U.S.Robotics®

READ ME FIRST!

56K* Faxmodem
Installation Guide
For Windows®
95, 98, 2000, and NT
Operating Systems

part number R24.0015.00

Before You Begin

Windows 95 and 98 Users

Insert the Installation CD included with your modem into your CD-ROM drive. It should run automatically. If it does not, click Windows **Start** and then click **Run**. In the "Run" dialog box, type **D:\setup.exe**. If your CD-ROM drive uses a different letter, use that letter in place of "D."

Follow the on-screen instructions. When you see the prompt to shut down your computer, refer to Step One of this Guide to continue the installation process.

Windows NT and 2000 Users

Refer to Step One to begin the installation process.

---

1 Prepare for installation.

NOTE: Before you begin, we recommend you uninstall any other modems you have in your system. Refer to your old modem's documentation for instructions.

Write the modem's serial number in the box below. The serial number is located on the bottom of the modem and on the modem's box.

NOTE: It is very important that you have your serial number written down for future reference. If you ever need to call our Technical Support department, you will need this number to receive assistance.

Make sure that your computer is shut down. Turn off your computer and all peripheral devices. Unplug your computer.

Note: If at any time during the installation you are prompted to select the location of your installation drivers, the following are the correct locations on the Installation CD (assumes D: is your CD-ROM drive).

Windows 95/98 drivers: D:\
Windows 2000 drivers: D:\Win 2000\5686
Windows NT drivers: D:\NT4\5686

For troubleshooting help or to find out how to contact technical support, see the other side of this Guide.

---

2 Connect the modem to the computer.

Connect one end of the RS-232 serial cable (not included) to the modem and the other to your computer's serial port.

NOTE: To find the serial port label on the back of your computer, look for COM, MODEM, RS-232, |O|O|, or SERIAL. Do not use AUX, GAME, LPT, or PARALLEL.

3 Connect the modem to an analog phone line.

Plug one end of the included phone cord into the TELCO jack on the modem (labeled on the modem's underside) and plug the other end into an analog phone jack.

When you are not using the modem, you can use a telephone by plugging the telephone's cord into the modem's ☎ jack.

4 Plug in the modem's power supply.

Plug the power supply into the modem's power jack (labeled on the modem's underside) and into a surge protector or electrical outlet. Make sure to use the power supply that came with your modem, as others may be of different voltages and could damage your modem. Turn on the modem. The CS light should illuminate.

NOTE: If the CS light does not illuminate or other lights illuminate, make sure that only DIP switches 3, 5, and 8 are in the down position. (The DIP switches are located next to the phone jacks on the back of the modem.)

5 Windows installs the drivers and the installation is verified.

Turn on the PC.

Windows 95/98 Users
Windows will detect your modem and install its drivers.

Windows 2000 Users
Insert your Installation CD into your CD-ROM drive before you log in. Double-click the **My Computer** icon. Right-click the **D:** drive icon and select **Explore**. If your CD-ROM drive uses a different letter, use that letter in place of "D." Double-click the **Win2000** folder and then double-click the **5686** folder.

A "Digital Signature Not Found" screen may appear.* Click **Yes**. Windows 2000 will verify that your modem is properly installed.

Windows NT Users
Insert your Installation CD into your CD-ROM drive before you log in. Double-click the **My Computer** icon. Right-click the **D:** drive icon and select **Explore**. If your CD-ROM drive uses a different letter, use that letter in place of "D." Double-click the **WinNT4** folder. Double-click **setup.exe**. This will start the Modem Setup Wizard.

All Users
When the "Modem Setup" screen appears, click **Install**. Follow the on-screen instructions until the "File Needed" screen appears. Click **Browse**. Click **Open**. The "Install Complete" message appears. Click **OK** and restart your computer.

