

# **56K USB Modem**

**Conexant HCF V.90**

**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 all of these 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 temporarily. 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 class 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 determined 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.

WARNING  
ONLY CONNECT EQUIPMENT WITH A TELECOMMUNICATIONS  
COMPLIANCE LABEL.

WARNING  
FOR SAFETY REASONS, ONLY CONNECT EQUIPMENT WITH A  
TELECOMMUNICATIONS COMPLIANCE LABEL. THIS INCLUDES  
CUSTOMER EQUIPMENT PREVIOUSLY LABELLED  
PERMITTED OR CERTIFIED.

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:**

<u>Command</u>	<u>Default</u>	<u>Permissible Range</u>
ATA	Do not use	
ATB	B0	Do not set to B1
AT&G	&G0	&G2
AT&P	&P0	&P1
ATSn	see table below	
<u>S register</u>	<u>Default</u>	<u>Permissible Range</u>
S6	2	2 to 6

**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 to 10 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

<b>Chapter 1 Introduction .....</b>	<b>5</b>
1.1 Introduction.....	5
1.2 Features .....	5
1.3 What's in the Package .....	5
<b>Chapter 2 Specifications.....</b>	<b>6</b>
2.1 Specifications.....	6
2.2 System Requirements .....	6
<b>Chapter 3 Hardware Installation.....</b>	<b>7</b>
<b>Chapter 4 Driver Installation .....</b>	<b>8</b>
4.1 Installing Windows 98.....	8
4.2 Installing Windows 2000.....	11
<b>Chapter 5 Diagnostics.....</b>	<b>14</b>
5.1 Diagnostics in Windows 98 .....	14
5.2 Diagnostics in Windows 2000.....	16
<b>Chapter 6 Uninstalling .....</b>	<b>18</b>
6.1 Uninstalling in Windows 98 .....	18
6.2 Uninstalling in Windows 2000.....	21

## Chapter 1 Introduction

### 1.1 Introduction

Thank you for choosing this HCF V.90 56K USB Modem. It is not only the most cost-effective solution to connect your PC to the Internet, but also increase the usage of the CPU and decrease the cost of ownership. It reduces the time and pain during installation procedure. All you have to do are just plug & play and inserting the CD-ROM Disk, even that you don't need to turn off the power of your PC. Because it's a really USB device so it supports the fully HOT plug and play function. Furthermore, it follows the K56Flex /V.90 Standard, you can access the Internet at Max. rate 56K bps (It depends on the line condition and the ISP you connected to). If you have a PC system with USB interface, we strongly recommend you to take this modem as your best choice.

### 1.2 Features

- USB interface, HOT plug and play, easy to install
- ITU 56K V.90 Standard
- Windows 98 /Windows 2000 compatible
- No Extra Power Needs & Low power consumption
- Host-Controlled Modem
- User Friendly

### 1.3 What's in the Package

- Modem Unit
- CD-ROM Disk (Comprises Application Software, Modem Drivers & User's Manual)
- Telephone cord
- Quick Guide for Installing Modem Drivers

## Chapter 2 Specifications

### 2.1 Specifications

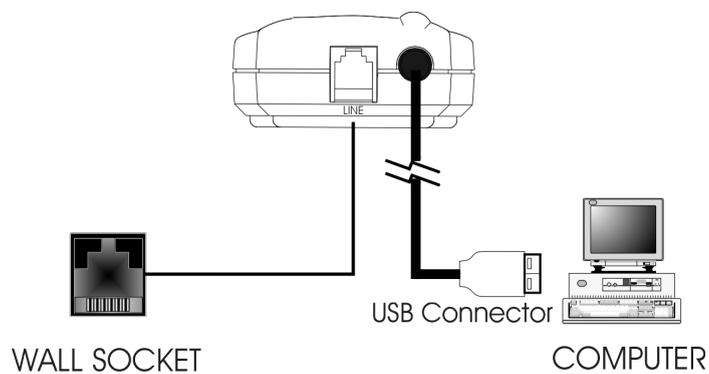
Computer Interface	USB V1.1
Line Interface	RJ-11 for POTS line
Data Protocols	V.90, K56flex, V.34, V.32bis, V.32, V.22bis, V.22, V.23, V.21, Bell 212A and 103
Data Speed	56k, 54k, 52k, 50k, 48k, 46k, 44k, 42k, 40k, 38k, 36k, 34k, 33.6k, 31.2k, 28.8k, 26.4k, 24k, 21.6k, 19.2k, 16.8k, 14.4k, 12k, 9600, 7200, 4800, 2400, 1200, 300
Data Compression	V.42bis, MNP 5
Error Correction	V.42 LAPM, MNP 2,3,4
Fax Protocols	Group 3 Compatible, Class 1 fax: V.17, V.29, V.27ter, V.21 ch 2
Fax Speed	14.4k, 12k, 9600, 7200, 4800, 2400, 300
General	Standard AT commands, V.8 and Automode, Caller ID, Virtual DTE, V.80 Virtual UART (115.2kbps), DTMF detection and generation, ADPCM, Answering machine (voice), OnNow Power Management, Wake-up on ring , Distinctive ring for data/fax/voice, World wide country support
Power Consumption	below 700mW

