56,000 BPS

Data/Fax/Voice Modem

User's Guide

FCC ID : NBUF560XD-001

Federal Communications Commission (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 measures:

-- Reorient or relocate 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.

Warning: A shielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used.

Use only shielded cables to connect I/O devices to this equipment.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

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UPDATES

Updates to the products and the manual are obtainable at participating local dealers and distributors, or directly from local outlet.

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1. Introduction

Congratulations on choosing our modem for your IBM™ PC or compatible. Whether this is your first modem or you are upgrading to a faster one, this user's guide is very helpful for installation, configuration, and operation.

As a data modem, your modem operates at line speeds up to 56,000 BPS. Its automatic error correction and data compression maximize data transfer integrity and boost average data throughput up to 115,200 BPS.

Your modem also supports Group 3 send and receives rates up to 14400 BPS while operating as a fax modem.

Full TAM (Telephone Answering Machine) features, which allow you to record incoming messages and to retrieve recorded messages from remote sites.

1.1 Package Contents

Your modem package contains the following items:

- **Modem**
- **RJ-11 Phone Cord**
- **User's Guide**
- **Communication Software**
- **AC Adapter (for external modem only)**
- **RS-232 Cable (for external modem only)**

If any item is missing, please repack the unit and return the entire package to your dealer for exchange.

1.2 Data/Fax/Voice Modem Series

This User's Guide is edited for the 56,000 BPS internal/external Data/Fax/Voice modem models. Their major features are listed in ***"Table 1.1"***.

Model	*External Device*	*Internal Device*	*PnP*	*Speaker Phone*
F560I	-	16/32 bit	√	√
F560X	RS-232	-	√	√

Table 1.1 *Data/Fax/Voice Modem Series*

1.3 About This Manual

This user's guide aims to provide all the necessary information for installation, configuration and operation. It consists of the following chapters:

1. Introduction

This chapter provides general information about your modem and the organization of this user's guide.

2. Installation

This chapter describes the installation of the modem, and explains its configuration.

3. Installing Driver in Windows 95

This chapter describes how to configure your modem step by step for proper operation in Windows 95.

4. Installing Driver in Windows 98

This chapter describes how to configure your modem step by step for proper operation in Windows 98.

2. Installation

This chapter describes how to install your modem. It lists the required equipment and guides you through the step-by-step installation procedure. For software installation, please refer to the documentation that comes with your communications and/or fax software.

2.1 The Equipment that You Need

Before starting the installation, make sure that the following items are ready:

- **IBM PC or compatible with Microsoft™ Windows 3.1/95/98/NT 4.0 or higher.**
- **A telephone outlet with a modular-type connector (RJ-11) jack.**

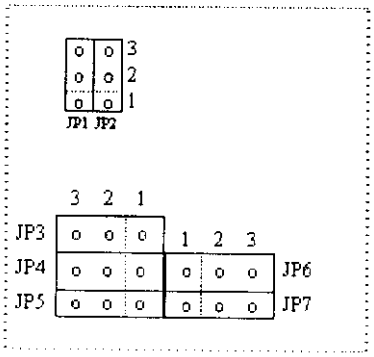
※ This outlet with RJ-11 jack is widely used for single-line telephone service in homes and offices. Usually, it is connected to telephones or fax machines through RJ-11 phone cord.

2.2 Installing the Internal Modem Board

The internal modems are all ISA add-on boards that are inserted directly into any available expansion slot on the motherboard inside your computer. Before you start the installation, please read the following section for proper jumper settings.

2.2-1 Jumper Settings

Plug-and-Play is compliant by default. If your system BIOS does not support Plug-and-Play feature, the locations of the jumpers are clearly mark on the modem card. For specific settings, please contact local service desk. The followings are the jumper setting for Internal Data/Fax/Voice Modem card.



IRQ	JP1	JP2
3	1,2	
4	2,3	
10		1,2
11		2,3

I/O	JP6	JP7
3F8	1,2	1,2
2F8	1,2	2,3
3E8		1,2
2E8		2,3

	PnP	NON-PnP
JP3	1,2	2,3
JP4	1,2	2,3
JP5	1,2	2,3

2.2-2 Inserting the Internal Modem Board

Follow these steps to install your internal modem card.

