getting started with your 2647F

HEWLETT PACKARD

intelligent graphics 2647F

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RADIO FREQUENCY INTERFERENCE
STATEMENT

The Federal Communications Commission (in 47 CFR 15.818) has specified that the following notice be brought to the attention of the users of this product.

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

Preface

The intent of this manual is to guide the new user through "everyday" tasks that he or she may encounter. By carefully following the step-by-step procedures given in the examples, the user can walk up to the terminal, sit down, and get something done easily and quickly. This manual is not a comprehensive document on all the terminal's features. Other manuals which also accompany the HP 2647F provide a more comprehensive approach. The other manuals in the series are:

1. *BASIC/47 Manual,* part number 02647-90038 — This manual describes the BASIC commands and statements that are interpreted by the terminal's BASIC Interpreter.

2. *AUTOPLOT/47 Manual,* part number 02647-90042 — This manual describes how to make pie, bar, and linear charts by using the Autoplot application program and how to create paper or overhead slide transparencies by using the Slide application program.

3. *Reference Manual,* part number 02647-90037 — This manual provides a complete description of all terminal features for the programmer that can be controlled from the keyboard and from program control on a host computer system.

4. *Quick Reference Guide,* part number 02647-90039 — The Quick Reference Guide gives a brief description of the terminal's functions, commands, escape sequences, and control codes.

5. An optional *WORD/47 Manual,* part number 13257-90019 describes how to enter and edit text on the terminal by using the Text Preparation Mode utility. It also describes how to format your entered text for output (i.e., running heads, page numbers, etc.) by using the Page Formatter utility. This manual is furnished only with accessory HP 13257W.

6. An optional *FORMS/47 Manual,* part number 13257-90020 describes how to enter data in forms and how to use the Forms Design Mode utility to create forms. This manual is furnished only with accessory HP 13257W.

7. An optional *Service Manual Supplement,* part number 02647-90043, lists replaceable part numbers, provides disassembly instructions, and gives test procedures for the terminal. This manual is available at extra cost.

1

Using the Terminal _____ 1

Introduction

This section introduces the terminal's features. Included in this section is a description of the common keyboard keys, and an introduction to the terminal's command channel.

Getting Started

Before using the terminal, you should familiarize yourself with some of the terminal's operating controls and some of the keyboard keys. Shown below is an HP 2647F terminal with its features highlighted.

DISC DRIVE   KEYBOARD

The ON/OFF switch is located at the rear of the terminal.

Assuming that the terminal has been properly installed, you can turn on the terminal by setting ON/OFF switch to ON. After about 15 seconds the terminal will display the message "TERMINAL READY". This means that the terminal is now ready for use. To turn the terminal off, set the ON/OFF switch to OFF.
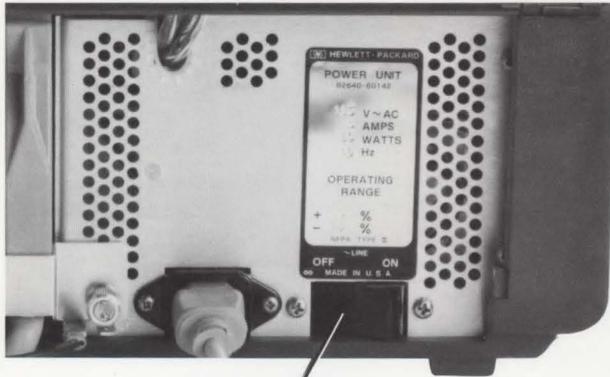
ON/OFF SWITCH

The Keyboard

The keyboard consists of the following functional groups:

Numerics/Graphics Keypad. A ten-key adding machine format is provided to make numeric data entry easier. Alternately, these keys control the graphics cursor and additional graphics features.

Edit Group. Text can be easily changed using the insert and delete functions of the edit group.

Display Control Group. The display group keys control the cursor position and the portion of display memory shown on the screen.

Character Set Group. This group of keys is similar to a standard typewriter keyboard.

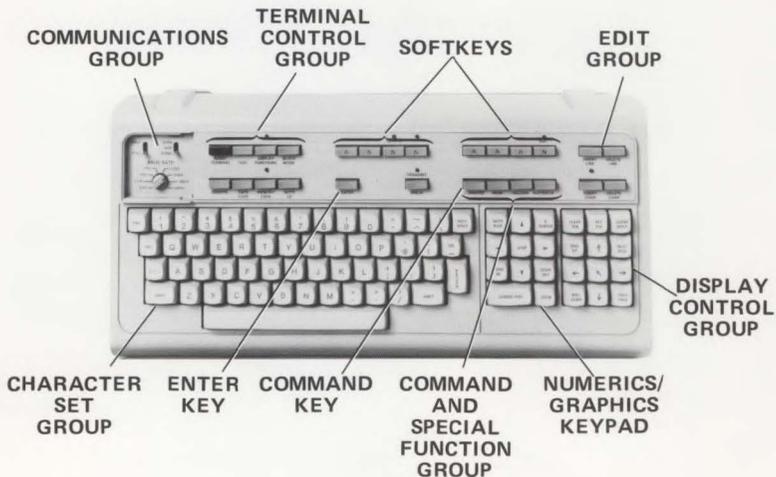**Terminal Control Group.** This group is used to initialize the terminal, set an operating mode, or reset the terminal.

