56K V.90 Modem

D-Link DFM-560E+

User's Guide

FCC Requirements

This equipment complies with Part 68 of the FCC Rules. On the bottom of this equipment is a label that contains, among other information, the FCC Registration Number and Ringer Equivalence Number (REN) for this equipment. IF REQUESTED. THIS INFORMATION MUST BE GIVEN TO THE TELEPHONE COMPANY.

The REN is useful to determine the quantity of devices you may connect to your telephone line and still have these entire devices ring when your telephone number is called In most. But not all areas the sum of the REN's of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your line. As determined by the REN. You should contact your local telephone company to determine the maximum REN of the area you are calling from. If your telephone equipment causes harm to the telephone network. The Telephone Company may discontinue your service temporally. If possible, they will notify you in advance. But if the advanced notice is failed, you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC.

Your telephone company may change in its facilities, equipment, operations or procedures that could affect the proper functions of your equipment. If this occurs, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

If you experience trouble with this telephone equipment, please contact the following address and phone number for information on obtaining service or repairs. The Telephone Company may ask you to disconnect this equipment from the network until the problem is solved or until that the equipment is not detected malfunctioning. This equipment may not be used on coin service provided by the Telephone Company. Connection to party lines is subject to state Tariffs.

Federal Communications Commission

Radio Frequency Interference Statement.

Note: This equipment has been tested and found to comply with the limitation for a lass B digital device pursuant to Part 15 of the FCC Rules. These restrictions are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the equipment does cause harmful interference to radio or television reception, which can be determine by tuning the equipment off and on, the user is suggested to try to correct the interference by one or more of the following measures:
    -Reorient or relocate the receiving antenna.
    -Increase the distance 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.

Notices:
(1)   The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

(2)   Shielded interface cables and AC power cord if any must be used in order to comply with the emission limits.

Notices to Australian users:

The modem card must only be used in a data terminal equipment (DTE) e.g. computer, that has a screw down cover (lid). As unsafe voltages (TNV) exist on the modem card, disconnect the modem card from the telephone line while the cover (lid) of the DTE (computer) is removed.

Installation of the modem card in a DTE (computer) which does not require a tool to open the cover (lid) will render the permit void.

Disconnect the telephone line before opening the cover (lid) of the DTE (computer). Do not connect the customer equipment to the telephone line while the cover (lid) of the DTE (computer) is open.

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WARNING
ONLY CONNECT EQUIPMENT WITH A TELECOMMUNICATIONS
COMPLIANCE LABEL
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WARNING
FOR SAFETY REASONS, ONLY CONNECT EQUIPMENT WITH A
TELECOMMUNICATIOS COMPLIANCE LABEL.  THIS INCLUDES
CUSTOMER EQUIPMENT PREVIOUSLY LABELLED
PERMITTED OR CERTIFIED.
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Modems connected to the Australian telecommunications network must be marked in accordance with the Labeling Notice. This modem has been specifically configured to ensure compliance with the ACA Standards. Do not adjust your modem or software outside the values indicated as below. To do so would result in your modem being operated in a non-compliant manner.

Modem Commands:

Command	Default	Permissible Range
ATA	-	Do not use
ATB	B0	Do not set to B1
AT&G	&G0	&G2
AT&P	&P0	&P1
ATSn	see table below	

Call Attempts/Retries:

   Applications software shall be configured so that no more than 3 attempts are made to establish a connection to a given number (Note: if the modem can detect service tones, up to10 attempts can be made). If the call sequence is unsuccessful, there shall be a delay of at least 30 minutes before attempting to call the number again.

   Failure to set the modem and any application software used with the modem, to the values shown as above will result in the modem being operated in a non-compliant manner. Consequently, this would be in violation of the Labeling Notice for this equipment, and the Telecommunications ACT 1997 prescribes penalties for the connection of non-compliant equipment.

Table of Contents

Chapter 1 Introduction

1.1 Introduction

   Thank you for selecting the 56k V.90 modem with *Conexant SmartSCM* chipset manufactured. This modem with *Conexant SmartSCM* chipset is a hardware modem that uses the *SmartDAA* design. Besides, it has the advantages of high quality, high reliability, more compact and low cost. This modem with *Conexant SmartSCM* chipset is compatible with current Windows 95,98, ME, 2000,NT 4.0 operation systems because of its independent OS. Moreover, it follows the V.90 standard, so you can surf the Internet at 56K speed, but it depends on the condition of the telephone line and the ISP you connected to. We truly hope that our series products with *Conexant SmartSCM* chipset can meet your needs.

1.2 What's in the Package

- 56K V.90 Modem with Conexant SmartSCM Chipset
- CD-ROM (Comprises Application Software, Modem Drivers and User's Guide)
- Quick Guide for Installing Modem Drivers
- Phone Cord
- RS-232
- Power Adapter

Chapter 2 Specifications

Specifications:

Chip Set	Conexant SmartSCM/56
PCB Size	100mm*108mm
Power	9VAC / 800mA
Line Connection	PSTN, 2 wires
Data Transmission	BELL 103 and 212A ITU-T V.21 (300 bps) ITU-T V.22 (1200 bps) ITU-T V.23 (1200/75 bps) ITU-T V.22 bis (2400 bps) ITU-T V.32 (9600/4800 bps) ITU-T V.32 bis (14400/7200/1200 bps) ITU-T V.34 bis (33600/28800 bps) V.90 and K56 flex
Fax Transmission	Send/Receive G3 Fax ITU-T V.27ter (2400 bps) ITU-T V.29 (9600 bps) ITU-T V.17 (14400 bps)
Error Correction	MNP 2-4/V.42 LAPM
Data Compression	MNP 5/V.42 bis
Command Set	EIA/TIA 578 Class 1 & Class 2 & T.31 Class 1.0
Communication Model	Asynchronous
DTE Speed (MAX)	115,200 bps
Transmit Level	Country depend
Flow Control	XON/XOFF, RTS/CTS
Dialing Mode	Tone /pulse
Auto Dial & Auto Answer	YES
Programmable Volume Control	YES
Noted Features	Speed Buffering Auto Format/Speed sensing Auto Retrain
Data Interface	RS-232C
Telephone Interface	PSTN Line through RJ-11
PTT	FCC Part68 Class B CTR21
Full duplex speaker phone	YES
Safety	FCC Part15 Class B CE
Escape code	TIES
V.80	Video conferencing
OS	Windows 95/98/ME/2000/NT4.0/XP

