



Courier V.Everything PC Card Modem: Getting Started

FINAL

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About This Manual

This manual explains how to set up and start using your *Courier V.Everything PC Card Modem*.

Refer to the *Courier Modems Command Reference* manual, also included with the Courier, for detailed information about using advanced features.

We Welcome Your Suggestions

We've made every effort to provide you with useful, accurate information. If you have any comments or suggestions about these materials, please let us know.

Voice-mail: **(847) 933-5200**
E-mail: **sysdocs@usr.com**

Chapter 1

The Courier PC Card

The *Courier V.Everything PC Card Modem* makes any laptop computer with a Type II PC Card slot capable of exchanging data with modems or fax machines over standard, analog telephone lines at speeds of up to 33.6 Kbps.

Using the Courier PC Card

The most common uses of the Courier PC Card Modem are for accessing the Internet or online services, accessing corporate networks remotely, calling bulletin board systems (BBSs), and sending or receiving facsimiles or files.

Using the Courier always requires some kind of communications software. The software required differs depending on what you're trying to do.

Accessing the Internet

To access the Internet, you need to set up an account with an Internet service provider in your area. Often, Internet service providers supply you with the software you'll need. In other cases, support for Internet access is built in to your computer's operating system, as is the case with Windows 95.

At any rate, the software needed to access the Internet is called a TCP/IP protocol stack. Your TCP/IP protocol stack must provide a dialing application that is capable of sending data over a serial line using the Point-to-Point protocol (PPP) or the Serial Line Internet Protocol (SLIP).

Calling Online Services

Each online service, such as America Online or CompuServe, provides its own customized communications software package.

A couple of these packages are included with the Courier PC Card. These packages do the dialing and guide you through the steps of registration.

Accessing Corporate Networks Remotely

Dialing in to a remote network requires remote access software. When you dial in to a network, the software makes your remote computer appear to the network as locally attached. You can then use your network just as you would if you were there: send mail, print files, and access LAN drives.

A DOS/Windows remote access package is included with the Courier PC Card.

Calling Bulletin Board Systems (BBSs)

Calling a BBS requires communications software that does terminal emulation. The software should also support common, standard file-transfer protocols, such as YMODEM and ZMODEM.

A DOS/Windows communications software package is included with the Courier PC Card.

Sending Facsimiles or Files

Many communications software packages support fax communications. You can use the Courier PC Card in combination with a fax-capable communications package to send and receive facsimiles and to and from other fax modems and fax machines.

Courier Displays and Connectors

This section explains the displays and connectors on the Courier PC Card.

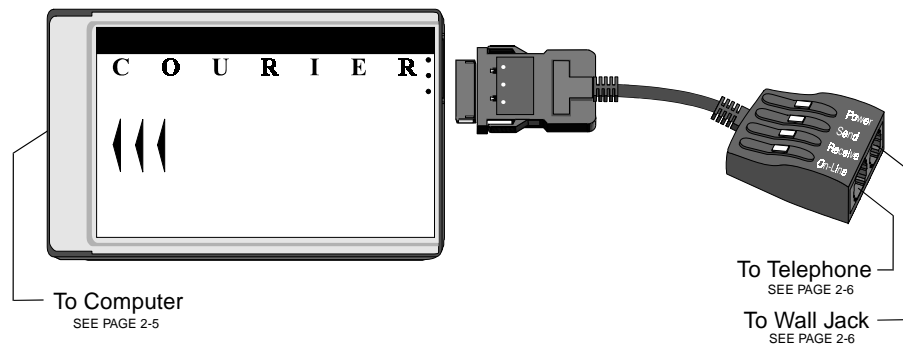


Figure 1-1. The Courier V.Everything PC Card Modem.

Your Courier PC Card has a Data View connector, a special accessory that shows you what your Courier PC Card is doing during the transmission. Four LEDs (Light Emitting Diodes) tell you when the Courier PC Card is on, connected to another modem, sending data, and receiving data.

LED	Meaning When Lit
Power	The Courier is powered on.
Send	The Courier is sending data to a remote modem.
Receive	The Courier is receiving data from a remote modem.
On-Line	The Courier is connected to a remote modem.

Use the Data View connector to connect the Courier to a standard, analog telephone line.

Previous versions used a different Data View connector that is not compatible with your Courier. Use only a Data View connector with three dots on its plug. Make sure that the three dots on the plug match the three dots on your Courier PC Card.

IMPORTANT: Do NOT use any connector other than the one provided with your Courier PC Card. Data View connectors that came with older versions of the Courier PC Card WILL NOT WORK.

Features

33.6 Kbps Connectivity

The Courier V.Everything modem contains new software that provides the capability for two new connection rates: 31.2 and 33.6 Kbps. The new software also improves throughput as a result of advanced design, larger block sizes, and selective reject.

Higher Connection Rates

While line conditions may not always allow for 33.6 Kbps connections, the software makes it more likely that your Courier will achieve and maintain 28.8 Kbps connections. It can add up to 4800 bps to the average V.34 connection rate.