Command and Special Function Group. This group of keys accesses the command channel and softkeys, and reads and records data.

Communications Group. This set of switches is used to select communication parameters when the terminal is used with a computer.

Use of Common Keys

The following information describes the use of common keyboard keys.

- **REMOTE.** The REMOTE key is used to access a computer system. When this key is depressed (down position), the terminal is in communication or "on-line" with the computer.

  When the REMOTE key is up, the terminal is "off-line" or in local mode.

- **CAPS LOCK.** A depressed CAPS LOCK key will put the keyboard into all capital or uppercase letters. While in the CAPS LOCK mode, you can access the symbols above the numbers by using the SHIFT keys as in a typewriter. When the CAPS LOCK key is up, the keyboard will function as a typewriter keyboard.

- **AUTO LF.** AUTO LF is an abbreviation for "automatic line feed". When this key is depressed, an automatic line feed occurs when the RETURN key is pressed. When AUTO LF is up, the automatic line feed function will not occur when the RETURN is pressed.

- **INSERT CHAR.** There are two methods to insert characters in a line: (1) using the `INSERT CHAR` key and (2) using the both the `CNTL` and `INSERT CHAR` keys.

  Method 1. Using the cursor control keys (`←`, `→`, `↑`, `↓`), position the cursor (blinking underline on the display) on a line where you want to insert characters or words into a sentence. Press the `INSERT CHAR` key and the red indicator light will go on, indicating that character insertion is active. To return to normal operation, press the `INSERT CHAR` key and the red indicator light will go off.

  Method 2. Position the cursor on the line where you want to insert a character. Hold down the `CNTL` key and press the `INSERT CHAR` key. The red indicator light will begin blinking, indicating that character wraparound is active. To discontinue character wraparound, press `INSERT CHAR` and the blinking red indicator will go off.

- **DELETE CHAR.** There are two methods to delete characters in a line: (1) using the `DELETE CHAR` key and (2) using the both the `CNTL` and `DELETE CHAR` keys.

  Method 1. Position the cursor under the character in a line where you want to delete a character and press `DELETE CHAR`.

  Method 2. Position the cursor under the character in a line where you want to delete a character and hold down the `CNTL` key and press the `DELETE CHAR` key. Delete character wraparound is active.

- **INSERT LINE.** Pressing the `INSERT LINE` key causes the line containing the cursor and the remaining lines below to be rolled down leaving a blank line.

- **DELETE LINE.** The `DELETE LINE` key causes the line containing the cursor to be deleted. The line is deleted and the remaining lines below the cursor are rolled up.

- **COMMAND.** The `COMMAND` key is used to access the command channel which is used to access predefined softkeys (`f1` – `f8`). These predefined softkeys are displayed as softkey labels on the screen.

  Pressing the `COMMAND` key again will make the command channel disappear from the screen.

- **READ.** The `READ` key copies data from a source device, such as a file, to the display when in the Edit Mode. The read operation stops when the `RETURN` key is pressed. Refer to "Editing a File" in Section 3.

- **RECORD.** Pressing the `RECORD` key copies data from the display to a destination device, such as a file name. The record operation stops when the last line in the display is recorded or when the `RETURN` key is pressed.

- **SOFTKEYS.** The `SOFTKEYS` key accesses the softkey labels on the screen (`f1` – `f8` or custom defined functions). Use of this key is designed for the programmer, refer to the *HP 2647F Reference Manual* (part no. 02647-90037) for details.

The Command Channel

Let's access the command channel by pressing the `COMMAND` key. The command channel will be displayed:
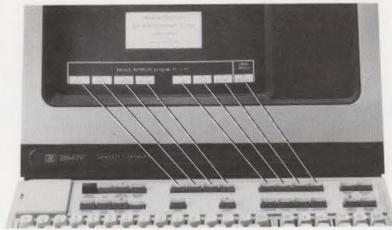
The eight softkeys `f1` – `f8` at the top of the keyboard correspond to the eight softkey labels at the bottom of the screen. An asterisk (*) denotes the presence of the command channel. This means that the command channel is ready to accept predefined commands from the softkeys (`f1` – `f8`). The predefined commands are arranged in an easy to use form. Pressing one softkey guides you to the next set of choices until the command is completed. After completing the command, pressing the `RETURN` key executes the command. Shown below are the top four set of choices. Each set has up to eight predefined commands. Detailed information on the other set of choices is discussed in the *HP 2647F Reference Manual*, part number 02647-90037.

next	COPY	SHOW	ASSIGN	REWIND	MARK	FIND	disc
next	previous	EXIT	EXECUTE	RESUME	SUSPEND	BYE	HELLO
next	previous	TRANSFER	verify	COMPARE	CONDITN	SKIP	edit
top	previous	TELL	TEST	SET	DIAL	KEYPAD	

Top Four Set of Choices

Using the Command Channel

Let's use an example to illustrate how to use the command channel. Suppose you wanted to make a change in the current assignments. For example, change the source assignment to a disc file named "MEMOS".