Chapter 3 Hardware Installation

1. Plug the RS-232C cable supplied into the socket on the back of the modem marked RS-232. Plug other end of the RS-232C cable into the computer COM port.
2. Unplug the telephone from the wall socket, then plug the telephone into the socket on the back of the modem marked PHONE.
3. Plug the telephone cord supplied into the socket on the back of the modem marked LINE.
4. Plug the other end of the cord into the wall socket.
5. Plug the power adapter supplied into the socket on the back of the modem marked Power.
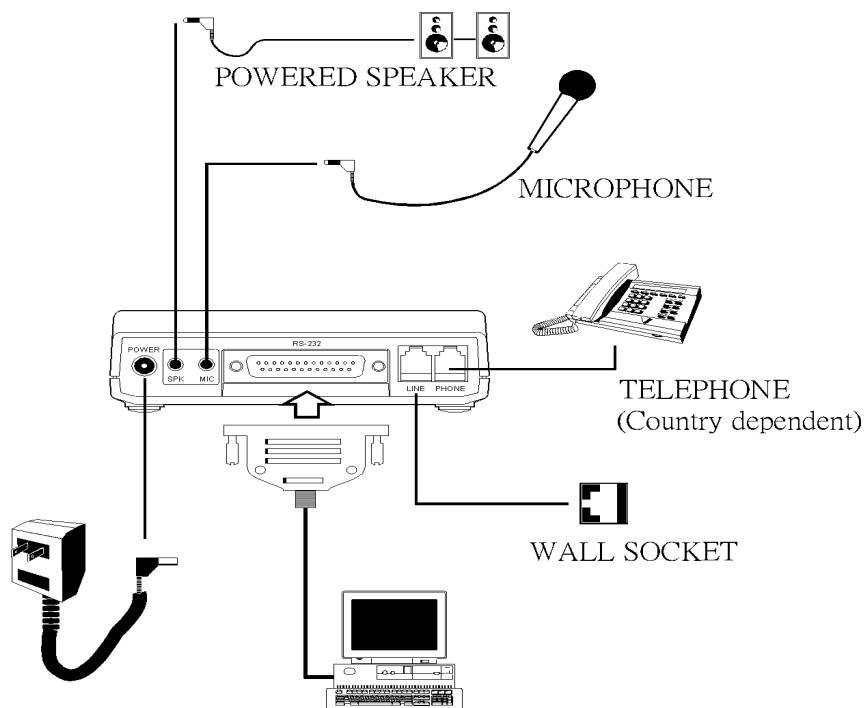
External Modem Diagram

Chapter 4 Software Installation

Power on your computer and modem and start Windows 95/98/ME/NT4.0.Windows 95/98/ME will detect the modem automatically.

4.1 Windows 95/98

1.   Please insert the driver CD supplied when you see the message of **Analog Modem**, then click **Next** to
       search for the driver.

2.   Select the **Search for the best driver for your device. [Recommended]** and click **Next** to continue.

3.   Select the **Specify a location D:\,** (D is the label of CD-ROM drive), and click **Next** to start the search.

4.   Windows has found the driver for the **D-Link FM-56SA-SCM V.90,K56Flex** , click **Next** to start the installation.

5.   If the file "DLink.cat" cannot be found, please use **Browse** to choose a location **D:** (D is the label of CD-ROM drive).
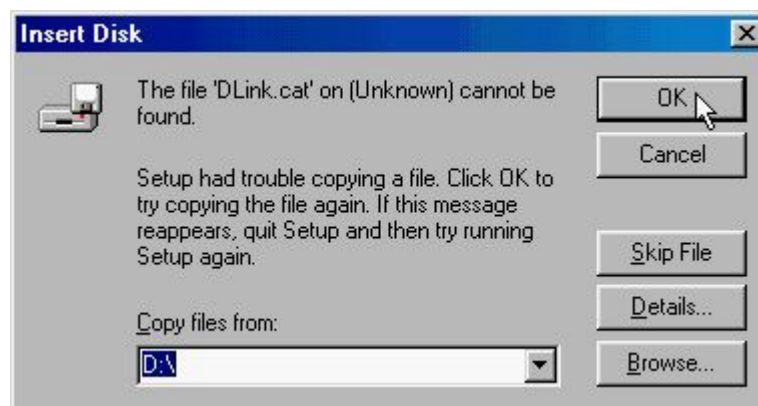
6.   This installation has been done; click **Finish** to complete the installation.

4.2 Windows ME

1.   Please insert the driver CD supplied when you see the message of **Analog Modem**, then select the

      Automatic search for a better driver [Recommended] click **Next** to search for the driver.

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

4.3 Windows 2000

1.   Windows will detect the modem automatic; please insert the driver CD supplied and clicks **Next**.

2.   Select **Search for a suitable driver for my device [recommended]**, and then click **Next**.

3.   Select **Specify a location**, then click **Next**.

4.   Please type **D:** (D is the label of CD-ROM drive) or use **Browse …**to find the driver directly; then click **OK**.

5.   Windows will found a driver for this device, then click **Next**.

6. Click **Yes** to continue.

7.   Click **Finish** to end this install procedure.

4.4 Windows NT4.0

1.   Move your cursor as following sequence **Start \ Settings \ Control Panel** and click **Control Panel**.

Then double-click on the **Modems** icon.

