
QUICK START

and
REFERENCE GUIDE
for

PC

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Introduction

Congratulations! Your new faxmodem is a powerful, flexible tool that will help you manage your communications, work more effectively, and present a polished and professional image at home or at the office. This manual explains how to install and use your faxmodem and communications software.

What You Need to Use Your Faxmodem

Make sure that you have received the following items:

- Faxmodem
- Phone cord
- Power adapter (external models only)
- Communications software on CD-ROM disc or floppy diskette. The software also includes helpful installation utilities.

For some voice modems, you may also have received:

- Microphone and speaker or earphone

You also need the following:

- **For internal models:** IBM PC-compatible with a 16-bit ISA or EISA Bus slot, and a tool for removing and replacing the computer cover (see your computer's manual)
- **For external models:** an available serial port (also called an RS-232 port, COM port, or modem port) and a serial cable with hardware flow control
- A telephone jack to plug the modem into

Chapter 1 Installing an External Faxmodem

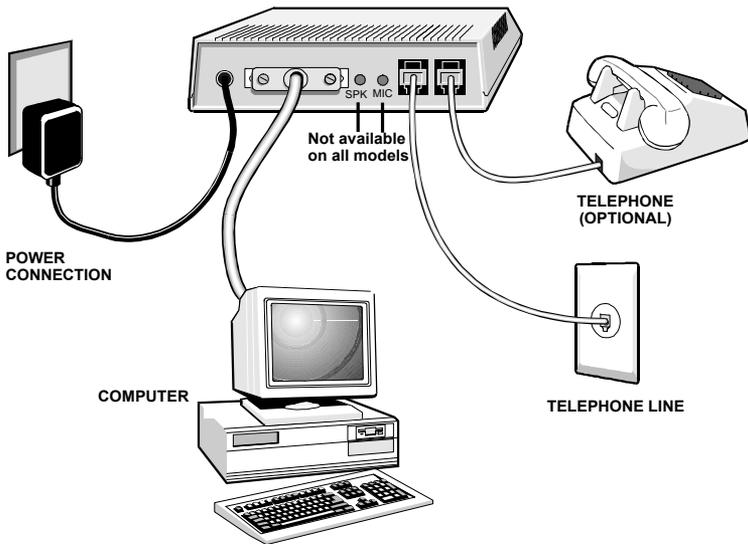
Connecting the Faxmodem to Your Computer

- 1** Find the serial number of your faxmodem on the bottom of the case, just under the bar code. Write the number in the **Important Information** table on page 47 of this manual.
- 2** Close all running programs. Shut down and turn off the computer.
- 3** Connect the faxmodem-to-computer serial cable. Plug one end of the cable into the wide connector (DB-25 male) on the back of the faxmodem. Plug the other end into the serial port on the back of your computer. Tighten the screws at both ends of the cable.
- 4** Connect the telephone cord. Plug one end of the cord provided with the modem into the **PHONE LINE** jack on the back of the faxmodem. Plug the other end into the wall jack just as you would a standard telephone. You may also connect your regular telephone to the back of the faxmodem, in the jack labeled **PHONE**.

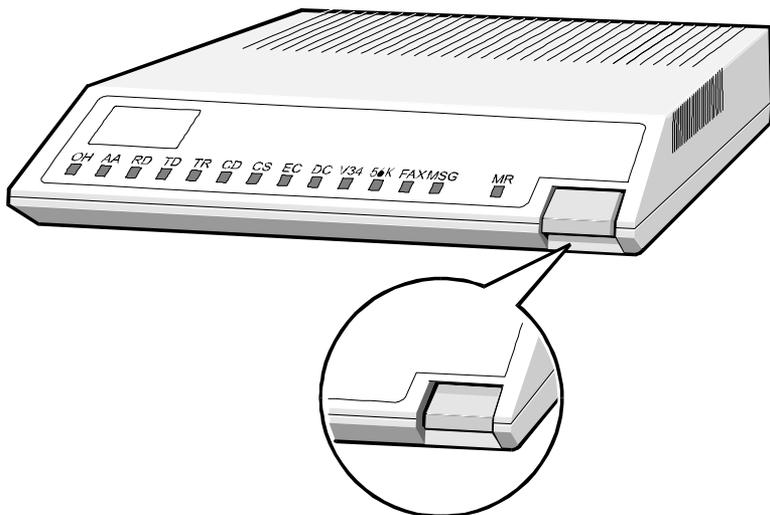
The faxmodem works with or without a telephone connected to it.

- 5** **Connect the power adapter.** Plug one end of the power adapter into the back of the faxmodem. Plug the other end into an electrical outlet.

The following illustration shows a typical setup.



- 6** 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 faxmodem on by pushing in the power button on the front of the unit, as shown in the following illustration.
- 8** Turn the computer back on.



The modem performs a brief self-test. Then the **MR** light should go on to show that the faxmodem is ready for use.

The faxmodem has a set of 14 indicator lights on the front. A chart telling you what the lights mean is at the end of this chapter, on page 9.

Note: If you are installing the modem under DOS or under Windows 3.1, or 3.11, your faxmodem installation is complete. Please proceed to Chapter 3, **Testing Your Faxmodem**. Otherwise continue below.

Completing the Installation

Note that there are two sections, one for Windows 95/98 and one for Windows NT 4.0, plus a final section on determining your COM port.

Note: Your faxmodem comes with setup files needed for installation. These files may be on a separate Utilities diskette or on a CD-ROM disc included with your unit.

Windows 95 and 98

1 As the Windows operating system starts up, it will detect your new faxmodem and ask you for a diskette or CD-ROM disc.

- 2**
- If you received a Utilities diskette, insert it in the floppy drive.
 - Otherwise insert the CD in the CD drive.

Continue answering the prompts.

Windows automatically detects the correct files and copies them to your computer's hard drive.

Continue with **Determining Your COM Port** on page 8.

Windows NT 4.0

1 Open the **Control Panel** and double-click on **Modems**. Click **Add**.

In the **Install New Modem** dialog box, check **Don't detect my modem; I will select it from a list**.

- 2** In the next dialog box, click **Have Disk**. Insert the Modem Utilities disk in your floppy drive or the CD-ROM disc into your CD drive.
- 3** Click **OK**. Windows NT auto-detects the correct files and copies them to your hard drive. Follow the screen prompts to finish the installation. Continue below.

Determining Your COM Port

Once the system is completely started up, you should determine what COM port your faxmodem is set to. The COM port is a number used by the computer to keep track of where it is sending data. You may be asked for this number by certain software applications when you install them and set them up.