Step 1. Check the current assignments by doing the following:

a. Press [COMMAND] (if the command channel is not already present).

*
_____

| next | COPY | SHOW | ASSIGN | 1 | 1 | REWIND | MARK | FIND | disc |

b. Press [SHOW].

*SHOW
_____

| ASSIGNS | VOLUMES | FILES | TAPES | 1 | 7 | TIME | DATE | PURGE | |

c. Press [ASSIGNS].

*SHOW ASSIGNMENTS
_____

| | | | | 1 | 18 | | | | |

d. Press [RETURN] to execute the command.

The command channel will disappear and then reappear at the completion of the show assignment command. The Assign Table with its current assignments will be shown. In this example, the default assignments are displayed.

(used with the READ
  key and some commands)

(used with the RECORD
  key and some commands

(the listing device for the SHOW command

(the name that can be
  used in commands in lieu
  of EXTERNAL PRINTER;
  other devices may have
  assigned names, also)

(the filename prefix used
  with disc tape-emulator
  files)

```
USER NAME       CURRENT ASSIGNMENTS
-----------     -------------------
SOURCE          LEFT TAPE
DESTINATION     RIGHT TAPE
LOG             DISPLAY
PRINTER         EXTERNAL PRINTER
CTUL            CTUL???
CTUR            CTUR???
```

NOTE: The "LEFT TAPE", "RIGHT TAPE", "CTUL???", and "CTUR???" default assignments are in reference to the CTU Emulator. Refer to the "Cartridge Tape Emulation" discussion in the *HP 2647F Reference Manual,* part no. 02647-90037.

Step 2. Change the current source assignment by:

Press `ASSIGN` , `more` , `S:file` , type in assigned source filename "MEMOS", and press `RETURN`.

---
*ASSIGN SOURCE TO MEMOS
q ▮▮▮▮ ▮▮▮▮ ▮▮▮▮ ▮▮▮▮ 1 24 ▮▮▮▮ ▮▮▮▮ ▮▮▮▮ ▮▮▮▮

The command on the command channel will reappear at the completion of the reassignment.

Step 3. If you wish, you can check the new assignment:

Press `SHOW` , `ASSIGNS` , and press `RETURN` .

---
*SHOW ASSIGNMENTS
▮▮▮▮ ▮▮▮▮ ▮▮▮▮ ▮▮▮▮ 1 18 ▮▮▮▮ ▮▮▮▮ ▮▮▮▮ ▮▮▮▮

The command channel will disappear and then reappear at the completion of the show assignment command. The Assign Table with its current assignments will be shown.

```
USER NAME      CURRENT ASSIGNMENTS
-----------    -------------------
SOURCE         MEMOS
DESTINATION    RIGHT TAPE
LOG            DISPLAY
PRINTER        EXTERNAL PRINTER
CTUL           CTUL???
CTUR           CTUR???
```

Correcting Command Sequences

If you leave out part of the command while typing the command sequence, an error message will appear when the `RETURN` key is pressed. At this point, you can correct the command channel using the `DELETE LINE` key and start over again. After correction has been made, press `RETURN` to execute the command.

2

Using Your Diskette _____ 2

Introduction

This section describes how to use your diskette with the terminal. You will learn how to load a diskette, format and name it. In addition, procedures for purging and unpurging a volume are given.

The Diskette

The diskette is a flexible recording medium housed in a protective cover.

Handling the Diskette

When handling the diskette, care must be observed:

* The diskette should be kept in its envelope when not in use. This will keep dust and other substances from getting on the recording surface.

* Do not bend or flex the diskette; this will damage the recording surface.

* Be sure that the diskette is never exposed to temperatures greater than 50° C (125° F), e.g., don't leave it in the sun or on a heater; this will warp the recording surface.

* Be sure that the diskette never comes near a magnetic source; this will destroy the data on the recording surface and may permanently damage its recording properties.

A write-protect notch located on one edge of the diskette must be observed when writing or reading data.If this notch is covered, then it is impossible to write to the recording surface; data that is presently on the recording surface cannot be written over. This is useful when data on the recording surface should only be read, such as a form. Adhesive tabs are provided with the diskette to allow you to cover up the write-protect notch. Labels are also provided so that you can identify your data. Affix the label next to the part identification label as shown below. Use only a felt-tipped pen when writing on the label; a pencil or ball point pen may damage the recording surface.