2.   Please insert the driver CD supplied when you see the message of **Click Next when you are ready to continue**, then select the **Don't detect my modem; I will select it from a list** ,click **Next** to search for the driver.
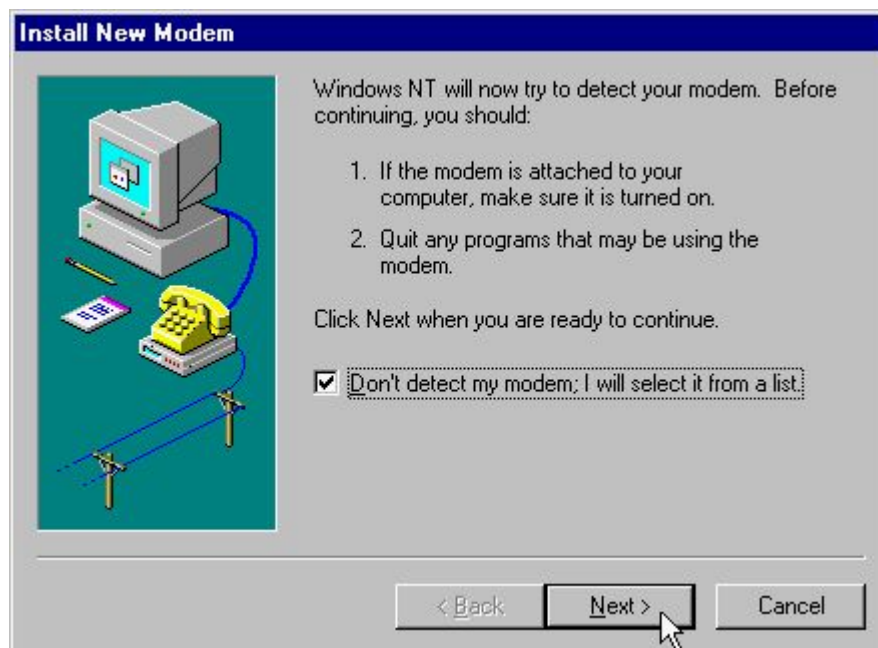
3.   Select **Have Disk …,** and then click **Have Disk**.
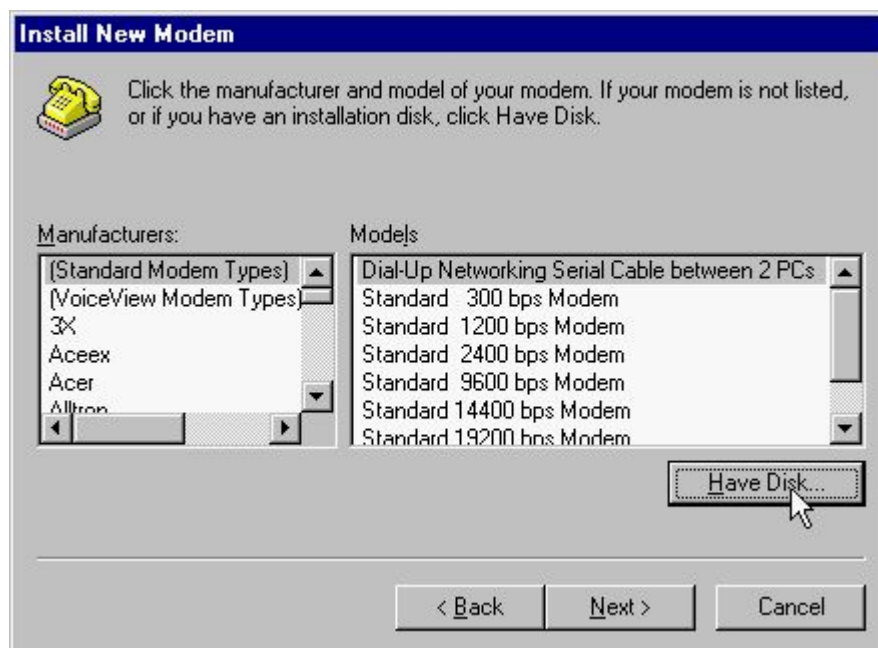
4.   Please type **D:** (D is the label of CD-ROM drive) or use **Browse …**to find the driver directly; then
        click **OK**.
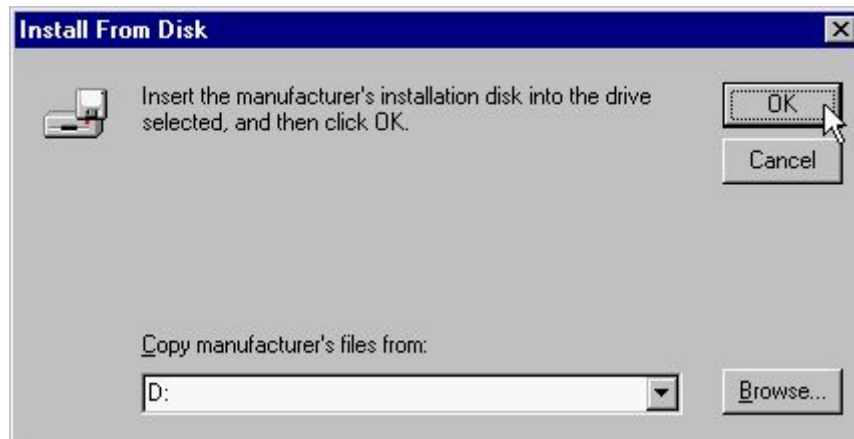
5.   Windows will found a driver for this device, then click **Next**.
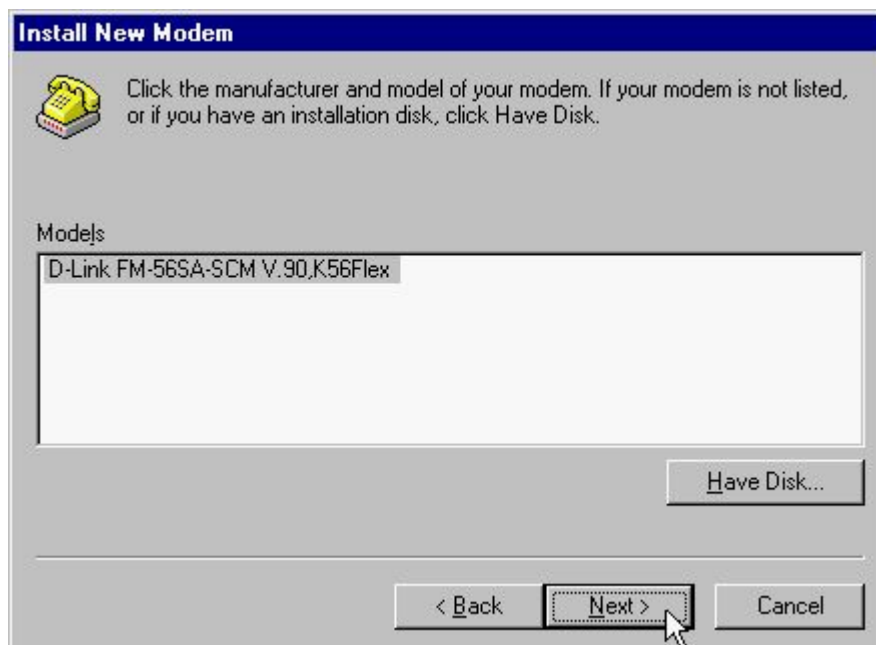
6.   Select **Selected ports and COM port**, and then click **Next**.
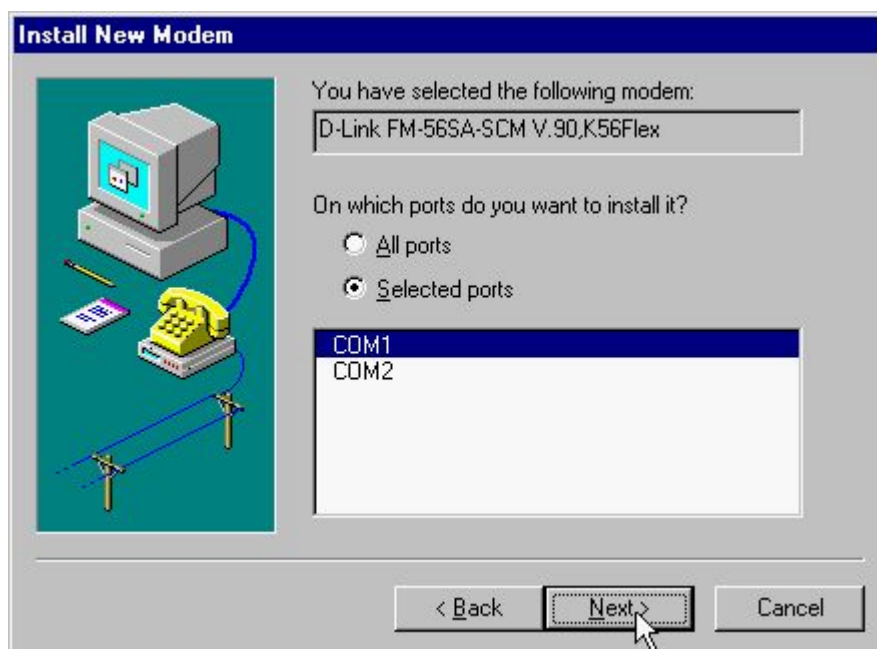
7.   Click **Finish** to end this install procedure.

