QUICK START

and

REFERENCE GUIDE

for

MAC

NOTICE

The manufacturer does not warrant that the hardware will work properly in all environments and applications.

Although the hardware has been tested, the manufacturer makes no warranty and representation, either implied or expressed, with respect to the hardware and the documentation, quality, performance, merchantability, or fitness for a particular purpose. The manufacturer reserves the right to make changes to the hardware and Quick Start and Reference Guide content without obligation to notify any person or organization of the revision or change.

Contents

Introduction

Congratulations! You have purchased a powerful, flexible tool that will help you manage your communications, work more efficiently, and present a polished and professional image at home or the office.

This product includes high-speed data and fax capability, digital answering machine, and multi-user voice mail.

This manual is an installation, troubleshooting, and reference guide. Once you have successfully installed the modem in your Apple Macintosh computer, the software controls virtually all access to the fax, data, voice mail, and other product features.

While many data communications features can be controlled using AT commands and S registers, there is rarely any reason to do so. Summaries of AT commands and S registers can be found on the Web site **www.modems.com**.

This quick start and reference guide is organized as follows:

Introduction (this section) lists the items you need to use the modem.

Installing the Faxmodem (Chapter 1) explains how to attach the modem to your computer and tells what the indicator lights mean.

Using the Faxmodem (Chapter 2) provides tips for setting up your software.

Solving Common Problems (Chapter 3) provides information to assist you if you have problems.

The Appendixes provide a product description and specifications and give details about regulatory compliance.

What You Need to Use Your Faxmodem

Make sure that you have received the following items:

- Your faxmodem hardware (referred to in this manual as either a “modem” or “faxmodem”)

- Telephone cord to connect your faxmodem to the telephone line (wall jack)
- AC power adapter
- A **Zoom Link CD-ROM** disc with communications and other software
- Software instructions
- Packet of online service offers

For some modems, you may also have received:

- Microphone and speaker or earphone

To use this faxmodem, you also need the following items.

- A Macintosh with an available serial port. Minimum requirements:
    - 68040 or faster Macintosh
    - Macintosh OS 7.1 or later
    - 8 MB RAM
    - Hard drive with at least 10 MB available
- An electrical outlet to connect the power adapter
- Mac-to-modem serial cable (may be included with the product)
- A telephone line connection (typically, a wall-mounted telephone jack or socket) where you normally would plug in a single-line telephone

Documentation Conventions

- In this manual we may use the terms “faxmodem,” “modem,” and “product” interchangeably to refer to your faxmodem.
- Commands and command examples described in this guide appear in bold type. For example: To reset the modem, type **ATZ** and press **Enter**.

We occasionally insert spaces between commands to make a command line easier to read. You can type the command

line with or without spaces between commands as long as the command line does not exceed forty (40) characters.

- "**0**" in a command line indicates the numeral zero, not the letter O.

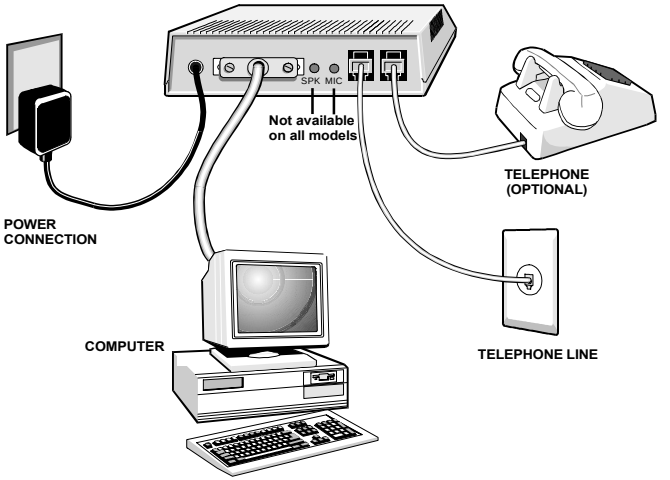
Chapter 1 Installing the Faxmodem

Your computer should be located near a telephone jack.