WRITE-PROTECT NOTCH   PART ID LABEL

DISKETTE ID LABEL

An Unprotected Diskette

TAB COVERING WRITE-PROTECT NOTCH   PART ID LABEL

DISKETTE ID LABEL
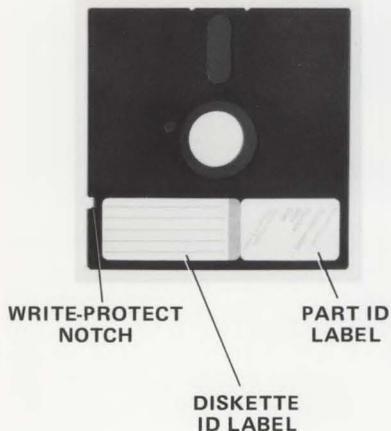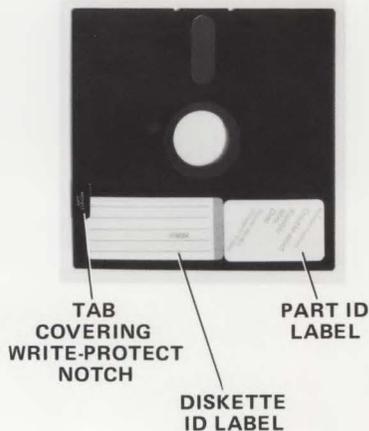
A Write-Protected Diskette

Loading the Diskette

A door in the front of the mini disc drive allows you to insert and remove the diskette.

Opening the   Closing the
Disc Drive Door   Disc Drive Door

To load a diskette, slide the door up until it stops in the opened position. Make sure there is not another diskette already installed in the disc drive. If there is, remove it, before inserting the other diskette. Insert the new diskette in the disc drive until it is fully seated. Close the door by sliding it down until it locks in the closed position. Note as you close the door, the red indicator light will come on momentarily, followed by a rotational sound. This will indicate that the diskette is being registered in the disc drive. If the door is not closed, the diskette will remain inoperative.

To remove the diskette, make sure that the disc drive is not operating (red indicator light is off). Slide the door up until it stops in the opened position and then remove the diskette.

Inserting a Diskette in the Disc Drive

Formatting and Naming a Diskette

Becoming familiar with the architecture of the diskette will help make it easier for you to use. Shown below is a diagram on how your data may be typically stored on a diskette:

DISKETTE ARCHITECTURE
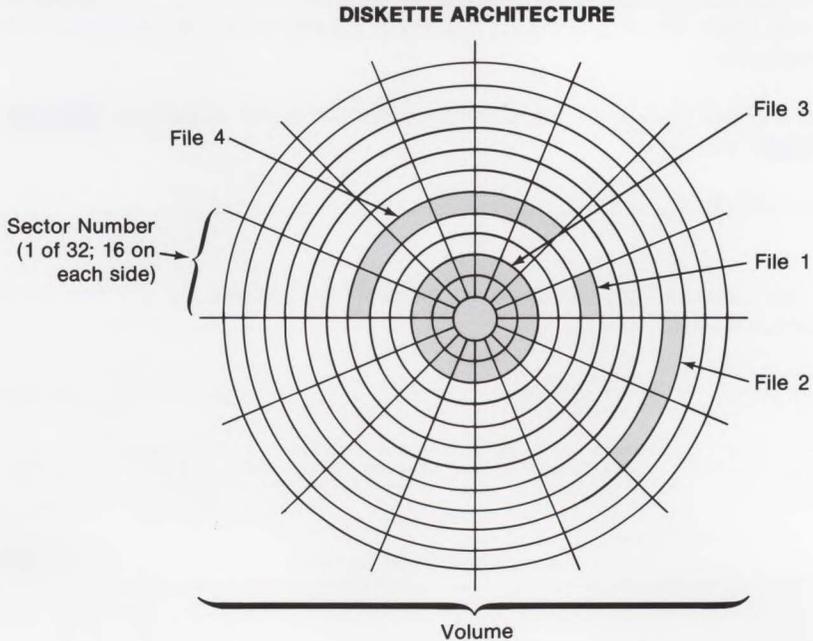
Volume

Notes: 1. The volume is the entire diskette, which can be divided into as many files as the space allows. Files can be any size (length) as long as the total does not exceed 1056 sectors.

2. The example in this diagram illustrates how your data might be stored.

The diskette stores data on both sides with a storage capacity of 270,000 characters (bytes). Each of the two sides is divided into 16 parts, similar to slices in a a pie. These 32 pie slices, commonly called "sector numbers", have a combined total capacity of 1056 sectors or smaller pieces of pie. Your data is written onto these sectors in the form of a file. You may have as many files as the space available (1056 sectors) on the diskette allows. The space is measured in the number of sectors on a diskette. You can determine the space used and the space available by doing a SHOW VOLUMES command.

Your diskette must have a volume name to identify it from other diskettes. Also, the terminal will not allow recording or reading of data until the diskette is "formatted" and "named". New diskettes (i.e., those that have not been used previously) are "unformatted". To make the diskette usable, you must format it first (if it was not formatted previously). Formatting a diskette can easily be done. When you have a diskette and you are not sure if it has already been formatted, you can check this by placing the diskette in the disc drive and then perform the following steps:

Step 1. Press `COMMAND` (if the command channel is not displayed), `SHOW` , `VOLUMES` , and `RETURN` .