To find your COM port number:

- Double-click **My Computer**.
- When the **My Computer** window opens, double-click **Control Panel**.
- Inside the **Control Panel** window, double-click the **Modems** icon.
- In the **Modems Properties** dialog box select this modem, which should be listed as a modem found by the system.
- Then click **Properties**. Your faxmodem's properties are listed in a **Properties** dialog box. Under the **General** tab you'll find **Port: Com** plus a number.

Make a note of this **Port: Com** setting on the **Important Information** table on page 47 of this manual.

If you have not encountered any problems, your modem is installed and you can move on to Chapter 3 to test your faxmodem. If you are having problems, see the troubleshooting sections in Chapter 6.

Summary of the Indicator Lights

| Light | Description |
|------------------------------|--|
| OH (Off Hook) | Lights when the faxmodem is off hook. |
| AA (Auto-Answer) | Blinks on and off when detecting incoming ring. |
| 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 continuously 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 computer is ready to send or receive data. Indicates the status of the DTR signal from the terminal or computer. |
| 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 will turn 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 using V.42 or MNP 4 error correction. |
| DC (Data Compression) | Lights when using V.42bis or MNP 5 data compression. |
| 14.4* | Lights when operating at speeds of 14.4 Kbps or higher. |
| V.34 | Lights when operating in V.34 mode. |
| 56K** | Lights when communicating in <i>K56flex</i> TM or V.90 mode. |
| FAX | Lights when fax connection has been made to a remote faxmodem. |
| MSG | Used by some software products. May light when faxes or voice messages are waiting. |
| MR (Modem Ready) | Lights when the faxmodem is turned on. Flashes when the faxmodem is in self-test mode. |

*This light is not on all models.

**This light is active on 56K products.

Chapter 2 Installing an Internal Faxmodem

Preparing for the Installation

Before you open the case of your computer and install your new faxmodem, you must make a few preparations. These are different depending on your computer's operating system.

- **In Windows 95, 98, and NT 4.0 with Plug and Play**, you must decide whether to keep your old modem, if any. If you decide to remove it, you must inform Windows first. *Instructions begin below.*
- **In Windows NT 4.0, jumpered installation**, you must determine jumper settings and instruct Windows NT to add a new port, if needed. *Instructions begin on page 12.*
- **In Windows 3.1, 3.11, and DOS**, you must determine the COM port setting and IRQ and then set them using small connectors (called jumpers) on the faxmodem. *Instructions begin on page 13.*

Windows 95/98 and NT 4.0 with Plug and Play

Note: All Windows NT systems can be configured using the modem's jumpers. Computers with a Plug and Play (PnP) BIOS and Windows NT 4.0 or higher can also be configured using the Plug and Play capabilities of the modem if you like. To find out whether you have a PnP BIOS refer to your computer documentation.

Note: Details of the procedure may vary slightly between Windows 95 and 98; just follow the on-screen prompts.

Removing an Existing Modem

If your computer does not already have a modem installed, you do not need this section. Go to *Installing the Faxmodem in Your Computer* on page 17.

1 **If your computer has a modem, you may choose to keep it or to remove it.** We recommend that you remove your old modem unless you have a good reason to keep it. Removing your old modem assures that your computer will have space to install the new faxmodem and enough resources to run it without conflicts with other devices.

You may want to keep your old modem, however, if you have two telephone lines and want to keep your fax program running on one line while you access the Internet on the other line. Another reason for keeping your old modem would be that you anticipate being able to use “bonding” software to use two modems and two phone lines for faster Internet access. If you decide to keep your old modem installed, you should determine whether your computer has sufficient resources, as discussed in **Appendix A**.

2 **If you are removing your old modem:**

| |
|--|
| Note: You can also use this procedure if you ever need to remove your new faxmodem. |
|--|

Before you remove your old modem, you must inform Windows that you are going to remove it before you physically do so. This may prevent internal conflicts in Windows it allocates its resources to your new faxmodem.

Follow these steps to “remove” your old modem in Windows before you open the case of your computer.

- Click on **Start** and point to **Settings**. Click on **Control Panel**. When the Control Panel displays, double-click on the **Modems** icon.
- Now click on the **Remove** button. Click **OK** to confirm that you are removing the modem.

Windows has now been informed of your intention to remove the old modem. Continue with **Installing the**

Faxmodem in Your Computer on page 17.

Windows NT 4.0—Jumpered Installation

1 *If you are planning to remove a modem from your PC's ISA slot and replace it with this new modem:*

Check the existing modem's port configuration. Click **Start** and point to **Settings**. Click on **Control Panel** and when it appears double-click on the **Ports** icon. Click **Settings** and then **Advanced**. Write down the COM port settings in the **Important Information** table on page 47 of this manual.

Now uninstall the existing modem: Open the **Control Panel** and double-click the **Modems** icon. Select the modem to be removed and click **Remove**. Follow the screen prompts.

Go to step 3 below.

2 *If you are installing a first or additional modem and not replacing an existing one:*

First you must determine which IRQs are available:

- Click **Start**, point to **Programs**, click on **Administrative Tools**, and then on **Windows NT Diagnostics**.
- Click on the **Resources** tab and then on the **IRQ** button.
- Make a note of any of the following IRQ numbers that are *not* in the list: **3, 4, 5, 7, 9, 10, 11, 12**.

Now you need to add a port:

- Double-click on the **Ports** icon in the **Control Panel**. Click **Add**.
- Windows will list the next available COM port along with an associated I/O address and IRQ.
- Make sure the IRQ listed is available. If necessary, change the IRQ number to one of the available numbers you noted above.
- Look at the jumper settings diagrams on page 16. Find the I/O address that matches the COM port number in the dialog box. (Example: for

COM Port 4, the address is 02E8.) Change the I/O address to this number if necessary.

- Click **OK**.

Write down the COM port settings in the **Important Information** table on page 47 of this manual.

- 3** Using the information from step 1 or 2, set the jumpers on your internal faxmodem as described on page 14 in the **Setting the COM Port Jumpers** section. Continue with **Installing the Faxmodem in Your Computer** on page 17.

Windows 3.1, 3.11, and DOS

Determining the COM Port Setting

Note: One of the ways your computer keeps track of data is through its COM ports. These are a combination of physical devices (circuits and connecting jacks), “addresses” (numbers the computer uses) and IRQs (interrupt requests, which keep certain addresses from conflicting with each other). For non-Plug and Play computers, COM port settings are accomplished directly on the faxmodem board by moving small connecting devices called jumpers.