CAUTION

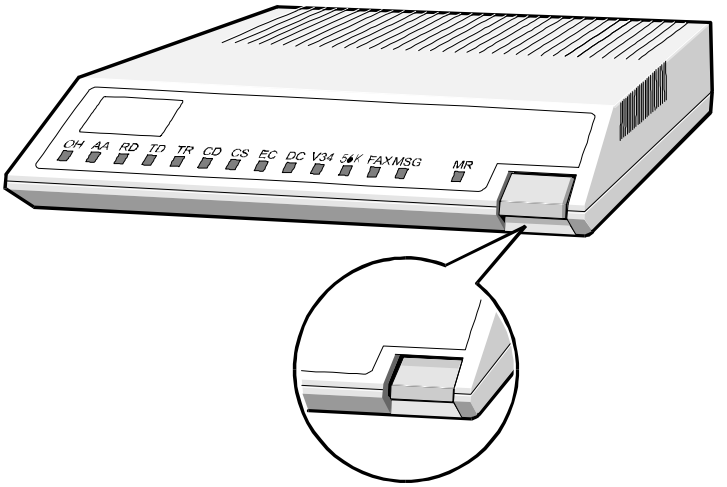
Before you start, touch a grounded metal surface other than your computer to discharge static electricity. Static electricity can damage computer and modem components.

1. Locate your faxmodem's serial number on the bottom of the case. Write the number in the **Important Information** section on page 32.
2. Turn off the computer.
3. Connect the faxmodem-to-computer cable. Plug one end of the cable into the wide connector on the back of the faxmodem. Plug the other end into the serial port in the back of your computer.
4. Connect the telephone cord. Plug one end of the cord into the **PHONE LINE** jack on the back of the faxmodem. Plug the other end into the telephone line connection (typically mounted on a wall), just as you would a standard telephone.
5. Connect the power adapter. Plug one end of the power adapter into the back of the faxmodem. Plug the other end into an available electrical outlet. You can leave the power adapter plugged in when you are not using the faxmodem.
6. Connect telephone, as shown in the following diagram. The faxmodem works with or without a telephone connected to it. If your faxmodem came with a speaker or earphone and microphone, plug them into the jacks on the back of the faxmodem, as shown in the illustration.



7 Turn the computer back on.

8 Turn the faxmodem on by pushing in the power button on the front, as shown in the following diagram.



The modem performs a brief self-test.

After the self-test, the front panel status lights or LEDs show the faxmodem's current state. The **MR** light should be on, which shows the faxmodem is ready for use.

Now you can install your fax and data communications software. Follow the instructions provided with the software.

Summary of the Indicator Lights

Light	Description
OH (Off Hook)	Lights when the faxmodem is off hook.
AA (Auto-Answer)*	Lights when Auto-Answer is activated. Blinks on and off when detecting incoming ring.
RI (Ring Indicate)*	Blinks on and off when detecting incoming ring.
AA (Auto-Answer)	Blinks on or off when detecting incoming ring. Lights if software uses the modem's S register 0 to control auto-answer and sets S0 to 1-255 rings.
RD (Receive Data)	Light flashes when data is sent from the faxmodem to your computer or other serial device. At high speeds light may appear on.
TD (Transmit Data)	Flashes whenever data or commands are transmitted from the serial port of your computer or other device to the faxmodem.
TR (Terminal Ready)	Lights when the terminal is ready to send or receive data.
CD (Carrier Detect)	Lights when the Data Carrier Detect (DCD) signal from the faxmodem to the computer is on.
CS (Clear to Send)	Lights when the faxmodem can accept data from the computer. The light turns off when the faxmodem is set for flow control (AT command &K3) and the faxmodem's data buffer is full, preventing data flow from the computer.
EC (Error Correction)	Lights when sending data using V.42 or MNP 4 error correction.
DC (Data Compression)	Lights when using V.42bis or MNP 5 data compression.
V.34	Lights when operating in V.34 mode.

56K*	Lights when communicating in V.90 or K56flex™ mode.
FAX	Lights when fax connection has been made to a remote faxmodem.
MSG	Lights when faxes are waiting if your software supports this feature.
MR (Modem Ready)	Lights when the faxmodem is turned on. Flashes when the faxmodem is in self-test mode.

* Not available on all models

Chapter 2 Using the Faxmodem

This chapter provides tips for setting up your communications software and using the modem. It also describes advanced telephony features.

See the software instructions included with your software for information about how to install and use the programs included with this product.

