



Data Communications

Pac

Owner's Manual

Series 70

Iota is a trademark of Iota Systems.

Notice

Hewlett-Packard Company and Iota Systems make no express or implied warranty with regard to the keystroke procedures and program material offered or their merchantability or their fitness for any particular purpose. The keystroke procedures and program material are made available solely on an "as is" basis, and the entire risk as to their quality and performance is with the user. Should the keystroke procedures or program material prove defective, the user (and not Hewlett-Packard Company, Iota Systems, nor any other party) shall bear the entire cost of all necessary correction and all incidental or consequential damages. Hewlett-Packard Company and Iota Systems shall not be liable for any incidental or consequential damages in connection with or arising out of the furnishing, use, or performance of the keystroke procedures or program material.



Data Communications Pac

Owner's Manual

For Use With the HP-75

Developed and Written for Hewlett-Packard by
Iota Systems

July 1983

00075-90225

Printed in U.S.A.

© Hewlett-Packard Company 1983
© Iota Systems 1983



Introducing the Data Communications Pac

The Data Communications Pac provides a versatile terminal emulator software package--the DATACOMM program--for the HP-75 Portable Computer. With this program you can communicate with other computer systems over a phone line to access a variety of information. You can connect to systems such as The SourceSM, Dow Jones News/Retrieval^(R), and other host computer systems via a modem. It is quite easy to obtain stock quotes, send or receive mail, or make airplane reservations using one of these data base services.

A few of the features provided by the system are:

- Incoming and outgoing data can be sent to the HP-75 display, a printer, and/or a video interface.
- Special code words can be created that simplify log on procedures.
- Text files that have been written off-line can be transferred to another host computer system.
- Incoming data can be saved in a text file for later review or printing.
- A 500-character input buffer is provided for reviewing information when using the HP-75 display.

The DATACOMM program is entirely menu-driven. Most operations can be accessed from the menu by typing a single key.

Included in the box with your Data Communications module, in addition to this manual, are:

- Three prerecorded magnetic cards containing setup files.
- A quick reference card that fits in your HP-75 case.
- A DATACOMM overlay that fits over the keyboard of the HP-75.

Contents

How To Use This Manual	6
Section 1: Getting Started	7
What the Data Communications Pac Does -- Installing and Removing the Data Communications Module -- Connecting Peripheral Devices -- Using DATACOMM -- Running DATACOMM -- Summary and What's Ahead	
Section 2: Initializing Your System	15
Introduction -- General Syntax for Commands -- Selecting the Current Setup File (C) -- The MSETUP File -- Using the Setup File Editor (E) -- Initializing a Setup File	
Section 3: Terminal Mode	33
Introduction -- Configuring Your DATACOMM System -- Entering Terminal Mode (T and D) -- Viewing the Display Buffer in Terminal Mode -- Sending Control Sequences to the Host Computer -- Access- ing the Main Menu From Terminal Mode -- Transferring Files Using the X Command -- Logging Off the Host System	
Section 4: Special Code Words	43
Introduction -- Using Special Code Words -- Creating Your Own Special Code Words (A) -- Deleting a Code Word (D)	
Section 5: DATACOMM Command Dictionary	49
Introduction -- General Syntax for Commands -- HP-75 Keys -- The Main Menu Commands -- The Edit Mode Commands	
Appendix A: Owner's Information	63
Maintenance -- Limited One-Year Warranty -- Service -- Technical Assistance -- Dealer and Product Information	
Appendix B: Error Messages	73
Appendix C: Using the Dow Jones News/Retrieval(R) Service	75
Using an Acoustic Modem -- Using an Auto-Dial Modem -- Saving a Dow Jones News/Retrieval(R) Story in a Text File -- Saving a Current Stock Quote in a Text File	

Appendix D: Using The Source	81
Using an Acoustic Modem -- Using an Auto-Dial Modem -- Saving "Mail" From The Source in a Text File -- Transferring a Text File From the HP-75 to The Source	
Command Summary and Index	89
Subject Index	93

How To Use This Manual

The information in this manual assumes that you have read sections 1, 2, 3, and 9 of the HP-75 Owner's Manual. Specifically, you should know how to connect, assign and operate your modem, printer, and video interface. It is also necessary to know how to create and edit text files and use the card reader.

This manual is both a learning tool and a reference tool. Section 1, "Getting Started," describes how to insert the Data Communications module, hook up peripherals, and how to use the DATACOMM program to log onto a host computer system, in this example the Dow Jones News/Retrieval Service^(R).

Section 2, "Initializing Your System," explains setup files and how to modify them for your own system configuration.

Section 3, "Terminal Mode," discusses how to use DATACOMM commands while your HP-75 is logged on to a host computer.

Section 4, "Special Code Words," outlines the procedure for creating "typing aid" files and other short-cuts.

Section 5, "DATACOMM Command Dictionary," describes each system command and gives an example of how it is used.

There are several appendices that provide expanded information and examples on specific applications.

- Appendix A, "Owner's Information," provides warranty and service information.
- Appendix B, "Error Messages," lists error messages that may appear as a result of an improper operation.
- Appendix C, "Using the Dow Jones News/Retrieval Service^(R)," describes how to log on to the Dow Jones service and how to transfer data from the service to a text file.
- Appendix D, "Using The Source," explains how to log on to The Source and how to transfer mail to and from that service.

Section 1

Getting Started

Contents

What the Data Communications Pac Does	7
Installing and Removing the Data Communications Module	8
Connecting Peripheral Devices	9
Using DATACOMM	9
Running DATACOMM	10
Logging On to Dow Jones News/Retrieval Service(R)	11
Viewing the Display Buffer	12
Viewing the Display	13
Logging Off Dow Jones	13
Summary and What's Ahead	13

What the Data Communications Pac Does

The Data Communications module contains a program called DATACOMM that allows your HP-75 to communicate with other computer systems via a modem or through a direct connection. You can easily log on to The SourceSM, Dow Jones News/Retrieval(R), or other computer systems that support the XON/XOFF protocol.* (A protocol is the set of rules that governs the orderly transfer of data between systems.) DATACOMM can be used with other handshake protocols in addition to XON/XOFF) if they are supported by your communication hardware (modem or RS-232C interface). Refer to your owner's manual for information on which protocols are supported.

*Most computer systems support the XON/XOFF protocol. The XON/XOFF protocol allows DATACOMM to control the transmission of characters from the host system. DATACOMM can stop the host system from sending characters by sending an XOFF character. When DATACOMM is ready to accept more information, it restarts transmission by sending an XON character. DATACOMM may miss incoming data if the connected host system does not support XON/XOFF protocol. Check with the customer service department of the information service you intend to use if you are in doubt about the use of XON/XOFF and the service you wish to use.

A number of DATACOMM program commands provide flexibility in how the data is displayed. Incoming information can be displayed on the HP-75 display, a video interface, and/or a printer. When the HP-75 display is turned on, incoming data is stored in a 500-character buffer. The 500 most-recently received characters are saved in the buffer and can be easily reviewed.

Another useful feature of the Data Communications Pac is the text file transfer capability. This allows you to create a text file (such as a letter) off-line, then send it to a host system when you log on. The reverse is also true; you can read data from another computer system into a text file.

Installing and Removing the Data Communications Module

The Data Communications module can be plugged into any of the three ports on the front edge of the computer.

CAUTION

- Be sure to turn off the HP-75 (press [SHIFT] [ATTN]) before installing or removing any module. If there are any pending appointments, type ALARM OFF [RTN] in EDIT mode before turning off the HP-75 to prevent the arrival of future appointments (which would cause the computer to turn on). If the computer is on or if it turns itself on while a module is being installed or removed, it might reset itself, causing all stored information to be lost.
- Do not place fingers, tools or other foreign objects into any of the ports. Such actions could result in minor electrical shock hazard and interference with pacemaker devices worn by some people. Damage to port contacts and internal circuitry could also result.

To insert the module, orient it so that the label is right-side up, hold the computer with the keyboard facing up and push in the module until it snaps into place. Before doing this be sure to observe the precautions described above.



To remove the module, grasp the lip on the bottom of the front edge of the module and pull the module straight out of the port. Install a blank module in the port to protect the contacts.

Connecting Peripheral Devices

The only peripheral device required to run DATACOMM is some type of communication equipment--an acoustic coupler, direct-connect modem, or interface. There are other types of devices you may want to connect to your HP-75 using HP-IL, such as printers, or a video interface. Section 3 of this manual, "Terminal Mode," discusses using a printer and video with DATACOMM. Examples later in this manual use an HP 82168A Acoustic Coupler, an HP 82164A HP-IL/RS-232-C Interface, an HP 82163 Video Interface (32-column), a Mountain Computer MC00701A Video Interface (80-column), an HP 82162A Thermal Printer, an HP 82905B Printer, and a Hayes Smartmodem connected to the HP-IL/RS-232-C interface.

The setup files included in the Data Communication Pac (on prerecorded HP-75 magnetic cards) assume you have one of the above mentioned modems. If you are not using one of these modems you will have to modify your setup file. (Setup files are discussed fully in section 2, "Initializing Your System.") For specific connection instructions, follow the instructions provided with your modem.

HP-IL modems and interfaces can be connected anywhere in the loop. DATACOMM automatically makes I/O assignments for devices in the loop: you do not need to execute ASSIGN IO before running DATACOMM.

Using DATACOMM

The remainder of this section demonstrates how to use DATACOMM to log on to the Dow Jones News/Retrieval Service^(R). Further information about logging on to Dow Jones is provided in appendix C. The procedures for logging on to The Source are covered in appendix D. The procedures for other data base systems are similar, but you should contact the respective service for details of the log on process.

Note: In examples throughout this manual, the computer's messages appear indented in ordinary type. Words in **boldface** indicate your typed-in response.

10 Section 1: Getting Started

For this demonstration, we assume the simplest system configuration of an HP-75 and an HP 82168A Acoustic Coupler. This configuration matches information in setup file SETUPA1 which is included in the Data Communications Pac. If you do not have the above configuration, refer to section 2 for information on how to change your setup file.

Running DATACOMM

Before running DATACOMM it is necessary to load setup files from the prerecorded magnetic cards provided with the module. Setup files contain information about the type of modem you are using and various other system information.

The Data Communications Pac includes three magnetic cards. Two of the cards contain setup files: SETUPA1 and SETUPR1. The third contains the MSETUP file. This is a BASIC file used in conjunction with the setup file.

In order to run DATACOMM, you must first load in MSETUP from the magnetic card by typing:

COPY CARD TO 'MSETUP' [RTN]

The HP-75 will prompt you for reading the card.

Next, you need to copy the setup file that is appropriate for your configuration. For this demonstration, you would load SETUPA1 by typing:

COPY CARD TO 'SETUPA1' [RTN]

The HP-75 will prompt you for reading the card.

(You may also wish to set your HP-75 to uppercase by holding down the [SHIFT] key and pressing [LOCK]. This is not always required, but many host systems (such as Dow Jones News/Retrieval(R)) predominantly use uppercase characters.)

To run DATACOMM type:

RUN 'DATACOMM' [RTN]

An identifying copyright message will appear on your display, and then the following messages:

Reading SETUPA1. Stand by...
- MENU ** PRESS CDEHLPQSTVX? :

() The program is now prompting you to select a command. The commands are discussed fully in sections 2 and 3, and in the DATACOMM Command Dictionary (section 5). For now, we will use only the commands needed to log on to Dow Jones.

Logging On to Dow Jones News/Retrieval® Service

To log on to any information service, you must first put your HP-75 into "terminal mode." In terminal mode, your HP-75 serves as a remote terminal to the host computer. To enter terminal mode from the main DATACOMM menu, press [T]:

MENU ** PRESS CDEHLPQSTVX? : [T]

Your HP-75 will now display:

TERMINAL - (PRESS [CLR] TO EXIT)

() You are now ready to dial your local Tymnet or Telenet service that will connect you with Dow Jones. In this example, we will log on via Tymnet. (Appendix C covers logging on to Dow Jones using Telenet.)

Pick up your phone and dial your local Tymnet number. When you hear the steady tone of the host computer, place the receiver into the HP 82168A Acoustic Coupler. Be sure the handset is correctly oriented. If you have done this correctly, the following words will appear on your display and you respond by pressing [A]:

please type your terminal identifier [A]

Your terminal identifier for Tymnet is the letter A. (The letter A does not appear on the HP-75 display.)

() Tymnet responds with some numbers, and then asks you to log in. You respond by entering a control sequence ([CTL][R]), followed by DOW1 and two semicolons (;;). You do not need to press [RTN]. (To enter a control sequence, hold down the [CTL] key while you press the other key.)

please log in: [CTL][R] DOW1;;

12 Section 1: Getting Started

Note: [CTL][R] instructs Tymnet to use the XON/XOFF protocol with Dow Jones. Without this, the system will not function properly.

The [CTL][R] keystrokes and one of the semicolons (;) do not appear on the display. What you will see is:

```
please log in: DOW1;
```

You should then see a message, and a prompt asking for the service you want. You type DJNS for "Dow Jones News Service."

```
host is online
WHAT SERVICE PLEASE????? DJNS [RTN]
```

You should next be prompted for your password. The computer sends several lines of characters to insure that your password remains confidential.

```
ENTER PASSWORD M M M M M M M M M M W W W W W W W W W W @ @ @ @ @ @ @ @ @ @
```

Type in your personalized password and press [RTN]. You should get an identifying message from Dow Jones and some menu instructions for accessing information from the system.

Viewing the Display Buffer

Up to this point, you have needed to enter the input data fairly quickly so as not to abort the log on process. But if any information has gone by too rapidly for you to take in, you can easily review the 500 most recent bytes in the display buffer:

1. Press the [FET] key. This stops the inflow of information and accesses the display buffer.
2. Use [←] and [→] alone or in combination with [SHIFT] and [CTL] to view the display buffer. Typing [←] or [→] alone moves the cursor one character at a time. Typing [CTL] [←] or [CTL] [→] moves the cursor one 32-character window at a time. [SHIFT] [←] or [SHIFT] [→] moves the cursor to the beginning or end of the display buffer. (This is the same way you view the 96-character display of the HP-75.)
3. Press [FET] again to resume incoming information. Be careful not to halt incoming information too long or the information service may log you off.

Viewing the Display

While you are viewing information on the HP-75 display, you can use the [I/R] key to change the format of the display. Press [I/R] to switch between continuous scrolling of characters and displaying data in 32-character windows.

Logging Off Dow Jones

When you have finished your session with Dow Jones, log off by typing:

DISC

in response to the Dow Jones prompt. Dow Jones will send a log off message that includes the log off time. When the message:

Please log in:

appears, hang up the phone. Return to the main DATACOMM menu by pressing the [CLR] key:

Please log in: [CLR]

To exit DATACOMM, press [Q] to return to the HP-75 operating system.

Most information systems will automatically log you off if you do not respond within a certain time period. The time period may vary due to the demand on the host system.

