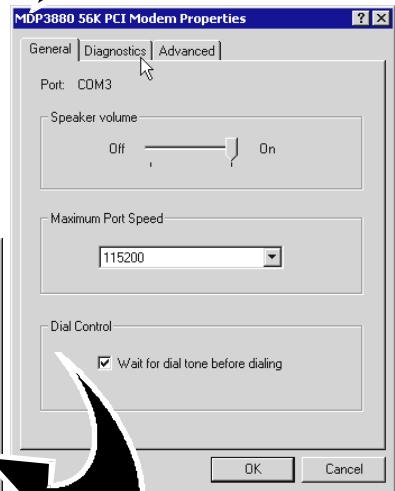
This completes the verification of your modem driver in Windows NT® 4.0. You may now refer to the documentation from your Internet Service Provider (ISP) on how to establish the connection to the Internet.

5.3 Verifying Your Modem - For Windows® 2000

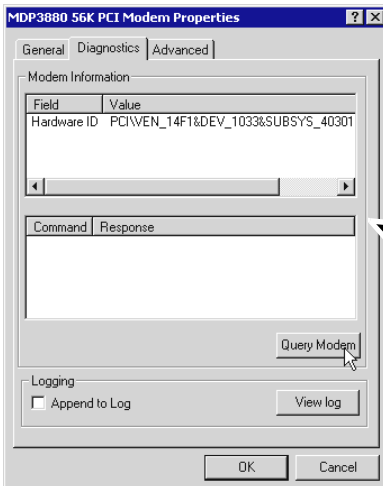
1. From the Windows taskbar, click **Start** > **Settings** > **Control Panel**. Double-click on the **Phone and Modem Options** icon.
2. Click the **Modems** tab. Click your newly installed **MDP3880 56K PCI Modem** and click **Properties**.



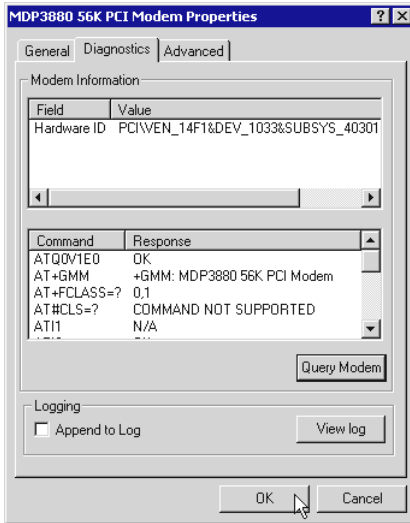
4. Select the **Diagnostics** tab.



5. Click on the **Query Modem** button.



A list of AT commands will be displayed. This means that your modem is successfully installed. Click **OK**.



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

(For modems that are 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, refer to [Troubleshooting Guide](#) “*While testing the modem, the system gave an error message stating that it was unable to open the COM Port*”.)

This completes the verification of your modem driver in Windows NT® 4.0. You may now refer to the documentation from your Internet Service Provider (ISP) on how to establish the connection to the Internet.

Chapter 6...

Uninstalling Your Modem Driver

6.1 Uninstalling Your Modem Driver • For Windows® 95 / 98 / NT® 4.0

1. From the Windows taskbar, click **Start** > **Settings** > **Control Panel**. Double-click on the **Add/Remove Programs** icon.
2. Select **MDP3880 56K PCI Modem** and click **Add/Remove**.
3. Follow any on-screen instructions to complete the uninstallation process.

6.2 Uninstalling Your Modem Driver - For Windows® Me

1. From your Windows desktop, right-click on the **My Computer** icon and select **Properties**.
2. Click **Device Manager** tab and double-click **Modem**.
3. Select **MDP3880 56K PCI Modem** and click **Remove**.
4. Again from the **Device Manager** tab, double-click **HCFMODEMWDM**.
5. Select **MDP3880 PCI Modem Enumerator** and click **Remove**.
6. Follow any on-screen instructions to complete the uninstallation process.

6.3 Uninstalling Your Modem Driver - For Windows® 2000

1. From your Windows desktop, right-click on the **My Computer** icon and select **Properties**.
2. Select **Hardware** tab and click **Device Manager** button.
3. Double-click on **Modem**. Right-click on **MDP3880 56K PCI Modem** and select **uninstall**.
4. Follow any on-screen instructions to complete the uninstallation process.