1. Turn off your computer and unplug its power cable.

2. Remove the system cover to access the expansion slots. ***(See Figure 2-1)***

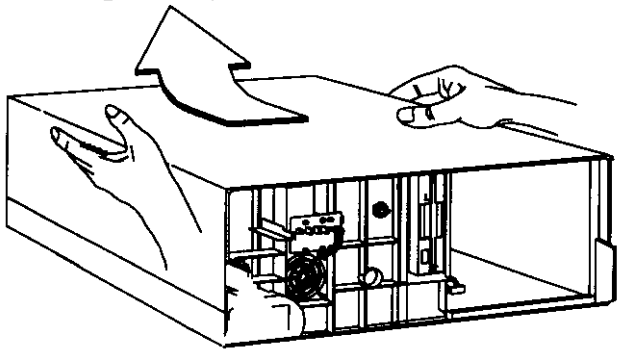


Figure 2-1 *Remove the system cover*

Touch the metal computer frame with one hand to discharge any static electricity that you may have accumulated.

3. Remove the metal bracket from an empty 16-bit expansion slot (ISA slot). Save the screw to secure the card. ***(See Figure 2-2)***

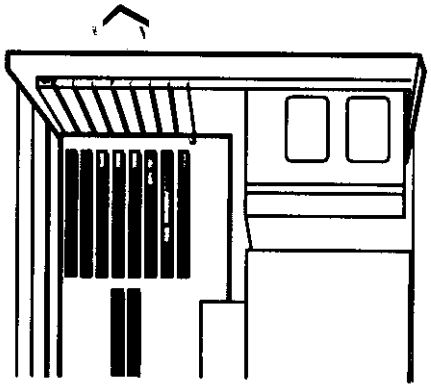


Figure 2-2

Remove the metal bracket from a ISA slot

4. Insert the modem into the slot and push it down and make sure that the card is seated firmly into the slot. ***(See Figure 2-3)***

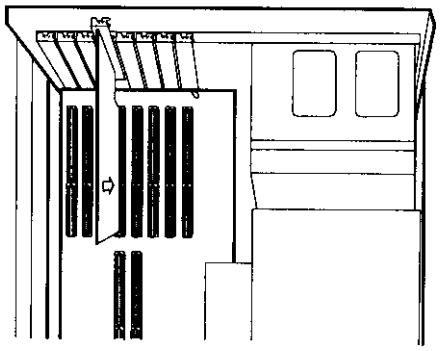


Figure 2-3

Insert the modem into the slot

5. Use the screw that you removed earlier to secure the card.
6. Replace the system cover.
7. Plug one end of the supplied phone cord into the jack labeled **LINE** on the bracket of your modem and plug the other end into a modular phone wall jack. ***(See Figure 2-4)***

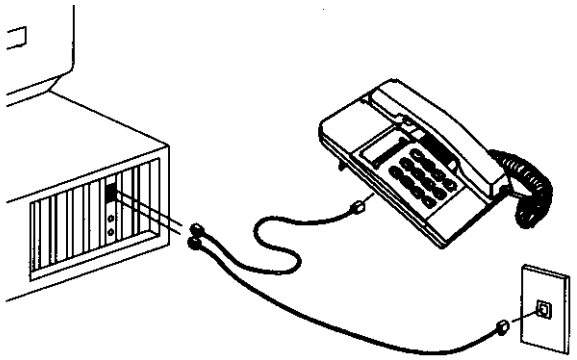


Figure 2-4

Connecting your phone and the telephone outlet

8. Connect your phone to the jack labeled **PHONE** on the bracket of your modem.
9. Plug your microphone into the jack labeled **MIC** on the bracket of your modem.
10. Plug the speaker's plug into the jack labeled **SPK** on the bracket of your modem. Your can use your speakers to hear the recorded messages.
11. Hardware installation is now completed. Please refer to the **Testing Your Modem** section to verify if your modem works properly.

2.3 Installing the External Modem

Before you start the installation, please make sure that power to both your modem and the computer are turned off. An external modem is off when all the front-panel indicator lights are not lit.

2.3-1 LED Indicators

These LED indicators on the modem indicate the modem operating status. Please refer to ***"Table 2.1"*** for more detail information.

HS	High Speed	This LED light is on when the modem works at a speed of 2400 BPS or higher.
AA	Auto Answer	This LED light is on when the modem is auto-answering the incoming call.
CD	Carrier Detect	This LED light is on when the modem detects a carrier sent by the remote modem.
OH	Off Hook	This LED light is on when the modem is off-hook.
SD	Send Data	This LED flashes when the computer is sending data to the modem.
RD	Receive Data	This LED flashes when the computer is receiving data from the modem.
TR	Terminal Ready	This LED light is on when the computer is ready.
MR	Modem Ready	This LED light is on when the modem power is turned on.

Table 2.1 *Description of LED Indicators*

2.3-2 Connecting the RS-232 Cable

1. Plug the male connector on the RS-232 cable that comes with your package to the connector labeled **RS-232C** on the back panel of the modem, as illustrated in ***"Figure 2-5"***.
2. Plug the opposite end of the cable into the RS-232 connector on the rear panel of your computer.
3. Secure the connector screws at both ends of the RS-232 cable.