Selective Reject

Selective Reject is an optional part of the ITU V.42 (LAPM) specification. This feature improves performance on noisy lines by reducing the amount of overhead incurred when the protocol must resend data due to errors.

When selective reject is active, only the frame that contained the error is resent, instead of the frame plus all of the following unacknowledged frames.

Attaining Speeds Above 28.8 Kbps

V.34 connections at 21.6, 24, and 26.4 Kbps are common. To get connections of 28.8, 31.2, and 33.6 Kbps, line quality must be *pristine* end-to-end. In addition, 31.2 and 33.6 Kbps connection rates are possible only when the device to which you are connecting also runs software that supports speeds above 28.8 Kbps.

If you are curious about the role that line quality plays in attaining and maintaining high-speed connections and want to learn what you can do to improve connections, request the following document from our Fax on Demand service: *Phone Line Quality and High Speed Connections*. The Fax on Demand number is (800) 762-6163.

V.Everything

The Courier provides full support of the V.34 standard, V.Fast Class, V.32 *terbo*, and many other modulation schemes, spanning the range of speeds between 300 bps and 33.6 Kbps. We call this unique combination of abilities **V.Everything**. See the *Compatibility* section in Appendix B, *Technical Specifications*, for details.

Flash ROM Upgradability

Courier modems are software-upgradable, allowing you quick, easy access to updates of the Courier's technology. You can send the new software to the Courier by a file transfer using the standard XMODEM protocol, or you can use SDL, which is a DOS-based U.S. Robotics application. See Chapter 17, *Upgrading the Courier's Software*, in the *Courier Modems Command Reference* manual.

Dial Security

The Courier's dial security allows you to control access at a modem-to-modem level instead of using software that runs on the host computer.

With Dial Security, you can prevent unauthorized access to a system with the use of password prompting and dialback. Refer to Chapter 9, *Dial Security*, in the *Courier Modems Command Reference* manual.

Remote Configuration and Diagnostics

You can remotely configure and test the Courier. If you are a network administrator supporting remote users, this feature can

save you time and money. Refer to Chapter 8, *Remote Access*, in the *Courier Modems Command Reference* manual.

Adaptive Speed Leveling (ASL)

Couriers monitor line conditions while connected, and fall back to the next lower speed—for example, 19.2K, then 16.8K in V.32 *terbo* mode—if conditions are poor. Couriers also detect improved line conditions and shift upward to the next higher speed. Transmit and receive channels adapt independently, each detecting and adjusting to line conditions.

Calls to and from Modems and Fax Machines

When used with EIA-standard Class 1 or 2.0 fax-ready communications software, the Courier auto-detects and responds to calls from modems and Group III fax machines.

Testing

ITU-T V.54 loopback testing is available. The Courier can perform analog, digital, and remote digital loopback tests. See Chapter 15, *Testing*, in the *Courier Modems Command Reference* manual.

Caller ID Support

The Courier can interpret and display caller ID information. See the Caller ID section in Chapter 3, *Dialing, Answering, and Hanging Up*, in the *Courier Modems Command Reference* manual.

Distinctive Ring Support

The Courier can be set to recognize and respond to any of four distinctive ring patterns. See the Distinctive Ring section in Chapter 3, *Dialing, Answering, and Hanging Up*, in the *Courier Modems Command Reference* manual.

Carrier Loss Redial

If you enable the carrier loss redial feature, the Courier will automatically redial the last number it dialed if carrier is lost (for example, if there is trouble on the line or if the remote modem

hangs up). This feature is useful for dialed-line connections that operate unattended. See Chapter 3, *Dialing, Answering, and Hanging Up*, in the *Courier Modems Command Reference* manual.

Chapter 2

Installing the Courier PC Card

What You Need

A Laptop Computer with a Type II PC Card Slot

The Courier PC Card Modem is compatible with any laptop or notebook computer that provides a Type II PC Card slot.

An Analog Telephone Line

The Courier PC Card Modem requires a standard, analog telephone line. **Do not connect the Courier to a digital telephone line, or you could damage the Courier.** Digital lines are commonly used in office buildings and hotels. If you are unsure whether your line is analog or digital, ask the person in charge of the phone system whether the line is digital.

Communications Software

You must configure and run a communications software package in order to make the Courier PC Card Modem work. All Couriers are shipped with a DOS/Windows communications software package.

Card and Socket Services Support

PC Cards require special software that provides Card and Socket Services (CSS). CSS software must be written specifically for your computer.

Your computer more than likely already has CSS installed. Operating systems such as Windows 95, OS/2 Warp, and Windows NT provide built-in CSS. Even though CSS is not included with DOS and Windows 3.x, most laptop computer

manufacturers pre-install CSS for you. We recommend that if CSS is not installed in your computer, contact your computer's vendor to obtain and install it.

If you cannot locate CSS specific to your machine, call the U.S. Robotics BBS at 847-982-5092 and download our EasyInstall program. You can find EasyInstall in file area 7, *U.S. Robotics Sportster*. Instructions for calling the BBS are in Chapter 3, *Communicating with the Courier*.