8.   Click **Close** to end this modem properties.
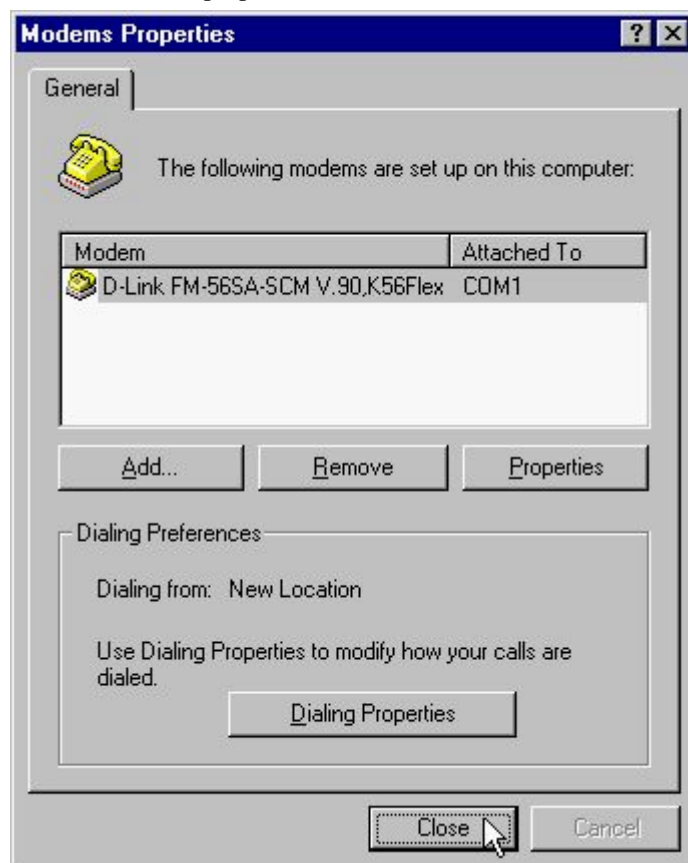
4.5 Windows XP

1.   Please insert the driver CD supplied when you see the message of **Analog Modem**, then select the

     Install the software automatically [Recommended] click **Next** to search for the driver.