Summary and What's Ahead

In this section, you have learned how to install your Data Communications Pac, and seen an overview of what it does. You have been introduced to the most common peripheral devices used with DATACOMM. You have seen how to use DATACOMM to communicate with an information service, in this example, the Dow Jones News/Retrieval Service(R).

- In section 2, "Initializing Your System," you will find detailed instructions on how to customize a setup file for your system configuration.
- Section 3, "Terminal Mode," discusses the features and commands available to you while your HP-75 is in terminal mode.

14 Section 1: Getting Started

- Section 4, "Special Code Words," shows how you can simplify the log on process by creating an automatic log on file.
- Section 5, "DATACOMM Command Dictionary," is a dictionary of both main menu commands and edit mode commands.

Section 2

Initializing Your System

Contents

Introduction	15
General Syntax for Commands	16
Selecting the Current Setup File (C)	17
The MSETUP File	18
Using the Setup File Editor (E)	18
The Help Command (?)	18
Listing the Setup File (L)	19
Changing the Setup File (C)	22
Quitting the Setup File Editor (Q)	23
Initializing a Setup File	23
Specifying Devices in the Loop	24
Defining Peripheral Initialization Commands	26
Defining the Display Devices	28
Defining the Echo Default Value	29
Defining the Default Auto Line Feed Value	29
Defining the XON and XOFF Characters	29
Defining the DIAL and HANGUP Sequences	30
Defining the BREAK Sequence	31

Introduction

In section 1, you learned how to log on to a timesharing service using the simplest system configuration. This section shows how to prepare DATACOMM for use with other configurations.

Your Data Communications Pac includes two setup files that have been initialized for two likely system configurations. In this section, you will learn how to select the current setup file, how to view the contents of the file, what the preset conditions mean, and how you can modify the file using the edit mode C (Change) command. The first part of this section discusses commands and the second part covers the initialization process.

16 Section 2: Initializing Your System

DATACOMM needs to be initialized so that it knows what type of modem, video interface, and/or printer you are using. Once you have ensured that your setup file is correct, you will not need to modify the file until you change some component of your system. The initialization procedures are quite detailed and flexible because of the many different requirements of host computer systems.

If you have not already done so, load MSETUP and the appropriate setup file from the prerecorded HP-75 magnetic cards that came with your Data Communications Pac. If you are using an HP 82168A Acoustic Coupler, load setup file SETUPA1. If you are using an HP 82164A HP-IL/RS-232-C Interface, load setup file SETUPR1. Then run the DATACOMM program and use the commands and procedures presented in this section to initialize your Data Communications system. (If you load SETUPR1, you will get the message:

```
INVALID SETUP FILE: SETUPA1
MENU ** PRESS CDEHLPQSTVX? :
```

Refer to the heading, "Selecting the Current Setup File," on page 17, for information on changing the default setup file.)

Setup file SETUPA1 is initialized for the configuration of an HP 82168A Acoustic Coupler with an HP 82163 Video Interface and/or an HP 82162A Thermal Printer. If you have this configuration, you can skip the initialization part of this section.

Setup file SETUPR1 is initialized for the configuration of an HP 82164A HP-IL/RS-232-C Interface and a Hayes Smartmodem, with a Mountain Computer MC00701A Video Interface and/or an HP 82905B Printer. If you have this configuration, you can skip the initialization part of this section.

General Syntax for Commands

DATACOMM utilizes three types of commands. The first type requires you simply to press the letter key corresponding to one of the characters that is underlined on the display of your HP-75. It is not necessary to press [RTN] after entering this character. For example, to exit DATACOMM, press [Q]:

```
MENU ** PRESS CDEHLPQSTVX? : [Q]
```

The second type of command displays a prompt and a default input. This type of command has [RTN] displayed in the prompt line to remind you that a [RTN] is

necessary. You can accept the displayed input by pressing [RTN] or you can change it by entering another name and [RTN]:

SETUP FILE NAME [RTN]: SETUPA1 [RTN]

The third type of command prompts you to type an input, then press [RTN]. This type of command also has [RTN] displayed in the prompt line to remind you that a [RTN] is necessary:

ENTER CODE WORD [RTN]: MODEM [RTN]

Selecting the Current Setup File (C)

The main menu C (Change) command specifies the current setup file. It can also be used to activate a different setup file. Press [C] in the main DATACOMM menu to display the current setup file:

MENU ** PRESS CDEHLPQSTVX? : [C]
SETUP FILE NAME [RTN]: SETUPA1

Press [RTN] if you want to keep the displayed setup file. If you want to change to a different setup file, enter another file name:

SETUP FILE NAME [RTN]: SETUPR1 [RTN]

SETUPR1 now becomes the current setup file.

If the name you specify is not in the system, a new file will be created to which you will have to add the appropriate setup information. The preferred method of creating a new file is to use the HP-75 COPY command to make a copy of one of the pre-existing setup files, then run DATACOMM and change the incorrect lines using the DATACOMM setup file editor. (Using the editor (E) commands to modify a setup file is covered below.) For example:

COPY 'SETUPR1' TO 'SETUPNEW' [RTN]
RUN 'DATACOMM' [RTN]

The MSETUP File

The MSETUP file that you loaded from the prerecorded magnetic card is a BASIC file that keeps track of the current setup file name. When a C command is issued and the setup file name is changed, the new file name is stored in the first line of MSETUP. Whenever you run DATACOMM, it will use the most recently selected setup file.

The following is a listing of MSETUP. Remember that the first line holds the name of the current setup file and is therefore subject to change. (SETUPA1 is the default setup file when you load MSETUP.) Use this listing if you need to recreate the MSETUP file.

```
1 DATA 'SETUPA1'  
2 DATA 1,1,0,1  
3 DATA 'MENU ** PRESS CDEHLPQSTVX? : ','CDEHLPQSTVX?', ''  
4 DATA 'Q'
```

Using the Setup File Editor (E)

The E (Editor) command places the system into edit mode. There are six edit mode commands that you can use to modify the current setup file in your system. In this section, you will use only the edit mode commands needed to initialize your setup file.

To enter edit mode, press [E] in response to the main menu prompt. You will see a brief message telling you what setup file is current, and then you will see the editor menu:

```
MENU ** PRESS CDEHLPQSTVX? : [E]  
USING SETUP FILE: SETUPA1  
EDITOR ** PRESS ACDLQ? :
```

You can now select one of the edit mode commands. Notice that some of the edit mode commands are executed with the same letters as main menu commands.

The Help Command (?)

The ? (Help) command displays a one-line description of DATACOMM commands. If you press [?] in response to the editor prompt, you are prompted to select a command. The help message for the command is then displayed. For example:

EDITOR ** PRESS ACDLQ? : [?]
EDITOR HELP ** PRESS ACDLQ? : [C]
CHANGE A CODE WORD IN FILE

The ? command is the same in both the edit mode menu and the main menu.

The following is a list of the edit mode commands and the descriptions of each command:

- A ADD A CODE WORD TO FILE
- C CHANGE A CODE WORD IN FILE
- D DELETE A CODE WORD FROM FILE
- L LIST THE SETUP FILE
- Q LEAVE THE EDITOR
- ? DISPLAY EDITOR HELP MESSAGES

Listing the Setup File (L)

The editor L (List) command allows you to list the contents of the current setup file. This is useful for checking to see if a particular code word is in the file or if your output devices are properly specified. The L command causes the first line of the setup file to be displayed. For example (the first line of your current setup file may differ from this):

EDITOR ** PRESS ACDLQ? : [L]
CURSOR[CLR]: MODEM*HP82168A

The general format for all lines in the setup file is:

code word*data

The code word is used to reference the data. The code word is separated from the data by an asterisk (*). The only blanks that should be input in the data portion should be those that are specifically required. In addition, commas are not allowed in these lines. (If a comma is required in the line, enter !/. For information on other special setup characters, refer to the list of special setup characters beginning on page 26 of this section.)

20 Section 2: Initializing Your System

Once the first line is displayed, you can then use the following cursor control keys to view the remainder of the file:

Key	Action
[↑]	Move up one line.
[↓]	Move down one line.
[SHIFT] [↑]	Move to top of file.
[SHIFT] [↓]	Move to bottom of file.
[→]	Move cursor right one character.
[←]	Move cursor left one character.
[CTL] [→]	Move cursor right 19 characters.
[CTL] [←]	Move cursor left 19 characters.
[SHIFT] [→]	Move cursor right to end-of-line.
[SHIFT] [←]	Move cursor left to end-of-line.
[CLR]	Return to editor menu.

When you are finished looking at your file, press the [CLR] key to return to the editor menu.

Figure 1 shows the contents of setup file SETUPA1, and Figure 2 shows the contents of SETUPR1. The first 16 lines of the files (up through the BREAK line) are required for initialization and are discussed in this section.* The remaining four lines are special code words and are discussed in section 4, "Special Code Words." The numbers shown to the left of the code words do not appear when you execute the editor L command. These are the line numbers for an HP-75 text file. The numbers shown to the right of the lines refer to the initialization steps discussed under "Initializing a Setup File," on page 23.

***Warning:** If any of the first 16 lines are deleted or renumbered, DATACOMM will not work.

Figure 1
Setup File SETUPA1

```
1 MODEM*HP82168A           1
2 VIDEO*48
3 PRINTER*32

4 MODEM*!RC0;M0;!N          2
5 VIDEO*
6 PRINTER*!E&k1H

7 LCDON*ON                  3
8 VIDEOON*OFF
9 PRINTERON*OFF

10 ECHOON*OFF                4
11 AUTOLF*OFF                5
12 XON*17                     6
13 XOFF*19

14 DIAL*                      7
15 HANGUP*

16 BREAK*!RR;B1;!OBO;!N        8

17 SL01*!2A!8STCxx^M!2^M!2ID uuuuuu ppp^M
18 SL02*!2^M!2^M!8^M!8^M!8C 301 xx^M!2ID uuuuuu ppp^M
19 DJL01*!2A!2^RDOW1;;!2DJNS^M!2pppppppp^M
20 DJL02*!2^M!2^M!8^M!8^M!8C 60942^M!2DJNS^M!2pppppppp^M
```

Figure 2
Setup File SETUPR1

1MODEM*HP82164A	1
2VIDEO*MC00701A	
3PRINTER*HP82905B	
4IMODEM*!RSB6;CO;SW1;SS0;PO;SEO;!N	2
5IVIDEO*!E>	
6IPRINTER*	
7LCDON*ON	3
8VIDEOON*OFF	
9PRINTERON*OFF	
10ECHOON*OFF	4
11AUTOLF*OFF	5
12XON*17	6
13XOFF*19	
14DIAL*ATDT!P^M	7
15HANGUP*!2+++!2!2ATH0^M	
16BREAK*!RR1;B1;!OBO;!N	8
17SL01*ATDTnnnnnnnn^M!8!8!2A!2STCxx^M!2ID uuuuuu ppp^M	
18SL02*ATDTnnnnnnnn^M!8!8^M!2^M^MC 301 xx^M!8ID uuuuuu ppp^M	
19DJL01*ATDTnnnnnnnn^M!8!8!2A!2^RDOW1;;!2DJNS^M!2pppppppp^M	
20DJL02*ATDTnnnnnnnn^M!8!8^M!2^M^MC 609 42^M!8DJNS^M!2pppppppp^M	

Changing the Setup File (C)

The editor C (Change) command is used to change lines in the setup file. When you press [C] in edit mode, DATACOMM prompts you to enter the code word you

want to change. The line containing the desired code word, and the data associated with the code word will be displayed. For example, suppose you want to change the AUTOLF line. You press [C], then enter AUTOLF and [RTN]:

```
EDITOR ** PRESS ACDLQ? : [C]
ENTER CODE WORD [RTN]: AUTOLF [RTN]
CHANGE [RTN]: AUTOLF*OFF
```

The cursor is automatically positioned on the first character of the code word, in this case over the "A". All of the normal HP-75 line editing keys can be used, including [I/R] and [DEL], to correct the line. The [CLR] key clears the entire line.

Use the cursor keys to position the cursor and then type the change you want to make, in this case changing OFF to ON. Press [RTN] when you are through changing the line.

```
CHANGE [RTN]: AUTOLF*ON [RTN]
```

If you enter a line improperly, the system will inform you of the error and no change will be made to the line. The changed code word can be up to 12 characters long and the data can be up to 65 characters long. The * must separate the code word from the data. The final line cannot contain commas; use !/ instead.

Quitting the Setup File Editor (Q)

To exit the editor and return to the main menu, press [Q]:

```
EDITOR ** PRESS ACDLQ? : [Q]
Reading SETUPA1. Stand by...
MENU ** PRESS CDEHLPQSTVX? :
```

Initializing a Setup File

The initialization process consists of eight steps:

1. Specify the devices on the loop.
2. Specify special initialization commands required by the devices. (For example, setting the baud rate required by your modem.)

24 Section 2: Initializing Your System

3. Define the display devices and their on/off status in terminal mode.
4. Define the "echo" default value.
5. Define the auto line feed default status.
6. Define the characters the system will send to the host computer system for controlling data flow (XON/XOFF).
7. If you are using an auto dial modem, you must define the character sequences it requires to dial a number and to hang up.
8. Define the host computer's BREAK command sequence.

The following paragraphs explain these steps in detail.

Specifying Devices in the Loop

The first three lines in the setup file, MODEM, VIDEO, and PRINTER, specify the peripheral devices in your HP-75 system by their device ID, accessory ID, or loop address. One of these three specification types must be used to identify the modem, video display, and printer.

For example, in the SETUPR1 file (figure 2), the modem is specified as HP82164A. This is the device ID for the HP 82164A HP-IL/RS-232-C Interface. Notice that there are no spaces in the model number when it is used as a device ID. In the SETUPA1 file (figure 1), the video is specified as 48 which is the accessory ID of the HP 82163 Video Interface.

To decide whether to specify a device by its device ID, accessory ID, or loop address, use these general rules:

Use	When
Device ID	When you have a device ID for the peripheral. (Check in your owner's manual or see chart below.)
Accessory ID	When there is an accessory ID for the peripheral. (Check in your owner's manual or see chart below.)
Loop Address	Should be used when you do not have a device ID or accessory ID for the peripheral, or if you have two or more of the same type

of peripheral on the loop. Refer to section 9, "HP-IL Operations," of the HP-75 Owner's Manual for information on how to determine the loop address of a device.

The following table is a summary of device ID and accessory ID for some common devices:

Device	Device ID	Accessory ID
HP 82168A Acoustic Coupler	HP82168A	65
HP 82164A HP-IL/RS-232-C Interface	HP82164A	66
HP 82162A Thermal Printer	not used	32
HP 82905B Printer	HP82905B	33
HP 2671A Thermal Printer	HP2671A	34
HP 2671G Graphics Printer	HP2671G	35
HP 82163A Video Interface	not used	48
MC00701A Video Interface	MC00701A	50

If you do not have a printer or video display in your system, DATACOMM ignores those device specification lines (unless you have set the VIDEOON or PRINTERON lines to ON. The VIDEOON and PRINTERON code words are discussed below.)