Package Contents

- ◆ Courier PC Card
- ◆ Data View connector
- ◆ Phone cord
- ◆ Quick reference card
- ◆ Customer support services card
- ◆ DOS/Windows communications software package
- ◆ DOS/Windows remote access package
- ◆ A *Command Reference* manual and this *Getting Started* manual

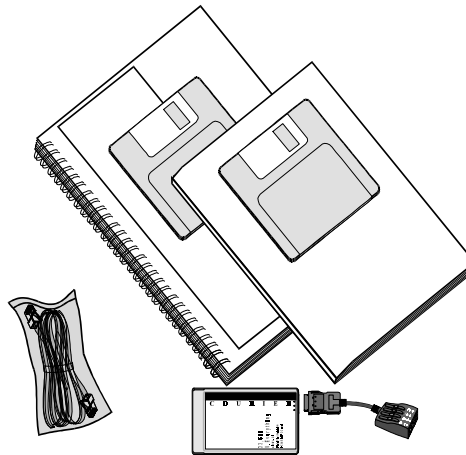
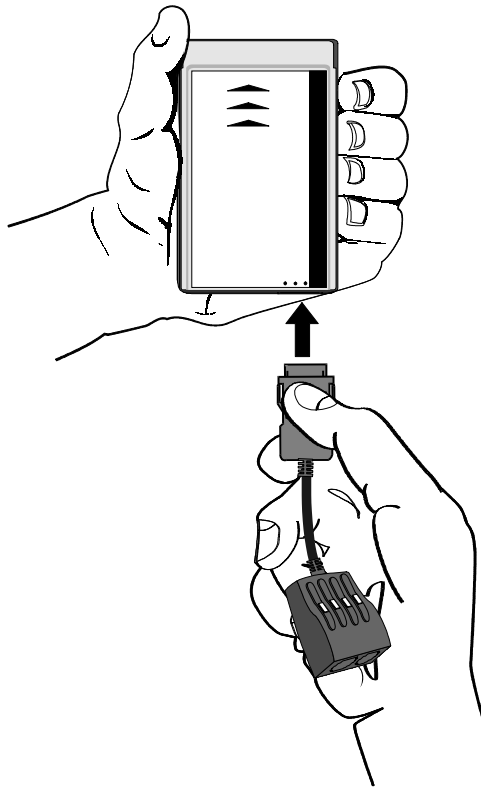


Figure 2-1. Contents of the Courier PC Card Package.

Installing the Courier

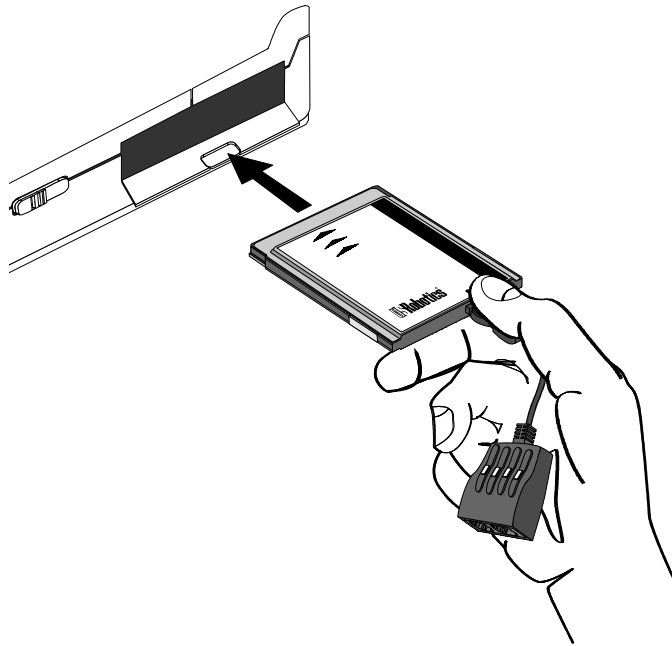
- 1 Gently but firmly attach the Data View connector to the Courier PC Card.

Match the dot-coded end of the PC Card (three horizontal dots) to the similar dot-coded end of the Data View connector. There will be a click when they are properly connected.



WARNING: To prevent damage to your modem, only use a dot-coded modem with a **MATCHING** dot-coded Data View connector!

- 2** Switch on your computer's power. Wait until your computer is finished starting up.
- 3** Locate the PC Card Type II slot on your computer. Insert the card into slot, as shown, until the card is firmly seated.