2.   Click **Continue Anyway** to continue.

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

Chapter 5 Diagnostics

5.1 Windows 95/98/ME

1.   Move your cursor as following sequence **Start \ Settings \ Control Panel** and click **Control Panel**.
     Then double-click on the **Modems** icon.
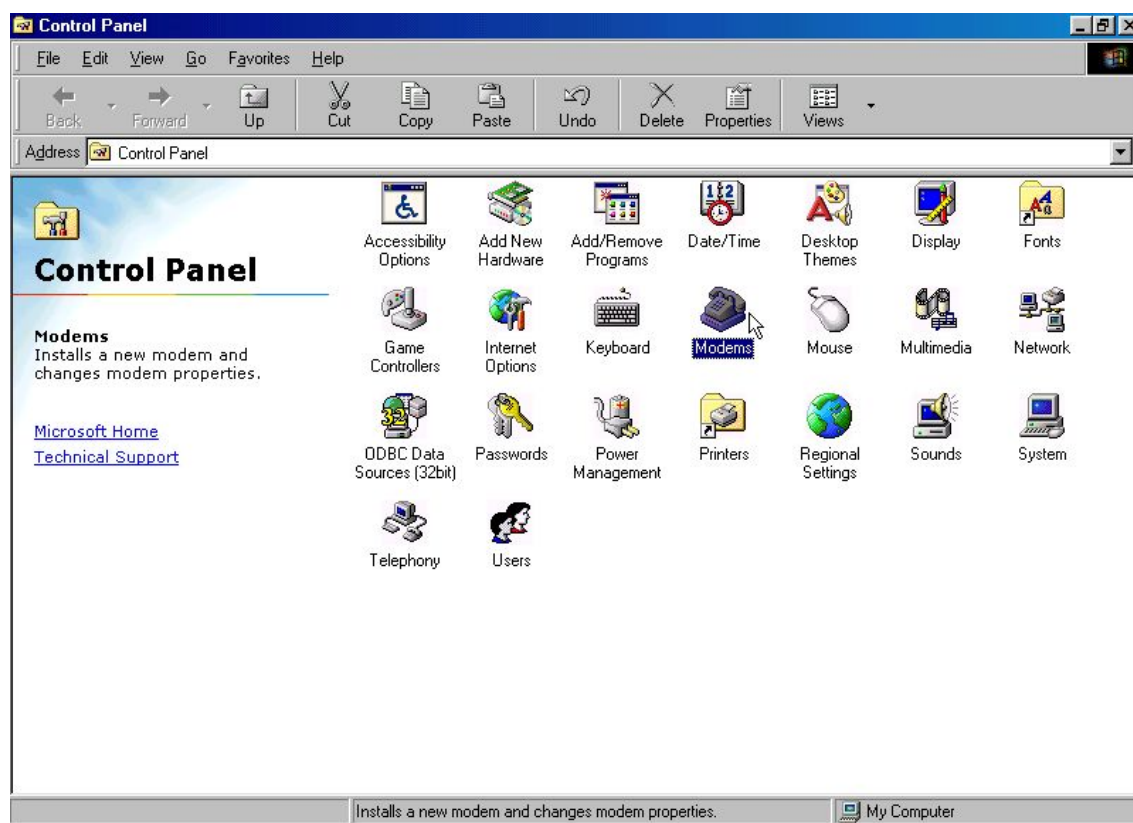
2.   To test the modem by clicking on the **Diagnostics** tab.

3.   Then select the **COM Port** that the modem is setting and click on the **More Info …**button to start the

test.
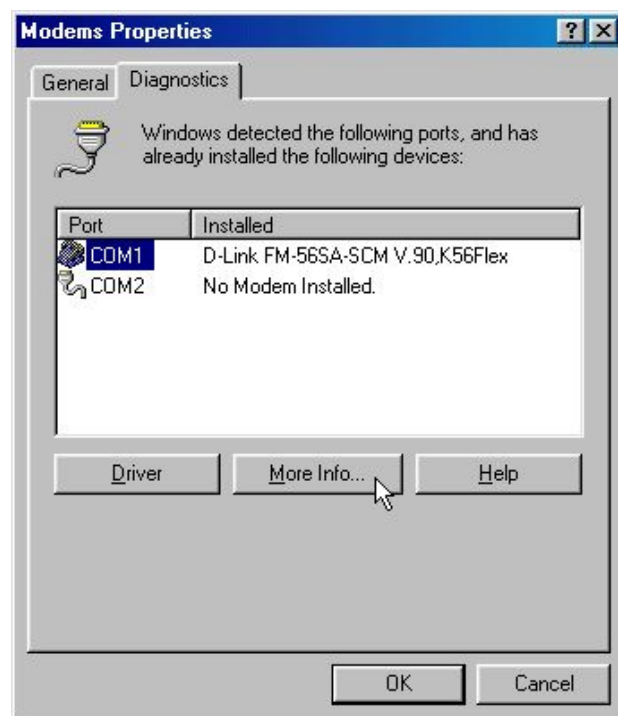
4.   If your modem is responding to AT commands and functioning correctly, it means that your modem is working properly. Click **OK** to end this procedure.
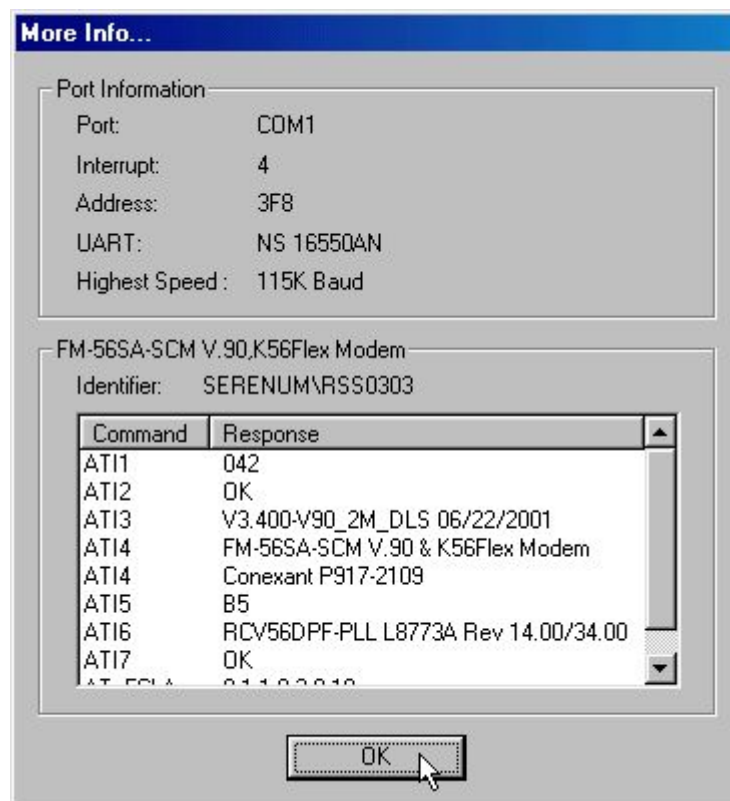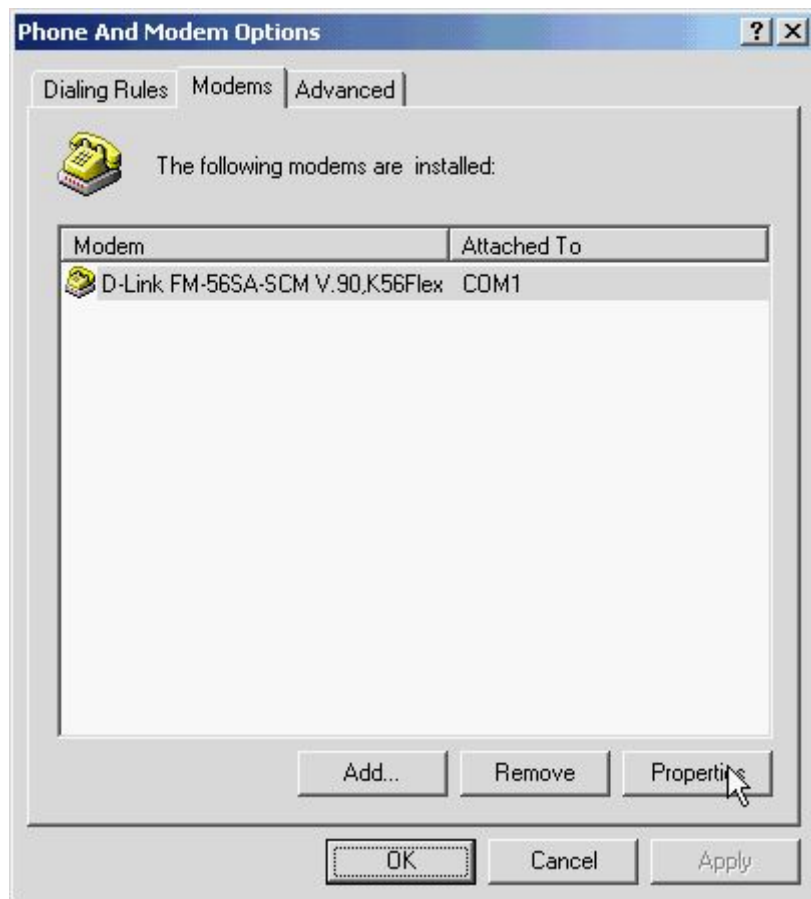
5.2 Windows 2000