Defining Peripheral Initialization Commands

Some peripherals must be sent an initialization command when they are activated. For instance, a modem may require its parity to be set. The IMODEM, IVIDEO, and IPRINTER lines of the setup file specify the initialization commands (if any) the modem, video display, or printer require.

Special Setup Characters. There are several special setup characters that can be used in the data portion of setup lines to perform special functions. You will see in a moment how these characters can be used in your setup file data strings. The following is a list of the characters and their functions:

Character	Function
!R	Enables remote mode. Remote mode is used to send command characters directly to devices.
!N	Disables remote mode and returns the device to local mode. Be sure to terminate a data string with !N if !R was used in the string.
!P	Inserts the telephone number entered with the main menu D (Dial) command into the data string of the DIAL code word.
!E	Inserts an escape character (decimal 27) into a data string. This is often used for initializing peripheral devices. Refer to the owner's manual of the device for more information.
!^	Inserts a caret ("^") into a data string.
!!	Inserts an exclamation point ("!") into a data string.
!/	Inserts a comma into a data string. Do not put the actual comma into a data string; use !/ to represent the comma instead.
<u>^char</u>	Inserts a control character into the data string. The character following the ^ will be inserted into the string as a control character. For example, ^R inserts a [CTL][R] sequence into the string.
^M	Inserts a carriage return ([CTL][M]) into the data string.
^J	Inserts a line feed ([CTL][J]) into the data string.

Character Function

- !0 Causes a 200-millisecond pause to occur before the next character in the data string is sent.
- !1 Causes a 1-second pause to occur before the next character in the data string is sent.
- !2 Causes a 2-second pause to occur before the next character in the data string is sent.
- !8 Causes an 8-second pause to occur before the next character in the data string is sent.

Note: Some devices require a pause before sending additional commands. For example, the four delay characters (!0, !1, !2, !8) can be used to put in a wait time for an auto dial modem. The delay characters can be issued as many times as necessary to obtain the desired wait time.

Initializing the Modem. The default initialization data string for the HP 82168A Acoustic Coupler (SETUPA1) is:

```
IMODEM*!RC0;M0;!N
```

The default initialization string for the HP 82164A HP-IL/RS-232-C Interface (SETUPR1) is:

```
IMODEM*!RSB6;C0;SW1;SS0;P0;SE0;!N
```

The following table lists the characters used in the default modem initialization lines. For more information about these default values or other options (such as D;, which disables the activity timeout for the HP 82168A), look for "Remote Mode Instructions" (or a similar heading) in your modem owner's manual.

If you are using a different kind of modem, you will need to check the manual of the device to determine the appropriate initialization sequence, then edit the IMODEM line.

Character	Meaning	HP 82168A	HP 82164A
CO;	No software protocol in the modem.	*	*
MO;	System service request mask is 0.	*	
SB6;	Set baud rate to 300 bps.		*
SW1;	Word length is 7 bits.		*
SS0;	Show parity error disabled.		*
PO;	Even parity selected.		*
SEO;	All service requests disabled.		*

Note: For most applications, your modem or HPIL/RS-232-C interface should be set for no software protocol (CO;). If you are using a computer system that requires something other than an XON/XOFF protocol, (such as the ENQ/ACK protocol), change the IMODEM line to include the proper handshake, then change the XON and XOFF lines in the setup file to 0.

Initializing the Video Interface and Printer. The IVIDEO line in SETUPR1 assumes the use of the MC00701A Video Interface, and includes the escape sequence !E>. This causes the cursor to be displayed. The IPRINTER line in SETUPA1 assumes the use of the HP 82162A Thermal Printer and includes the escape sequence !E&k1H. This causes the printer to print whole words only and not to break words at the end of a line.

If your video interface or printer requires other initialization sequences, or if you wish to add to or modify the default sequences, you will need to change the IVIDEO and IPRINTER lines to reflect those initialization requirements.

If you are not using a video interface or printer, DATACOMM will ignore these lines unless you have set VIDEOON or PRINTERON to ON. (See below.)

Defining the Display Devices

When you are using your HP-75 as a terminal, you can view the data being transferred to and from the modem on the HP-75 display, on a printer, or on a monitor with a video interface. The setup file code words LCDON, VIDEOON, and

PRINTERON specify whether these devices will be on or off while the system is in terminal mode. (Terminal mode is discussed in section 3, "Terminal Mode." The main menu L, V, and P commands, which affect these three code words, are also discussed in section 3.)

The default values for these code words in both SETUPA1 and SETUPR1 are:

LCDON*ON
VIDEOON*OFF
PRINTERON*OFF

Note: Whenever you have LCDON*ON, the 500-character data buffer is activated, and the data transmission rate will be noticeably slower.

Defining the Echo Default Value

The ECHOON code word determines whether DATACOMM or the host computer "echos" characters back to your display. Some computers do not echo the characters back to your system, and you will not be able to see what you type. When ECHOON is set to ON, DATACOMM displays the characters you type at the same time they are being sent. If the host computer system does echo and ECHOON is set to ON, each character you type will be displayed twice.

The default for both SETUPA1 and SETUPR1 is:

ECHOON*OFF

Defining the Default Auto Line Feed Value

The AUTOLF code word determines whether DATACOMM adds a line feed after a [RTN] (^M) character. (Most computers include a line feed as part of a [RTN] sequence.) The default value for both SETUPA1 and SETUPR1 is:

AUTOLF*OFF

Defining the XON and XOFF Characters

Most host computer systems use the XON/XOFF protocol to start and stop character transmission. The XON and XOFF code words allow you to define the characters being used by the HP-75 for the XON/XOFF protocol so that you can match the protocol used by the host computer. The data for the XON and XOFF code

30 Section 2: Initializing Your System

words are the decimal values of the desired characters.

The default values for both the SETUPA1 and SETUPR1 setup files are:

```
XON*17  
XOFF*19
```

If the host system you are using requires different values, use the editor C command to change these values. Changing these values to incorrect values (different from the host computer's requirements) could result in data loss or other communication problems.

If the host system requires a protocol other than XON/XOFF, you can set XON and XOFF to 0 in the setup file, and change the IMODEM codeword to the appropriate protocol value (assuming your modem or interface supports the needed protocol).

Defining the DIAL and HANGUP Sequences

An auto-dial modem requires a certain string of characters to get its attention and then dial a number. There are two lines in the setup file that are used for automatic dialing and hanging up: DIAL and HANGUP.

The default DIAL line is initialized for the Hayes Smartmodem:

```
DIAL*ATDT!P^M
```

The ATDT command requires a phone number followed by a carriage return. The !P takes the phone number entered with the main menu D (Dial) command. (The D command prompts you for the number.)

If your auto-dial modem requires a different dialing sequence, use the editor C (Change command) to change the DIAL code word.

In addition to the dial sequence, many auto-dial modems have a special sequence for hanging up. The HANGUP line is used to define the hang-up data sequence. You access this sequence with the main menu H (Hang-up) command. (The D and H commands are discussed in section 3, Terminal Mode.)

The default HANGUP sequence in the SETUPR1 file is initialized for a Hayes Smartmodem:

```
HANGUP*!2++!2!2ATH0^M
```

If you have a different auto-dial modem, check the manual of your modem to determine the required sequence and edit the setup file to change the HANGUP line.

Defining the BREAK Sequence

At times you may want to send a BREAK to the host computer to perform some special function, such as interrupting the host when it is sending data. The code word BREAK is used to set up the proper sequence to allow the modem or RS232 interface to perform the BREAK function. Consult your modem or interface manual if you are not using the HP 82164A HP-IL/RS-232-C Interface or the HP 82168A Acoustic Coupler.

The default BREAK sequence for SETUPA1 is:

BREAK*!RR;B1;!OBO;!N

The default BREAK sequence for SETUPR1 is:

BREAK*!RR1;B1;!OBO;!N

The following table explains the symbols used in the BREAK line:

Symbol	Meaning	HP 82168A	HP 82164A
R	Clears input and output buffers	*	
R1	Clears receive buffer		*
B1	Break ON	*	*
B0	Break OFF	*	*

Press [CTL][TAB] to send the BREAK sequence.



Section 3

Terminal Mode

Contents

Introduction	33
Configuring Your DATACOMM System	33
Entering Terminal Mode (T and D)	34
The T Command	34
The D Command	34
Viewing the Display Buffer in Terminal Mode	35
Sending Control Sequences to the Host Computer	35
Accessing the Main Menu From Terminal Mode	36
Changing Between Upper and Lower Case ([LOCK], [SHIFT][LOCK]) ..	36
Using Peripheral Devices in Terminal Mode (L, V, P)	37
Transferring Files Using the X Command	39
Logging Off the Host System	41
Hanging Up (H)	41
Quitting DATACOMM (Q)	42

Introduction

In section 1, you learned how to use DATACOMM to log on to an information service. Before beginning to log on, you put the HP-75 into terminal mode. When you do this, your HP-75 becomes a remote terminal to a host system. That demonstration assumed the simplest system configuration of an HP-75 and a modem. In this section, you will learn how you can use HP-IL peripherals while your HP-75 is connected to a host computer system, and also how to transfer files between systems using the **X** command.

Configuring Your DATACOMM System

If you plan to use an optional printer or monitor (video interface) with DATACOMM, you must confirm that you have a setup file that contains the correct information for your components. This is covered in section 2, "Initializing Your System."

You can connect the devices in any order in the loop. Be sure that the connecting cables form a continuous circuit. Refer to your HP-75 Owner's Manual, section 9, "HP-IL Operations," for more details.

Entering Terminal Mode (T and D)

Your HP-75 must be in terminal mode in order to communicate with another computer system via the modem. There are four commands that will put the HP-75 into terminal mode: the T command, the D command, the X command, and the S command. (The X command is discussed later in this section. The S command is covered in section 4, "Special Code Words.") Use the T command if you have an acoustic coupler or other manually-dialed modem, or if you have a direct connection to the host computer. You can use the D command if you have an auto-dial modem and you have initialized the DIAL line in your setup file.

The T Command

The T command puts the HP-75 into terminal mode. To enter terminal mode, press [T] when prompted by the main menu:

```
MENU ** PRESS CDEHLPQSTVX? : [T]
TERMINAL - (PRESS [CLR] TO EXIT)
```

You can now proceed with your manual log on process. (The log on procedures are described in appendix C for the Dow Jones News/Retrieval Service^(R), and in appendix D for The Source.)

The D Command

The D command dials the number for an auto-dial modem, then puts the HP-75 into terminal mode. You can dial the number two ways: you can enter the actual digits of the number, or you can enter a previously-defined code word for the number. (Code words are discussed in section 4, "Special Code Words.")

```
MENU ** PRESS CDEHLPQSTVX? : [D]
ENTER PHONE CODE OR NO. [RTN]: nnnnnnnn [RTN]
Please wait...
TERMINAL - (PRESS [CLR] TO EXIT)
```

In this example, "nnnnnnn" represents a seven-digit local number. The D command accepts prefixes and area codes as well as local numbers. The number that you enter becomes the !P parameter of the DIAL line in your setup file. (Be sure the DIAL line is correctly initialized for your modem. Refer to section 2 for more information.)

If you have defined a special code word to represent the number, you can enter that when prompted. For example, you may have defined the word TYM as the telephone number of your local Tymnet service. Then you could enter TYM instead of the number:

```
ENTER PHONE CODE OR NO. [RTN]: TYM [RTN]  
Please wait...  
TERMINAL - (PRESS [CLR] TO EXIT)
```

Viewing the Display Buffer in Terminal Mode

If you are using the HP-75 display, you can review the 500 most recent bytes in the display buffer with the following steps:

1. Press the [FET] key. This stops the inflow of information and accesses the display buffer.
2. Use [-] and [+] alone or in combination with [SHIFT] and [CTL] to view the display buffer. Typing [-] or [+] alone moves the cursor one character at a time. Typing [CTL][-] or [CTL][+] moves the cursor one 32-character window at a time. [SHIFT][-] or [SHIFT][+] moves the cursor to the beginning or end of the display buffer.
3. Press [FET] again to resume incoming information. Be careful not to halt incoming information too long or the information service may log you off.

Sending Control Sequences to the Host Computer

While you are logged on to the host computer, you may want to send certain control sequences to the host. The DATACOMM program allows you to stop and restart the flow of data, to cause a carriage return or line feed, to backspace over an error, or to send a BREAK sequence to the host. The following table lists the DATACOMM control sequences: (These control sequences are marked on your DATACOMM overlay.)

Control Sequence	Action
[CTL] [H]	Causes a backspace (BS).
[CTL] [J]	Causes a line feed (LF).
[CTL] [M]	Sends a carriage return (CR).
[CTL] [Q]	Sends an XON character (resumes data flow).
[CTL] [S]	Sends an XOFF character (halts data flow).
[CTL] [TAB]	Sends a BREAK sequence.

Note: To send a control sequence, hold down [CTL] and press the other key.

Accessing the Main Menu From Terminal Mode

You do not need to log off from the host computer to access commands in the main menu. Simply press [CLR] and you will return to the main menu. You can then execute whatever commands you want. You reenter terminal mode by pressing [T] again. (If you are using the HP-75 display and the host system is expecting an input from you, the terminal mode message remains on the display until you enter something. If you are using a video interface and the HP-75 display is turned off, the terminal mode message remains on the display until you leave terminal mode.)

Note: Some computer systems will automatically disconnect you if you do not respond within a certain period of time. If you need to perform a lengthy operation, such as editing your setup file, you should log off first.

Changing Between Upper and Lower Case (**[LOCK]**, **[SHIFT]** **[LOCK]**)

In section 1, it was suggested that you press [SHIFT][LOCK] to lock the keyboard in upper case. If you want to change from upper to lower case (or vice versa) while you are in terminal mode, first press [CLR], then press [LOCK] or [SHIFT][LOCK] as appropriate. [LOCK] puts the HP-75 into lower case; [SHIFT] [LOCK] puts the HP-75 into upper case. For example, if the HP-75 is set to upper case:

[CLR]
 MENU ** PRESS CDEHLPQSTVX? : [LOCK]
 CASE SELECTED; PRESS [RTN] [RTN]

When you press [RTN], you will go back to the main menu. Press [T] to return to terminal mode.

You can change case anytime you are in the main menu or the editor menu.

Using Peripheral Devices in Terminal Mode (L, V, P)

Setup files SETUPA1 and SETUPR1 contain lines that control the display output in terminal mode: LCDON, VIDEOON, and PRINTERON. The initial conditions in the setup files are:

LCDON*ON
 VIDEOON*OFF
 PRINTERON*OFF

There are two ways for you to change these conditions. You can enter edit mode and change the lines in the setup file. Or you can use the L, V, or P commands in the main menu.

The L Command. The L command turns the HP-75 display on or off. Each time you enter this command, the ON or OFF value of the LCDON line in the setup file toggles to the other value. The new value is then briefly displayed. If the new value causes a warning condition, the warning is also displayed:

MENU ** PRESS CDEHLPQSTVX? : [L]
 LCD OFF
 NO OUTPUTS ARE ACTIVE
 MENU ** PRESS CDEHLPQSTVX? : [L]
 LCD ON
 MENU ** PRESS CDEHLPQSTVX? :

Note: Whenever you have LCDON*ON, the 500-character data buffer is activated, and the data transmission rate will be noticeably slower.