The jumpers described in this section set the address and IRQ your faxmodem will use to talk to your computer. This product also supports non-standard IRQs to help you configure a system with multiple devices.

If you are replacing an existing modem, remove the old one and check its jumpers or switches for the COM port setting (see your old modem’s documentation on how to do this).

Note: If the existing modem is part of the motherboard or is incorporated with your soundcard, you must consult your PC documentation or manufacturer for directions on how to disable it prior to installing your new faxmodem.

If you are not replacing an existing modem, or if you cannot determine the settings of the old modem, use the **ZPORTS** utility to suggest a COM port. This utility may be supplied on a Modem Utilities diskette or on a CD-ROM disc.

1. Insert the Modem Utilities diskette into your floppy drive or the CD-ROM into your CD drive.
2. Exit Windows. From the **DOS** prompt, type **d:** and press **Enter**, where **d** is the letter of the floppy drive or CD drive you are using (the floppy drive is usually **A:**, and the CD drive is usually **D:**).
3. Type **zports** and press **Enter**.

ZPORTS searches for free resources and reports them to you on the screen.

Write down the selected COM setting on the **Important Information** table on page 47 of this manual. Then continue below.

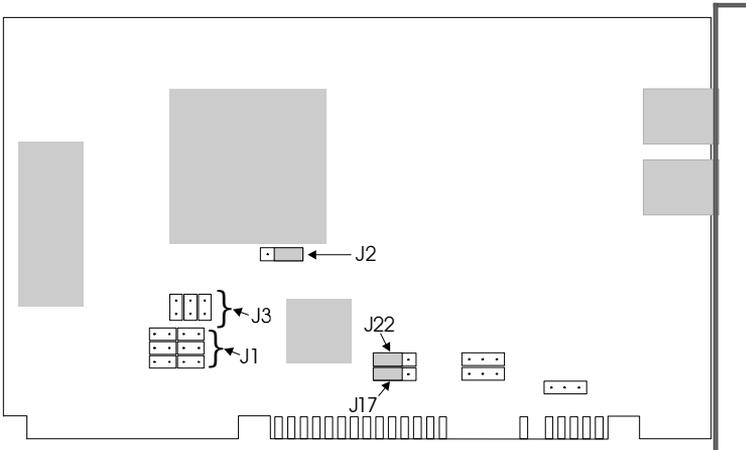
Setting the COM Port Jumpers

Internal faxmodems have jumpers that give you hardware control of the faxmodem's COM port.

| Jumper | Function |
|-----------------|--|
| J1 | Sets the IRQ |
| J3 | Sets the port address |
| J2, J17, J22 | Selects either jumper configuration or Plug and Play (default) |

The following illustration shows the locations of jumper blocks J1, J2, J3, J17 and J22 referred to in the rest of this section.

Jumper Locations



The jumper diagram above shows the default factory settings for your faxmodem. The jumpers J2, J17, and J22 are set for Plug and Play mode.

To disable the board's Plug and Play feature for Windows 3.1, 3.11, NT 4.0 jumpered, and DOS installation, make sure the J2 jumper is over the left and center pins. For J17 and J22 set the jumper over the center and right pins.

Plug and Play Disabled

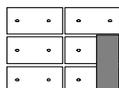
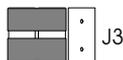


(The shaded area indicates jumper position.)

Use one of the jumper combinations as shown in the diagram on this page to set COM1 through COM8. The J1 setting determines IRQ, and the J3 setting determines the address of the faxmodem. To set the appropriate COM port jumper combination, use the settings you determined on page 12 in the section **Windows NT 4.0—Jumpered Installation**, or on page 13 in the section **Determining the COM Port Setting**.

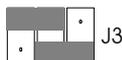
Jumper Settings

COM1
Address 03F8
IRQ4



J1

COM2
Address 02F8
IRQ3



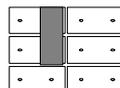
J1

COM3
Address 03E8
IRQ4



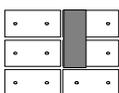
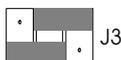
J1

COM4
Address 02E8
IRQ3



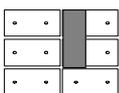
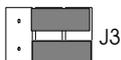
J1

COM5
Address 03E8
IRQ2



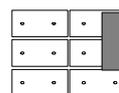
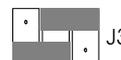
J1

COM6
Address 02E8
IRQ2



J1

COM7
Address 03E8
IRQ5



J1

COM8
Address 02E8
IRQ5



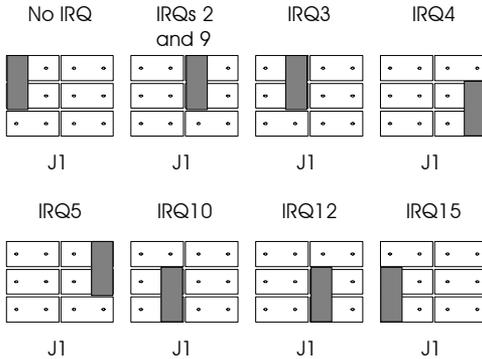
J1

If you set your modem to one of the settings (COM1 to COM8) as shown above, you can proceed to **Installing the Faxmodem in Your Computer** on page 17.

Additional IRQ Settings

The following is a summary of all the available IRQ settings. There is a small chance that you will need to use an IRQ other than 2, 3, 4, or 5 in systems that have many peripherals (such as a soundcard, CD-ROM, etc.).

IRQ Settings



Now proceed to **Installing the Faxmodem in Your Computer** below.

Installing the Faxmodem in Your Computer



CAUTION

Do not handle any internal modem card when the phone line is plugged into it. The voltages present when the line is ringing are potentially harmful.

If you ever need to remove the card from your computer for any reason, simply remove the phone line from the internal card before handling it.

Electrostatic Discharge Protection



CAUTION

Static electricity can damage components on your faxmodem or inside your computer. Before removing the board from its anti-static bag, hold the bag with one hand and touch the computer's metal chassis to statically discharge yourself.

- 1** Before you start the hardware installation, exit any running programs and shut down Windows. Then

turn your computer off and unplug it. Don't plug it back in or turn it on until you complete the faxmodem hardware installation. Remember, your computer should be located near a phone jack.

- 2** Find the serial number of your new faxmodem on the metal bracket and write the number in **Important Information** on page 47.
- 3** Take the cover off your computer. This usually involves removing four to six screws at the back of the computer case. If you are not familiar with the procedure, consult your computer's manual for instructions.
- 4** Unscrew and remove the metal cover plate on the rear of the computer that lines up with an available 16-bit slot (see the following illustration). Your faxmodem has two sections of gold connecting fingers, and a 16-bit slot has two sections that match the sections on the faxmodem.