*SHOW VOLUMES
_____

The red indicator light will come on momentarily, followed by any one of the following displays:

```
VOLUME NAME        HP-IB ADDRESS
----------------   -------------

Local   Disc       Start of      Space   Sector    Create         Create    Write
Volume  Type#Unit  Free Space    Left    Stagger   Date (M/D/Y)   Time      Protect
------  ---------  ----------    -----   -------   ------------   --------  -------
nonfmt  mfD#1                                                               NO
```

A "nonfmt" Type Diskette

```
VOLUME NAME        HP-IB ADDRESS
----------------   -------------

Local   Disc       Start of      Space   Sector    Create         Create    Write
Volume  Type#Unit  Free Space    Left    Stagger   Date (M/D/Y)   Time      Protect
------  ---------  ----------    -----   -------   ------------   --------  -------
nolabl  mfD#1               0    1056    5                                  NO
```

A "nolabl" Type Diskette

```
VOLUME NAME        HP-IB ADDRESS
----------------   -------------

Local   Disc       Start of      Space   Sector    Create         Create    Write
Volume  Type#Unit  Free Space    Left    Stagger   Date (M/D/Y)   Time      Protect
------  ---------  ----------    -----   -------   ------------   --------  -------
GENE    mfD#1             611    445     5         9/30/81        11:40 AM   YES
```

A Formatted and Named Diskette

Step 2. If "nonfmt" appears, the diskette needs to be formatted. Perform the following sequence:

Press `COMMAND` (unless the command channel is already on the screen), `disc` , `next` , `FORMAT` , type in disc drive number where diskette is located (1 or 2), and press `RETURN` .

*FORMAT VOLUME ON DISC#1
_____

NOTE: In the above command, the first disc drive is drive number 1 and the optional second disc drive is drive number 2.

The red indicator light will come on momentarily, followed by a message "Disc FORMAT in progress", and then followed by the message "Disc VERIFY in progress". The command channel will be displayed at the completion of the formatting routine.

Verify that the diskette has been formatted by doing the following:

Press `SHOW` , `VOLUMES` , and `RETURN` .

*SHOW VOLUMES
_____

Following this step, the verify routine should have the same display pattern for "nolabl" as that shown in step 1 above.

Step 3. If the message "nolabl" is displayed, the diskette has been previously formatted but has no volume name. To create the volume name of a formatted diskette, perform the following sequence:

NOTE: Up to six characters (letters and numbers but no puncuation marks) may be used to name the volume of a diskette. The first character must be a letter. A number in the first position will create an error message.

Press ██disc██ , ██CREATE██ , ██VOLUME██ , type in the name of the volume you want assigned, for the number where disc drive is located, "1", and press [RETURN] .

*CREATE VOLUME MEMOS ON DISC#1

The red indicator light will come on momentarily, indicating that volume naming is occurring.

Step 4. You may verify the new volume name by pressing:

Press ██SHOW██ , ██VOLUMES██ , and [RETURN] .

*SHOW VOLUMES

This will list the name of the new volume.

```
VOLUME NAME        HP-IB ADDRESS
----------------   -------------

Local    Disc        Start of     Space  Sector   Create         Create     Write
Volume   Type#Unit   Free Space   Left   Stagger  Date (M/D/Y)   Time       Protect
------   ---------   ----------   -----  -------  ------------   --------   -------
MEMOS    mfD#1              32    1024      5        12/ 8/81     1:08 PM      NO
```

Example: Insert a previously used diskette in the disc drive and determine the space available:

Step 1. Press [COMMAND] (if the command channel is not already displayed), ██SHOW██ , ██VOLUMES██ , and [RETURN] .

*SHOW VOLUMES

The command channel will disappear from the display and reappear following the completion of the command. A typical volume directory will be displayed:

```
VOLUME NAME        HP-IB ADDRESS
----------------   -------------

Local    Disc        Start of     Space  Sector   Create         Create     Write
Volume   Type#Unit   Free Space   Left   Stagger  Date (M/D/Y)   Time       Protect
------   ---------   ----------   -----  -------  ------------   --------   -------
MEMOS    mfD#1              32    1024      5        3/ 9/81     12:15 PM      NO
```

Note that the space available is listed under "**Space Left**" and space used is listed under "**Start of Free Space**". The combined spaces equal 1056 sectors.

Step 2. Clear the command channel by pressing the [COMMAND] key.

Renaming a Volume

Renaming a volume can be done at any time except during the edit mode. To rename a volume:

Press [disc] , [RENAME] , [VOLUME] , type in current volume name, "MEMOS", [to] , type in new volume name, "MEMOS1", and press [RETURN] .

*RENAME VOLUME FROM MEMOS TO MEMOS1

VOLUME NAME	HP-IB ADDRESS						
Local Volume	Disc Type#Unit	Start of Free Space	Space Left	Sector Stagger	Create Date (M/D/Y)	Create Time	Write Protect
MEMOS1	mfD#1	32	1024	5	12/ 8/81	1:08 PM	NO

Purging and Unpurging a Volume

Purging a Volume

If you no longer need a volume, you can purge it. Purging a volume is used when all the files on the volume need to be purged.