After you set up your software, you are ready to start using your faxmodem. The best way to get familiar with your software is to learn by doing.

- Try dialing a bulletin board or online service, or try calling a friend with a modem and transferring a file.
- Send a fax and have someone send one back to you.

Using Other Voice, Fax, and Data Communications Software

If you have any difficulties installing or setting up other communications software, it may be helpful to read **Tips for Selecting Setup Options** on the next page.

Software programs are designed as a simple, user-friendly interface that makes it easy to use the many features your faxmodem offers. The software must first identify the modem and its special capabilities. Many software programs identify the product automatically and configure themselves for the correct operating settings.

Installing most software takes you through a series of setup options. With virtually all commercially available software, selecting the correct description of the product during installation means that you can accept all of the default settings that the software suggests.

Using Initialization Strings

An initialization string is a group of AT command settings that are sent to the faxmodem as soon as you start up the software. The software determines which commands go

into the initialization string based on the device you select during installation. The commands remain in effect throughout the communications session, unless the software sends other commands to override them.

The software uses other AT command strings for other purposes. For example, when you make a telephone call, the software inserts AT commands in a *dial string* before the telephone number you are calling. You can typically use the AT command strings which are provided with the software.

It is sometimes necessary to add other AT commands to the strings as suggested in the next section, **Tips for Selecting Setup Options**, and in Chapter 3. For a table of AT commands, go to the Web site at **www.modems.com**.

Tips for Selecting Setup Options

In setting up some older software programs, you may be asked to enter certain information. Most programs have default settings that are correct for use with this modem, and there is no need to change them. You should be aware of the following items:

- If you are asked to select the "modem type" from a menu and you do not see this modem listed by name on the menu, select the most descriptive name, or keywords, such as **Hayes-compatible V.34 modem** (with or without a specific speed) or the generic **Class 1 Modem**. The more generic the type you choose, the less likely that the software lets you use some of the modem's advanced features. It still performs basic communications and fax functions.
- In the dialing directory, **all entries should be set to 115,200 bps (115.2K baud)**. All communications between the computer and the modem take place at 115,200 bps, independent of the modem-to-modem speed. The modem auto-negotiates the highest speed connection between itself and the other modem.
- If there is a section of your software called "Terminal Settings," make sure that **Hardware Flow Control (RTS/CTS**) is **ON (**or **YES)**. This is necessary in order for V.42bis file transfers to work.

- Set **auto baud detect** to **OFF** (or **NO**).
- Some programs ask **"Send init if CD high?"**, which you should set to **YES**. Otherwise the modem may not receive the proper initialization string.
- If your software suggests an initialization string for this modem, you should use it. If this modem is not listed by your software and no initialization string is suggested, use the following initialization string:

  AT &F

Note:	If you are familiar with AT commands and you save any settings in the modem's nonvolatile memory using the modem's **&W** command, remove the **&F** from the initialization string. Otherwise the contents of the initialization string overrides the saved settings.

- If the software does not provide a dial string, use **ATDT** if your telephone line uses tone dialing (as most do), or **ATDP** if the line uses pulse dialing.
- If your telephone service includes Call Waiting that you can temporarily suspend by pressing *70, include **ATDT*70,** in the dial string. (**Note:** Be sure to type the comma). For pulse dialing, use **ATDT1170** at the beginning of the dial string. For more information about handling Call Waiting, contact your telephone company.
- If your fax software gives you the option of selecting **Class 1** or **Class 2** fax drivers, select **Class 2** if your modem supports it. Class 2 may provide slightly faster faxing. Otherwise select **Class 1**.

Using AT Commands

While using your software and modem you rarely, if ever, need to send AT commands directly to the modem. If you need to enter AT commands, you must do so from the software's terminal mode.

Using AT commands in terminal mode

1. Start your data communications program.
2. Change to terminal mode (also called command, local, direct, or dumb mode).
3. Type in the AT command you need and press **Enter**.

When you finish, you can return to the data communications program's standard user interface. See the program's documentation if you need help.

Returning to the Factory Settings

To return to the factory default settings for the modem:

In terminal mode, type **AT &F** and press **Enter**.

See the Web site at **www.modems.com**.