1. Move your cursor as following sequence **Start \ Settings \ Control Panel** and click **Control Panel**.
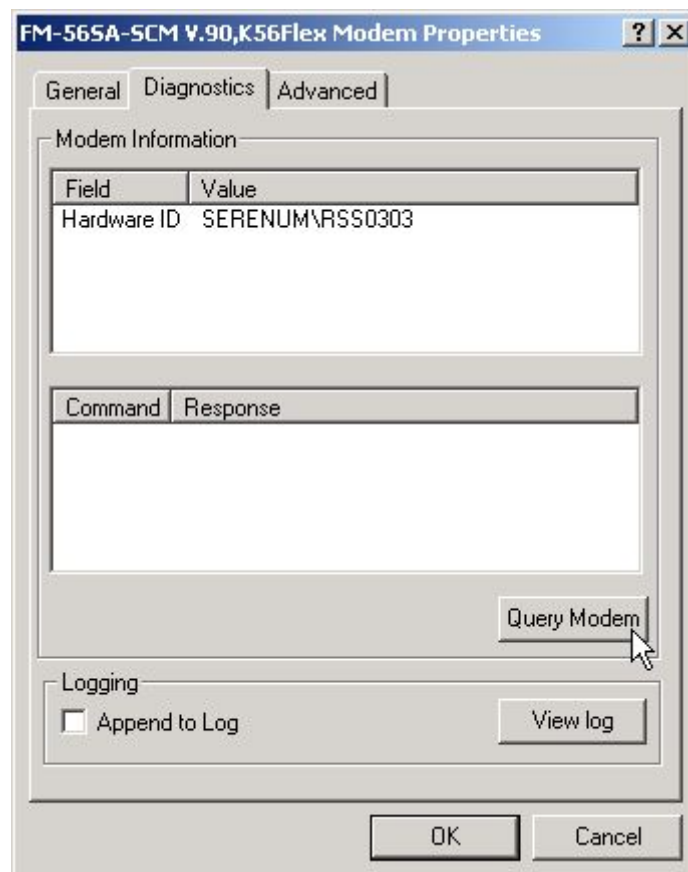
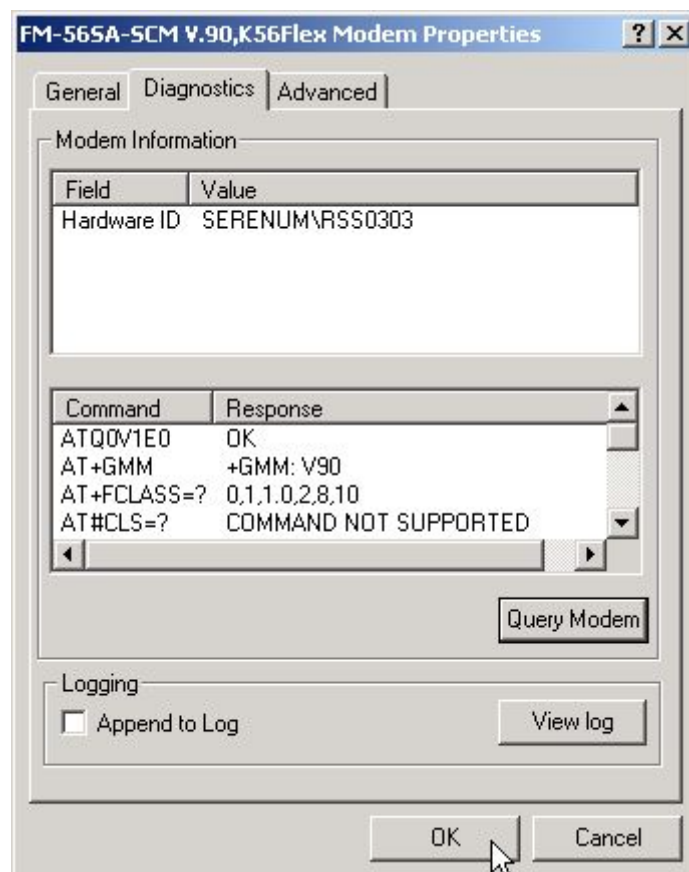   Then double-click on the **Phone and Modem Options** icon.
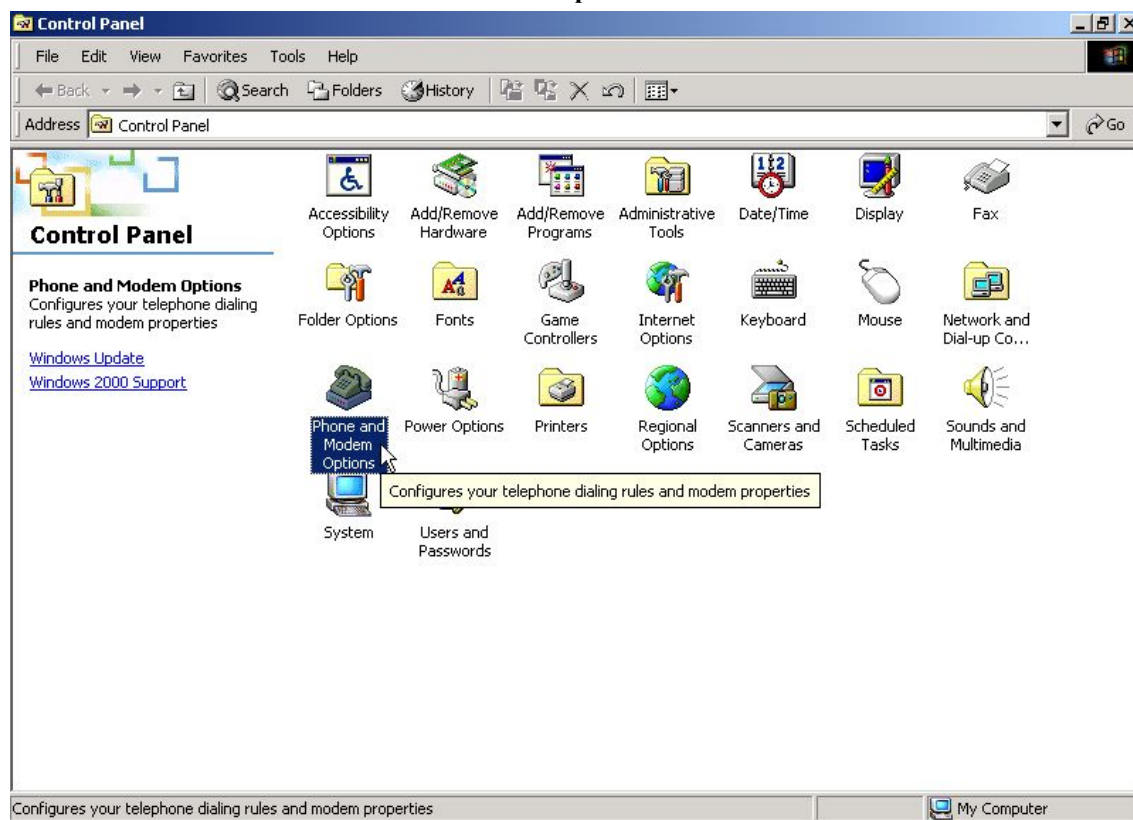
2.   Click **Modems** tab and select SCM modem then click **Properties**.