To purge a volume, do the following:

Step 1. Press [COMMAND] (if the command channel is not displayed), [SHOW] , [VOLUMES] , [RETURN] .

*SHOW VOLUMES

The red indicator light will come on momentarily, followed by a volume directory.

VOLUME NAME	HP-IB ADDRESS						
Local Volume	Disc Type#Unit	Start of Free Space	Space Left	Sector Stagger	Create Date (M/D/Y)	Create Time	Write Protect
MEMOS1	mfD#1	32	1024	5	12/ 8/81	1:08 PM	NO

Step 2. Purge volume name "MEMOS1" by doing the following:

Press ▮▮ disc ▮▮ , ▮ PURGE ▮ , ▮ VOLUME ▮ , type in name of volume to be purged, "MEMOS1", and press RETURN .

*PURGE VOLUME MEMOS1
_____

The red indicator light will come on momentarily and the command channel will be displayed.

Step 3. To verify the purged volume:

Press ▮ SHOW ▮ , ▮VOLUMES▮ , RETURN .

*SHOW VOLUMES
_____

The volume directory is displayed with "nolabl" as the volume name. This means that the diskette has been formatted but has no volume name.

```
VOLUME NAME       HP-IB ADDRESS
----------------  -------------

Local   Disc        Start of    Space  Sector  Create        Create   Write
Volume  Type#Unit   Free Space  Left   Stagger Date (M/D/Y)  Time     Protect
------  ---------   ----------  -----  ------- ------------  -------- -------
nolabl  mfD#1            0      1056      5                           NO
```

Unpurging a Volume

If you wish to recover your purged volume, (in this example, "MEMOS1") do the following:

Step 1. Press COMMAND (if the command channel is not present), ▮ disc ▮ , ▮UNPURGE▮ , ▮ VOLUME ▮ , type in disc drive number, "1", and press RETURN .

*UNPURGE VOLUME ON DISC#1
_____

Step 2. To verify that the unpurged volume has been restored:

Press ▐ SHOW ▌ , ▐VOLUMES▌ , RETURN .

*SHOW VOLUMES

The volume directory is displayed with "**MEMOS1**" as the volume name.

```
VOLUME NAME       HP-IB ADDRESS
----------------  -------------

Local    Disc       Start of    Space  Sector   Create        Create    Write
Volume   Type#Unit  Free Space  Left   Stagger  Date (M/D/Y)  Time      Protect
------   ---------  ----------  -----  -------  ------------  --------  -------
MEMOS1   mfD#1              32   1024        5    12/ 8/81     1:08 PM   NO
```

3

Writing Memos, Letters, and Reports   3

Introduction

This section describes how to get started in writing memos, letters, and reports. Also included are supportive information: how to set the time and date; how to create, rename, purge, and unpurge a file; how to pack the diskette; and how to copy data. If you haven't read Section 2, "Using Your Diskette", please return and read it before continuing on.

Setting the Time and Date

As you know when you are preparing various reports, it is a good idea to date them so that you know which report is the most up-to-date. The terminal has a built-in clock that you can set at any time. Once the time and date are set, they are added to the directory. However, when the terminal is turned off, or a power failure occurs, the time and date must be reset.

Setting the Time

If the terminal is turned off, the time is set to **12:00:00 AM**. The time is set in <hours>:<minutes>:<seconds>: AM or PM format. The value for seconds is optional. A semicolon separates the values. To set the time, do the following example:

Step 1. Press `COMMAND` (if the command channel is not already displayed), type in the following, "**SET TIME 10:15 AM**", and press `RETURN` .

*SET TIME 10:15 AM

Step 2. Check the new time:

Press ▋SHOW▋ , ▋TIME▋ , and RETURN .

*SHOW TIME
_____

Your new time will be displayed.

10:16:15 AM

Setting the Date

If the date is not set, or the terminal is turned off, the date is set to 30 asterisks. Check the date by:

Press COMMAND (if the command channel is not already displayed), ▋SHOW▋ , ▋DATE▋ , and RETURN .

*SHOW DATE
_____

The command channel will disappear and display the defaulted date (assuming that the date was not set previously):

<div align="center">******************************</div>

To set the date, do the following example:

Step 1. Press COMMAND (if the command channel is not already displayed), type in the following, "**SET DATE 10/15/81**", and press RETURN . The command channel will disappear.

*SET DATE 10/15/81
_____

Step 2. Check the new date:

Press [COMMAND], [SHOW], [DATE], and [RETURN].

*SHOW DATE

Your new date will be displayed.

THU, OCT 15, 1981

Repeat steps 1 and 2 above except type in "**3/9/81**". Note that the new date did not require a two digit month or day, i.e., "**3**" can be used instead of "**03**" and "**9**" instead of "**09**".

MON, MAR 9, 1981

When the date has been set, a calendar for the current month is available for your review. Simply do the following:

Press [COMMAND] (if the command channel is not displayed), type in "**CALENDAR**", and press [RETURN].