Chapter 3 Solving Common Problems

If your modem is not working, please read this chapter *and* the communications software documentation carefully.

For installation problems, see **Chapter 1 Installation**.

This chapter covers four categories: General troubleshooting, echo troubleshooting, dial troubleshooting, and connection troubleshooting.

Continued on the next page…

General Troubleshooting

Problem: The software cannot find the modem and the modem does not respond to AT commands. (The following comments apply to many other problems as well.)

Solution: The most common error with modems is that the communications software is not configured for the same serial port as the modem. Check which serial port the modem is using. Make sure that the software's serial port setting matches the modem's serial port setting.

Problem: The modem takes too long to hang up at the end of a telephone call.

Solution: Your modem may not be receiving the required initialization string, which should include the **&C1** setting, from your software.

In your software, make sure you have selected your modem. If not, select it and exit and restart your communications software. If you still have problems, add **&C1** to the initialization string, then exit and restart the software. (See **Tips for Selecting Setup Options** in Chapter 2.)

Problem: **You type an AT command line and press Enter, but your modem fails to execute the command line.**

Solution: Be sure you type **AT** at the beginning of the command line.

Make sure the communications software is configured for the same serial port as your modem.

Be sure your modem is in terminal mode and not in data mode when you type the command.

Problem: **No response appears after executing a command.**

Solution: If you typed a command but did not receive an **OK** response from your modem:

Make sure the communications software and modem are configured for the same serial port.

The **E0** and **Q1** commands may be in effect, disabling echo and responses. Verify this with the **&V** command. To enable echo and responses, type **AT E1 Q0** and press **Enter**.

Be sure your modem is in terminal mode and not in data mode when you type the command.

Problem: **You receive an ERROR response when trying to execute a command.**

Solution: Check whether you typed the command correctly.

Check whether the command is a valid one.

Be sure your command line contains fewer than 40 characters.

Problem: **Your modem goes off-hook and seizes the telephone line when there is an incoming voice call that you want to take on your telephone.**

Solution: The modem is configured for auto-answer. Turn off auto-answer in your software.

Problem: Modem does not auto-answer.

Solution: Your modem may not be configured to automatically answer incoming calls. If you want your fax or data software to answer calls, be sure you have selected this option in your software.

Problem: You encounter other communications problems with your modem.

Solution: Check that your communications software has been set up properly. Recheck the initialization string and dial string specified in your software manual. Remember that commands in the initialization string are sent to the modem each time you start your software and override the settings stored in the modem's nonvolatile memory.

Problem: You are uncertain about the Data Terminal Ready (DTR) and Data Carrier Detect (DCD) settings referred to in your software manual.

Solution: If your software requires that your faxmodem ignore DTR (which is the faxmodem's default setting) and you are using the **&D2** command in the faxmodem's initialization string or have stored it in nonvolatile memory, your faxmodem does not work properly. If this is the case, store the **&D0** command in nonvolatile memory.

Type: **AT &D0 &W &Y0** and press **Enter**.

Make sure that your faxmodem initialization string does *not* contain **&D2**.

If your software requires that your faxmodem *follow* DTR, the previous considerations apply in reverse. If you are having problems, include **&D2** in the faxmodem initialization string.

If your software requires that DCD always be forced ON (which is the faxmodem's default setting), and you are using the **&C1** command in the faxmodem initialization string or have stored it in nonvolatile memory, your faxmodem does not work properly. If this is the case, store the **&C0** command in nonvolatile memory.

Type: **AT &C0 &W &Y0** and press **Enter**.

Also make sure that the faxmodem initialization string does *not* include **&C1**.

If your software requires that Data Carrier Detect *follow* carrier, the above considerations apply in reverse. If you are having problems, include **&C1** in the faxmodem initialization string.

Problem: The modem speaker volume is too low or too high.

Solution: If the software allows you to control the speaker, make sure the speaker is enabled and set to a comfortable volume.

If the software does not have speaker settings, add one of the following AT commands to the initialization string:

L1 for low volume
L2 for medium volume
L3 for highest volume

M0 to turn the speaker off entirely

For example, if you want the volume low and the software uses the initialization string **AT&F**, change it to **AT&FL1**.

Echo Troubleshooting

Problem: Each character you type either appears twice or no characters appear at all during data mode.