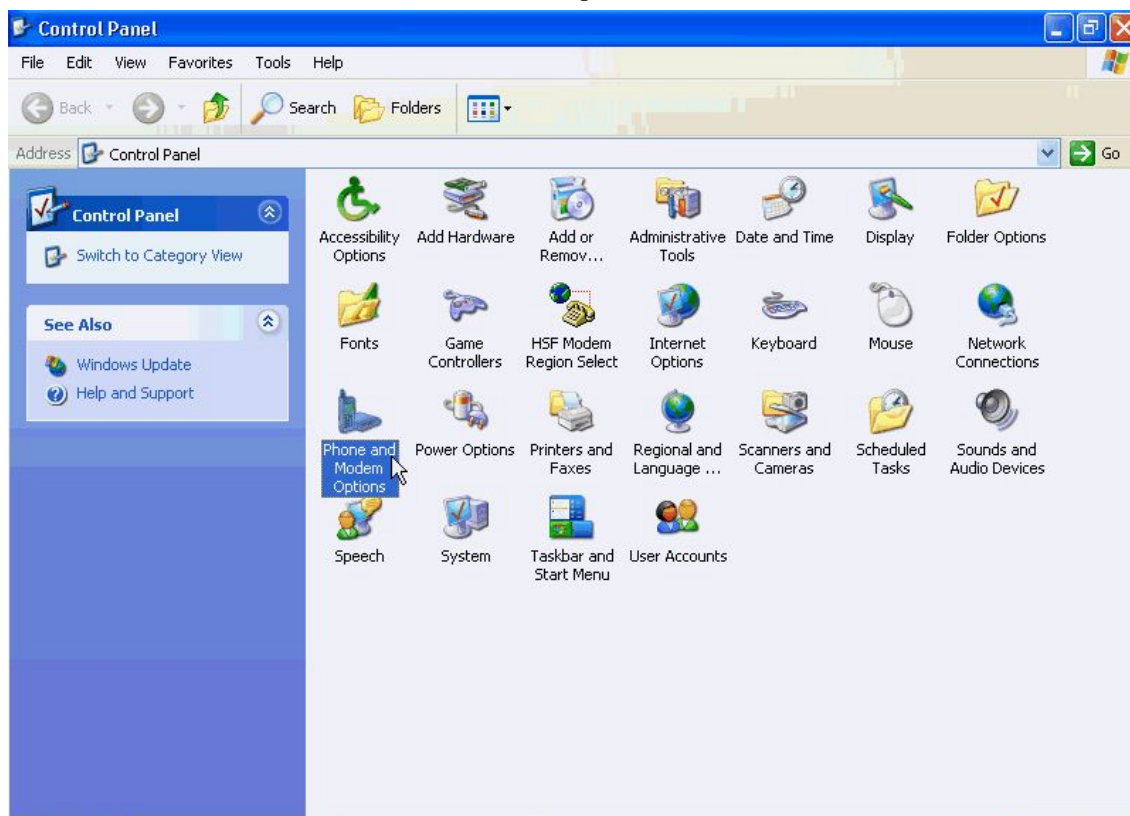3.   Click **Diagnostics** tab, then click **Query Modem**.

