



# PCI Voice Faxmodem Installation Guide For Windows®

part number 1.024.1855

## 1 Prepare for installation.

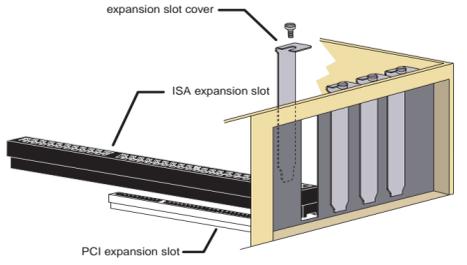
**NOTE:** Before you begin, we recommend you uninstall any other modems you have in your system. Refer to your modem's documentation for instructions. If you have an older U.S. Robotics modem, see the "Uninstalling a U.S. Robotics Modem" chapter in your manual.

Write the modem's serial number in the box below. The serial number is located on the white bar code sticker on the modem and on the modem's box.

Shut down Windows. Turn off and unplug your computer and all peripherals. Remove the computer's cover.

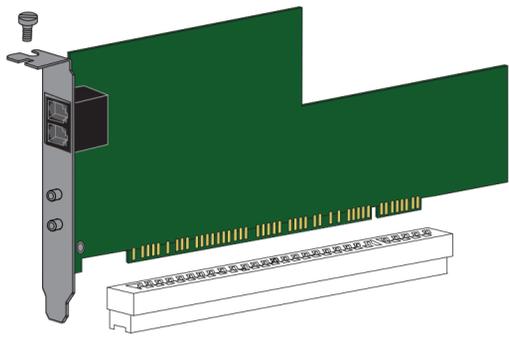
**CAUTION:** To avoid risk of electrical shock, make sure your computer and all peripheral devices are turned off and unplugged from electrical outlets.

Unscrew and remove the expansion slot cover at the back of an empty PCI expansion slot. The slot cover is located on the back of the computer and covers an opening on the computer case. The opening lines up with the slot (inside the computer) which is usually white plastic lined with metal.



## 2 Insert the modem into the empty PCI expansion slot.

Insert the modem, gold edge first, into the slot. The modem should fit snugly into the slot. The modem's metal bracket will cover the opening on the back of the computer. Secure the modem with the screw you removed in step 1. Replace the computer's cover. Reconnect and turn on all peripherals.

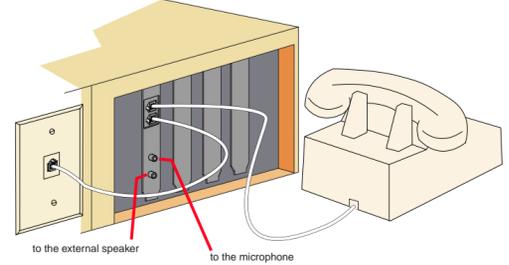


## 3 Connect the modem to an analog phone line.

Plug one end of the provided phone cord into the jack on the modem labeled and plug the other end into an analog phone wall jack. Plug your microphone into the modem's jack labeled . Plug your speakers into the jack labeled .

**WARNING:** Many offices and some homes have digital phone lines. The modem will be damaged if you use a digital phone line. Call your phone company if you are unsure which type of line you have.

When you are not using the modem, you can use a telephone on the modem's phone line. Plug the telephone's cord into the modem's jack labeled .



## 4 Install the modem drivers.

**If you have Windows 95:** Turn your computer on. When the "Update Device Driver Wizard" screen appears, insert your driver diskette into your 3.5 inch drive and click **Next >**. When you see a window indicating that the drivers have been found, click **Finish**. If you see a screen telling you to insert the diskette which is already in the drive, click **OK**, type in the location of your 3.5 inch drive (usually a:\) in the "Copying Files" screen, and click **Finish**. You will be prompted to repeat this process to install the voice driver files.