2.3-3 Connecting Your Telephone

4. Unplug your telephone from the wall jack by pressing the protruding tab toward the plastic connector and removing the connector from the telephone service outlet.
5. Take the supplied telephone cord and plug one end into the modem telephone connector labeled **LINE**, which is a RJ-11 jack on the rear panel of the external modem.
6. Plug the other end of the telephone cord into the telephone service outlet on the wall.

2.3-4 Connecting Other Peripherals

7. The connector labeled **MIC** on the modem is for recording outgoing messages. If you have a microphone, plug your microphone to this **MIC** connector. In addition, the **SPK** jack on the external modem is for connecting external speakers.

2.3-5 Connecting the AC Power Adapter

8. Plug the small power cord plug into the connector labeled **AC** on the modem.
9. Plug the power adapter to the power socket on the wall.

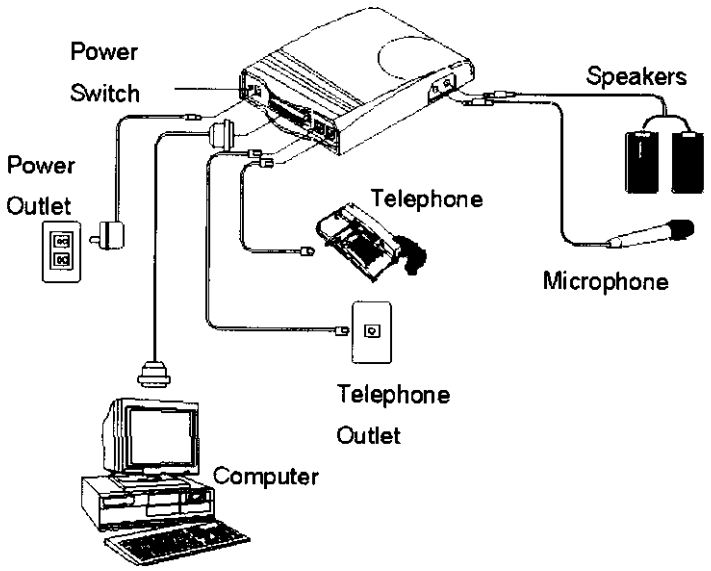


Figure 2-5

Complete External Data/Fax/Voice Modem Installation

2.4 Testing Your Modem

Follow the procedures listed below to make sure that your modem is installed properly.

1. Turn on your modem's power, then turn on your computer.
2. If your system supports plug-and-play, Windows 95/98 will detect your modem hardware automatically, then ask for its device driver.
3. Install your communication software (BitWare or SuperVoice). If you need assistance, refer to the manual that comes with the software. If your installation is not successful, please check whether or not your BIOS support Plug-and-Play feature.
4. Use your communication software to set your modem to local terminal or direct connect mode. This mode allows you to communicate directly with your modem.
5. Type "AT" and then press

(Use Hyper terminal under BitWare or SuperVoice.)

   Your modem should send an **OK** result code to your computer screen.

*If there is no **OK** result code on your screen, please turn off your computer, remove the system cover to make sure your modem is seated firmly on the slot.*

6. Type "ATDT<phone number>", where <phone number> is the telephone number to which your modem is connected.

7. Press Enter, then you should receive a **BUSY** result code.

*If you did not receive a **BUSY** result code, check if the connection between your modem and the telephone is proper.*

3. Installing Driver in Windows 95

This chapter describes how to configure your modem step by step for proper operation in Windows 95.

3.1 PnP (Plug & Play) installation procedure

Internal Modem:

1. Turn on your computer system, Windows 95 will detect its type automatically.
2. If you purchased F560IR internal modem board, Windows will display the **"56K Internal Modem with Speaker phone"** in **"Update Device Driver Wizard"** dialog box. Please press **"Next"**.
3. Please insert the driver disk attachment into your CD-ROM drive, and then press "**Other Locations...**".
4. Type **"D:\Driver\Win95&98\F560IR"**, and then press **"OK"**.
5. Press **"Finish".**
6. Windows will display the **"Wave Device for Voice Modem"** in **"Update Device Driver Wizard"** dialog box again. Please press **"Next"**.
7. Repeat from Step 3 to Step 5.
8. The above procedure will complete the installation process.