The V Command. The V command turns the video interface on or off. Each time you enter this command, the ON or OFF value of the VIDEOON line in the setup file toggles to the other value. The new value is then briefly displayed. If the new value causes a warning condition, the warning is also displayed:

```
MENU ** PRESS CDEHLPQSTVX? : [V]
VIDEO ON
VIDEO NOT FOUND ON LOOP
MENU ** PRESS CDEHLPQSTVX? : [V]
VIDEO OFF
MENU ** PRESS CDEHLPQSTVX? :
```

The P Command. The P command turns the printer on or off. Each time you enter this command, the ON or OFF value of the PRINTERON line in the setup file toggles to the other value. The new value is then briefly displayed. If the new value causes a warning condition, the warning is also displayed:

```
MENU ** PRESS CDEHLPQSTVX? : [P]
PRINTER ON
PRINTER NOT FOUND ON LOOP
MENU ** PRESS CDEHLPQSTVX? : [P]
PRINTER OFF
MENU ** PRESS CDEHLPQSTVX? :
```

If any of the three warnings are in effect, a warning will be displayed whenever you execute any of these commands or whenever the setup file is read.

One use of this feature is that you only need to turn on your printer when you want to make a hard copy of specific information. For example, suppose you want a copy of some stock market quotes from Dow Jones News/Retrieval Service(R). When you are prompted for the name of the first stock, press [CLR] to return to the main menu:

```
ENTER QUERY [CLR]
MENU ** PRESS CDEHLPQSTVX? :
```

Next, press [P] to turn on your printer:

```
MENU ** PRESS CDEHLPQSTVX? : [P]
PRINTER ON
MENU ** PRESS CDEHLPQSTVX? :
```

Press [T] to return to terminal mode, then enter the name of the stock plus [RTN]:

```
MENU ** PRESS CDEHLPQSTVX? : [T]
TERMINAL - (PRESS [CLR] TO EXIT)
HWP [RTN]
```

All the information you send or receive will be printed. When you have printed all the information you want at that time, repeat the process to turn off the printer.

Transferring Files Using the X Command

The X command transfers a text file either from the HP-75 to a host computer or from a host computer to an HP-75 text file. This is useful for sending or receiving mail, obtaining stock quotes or retrieving other data.

To transfer information from the host computer into an HP-75 text file:

1. Put DATACOMM in terminal mode (T or D) and log on to the host computer system.
2. Prepare the host system to send the desired data. However, do not actually start the data transfer yet.

For example, if you are using Dow Jones News/Retrieval(R) and wish to save the latest stock quote for Hewlett-Packard in a text file, you would prepare the Dow Jones system to send the data:

```
ENTER QUERY
HWP
```

However, you should not press [RTN] after entering HWP. The HP-75 must be prepared to receive the data first (steps 3 through 7, below).

Similarly, if you wanted to save "mail" from The Source, you would again prepare the host system to send the data:

```
-> MAIL READ
...
--MORE-- [Y]
```

but you would not press [RTN] after the Y response until the HP-75 system is prepared to receive the data (steps 3 through 7, below).

3. Press [CLR] to return to the main menu, and
4. Press [X] to set up the transfer:

[CLR]
MENU ** PRESS CDEHLPQSTVX? : [X]

5. Press [I] so that you can input a file name:

INPUT OR OUTPUT A FILE: [I]

6. Enter the text file name where the data will be stored:

ENTER FILE NAME [RTN]: MYFILE [RTN]

7. Enter the character(s) that will start the host system sending the data. In the examples shown in step 2 (above), pressing [RTN] will start the transfer:

INPUT (PRESS [CLR] TO EXIT) [RTN]

The character(s) you type here will be sent to the host system to start the transfer. These characters will also be saved in the text file.

8. Press the [CLR] key at any time when you want to terminate the transfer.

To send an HP-75 text file to the host computer:

1. Create the file you want to send before running DATACOMM.
2. Prepare the host computer to receive the data you will be sending. For example, if you created an HP-75 text file containing a letter that you want to send to a friend using The Source mail system, you would first prepare The Source to receive the data up to the point of seeing The Source input prompt:

ENTER TEXT:

3. Press [CLR] to return to the main menu, and
4. Press [X] to prepare DATACOMM to transfer the text file:

ENTER TEXT: [CLR]
MENU ** PRESS CDEHLPQSTVX? : [X]

5. Press [O] to indicate an output operation:

INPUT OR OUTPUT A FILE: [O]

6. Enter the file name of the text file you wish to send:

ENTER FILE NAME [RTN]: LETTER [RTN]
OUTPUT (PRESS [CLR] TO EXIT)

In this example the text file LETTER is sent to The Source. (If you are sending a text file to The Source, it is a good idea to include The Source .S command as the last line of your file--this causes the letter to be "sent".)

7. When the file transfer is complete, the HP-75 beeps and returns to terminal mode. Press the [CLR] key if you want to terminate the file transfer before it is completed.

Logging Off the Host System

When you are finished with your session, enter the correct log off word to terminate the session. For Dow Jones, enter:

DISC

For The Source, enter:

OFF

(Consult your system reference manual for the log off word(s) for other systems.)

Then press [CLR] to return to the main menu. If you have an acoustic modem, you then manually hang up the phone.

Hanging Up (H)

The main menu H command sends a hang-up command to your auto-dial modem and disconnects the HP-75 from the host computer. The H command works in conjunction with the HANGUP line in your setup file. (Be sure the HANGUP line is initialized for your modem. Refer to section 2 for more information.) To use the H command, first press [CLR] to return to the main menu:

[CLR]
MENU ** PRESS CDEHLPQSTVX? : [H]
Please wait...
MENU ** PRESS CDEHLPQSTVX? :

Quitting DATACOMM (Q)

When you are ready to exit DATACOMM, press [Q] in the main menu. You will get a goodbye message and the HP-75 prompt you used last (: or >):

MENU ** PRESS CDEHLPQSTVX? : [Q]
Bye...
: or >

Quitting DATACOMM does not turn off the HP 82168A Acoustic Coupler. However, the HP 82168A turns itself off after ten minutes of loop inactivity, unless you have included the D; option in the IMODEM line.

Section 4

Special Code Words

Contents

Introduction	43
Using Special Code Words	43
Sending a Special Code Word (S)	44
Using an Auto Log On Code Word	44
Creating Your Own Special Code Words (A)	46
Deleting a Code Word (D)	47

Introduction

This section explains how to use special code words, and how you can create (or delete them) in your setup file using the editor commands **A** (Add) and **D** (Delete).

Using Special Code Words

Special code words are tools that make DATACOMM even quicker and easier to use. Code words can be defined for almost any sequence of characters and numbers, such as a log on sequence or a frequently-executed host command.

The general format for special code words is the same as for other code words in your setup file:

code word*data

The code word may be up to 12 characters long, and it references the data that follows the *. The data portion may be up to 65 characters long.

When you create a special code word, the code word and data are added to the end of the active setup file.

Sending a Special Code Word (S)

Special code words are quite simple to use. Once you have defined a special code word, you use it by executing the S command in the main menu. For example, suppose you have defined a code word, DJLO, that contains the complete log on procedure for Dow Jones News/Retrieval(R) including the phone number (if you have an auto-dial modem) and your personalized password. Thereafter, whenever you want to log on to Dow Jones you would first press [S] in the main menu:

```
MENU ** PRESS CDEHLPQSTVX? : [S]  
ENTER CODE WORD [RTN]:
```

You then type the special code word DJLO:

```
ENTER CODE WORD [RTN]: DJLO [RTN]  
Please wait...
```

The log on now proceeds automatically. You will see the words of the log on appear on your display.

(If you have an acoustic modem, the procedure is the same except that you do not press [RTN] immediately after typing your special code word. Instead, you must first dial the number and place the receiver in the acoustic coupler when you hear the steady tone of the computer. At that point, press [RTN] for DATACOMM to take over. DATACOMM then uses the sequence referenced by the code word DJLO to perform the log on.)

Using an Auto Log On Code Word

For your convenience, setup files SETUPA1 and SETUPR1 contain "skeleton" log on procedures for Dow Jones News/Retrieval(R) and The Source for both Tymnet and Telenet. You can easily modify these by using the editor C (Change) command to add your personalized password (and in the case of SETUPR1, the telephone numbers for auto-dialing.)

Code Word	Use
SL01	To use Tymnet to log on to The Source.
SL02	To use Telenet to log on to The Source.
DJL01	To use Tymnet to log on to Dow Jones.
DJL02	To use Telenet to log on to Dow Jones.

These code words provide a correct log on sequence to which you enter your own information. For example, the code words in SETUPA1 are set up like this:

○
SL01*!2A!8STCx^M!2^M!2ID uuuuuu ppp^M
SL02*!2^M!2^M!8^M!8C 301 xx^M!2ID uuuuuu ppp^M

DJL01*!2A!2^RDOW1;;!2DJNS^M!2pppppppppp^M
DJL02*!2^M!2^M!8^M!8C 609 42^M!2DJNS^M!2pppppppppp^M

The first two lines, SL01 and SL02, are for logging on to The Source via Tymnet and Telenet, respectively. Use the editor C (Change) command to replace xx with your Source system number. Replace uuuuuu with your user ID, and ppp with your user password.

The second two lines, DJL01 and DJL02 are for logging on to Dow Jones News/Retrieval(R) via Tymnet and Telenet, respectively. Replace pppppppppp with your personalized password.

○ If you are using setup file SETUPR1, the code words SL01, SL02, DJL01, and DJL02 are defined a little differently. In this case you can incorporate the dial command into the code word definition. For example, the auto log on code words in SETUPR1 are:

SL01*ATDTnnnnnnnn^M!8!8!2A!2STCx^M!2ID uuuuuu ppp^M
SL02*ATDTnnnnnnnn^M!8!8^M!2^M^MC 301 xx^M!8ID uuuuuu ppp^M

DJL01*ATDTnnnnnnnn^M!8!8!2A!2^RDOW!;;!2DJNS^M!2pppppppppp^M
DJL02*ATDTnnnnnnnn^M!8!8^M!2^M^MC 609 42^M!8DJNS^M!2pppppppppp^M

ATDT is the dial command for the Hayes Smartmodem. Use the editor C command to replace nnnnnnn with the local phone number for Tymnet or Telenet. For The Source auto log on code words (SL01 and SL02), replace uuuuuu with your user ID, and ppp with your password.

For the Dow Jones auto log on code words, replace pppppppppp with your password.

○ You may have to change some of these parameters to match your modem if you are not using a Hayes Smartmodem. Different modems have different dial commands, delay requirements, dialing times, etc.

Creating Your Own Special Code Words (A)

A special code word can also define other character sequences that you frequently use. You can use the edit mode **A** (Add) command to create a new line in your setup file for your character sequence. For example, suppose you want to create a code word for the Telenet phone number. First, enter edit mode by pressing **[E]** when you are in the main menu:

```
MENU ** PRESS CDEHLPQSTVX? : [E]
USING SETUP FILE: SETUPR1
EDITOR ** PRESS ACDLQ? :
```

Now press **[A]** to execute the Add command:

```
EDITOR ** PRESS ACDLQ? : [A]
ENTER CODE WORD [RTN]:
```

Enter a code word that is easy to remember, such as **TELE** for the Telenet phone number. When prompted for data, enter the digits of the number:

```
ENTER CODE WORD [RTN]: TELE [RTN]
ENTER DATA [RTN]: nnnnnnn [RTN]
EDITOR ** PRESS ACDLQ? :
```

You can now enter **TELE** when prompted for the phone number by the **DIAL** command.

You can also create code words to use when you are logged on to an information service. For example, if you use The Source and like to read the **POST HEWLETT-PACKARD** section, you can create a code word to speed access to that data. Normally you would type:

```
POST READ HEWLETT-PACKARD [RTN]
```

However, you can use the **A** command to create a code word that contains that command line. First, enter edit mode by pressing **[E]** when you are in the main menu, then press **[A]**:

```
MENU ** PRESS CDEHLPQSTVX? : [E]
USING SETUP FILE: SETUPR1
EDITOR ** PRESS ACDLQ? : [A]
ENTER CODE WORD [RTN]:
```

Create a code word that is easy to remember, such as **PRHP** for **POST READ HEWLETT-PACKARD**. When prompted for the data, enter the information you would

normally type in. Be sure to use the correct special setup characters to represent carriage returns, timing delays, etc. (A table of special setup characters starts on page 26.)

ENTER CODE WORD [RTN]: PRHP [RTN]
ENTER DATA [RTN]: POST READ HEWLETT-PACKARD^M [RTN]
EDITOR ** PRESS ACDLQ? :

Your new code word is now added to the end of the current setup file. To view your code word, enter L from the editor menu, and scroll through the setup file to the bottom.

CURSOR[CLR]:PRHP*POST READ HEWLETT-PACKARD^M

To execute this command, first press [CLR] while you are in terminal mode, then press [S] to send a special code word. Enter your code word and [RTN]:

[CLR]
MENU ** PRESS CDEHLPQSTVX? : [S]
ENTER CODE WORD [RTN]: PRHP [RTN]
Please wait...
TERMINAL - (PRESS [CLR] TO EXIT)

You should now see the POST HEWLETT-PACKARD category.

Deleting a Code Word (D)

In some instances, you may want to delete a code word from your setup file. To do so, enter the D (Delete) command from the editor menu:

EDITOR ** PRESS ACDLQ? : [D]
ENTER CODE WORD [RTN]:

Now enter the name of the code word you want to delete: (DATACOMM gives you a chance to change your mind.)

ENTER CODE WORD [RTN]: PRHP [RTN]
DELETING PRHP
ARE YOU SURE (Y or N): [N]
EDITOR ** PRESS ACDLQ? :

48 Section 4: Special Code Words

If you try to delete a code word used to initialize DATACOMM, you will get an error message and be returned to the editor menu:

ENTER CODE WORD [RTN]: ECHOON [RTN]

DELETION NOT ALLOWED!

EDITOR ** PRESS ACDLQ? :

Section 5

DATACOMM Command Dictionary

Contents

Introduction	49
General Syntax for Commands	50
HP-75 Keys	50
The Main Menu Commands	51
C : Change to Another Setup File	51
D : Dial a Phone Number	51
E : Enter Edit Mode	52
H : Hang Up	52
L : Turn the HP-75 Display On/Off	53
P : Turn the Printer On/Off	53
Q : Quit DATACOMM	54
S : Send a Special Code Word Sequence	54
T : Enter Terminal Mode	55
V : Turn the Video Display On/Off	56
X : Transfer Files	56
? : Help	57
[LOCK], [SHIFT][LOCK] (Change Case)	58
The Edit Mode Commands	58
A : Add a Code Word to the Setup File	59
C : Change a Code Word in the Setup File	59
D : Delete a Code Word From a Setup File	59
L : List the Contents of the Setup File	60
Q : Quit the Setup File Editor	60
? : Help	61
[LOCK], [SHIFT] [LOCK] (Change Case)	61

Introduction

This reference section reviews the general syntax of DATACOMM commands, then discusses the meaning and use of each command. A brief listing of the commands is found in the "Command Summary and Index" following the appendices in this

manual. A diagram of the interrelationship among commands is contained in the quick reference card that is included in the Data Communications Pac.