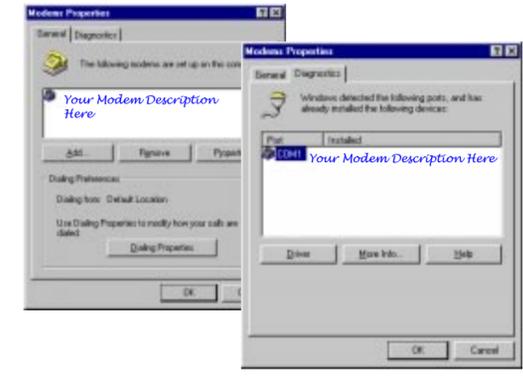
**If you have Windows 98:** Turn your computer on. When the "Add New Hardware Wizard" screen appears, insert your driver diskette into your 3.5 inch drive and click **Next >**. Select "Search for the best driver for your device" and click **Next >**. Put a check in the box next to "Floppy disk drives." If the location of your 3.5 inch drive is not a:\ change it on the bottom section of this screen. Click **Finish**. You will be prompted to repeat this process to install the voice driver files.

**If you have Windows NT:** Turn your computer on. Insert your *Connections* CD right before you log in. Double-click the My Computer icon. Right-click the *Connections* icon. Click **Explore**. Double-click the folder called "005690," then double-click the folder called "005690nt." Double-click the **Setup** icon. When the "Modem Setup" screen appears, click **Install**. When you see the **Resources** tab, select the COM port that should be assigned to your modem. Click **OK**. When the "System Settings Change" window appears, click **OK** to restart your computer.

## 5 Verify that the modem is properly installed.

When your desktop returns, verify that your modem is properly installed. Click **Start**, point to **Settings**, and click **Control Panel**. Double-click the **Modems** icon. When the "Modems Properties" screen appears, you should see a description of your modem. Click the description of your modem and then click the **Diagnostics** tab. Write down the COM port to which your modem is assigned (for example, **COM1**) in the box below. Click **More Info...**. The modem's command set should appear in the box. Click **OK** then click **Cancel**.

COM Port:



## 6 Install the Connections CD and register your modem.

Eject the *Connections* CD from your CD-ROM drive and then reinsert it into the drive. The CD's installation utility should start automatically. If it does not, click **Start** and then click **Run...**. In the box, type **D:\setup.exe** and then click **OK**. If your CD-ROM drive uses a different letter, type that letter in place of "D".



The Setup Wizard on the CD guides you through installing the *Connections* program group and registering your modem. For instructions on how to install software from the CD, see the "Software Installation" chapter in the electronic *User's Guide & Reference* on the CD.

**For troubleshooting help or to find out how to contact technical support, see the "Support Resources" section on the other side of this map.**

\*IMPORTANT! In accordance with the ITU-T standard for 56k transmissions (V.90), this modem is capable of 56 Kbps downloads. However, the download speeds you experience may lower due to varying line conditions and other factors. Uploads from users to server equipment travel at speeds up to 31.2 Kbps. An analog phone line compatible with the V.90 standard, and an Internet provider or corporate host site compatible with the V.90 standard is necessary for these high-speed downloads.

# Troubleshooting

**Windows® 95 Users Read This First!**

- Click Windows **Start**, point to **Settings**, and click **Control Panel**.
- Double-click the **Modems** icon.
- Click the **Diagnostics** tab.
- Click the COM port that your modem is assigned to so that it is highlighted.

*If you do not see your modem on this screen, you need to exit out of the **Modems Properties** screen by clicking **Cancel**. Click **Start**, **Shut Down**, select the **Shut down the computer?** option, and then click **Yes**. When your computer has shut down, turn it off and unplug it from its power outlet. Uninstall the modem from the computer. If it is an external, unplug its serial cable from the computer's COM port. If it is an internal, unplug the phone line and your telephone from the modem's PHONE and TELCO jacks and then remove the computer's case and remove the modem from its slot. Reinstall the modem using the instructions in the electronic Installation Guide on the included CD, this time using a different slot for your internal modem or a different COM port for your external modem.*

- Click **More Info**. You should see a list of the modem's ATI commands. Click **OK** and exit out of all open screens.