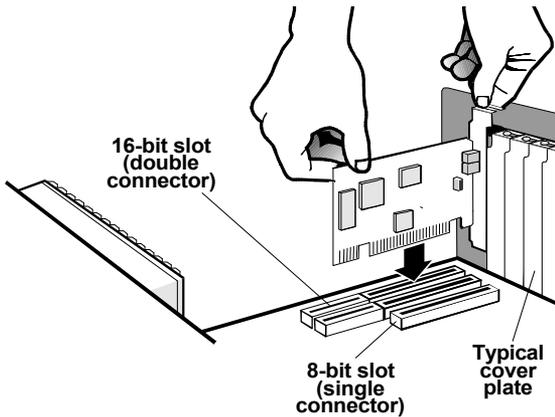
If you are replacing an older modem that is in the slot, now is a good time to remove it. (It may be in an 8-bit slot, which you should not use for your new faxmodem.) Look for a board with one or more phone jacks on it. To remove the old modem: unplug any cables connected to it. Unscrew the screw and lift the board from its slot. Put the screw in a safe place; you can use it to install your new faxmodem.

| |
|--|
| <p>Note: Most of the boards inside your computer have tiny wires sticking out underneath. These wires can be sharp. Be careful not to cut your hands on them.</p> |
|--|

- 5** Plug your new faxmodem firmly into the 16-bit slot (see the following illustration). Be sure that the bracket is lined up properly; then screw the bracket into the computer using the screw you removed with the cover plate or the old modem. Be sure that the back end of the card (smaller gold finger area) is properly seated into the connector.

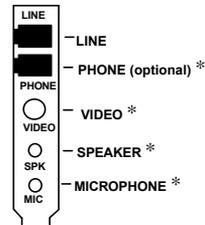
If you have a tower or mini-tower computer case with a vertical main board, you may want to gently lay the computer down on its side so you can push straight down on the faxmodem card to seat it firmly

in its slot.



6 Replace the computer cover.

7 Connect the telephone cord. Plug one end of the phone cord into the jack marked **LINE**. Plug the other end into a phone jack (where you would normally connect a phone). Some models may include a phone jack for an optional telephone, or jacks for a microphone, speaker, or video camera. Now is a good time to plug in these options. The faxmodem works with or without a telephone connected to it.



*Not available on all models

8 Plug in your computer and turn it on.

Completing the Installation

Your hardware installation is finished. You are now ready to complete the installation in your operating system.

- For Windows 95, 98, or NT 4.0 with Plug and Play, **continue below**.
- For Windows 4.0 jumpered installation, **continue on page 21**.

- For Windows 3.1, 3.11, and DOS, your installation is complete. **Continue with Chapter 3, Testing Your Faxmodem, on page 22.**

Windows 95, 98, or NT 4.0 with Plug and Play

Note: Your faxmodem comes with setup files needed for installation. These files may be on a separate Utilities diskette or on a CD-ROM disc included with your unit.

- 1** As the Windows operating system starts up, it will detect your new faxmodem and ask you for a diskette or CD-ROM disc.
- 2**
 - If you received a Utilities diskette, insert it in the floppy drive.
 - Otherwise insert the CD in the CD drive.

Continue answering the prompts for the installation procedure.

Windows automatically detects the correct files and copies them to your computer's hard drive.

- 3** Windows continues its startup procedure.

Once the system is completely started up, you should determine what COM port your faxmodem is set to. The COM port is a number used by the computer to keep track of where it is sending data. You may be asked for this number by certain software applications when you install them and set them up.

To find your COM port number:

- Double-click **My Computer**.
- When the **My Computer** window opens, double-click **Control Panel**.
- Inside the **Control Panel** window, double-click **Modems**.
- In the **Modems Properties** dialog box select this modem, which should be listed as a modem found by the system.
- Then click **Properties**. Your faxmodem's proper-

ties are listed in a **Properties** dialog box. Under the **General** tab you'll find **Port: Com** plus a number.

- Make a note of this **Port: Com** setting on the **Important Information** table on page 47 of this manual.

If you have not encountered any problems, your modem is installed and you can move on to Chapter 3 to test your faxmodem.

- If you are having problems with Windows NT 4.0, the simplest solution is to reinstall the modem as a jumpered modem.
- If you are having problems with Windows 95 or 98, see the troubleshooting section **Problems with Plug and Play Setup in Windows 95 or 98** on page 40 in Chapter 6.

Windows NT 4.0—Jumpered Installation

- 1** Open the **Control Panel** and double-click on **Modems**. Click **Add**.

In the **Install New Modem** dialog box, check **Don't detect my modem; I will select it from a list**.

- 2** In the next dialog box, click **Have Disk**. Insert the Modem Utilities disk in your floppy drive or the CD-ROM disc into your CD drive.
- 3** Click **OK**. Windows NT auto-detects the correct files and copies them to your hard drive. Follow the screen prompts to finish the installation.

If you have not encountered any problems, your modem is installed and you can move on to Chapter 3 to test your faxmodem. If you are having problems, see the troubleshooting sections in Chapter 6.

Chapter 3 Testing Your Faxmodem

Before you set up your software, start with a quick test to check that your modem is working.

For Windows 95 or 98: Open the **Control Panel** and double-click **Modems**. Under the **Diagnostics** tab highlight the COM port for your modem and click **More Info**. This queries the modem with **AT** commands. A list of responses means the modem is connected. You may also want to use **HyperTerminal** or another terminal program to call a bulletin board system.

For Windows 3.1 or 3.11: Use the Windows Terminal program. (Check your operating system's user's guide for setup instructions.) In terminal mode type **AT** and press **Enter**. An **OK** response means your modem is responding, and that the terminal program knows the COM port of the modem.

For Windows NT 4.0: Use the **HyperTerminal** program. In **Accessories** open HyperTerminal. In the **Connection Description** dialog box click **Cancel**; then under **File** select **Properties**. In the **Connect using** list box select this modem and click **OK**. In the terminal screen type **AT**. An **OK** response means your modem is connected.

Once you have determined that your faxmodem is working properly, go on to Chapter 4 to install your communications software.

Chapter 4 Installing and Using **COMMUNICATE! LITE** Software

The Zoom Link CD-ROM disc that was provided with your faxmodem includes **COMMUNICATE! LITE**, by 01 Communique Laboratory, Inc. This is an integrated communications software package. It has an easy-to-use interface based on a familiar telephone image. **COMMUNICATE! LITE** can send, receive, and manage your faxes. It can store and speed-dial your frequently used phone numbers, and it can serve as an answering machine if your modem supports voice and your computer has a soundcard.