General Syntax for Commands

DATACOMM utilizes three types of commands. The first type requires you simply to press the letter key corresponding to one of the characters that is underlined on the display of your HP-75. It is not necessary to press [RTN] after entering this character. Two examples of prompts requiring only a single letter input are:

MENU ** PRESS CDEHLPQSTVX? :

INPUT OR OUTPUT A FILE:

The second type of command displays a prompt and a default input. This type of command has [RTN] displayed in the prompt line to remind you that a [RTN] is necessary. You can accept the displayed input by pressing [RTN] or you can change it by entering another name and [RTN]:

SETUP FILE NAME [RTN]: SETUPR1

The third type of command prompts you to type an input, then press [RTN]. This type of command also has [RTN] displayed in the prompt line to remind you that a [RTN] is necessary:

ENTER FILE NAME [RTN]:

HP-75 Keys

The [CLR] key serves a special purpose in DATACOMM. When you are using any DATACOMM command except the editor (E) command, pressing [CLR] will return the system to the main menu or the editor menu.

Pressing the [ATTN], [TIME], [APPT] or [EDIT] keys may cause the program to stop. If this happens the program may be restarted by typing:

CONT [RTN]

The screen may stay blank. In this case DATACOMM may be expecting you to type in an answer where you left off.

○ You can always restart DATACOMM by typing:

RUN 'DATACOMM' [RTN]

The Main Menu Commands

There are twelve commands that are accessible from the main menu:

MENU ** PRESS CDEHLPQSTVX? :

These commands are discussed alphabetically in this section. Across from each heading is a reference to the section in which the command was discussed.

There are an additional six commands in edit mode. (Edit mode is accessed by pressing [E] in the main menu.) These commands are grouped alphabetically after the main menu commands.

C: Change to Another Setup File

(Section 2)

The C command enables you to specify the current setup file when you have more than one setup file in memory. When you press [C], the current setup file is displayed:

**MENU ** PRESS CDEHLPQSTVX? : [C]
SETUP FILE NAME [RTN]: SETUPR1**

Press [RTN] if you want to keep the displayed setup file as the current setup file. Or enter another file name and press [RTN].

If the name you specify is not in the system, a new file will be created to which you will have to add the appropriate setup code words.

D: Dial a Phone Number

(Section 3)

The D command dials a phone number for an auto-dial modem, then puts the HP-75 in terminal mode so that you can log on to the host computer system you have

52 Section 5: DATACOMM Command Dictionary

called. The **D** command works in conjunction with the DIAL line in your setup file: the DIAL line must be initialized for your modem.

There are two ways to dial a number. The first is to enter the phone number of your local Tymnet, Telenet, or other service, and press [RTN]:

```
MENU ** PRESS CDEHLPQSTVX? : [D]
ENTER PHONE CODE OR NO. [RTN]: nnnnnnnn [RTN]
Please wait...
TERMINAL - (PRESS [CLR] TO EXIT)
```

The second dialing method is to enter a previously-defined special code word and press [RTN]. In the following example, the word TELE was previously defined as the local phone number of Telenet:

```
MENU ** PRESS CDEHLPQSTVX? : D
ENTER PHONE CODE OR NO. [RTN]: TELE [RTN]
Please wait...
TERMINAL - (PRESS [CLR] TO EXIT)
```

In either case, after the number is dialed, the system is automatically placed in terminal mode.

E: Enter Edit Mode

(Section 2)

The **E** command calls up the DATACOMM editor, reads the current setup file, and puts you in edit mode. There are six edit mode commands which are discussed following the main menu commands.

```
MENU ** PRESS CDEHLPQSTVX? : [E]
USING SETUP FILE: SETUPR1
EDITOR ** PRESS ACDLQ? :
```

H: Hang Up

(Section 3)

The **H** command sends a hang-up command to your auto-dial modem and disconnects the HP-75 from the host computer. The **H** command works in conjunction with the HANGUP line in your setup file: the HANGUP line must be initialized for your modem.

If the system is in terminal mode and you wish to hang up, press the [CLR] key to return to the main menu and then press [H] to hang up:

[CLR]

MENU ** PRESS CDEHLPQSTVX? : [H]

Please wait...

MENU ** PRESS CDEHLPQSTVX? :

L: Turn the HP-75 Display On/Off

(Section 3)

The L command turns the LCDON line in your setup file ON or OFF each time you enter the command. If you turn the HP-75 display off and you have no other output devices active, you will get a warning message:

MENU ** PRESS CDEHLPQSTVX? : [L]

LCD OFF

NO OUTPUTS ARE ACTIVE

MENU ** PRESS CDEHLPQSTVX? : [L]

LCD ON

MENU ** PRESS CDEHLPQSTVX? :

Note: Whenever you have LCDON*ON, the 500-character data buffer is activated, and the data transmission rate will be noticeably slower.

P: Turn the Printer On/Off

(Section 3)

The P command turns the PRINTERON line in your setup file ON or OFF each time you enter the command. When the printer is activated, all input and output go to it. If you do not have a printer in the loop and you turn the printer on, you will get a warning message:

MENU ** PRESS CDEHLPQSTVX? : [P]

PRINTER ON

PRINTER NOT FOUND ON LOOP

MENU ** PRESS CDEHLPQSTVX? : [P]

PRINTER OFF

MENU ** PRESS CDEHLPQSTVX? :

Warning: A printer slower than 30 characters-per-second (cps) may not be able to keep up with your modem and you could lose characters.

Q: Quit DATACOMM

(Section 3)

The **Q** command exits the DATACOMM program and returns you to the HP-75 prompt (either : or >):

```
MENU ** PRESS CDEHLPQSTVX? : Q
bye...
: or >
```

Quitting DATACOMM does not turn off the HP 82168A Acoustic Coupler. However, after 10 minutes of loop inactivity the HP 82168A will automatically turn itself off unless the IMODEM line includes the D; option.

S: Send a Special Code Word Sequence

(Section 4)

The **S** command sends to the modem a sequence of characters or numbers that you have defined. For example, you can define a code word called SLO that contains the phone number and log on procedure, including password, for The Source. Then, whenever you wish to log on to The Source, you would simply send the code word SLO.

To send a special code word sequence, press [S] from the main menu, then type the desired code word:

```
MENU ** PRESS CDEHLPQSTVX? : [S]
ENTER CODE WORD [RTN]: SLO [RTN]
Please wait...
TERMINAL - (PRESS [CLR] TO EXIT)
```

To use an automatic log on sequence with an acoustic coupler, press [S] and enter the code word but do not press [RTN] yet. Dial the phone number, listen for the carrier tone of the host computer, and insert the handset into the coupler. Then press [RTN]:

```
MENU ** PRESS CDEHLPQSTVX? : [S]
ENTER CODE WORD [RTN]: SLO      [RTN]
Please wait...
TERMINAL - (PRESS [CLR] TO EXIT)
```

If you enter a code word that does not exist, the computer will beep and prompt you to enter another code word. If you don't know what the code word is, press the [CLR] key to return to the main menu. You can then review the available code words with the editor **L** command.

T: Enter Terminal Mode

(Section 3)

Terminal mode is used to communicate with another computer system via the modem. Characters typed on the HP-75 keyboard are sent to the modem and characters received from the modem are displayed on the active output devices.

To enter terminal mode, press [T] in the main menu. To exit terminal mode, press the [CLR] key.

```
MENU ** PRESS CDEHLPQSTVX? : [T]
TERMINAL - (PRESS [CLR] TO EXIT)
```

If you have interrupted terminal mode, you can re-enter terminal mode by pressing [T] in the main menu. Communication with the host system will resume. Some computer systems will automatically disconnect you if you do not respond within a certain period of time.

Viewing the Display. If you are using the HP-75 display you have the option of having the line scroll character-by-character to the left (scroll mode) or having 32-character windows appear one at a time (line mode). The [I/R] key is used to control the display mode of the buffer. Pressing [I/R] in terminal mode toggles the display mode for the incoming data between scroll mode and line mode.

Viewing the Display Buffer. You can use the [FET] key to stop the incoming data in order to view the contents of the 500-character data buffer. Pressing the [FET] key in terminal mode toggles between normal terminal mode (data coming in) and "stopped-buffer" mode (data halted). While in stopped-buffer mode the following cursor keys are operational:

[→]	Move cursor 1 character to right.
[←]	Move cursor 1 character to left.
[CTL] [→]	Move cursor 32 characters to right.
[CTL] [←]	Move cursor 32 characters to left.
[SHIFT] [→]	Move cursor to far right.
[SHIFT] [←]	Move cursor to far left.

Therefore, to review characters in the buffer, press the [FET] key to enter stopped-buffer mode, then use the cursor keys to find the desired data. Press the [FET] key again to resume data coming in.

V: Turn the Video Display On/Off

(Section 3)

The **V** command turns the VIDEOON line in your setup file ON or OFF each time you enter the command. When the video interface is activated, all input and output go to it. If you turn VIDEOON to ON and you do not have a video interface in the loop, you will get a warning message:

```
MENU ** PRESS CDEHLPQSTVX? : [V]
VIDEO ON
VIDEO NOT FOUND IN LOOP
MENU ** PRESS CDEHLPQSTVX? : [V]
VIDEO OFF
MENU ** PRESS CDEHLPQSTVX? :
```

X: Transfer Files

(Section 3)

The **X** command transfers a text file either from the HP-75 to a host computer or from a host computer to an HP-75 text file.

To transfer information from the host computer into an HP-75 text file:

1. Enter terminal mode and log on to the host computer system.
2. Prepare the host system to send the desired data. However, do not actually start the data transfer yet.
3. Press [CLR] to return to the main menu, and
4. Press [X] to set up the transfer:

```
[CLR]
MENU ** PRESS CDEHLPQSTVX? : [X]
```

5. Press [I] so that you can input a file name:

INPUT OR OUTPUT A FILE: [I]

6. Enter the text file name where the data will be stored:

ENTER FILE NAME [RTN]: NEWFILE [RTN]

7. Enter the character(s) that will start the host system sending the data. (Most commonly, pressing [RTN] will start the transfer.)

INPUT (PRESS [CLR] TO EXIT) [RTN]

The character(s) you type here will be sent to the host system to start the transfer. These characters will also be saved in the text file. You can respond to prompts during the transfer process.

8. Press [CLR] at any time when you want to terminate the transfer.

To send an HP-75 text file to the host computer:

1. Create the file you want to send before running DATACOMM.
2. Log on to the host system and prepare the host computer to receive the data you will be sending.
3. Press [CLR] to return to the main menu, and
4. Press [X] to prepare DATACOMM to transfer the text file:

[CLR]
MENU ** PRESS CDEHLPQSTVX? : **[X]**

5. Press [O] to indicate an output operation:

INPUT OR OUTPUT A FILE: **[O]**

6. Enter the file name of the text file you wish to send:

ENTER FILE NAME [RTN]: LETTER **[RTN]**
OUTPUT (PRESS [CLR] TO EXIT)

7. When the file transfer is complete, the HP-75 beeps and returns to terminal mode. Press the [CLR] key if you want to terminate the file transfer before it is completed.

?: Help

(Section 2)

The ? (Help) command is accessed from the main menu by pressing [?]. You are then prompted to enter one of the command characters (CDEHLPQSTVX?). A one-line description of the command character will be displayed for a short time. For example, to obtain the description of the command character D, press [?] in response to the main menu prompt and then [D] in response to the help menu prompt:

MENU ** PRESS CDEHLPQSTVX? : [?]
HELP ** PRESS CDEHLPQSTVX? : [D]
DIAL PHONE (AUTO DIAL MODEM)

The main menu commands have these help messages:

C CHANGE TO ANOTHER SETUP FILE
D DIAL PHONE (AUTO DIAL MODEM)
E EDITOR FOR SETUP FILE
H HANG UP PHONE (AUTO DIAL MODEM)
L LCD ON/OFF
P PRINTER ON/OFF
Q Q - EXIT PROGRAM
S SEND A CODE WORD TO MODEM
T ENTER TERMINAL MODE
V VIDEO ON/OFF
X TRANSFER A FILE IN OR OUT
? DISPLAY THESE HELP MESSAGES

[LOCK], [SHIFT] [LOCK]: Change Case

(Section 3)

The [LOCK] and [SHIFT] [LOCK] keys change the case from upper case to lower case and back. [LOCK] puts the HP-75 into lower case; [SHIFT] [LOCK] puts the HP-75 into upper case. When you press [LOCK] or [SHIFT] [LOCK] in the main menu, you see the message:

CASE SELECTED; PRESS [RTN] [RTN]
MENU ** PRESS CDEHLPQSTVX? :

You return to the main menu when you press [RTN].

The Edit Mode Commands

There are six edit mode commands. To enter edit mode, press [E] in the main menu:

MENU ** PRESS CDEHLPQSTVX? : [E]
USING SETUP FILE: SETUPR1
EDITOR ** PRESS ACDLQ? :

These commands are listed alphabetically. Each listing includes a reference to the section in which the command was discussed.

A: Add a Code Word to the Setup File

(Section 4)

The A command adds a new code word to the end of the setup file. The command prompts you for the name of the code word and then prompts you for the data. If the code word already exists, the HP-75 will beep and give you an error message. For example, to create a code word for the Telenet phone number, enter your code word and then the number:

```
EDITOR ** PRESS ACDLQ? : [A]  
ENTER CODE WORD [RTN]: TELE [RTN]  
ENTER DATA [RTN]: nnnnnnnn [RTN]
```

C: Change a Code Word in the Setup File

(Section 2)

The C command allows you to change a code word in the setup file. To change a code word, press [C] in the editor menu, and enter the code word you want to view. Use the cursor movement keys (discussed under the L command) to position the cursor over the part you want to change. The [CLR] key clears the entire line. When the line is the way you want it, press [RTN].

```
EDITOR ** PRESS ACDLQ? : [C]  
ENTER CODE WORD [RTN]: ECHOON [RTN]  
CHANGE [RTN]: ECHOON*ON [RTN]
```

D: Delete a Code Word From a Setup File

(Section 4)

The D command deletes a code word from the current setup file. You cannot delete a code word needed for system initialization. The D command asks if you really want to make the deletion.

```
EDITOR ** PRESS ACDLQ? : [D]  
ENTER CODE WORD [RTN]: TELE [RTN]  
DELETING TELE  
ARE YOU SURE (Y or N): Y  
EDITOR ** PRESS ACDLQ? :
```

If you attempt to delete a code word required for initialization, you will get an error message and be returned to the editor menu:

DELETION NOT ALLOWED!
EDITOR ** PRESS ACDLQ? :

L: List the Contents of the Setup File

(Section 2)

The **L** command lists the contents of the current setup file. When you press **[L]**, the first line of the file is displayed.