*If the ATI commands do not appear, continue reading to troubleshoot your modem.*

**Problem: The computer or software will not recognize the modem.**

**Possible solution:**

You may have an IRQ conflict. Uninstall your modem using the instructions in the manual on your *Connections* CD. Reinstall your modem using the instructions on the front of this map.

**Possible solution:**

If you are using an external modem, make sure the modem is plugged in and turned on. Use only the power adapter included with the modem. The CS light on the front panel should be illuminated. (An internal modem should turn on automatically when the computer is turned on.)

**Possible solution:**

You may not be entering modem commands in the proper manner. Type in all upper case (AT) or all lower case (at).

**Possible solution:**

If you are using an external modem, the COM port may not be enabled. Refer to your computer's manual for information about enabling COM ports (usually involves altering the bios settings, motherboard jumpers, and the operating system).

**Possible solution:**

You may be using the wrong serial cable with your external faxmodem. Make sure you are using an RS-232 modem cable. You will need to make sure you are using a 25-pin male to 25-pin female if your COM port is a 25-pin port, or a 25-pin male to 9-pin female if your COM port is a 9-pin port.

**Possible solution:**

**Problem: The modem won't go off hook to dial or doesn't answer the phone.**

**Possible solution:**

If you have an external modem, you may be using the wrong power adapter for your modem. Use only the power adapter that came with your modem.

**Possible solution:**

You may have plugged your modem's phone cord into a digital line. Plugging your modem's phone cord into a digital phone line can damage the modem. Cal your phone company if you are unsure whether or not your phone line is digital.

**Possible solution:**

You may have plugged your modem's phone cord into the wrong jack on the modem. Make sure the phone cord is plugged into a jack labeled with the word TELCO (marked with  on the underside of external modems).

**Possible solution:**

You might have a bad phone cord connection to your modem. The phone cord should be plugged into the TELCO jack on the modem (marked with  on externals) and the wall phone jack. The phone cord should be no longer than 12 feet in length. Use the phone cord included in your modem's box if possible.

**Possible solution:**

You may have devices between the modem and the phone jack. There should be no line splitters, fax machines, or other devices between the modem and the wall jack. You may have a poor line connection. Place the call again. Calls are routed differently each time. To verify a valid phone connection, enter your communication software's terminal mode and dial the 3Com BBS: 847 262 6000

*If you must dial a number (such as "9") to reach an outside line, type that number right after **ATDT**.*

**Possible solution:**

If you have voice mail, your dial tone may be altered because messages are waiting. Answer your voice mail to restore your normal dial tone.

**Possible solution:**

Your software may not have auto answer enabled. Enable the auto answer feature. In your communication software's terminal mode, type**ATS0=1** (ATS"zero"=1) and press **ENTER**.

*You need to enable auto answer before every session unless you alter your software's initialization string to permanently enable auto answer.*

**Problem: Both modems sound like they exchange carrier signals, but fail to establish a connection.**

**Possible solution:**

You may have a poor line connection. Place the call again. Calls are routed differently each time. To verify a valid phone connection, enter your communication software's terminal mode and dial the 3Com BBS: 847 262 6000

*If you must dial a number (such as "9") to reach an outside line, type that number right after **ATDT**.*

**Possible solution:**

**Problem: Your 56K modem cannot achieve a 56K Internet connection.**

**Possible solution:**

V.90 supports speeds of up to 56K. Due to phone line restrictions, you will achieve a lower connection; this does not mean you have not achieved a V.90 connection. Our research shows that the vast majority of telephone lines in North America support 56K connections. However, due to unusual or old telephone line configurations, some users will not be able to take full advantage of this technology.

