Chapter 1 Introduction

1.1 Introduction

Congratulation on choosing the internal modem. From now, you are just adding a very important communication function to your PC. This Motorola SoftModem use the most advanced chip set made by Motorola, which can increase CPU usage and reduce the cost of purchasing modems. Same as other modems, the main purpose of this product is to assist your computer to connect to others or to the Internet through the phone line. Meanwhile, it can also support fax and voice. By using the product, you not only can use your PC as a facsimile machine but also can use your PC to talk or transfer your incoming calls into voice mailbox. Thanks for purchasing our products again. We truly hope that it can meet your satisfaction.

1.2 Feature

ITU-T 56K V.90 compliant

Upgrade by software download

Windows 95/98 compliant

Plug and Play ready

PCI 2.2 compliant

Easy to use

1.3 Packing

Motorola soft modem card include the following accessories:

Internal modem card

User' s Guide

Application Software (CD-ROM)

Driver diskette (optional)

Phone cord

Chapter 2 Specification

2.1 Specification:

Line data rate	56000,54000,52000,50000,48000,46000,44000,42000,40000,38000 ,36000,34000,33600,31200,28800,26400,24000,19200,16800, 14400,12000,9600,7200,4800,2400,1200,600,300
Modem protocol	ITU-T V.90/K56 flex
	ITU-TV.34bis/V.34/V.32bis/V.32/V.22bis/V.22/V.21 /V.23
	Bell 212A/103,V.80,V8/V.8bis
Chip Set	Motorola SM56
PC Interface	PCI 2.2 compliant
Fax Compatibility	14.4k bps Send/Receiver G3 compatible, V.17, V.27ter, V.29
Error Correction	MNP2-4,V.42 LAPM
Data Compression	MNP 5,V.42bis
Max. DTE data rate	115200bps
Modem operation	Dial up
Speaker phone	Full duplex speaker phone with acoustic and line echo cancellation
Audio Monitoring	Mini-speaker and Programming Volume control
Line interface	RJ-11 Line/Phone
Software Compatibility	AT command set Compatible

2.2 System Requirement

|	
CPU	Pentium CPU 233 or above
RAM	32M RAM or above
HDD	20 MB free space or above
Interface	1 spare PCI slot
Operation System	Windows 95/98 Windows NT 4.0
Telecom	POTS Line with RJ-11 interface

Chapter 3 Hardware Installation

3.1 Install the PCI MODEM Card in Your Computer

1. Shut down your computer and turn it off.

2. Remove the upper case of your computer. Before removing it, please read the safety procedures described in your computer's reference manual carefully.

3. Insert the modem card in an empty PCI slot and hold the card at the top edge, make sure to press it firmly.

4. Tighten the retaining screw and put the upper case back.

3.2 Connect the Modem to the telephone line

1. Plug one end of telephone cord into the modem's "*LINE*" jack, which is shown on your modem's bracket labeled "*LINE*".

2. Insert the other end of the cord into the telephone wall socket.

3. If you want to use the telephone on the same line as the modem, please plug the cable of telephone into the "*PHONE*" jack, which is next to the "*LINE*" jack.
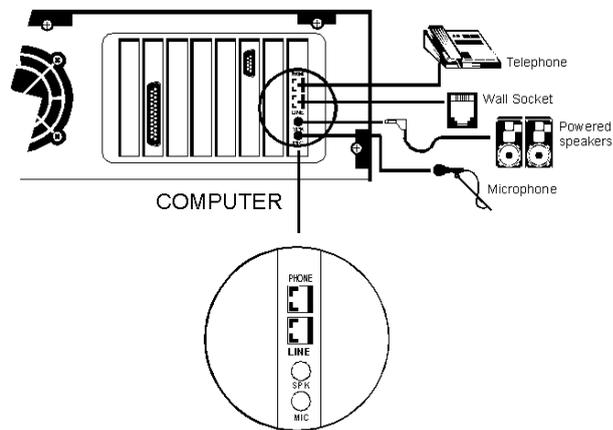
Chapter 4 Windows 95

4.1 Driver Installation

1. Turn on your computer after completing the hardware installation of the modem.
2. Windows can automatically detect the modem card and the message of " *PCI communication Device*" will appear in the Windows Wizard.
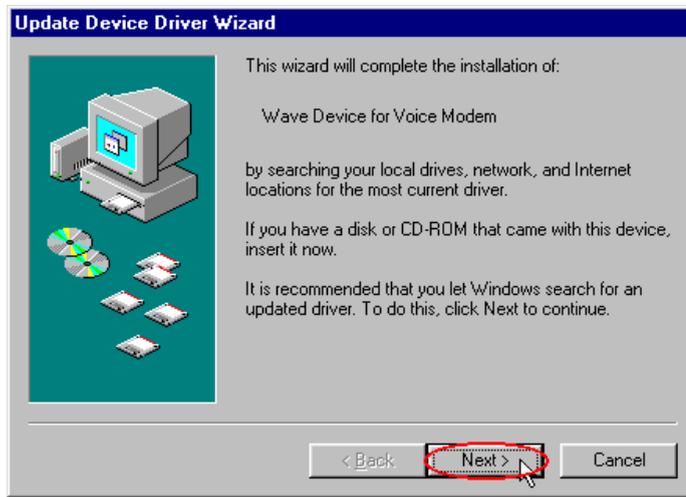3. Click *Next*
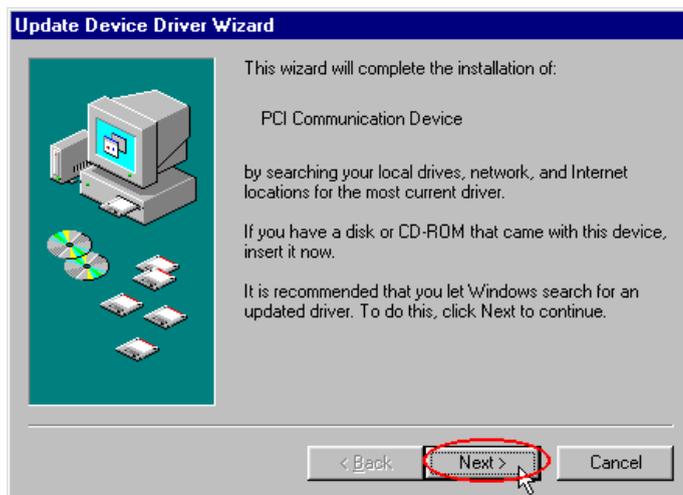
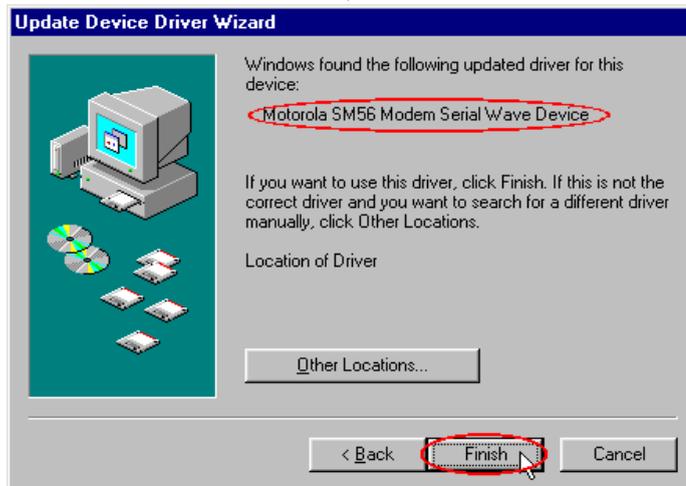4. Windows will find *Motorola SM56 PCI Speakerphone modem*, then click *Next*.