Appendix A...

Frequently Asked Questions

This chapter provides the answers to 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).



Why am I not able to connect at 56Kbps ?

You will not get exactly 56Kbps due to:



1. The quality of your phone line

Like all data connection, the connection is sensitive to the amount of noise present in the phone line. Only very “clean” phone line can get high connection rate or throughput. If you hear faint hum over the phone, you properly have a “noisy” phone line. You may want to check with your phone company to improve the quality of your line or change to a new line.

2. Interference

If your phone line is connected to the modem via a surge protector, try it without the surge protector. Most surge protector will interfere with modem communications.



How do I see the resources listings ?

Windows 95/98/Me

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

The IRQ (Interrupt) and memory range (Address) used by the modem will be listed.

Windows NT 4.0

1. From the Windows taskbar, click **Start > Programs > Administrative Tools (Common) > Windows NT Diagnostics**.
2. From the Diagnostics Window, click **Resources** tab followed by **Devices** tab.
3. Double-click **Serial**.

The IRQ and memory range used by the modem will be listed.

(The COM Port and IRQ are assigned automatically by the Operating System during installation. Both the COM Port and IRQ settings cannot be changed by the user)

Windows 2000

1. From your Windows desktop, right-click on **My Computer** icon and click **Properties**.
2. Select the **Hardware** tab and click **Device Manager** button.
3. Double-click on the **Modems** device. Right-click on your modem model and select **Properties**.
4. Select the **Resources** tab.

The IRQ (Interrupt) and memory range (Address) used by the modem will be listed.



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:

Windows 95/98

1. From Windows® 95/98 desktop, right-click on **My Computer** icon and click **Properties**.
2. Click **Device Manager** tab and double-click on **Modem**.
3. Select your product model and click **Properties**.
4. Click **Country Select** tab and select your current local country and click **OK**.

Windows Me

1. From the Windows taskbar, click **Start > Settings > Control Panel**. Double-click on the **Telephony** icon.
2. From **My Location** tab, click on the drop-down list from the field '**I am in this country/region**'. Select your current local country and click **OK**.

Windows NT 4.0

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

Windows 2000

1. From your Windows taskbar, click **Start > Settings > Control Panel**. Double-click on the **Phone and Modem Options** icon.
2. From the **Dialing Rules** tab, click **Edit**.
3. At the **Country/region** field, select your current local country from the drop-down list. Click **Apply**, followed by **OK**.

Appendix B...

Troubleshooting Guide

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



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 connection of your telephone cable. Make sure that you have it connected as shown in [section 3.2 - Connecting Your Modem for Internet Access](#). If necessary, plug out and plug in the telephone cable again.



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 Internet Service Provider.



Windows does not detect my modem when I power on my system for driver installation. (For Windows® 95/98/Me/2000)



Make sure your modem is fully inserted into the **PCI Bus slot**. (See [section 3.1 - Installing Your Modem](#).)

For Windows® 2000 users, you may also refer to the solution for question 'New Hardware Found Wizard' is not prompted when I power on my system for driver installation.



The Modem Board Installation Wizard says ‘the driver could not be installed’. (For Windows NT® 4.0)



Make sure your modem is fully inserted into the **PCI Bus slot**. (See [section 3.1 - Installing Your Modem](#).)



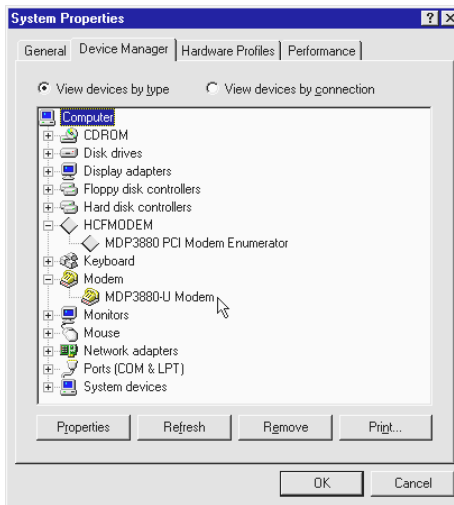
My system does not detect my modem after my modem driver installation.



Carry out the following:

Windows 95/98/Me

1. From the Windows taskbar, click **Start > Settings > Control Panel**. Double-click the **System** icon.
2. Click the **Device Manager** tab.