The full version of **COMMUNICATE!** has many more capabilities. We suggest that you visit the 01 Communique Web site at **www.01com.com** (the **0** is a zero) for information regarding product upgrades to this software.

The CD-ROM disc also includes other software that can be installed from an easy point-and click interface.

COMMUNICATE! LITE is also available on floppy diskettes, which you can order at a nominal cost directly from 01 Communique. To inquire about ordering software, you can reach 01 Communique in Canada at 905-795-2888 (phone), 905-795-0101 (fax), or **01com@01com.com** (e-mail).

You can also download **COMMUNICATE! LITE** from the Web at the following address: **www.modems.com/DL01** (the **0** is a zero).

Installing **COMMUNICATE! LITE**

You can install the communications software from the CD-ROM disc included in your package, using an easy point-and-click interface. Slight differences between Windows 95/98/NT 4.0 and Windows 3.1/3.11, are noted.

1 *For Windows 95, 98, or NT 4.0:* Follow the instructions on the CD-ROM label. On most

For Windows 3.1 or 3.11: Insert the disc in your CD-ROM drive. In the Program Manager click

computers the CD will start up automatically after a few seconds.

Wait for the main installation screen to appear.

Click on the **COMMUNICATE!** button to begin the installation.

On the **COMMUNICATE! LITE** Main Menu you will be offered a choice of languages. Choose the language you want to install.

on **File**, then **Run**. Click on **Browse** and navigate to the CD-ROM drive. Double-click on **01Comm** to open its subdirectory; then double-click on **Setup**. Press **Enter** to begin the installation. (There may be other subdirectories that offer language-specific versions.)

After a few seconds the **COMMUNICATE!** Installation screen will appear.

- 2** Click on the **Install** button.
- 3** The **Install Configuration** dialog box will be displayed. Enter your company name (if applicable), your name, telephone, and fax number. This information will appear on the header of each of your outgoing faxes.
- 4** If you want to start **COMMUNICATE! LITE** automatically whenever you start Windows, check the **Auto-load** checkbox. Choose this option if you want to have communications capabilities (for instance, for incoming faxes) available all the time when you are in Windows.
- 5** Click **OK** when you are ready to continue.
- 6** The path for the drive where the **COMMUNICATE! LITE** installation files are located should be displayed; if it is not correct, select the correct drive and click **OK**.
- 7** When **COMMUNICATE! LITE** has been successfully installed, you will be asked to restart Windows:

For Windows 95, 98, or Windows NT 4.0: Click on **Yes**.

For Windows 3.1 or 3.11: You will be asked to update the **CONFIG.SYS** file. Click on **Yes** to re-

| start Windows.

8 After Windows restarts:

If **COMMUNICATE! LITE** loads automatically, you can start it by clicking its icon in the Windows 95, 98, or NT 4.0 taskbar, or by double-clicking its icon on the Windows 3.1 or 3.11 desktop.

If **COMMUNICATE! LITE** does not load automatically, start it by clicking on the **COMMUNICATE!** icon in the Windows 95, 98, or NT 4.0 **Start Menu** under **Programs**, or by double-clicking on the **COMMUNICATE!** icon in the Windows 3.1 or 3.11 Program Manager.

The program's main interface, which looks like a telephone console, will be displayed.

COMMUNICATE! LITE is now installed and ready to send and receive messages.

Running **COMMUNICATE! LITE**

COMMUNICATE! LITE comes with extensive on-line help to guide you through faxing, data calling, and many other features. The features supported by your faxmodem are listed on its box.

The main interface of **COMMUNICATE! LITE** looks like an integrated telephone and answering machine, with a handset on the left, a keypad in the middle, and a recorder on the right.

The handset and keypad can be used to dial outgoing calls on your regular phone if you have plugged one into the **PHONE** jack on your faxmodem.

The recorder can be used as an answering machine if your faxmodem and software include voice support, and as a sound recorder using your soundcard and a microphone.

There are also several other buttons, which activate various components of the program, including a text editor and a graphics editor.



Use the mouse to select the various functions. Pausing the mouse pointer over a button will cause a description of the button to appear in the top display panel and at the mouse pointer. The illustration above was created with the mouse pointer (not shown here) paused over the **View File** button. Notice that “Use graphic editor” appears in the panel at the top middle, and that “Graphic editor” appears in a light rectangle just below the **View File** button.

To learn more about how to use all the features of **COMMUNICATE! LITE**, click on the **Help** button to access the online documentation. A set of step-by-step instructions will be displayed. Select a feature and then launch that task by clicking the appropriate button on the **COMMUNICATE! LITE** panel.

You can also launch various tasks in the program by clicking with the secondary mouse button (usually the right button) anywhere on the background of the display. A pop-up menu will be displayed, from which you can access the features of **COMMUNICATE! LITE**.

Here are some things for you to try with your new fax-modem and **COMMUNICATE! LITE**:

- Compose a fax and send it to a friend or associate who has a fax machine or a faxmodem.
- Print from your word processor or other program, using **COMMUNICATE!** as your printer, to send your document as a fax.

- Have a friend or associate send you a fax.
- Record sound files using your soundcard and send them as e-mail attachments.
- If you have a telephone plugged into the **PHONE** jack on your modem, speed dial your favorite phone numbers by clicking the handset image. Click a number to dial and then lift your telephone handset to speak to the person you called.

Explore the other features of **COMMUNICATE! LITE**—the text editor and graphics editor for creating fax cover sheets; calls to bulletin boards; the contact manager; and so on.

Getting Help for **COMMUNICATE! LITE**

For help with **COMMUNICATE! LITE**, consult the extensive help file included with the program.

Chapter 5 Using the Faxmodem with Other Software

This chapter provides tips for setting up communications software, sending initialization strings containing **AT** commands to the faxmodem, using a video camera, and accessing the Internet.

Setting Up Communications Software

Software programs are designed as a simple, user-friendly interface that makes it easy to use the many features your faxmodem offers. First, however, the software must identify the modem and its special capabilities. Many software programs identify the product automatically and configure themselves for the correct operating settings. If you run into difficulty with configuration, it may be helpful to read the following section, **Tips for Selecting Setup Options**.