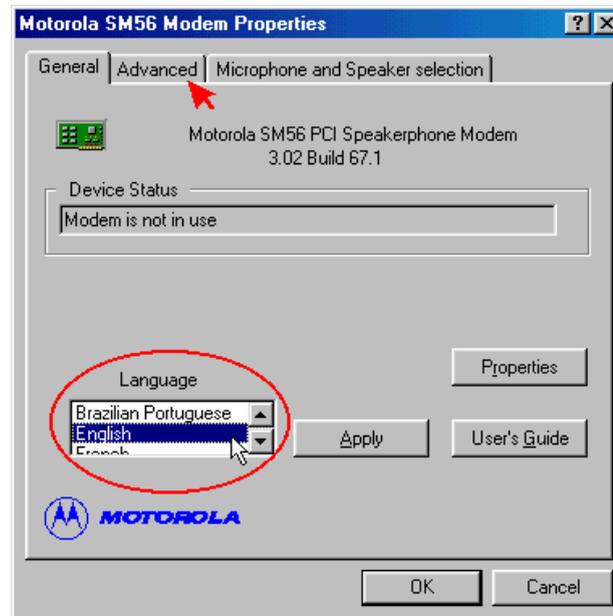***5.*** Use Browse to select or type in the CD-ROM driver (example: E::\ or F:\)in the box, then click *OK.*

4
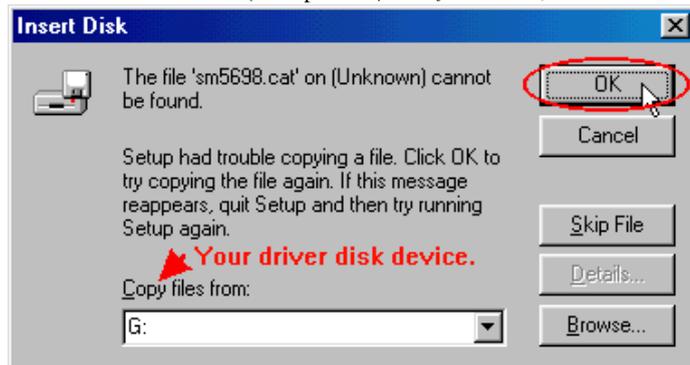
6. Click *Next*.

7. Windows will find *Motorola SM56 Modem Serial Wave Device*, then click *Finish* .

8. Please go to *Start>Settings>Control Panel* and double–click on the **Modems SM56 PCI Speakepho…** icon.

9. Select *Language*, and click *Advanced*.
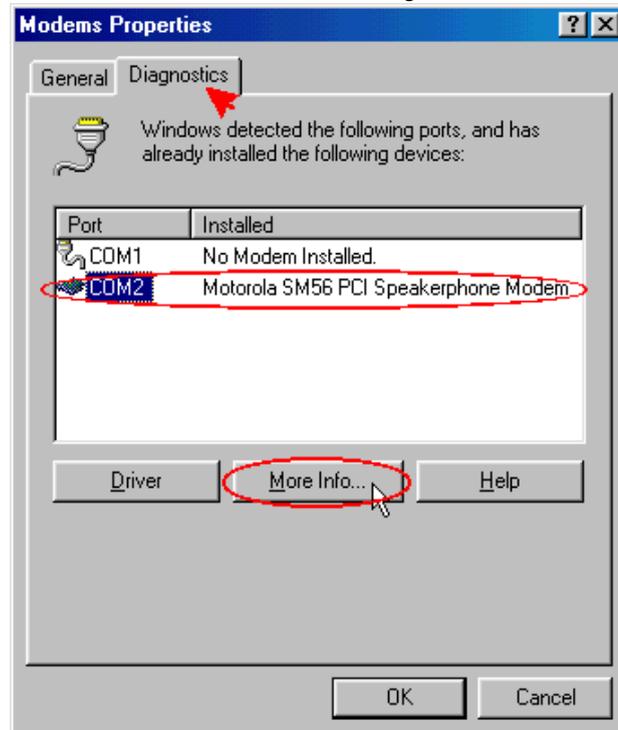

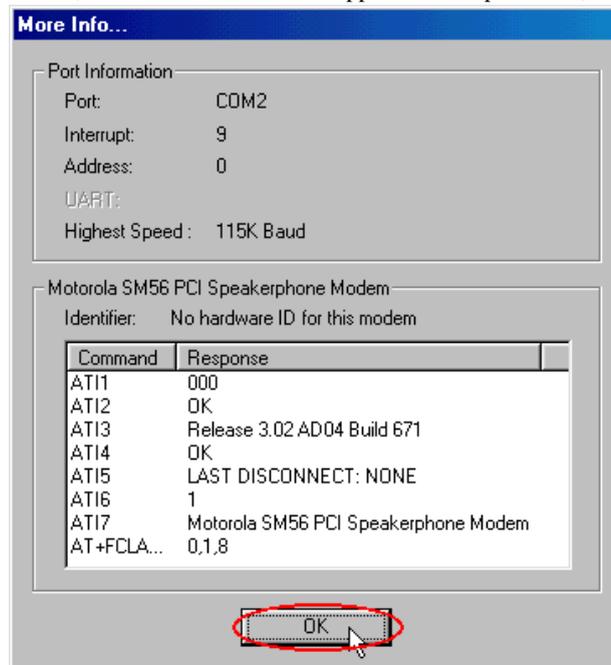10. Select *Country* and *COM Port Setting*, click *OK*.

6
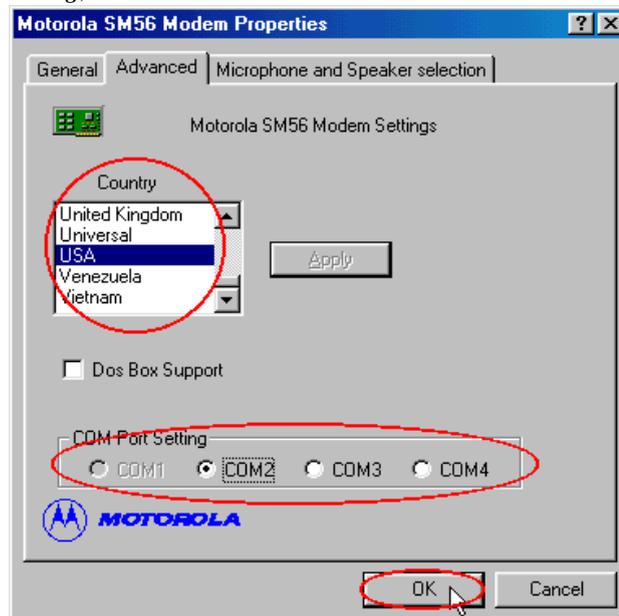
4.2 Diagnostic

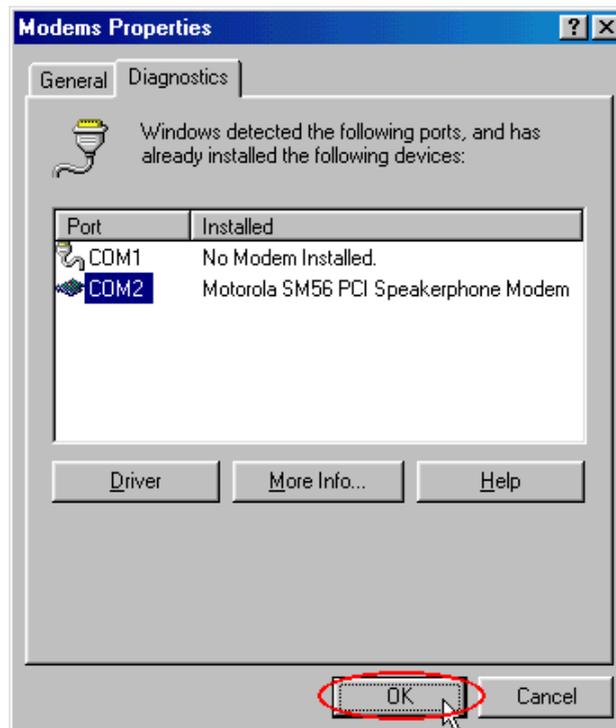1. Please go to **Start>Settings>Control Panel** and double–click on the **Modems** icon.

2. Click on **COM port** (example: **COM1** or **COM2**) that the modem is setting, then click on the **More Infor…** button.

3. If, after communicating with the modem, the AT-Command screen appears and response *OK*, that mean the modem is working properly.

More Info...