It is important to remember that your line conditions may change, so you may be able to make faster connections in the future. To make sure that you can use 56K technology, perform the following tests:

- First, make sure your modem supports V.90. You can verify that your modem supports V.90 by opening a terminal application (RapidComm, HyperTerminal, ZTerm, etc.) typing **at17** and pressing **ENTER**. If the Options line has V.90 listed, then your modem supports 3Com 56K technology.
- Make sure that the number you're dialing is an actual V.90 server. Some ISPs may have a mixture of V.90 and non-V.90 servers. You can check this by contacting your ISP and asking them about 56K technology or V.90 availability.
- If it is a V.90 server, you may want to try calling it a few more times. Remember, the phone company routes each call in a different fashion each time you place a call. For testing purposes, you may want to call into the 3Com BBS at 847-262-6000, which has V.90 servers attached to it.
- If you are able to connect at V.90 speeds on the 3Com BBS, there may be something between you and your ISP that is preventing a V.90 connection from being negotiated. You may want to contact your ISP and see if they have received similar reports from other customers.

- If you do not make a V.90 connection to our BBS, your line might not be capable of supporting V.90 speeds. If that's the case, then see the next item in this list.

- If you are experiencing consistent problems with V.90 connections (i.e., not making a high speed connection, abrupt disconnections, etc.), you can call 3Com Technical Support for U.S. Robotics modems at 847 262 5151.

**Possible solution:**

**Problem: Errors are constantly occurring in your V.47 fax transmissions.**

**Possible solution:**

Your modem initialization string may be insufficient for fax transmissions. In terminal mode, type the following initialization string: **AT&F&H3&1a&R2S7=90** and then press **ENTER**.

**Possible solution:**

Your baud rate may be set too high. In your communications software, lower the baud rate to 9600, 7200, or 4800.

**Possible solution:**

You may be trying to fax a compressed file. Decompress the file using the application with which it was compressed. Then open it with the application with which it was created. Select your fax software as the printer and then print the file.

**Possible solution:**

**Problem: Your communications software fails to initialize the modem.**

**Possible solution:**

Your software's port settings may be incorrect. Make sure the software's port settings match those for your modem.

*If you have an older version of RapidComm on your system, you must **uninstall the older version before installing the most recent version (contained on the Connections CD-ROM that comes with your new modem)**. Otherwise, system conflicts may hamper RapidComm's ability to work properly.*

**Possible solution:**

If you are using an external modem, make sure the modem is plugged in and turned on. Use only the power adapter included with the modem. The CS light on the front panel should be illuminated. (An internal modem should turn on automatically when the computer is turned on.)

**Possible solution:**

If you have a Winmodem, check with the software's manufacturer to determine whether or not the software is fully Windows-based. Some software runs in Windows but has DOS components. Such software will not work with Winmodems.

**Problem: Both modems sound like they exchange carrier signals, but fail to establish a connection.**

**Possible solution:**

The Plug and Play installation was not successful. Try the following:

- Click Windows 95 **Start** and click **Shut Down**.
- When asked if you wish to shut down your computer, click **Yes**.
- When Windows 95 indicates that it is safe to turn off your computer, turn it off.
- Wait 15 seconds** before turning the computer back on.
- Windows 95 may detect your modem upon this restart even if it did not detect the modem during the initial installation.
  - If you see screens indicating Windows 95 had detected new hardware, follow the on-screen instruction to install the modem.
  - If you do not see the new hardware screens, continue with step 6.
- Click Windows 95 **Start**.
- Point to **Settings**.
- Click **Control Panel**.
- Double-click the **System** icon.
- Click the **Device Manager** tab on the "System Properties" screen.
- Look for "Other Devices" or "Unknown Devices" in the list that appears:
  - If you do not see either of these options in the list, please see the "Support Resources" section below.
  - If you do see one of these options, double-click the option and continue with step 12.
- If the description that appears matches the modem you are trying to install, click the **Remove** button. If it does not, please see the "Support Resources" section below.
- Click **OK** when Windows asks if you wish to remove the device.
- Restart the computer and continue with the on-screen instructions. If the computer does not detect the modem after this second restart, please see the "Support Resources" section below for additional help.