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. However you should be aware of the following items:

- If you are asked to select the “modem type” from a menu, and you don’t see this modem listed by name on the menu, select the most descriptive name such as **56K modem**, **33.6 modem**, **V.90 modem**, **K56flex modem**, **Rockwell Based V.90 modem**, **Rockwell Based K56flex modem**, **Hayes-compatible modem** (with or without a specific speed), or generic **Class 1 Modem**. The more generic the type you choose, the less likely that the software will let you use some of the faxmodem’s advanced features, but the modem will perform basic communications and fax functions.
- In the dialing directory, set all entries to the highest possible baud rate, if your software and serial port support these speeds. All communications between the computer and the modem take place at this higher

speed, 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**).
- 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 (see the technical section on the box). Class 2 may provide slightly faster faxing. Otherwise select **Class 1**.
- Finally, some programs ask **Send init if CD high?**, which you should set to **YES**. Otherwise, the modem may not receive the proper initialization string.

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 “AT” stands for “attention.”) The software determines which commands should be included in 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 all commands sent to the modem. This is transparent to you—the software does this in the background without your having to be aware of it.

It is sometimes necessary, however, to add other **AT** commands to initialization strings. You can find a table of **AT** commands on the World Wide Web at www.modems.com. Click on **Reference** and then on **AT Command Sets**.

Here are two of the more useful commands:

- 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: **AT &F**.

- If your touch-tone telephone service includes Call Waiting that you can temporarily suspend by pressing ***70**, include **ATDT*70**, (including the comma) in the dial string.

Using AT Commands

If your software does not handle **AT** commands automatically, it should provide a place to enter **AT** commands in its setup menus.

However, in some cases you may need to enter **AT** commands directly to the faxmodem. You must do so from a data program's terminal mode.

Using Terminal Mode to Enter AT Commands

1. Start your data communications program.
2. Change to terminal mode (also called command, local, direct, or dumb mode).

Windows 95, 98, and NT 4.0 include a terminal application, **HyperTerminal**, which you may use if you do not have a communications program. (Check your operating system's user's guide for setup instructions for the terminal program.)

3. Type in the **AT** command you need and press **Enter**. You will see an **OK** response.

When you finish, you can return to the data communications program's standard user interface. See the software 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**.

Using Audio Features

In addition to data and faxing capabilities, your faxmodem supports a full-featured single or multiple mailbox voice mail system. Through your software you can also set up

fax-back, sometimes called fax-on-demand, and record and play back messages. The communications software that comes with your faxmodem, **COMMUNICATE! LITE**, is capable of these features.

Using Video

Your faxmodem supports video applications through the V.80 standard protocol so that it can be used for high-quality modem-to-modem videoconferencing. The modem is compatible with H.324 point-to-point and H.323 Internet video conferencing standards. To send videos, you also need video capture capability, a camera, and video software. The Zoom/Video Cam and the Zoom/Video Cam PPC (parallel port camera) work very well with your faxmodem.

To include sound with your videos, you also need a soundcard and a compatible microphone.

Accessing the Internet

To access the Internet and the World Wide Web, use an online service such as America Online (AOL) or CompuServe, or an Internet Service Provider (ISP). ISPs typically supply or suggest the browser software needed to access their service and provide additional instructions and advice for setting up your account.

Your faxmodem may include a packet of online service offers, which provide you the opportunity to try the Internet and a range of other services.

Chapter 6 Problems and Solutions

Note: If your modem is not working, please read this chapter and the communications software documentation in Chapter 4 carefully.

For installation problems, see Chapter 1, **Installing an External Faxmodem**, or Chapter 2, **Installing an Internal Faxmodem**.

This chapter covers three categories: general troubleshooting, dial troubleshooting, and on-line troubleshooting. In addition, there is a section on **Problems with Plug and Play Set-up in Windows 95 and 98**.

| For help with this problem... | See page... |
|---|-------------|
| Your modem seems to install under Windows 95 or 98, but Windows cannot find it later. | 33 |
| You have two faxmodems installed and neither of them works. | 33 |
| The software cannot find the modem and the modem does not respond to AT commands. | 33 |
| The modem fails to execute an AT command line. | 34 |
| You encounter other communication problems. | 34 |
| The modem speaker volume is too high or too low. | 35 |
| The modem does not automatically dial a call when you send a Dial command line. | 35 |
| The modem can connect to some modems, but not to others. | 36 |
| Your online service reports a connect speed that doesn't match your modem's speed. | 37 |
| The modem disconnects while communicating with a remote system. | 38 |
| The modem does not make a data connection. | 38 |
| You receive bursts of errors occasionally, but otherwise data quality is good. | 38 |
| Random errors occur in transmitted data. | 39 |
| Data appears garbled on the screen. | 39 |
| The modem works well when you are not using data compression, but the compression features are inoperative. | 40 |
| Problems with Plug and Play Setup in Windows 95 and 98 | 40 |

General Troubleshooting

Problem: **Your modem seems to install under Windows 95 or 98, but Windows cannot find it later.**

Solution: If your computer has a built-in modem on the motherboard, Windows may reinstall it the next time you start up. If you have installed your new faxmodem using the Plug and Play feature, you could also try uninstalling it and reinstalling it as a jumpered board. If that does not solve the problem, consult your computer's documentation or call your computer's manufacturer to get instructions on how to disable the built-in modem.

Problem: **You have two faxmodems installed and neither of them works.**

Solution: It is currently not possible to run two or more internal Plug and Play faxmodems in Windows 3.1 or 3.11. Switch one or both of them to jumpered configuration. One internal and one external will also work.

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

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

Another problem is that COM port resources may be in use by another device. Make sure that the COM port resources used by the modem are not being used by any other device, such as a soundcard.

Problem: You type an AT command line in terminal mode or in a terminal application and press Enter, but your modem fails to execute the command line. Or there was no response after executing a command.

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

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

Be sure your modem is not in data mode when you type the command. Use the escape character sequence to switch to terminal mode. (The default escape sequence is to wait at least one second, type **+++**, and wait another second or more.)

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

Problem: You encounter other communication 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 non-volatile memory.

Memory-resident (Terminate-and-Stay-Resident, or TSR) programs can cause a variety of problems for some programs. Try starting up your computer without them. You may find TSRs in your AUTOEXEC.BAT file or in WIN.INI. In AUTOEXEC.BAT, put **rem** ("remark") at the beginning of any line you want to keep from loading. In WIN.INI, put a semicolon (;) at the beginning of any line you want to keep from loading. Examples of TSRs include antivirus programs and screen savers.

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

Solution: Your modem has a small speaker on its board that gives you audible feedback of dial tones and remote connection signals (“handshaking”). This is not the same as the speaker(s) that you may have connected to your soundcard.