Port Information
Port:	COM2
Interrupt:	9
Address:	0
UART:	
Highest Speed :	115K Baud

Motorola SM56 PCI Speakerphone Modem
Identifier: No hardware ID for this modem

Command	Response
ATI1	000
ATI2	OK
ATI3	Release 3.02 AD04 Build 671
ATI4	OK
ATI5	LAST DISCONNECT: NONE
ATI6	1
ATI7	Motorola SM56 PCI Speakerphone Modem
AT+FCLA...	0,1,8

OK

4. Click *OK*!

Modems Properties

General | Diagnostics

Windows detected the following ports, and has already installed the following devices:

Port	Installed
COM1	No Modem Installed.
COM2	Motorola SM56 PCI Speakerphone Modem

Driver   More Info...   Help

OK   Cancel

4.3 Driver Uninstallation

1. Go to **Control Panel** and double-click on the **Add/Remove Programs** icon.

2. Select *Motorola SM56 Modem Uninstall* and click on the **Add/Remove** button.
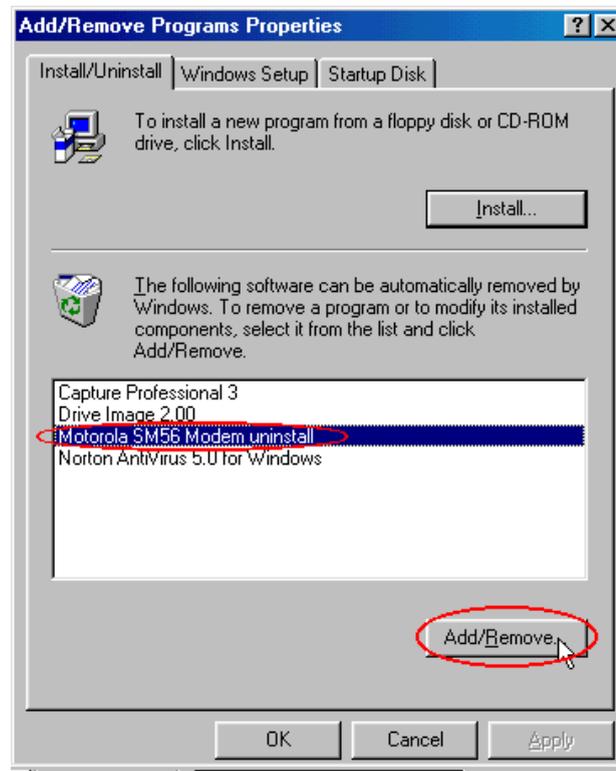
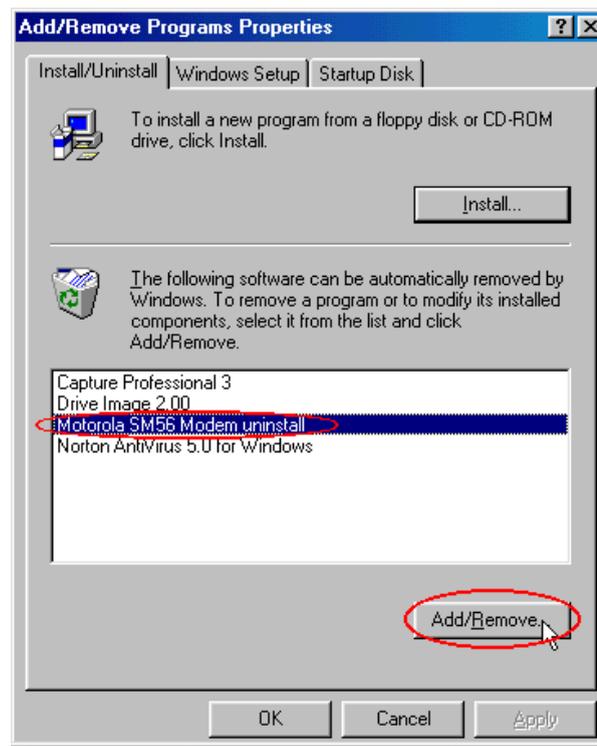3. Click **Yes**.
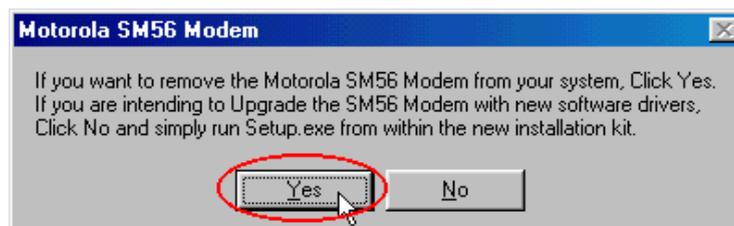
4. Click **OK** .

5. Click **OK**.

6. Then click **OK**.

Chapter 5 Windows 98

5.1 Driver Installation

1. Turn on your computer after completing the hardware installation of the modem.

2. Windows can automatically detect the modem card and the message of "*PCI communication Device*" will appear in the Windows Wizard.

3. Click *Next*

4. Click *Next*

5. Select CD-ROM driver and Floppy disk drives and Click *Next*. (If driver is disk , Please insert the disk 1 for Floppy)

6. Windows will find *Motorola SM56 PCI Speakerphone Modem*, then click **Next**.

7. Use Browse to select or type in the CD-ROM driver(example: E::\ or F:\)in the box, then click *OK*.

8. Click **OK**!

Motorola SM56 Modem

You have successfully installed the SM56 Modem.

Please see the Readme.doc and Revhist.doc files for new features, bug fixes, and troubleshooting guide.

The Modem is now ready for use.

OK

9. Click **Finish**!

Add New Hardware Wizard

Motorola SM56 PCI Speakerphone Modem

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

< Back   Finish   Cancel

10. Click **Next**.

Add New Hardware Wizard

This wizard searches for new drivers for:

Wave Device for Voice Modem

A device driver is a software program that makes a hardware device work.

< Back   Next >   Cancel

13

11. Click *Next*.

5.2 Diagnostic

1. Please go to *Start>Settings>Control Panel* and double–click on the *Modems* icon.

2. Click on *COM port* (example: COM1 or COM2) that the modem is setting, then click on the *More Info…* button.
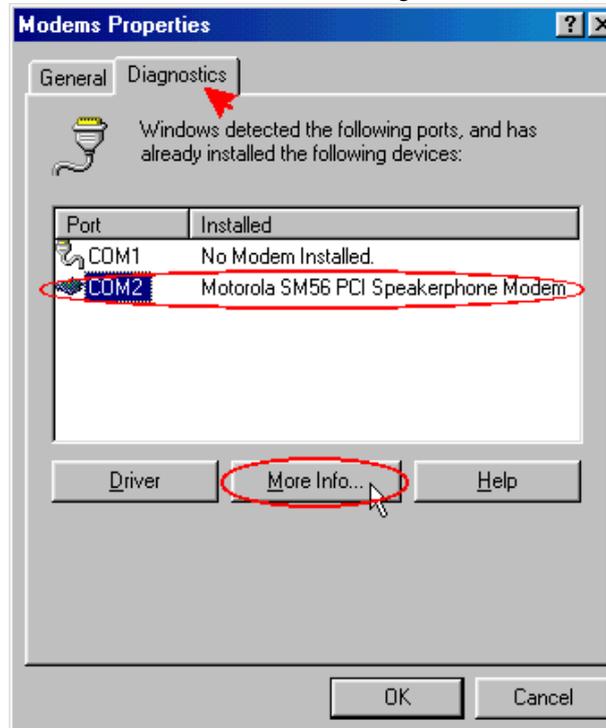
3. If, after communicating with the modem, the AT-Command screen appears and response **OK**, that mean the modem is working properly.

More Info...