Solution: Make sure that your software is in full-duplex mode when you make a telephone call. If the remote modem is not also in full-duplex mode, change to terminal mode, type **AT E0**, and press **Enter**. Then turn on your communications software's local echo. Your software now echoes commands during terminal mode and any typing performed during data mode.

Dial Troubleshooting

Problem: The modem does not automatically dial a call when you send a Dial command.

Solution: Make sure the modem speaker is turned on in your software so that you can hear dialing sounds. Also make sure that the telephone line is plugged in.

Make sure that your are dialing a valid telephone number, including any required dial prefixes.

If you are using tone dialing on a line that requires pulse dialing, the line may not be able to accept tone-dialed calls. Select **Pulse** dialing in your software or include the **P** command in place of **T** in your **Dial** command line to specify pulse dialing.

Make sure software dialing prefix is either **ATDT** (for tone dialing) or **ATDP** (for pulse dialing).

Make sure your communications software and modem are configured for the same serial port.

Make sure your modem has hung up from the previous call. Select **Hang Up** in your software. Or you can change to terminal mode, wait one second, type **ATH**, and press **Enter** to hang up the modem.

Connection Troubleshooting

Problem: The modem can connect to some modems, but not to others.

Solution: If a remote modem does not respond because of the extended negotiation process, you may have to disable part or all of the negotiation process. In the following table, “protocol” means error correction and data compression.

Note 1: The first two lines in the table are likely to be the most valuable.

Note 2: In the command strings shown in the table that follows, the character after "N" is zero, not the letter "O."

Note 3: Some commands vary because of the processor used in the faxmodem. The use of Lucent- or Rockwell-based processors is indicated on the faxmodem box. You can also find out the processor type in a terminal emulator program by typing **ATI3** and pressing **Enter**. If the resulting response contains **207**, the processor is Lucent-based; if the response contains **201**, the processor is Rockwell-based.

To force the different communication speeds (speeds are maximums; actual speed depends on line conditions and other factors)	**Type these commands and press Enter**	
Negotiate speed and protocol (default setting)	**AT &F**	
Negotiate speed only, do not use protocol	**AT \N0**	
To force protocol	**AT \N3**	
	Lucent	**Rockwell**
Dualmode (V.90 or K56flex)—56000 bps	**AT S109=1 (default)**	**(default)**
K56flex only (disable V.90)—56000 bps	**AT S109=0**	**AT +MS=56,0**
V.90 only (disable K56flex)—56000 bps	**AT S109=2**	**AT +MS=12,0**
Disable V.90 and autorate on V.34—33600 bps	**AT S38=0**	
V.34—33600 bps	**AT S37=19**	**AT +MS=11**
V.32bis—14400 bps	**AT S37=11**	**AT +MS=10**
V.32—9600 bps	**AT S37=9**	**AT +MS=9**
2400 bps	**AT S37=6**	**AT +MS=2**
1200 bps	**AT S37=2**	**AT +MS=1**

Note 4: You may find it necessary or helpful to include **W2** in your initialization string or dialing prefix. This enables responses that include the modem-to-modem speed.

Note 5: Some software allows these commands to be added to the list of dial prefixes or the initialization string.

Note 6: When the protocol is forced, the modem will not attempt to connect at other protocols if it cannot connect at the forced protocol. It will try to connect at the fastest speed available within the forced protocol.

There are other configurations that can be forced as well. If you need to select a particular configuration, use the AT command strings shown next.

You can always return to the modem's default configuration by typing **AT &F** and pressing the **Enter** key. If you do, the modem does not receive the commands in your software's initialization string, as it normally would. Using the **ATZ** command overcomes this problem if you have saved all of your setup parameters in nonvolatile memory. (To save setup parameters in nonvolatile memory in AT terminal mode: Type **AT**, followed by the parameter settings you choose, followed by **&W**, and press **Enter**. For example, if you type **AT &C1 &D2 &W** and press **Enter**, the **&C1** and **&D2** parameter settings are stored in **Profile 0**.)