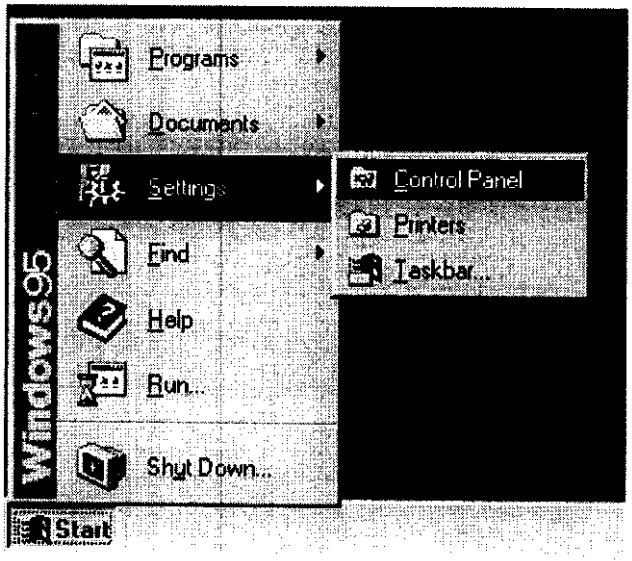
External Modem:

1. Turn on your modem and before entering Windows 95, the system will detect its type automatically.
2. Windows will display the **"F560XD"** in **"Update Device Driver Wizard"** dialog box. Please press **"Next"**.
3. Please insert the driver disk attachment into your CD-ROM drive, and then press "**Other Locations...**".
4. Type **"D:\Driver\Win95&98\F560XD"**, and then press **"OK"**. If you purchased **F560XR** external modem, please change driver's directory to **D:\Driver\Win95&98\F560XR**.
5. Press **"Finish".**
6. Windows will display the **"Wave Device for Voice Modem"** in **"Update Device Driver Wizard"** dialog box again. Please press **"Next"**.
7. Repeat from Step 3 to Step 5.
8. The above procedure will complete the installation process.

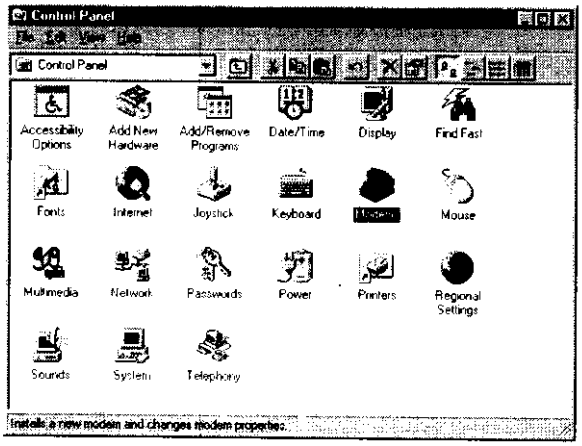
3.2 NON-PnP plug installation procedure

Follow these processes step by step, if the jumper setting isn't in PnP position for internal modem or you are in Windows 95 for external modem.

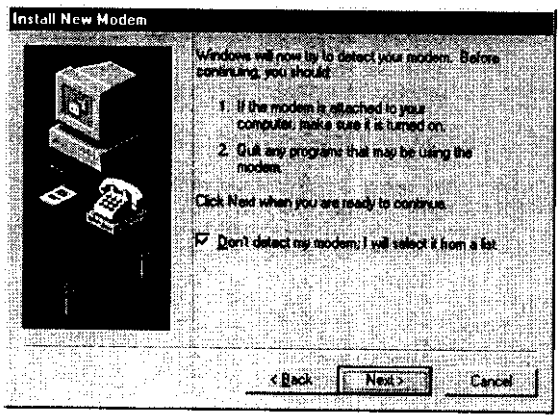
1. Enter Windows 95 and select the ***"Start"*** and "***Control Panel***".



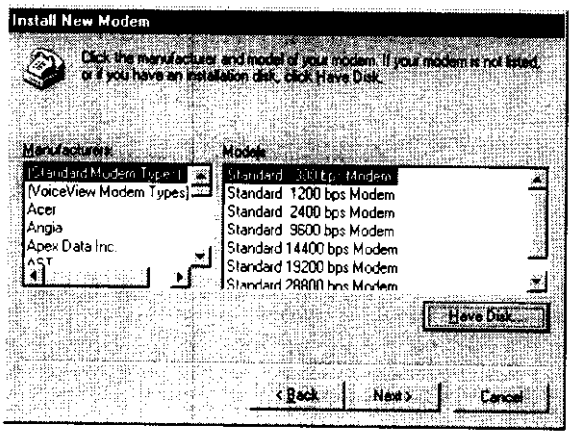
2. Select ***"Modems"***.