Port Information
Port:	COM2
Interrupt:	9
Address:	0
UART:	
Highest Speed :	115K Baud

Motorola SM56 PCI Speakerphone Modem
Identifier: No hardware ID for this modem

Command	Response
ATI1	000
ATI2	OK
ATI3	Release 3.02 AD04 Build 671
ATI4	OK
ATI5	LAST DISCONNECT: NONE
ATI6	1
ATI7	Motorola SM56 PCI Speakerphone Modem
AT+FCLA...	0,1,8

OK
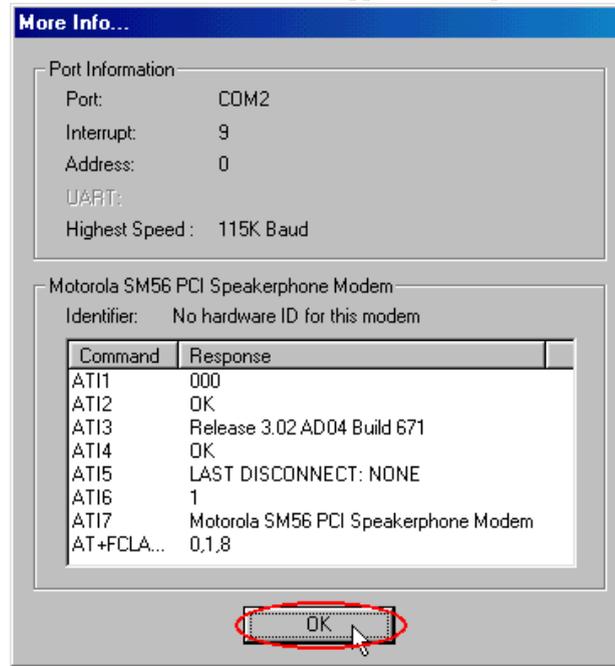
5.3 Driver Uninstallation

1. Go to **Control Panel** and double-click on the **Add/Remove Programs** icon.

2. Select *Motorola SM56 Modem Uninstall* and click on the **Add/Remove...** button.

3. Click **Yes**.
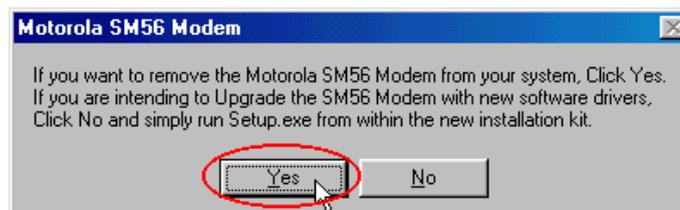
4. Click **OK**.

5. Click **OK**.

6. Then click **OK**.
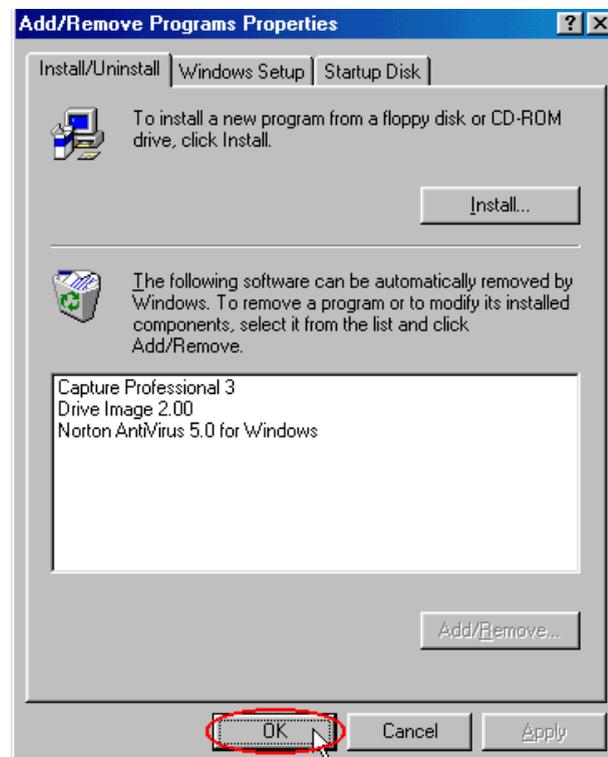
Chapter 6 Windows NT 4.0

6.1 Driver Installation

1. Please go to *Start>Settings>Control Panel*.
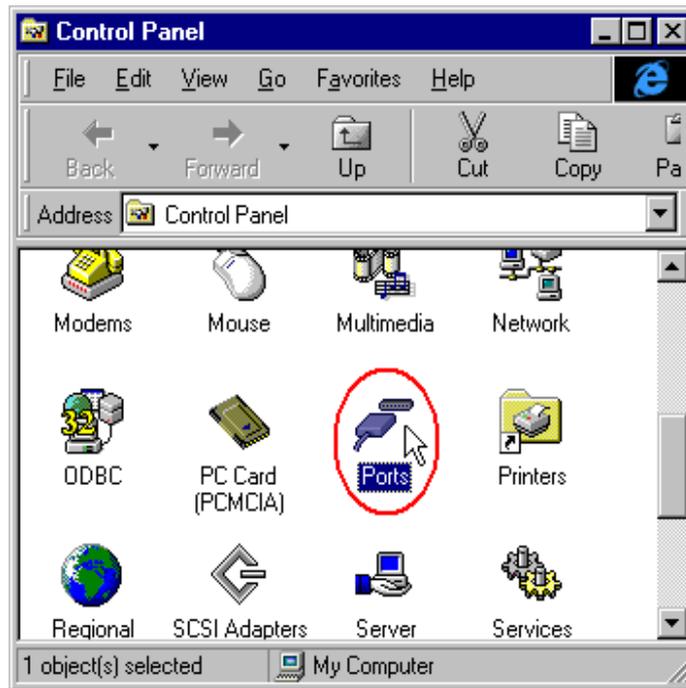
2. Click on the *Add* button.
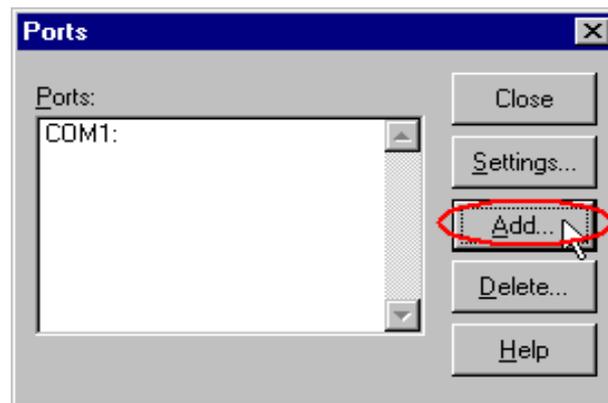
3. Setup *COM port*, I/O port and IRQ for your internal modem and click *OK*. If you modem in COM2(as example), please disable the Serial Port2 in the BIOS of the motherboard.
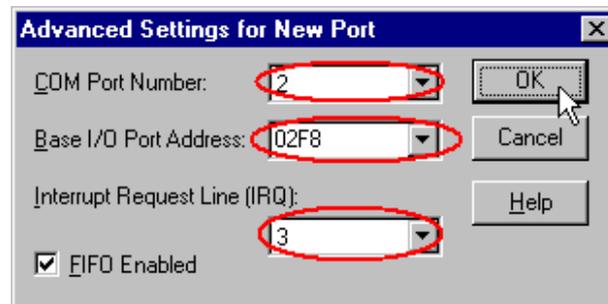
4. Click on the **Restart Now** Button to restart your Computer.