The Installation CD includes the electronic User's Guide and Reference for your modem. For further troubleshooting information and information on contacting technical support, see the other side of this Guide.
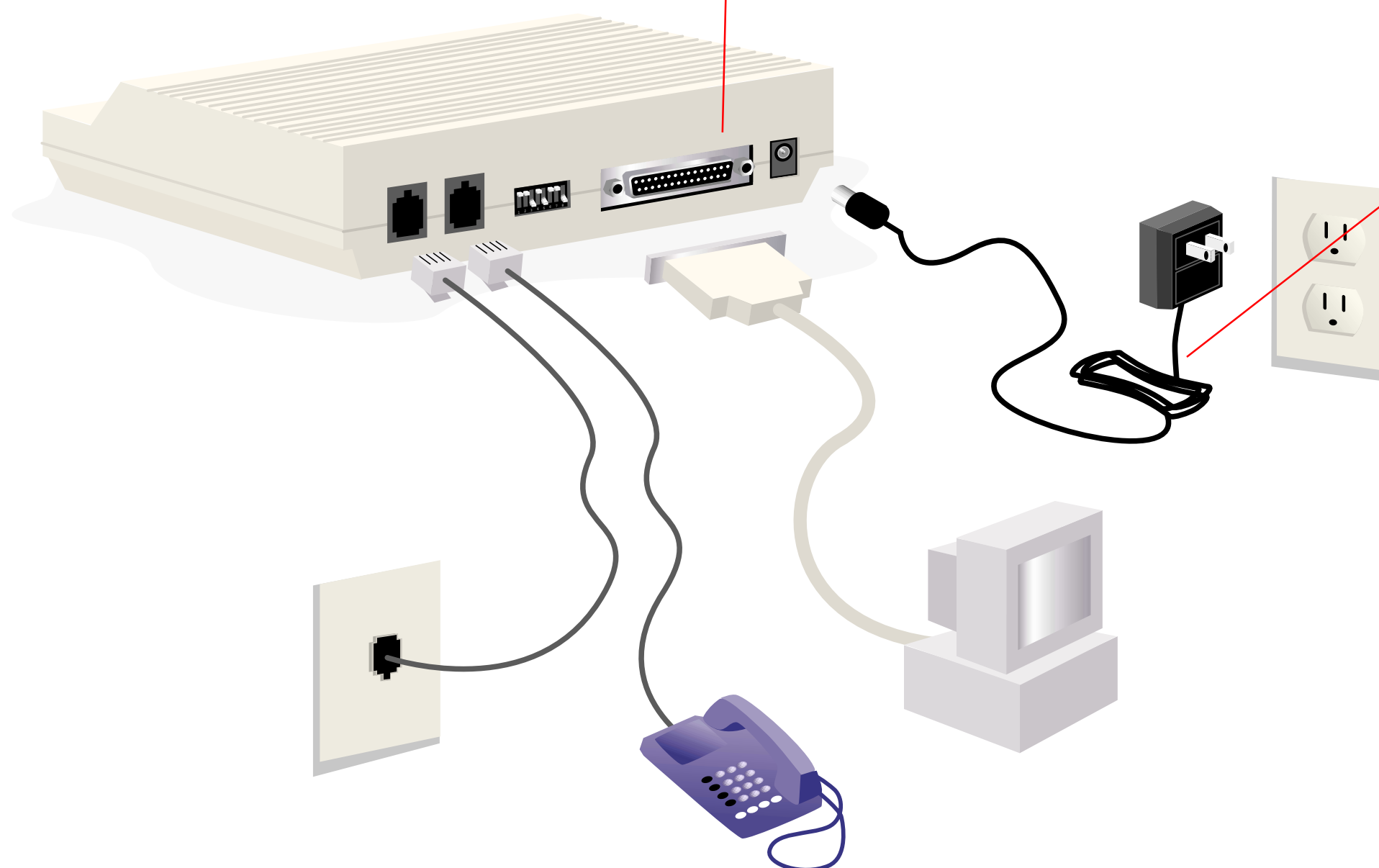
6 Register your modem and install the Connections™ CD.

When your desktop returns, register your modem. At the Installation CD interface, click the **Support** link. Follow the onscreen instructions to register your modem and to view the warranty information. (If the Installation CD interface does not run automatically, click Windows **Start** and then click **Run**. In the "Run" dialog box, type **D:\setup.exe**. If your CD-ROM drive uses a different letter, use that letter in place of "D.")

Remove the Installation CD and insert the *Connections* CD. The *Connections* CD will start automatically once you have successfully installed your modem. It will guide you through installing the *Connections* program group. The *Connections* CD contains a selection of Internet browsers, ISP offers, and other valuable software. If it does not start automatically, click Windows **Start** and then click **Run**. In the "Run" dialog box, type **D:\setup.exe**. If your CD-ROM drive uses a different letter, type that letter in place of "D."