### 2.2 System Requirements

CPU	: Pentium 200MHz or greater
RAM	: 16Mbyte RAM or more
Interface	: USB port
HDD	: 2MB free space or above
Telecom Requirement	: 1 POTS line
Operation system	: Windows 98 , Windows 2000

## Chapter 3 Hardware Installation

1. Plug the connector of the USB Modem into the USB port of your PC.
2. Plug one end of telephone cord into the modem's "LINE" jack, which is shown on the modem's bracket labeled "LINE".
3. Insert the other end of the cord into the telephone wall socket.
4. Enable the USB port option in the BIOS setup of your computer.



## Chapter 4 Software Installation

Power on your computer and modem and then start Windows 98/2000. Windows 98/2000 will detect the modem automatically.

### 4.1 Windows 98

1. When you see the message of **V.90 modem with USB interface** appearing, insert the driver CD came with the modem. Then click **Next** to search for the driver.



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



3. Select **Specify a location**, then type in **I:\Hcf\_Usb\Win98** (I is the letter of the CD-ROM drive) or use **Browse** to search the location, and click **Next** to start the search.



4. Windows has found the location of the driver for **Conexant USB HCF V.90 Data, Fax, Voice Modem**, click **Next** to start the installation.



5. This installation has been done; click **Finish** to end this procedure.



## 4.2 Installing 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]**, then click **Next**.



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



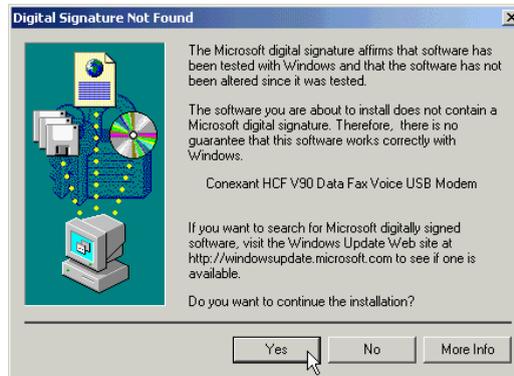
4. Please type **I:\Hcf\_Usb\Win2K** or use **Browse...** to find the driver directly, then click **OK** (I is the letter of CD-ROM drive).



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



6. Click **Yes** to continue.



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



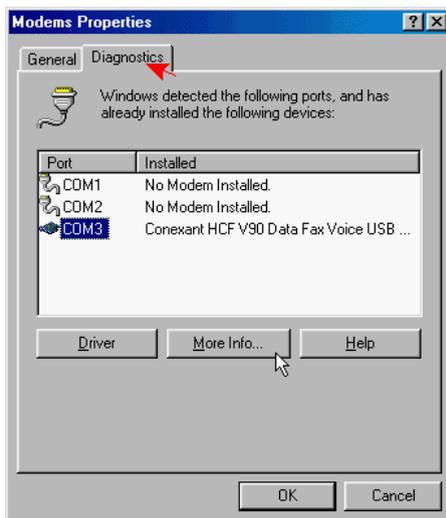
## Chapter 5 Diagnostics

### 5.1 Diagnostics in Windows 98

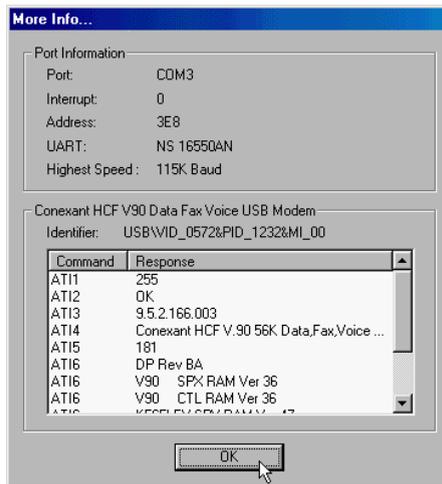
1. Move your cursor as following sequence **Start / Settings / Control Panel**, and double-click on the **Modems** icon.