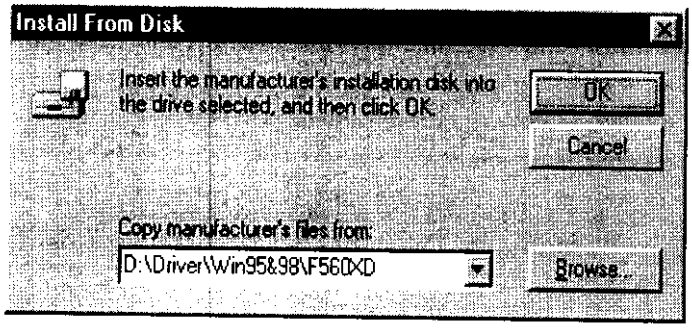
3. Select ***"Don't detect my modem, I will select it from a list"*** and click ***"Next"***.



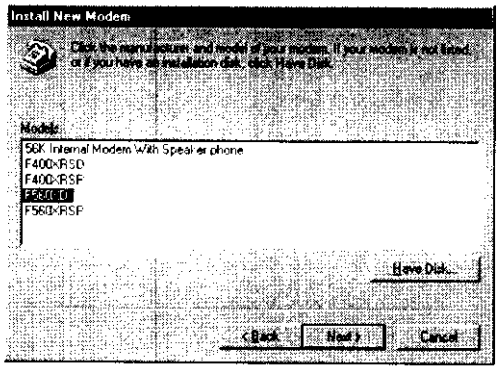
4. Click ***"Have Disk"*** when the following message box displays.



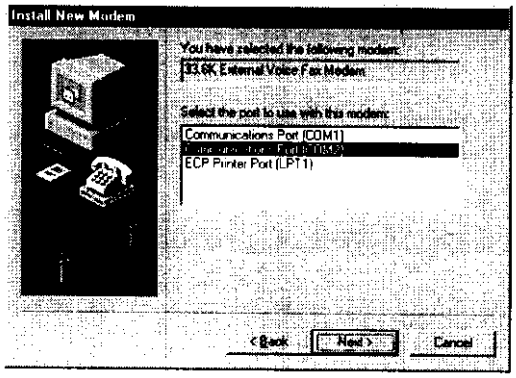
5. Please insert the driver disk attachment into your CD-ROM drive, and type ***"D:\Driver\Win95&98\F560XD"*** in "Install From Disk" dialog box., and then press ***"OK"***.



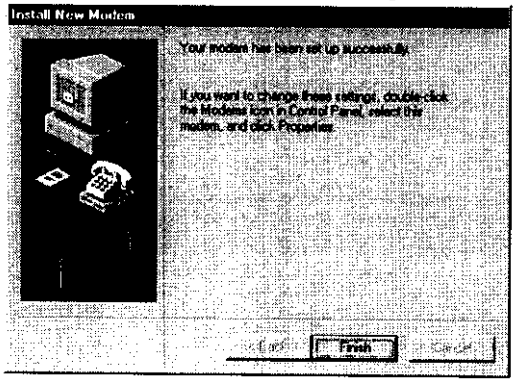
6. If the driver disk is inserted correctly, then choose either ***"56K internal Modem With Speaker phone"*** or ***"F560XD"*** according to the modem that you purchase and click on ***"Next"***.



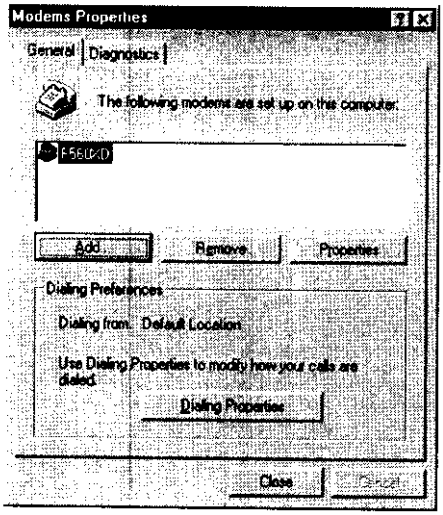
7. Select the COM port. If your modem generally used, then click on ***"NEXT"***.



8. Finally click on ***"Finish"*** to complete the installation.



9. Click ***"Close"***.



※ ***You are now ready to explore the Internet through your modem in a speed of 56,000 BPS.***

4. Installing Driver in Windows 98

This chapter describes how to configure your modem step by step for proper operation in Windows 95.