Troubleshooting

1. Is your modem turned on? When your modem is properly connected to power and is turned on, the CS light on the front panel will be illuminated.

2. Is your power supply connected properly to both your modem and an electrical outlet? If it is, check the outlet with another electric device (like a lamp) to be sure that you are getting power. Also, use the power supply that came with your modem; other similar-looking power supplies may be of different voltages and could damage your modem.

3. Are you using the proper cable to connect your modem to your computer? Make sure you are using an RS-232 modem cable. Check the packaging of the cable you bought. There are many computer cables that look similar to an RS-232, such as a Null Modem cable, that will not work correctly with this modem. Depending on whether you have a 9-pin or 25-pin serial port on your computer, you will need either a DB9/DB25 or a DB25/DB25 serial cable. See the diagrams below.

You need a DB25F to DB25M RS-232 serial cable

You need a DB9F to DB25M RS-232 serial cable

4. Make sure the DIP switches on the back of your modem are set correctly. DIP switches 3, 5, and 8 should be in the down position. See the diagram below for the proper settings.

5. Is your phone cord properly connected? The phone cord should be plugged into the [ ] jack on the modem and into the wall phone jack. Use the phone cord included in your modem's box if possible.

PROBLEM:
My computer isn't recognizing my modem.

Possible solution:
Make sure the modem is plugged in and turned on. If it is, check the outlet with another electric device (like a lamp) to be sure that you are getting power. Also, you must use the power supply that came with your modem; other similar-looking power supplies may be of different voltages and could damage your modem. When your modem is properly connected to power and is turned on, the CS light on the front panel will be illuminated.

Possible solution:
Make sure you are using the proper cable. This modem requires an RS-232 serial cable. Check the packaging of the cable you bought. There are many computer cables that look similar to an RS-232, such as a Null Modem cable, that will not work correctly with this modem.

Possible solution:
You may be using a COM port that is either already in use or not configured correctly. To work properly, this modem needs to be plugged into an enabled serial port that is assigned to a free COM port. Typically, most computers have two serial ports assigned to COM 1 & 2 respectively.

Windows 2000 Users: Make sure your COM port is not already in use by another modem. Click Windows **Start**, **Settings**, and **Control Panel**, and then double-click **Phone and Modem Options**. Click the **Modems** tab. Look for another modem already in the machine. If there is another modem listed, check which COM port it is using. If a previous modem is already using the available COM port, you can either use another COM port or uninstall the previously installed modem. See your previous modem's manual for the instructions to uninstall that modem.

Next make sure that your COM Ports are configured correctly. Right-click the **My Computer** icon on your desktop. Click **Properties**. Click the **Hardware** tab. In the "Device Manager" section, click the **Device Manager** button. Look under **Ports** (**COM & LPT**). If the COM Ports have yellow exclamation points or red Xs over them, your COM ports may be configured incorrectly. If this is the case, you may need to contact your computer manufacturer.

It is also possible that you may be plugging an external modem's cable into a disabled serial port. Refer to your computer's manual for information about enabling COM ports. This usually involves altering the BIOS settings and possibly the operating system. You may need to call your computer's manufacturer to

---

change your BIOS settings if they are incorrect.

Windows 95/98 Users: Make sure your COM port is not already in use by another device. Click Windows **Start**, **Settings**, and **Control Panel**, and then double-click **Modems**. Look for another modem already installed in your computer. If there is another modem installed, click the **Diagnostics** tab to find out which COM port it is using. If a previously installed modem is already using the available COM port, you should uninstall that modem. See your previous modem's manual for the instructions to uninstall that modem.

Right-click the **My Computer** icon on your desktop. Click **Properties**. Click the **Device Manager** tab. Double-click **Ports**. If the Communications Ports have yellow exclamation points or red Xs over them, your COM ports may be configured incorrectly. If this is the case, you may need to contact your computer manufacturer.

Windows NT Users: Turn off your computer and remove your modem. Restart and click Windows **Start**, **Settings**, and then **Control Panel**. Double-click the **Ports** icon. Your modem must be set to a COM port setting that does not appear in this list.