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Support Resources**  
If you have not fixed a problem after trying the suggestions in the "Troubleshooting" section, you can receive additional help via one of these convenient resources:

**The 3Com BBS**

The BBS gives you access to customer and technical support documents and hundreds of helpful files and tips to help simplify using your modem. To connect to the 3Com Bulletin Board System, follow these steps:

- Start your fax/data communications software. The software settings for the BBS are:
  - ANSI terminal emulation
  - Data Bits: 8
  - Parity: None
  - Stop Bits: 1
- Put the software in terminal mode.
- Type the BBS's number: 847 262 6000

**Possible solution:**

If this is your first time connecting to our BBS, you will be asked to enter your name, create a password of your choice, and to fill out a questionnaire.

When you are ready to leave the BBS, type **G** (for "good-bye") from the main menu.

**Possible solution:**

**Internet FTP**  
Provides a free library containing the same files as the BBS site. FTP to **ftp.usr.com**.

**Internet on Demand**

Provides automatic technical support through a library containing product information, quick reference cards, and installation help.

**Possible solution:**

- To obtain an index of available documents, send a blank e-mail to **support@usr.com**.
- To have a document e-mailed to you, send the document's number as the subject.

**Possible solution:**

**World Wide Web**

Provides the same information as the Internet on Demand listing. Log on to **www.usr.com/home/online**

**CompuServe**

Provides the same information as the Internet FTP site.

- Go to this address: **GO THREECOM**
- Address private messages to **76711,707**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

Provides resources such as file libraries, message boards, online customer support, and product announcements. In the Keyword field, type **3COM**.

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**1. Call the Dealer Who Sold You the Modem**  
The dealer may be able to troubleshoot the problem over the phone or may request that you bring the modem back to the store for service.

**2. Call 3Com's Technical Support Department**

847 262 5151

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

- this device may not cause harmful electromagnetic interference, and

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

Washington, DC 20402

In accordance with Part 15 of the FCC rules, the user is cautioned that any changes or modifications to the equipment described in this manual that are not expressly approved by 3Com could void the user's authority to operate the equipment.

**Possible solution:**

**Problem: My modem is not working properly.**

3Com warrants this hardware product to be free from defects in workmanship and materials, under normal use and service, for the lifetime of the product from the date of purchase from 3Com or its authorized reseller. 3Com's sole obligation under this express warranty shall be, at 3Com's option and expense, to repair the defective product or part, deliver to Customer an equivalent product or part to replace the defective item, or if neither of the two foregoing options is reasonably available, 3Com may, in its sole discretion, refund to Customer the purchase price paid for the defective product. All products that are replaced will become the property of 3Com. Replacement products may be new or reconditioned. 3Com warrants any replaced or repaired product or part for ninety (90) days from shipment, or the remainder of the initial warranty period, whichever is longer.

**YEAR 2000 WARRANTY:** In addition to the Hardware Warranty stated above, 3Com warrants that each product sold or licensed to Customer on and after January 1, 1998 that is date sensitive will continue performing properly with regard to such date data on and after January 1, 2000, provided that all other products used by Customer in connection or combination with the 3Com product, including hardware, software, and firmware, accurately exchange date data with the 3Com product, with the exception of those products identified at 3Com's Web site,

http://www.3com.com/products/yr2000.html

as not meeting this standard. If it appears that any product that is stated to meet this standard does not perform properly with regard to such date data on and after January 1, 2000, and Customer notifies 3Com before the later of April 1, 2000, or ninety (90) days after purchase of the product from 3Com or its authorized reseller, 3Com shall, at its option and expense, provide a software update which would effect the proper performance of such product, repair such product, deliver to Customer an equivalent product to replace such product, or if none of the foregoing is feasible, refund to Customer the purchase price paid for such product.