5. Please go to **Start>Settings>Control Panel** and double-click on the **Modems** icon .

6. Select *Don' t detect my modem; I will select it from a list* and click **Next**.
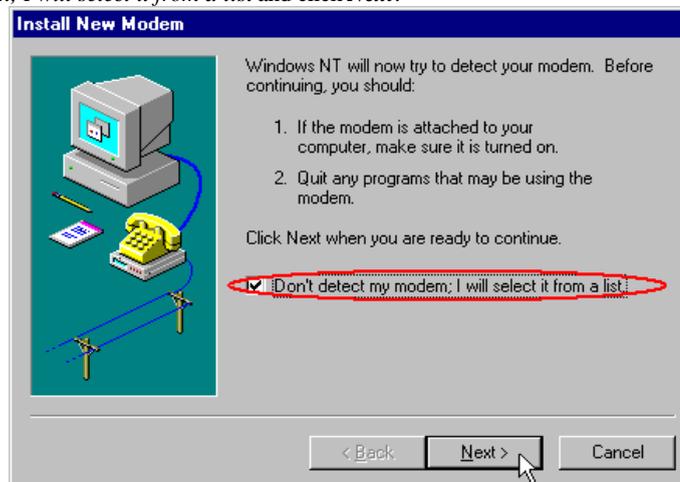
7. Click on the **Have Disk…** button.
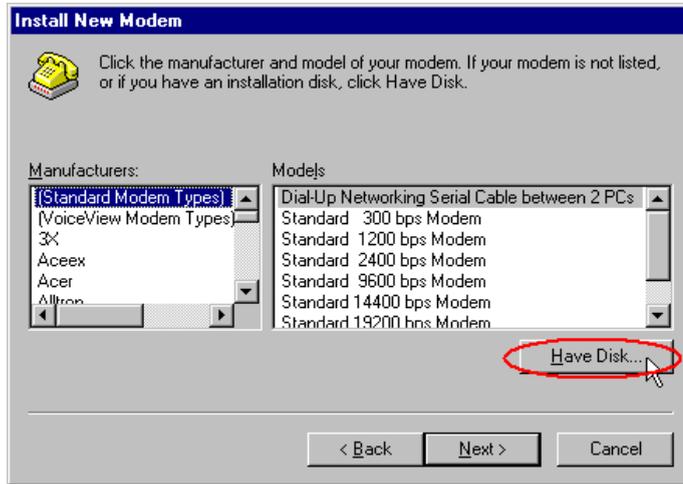
8. Key in or use Browse to select your CD-ROM driver (E:\ or F:\) and click **OK**.
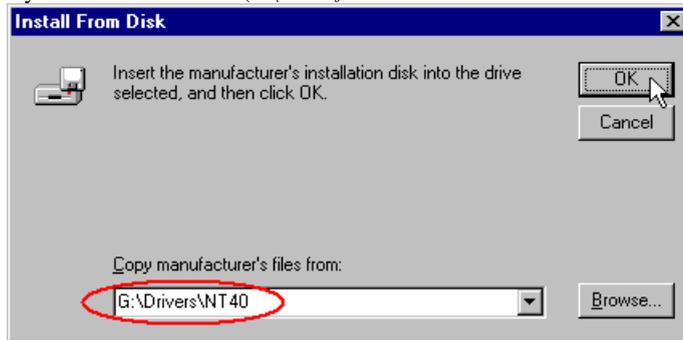
9. Click **Next**.
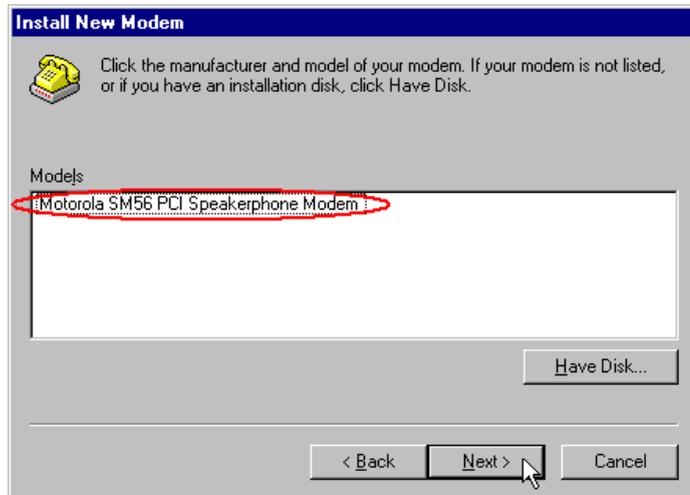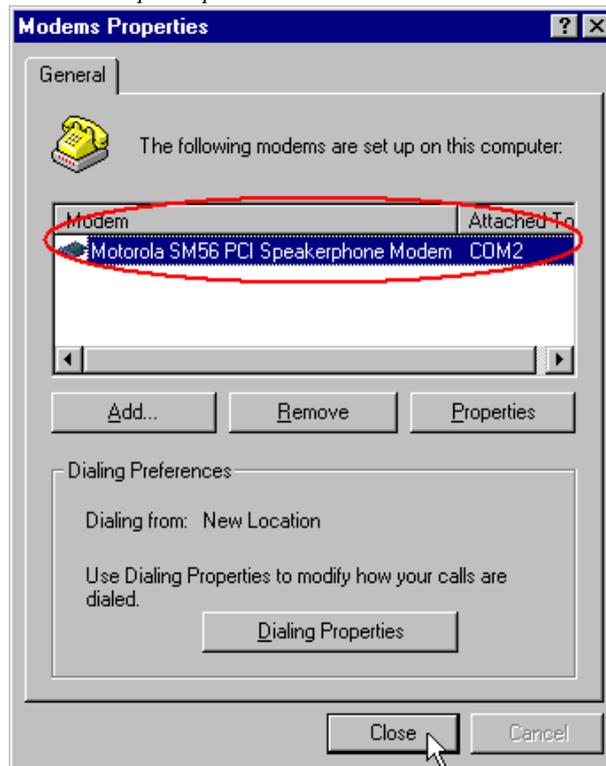

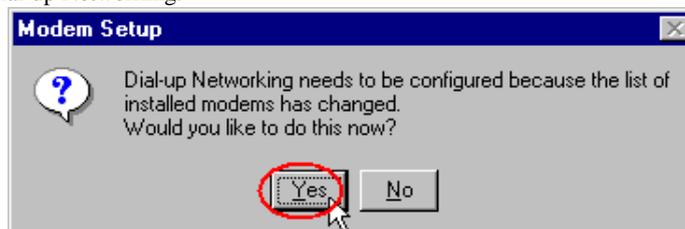10. Select **COM** port depending on your modem and click **Next**.
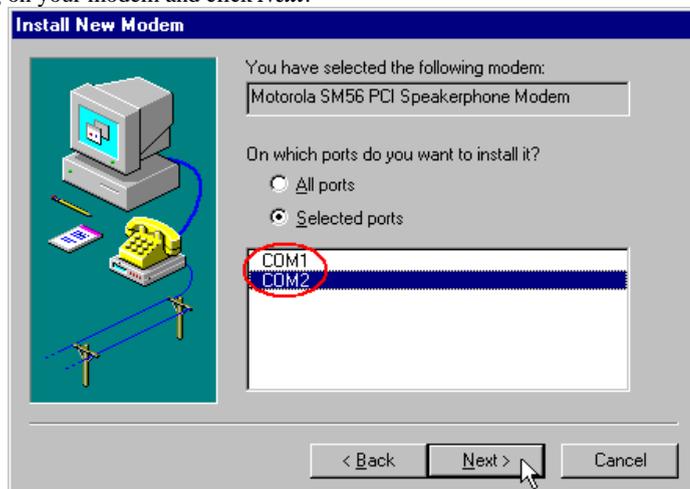
11. Click on the **Finish** Button.
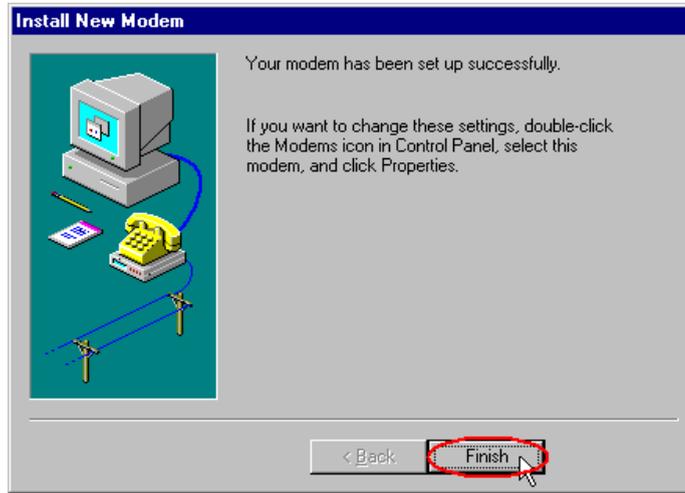
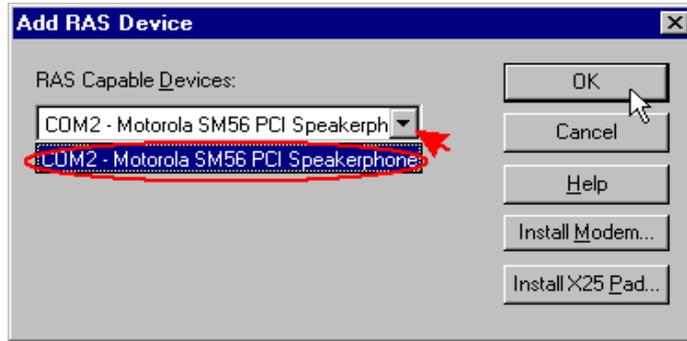12. You can see the modem: *Motorola SM56 PCI Speakerphone Modem* on *COM2* in the list and click **Close**.