3. Double-click on the **Modem** device. Check whether there is any yellow exclamation mark (error) on your modem. If yes, select the modem and click **Remove**. Re-install the modem driver ([Chapter 3 - Installing Your Modem Driver](#)).

Windows NT 4.0

Not applicable.

Windows 2000

1. From your Windows taskbar, click **Start** > **Settings** > **Control Panel**. Double-click **System** icon.
2. Select the **Hardware** tab and click **Device Manager** button.
3. Double-click on the **Modem** device. Check whether there is any yellow exclamation mark (error) on your modem. If yes, select the modem and click **Remove**. Re-install the modem driver (**Chapter 3 - Installing Your Modem Driver**).



'New Hardware Found Wizard' is not prompted when I power on my system for driver installation. (For Windows® 2000 only)



1. From your Windows taskbar, click **Start** > **Settings** > **Control Panel**. Double-click **System** icon.
2. Select the **Hardware** tab and click **Device Manager** button.
3. From the list of devices, double-click on **Modem**. You will see **HCF 56K PCI Modem** listed. Double-click on it and select the **Driver** tab.
4. Place your **Installation CD** into the CD-ROM drive and click the **Update Driver...** button.
5. From the **Update Device Driver Wizard**, click **Next**.
6. Accept the default settings and click **Next**.
7. Specify your driver location and click **Next**.
8. Click **Next** again to begin the driver installation.
9. To complete the installation, click **Finish** when prompted.



While testing the modem, the system gave an error message saying it was unable to open the COM Port. (For Windows® 95/98/Me)



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:

1. From the Windows taskbar, click **Start** > **Settings** > **Control Panel**. Double-click the **System** icon.
2. Click the **Device Manager** tab.
3. Check whether there is any yellow exclamation mark on the modem device. If yes, select the modem and click **Remove** to remove the modem device. Re-install your modem driver as described in **Chapter 4 - Installing Your Modem Driver**.



I have done a diagnostics test of my modem and there is nothing wrong with it. However when I use a communications software, there seems to be an error. Why ?



Try to use **Microsoft Fax** to fax a document. If the sending of a fax is successful, then the **fax function** of your modem is working fine.

Try to use **HyperTerminal** to dial up to a BBS. If the connection is successful, then the **data function** of your modem is working fine.

Try exiting the communications software and running it again.

Appendix C...

Technical Specifications

This chapter contains the technical information on your card. It may be more useful for technically inclined users.

C.1 Drivers support

- Windows® 95, 98, Me
- Windows NT® 4.0, 2000
- TAPI compliant

C.2 Integrated 56000BPS Data/Fax Modem

- **Modem Standards**
V.90 56Kbps, K56Flex 56Kbps, V.34+ , V.34, V.32bis, V.32, V.23, V.22bis, V.22 A/B, V.21, Bell 212A, Bell 103
- **Modem Data Rates (DCE)**
56Kbps (download speed from Internet Service Provider)
33.6Kbps — 300bps
- **Data Throughput (DTE)**
Up to 115.2Kbps (with compression)
- **Error Correction**
V.42 and MNP2-4

- **Data Compression**
V.42bis and MNP5
- **Fax Modulations**
V.17, V.29, V.27ter, V21 channel 2 group 3 fax mode
- **PCI Interface**
PCI 2.1 Interface, PCI Plug and Play, PCI Power Management (Wake-Up on Ring through PCI PME# support*)
- **Auto dialing and auto answer**
- **Line quality monitoring and re-train**
- **Tone or pulse dialing**
- **DAA Line Interface**
- **Audio Span: V.61 (Simultaneous Voice Data)**
- **Enhance AT, and Class 1 fax commands**
- **Buzzer on-board**

C.3 Interfaces

- **External Connectors**
1 x RJ11 Telephone socket for telephone line
1 x RJ11 Telephone socket for telephone handset

C.4 Environmental

- **Temperature**
Operating: 10 to 45 degrees Celsius (50 to 113 degrees Fahrenheit)
Non-Operating: -25 to 70 degrees Celsius (-13 to 158 degrees Fahrenheit)
- **Humidity**
Operating: 30% to 80% Relative Humidity (non-condensing)
Non-Operating: 10% to 95% Relative Humidity (non-condensing)



The product specifications herein are subject to change without prior notifications.

* only if your system supports ACPI Power Management