2. To test the modem by clicking on the **Diagnostics** tab. Then select the **COM Port** where **Conexant HCF V.90 Data Fax Voice USB** is setting and click **More Info...** to start the test.

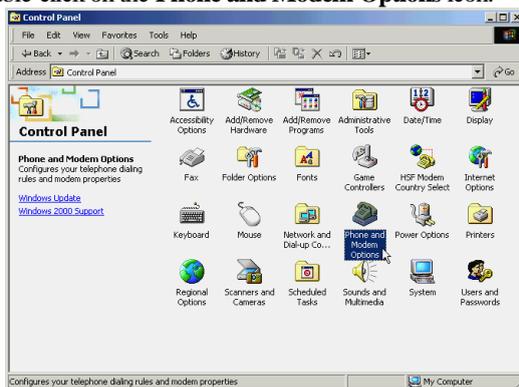


3. If your modem is responding to AT commands and functioning correctly, it means that your modem is working properly. Click **OK** to end this procedure.

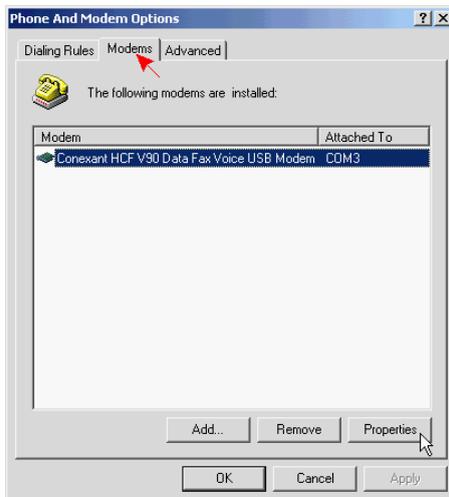


## 5.2 Diagnostics in Windows 2000

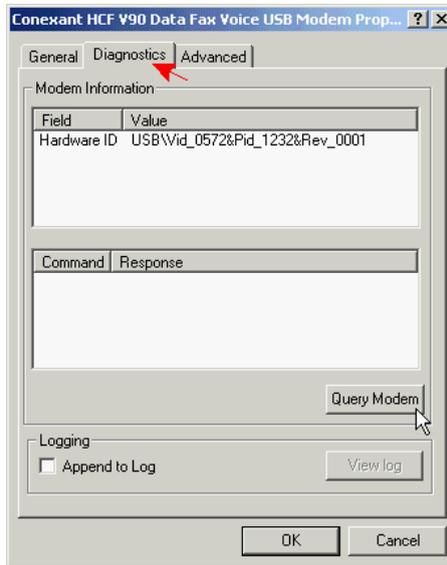
1. Move your cursor as following sequence **Start\Settings\Control Panel**. Then double-click on the **Phone and Modem Options** icon.



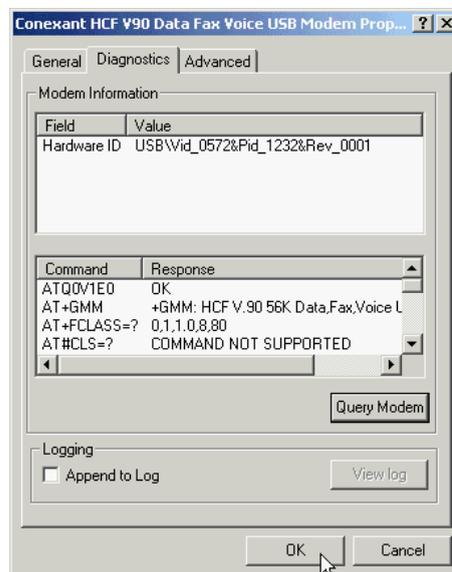
2. Click on the **Modems** tab, then select **Conexant HCF V90 Data Fax Voice USB Modem** and click **Properties**.