EDITOR ** PRESS ACDLQ? : **[L]**
CURSOR[CLR]:MODEM*HP82164A

Use the following cursor movement keys to view the file:

[↑]	Move up one line.
[↓]	Move down one line.
[SHIFT] [↑]	Move to top of file.
[SHIFT] [↓]	Move to bottom of file.
[→]	Move cursor right one character.
[←]	Move cursor left one character.
[CTL] [→]	Move cursor right 19 characters.
[CTL] [←]	Move cursor left 19 characters.
[SHIFT] [→]	Move cursor right to end-of-line.
[SHIFT] [←]	Move cursor left to end-of-line.
[CLR]	Return to editor menu.

(The **[↑]**, **[↓]**, **[SHIFT] [↑]**, and **[SHIFT] [↓]** are used only by the **L** command. The remaining cursor movement keys can be used for line editing (for example with the **C** command.)

Q: Quit the Setup File Editor

(Section 2)

The **Q** command exits the setup file editor and returns you to the main menu:

EDITOR ** PRESS ACDLQ? : **[Q]**
Reading SETUPR1. Stand by...
MENU ** PRESS CDEHLPQSTVX? :

?: Help

(Section 2)

The ? (Help) command displays a one-line description of a command character. When you press [?], you are prompted to enter one of the command characters (ACDLQ?).

```
EDITOR ** PRESS ACDLQ? : [?]
EDITOR HELP ** PRESS ACDLQ? : [?]
DISPLAY EDITOR HELP MESSAGES
```

The following messages appear in response to the ? command:

A	ADD A CODE WORD TO FILE
C	CHANGE A CODE WORD IN FILE
D	DELETE A CODE WORD FROM FILE
L	LIST THE SETUP FILE
Q	LEAVE THE EDITOR
?	DISPLAY EDITOR HELP MESSAGES

[LOCK], [SHIFT] [LOCK]: Change Case

(Section 3)

The [LOCK] and [SHIFT] [LOCK] keys change the case from upper case to lower case and back. [LOCK] puts the HP-75 into lower case; [SHIFT] [LOCK] puts the HP-75 into upper case. When you press [LOCK] or [SHIFT] [LOCK] in the editor menu, you see the message:

```
CASE SELECTED; PRESS [RTN] [RTN]
EDITOR ** PRESS ACDLQ? :
```

You return to the editor menu when you press [RTN].



Appendix A

Owner's Information

Contents

Maintenance	63
Limited One-Year Warranty	64
What We Will Do	64
What Is Not Covered	64
Warranty For Consumer Transactions in the United Kingdom	65
Obligation to Make Changes	65
Warranty Information	65
Service	66
Service Centers	66
Obtaining Repair Service in the United States	67
Obtaining Repair Service in Europe	67
International Service Information	69
Service Repair Charge	70
Service Warranty	70
Shipping Instructions	70
Further Information	71
Technical Assistance	71
Dealer and Product Information	71

Maintenance

The Data Communications Pac does not require maintenance. However, there are several precautions listed below that you should observe.

CAUTION

- Do not place fingers, tools, or other objects into the plug-in ports. Damage to plug-in module contacts and the computer's internal circuitry may result.
- Turn off the computer (press [SHIFT][ATTN]) before installing or removing a plug-in module.
- If a module jams when inserted into a port, it may be upside down. Attempting to force it further may result in damage to the computer or the module.
- Handle the plug-in modules very carefully while they are out of the computer. Do not insert any objects in the module connector socket. Always keep a blank module in the computer's port when a module is not installed. Failure to observe these cautions may result in damage to the module or to the computer.

Limited One-Year Warranty

What We Will Do

The Data Communications module is warranted by Hewlett-Packard against defects in materials and workmanship affecting electronic and mechanical performance, but not software content, for one year from the date of original purchase. If you sell your unit or give it as a gift, the warranty is transferred to the new owner and remains in effect for the original one-year period. During the warranty period, we will repair or, at our option, replace at no charge a product that proves to be defective, provided you return the product, shipping prepaid, to a Hewlett-Packard service center.

What Is Not Covered

The warranty does not apply if the product has been damaged by accident or misuse or as the result of service or modification by other than an authorized Hewlett-Packard service center.

No other express warranty is given. The repair or replacement of a product is your exclusive remedy. **ANY OTHER IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS IS LIMITED TO THE ONE-YEAR DURATION OF THIS WRITTEN WARRANTY.** Some states, provinces, or countries do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you. **IN NO EVENT SHALL HEWLETT-PACKARD COMPANY BE LIABLE FOR CONSEQUENTIAL DAMAGES.** Some states, provinces, or countries do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Warranty for Consumer Transactions in the United Kingdom

This warranty shall not apply to consumer transactions and shall not affect the statutory rights of a consumer. In relation to such transactions, the rights and obligations of Seller and Buyer shall be determined by statute.

Obligation to Make Changes

Products are sold on the basis of specifications applicable at the time of manufacture. Hewlett-Packard shall have no obligation to modify or update products once sold.

Warranty Information

If you have any questions concerning this warranty, please contact an authorized Hewlett-Packard dealer or a Hewlett-Packard sales and service office. Should you be unable to contact them, please contact:

- In the United States:

Hewlett-Packard Company
Portable Computer Division
1000 N.E. Circle Blvd.
Corvallis, OR 97330
Telephone: (503) 758-1010
Toll-Free Number: (800) 547-3400
(except in Oregon, Hawaii, and Alaska)

- In Europe:

Hewlett-Packard S.A.
150, route du Nant-d'Avril
P.O. Box
CH-1217 Meyrin 2
Geneva
Switzerland
Telephone: (022) 83 81 11

Note: Do not send units to this address for repair.

- In other countries:

Hewlett-Packard Intercontinental
3495 Deer Creek Rd.
Palo Alto, California 94304
U.S.A.
Telephone: (415) 857-1501

Note: Do not send units to this address for repair.

Service

Service Centers

Hewlett-Packard maintains service centers in most major countries throughout the world. You may have your unit repaired at a Hewlett-Packard service center any time it needs service, whether the unit is under warranty or not. There is a charge for repairs after the one-year warranty period.

Hewlett-Packard products are normally repaired and reshipped within five (5) working days of receipt at any service center. This is an average time and could vary depending upon the time of year and the work load at the service center. The total time you are without your unit will depend largely on the shipping time.

Obtaining Repair Service in the United States

The Hewlett-Packard United States Service Center for battery-powered computational products is located in Corvallis, Oregon:

Hewlett-Packard Company
Service Department

P.O. Box 999
Corvallis, Oregon 97339, U.S.A.
or
1030 N.E. Circle Blvd.
Corvallis, Oregon 97330, U.S.A.

Telephone: (503) 757-2000

Obtaining Repair Service in Europe

Service centers are maintained at the following locations. For countries not listed, contact the dealer where you purchased your unit.

AUSTRIA
HEWLETT-PACKARD Ges.m.b.H.
Kleinrechner-Service
Wagramerstrasse-Lieblgasse 1
A-1220 Wien (Vienna)
Telephone: (0222) 23 65 11

BELGIUM
HEWLETT-PACKARD BELGIUM SA/NV
Woluwedal 100
B-1200 Brussels
Telephone: (02) 762 32 00

DENMARK
HEWLETT-PACKARD A/S
Datavej 52
DK-3460 Birkeroed (Copenhagen)
Telephone: (02) 81 66 40

EASTERN EUROPE
Refer to the address listed under Austria.

FINLAND
HEWLETT-PACKARD OY
Revontulentie 7
SF-02100 Espoo 10 (Helsinki)
Telephone: (90) 455 02 11

FRANCE
HEWLETT-PACKARD FRANCE
Division Informatique Personnelle
S.A.V. Calculateurs de Poche
F-91947 Les Ulis Cedex
Telephone: (6) 907 78 25

GERMANY
HEWLETT-PACKARD GmbH
Kleinrechner-Service
Vertriebszentrale
Berner Strasse 117
Postfach 560 140
D-6000 Frankfurt 56
Telephone: (611) 50041

ITALY
HEWLETT-PACKARD ITALIANA S.P.A.
Casella postale 3645 (Milano)
Via G. Di Vittorio, 9
I-20063 Cernusco Sul Naviglio (Milan)
Telephone: (2) 90 36 91

NETHERLANDS
HEWLETT-PACKARD NEDERLAND B.V.
Van Heuven Goedhartlaan 121
NL-1181 KK Amstelveen (Amsterdam)
P.O. Box 667
Telephone: (020) 472021

NORWAY
HEWLETT-PACKARD NORGE A/S
P.O. Box 34
Oesterndalen 18
N-1345 Oesteraas (Oslo)
Telephone: (2) 17 11 80

SPAIN

HEWLETT-PACKARD ESPANOLA S.A.

Calle Jerez 3

E-Madrid 16

Telephone: (1) 458 2600

SWEDEN

HEWLETT-PACKARD SVERIGE AB

Skalholtsgatan 9, Kista

Box 19

S-163 93 Spanga (Stockholm)

Telephone: (08) 750 20 00

SWITZERLAND

HEWLETT-PACKARD (SCHWEIZ) AG

Kleinrechner-Service

Allmend 2

CH-8967 Widen

Telephone: (057) 31 21 11

UNITED KINGDOM

HEWLETT-PACKARD Ltd.

King Street Lane

GB-Winnersh, Wokingham

Berkshire RG11 5AR

Telephone: (0734) 784 774

International Service Information

Not all Hewlett-Packard service centers offer service for all models of HP products. However, if you bought your product from an authorized Hewlett-Packard dealer, you can be sure that service is available in the country where you bought it.

If you happen to be outside of the country where you bought your unit, you can contact the local Hewlett-Packard service center to see if service is available for it. If service is unavailable, please ship the unit to the address listed above under "Obtaining Repair Service in the United States." A list of service centers for other countries can be obtained by writing to that address. All shipping, reimportation arrangements, and customs costs are your responsibility.

Service Repair Charge

There is a standard repair charge for out-of-warranty repairs. The repair charges include all labor and materials. In the United States, the full charge is subject to the customer's local sales tax.

Products damaged by accident or misuse are not covered by the fixed repair charges. In these situations, repair charges will be individually determined based on time and materials.

Service Warranty

Any out-of-warranty repairs are warranted against defects in materials and workmanship for a period of 90 days from date of service.

Shipping Instructions

Should your unit require service, return it with the following items:

- A completed Service Card, including a description of the problem and system setup when the problem occurred.
- A sales receipt or other documentary proof of purchase date if the one-year warranty has not expired.

The product, the Service Card, a brief description of the problem and system configuration, and (if required) the proof of purchase date should be packaged in the original shipping case or other adequate protective packaging to prevent in-transit damage. Such damage is not covered by the one-year limited warranty; Hewlett-Packard suggests that you insure the shipment to the service center. The packaged unit should be shipped to the nearest Hewlett-Packard designated collection point or service center. Contact your dealer for assistance.

Whether the unit is under warranty or not, it is your responsibility to pay shipping charges for delivery to the Hewlett-Packard service center.

After warranty repairs are completed, the service center returns the unit with postage prepaid. On out-of-warranty repairs in the United States and some other countries, the unit is returned C.O.D. (covering shipping costs and the service charge).

Further Information

Service contracts are not available. Circuitry and designs are proprietary to Hewlett-Packard, and service manuals are not available to customers.

Should other problems or questions arise regarding repairs, please call your nearest Hewlett-Packard service center.

Technical Assistance

The keystroke procedures and program material in this manual are supplied with the assumption that the user has a working knowledge of the concepts and terminology used. Hewlett-Packard's technical support is limited to explanations of operating procedures used in the manual and verification of answers given in the examples. Should you need further assistance, you may write to:

Hewlett-Packard Company
Portable Computer Division
Customer Support
1000 N.E. Circle Blvd.
Corvallis, OR 97330

Dealer and Product Information

For dealer locations, product information, and prices, please call (800) 547-3400. In Oregon, Alaska, and Hawaii, call (503) 758-1010.



Appendix B

Error Messages

The Data Communications system displays certain error messages under specific conditions. In most cases, an error message does not halt the DATACOMM program.

NOT ENOUGH MEMORY

This message can occur when you first run DATACOMM. DATACOMM needs 3300 free bytes for variables. (Use PURGE and CLEARVARS to free more space.) This message can also occur if a text file you were entering requires more memory than is available. You can not continue the transfer and are returned to main memory.

INVALID TEXT FILE NAME

The text file name you entered does not exist.

INVALID MSETUP

MSETUP does not exist or is invalid. Program aborts.

INVALID SETUP FILE

The setup file specified by MSETUP does not exist or is invalid.

NO OUTPUTS ACTIVE

Neither the HP-75 display nor a printer or video display are enabled. At least one of these devices must be enabled to use terminal mode.

MODEM NOT FOUND ON LOOP

You must have a modem on the loop in order for DATACOMM to work properly. You may need to change your setup file.

PRINTER NOT FOUND ON LOOP

You enabled the printer, but the specified one was not found in the loop or not properly defined.

VIDEO NOT FOUND ON LOOP

You enabled the video, but the specified one was not found in the loop or not properly defined.

CODE WORD NOT FOUND	The code word you specified does not exist in the setup file.
CODE WORD ALREADY USED	The code word you specified in the A command already exists.
IMPROPER FORMAT FOR DATA	The code word or its data is too long, or the asterisk separator is missing.
LINE TOO LONG	The code word data is longer than 65 characters.
DELETION NOT ALLOWED!	Certain code words are necessary for DATACOMM to work properly. This message occurs if you attempt to delete one of these code words.
"beep"	An incorrect entry was typed or a file transfer was terminated.
INPUT ERROR	An incorrect entry was typed.
TOO MANY INPUTS	A comma was entered in a setup file line. Use !/ instead.

Appendix C

Using the Dow Jones News/Retrieval Service®

Contents

Using an Acoustic Modem	75
Using Tymnet	76
Using Telenet	76
Using Auto Log On with an Acoustic Modem	77
Using an Auto-Dial Modem	77
Using Tymnet	77
Using Telenet	78
Using Auto Log On with an Auto-Dial Modem	79
Saving a Dow Jones News/Retrieval(R) Story in a Text File	79
Saving a Current Stock Quote in a Text File	80

There are several ways to log on to the Dow Jones News/Retrieval Service(R). These methods depend upon the type of modem you are using and whether you use Telenet or Tymnet. In this section, the log on methods are divided into two main categories based on the modem type: acoustic and auto-dial. Refer to the section headings that are appropriate for your type of modem.

Note: If you are using the HP-75 display you may at times see unusual characters. This is due to the fact that Dow Jones News/Retrieval(R) sends control characters for which the HP-75 has assigned displayable characters. You can ignore these characters.

At the end of this appendix is a section on transferring information from Dow Jones News/Retrieval(R) to an HP-75 text file.