4.1 PnP (Plug & Play) installation procedure

Internal Modem:

1. Turn on your computer system, Windows 98 will detect its type automatically.
2. If you purchased F560IR internal modem board, Windows will display the **"56K Internal Modem with Speaker phone"** in **"Add New Hardware Wizard"** dialog box. Please press **"Next"**.
3. Please insert the driver disk attachment into your CD-ROM drive. Choose **"Search for the best driver for your device. (Recommended)."**, and then press **"Next"**.
4. Choose "Specify a location:" and type **"D:\Driver\Win95&98\F560IR"**, and then press **"Next"**.
5. **Press "Next".**
6. Press **"Finish".**
7. Windows will display the **"Wave Device for Voice Modem"** in **"Add New hardware Wizard"** dialog

box again. Please press **"Next"**.

7. Repeat from Step 3 to Step 6.
8. The above procedure will complete the installation process.

External Modem:

1. Turn on your modem and before entering Windows 98, the system will detect its type automatically.
2. Windows will display the **"F560XD"** in **"Add New Hardware Wizard"** dialog box. Please press **"Next"**.
3. Please insert the driver disk attachment into your CD-ROM drive. Choose **"Search for the best driver for your device. (Recommended)."**, and then press **"Next"**.
4. Choose "Specify a location:" and type **"D:\Driver\Win95&98\F560XD"**, and then press **"Next"**. If you purchased **F560XR** external modem, please change driver's directory to **D:\Driver\Win95&98\F560XR**.
5. **Press "Next"**.
6. Press **"Finish"**.
7. Windows will display the **"Wave Device for Voice Modem"** in **"Add New Hardware Wizard"** dialog

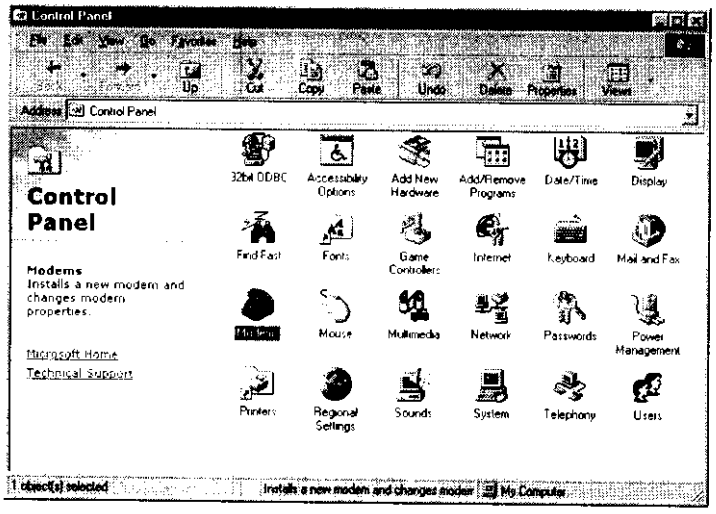
box again. Please press **"Next"**.

8. Repeat from Step 3 to Step 6.
9. The above procedure will complete the installation process.

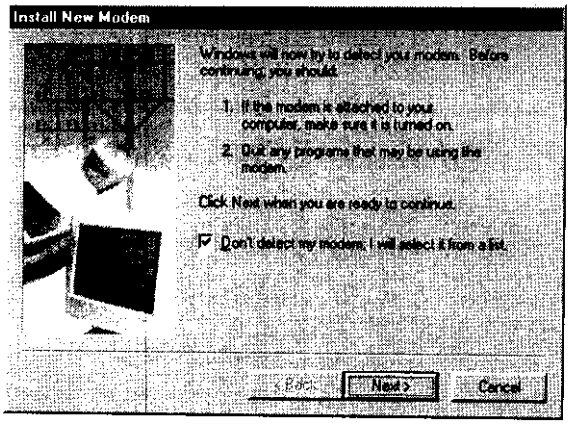
4.2 NON-PnP plug installation procedure

Follow these processes step by step, if the jumper setting isn't in PnP position for internal modem or you are in Windows 98 for external modem.

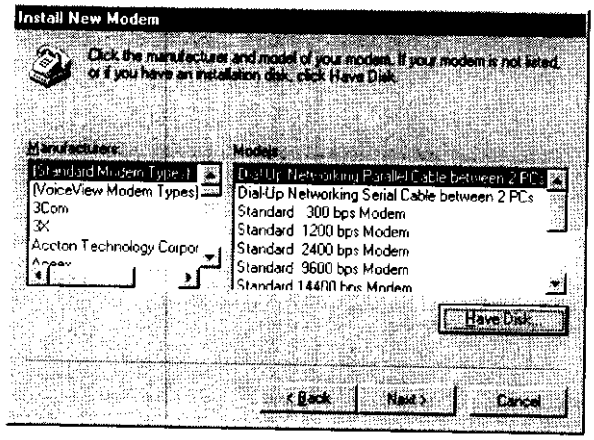
1. Enter Windows 98 and select the ***"Start"*** and ***"Control Panel"***.
2. Select ***"Modems"***.