*CALENDAR

The screen will display the current month with today's date highlighted.

```
MAR, 1981

SUN MON TUE WED THU FRI SAT

  1   2   3   4   5   6   7
  8   9  10  11  12  13  14
 15  16  17  18  19  20  21
 22  23  24  25  26  27  28
 29  30  31
```

Creating a New File

Data written on the diskette (volume), may be divided into one or more named files. You assign the file name when you write data to your volume. To assign a file name and create a file, perform the following steps:

NOTE: Up to ten characters (letters and numbers but no puncuation marks) may be used to name the file on a volume. The first character must be a letter. A number in the first position will create an error message.

Step 1. Load the formatted diskette into the disc drive and do the following sequence:

Press `COMMAND` , `SHOW` , `FILES` , and `RETURN` .

*SHOW FILES

This will indicate if any files are currently stored on the diskette.

Step 2. Press `next` , `next` , `edit` , `FILE` , `DISPLAY` , `TO:file` , type in name of previously unused file, "**LETTER**", and press `RETURN` .

*EDIT FILE FROM DISPLAY TO LETTER

The EDIT light will go on.

Step 3. Clear the command channel by pressing the `COMMAND` key.

Step 4. Clear the screen by homing up the cursor (press the `↖` key) and then press `CLEAR DSPLY`. The screen is now clear.

Step 5. Type in your data. Editing features (insert and delete characters and lines) can be used at any time during this process of typing your data.

Step 6. When you have entered in all your data, home the cursor by pressing the `↖` key, and then press the `RECORD` key. The data is written onto the file under the name (**LETTER**) you provided. The EDIT light will go off when recording is completed.

If you have a lot of data (i.e., more than 100 lines), it may begin recording onto your file before you have typed everything. This is done automatically by the terminal so that your data is not lost.

Step 7. Verify your file name:

Press `COMMAND` , `SHOW` , `FILES` , and `RETURN` .

*SHOW FILES

Your file directory will show the file "**LETTER**".

```
Volume = MEMOS

    File        File      Start     Size        Create         Create
    Name        Type      Address   (sectors)   Date (M/D/Y)   Time
    ----------  ------    -------   ---------   ------------   --------
    LETTER      Ascii        32         1        10/21/81      12:17 PM
```

Renaming a File

To rename a file:

Press `disc` , `RENAME` , `FILE` , type in current file name, "**LETTER**", press `to` , type in new file name, "**LETTER1**", and press `RETURN` .

*RENAME FILE FROM LETTER TO LETTER1

```
Volume = MEMOS

    File        File      Start     Size        Create         Create
    Name        Type      Address   (sectors)   Date (M/D/Y)   Time
    ----------  ------    -------   ---------   ------------   --------
    LETTER1     Ascii        32         1        10/21/81      12:17 PM
```

Editing a File

If you need to make a change in the contents of an existing file, you can use the Edit Mode. Assume for this example, that the file name is "LETTER1" and do the following steps:

Step 1. Press [COMMAND] (if the command channel is not already displayed), [next] , [next] , [edit] , [FILE] , type in file name "LETTER1", [to] , [TO:file] , type in previously unused file name, "LETTER2", and press [RETURN] . The red EDIT light will come on, signifying that you are in the Edit Mode.

*EDIT FILE FROM LETTER1 TO LETTER2
_____

Step 2. Press [COMMAND] to clear the command channel from the display. Home the cursor by pressing the [↖] key and clear the display by pressing [CLEAR DSPLY].

Step 3. Read your data from the file (LETTER1) by pressing [READ]. Use the [RETURN] key to stop the read function at the place you want to make a change. A good guideline would be to read about 20 lines, stop it, and make your changes. The reason is that as you read the file (LETTER1) and the display is full, the lines disappearing off the display are automatically being recorded onto the new file (LETTER2). The disappearing data cannot be retrieved during this specific editing process once they have been recorded onto the new file (LETTER2).

Step 4. Continue this read-stop-correction process until all corrections have been made. When you have completed the editing process, home the cursor (press [↖]) and press [RECORD] .

The red indicator light on the disc drive will then flash on and off until the file (LETTER2) is recorded. The red light will go off when the file is finished recording.

Step 5. Verify the new file name by doing the following:

Press [COMMAND] (so the command channel appears on the display), [SHOW] , [FILES] , and [RETURN] . The new file "LETTER2" will be listed as last one in the directory.

*SHOW FILES
_____

After you have recorded the new file name, if desired, you should purge the old one. See the discussion on "Purging a File." You may also want to rename the new file to the old file name, refer to "Renaming a File."

Purging and Unpurging a File

Purging a File

If you no longer need a file, you can purge it. If all the files on the volume need to be purged, use the purge volume command. Purging a volume is discussed in Section 2, "Using Your Diskette."

To purge a file, do the following:

Step 1. Press `COMMAND` (if the command channel is not displayed), ` SHOW `, ` FILES `, `RETURN` .