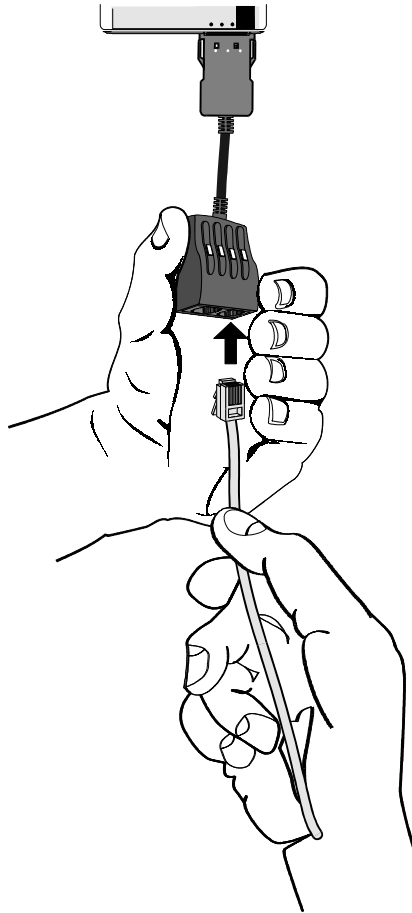


Typically, once you've inserted a card, your computer beeps to indicate that it's been detected successfully. The Power LED on the Data View connector lights.

- 4** Connect one end of the phone cord to one of the jacks in the Data View connector and the other end to a telephone wall jack.

Use either jack in the Data View connector. You can use the other jack to plug in a telephone.

NOTE: Do NOT attach the phone cord to a wall jack for a digital phone line.



The phone cord provided with your Courier PC Card is equipped with standard RJ11 phone connectors. If you have an older type of telephone wall jack, get an adapter from your telephone company or computer dealer. Use the adapter to connect the phone cord to the jack.

5 See Chapter 3, *Communicating with the Courier*.

Removing Your Courier PC Card

Use whatever ejector button or slide mechanism is available on your computer to eject the PC Card. With most computers, you'll hear a beep when the card ejects.

CAUTION: Do NOT remove the Courier PC Card while your communications program is running. First, exit the program and then remove the Courier PC Card. If you don't exit the program first, your system may lock up.

Chapter 3

Communicating with the Courier PC Card

After you have inserted the Courier PC Card into the Type II PC slot, you need to make sure that your communications software can send commands to the Courier PC Card. Once you are sure that you can communicate with the Courier PC Card, you are ready to start making calls!

The methods of verifying communication with a modem vary depending on the operating system your computer uses. Procedures for the following operating systems are explained in this chapter:

Windows 95	OS/2
Windows 3.x	Mac OS
DOS	Linux

Windows 95

Windows 95 has built-in support for Couriers, and ideally Windows 95 would recognize the Courier when you insert it, and install the appropriate support automatically.

However, the Courier has been updated since the release of Windows 95. You will need to supply Windows 95 with an INF file so it can properly identify your Courier PC Card.

The INF file is available from our BBS and our ftp site.

Getting the INF File

- 1** Start Windows 95, and after it loads, insert the Courier into the PC Card slot.

Windows 95 presents a **New Hardware Found** panel.

2 Choose **Select from a list of alternate drivers**. From the next window, select **US Robotics Sportster 28800 PCMCIA**.

3 Start a communications software package (such as HyperTerminal, which is included with Windows 95) and dial the U.S. Robotics BBS at **(847) 982-5092**.

Go to **File directories**, then **5) U.S. Robotics Courier**.
Download the **MDMUSRCR.INF** file.

Or, <ftp://ftp.usr.com/SYS/PCB/dl05> and get **MDMUSRCR.INF**.

Installing the INF File

1 Go to an MS-DOS Prompt:

```
Microsoft® Windows 95
©Copyright Microsoft Corp 1981-1995
c:\WINDOWS>
```

2 Change to the directory in which you put the INF file; for example, the TEMP directory.

```
C:\WINDOWS>cd\temp
```

Windows responds:

```
C:\TEMP>
```

3 Enter the following command:

```
C:\TEMP>copy mdmusr.cr.inf \windows\inf
```

Windows responds:

```
1 file(s) copied
```

Be aware that the \inf directory is hidden, and even though it may not appear, it is there.

Making Windows 95 Auto-Detect Your Courier

1 Click **Start | Settings | Control Panel** and then double-click **Modems**. Remove the Standard Modem.

2 Then click **Add**.

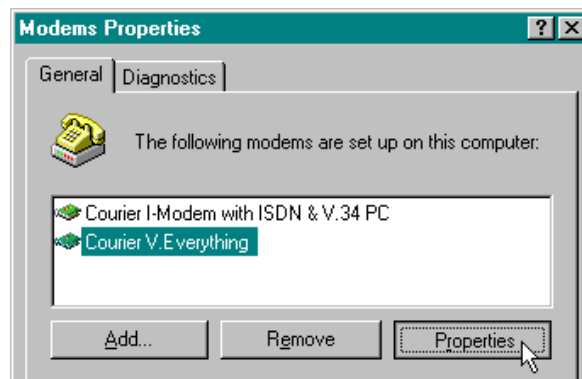
3 At the Install New Modem panel, click **Next**.

Windows 95 will auto-detect your Courier and install the appropriate support.