If the software allows you to control the volume of the on-board 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 **AT** commands listed below to the initialization string:

L1 for low volume

L2 for medium volume

L3 for highest volume

MO to turn the speaker off completely

For example, if you want the volume low and the software uses the initialization string

AT &F, change it to **AT &F L1**.

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 phone line is plugged in.

Make sure that you are dialing a valid phone 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 make sure software dialing prefix is **ATDP** (for pulse dialing).

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

Make sure your modem has hung up from the previous call. Select **Hang Up** in your software; or type **ATH** in terminal mode.

On-line 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 that the first two lines in the table are likely to be the most valuable.

Note 1: In the command strings shown in the table that follows, the character **O** is a zero, not the letter “O.”

| To force the different communication speeds | Type these commands and press Enter |
|---|-------------------------------------|
| Negotiate speed and protocol (default setting) | AT &F |
| Negotiate speed only, do not use protocol | AT IN0 |
| To force Protocol... | AT IN3 |
| To force the different communication speeds (i.e., maximum possible speed; actual speed depends on line conditions and other factors) | Type these commands and press Enter |
| Connect at 56000 bps (V.90) | AT +MS=12,0 |
| Connect at 56000 bps (K56flex) | AT +MS=56,0 |
| Connect at 33600 bps (V.34) | AT +MS=11 |
| Connect at 14400 bps (V.32bis) | AT +MS=10 |
| Connect at 9600 bps (V.32) | AT +MS=9 |

Note 2: You may find it helpful to include **S95=44** in your initialization string. This enables the responses **CARRIER** (telephone line speed) and **PROTOCOL**, as well as **CONNECT** (faxmodem-to-computer speed).

Note 3: Some software allows these commands to be added to the list of dial prefixes.

There are other configurations that can be forced as well. If you need to select a particular configuration, use the **AT** command strings shown below. You can always return to the modem's default configuration by typing **AT &F** and pressing the **Enter** key. Remember that if you do this, the modem will not have received 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 **&W0** or **&W1**, and press **Enter**. For example, if you type **AT &C1 &D2 &W0** and press **Enter**, the **&C1** and **&D2** parameter settings are stored in Profile 0. Refer to the Web page at www.modems.com for the complete set of **AT** commands.)

| To force... | Type these commands and press Enter |
|---|-------------------------------------|
| MNP 5/MNP 4 operation | AT \N5 |
| LAPM only | AT \N4 |
| MNP 4 only | AT \N5 %C0 |
| MNP 10 operation | AT -K1 -SEC=1 |
| "Normal" operation (The faxmodem will communicate without any error correction or data compression, but will retain 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: First make sure the maximum speed setting is as high as your computer system allows: In **Control Panel**, open **Modems** and click on **Properties**. Set the **Maximum speed** setting to the highest setting.

If you have set the maximum speed to its highest setting and are seeing a connect speed that is faster than your modem's published speed, your software is reporting the internal, computer-to-faxmodem speed. To get your online

service software to report the actual connect speed, add this command 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&D2S95=1^M**

Dial prefix: **ATS95=1D**

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. You need to reconnect.

The telephone line disrupted your call. If your telephone service includes Call Waiting, turn it off if possible before making modem calls. You can usually temporarily disable Call Waiting on touch-tone lines by including ***70**, (the comma is part of the command) or selecting it as a prefix with the telephone numbers in the software's dialing directory. For non-touch-tone telephones, the equivalent command is **1170**, (again, the comma is part of the command).

You cannot disable Call Waiting for incoming calls. If your modem often receives data calls and communications are frequently disrupted by Call Waiting, you should consider dropping the service or installing a separate phone line without Call Waiting.

Problem: Your modem does not make a connection.

Solution: If your modem places 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 Call Waiting discussion on page 38.

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 37 for more information.

Select a lower baud rate in your communications software and place the 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 will now pause for the transmission to be stored.

Problem: Data appears garbled on the screen.

Solution: Your communications software character setup (start bit, data bits, stop bits, and parity bit) does not match that of the remote system. Check your settings against those used by the remote system and make sure they match. Pay particular attention to the parity setting, as this is the most common difference among systems. You should normally use 8 data bits, NO parity, and 1 stop bit (**8, NONE, 1** or **8N1**). The second most common setting is 7 data bits, EVEN parity, and 1 stop bit (**7, EVEN, 1** or **7E1**).

Problem: Your modem doesn't seem to be compressing the data.

Solution: The compression features are on by default, but check the following:

Your software needs to use a streaming protocol, such as Ymodem-G or Zmodem. Xmodem and Ymodem are not adequate for compression.

Your software must be set up so that your modem is using hardware flow control (**RTS/CTS ON**).

To get maximum data throughput, you can use a computer-to-modem speed of 230,400 bps (if your COM port can support this speed); set this for each entry in the dialing directory.

Be aware that many files downloaded from online services have already been compressed. In general, your modem will not be able to further compress such files.

Problems with Plug and Play Setup in Windows 95 or 98

If your setup doesn't proceed properly, read and perform the following steps before calling Tech Support.

Using the Hardware Conflict Wizard

Windows 95 and 98, with the Plug and Play feature, is a major improvement over previous versions of Windows. But under some circumstances, Plug and Play may not resolve all installation problems.

For example, if you have a lot of optional hardware installed in your computer, you can still encounter a problem installing your modem. Conflicts may arise when you have a sound card installed, or a graphics tablet, a second printer, or a combination of these. The problem is insufficient COM port and interrupt (IRQ) resources.

The Windows Help system has an excellent tool (called a "wizard") for thoroughly diagnosing and solving many of your problems. To use this procedure, do the following:

1. Double-click the **My Computer** icon on your desktop.
2. The system displays the **My Computer** window.

3. Choose the **Help Topics** command in the **Help** menu.
Windows displays the **Windows Help** dialog box.
Select the **Contents** tab.
4. Click on **Troubleshooters** and then on the entry for hardware conflict.
5. Click the **Display** button.
Windows Help displays the Hardware Conflict Troubleshooter.
6. Follow the instructions for determining and resolving a hardware conflict.

This should solve your problem. If it does, your faxmodem hardware is installed. Remember to write down your COM port setting. Turn to Chapter 3 to test your faxmodem and Chapter 4 to install the communications software.

If you still have problems, it probably means that although you are running a version of Windows that supports Plug and Play, you may have an older computer that is not completely compatible with this feature. Try the steps in the next section.

Changing the COM Settings in BIOS under Windows 95 or 98

This procedure is a little more difficult than the previous one, but with the help of your computer's documentation you should be able to clear up any remaining problems.