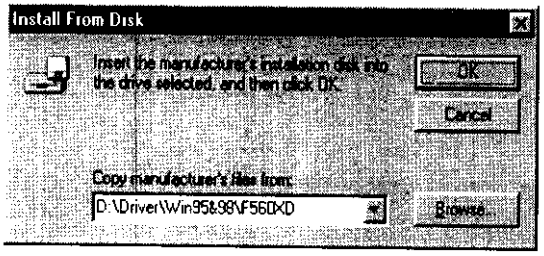
3. Select ***"Don't detect my modem, I will select it from a list"*** and click ***"Next"***.



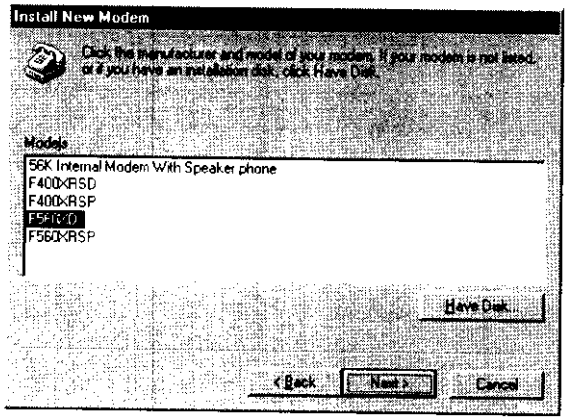
4. Click ***"Have Disk"*** when the following message box displays.



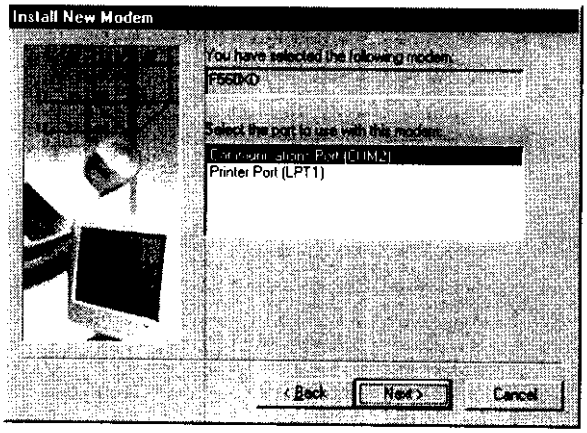
5. Please insert the driver disk attachment into your CD-ROM drive, and type ***"D:\Driver\Win95&98\F560XD"*** in "Install From Disk" dialog box., and then press ***"OK"***.



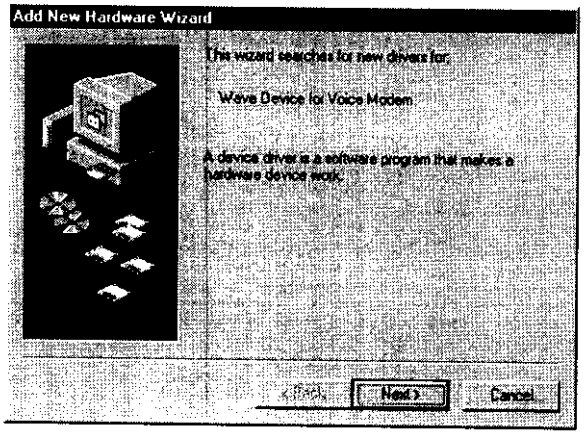
6. If the driver disk is inserted correctly, then choose either ***"56K internal Modem With Speaker phone"*** or ***"F560XD"*** according to the modem that you purchase and click on ***"Next"***.



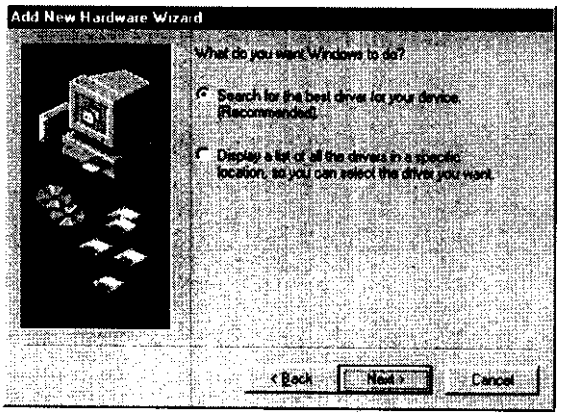
7. Select the COM port. If your modem generally used, then click on ***"NEXT"***.