Using an Acoustic Modem

These examples show the procedures for logging on to Dow Jones News/Retrieval(R) using an acoustic modem (also called acoustic coupler) and Tymnet or Telenet.

Using Tymnet

First, enter terminal mode by pressing [T] in the main menu:

```
MENU ** PRESS CDEHLPQSTVX? : [T]
TERMINAL - (PRESS [CLR] TO EXIT)
```

Dial your local Tymnet number. When you hear the steady tone of the host computer, place the receiver into the acoustic modem, making sure the handset is correctly oriented. Then enter your terminal identifier ([A]), and Dow Jones log on ([CTL][R] DOW1;;). When prompted for the service desired, enter DJNS [RTN]. When prompted to do so, enter your password and press [RTN].

```
please type your terminal identifier [A]
please log in: [CTL][R] DOW1;;
TC Host is Online
WHAT SERVICE PLEASE????? DJNS [RTN]
ENTER PASSWORD XXXXXXXXXXXX pppppppppp [RTN]
```

Note: The [CTL][R] instructs Tymnet to use the XON/XOFF protocol with Dow Jones. Without this, the system will not function properly.

Refer to the Dow Jones News/Retrieval(R) Fact Finder for further instructions.

Using Telenet

First enter terminal mode by pressing [T] in the main menu:

```
MENU ** PRESS CDEHLPQSTVX? : [T]
TERMINAL - (PRESS [CLR] TO EXIT)
```

Dial your local Telenet number. When you hear the tone of the host computer, place the receiver into the acoustic modem, making sure the handset is correctly oriented. Then press:

[RTN] [RTN]

When you see the prompt (Terminal =), press [RTN]. Enter the Dow Jones log on (C 609 42) after the @ prompt. When asked what service, enter DJNS [RTN], then enter your personalized password followed by [RTN] when prompted to do so:

```
Terminal = [RTN]
@C 609 42 [RTN]
```

609 42 CONNECTED
WHAT SERVICE PLEASE????? **DJNS [RTN]**
ENTER PASSWORD XXXXXXXXXXXX **pppppppppp [RTN]**

Refer to Dow Jones News/Retrieval(R) Fact Finder for further information.

Using Auto Log On with an Acoustic Modem

In this example the special code words DJL01 (for use with Tymnet) and DJL02 (for use with Telenet) are used to automatically log on to Dow Jones News/Retrieval(R). These code words are found in setup file SETUPA1. Before using these code words, you must modify them to include your password. (Modifying special code words is discussed in Section 4.)

To use a special code word, first press [S] in the main menu, then enter the code word: (Do not press the [RTN] key yet!)

MENU ** PRESS CDEHLPQSTVX? : [S]
ENTER CODE WORD [RTN]: DJL01 or DJL02

Next dial the local Tymnet or Telenet number, as appropriate. When you hear the tone of the host computer, insert the receiver into the modem, making sure the handset is correctly oriented.

Now press [RTN].

You should see a series of characters on your display. The special code words contain all of the information necessary for log on. You should not have to type anything else until you see the ENTER QUERY prompt.

Using an Auto-Dial Modem

These examples show how to use an auto-dial modem with Tymnet or Telenet to access Dow Jones News/Retrieval(R).

Using Tymnet

Before doing this procedure, be sure that the DIAL line in your setup file is initialized for the modem you are using.

To use an auto-dial modem, first press [D] in the main menu, then enter the local Tymnet phone number. (If you have defined a special code word to represent that number, you may enter the code word.) When prompted for the terminal identifier, press [A]. When asked to log on, enter ([CTL][R] DOW1;;). When asked what service, enter DJNS [RTN]. Enter your password and [RTN] when prompted to do so.

```
MENU ** PRESS CDEHLPQSTVX? : [D]
ENTER PHONE CODE OR NO. [RTN]: nnnnnnnn [RTN]
Please wait ...
TERMINAL - (PRESS [CLR] TO EXIT)
ATDTnnnnnnn
CONNECT
please type your terminal identifier [A]
-2361-031
please log in: [CTL][R] DOW1;;
TC Host is Online
WHAT SERVICE PLEASE????? DJNS [RTN]
ENTER PASSWORD XXXXXXXXX pppppppppp [RTN]
```

Note: The [CTL][R] instructs Tymnet to use the XON/XOFF protocol with Dow Jones. Without this, the system will not function properly.

Using Telenet

Before doing this procedure, be sure the DIAL line in your setup file is initialized for the modem you are using.

To use an auto-dial modem, first press [D] in the main menu, then enter the local Telenet phone number. (If you have defined a special code word to represent the phone number, you may enter the code word instead of the number.) After the word CONNECT appears, press [RTN] twice. When prompted for the terminal, press [RTN] again, then enter the Dow Jones log on (C 609 42). When prompted what service you want, enter DJNS [RTN]. Enter your password followed by a [RTN] when prompted to do so.

```
MENU ** PRESS CDEHLPQSTVX? : [D]
ENTER PHONE CODE OR NO. [RTN]: nnnnnnnn [RTN]
Please wait ...
TERMINAL - (PRESS [CLR] TO EXIT)
ATDTnnnnnnn
CONNECT
[RTN] [RTN]
```

Terminal = [RTN]
@C 609 42 [RTN]
609 42 CONNECTED
WHAT SERVICE PLEASE????? DJNS [RTN]
ENTER PASSWORD XXXXXXXXXXXX pppppppppp [RTN]

Refer to the Dow Jones News/Retrieval(R) Fact Finder for further instructions.

Using Auto Log On with an Auto-Dial Modem

In this example the special code words DJL01 (for use with Tymnet) and DJL02 (for use with Telenet) are used to automatically log on to Dow Jones News/Retrieval(R). These code words are found in setup file SETUPR1. Before using these code words, you must modify them to include the local Tymnet or Telenet phone number and your password. (Modifying special code words is discussed in Section 4.)

To use a special code word, first press [S] in the main menu, then enter the code word and [RTN]:

MENU ** PRESS CDEHLPQSTVX? : [S]
ENTER CODE WORD [RTN]: DJL01 [RTN] or DJL02 [RTN]

You should see a series of characters on your display. The special code words contain all of the information necessary for log on. You should not have to type anything else until you see the ENTER QUERY prompt.

Saving a Dow Jones News/Retrieval® Story in a Text File

This example shows how to transfer text from the host computer to an HP-75 text file. For the purpose of this example, suppose that you want to check the headlines of the news stories concerning Hewlett-Packard. To obtain the story headlines you type:

//DJNEWS [RTN]
DOW JONES NEWS IS BEING ACCESSED
ENTER QUERY
.HWP 01 [RTN]

To transfer a story (the story labeled AE, for example) into a text file called NEWS:

```
[CLR]
MENU ** PRESS CDEHLPQSTVX : [X]
INPUT OR OUTPUT A FILE: [I]
ENTER FILE NAME [RTN]: NEWS [RTN]
INPUT (PRESS [CLR] TO EXIT) AE [RTN]
```

When you type the AE [RTN], the transfer begins. All of the data including the AE [RTN] is saved in the HP-75 text file NEWS.

To stop the transfer, press the [CLR] key.

Saving a Current Stock Quote in a Text File

To enter the current stock quote mode, you type:

```
//CQ [RTN]
```

To transfer Hewlett-Packard's current stock quote into an HP-75 text file named QUOTE type:

```
[CLR]
MENU ** PRESS CDEHLPQSTVX : [X]
INPUT OR OUTPUT A FILE: [I]
ENTER FILE NAME [RTN]: QUOTE [RTN]
INPUT (PRESS [CLR] TO EXIT) HWP [RTN]
```

The stock quote information and HWP are saved in the HP-75 text file named QUOTE.

To stop the transfer at any time, press the [CLR] key.

Appendix D

Using The Source

Contents

Using an Acoustic Modem	81
Using Tymnet	82
Using Telenet	82
Using Auto Log-on with an Acoustic Modem	83
Using an Auto-Dial Modem	83
Using Tymnet	83
Using Telenet	84
Using Auto Log On with an Auto-Dial Modem	85
Saving "Mail" From The Source in a Text File	85
Transferring a Text File From the HP-75 to The Source	86

There are several ways to log on to The Source. These methods depend upon the type of modem you are using and whether you use Telenet or Tymnet. In this appendix, the log on methods are divided into two main categories based on the type of modem used: acoustic and auto-dial. Refer to the section headings that are appropriate for your type of modem.

Note: If you are using the HP-75 display you may at times see unusual characters. This is due to the fact that The Source sends control characters for which the HP-75 has assigned displayable characters. You can ignore these characters.

At the end of this appendix is a section on transferring mail to and from The Source and an HP-75 text file.

Using an Acoustic Modem

These examples show the procedures for logging on to The Source using an acoustic modem (also called an acoustic coupler), and Tymnet or Telenet.

Using Tymnet

First, enter terminal mode by pressing [T] in the main menu:

```
MENU ** PRESS CDEHLPQSTVX? : [T]
TERMINAL - (PRESS [CLR] TO EXIT)
```

Dial your local Tymnet number. When you hear the tone of the host computer, place the receiver into the acoustic modem, making sure the handset is correctly oriented. Then enter your terminal identifier ([A]), and Source log on. (The xx represents your Source system number. Enter the appropriate number.) When you see the angle prompt >, enter your user ID number and password.

```
Please type your terminal identifier [A]
Please log in: STCxx [RTN]
Source xx: call connected
Connected to THE SOURCE
> ID uuuuuu ppp [RTN]
```

You can now enter Source commands. If you have any questions concerning the log on procedure, check your Source user's manual for further information.

Using Telenet

First, enter terminal mode by pressing [T] in the main menu:

```
MENU ** PRESS CDEHLPQSTVX? : [T]
TERMINAL - (PRESS [CLR] TO EXIT)
```

Dial your local Telenet number. When you hear the tone of the host computer, place the receiver into the acoustic modem, making sure the handset is correctly oriented. Then press:

[RTN] [RTN]

When you see the Terminal prompt, press [RTN]. Then enter the Source log on, followed by [RTN]. (The xx represents the Source system number. Enter the appropriate number.) When you see the angle prompt >, enter your user ID and password.

```
Terminal = [RTN]
@C 301 xx [RTN]
301 xx CONNECTED
```

Connected to THE SOURCE
> ID **uuuuuu ppp [RTN]**

○ You are now ready to enter Source commands. If you have any questions concerning the log on procedure, check your Source user's manual for further information.

Using Auto Log On with an Acoustic Modem

In this example the special code words SL01 (for use with Tymnet) and SL02 (for use with Telenet) are used to automatically log on to The Source. These code words are found in setup file SETUPA1. Before using these code words, you must modify them to include your user ID and password, and the appropriate Source system number. (Modifying special code words is discussed in Section 4.)

To use a special code word, first press [S] in the main menu, then enter the code word. (Do not press the [RTN] key yet!)

MENU ** PRESS CDEHPQSTVX? : [S]
ENTER CODE WORD [RTN]: **SL01 or SL02**

○ Next dial the local Tymnet or Telenet number as appropriate. When you hear the tone of the host computer, insert the receiver into the modem, making sure the handset is correctly oriented.

Now press [RTN].

You should see a series of characters on your display. The special code words contain all of the information necessary to log on. You should not have to type anything else until you see the prompt: Enter item number or HELP.

Using an Auto-Dial Modem

○ These examples show how to use an auto-dial modem with Tymnet or Telenet to access The Source.

Using Tymnet

Before doing this procedure, be sure the DIAL line in your setup file is configured for the modem you are using.

To use an auto-dial modem, first press [D] in the main menu, then enter the local Tymnet phone number. (If you have defined a special code word to represent that number, you may enter that instead of the number.) When prompted for the terminal identifier, press [A]. Then enter the Source log on. (The xx represents the Source system number. Enter the appropriate number.) When you see the angle prompt >, enter your user ID and password.

```
MENU ** PRESS CDEHLPQSTVX? : [D]
ENTER PHONE CODE OR NO. [RTN]: nnnnnnn [RTN]
Please wait ...
TERMINAL - (PRESS [CLR] TO EXIT)
ATDTnnnnnnn
CONNECT
please type your terminal identifier A
-2361-031
please log in: STCx [RTN]
Source xx: call connected
Connected to THE SOURCE
> ID uuuuuu ppp [RTN]
```

You can now enter Source commands. If you have any questions concerning the log on procedure check your Source user's manual for further information.

Using Telenet

Before doing this procedure, be sure the DIAL line in your setup file is configured for the modem you are using.

To use an auto-dial modem, first press [D] in the main menu, then enter the local Telenet phone number. (If you have defined a special code word to represent that number, you may enter that instead of the number.) After the word CONNECT appears, press [RTN] twice. When prompted for the terminal, press [RTN]. Then enter the Source log on. (The xx represents the Source system number. Enter the appropriate number.) When you see the angle prompt >, enter your user ID and password.

```
MENU ** PRESS CDEHLPQSTVX? : [D]
ENTER PHONE CODE OR NO. [RTN]: nnnnnnn [RTN]
Please wait ...
TERMINAL - (PRESS [CLR] TO EXIT)
ATDTnnnnnnn
CONNECT
[RTN] [RTN]
```

TERMINAL = [RTN]
@C 301 xx [RTN]
301 xx CONNECTED
Connected to The SOURCE
> ID uuuuuu ppp [RTN]

You should now be able to enter Source commands. If you have any questions about the log on procedure, check your Source user's manual for further information.

Using Auto Log On with an Auto-Dial Modem

In this example the special code words SL01 (for use with Tymnet) and SL02 (for use with Telenet) are used to automatically log on to The Source. These code words are found in setup file SETUPR1. Before using these code words, you must modify them to include your local Tymnet or Telenet phone number, your user ID and password, and the appropriate Source system number. (Modifying special code words is discussed in Section 4.)

To use a special code word, first press [S] in the main menu, then enter the code word and a [RTN]:

MENU ** PRESS CDEHLPQSTVX? : [S]
ENTER CODE WORD [RTN]: **SL01 [RTN]** or **SL02 [RTN]**

You should see a series of characters on your display. The special code words contain all of the characters necessary to log on. You should not have to type anything else until you see the prompt: Enter item number or HELP.

Saving "Mail" From The Source in a Text File

This example shows how to transfer text from the host computer to an HP-75 text file. For the purpose of this example, suppose that there is a letter for you on The Source that has the subject title MAIL. To transfer this letter from The Source to a text file in the HP-75 you would type the following:

-> MAIL READ
VERSION 6.47 SOURCEMAIL
<S>end,<R>ead,<SC>an,<D>isplay, or <Q>uit? R [RTN]
SUBJECT: MAIL
--MORE--[Y]

Do not press [RTN] yet! You must set up the text file in the HP-75 first, and then press [RTN] following the INPUT prompt:

```
[CLR]  
MENU ** PRESS CDEHLPQSTVX? : [X]  
INPUT OR OUTPUT A FILE: [I]  
ENTER FILE NAME [RTN]: SMAIL [RTN]  
INPUT (PRESS [CLR] TO EXIT) [RTN]
```

The letter will now be saved to a text file called SMAIL.