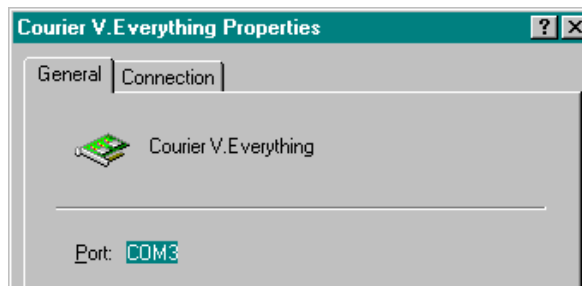
Finding Out Which COM Port Windows 95 Assigned

You need to know which COM port your system has chosen for the Courier, especially if you plan to use communications software created for Windows 3.x.

1 From **Start | Control Panel | Modems**, select the Courier and then select Properties.



2 Note the COM port that Windows 95 has chosen for the Courier.



Windows 95 Dial-Up Networking: Internet Access

This section explains how to set up the Courier for accessing the Internet using Windows 95 Dial-Up Networking. You can also use Dial-Up Networking for accessing remote LANs.

Make sure Dial-Up Networking is installed.

- 1** Click **Start | Settings | Control Panel**.
- 2** From the Control Panel, double-click on **Network**.
If a Dial-Up Adapter is listed, go to step 5. If not, continue with step 3.
- 3** Go back to the Control Panel and double-click on **Add/Remove Programs**.
- 4** Click the **Windows Setup** tab. Then double-click on **Communications**. Click on **Dial-Up Networking** to check the box. Click OK, then OK.
Insert your Windows 95 Setup diskette or CD-ROM when you are prompted, and Windows 95 will install Dial-Up Networking.

Add Dial-Up TCP/IP Support.

- 5** Click **Start | Settings | Control Panel**.
- 6** From the Control Panel, double-click on **Network**.
If TCP/IP -> Dial-Up Adapter is listed, go to step 8. If not, continue with step 7.
- 7** Select **Add... | Protocol | Microsoft | TCP/IP | OK**.
Insert your Windows 95 Setup diskette or CD-ROM when you are prompted, and Windows 95 will install TCP/IP protocol support.

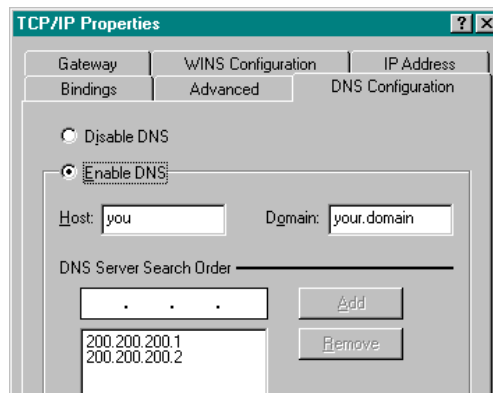
Customize the TCP/IP Settings.

8 Click **Start** | **Settings** | **Control Panel**.

9 From the Control Panel, double-click on **Network**.

10 Select **TCP/IP** -> **Dial-Up Adapter** | **Properties...** Click on the **DNS Configuration** tab. Select **Enable DNS**.

Type in your **Host:** and **Domain:** names, which are provided to you by your Internet service provider. Type your DNS server's IP address or addresses (also provided by your Internet service provider) in the blank, and then click **Add** | **OK** | **OK**.



Set Up a Connection to Your Internet Service Provider.

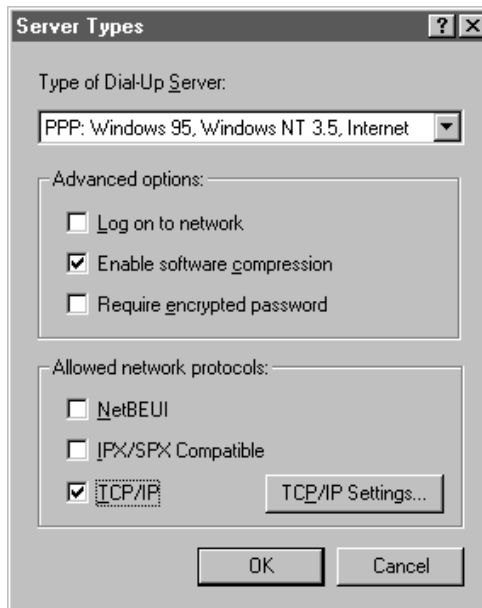
11 Click **Start** | **Programs** | **Accessories** | **Dial-Up Networking**.

12 Double-click **Make New Connection**.

Type a name for the connection, then click **Next >**. Type a phone number for the connection, then click **Next >**. You should see a message indicating that a new connection was created successfully. Click **Finish**.

13 From the Dial-Up Networking window, put the cursor over your new icon and click the right mouse button. Select **Properties** from the menu that appears.