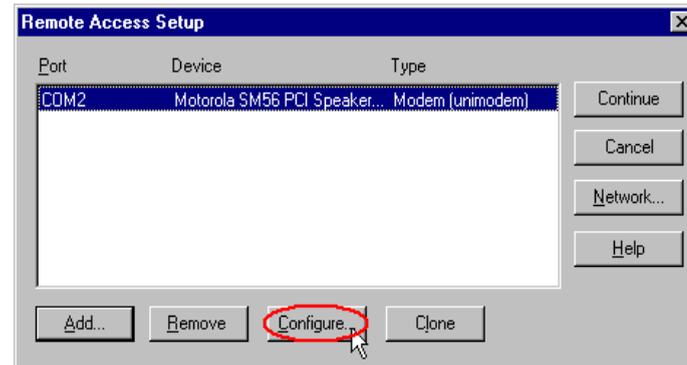13. Click *Yes* to configure the Dial-up Networking.
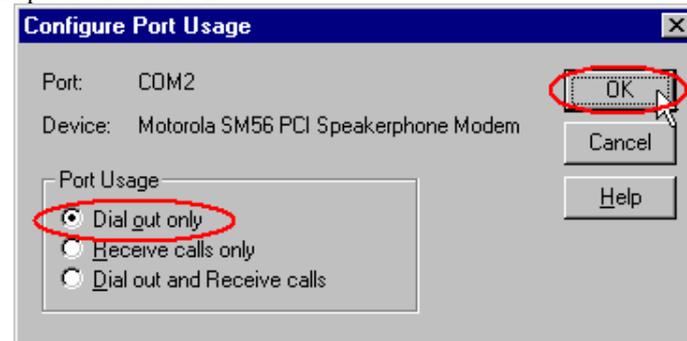
14. Click on the *Add...* button.

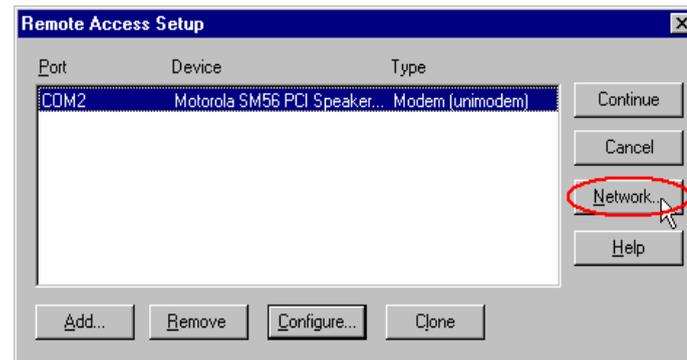15. Select *COM2 Motorola SM56 PCI Speakerphone* and click *OK*!
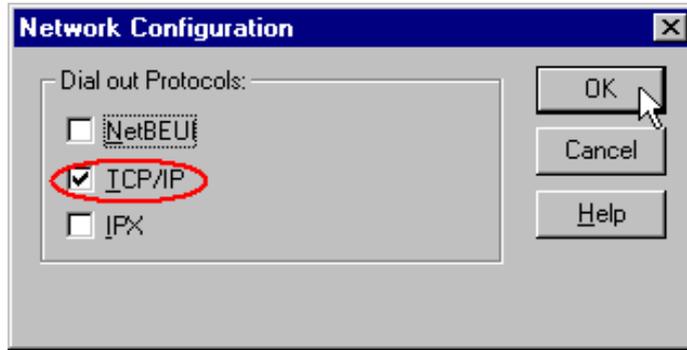

16. Click on the *Configure...* button.

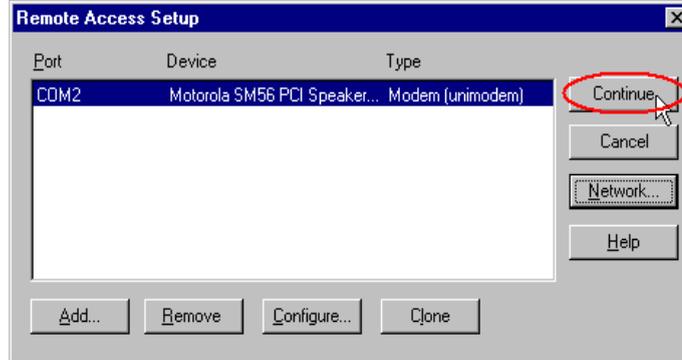17. Select *Dial out only* or other options and click *OK*.
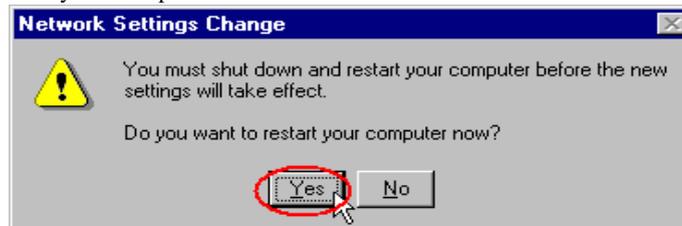

18. Click on the *Network...* Button.

19. Select *TCP/IP* and click **OK**.

Network Configuration

Dial out Protocols:
☐ NetBEUI
☑ TCP/IP
☐ IPX

OK
Cancel
Help

20. Click on the **Continue** Button.

Remote Access Setup

Port	Device	Type
COM2	Motorola SM56 PCI Speaker...	Modem (unimodem)

Continue
Cancel
Network...
Help

Add...   Remove   Configure...   Clone

21. Click on the *Yes* Button to restart your Computer.

Network Settings Change

⚠ You must shut down and restart your computer before the new settings will take effect.

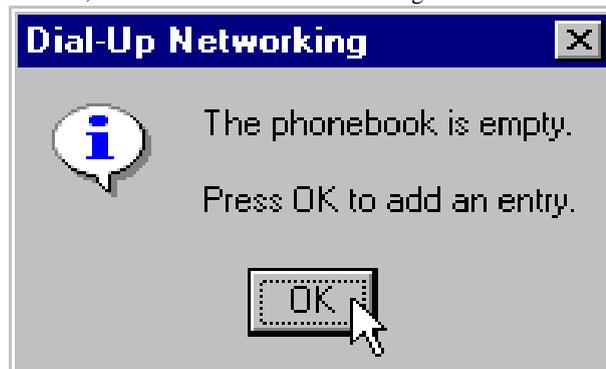Do you want to restart your computer now?

Yes   No

6.2 Setup Dial-Up Networking in Windows NT4.0

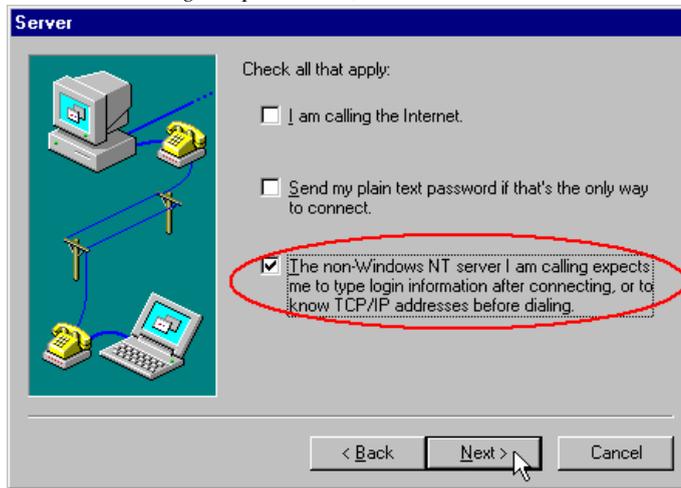1. Please go to *My Computer>Dial-Up Networking*.