4. If your modem is responding to AT commands and functioning correctly, it means that your modem is working properly. Click **OK**.
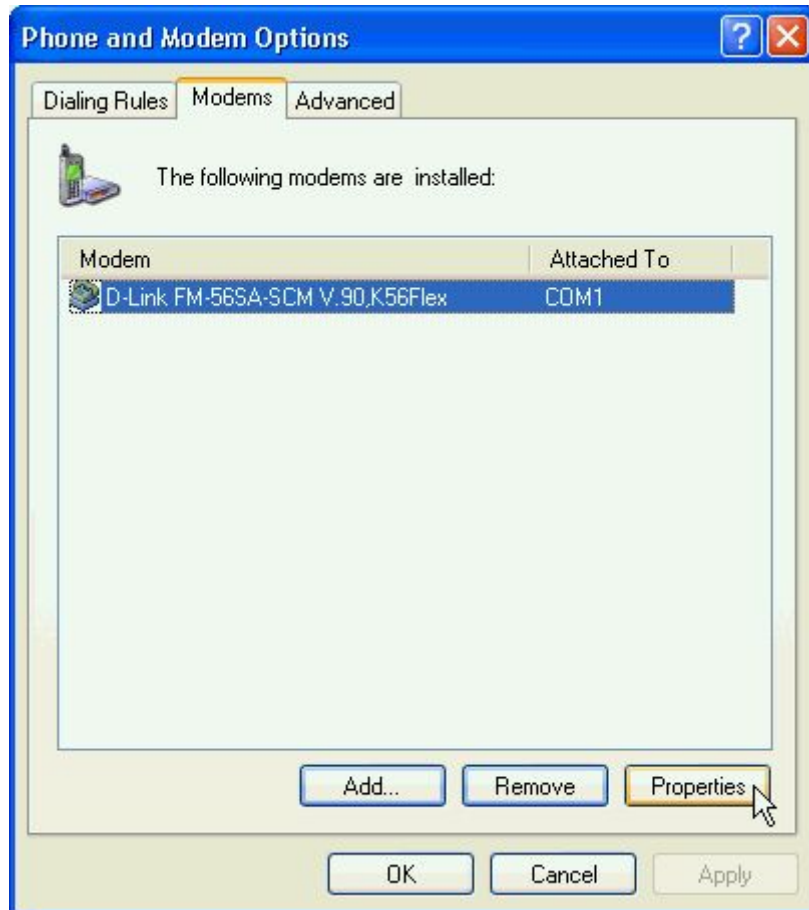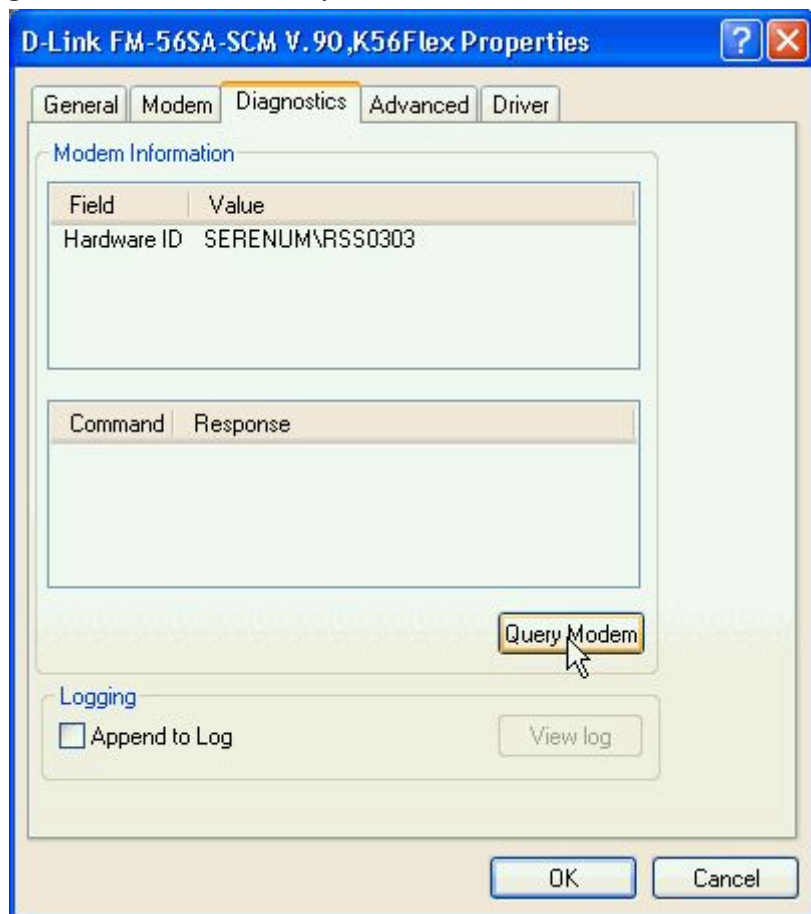
5.3 Windows XP

1. Move your cursor as following sequence **Start \ Settings \ Control Panel** and click **Control Panel**.

    Then double-click on the **Phone and Modem Options** icon.

2.   Click **Modems** tab and select SCM modem then click **Properties**.

3.   Click **Diagnostics** tab, then click **Query Modem**.

4.   If your modem is responding to AT commands and functioning correctly, it means that your modem is

      working properly. Click **OK**.