14 Click Server Type..., and then deselect Log on to Network, NetBEUI, and IPX/SPX Compatible.



15 Select OK, then OK.

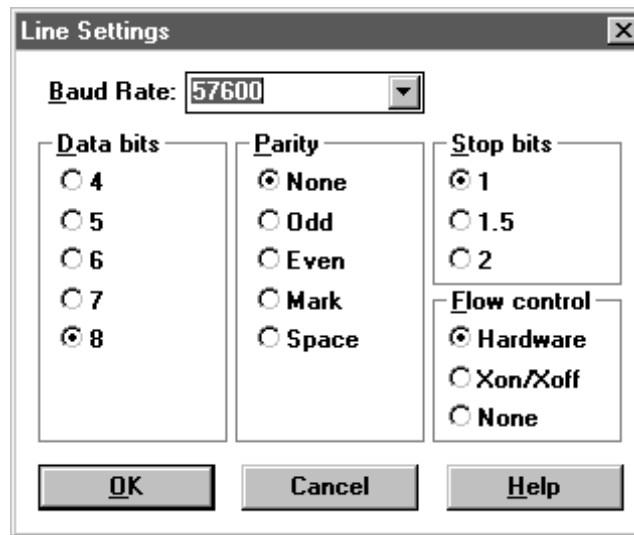
Double-click on your new connection icon to connect!

Windows 3.x

First, try testing the Courier by following the steps below. Use any communications software package for this test. For example, Windows includes Terminal, a minimally equipped communications program. Because Terminal supports serial port rates of up to only 19200, Quick Link II Fax is used in this example.

- 1 Install and then start Quick Link.
- 2 Click **Setup | Line Settings...** Make the following settings.

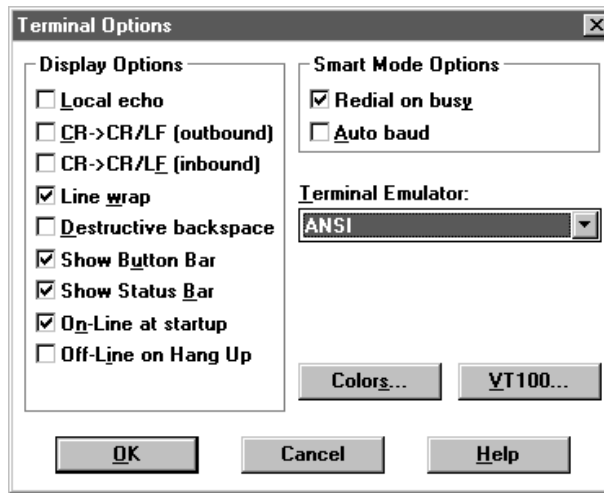
If you are using a computer with a serial port that cannot support high speeds, choose 19200. Then click **OK**.



- 3 Click **Setup | Modem Setup...** Select the COM Port that the Courier is using, and then click OK.

If you're not sure, look for a PC Card (PCMCIA) management program on your Windows desktop. Most laptops include such a utility that tells you what resources Card and Socket Services selected for your PC Card.

- 4** Click **Setup | Terminal Options...** Set the Terminal Emulator to ANSI. Click **OK**.



- 5** In the terminal window, type **AT <Enter>**. The Courier should respond **OK**.

If you don't get an OK response, refer to Chapter 16, *Troubleshooting*, in the *Courier Modems Command Reference* manual.

- 6** Dial the U.S. Robotics BBS at (847) 982-5092. For example, **ATDT18479825092 <Enter>** dials the U.S. Robotics BBS as a long-distance call.

NOTE: If you need to dial 9 to get an outside line, dial as in this example: **ATDT9,18479825092 <Enter>**. If you want to disable call waiting for this call, in most areas, dial *70 before you dial the phone number, for example, **ATDT*70,18479825092 <Enter>**.

The following screens are what you should see when you dial the BBS.

```
atdt9825092
CONNECT 31200/ARQ/V34/LAPM/V42BIS
CONNECT 31200/ARQ/V34/LAPM/V42BIS
CONNECT 115200 / 02-27-96 (12:52:21)
(Error Correcting Modem Detected)

USR Support BBS - ComServer 486
PCBoard (R) v15.22/100 - Node 11

Testing your system capability...

Do you want graphics (Enter)=yes? ( )
```

Figure 3-1. Connecting...



Figure 3-2. Success!

If you plan to use a different Windows communications software package, call our fax-on-demand service (at 800-762-6163 or 847-676-1598) or our BBS (at 847-982-5092). Request document 10000 for a list of our technical support documents.

DOS

For instructions about how to set up your DOS communications software package, call our fax-on-demand service (at 800-762-6163 or 847-676-1598) or our BBS (at 847-982-5092). Request document 10000 for a list of our technical support documents.

OS/2

To get the best performance, you should replace the standard OS/2 serial port drivers COM.SYS and VCOM.SYS with SIO.SYS and VSIO.SYS. You can get these enhanced drivers from our BBS at 847-982-5092. Check file area 18, *OS/2 Support, Utilities, etc* for SIO153.ZIP.

For help with OS/2 Warp installations, download the file WARPIN.ZIP from BBS file area 18, *OS/2 Support, Utilities, etc*.

For instructions about how to set up your OS/2 communications software package, call our fax-on-demand service (at 800-762-6163 or 847-676-1598) or our BBS (at 847-982-5092). Request document 10000 for a list of our technical support documents.