PROBLEM:
My software isn't recognizing my modem.

Possible solution:
Your communications software may not function properly if you have more than one version of the software installed, you are using an older version, or you have more than one communications application installed on your system. We highly recommend using the communications software provided with your modem on the _Connections_™ CD-ROM.

Possible solution:
Make sure the modem is plugged in and turned on. If it is, check the outlet with another electric device (like a lamp) to be sure that you are getting power. Also, you must use the power supply that came with your modem; other similar-looking power supplies may be of different voltages and could damage your modem.

When your modem is properly connected to power and is turned on, the CS light on the front panel will be on.

Possible solution:
Your software's COM port settings may be incorrect. There should be a place in the Setup section of your software that addresses port settings. Make sure the software's port settings match those for your modem. To check which COM port your modem is using, click Windows **Start**, **Settings**, and **Control Panel**. Double-click **Modems**, select your modem, and click **Properties**.
Check your communication software's documentation for instructions on adjusting the port settings in your software.

Possible solution:
You may not have the correct modem type selected in your software or in Windows.

Windows 2000 Users: Click Windows **Start**, **Settings**, and **Control Panel**. When **Control Panel** opens, click **Phone and Modem Options**. Click the **Modems** tab.

Windows 95/98 Users: Click Windows **Start**, **Settings**, and **Control Panel**. When Control Panel opens, click **Modems**.

Here you will see a list of installed modems. You can also add, remove, or view the properties of modems from this window. The U.S. Robotics modem you have installed should be present in the list of installed modems. If none of the modem descriptions in the list matches your U.S. Robotics modem or no modems are listed, your modem is not properly installed. Try reinstalling your modem.

Possible solution:
If you are using Dial-Up Networking, it may not be configured correctly. Check your configuration and make sure you have the correct modem selected.

Windows 2000 Users: Click **Start**, point to **Settings** and click **Network and Dial-up Connections**. Make sure that the description in the modem box matches the description of the modem you are using. If it doesn't match, select the proper modem description.

Windows 95/98 Users: Double-click **My Computer**, double-click **Dial-Up Networking**, right-click the connection you are trying to use, and click **Properties**. Make sure that the description in the modem box matches the description of the modem you are using. If it doesn't match, select the proper modem description.

PROBLEM:
My modem won't dial out or doesn't answer incoming calls.

FOR BOTH DIALING AND ANSWERING PROBLEMS:

Possible solution:
Make sure that you are using the power supply that came with your modem; other similar-looking power supplies may be of different voltages and could damage your modem.

Possible solution:
You may have a bad phone cord connection to your modem, or your phone cord may be plugged into the wrong jack. The phone cord should be plugged into the [ ] jack on the modem and into the wall phone jack. 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.

OFFICE AND HOME USERS:
Possible solution:
You may have plugged your modem's phone cord into a digital line. Contact the department or agency responsible for your phone system if you are unsure whether or not your phone line is digital.

If your phone system requires dialing "9" to access an outside line, be sure to add "9" before the number you are dialing.

VOICE MAIL USERS:
Possible solution:
If you have voice mail provided by your local phone company, your dial tone may be altered when messages are waiting. Retrieve your voice mail to restore your normal dial tone.

PROBLEM:
My modem sounds like it's trying to connect to another modem but fails.

Possible solution:
You may have a poor connection. All calls are routed differently, so try placing the call again.

Possible solution:
Make sure the DIP switches on the back of your modem are set correctly. DIP switches 3, 5, and 8 should be in the down position. See the diagram in the basic troubleshooting section for the proper settings.

PROBLEM:
My modem isn't achieving a 56K Internet connection.

Note: Our research has shown that the vast majority of telephone lines in North America can and do support V.90 connections. The V.90 protocol allows for connection speeds of up to 56K, but line conditions may affect the actual speeds during a given connection. Due to unusual telephone line configurations, some users will not be able to take full advantage of V.90 technology at this time. In order to achieve a V.90 connection:

• The server you're dialing in to must support and provide a digital V.90 signal. Your ISP can provide you with a list of dial-up connections and information on what those connections currently support.