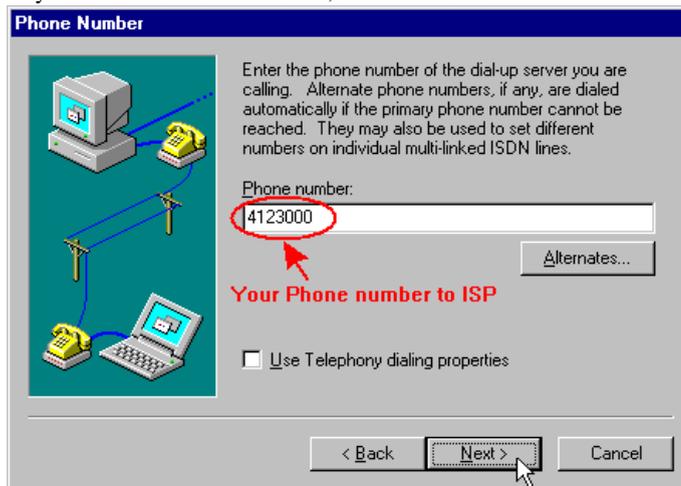2. If you never setup the Phonebook before, the window will show the message: The Phonebook is empty, then Click *OK.*

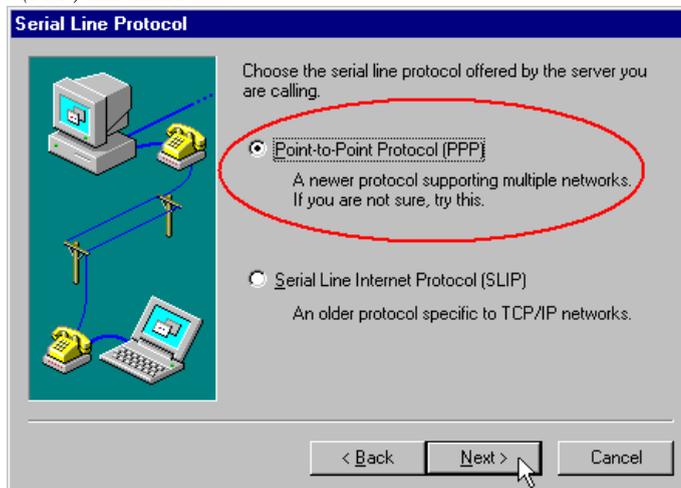**3.** Type in any name you like and click *Next*.

4. Select *The non-Windows NT server I am Calling excepts me to…*, then click **Next**.
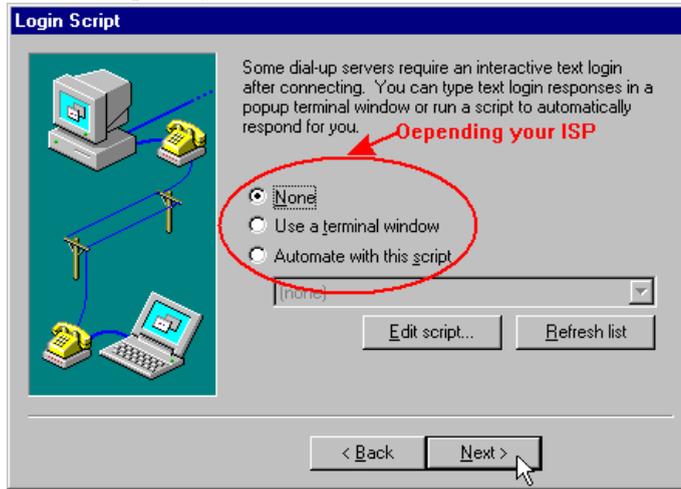

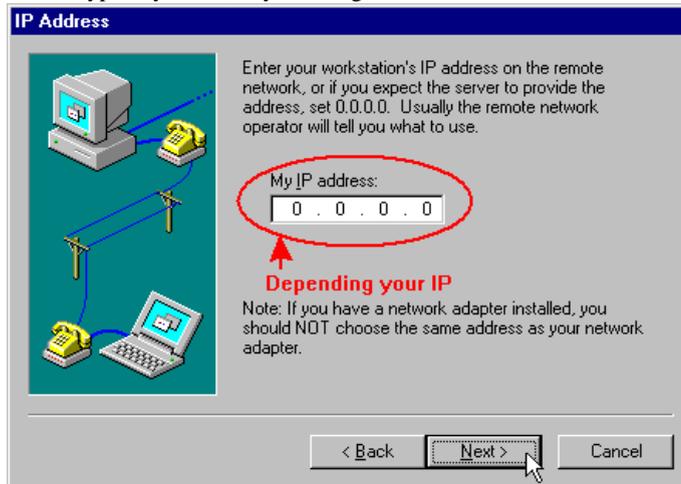5. Type in the **Phone number:** to your Internet Service Provider, then click **Next**.

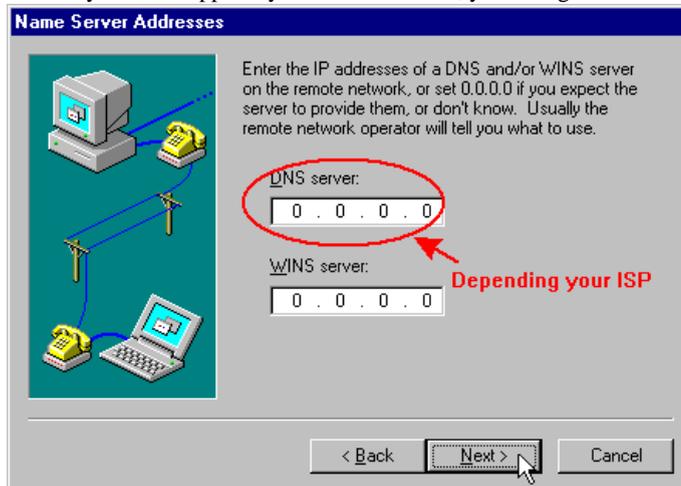6. Select *Point-to-Point Protocol (PPP)* and click **Next**.

7. Select *None* or *Use a terminal window* Depending on your ISP and click *Next*.

Login Script

Some dial-up servers require an interactive text login after connecting. You can type text login responses in a popup terminal window or run a script to automatically respond for you.   **Oepending your ISP**

- ⦿ None
- ○ Use a terminal window
- ○ Automate with this script

[none]

Edit script...   Refresh list

< Back   Next >

8. If you have fixed IP address, Please type in your IP; or you can ignore it and click *Next*.

IP Address

Enter your workstation's IP address on the remote network, or if you expect the server to provide the address, set 0.0.0.0. Usually the remote network operator will tell you what to use.

My IP address:
0 . 0 . 0 . 0

Depending your IP
Note: If you have a network adapter installed, you should NOT choose the same address as your network adapter.

< Back   Next >   Cancel
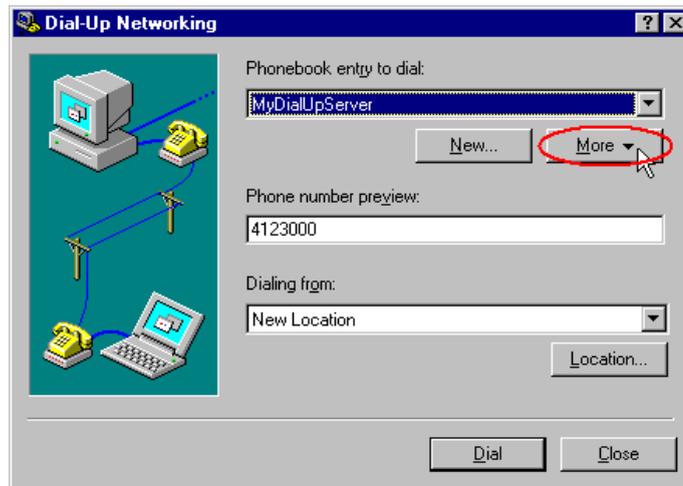
9. Type in DNS server for your ISP. If your ISP support dynamic DNS server, you can ignore it and click *Next*.

Name Server Addresses

Enter the IP addresses of a DNS and/or WINS server on the remote network, or set 0.0.0.0 if you expect the server to provide them, or don't know. Usually the remote network operator will tell you what to use.