Mac OS

For instructions about how to set up your Macintosh communications software package, call our fax-on-demand service (at 800-762-6163 or 847-676-1598) and request document 10000 for a list of available documents. Or, call our Macintosh BBS (at 847-676-1598).

Linux

Linux has a built-in communications software package called minicom. By default, minicom is located in the `usr/bin` directory.

For instructions about how to set up your Linux communications software package, call our fax-on-demand service (at 800-762-6163 or 847-676-1598) or our BBS (at 847-982-5092). Request document 10000 for a list of our technical support documents.

Chapter 4

Using the Courier PC Card

Getting Information About Calls

There are several commands that provide detailed information about your current settings and current and last calls.

To get call-in-progress data and current settings while you are on line, send **ATS14.0=0&W <Enter>**.

Once you've sent **ATS14.0=0&W <Enter>**, you can type the following command to get to online command mode, and the Courier PC Card will not hang up:

+++

To return online, type:

ATO <Enter>

Current Settings

Current settings	ATi4
Data or fax mode	AT+FCLASS?
	0=Data 1=Class 1 fax 2.0=Class 2.0 fax

Call in Progress

Speed	ATi6 — Speed
Duration	ATi6 — Current Call
Modulation	ATi11 — Modulation
Error control protocol	ATi6 — Protocol
Compression type	ATi6 — Compression
Data or fax mode	AT+FCLASS?
	0=Data 1=Class 1 fax 2.0=Class 2.0 fax

Last Call

Last-dialed number	ATI4	—	Last Dialed #
Disconnect reason	ATI6	—	Disconnect Reason is
Speed	ATI6	—	Speed
Duration	ATI6	—	Last Call
Modulation	ATI11	—	Modulation
Error control protocol	ATI6	—	Protocol
Compression type	ATI6	—	Compression

Appendix A

Technical Specifications

Standards Compatibility

The Courier uses multiple standard data communications protocols and is also compatible with many nonstandard schemes.

NOTE: The International Telecommunication Union (ITU-T) was formerly the International Telegraph and Telephone Consultative Committee (CCITT).

Modulation

ITU-T V.34	33.6/31.2/28.8/26.4/24/21.6/19.2/16.8/14.4/12 Kbps; 9600/7200/4800 bps asynchronous Trellis Coded Modulation (TCM)
V.Fast Class	28.8/26.4/24/21.6/19.2/16.8/14.4 Kbps asynchronous Trellis Coded Modulation (TCM)
V.32terbo	21.6/19.2/16.8/14.4/12 Kbps; 9600/7200 bps asynchronous Trellis Coded Modulation (TCM); 4800 bps asynchronous Quadrature Amplitude Modulation (QAM)
HST	16.8/14.4/12 Kbps; 9600/7200 bps asynchronous, asymmetrical, 450 bps back channel with automatic handshake adjustment to 300 bps Trellis Coded Modulation (TCM) and Quadrature Amplitude Modulation (QAM); 4800 bps asynchronous, asymmetrical, 450 bps back channel with automatic

	handshake adjustment to 300 bps Quadrature Amplitude Modulation (QAM).
ITU-T V.32 <i>bis</i>	14.4/12 Kbps; 9600/7200 bps asynchronous Trellis Coded Modulation (TCM); 4800 bps asynchronous Quadrature Amplitude Modulation (QAM)
ITU-T V.32	9600 bps asynchronous, Trellis Coded Modulation (TCM); 4800 bps asynchronous, Quadrature Amplitude Modulation (QAM)
ITU-T V.22 <i>bis</i>	2400 bps asynchronous, Quadrature Amplitude Modulation (QAM)
Bell 212A	1200 bps (also V.22) asynchronous, Differential Phase Shift Keying (DPSK)
ITU-T V.23	1200 bps asymmetrical with 75 bps back channel with Frequency Shift Keying (FSK), used by some U.K. and European phone systems.
Bell 103	300 bps (ITU-T V.21 optional) asynchronous, Frequency Shift Keying (FSK)

Error Control, Data Compression, Testing, and Dialing

ITU-T V.42	LAPM error control, 1200 bps and higher
MNP	Levels 2, 3 and 4 error control, level 5 data compression, 1200 bps and higher
HST	Asymmetrical mode, at 16.8/14.4/12 Kbps; 9600/7200/4800 bps, 450/300 bps back channel
ITU-T V.42 <i>bis</i>	Data compression, 1200 bps and higher
ITU-T V.54	Digital and remote digital loopback testing

Fax

The Courier provides Group III-compatibility when controlled by Class 1 or Class 2.0 fax software. In addition, the Courier adheres to the following standards:

TIA/EIA-578	Service Class 1 Asynchronous Facsimile DCE Control Standard
-------------	-------------------------------------------------------------

TIA/EIA-592	Service Class 2.0 Asynchronous Facsimile DCE Control Standard
ITU-T V.17	14.4/12 Kbps
ITU-T V.29	9600/7200 bps
ITU-T V.27ter	4800/2400 bps
ITU-T V.21	300 bps