To force...	Type these commands and press Enter	
	Lucent	Rockwell
MNP5/MNP4 operation	**AT \N2**	**AT \N5**
MNP4 only	**AT \N2 %C0**	**AT \N5 %C0**
LAPM only	**AT \N4**	

Continued on next page

"Normal" operation (The faxmodem communicates without any error correction or data compression, but retains speed buffering and auto-speed negotiation. It should not be confused with the "standard" configuration.)	**AT \N0**
Auto-answer	**AT S0=1**

Problem: Your online service reports a connect speed that doesn't match your modem's speed.

Solution: To get your online service software to report the actual connect speed, add **W2** to the end of the initialization string, or to the dial prefix, just before the **D**, as in these examples:

Initialization string: **AT&F&C1&D2W2**
Dial prefix: **ATW2D**

Consult your online service's documentation for details on initialization strings and dial prefixes. Actual connect speeds depend on your modem's speed, the equipment you're connecting to, and phone line conditions.

Problem: Your modem disconnects while communicating with a remote system.

Solution: The remote system has hung up.

The telephone line disrupted your call. If your telephone service includes **Call Waiting**, turn it off if possible before making modem calls. Ask your telephone company if you can temporarily disable **Call Waiting** by pressing ***70** (tone dialing) or dialing **1170** (pulse dialing). If so, include ***70,** (the comma is part of the code) for tone dialing or **1170,** for pulse dialing as a prefix with the telephone numbers in the software's dialing directory. Or you can add the code to the dial string or initialization string in the software's setup. Be sure to include the comma. **Note:** This helps with outgoing but not incoming calls.

Problem: **Your modem does not make a connection.**

Solution: If your modem places telephone calls but never makes a connection, make sure you are dialing the right number.

The remote modem may be turned off.

Problem: **You receive bursts of errors occasionally, but otherwise data quality is good.**

Solution: The connection may have been established on poor-quality or noisy telephone lines. Hang up and place the call again to try to obtain a better connection.

Someone may be picking up an extension connected to the line that your modem is using. If the modem is sharing a telephone line with other telephones, inform the other users when you will be making a data call.

Your telephone line may have a **Call Waiting** feature and a call is being received. See the previous **Call Waiting** discussion.

Problem: **Random errors occur or data is missing in transmitted data.**

Solution: Use the MNP or V.42 protocol if the remote modem supports one of these protocols. See the table on page 23 for more information.

Select a lower baud rate in your communications software and place the telephone call again.

If both modems are using the MNP or V.42 protocol, the only way this can occur is if your modem and communications software are not using the appropriate flow control. Configure your communications software for **RTS/CTS** (hardware) flow control. Your computer now pauses for the transmission to be stored.

Problem: Your faxmodem is not communicating data as fast as you expect.

Solution: For data communication above 14,400 bps, make sure that the modem at the other end of the telephone connection also supports V.34.

Follow the recommendation provided under **Tips for Selecting Setup Options** in Chapter 2 for setting the port speed in the software. Your faxmodem's speed may be affected by the speed of your computer hardware and operating system.

If you are sending or receiving pre-compressed data files such as BIN or HQX files, turn off the faxmodem's automatic data compression feature before you call the remote modem. Automatic data compression cannot compress the files any further and may slow down their transmission.

Appendix A: Product Summary

This modem hardware supports the following standards, functions, and features:

Data Speeds:

- 56,000/33,600/31,200/28,800/26,400/24,000/ 21,600/19,200/16,800/14,400/12,000/9600/7200/ 4800/2400/1200/300 bps
- Data throughput up to 230,400 bps

Data Standards:

- V.90, K56flex, V.34, V.32bis, V.32, V.22bis, Bell 212A, Bell 103, V.21, V.22A/B, and V.23 protocols
- V.42 LAPM and MNP® 2-4 error correction
- V.42bis and MNP 5 data compression

Fax Speeds:

- 14,400/12,000/9600/7200/4800/2400/1200/300 send/receive fax

Fax Standards:

- V.33, V.29, V.17, V.27ter, and V.21 channel 2
- Class 1, Class 2 (some models), Group 3 fax

Approvals:

- FCC Part 15B and Part 68 Telecommunications approval; Industry Canada Emissions and Telecommunications approval; CE approval.