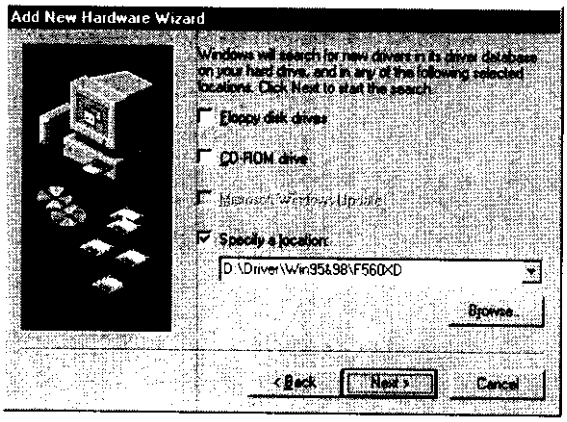
8. Click on ***"Next"***.



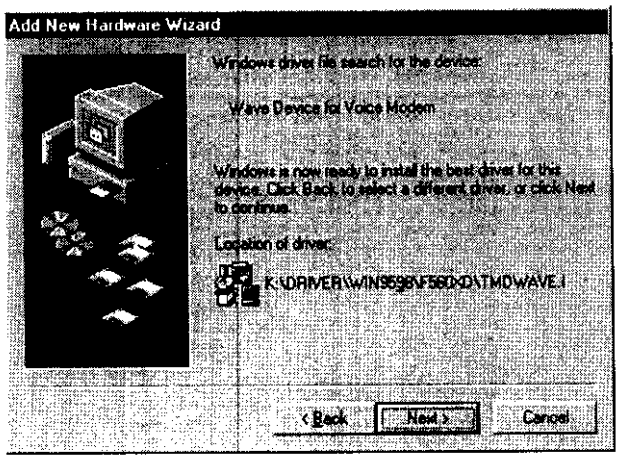
9. Choose ***"Search for the best drive for your device "***and press ***"Next"***.



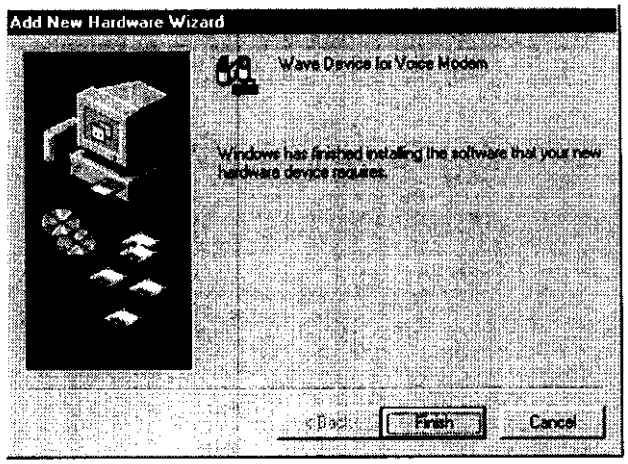
10. After select ***"Specify a location"*** then type ***"D:\Driver\Win95&98\F560XD"***, and click ***"Next"***.



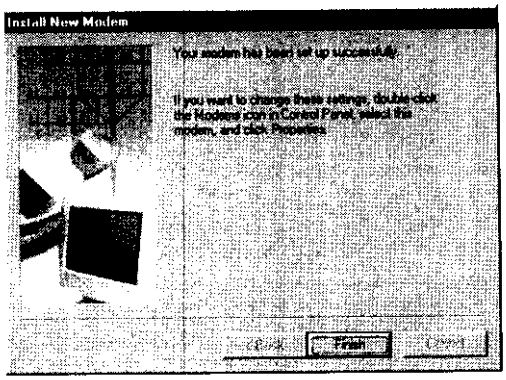
11. Press ***"Next"***.



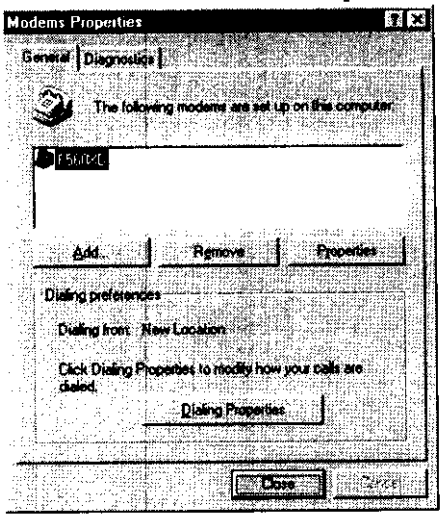
12. Then click ***"Finish"***.



13. Finally press ***"Finish".***



14. And click ***"Close "*** to finish the whole process of installation.



※ You are now ready to explore the Internet through your modem in a speed of 56,000 BPS