Additional Specifications

Supported serial port rates	115200, 57600, 38400, 19200, 9600, 4800, 2400, 1200, 300 bps												
Adaptive Speed Leveling (ASL)	21600, 19200, 16800, 14400, 12000, 9600, 7200, 4800 bps												
Communications channel	Full- or half-duplex on 2-wire phone lines; demand-driven high-speed turnaround in HST mode; symmetrical speeds in V.32 <i>bis</i>												
Data format	Binary, serial; defaults to 8-bit word length, no parity, and 1 stop bit. <table><tr><th>Word Length</th><th>Parity (1 Bit)</th><th>Stop Bits</th></tr><tr><td>7</td><td>Even, Odd, Mark, Space</td><td>1</td></tr><tr><td>7</td><td>None</td><td>2</td></tr><tr><td>8</td><td>None</td><td>1</td></tr></table>	Word Length	Parity (1 Bit)	Stop Bits	7	Even, Odd, Mark, Space	1	7	None	2	8	None	1
Word Length	Parity (1 Bit)	Stop Bits											
7	Even, Odd, Mark, Space	1											
7	None	2											
8	None	1											
Flow control buffers	Variable sizes												
Command buffer	56 characters, excluding the AT prefix, Carriage Return and spaces												
Test options	Remote digital loopback, digital loopback, test pattern, and dial test												
Failed call timeout	60 second default, programmable 2-255 sec												

Answer tone timeout	60 seconds
Answer tone detector	2080-2120 Hz
Loss of carrier (disconnect timer)	0.7 second default, programmable 0.2-25.5 sec.
Equalization	Adaptive
Receive sensitivity	- 43 dBm \pm 2 dBm
Transmit level	- 9 dBm maximum
Transmitter frequency tolerance	.01%
Certification	FCC Part 15, Class B Domestic; IC (Canada) CS-03, UL listed
Ringer equivalence	0.4b

Appendix B

Warranty and Notices

Limited Warranty

U.S. Robotics Access Corp. warrants to the original consumer or other end user purchaser that this product is free from defects in materials or workmanship for a period of five years from the date of purchase. During the warranty period, and upon proof of purchase, the product will be repaired or replaced (with the same or similar model) at our option, without charge for either parts or labor. This warranty shall not apply if the product is modified, tampered with, misused, or subjected to abnormal working conditions.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE, AND U.S. ROBOTICS SHALL IN NO EVENT BE LIABLE TO PURCHASER FOR INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND OR CHARACTER.

Some states do not allow the exclusion or limitation of incidental or consequential damages or allow limitations on how long an implied warranty lasts, so the above limitations or exclusion may not apply to you. This warranty gives you specific legal rights. You may also have other rights that vary from state to state.

Should you encounter problems in operating this device, first follow the instructions in Chapter 16, *Troubleshooting*, of the *Courier Modems Command Reference* manual. The chapter contains solutions to operating problems as well as procedures to follow if there is an apparent Courier malfunction.

Service/Support

To obtain service under this warranty, contact U.S. Robotics Corporate/Systems Support as described below. Be sure to have the product's serial number handy if you call, or send copies if you are contacting us by mail.

Contacting U.S. Robotics

Check the Corporate/Systems Customer Support card that came with your Courier for information about how to contact us.

If the support representative determines that you should send your equipment to USR for service, you will be given a Service Repair Order (SRO) number to help us keep track of your warranty request. Once you have received your SRO number, take or mail the product, postage prepaid, to U.S. Robotics at the address on page 16-8 in the *Courier Modems Command Reference*. Include proof of the date of purchase.

IMPORTANT: If you ship your unit, pack it securely, be sure your SRO number is visible on the outside of the package, and ship it charges prepaid and insured.

Notices

FCC Registration

FCC15: CJE-0276, CJE-0280
FCC 68: CJEUSA-75811-MM-E

Connecting to the Telephone Company's Lines

The telephone company may request the telephone number(s) to which the Courier is connected and the FCC information printed above.

If the Courier is malfunctioning, it may affect the telephone lines. In this case, disconnect the Courier until the source of the difficulty is traced.

FCC Notice: Radio and Television Interference

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

IC (Industry Canada)

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the radio interference regulations of Industry Canada (formerly Canadian Department of Communications).

Le présent appareil numérique n'émet pas de bruits radio-électriques dépassant les limites applicables aux appareils numériques de la classe B prescrites dans le Règlement sur le brouillage radioélectrique édicté par Industrie Canada (antérieurement le ministère des Communications du Canada).

The Industry Canada (formerly DOC) 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 a user's satisfaction.

Before installing this equipment, make sure you are permitted to connect it to the facilities of the local telecommunications company. You must also install the equipment using an acceptable method of connection. In some cases, you may also extend the company's inside wiring for single line individual service by means of a certified connector assembly (telephone extension cord). You should be aware, however, 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. Any repairs or alterations made by a user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

For your own protection, make sure that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

WARNING: Do not attempt to make such connections yourself; contact the appropriate electric inspection authority or electrician.

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