Features:

- Auto-negotiation of highest mutually supported level of error correction, data compression, and modem speed.
- Auto fallback/fall forward on initial connection and during call.
- Compatible with Hayes AT commands and S registers
- Line quality monitoring and auto-retrain.
- Flow control and speed buffering.
- Automatic terminal-to-modem speed sensing to 230,400 bps.
- Auto-dial/auto-answer.
- Tone, pulse, and adaptive dialing.
- Automatic self diagnostics.

- Digital and analog loop-back diagnostics.
- Automatic adaptive equalization.
- Nonvolatile RAM for storage of up to four 35-digit telephone numbers and alternate configurations
- Automatic gain control.
- Inactivity timer (when set, hangs up if no data in programmable time from 1 to 42 minutes).
- Call progress tone decoding – busy, ring, dial tone.
- Calling tone detection for both fax and data.
- Caller ID support (on some models)
- DTMF decoding for automatic detection of incoming voice, fax, or data.
- Dual RJ-11 telephone jacks – one for telephone line, one for optional telephone.
- Telephone cable with RJ-11 connectors.

Appendix B: Product Specifications

External

Configuration	External faxmodem
Jacks	(2) RJ-11 telephone
	V.24/DB-25 female
	Speaker (certain models only)
	Microphone (certain models only)
	Power input
Size	5.25" x 6.50" x 1.40"

Electrical Specifications

Typical Power Requirements	105 to 130 VAC, 60 Hz
Power Cube Provides	9 VDC, 600 mA UL and CSA Approved
Fuse	2A fuse (not user replaceable)

Performance Specifications

Transmit Signal Level (Nominal)	-10 ± 1 dBm
Transmit Frequency Tolerance	± 0.01 percent
Receive Signal Level	-9 dBm to -43 dBm
Receive Frequency Tolerance	±7 Hz

Appendix C: Regulatory Information

FCC Part 68 Telecommunications Statement

The Federal Communications Commission (FCC) has established Rules which permit this device to be directly connected to the telephone network. This device is registered with the Federal Communications Commission (FCC) for direct connection to the telephone line using a standardized RJ11C telephone jack. This device complies with the Part 15, Subpart B, and Part 68 requirements of the FCC rules.

The telephone company may make changes in its technical operations and procedures; if such changes affect the compatibility or use of the device, the telephone company is required to give adequate notice of the changes.

If the telephone company requests information on what equipment is connected to the line, inform them of:

1. The telephone number that this unit is connected to,
2. The ringer equivalence number,
3. The USOC jack required [RJ-11C], and
4. The FCC Registration Number.

Items (2) and (4) are indicated on the label attached to the underside of the faxmodem. The ringer equivalence number is used to determine how many devices can be connected to your telephone line. In most cases, the sum of the RENs of all devices on any one line should not exceed five (5.0). If too many devices are attached, they may not ring properly.

If this device should malfunction, it may also cause harm to the telephone network. Should this occur, this device should be disconnected from the network until the source of the problem can be determined and repair has been made. If a device which harms the network is not removed, the telephone company may temporarily disconnect service.

In the event of equipment malfunction, all repairs should be performed at an authorized repair facility. It is the responsibility of users requiring service to report the need for service to such a facility. Service facilities are listed on the product's warranty flyer.

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via telephone fax machine unless such message clearly contains in a margin at the top or bottom of each transmitted page, or on the first page of the transmission, the date and time sent, the identification of the business, entity, or individual sending the message, and the telephone number of the sending machine. In order to program this information into your fax machine, refer to your faxmodem software documentation for information on enabling fax branding.

Industry Canada Attachment

The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational, and safety requirements. The department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telephone company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. For locations of the authorized service facilities, please see the product's warranty card. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electrical inspection authority, or electrician, as appropriate.

The Ringer Equivalence Number (REN) assigned to each terminal device helps to prevent overloading. You can use any combination of devices subject only to the requirement that the sum of the RENs of all devices on any one line should not exceed 5 (5.0). If too many devices are attached, they may not ring properly.

The Ringer Equivalence Number for your modem is indicated on the label attached to the underside of the faxmodem.

Canadian Emissions Statement

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Important Information

In the event you need to contact technical support or customer service, you must provide the information below.

We recommend that you take a few moments to fill in the following information for your future reference.

Faxmodem Model _____
(located on the box)

Serial Number _____
(located on the bottom of an external modem under the barcode)

Date of Purchase _____

Store or Dealer _____