1. Close all running programs. Shut down your computer and restart it: Click **Start** and then **Shut Down**. Press the **Enter** key or click **Yes** to shut down your computer completely. Turn the power off, wait about 5 seconds, and turn the power back on.
2. As your computer goes through the startup process, it should display a key or key combination that you can use to enter the **BIOS Setup** program. (BIOS stands for Basic Input/Output System.) Enter the BIOS Setup program and disable COM2. Consult your computer's documentation if the procedure is not clear based on the on-screen prompts.
Note: Some computers may not use the BIOS settings to control the COM ports. Check your com-

puter's documentation to see if you have to reset the computer's jumpers or switches instead.

3. Write down and save the new COM port setting and exit **Setup**.
4. The BIOS automatically reboots your computer.
5. In Windows 95 or 98, choose **Control Panel** from the **Settings** command in the **Start** menu.
6. Double-click the **System** icon.
7. Click the **Device Manager** tab.
Find the **Ports** (COM & LPT) device and click the + sign.
This expands the device list under **Ports**.
8. Select **Communications Port** (COM2).
Click the **Remove** button in the **Device Manager** window.
This removes the device currently assigned to COM2.
9. When Windows displays the **Confirm Device Removal** warning, Click **OK**.
10. Double-click **Modem** in the **Device Manager** window.
11. Double-click the Faxmodem icon for your model.
12. Click the **Resources** tab.
13. Uncheck the **Use automatic settings** checkbox.
14. Scroll through the Basic configuration options until you find the one that displays the **Input/Output Range 02F8 - 02FF** and **Interrupt Request 03**. This is COM2. The **Conflicting device** list box should say **No conflicts**. If there are conflicts, call Tech Support.
15. If there are no conflicts, close the **Modem Properties** window, **System Properties** window, and **Control Panel** window by clicking **OK** for each.
16. Shut down your computer, turn off the power, and restart it. Going through this power cycle can be important. Merely restarting Windows may not allow the BIOS to register the changes properly.

If Windows finds your other serial port, it may try to assign the port to COM2, but won't be able to because your faxmodem is already using that system resource.

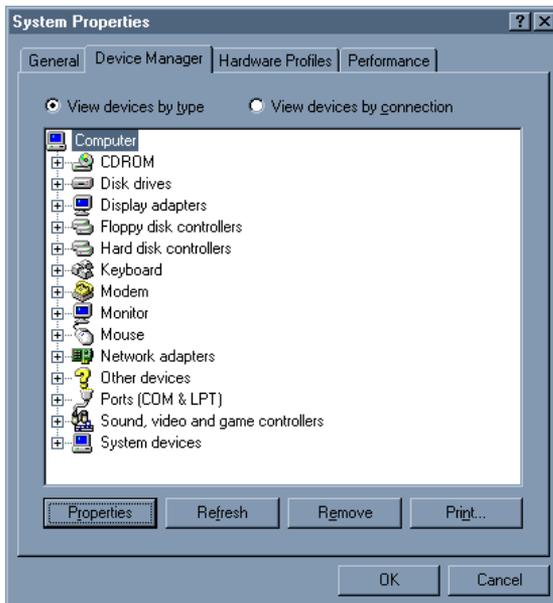
Appendix A: Determining Resources in Windows 95 or 98

Your computer must keep track of how its components communicate among themselves and with the outside world. These components include physical devices like the internal circuitry and the plugs and jacks on the back of the computer, plus certain memory addresses inside the machine. Collectively, these are known as resources.

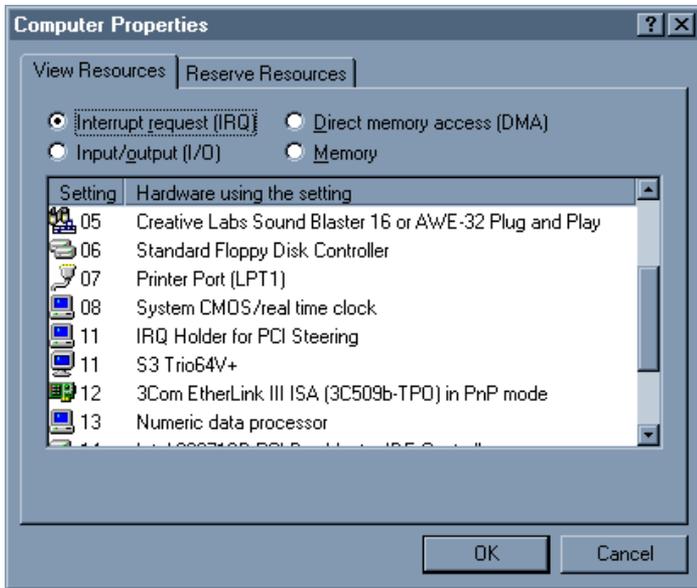
For modems, one important resource is the Interrupt Request, or IRQ.

If you want to keep your old faxmodem installed, and especially if you have other devices connected (external drives, a camera, a TV card, a high-end soundcard, for instance), you should check your computer's IRQs.

- 1 From the Windows desktop, click on **Start** and select **Settings**. Click on **Control Panel**. Double-click on the **System** icon. The **System Properties** dialog box will appear. Click on the **Device Manager** tab. The first entry, **Computer**, should be highlighted. Click on **Properties**.



2 The **Computer Properties** dialog box will be displayed. Click on **Interrupt request (IRQ)**. In the panel are listed the IRQs for all the devices currently being used by your computer. See the illustration.



Your modem must use one of the following IRQs: 3, 4, 5, 7, 9, 10, 11, or 12. If there are no IRQ numbers available in this group (that is, if all these numbers are in use), you will have to uninstall your old modem. Go to step 2 on page 12. If you have found one or more IRQ numbers, and you want to keep your old modem, go to the installation instructions on page 17.

Note that if you have communications software installed for use with your old modem, you will most likely want to reconfigure it to work with your new faxmodem.

Appendix B: 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 RJ-11C 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 (0.7B or 0.8B, depending on model)
3. The USOC jack required [RJ-11C]
4. The FCC Registration Number

Items (2) and (4) are indicated on the label attached to the bracket of the internal modem and the bottom case of the external modem. 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 in-

formation 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 0.7B or 0.8B depending on the model. REN is indicated on the label attached to the bracket of the internal modem and the bottom case of the external modem.

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 call for technical support or customer service, you will need 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 bracket or bottom of an internal modem and on the bottom of an external modem under the bar code)

COM Port _____

Date of Purchase _____

Store or Dealer _____

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