DNS server:
0 . 0 . 0 . 0

WINS server:
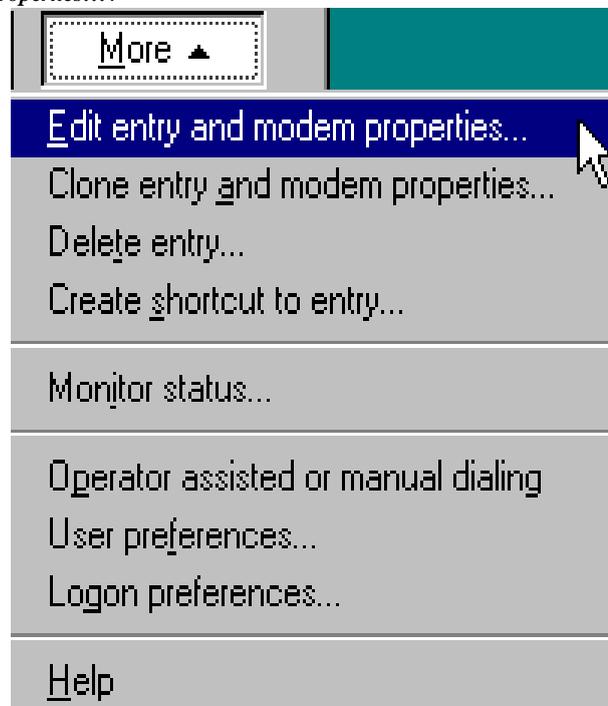0 . 0 . 0 . 0   **Depending your ISP**
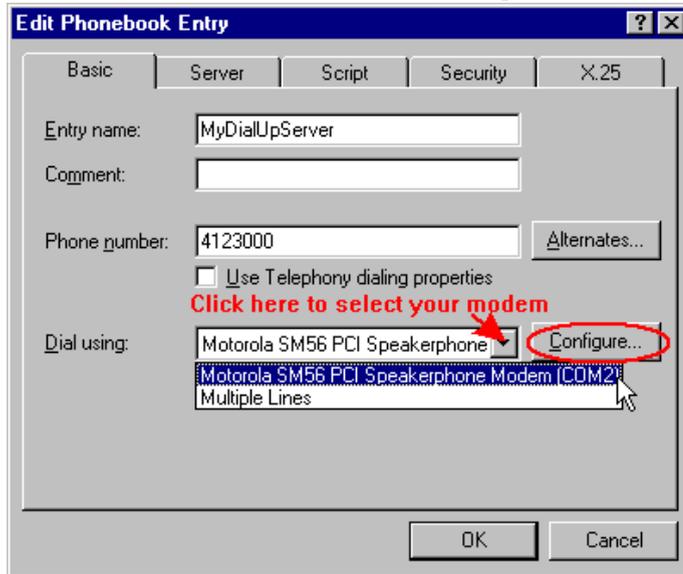
< Back   Next >   Cancel

27
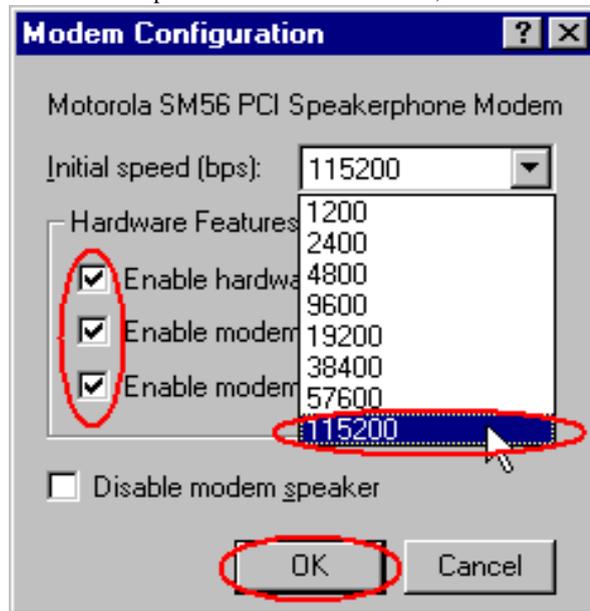
10. Click *Finish*.

11. Click on the *More* button.

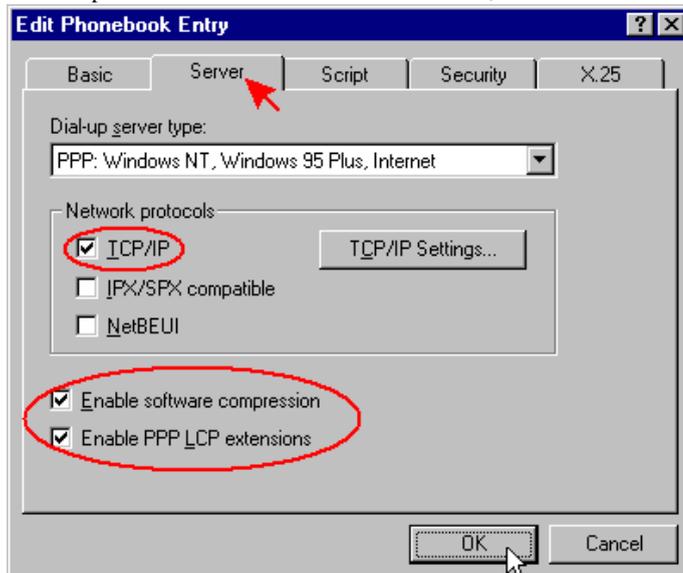12. Select *Edit entry and modem properties…*.

13. Select your modem: *Motorola SM56 PCI Speakerphone Modem(COM2)*, then press **Configure…** button.
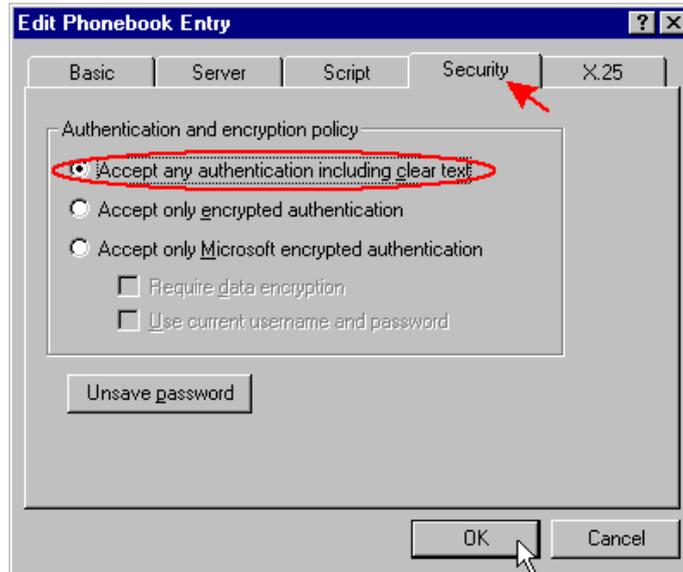

14. Select **Initial speed:115200** and select all the options for Hardware Features, then click **OK**.
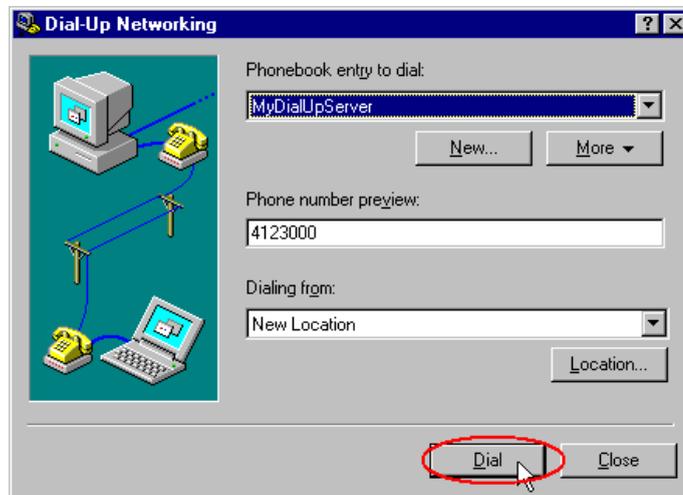

15. Select *TCP/IP*, Enable software compression and *Enable PPP LCP extensions*, then Click **OK**.

16. Select *Accept any authentication including clear text*. Then click **OK**.

17. Click **Dial**.

18 Type in your *User name* and *Password*, then click **OK**.