To stop the transfer at any time, press the [CLR] key.

Transferring a Text File From the HP-75 to The Source

In this example an HP-75 text file called LETTER is transferred to another user of The Source. The LETTER file must be created prior to starting the transfer process. To make sending the file simpler, the last line of the text file should be:

.S

which causes the letter to be sent once The Source receives it.

After you have created a letter, log on to The Source. uuuuuu represents your friend's user ID. You can enter a subject of your choice instead of NEWS. When you are prompted to Enter text:, you must prepare the HP-75 to output the file.

Press [CLR] to put you back in the DATACOMM main menu. Then press [X] to inaugurate a file transfer. Press [O] to output a file, enter the file name, and finally, press [RTN] to make the transfer.

```
-> MAIL SEND  
Version 6.47 SOURCEMAIL  
To: uuuuuu [RTN]  
Subject: NEWS [RTN]  
Enter text: [CLR]
```

```
MENU ** PRESS CDEHLPQSTVX? : [X]  
INPUT OR OUTPUT A FILE: [O]  
ENTER FILE NAME [RTN]: LETTER [RTN]  
OUTPUT (PRESS [CLR] TO EXIT) [RTN]
```

The LETTER text file is sent to The Source. If you wish to stop the transfer before the transfer is complete, press the [CLR] key. Once the LETTER is completely sent, including the ".S", The Source will prompt you with:

<S>end, <R>ead, <SC>an, <D>isplay, or <Q>uit?



Command Summary and Index

This index is an alphabetical listing of all DATACOMM commands. Each entry includes a short description of the command, and page references to the initial discussion and to the command dictionary. When two commands use the same letter, the edit mode commands follow the main menu commands. The quick reference card included in your Data Communications Pac contains a diagram that shows how the commands interrelate.

A (edit mode menu) (pages 46, 59)

Add a Code Word to Setup File. Prompts you to enter the new code word and the data to be associated with the new word. Press [CLR] to exit.

C (main menu) (pages 17, 51)

Change to Another Setup File. Displays the current setup file and prompts you to enter the name of the setup file that is to become the current setup file. Press [RTN] to retain the displayed file as the current setup file.

C (edit mode menu) (pages 22, 59)

Change a Code Word in a Setup File. Prompts you to enter the code word you want to change, then displays the data associated with that code word. Use the HP-75 line-editing keys (listed under **L** in this index), including [I/R] and [DEL], to change the data. [CLR] clears the current line. Press [RTN] when the changes are complete.

D (main menu) (pages 34, 51)

Dial a Phone Number on an Auto-Dial Modem. Prompts you to enter a phone number or the phone code of the desired number.

D (edit mode menu) (pages 47, 59)

Delete a Code Word from Setup File. Prompts you to enter the name of the code word to be deleted and removes the code word and its data from the setup file.

E (main menu) (pages 18, 52)

Edit Current Setup File. Places DATACOMM in edit mode and displays the edit mode menu. Prompts you to enter an edit mode command letter (ACDLQ?).

H (main menu) (pages 41, 52)

Hangs Up the Telephone for an Auto-Dial Modem. Disconnects the signal between the modem and the host computer.

L (main menu) (pages 36, 53)

HP-75 Display On/Off. Turns output to the HP-75 display on and off. When the HP-75 display is on, the 500-character data buffer is activated and the data transmission rate is noticeably slower.

L (edit mode menu) (pages 19, 60)

List Setup File. Displays the first line in the setup file. Use the [↑] and [↓] keys to find a given line in the file; use the [←] and [→] keys (line-editing keys) to view or change the data in the line. Press [CLR] to exit.

- [↑] Move up one line.
- [↓] Move down one line.
- [SHIFT][↑] Move to top line of file.
- [SHIFT][↓] Move to bottom line of file.

- [→] Move cursor right one character.
- [←] Move cursor left one character.
- [CTL][→] Move cursor right 19 characters.
- [CTL][←] Move cursor left 19 characters.

[SHIFT][→] Move cursor right to end of line.
[SHIFT][←] Move cursor left to beginning of line.

P (main menu) (pages 37, 53)

Printer Output On/Off. Turns output to the system printer on and off.

Q (main menu) (pages 41, 54)

Quit DATACOMM. Terminates the data communications system. Does not turn off the HP 82168A Acoustic Coupler.

Q (edit mode menu) (pages 23, 60)

Quit Edit Mode. Exits edit mode and returns system to the main menu.

S (main menu) (pages 44, 54)

Send Code Word. Prompts you to enter a predefined special code word and then sends the sequence defined by the code word to the modem.

T (main menu) (pages 34, 55)

Enter Terminal Mode. Puts the system in terminal mode and allows you to communicate directly with the connected computer via the modem. Press [CLR] to exit terminal mode (this does not disconnect the communication to the host computer). While the HP-75 display is on, use the following keys to control the display of incoming data:

[I/R] Toggles between scroll mode (continuous scrolling of characters) and line mode (characters displayed in 32-character windows).

[FET] Halts or resumes the inflow of data into the 500-character input buffer.

While the inflow of data is halted, use the following keys to review the contents of the input buffer:

- [→] Move cursor one character to the right.
- [←] Move cursor one character to the left.
- [CTL][→] Move cursor 32 characters to the right.
- [CTL][←] Move cursor 32 characters to the left.
- [SHIFT][→] Move cursor to end of buffer.
- [SHIFT][←] Move cursor to beginning of buffer.

V (main menu) (pages 37, 56)

Video Display On/Off. Turns output to the video display on and off.

X (main menu) (pages 38, 56)

Transfer File to or from Host Computer. Places system in transfer mode, prompts for input or output, and prompts for file name of HP-75 text file being sent or the HP-75 text file name for received data. Press [CLR] to terminate the transfer.

? (main menu) (pages 18, 57)

Help. Prompts you to enter the desired main mode command letter (CDEHLPQSTVX?) and then displays a short description of the selected command.

? (edit mode menu) (pages 18, 61)

Help. Prompts you to enter the desired edit mode command letter (ACDLQ?) and then displays a short description of the selected command.

Subject Index

Page numbers in **bold** type indicate primary references; page numbers in regular type indicate secondary references.

A

A (Add code word to setup file), 43, **46-47**, 59, 89
Accessory ID, **24-25**
Add a code word to a file (**A**), 43, **46-47**, 59, 89
Arrow keys ([↑], [↓]), 12, 20, 60, 90
[ATTN], 50, 89
AUTOLF code word, 21, 22, 23, 29
Automatic log on sequences, 14, 43, **44-45**, 77, 83

B

BREAK code word, 20, 21, 22, **31**, 35-36
Buffer, 2, 8, 12, 29, 35, 37, 53, 55, 91-92

C

C commands
Change code word in file, 15, 19, **22-23**, 30, 59, 60, 89
Change current setup file, 17, 18, **51**, 89
Card reader, 6, 10
Change code word in file (**C**), 15, 19, **22-23**, 30, 59, 60, 89
Change current setup file (**C**), 17, 18, **51**, 89
[CLR], 13, 20, 23, 36, 39, 40, 47, 50, 56, 57, 80, 86, 89, 90, 92

Code word format, 19, 23, **43**
Command syntax, 16, 50
CONT, 50
Control characters, 26
Control sequences, 11, 26, **35-36**
Copy, 10, 17
[CTL] [H] (backspace), 36
[CTL] [J] (line feed), 26, 36
[CTL] [M] (carriage return), 26, 29, 36
[CTL] [Q] (send XON), 36
[CTL] [R], **11-12**, 78
[CTL] [S] (send XOFF), 36
[CTL] [TAB] (send BREAK), 31, 36
Cursor control keys, 20 (see also Line editing keys, Arrow keys)

D

D commands
Delete a code word, 43, **47-48**, 59-60, 90
Dial a phone number, 30, **34-35**, 39, **51-52**, **57-58**
DATACOMM overlay, 2, 35
Data Communications Pac, 8, 10, 13, 15, 16, 63
Data Communications module, 8, 63
[DEL], 23, 89
Delete a code word (**D**), 43, **47-48**, 59-60, 90
Device ID, **24-25**
DIAL code word, 21, 22, 30, **34**, 35, 52, 77, 83

Dial a phone number (D), 30, 39, 51-52, 89
 Display buffer, 2, 8, 12, 29, 35, 37, 53, 55, 91-92
 DJLO, 44
 DJL01, 21, 22, 44-45, 77, 79
 DJL02, 21, 22, 44-45, 77, 79
 Dow Jones News/Retrieval Service(R),
 copying stock quotes to the
 printer, 38-39
 logging on with Telenet, 45, 76
 logging on with Tymnet, 11, 45, 76
 using an auto log on code word,
 44-45

E

E (Editor), 18, 19, 46, 50, 52, 58
 Echo, 29
 ECHOON code word, 21, 22, 29
 [EDIT], 50
 Editor (E), 18, 19, 46, 50, 52, 58
 Escape sequences, 26, 28
 Exit (Q), 13, 23, 42, 54, 60, 91

F

[FET], 12, 35, 55, 91

H

H (Hang up), 30, 41, 52-53, 90
 Hanging up (H), 30, 41, 52-53, 90
 HANGUP code word, 21, 22, 30-31, 41, 52
 Hayes Smartmodem, 9, 30, 45
 Help (? command), 18-19, 57-58, 61, 92
 HP-75 display, 8, 13, 75
 HP-75 keys,
 [APPT], 50
 [ATTN], 8, 50
 [CLR], 13, 20, 23, 36, 39, 40, 47, 50, 56, 57, 80, 86, 89, 90, 92

[EDIT], 50
 [TIME], 50
 HP 2671A Thermal Printer, 25
 HP 2671G Graphics Printer, 25
 HP 82162A Thermal Printer, 9, 25, 28
 HP 82163A Video Interface, 9, 24, 25
 HP 82164A HP-IL/RS-232-C Interface, 9, 16, 24, 25, 27, 31
 HP 82168A Acoustic Coupler, 9, 10, 16, 25, 27, 31, 42, 54
 HP 82905B Printer, 9, 16, 25

I

IMODEM code word, 21, 22, 26, 27-28, 30, 42, 54
 Initialization steps, 23-24
 Initializing peripheral devices, 26-28
 Input a file, 40, 56, 80
 IPRINTER code word, 21, 22, 26, 28
 [I/R], 23, 55, 89, 91
 IVIDEO code word, 21, 22, 26, 28

L

L commands
 Listing the setup file, 19-22, 47, 54, 60, 90
 Turning the HP-75 display on/off, 29, 37, 53
 LCDON code word, 21, 22, 28-29, 53
 Line editing keys, 12, 23
 Line mode, 55, 91
 Listing the setup file (L), 19-22, 47, 54, 60, 90
 [LOCK], 36, 58, 61
 Logging off, 13, 41-42
 Logging on, 11, 44-45,
 Loop addresses, 24-25
 Lower case ([LOCK]), 36, 58, 61

M

MC00701A, 9, 16, 28
 MODEM code word, 19, 21, 22, 24
 Module, 8-9, 64
 Mountain Computer MC00701A, 9, 16
 MSETUP, 10, 16, 18

O

Output a file, 40, 57

P

P (Printer on/off), 29, 38-39, 53, 91
 Peripheral devices, 9, 33
 PRINTER, 21, 22, 24
 PRINTERON code word, 21, 22, 25, 28-29
 Protocol, 7, 12, 28, 29-30

Q

? (help), 18-19, 57-58, 61, 92
 Q commands,
 Quit DATACOMM, 13, 42, 54, 91
 Quit edit mode, 23, 60, 91
 Quit DATACOMM, 13, 42, 54, 91
 Quit edit mode, 23, 60, 91

R

Running DATACOMM, 10, 17, 51

S

S (Send a special code word), 34, 44, 47, 54, 77, 79, 83, 91
 Selecting the current setup file (C), 17, 18, 51, 89
 SETUPA1, 10, 16, 20, 21, 24, 27, 28, 29, 30, 37, 44, 45, 83

Setup files

changing a code word in a setup file (C), 15, 19, 22-23, 30
 initializing the setup file, 23-31
 listing the contents of the setup file (L), 19-20
 MSETUP, 10, 16, 18
 quitting the setup file editor (Q), 23
 selecting the current setup file (C), 17, 18
 SETUPR1, 10, 16, 20, 22, 24, 27, 28, 29, 30, 37, 44, 45, 79, 85
 [SHIFT] [LOCK], 10, 36, 58, 61
 SLO, 54
 SLO1, 21, 22, 44-45, 83, 85
 SLO2, 21, 22, 44-45, 83, 85
 Source, see The Source
 Special code words
 auto log on code words, 44-45
 creating a special code word (A), 35, 43, 46-47, 59, 89
 deleting a special code word (D), 43, 47-48, 59-60
 sending a special code word (S), 34, 44, 47, 54, 77, 79, 83, 91
 Special setup characters, 26-27

T

T (Enter terminal mode), 34, 36, 39, 55, 76, 82, 91
 Terminal mode
 entering terminal mode (T), 11, 34, 36, 55
 exiting terminal mode ([CLR]), 36, 55,
 The Source
 creating a command-level code word, 46-47
 logging on with Telenet, 45, 82-83, 84-85
 logging on with Tymnet, 45, 82, 83-84

reading "Post Hewlett-Packard", 46-47
saving "mail", 39-40, 85-86
sending a text file, 86-87
using auto log on, 44-45, 83, 85
[TIME], 50
Transferring files (X), 33, 34, 39, 56, 57, 80, 86, 92
Turning the HP-75 display on/off (L), 29, 37, 53
Turning the printer on/off (P), 29, 38-39, 53, 91
Turning the video interface on/off (V), 29, 37-38, 56, 92

U

Upper case ([SHIFT] [LOCK]), 10, 36, 58, 61

V

V (Video interface on/off), 29, 37-38, 56, 92
VIDEO code word, 21, 22, 24
VIDEOON code word 21, 22, 25, 28-29, 37, 56

X

X (Transferring files), 33, 34, 39, 56, 57, 80, 86, 92
XOFF code word, 7, 21, 22, 24, 28, 29-30
XON code word, 7, 21, 22, 24, 28, 29-30
XON/XOFF protocol, 7, 12, 28, 29-30



- 1: **Getting Started (page 7)**
- 2: **Initializing Your System (page 15)**
- 3: **Terminal Mode (page 33)**
- 4: **Special Code Words (page 43)**
- 5: **DATACOMM Command Dictionary (page 49)**

- A: **Owner's Information (page 63)**
- B: **Error Messages (page 73)**
- C: **Using the Dow Jones News/Retrieval® Service (page 75)**
- D: **Using the Source (page 81)**

Command Summary and Index (page 89)

Subject Index (page 93)



Portable Computer Division
1000 N.E. Circle Blvd., Corvallis, OR 97330, U.S.A.

Scan Copyright ©
The Museum of HP Calculators
www.hpmuseum.org

Original content used with permission.

Thank you for supporting the Museum of HP
Calculators by purchasing this Scan!

Please do not make copies of this scan or
make it available on file sharing services.