• The telephone line between your ISP and your modem must be capable of supporting a 56K connection and contain only one analog-to-digital conversion. The 56K signal from your ISP begins as a digital signal. Somewhere between the ISP and your modem, there will be a digital-to-analog signal conversion so that your modem can receive the data. There must be no more than one analog-to-digital signal conversion in the path from your ISP to your modem. If more than one analog-to-digital conversion occurs, your connect speeds will default to a V.34 (33.6 Kbps). There may also be impairments on the local lines between your ISP and your modem. All telephone calls are routed differently, so you should try making your 56K connection several times. One way to test this is to dial into a long distance location. Long distance lines are often much clearer than local lines. It is important to note that telephone companies are constantly upgrading their systems. Lines that do not support 56K today may support 56K in the near future.

• Your modem must be connecting to a V.90/56K server. A pair of 56K modems will not connect to each other at V.90/56K speeds.

Note: Current IC/FCC regulations limiting power may limit maximum download speeds to 53,333 bps.

Support Resources

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

World Wide Web
Contains useful product information, documents, and manuals. Log on to:

http://www.usr.com/support

Internet FTP
ftp://ftp.usr.com

Are You Still Having Problems?
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 U.S. Robotics' Technical Support Department
Technical questions about U.S. Robotics modems can also be answered by technical support specialists.

In the United States:
(847) 262-5151
8:00 A.M. - 6:00 P.M. CST Monday - Friday
Automated service is available 24 hours a day, 7 days a week.

U.S. Robotics also staffs its own fee-based 900 number for immediate assistance. These lines are staffed from:
8:00 A.M. - 10:00 P.M. CST Monday - Friday
9:00 A.M. - 5:00 P.M. CST Saturday - Sunday
No-Hold line   (900) 555-USR1

For a no-hold call, a $2.50 per minute charge (price subject to change without notice) will appear on your local phone bill. You must be 18 or older or have parental permission. (Service available in the U.S. only.)

In Canada:

Keating Technologies
(905) 479-0231
8:00 A.M. - 8:00 P.M. EST Monday - Friday

Manufacturer's Declaration of Conformity

U.S. Robotics Corporation
3800 Golf Road
Rolling Meadows, IL 60008
U.S.A.

declares that this product conforms to the FCC's specifications:

Part 15:
Operation is subject to the following two conditions:
(1) this device may not cause harmful electromagnetic interference, and
(2) this device must accept any interference received including interference that may cause undesired operations.

This equipment uses the following USOC jacks: RJ-11C.

Caution to the User
The user is cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Part 68:
This equipment complies with FCC Rules Part 68. Located on the bottom of the modem is the FCC Registration Number and Ringer Equivalence Number (REN). You must provide this information to the telephone company if requested.

The REN is used to determine the number of devices you may legally connect to your telephone line. In most areas, the sum of the REN of all devices connected to one line must not exceed five (5.0). You should contact your telephone company to determine the maximum REN for your calling area.

This equipment uses the following USOC jacks: RJ11C.

This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs.

An FCC compliant telephone cord and modular plug are provided with this equipment, which is designed to connect to the telephone network or premises wiring using a Part 68 compliant compatible jack. See installation instructions for details.

If you have an external modem:
UL Listing/CUL Listing or CSA Certified
This information technology equipment is UL-Listed, CUL Listed, and CSA-Certified for the uses described in the users guide.

If you have an internal modem:
UL Listing/CUL Listing
This information technology equipment is UL-Listed and CUL-Listed for use with UL-Listed personal computers that have installation instructions detailing user installation of card accessories.

Fax Branding
The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including fax machines, to send any message unless such message clearly contains in the margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent, an identification of the business or other entity, or other individual sending the message, and the telephone number of the sending machine or of such business, other entity, or individual. (The telephone number provided may not be a 900 number or any other number for which charges exceed local or long-distance transmission charges.)

In order to program this information into your modem, refer to the BVRP software on the CD-ROM that shipped with your modem. If you are using a different communication software program, refer to its manual.

Radio and Television Interference
This equipment generates, uses, and can radiate radio frequency energy. If this equipment is not installed and used in accordance with the manufacturer's instructions, it may cause interference to radio and television communications. The modem has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Part 15 of FCC rules, which are designed to provide reasonable protection against such interference in a residential installation.