3. Click on the **Diagnostics** tab. To test the modem by clicking **Query Modem**.



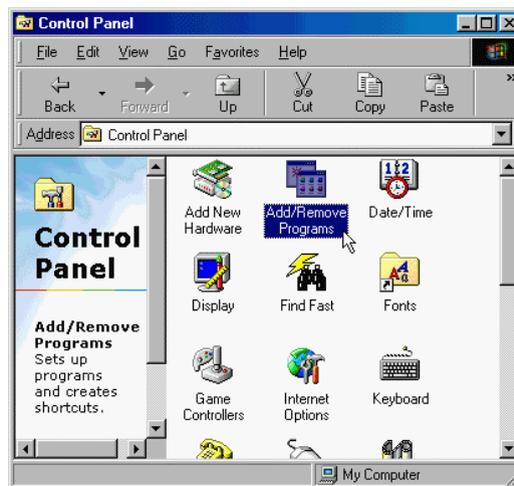
4. If your modem is responding to AT commands and functioning correctly, it means that your modem is working properly. Click **OK** to end this procedure.



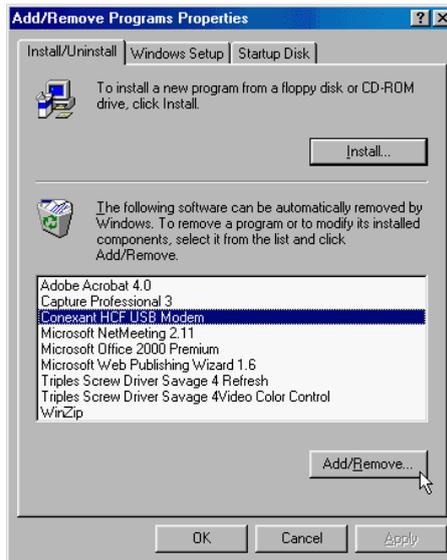
## Chapter 6 Uninstalling

### 6.1 Uninstalling in Windows 98

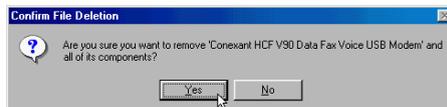
1. Move your cursor as following sequence **Start / Settings / Control Panel** and Double-click on the **Add/Remove programs** icon.



2. Select **Conexant HCF USB Modem** and click on the **Add/Remove...** button.



3. Click **Yes** to remove the modem.



4. Click **OK** to end this procedure.



## 6.2 Uninstall in Windows 2000

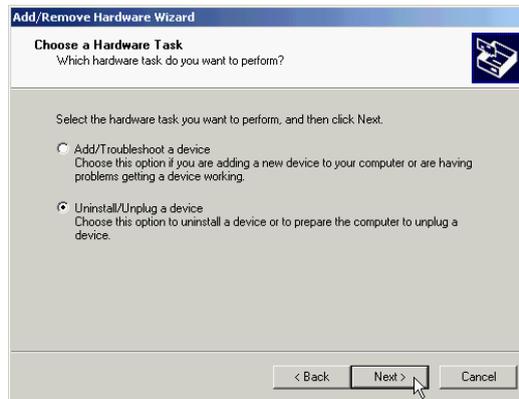
1. Move your cursor as following sequence **Start \ Settings \ Control Panel**. Then double-click on the **Add/Remove Hardware** icon.



2. Click **Next** to continues.



3. Select **Uninstall/Unplug a device**, then click **Next**.



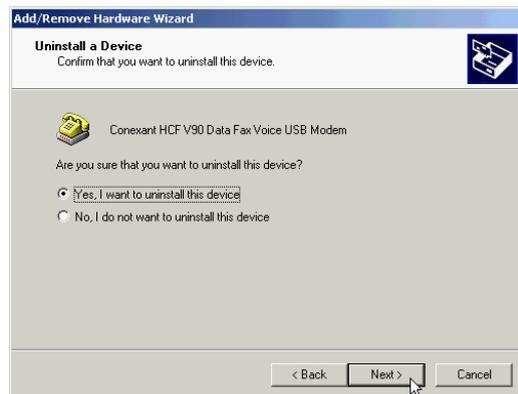
4. Select **Uninstall a device** and click **Next** to continue



5. Select **Conexant HCF V90 Data Fax Voice USB Modem**, then click **Next** to continue.



6. Select **YES, I want to uninstall this device**, then click **Next** to continue.



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