Any software update or replaced or repaired product will carry a Year 2000 Warranty for ninety (90) days after purchase or until April 1, 2000, whichever is later.

**OBTAINING WARRANTY SERVICE:** Customer must contact a 3Com Corporate Service Center or an Authorized 3Com Service Center within the applicable warranty period to obtain warranty service authorization. Dated proof of purchase from 3Com or its authorized reseller may be required. Products returned to 3Com's Corporate Service Center must be pre-authorized by 3Com with a Service Repair Order (SRO) number marked on the outside of the package, and sent prepaid and packaged appropriately for safe shipment, and it is recommended that they be insured or sent by a method that provides for tracking of the package. The repaired or replaced item will be shipped to Customer, at 3Com's expense, not later than thirty (30) days after 3Com receives the defective product. Return the product to:

3Com  
Client SRO# \_\_\_\_\_  
1800 W. Central Ave.  
Mt. Prospect, IL 60056

3Com shall not be responsible for any software, firmware, information, or memory data of Customer contained in, stored on, or integrated with any products returned to 3Com for repair, whether under warranty or not.

**WARRANTIES EXCLUSIVE:** IF A 3COM PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, CUSTOMER'S SOLE REMEDY FOR BREACH OF THAT WARRANTY SHALL BE REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT 3COM'S OPTION. TO THE FULL EXTENT ALLOWED BY LAW, THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, TERMS, OR CONDITIONS, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES, TERMS, OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, SATISFACTORY QUALITY, CORRESPONDENCE WITH DESCRIPTION, AND NON-INFRINGEMENT, ALL OF WHICH ARE EXPRESSLY DISCLAIMED. 3COM NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE OR USE OF ITS PRODUCTS.

3COM SHALL NOT BE LIABLE UNDER THIS WARRANTY IF ITS TESTING AND EXAMINATION DISCLOSE THAT THE ALLEGED DEFECT OR MALFUNCTION IN THE PRODUCT DOES NOT EXIST OR WAS CAUSED BY CUSTOMER'S OR ANY THIRD PERSON'S MISUSE, NEGLIGENCE, IMPROPER INSTALLATION OR TESTING, UNAUTHORIZED ATTEMPTS TO OPEN, REPAIR OR MODIFY THE PRODUCT, OR ANY OTHER CAUSE BEYOND THE RANGE OF THE INTENDED USE, OR BY ACCIDENT, FIRE, LIGHTNING, OTHER HAZARDS, OR ACTS OF GOD.

**LIMITATION OF LIABILITY.** TO THE FULL EXTENT ALLOWED BY LAW, 3COM ALSO EXCLUDES FOR ITSELF AND ITS SUPPLIERS ANY LIABILITY, WHETHER BASED IN CONTRACT OR TORT (INCLUDING NEGLIGENCE), FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FOR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATA, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE, OR INTERRUPTION OF ITS PRODUCTS, EVEN IF 3COM OR ITS AUTHORIZED RESELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND LIMITS ITS LIABILITY TO REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT 3COM'S OPTION. THIS DISCLAIMER OF LIABILITY FOR DAMAGES WILL NOT BE AFFECTED IF ANY REMEDY PROVIDED HEREIN SHALL FAIL OF ITS ESSENTIAL PURPOSE.

**DISCLAIMER:** Some countries, states, or provinces do not allow the exclusion or limitation of implied warranties or the limitation of incidental or consequential damages for certain products supplied to consumers, or the limitation of liability for personal injury, so the above limitations and exclusions may be limited in their application to you. When the implied warranties are not allowed to be excluded in their entirety, they will be limited to the duration of the applicable written warranty. This warranty gives you specific legal rights which may vary depending on local law.

**GOVERNING LAW:** This Limited Warranty shall be governed by the laws of the State of California, U.S.A. excluding its conflicts of laws principles and excluding the United Nations Convention on Contracts for the International Sale of Goods.

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**

**Possible solution:**

**Problem: My modem is not working properly.**