*SHOW FILES
_____

The red indicator light will come on momentarily, followed by a file directory.

```
Volume = MEMOS

   File        File     Start      Size       Create          Create
   Name        Type     Address    (sectors)  Date (M/D/Y)    Time
   ----------  ------   -------    ---------  ------------    --------
   LETTER      Ascii    32         1          10/21/81        12:17 PM
   LETTER1     Ascii    33         3          10/21/81        12:19 PM
   LETTER2     Ascii    36         1          10/21/81        12:28 PM

           FILE DIRECTORY BEFORE PURGE
```

Step 2. Purge file name "LETTER" by doing the following:

Press ` disc `, ` PURGE `, ` FILE `, type in name of file to be purged, "LETTER", and press `RETURN` .

*PURGE FILE LETTER
_____

The red indicator light will come on momentarily and the command channel will be displayed.

Step 3. To verify the purged file:

Press ▊ SHOW ▊ , ▊ FILES ▊ , RETURN .

*SHOW FILES
_____

The file directory is displayed without the file "LETTER".

```
Volume = MEMOS

    File        File     Start    Size       Create        Create
    Name        Type     Address  (sectors)  Date (M/D/Y)  Time
    ----------  ------   -------  ---------  ------------  --------
    LETTER1     Ascii      33         3       10/21/81      12:19 PM
    LETTER2     Ascii      36         1       10/21/81      12:28 PM

              FILE DIRECTORY WITHOUT PURGED FILE "LETTER"
```

Unpurging a File

Unpurging a file must occur before packing your data. (Packing your data is discussed later under "Packing the Diskette".) Otherwise, the data on a purged file cannot be recovered. Let's unpurge the file "LETTER":

Step 1. Press COMMAND (if the command channel is not present ▊ disc ▊ , ▊ UNPURGE ▊ , ▊ FILE ▊ , type in name of your purged file, "LETTER", and press RETURN .

*UNPURGE FILE LETTER
_____

The command channel temporarily disappears and returns to the display at the completion of the unpurging routine.

Step 2. To verify that the unpurgged file has been restored:

Press COMMAND , ▊ SHOW ▊ , ▊ FILES ▊ , and RETURN .

*SHOW FILES
_____

The file directory is displayed with "LETTER" as your restored (active) file. The restored file (LETTER) is listed in its original position on the file directory.

```
Volume = MEMOS

   File        File     Start     Size        Create        Create
   Name        Type     Address   (sectors)   Date (M/D/Y)  Time
   ----------  ------   -------   ---------   ------------  --------
   LETTER      Ascii       32         1        10/21/81     12:17 PM
   LETTER1     Ascii       33         3        10/21/81     12:19 PM
   LETTER2     Ascii       36         1        10/21/81     12:28 PM
```

FILE DIRECTORY WITH FILE "LETTER" RESTORED (UNPURGED)

Packing the Diskette

Packing the diskette means eliminating the space occupied by your purged files. Packing will free up more space for your data. Files on your diskette can be compared to a can of coffee. Shown below is a comparison between an unpacked diskette and a packed diskette using the coffee can analogy.

Unpacked diskette
with purged
file occupying space.

Packed diskette
without purged
file
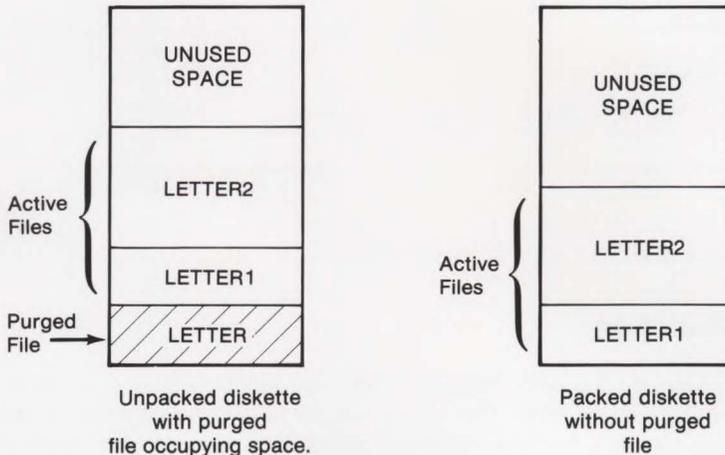
The following shows the active files on volume "MEMOS".

```
Volume = MEMOS

   File        File     Start     Size        Create        Create
   Name        Type     Address   (sectors)   Date (M/D/Y)  Time
   ----------  ------   -------   ---------   ------------  --------
   LETTER1     Ascii       32         3        10/21/81     12:19 PM
   LETTER2     Ascii       35         1        10/21/81     12:28 PM
```

FILE DIRECTORY SHOWING PACKED VOLUME

To pack the data on your diskette:

Step 1. Press [COMMAND] (if the command channel is not displayed), █ disc █ ,
█ next █ , █ PACK █ , type in your volume name, "MEMOS", and press [RETURN] .

A message will appear, flashing on and off, indicating that the disc is being
packed. When completed, the command channel will reappear.

Step 2. To verify the packed volume:

Press █ SHOW █ , █ FILES █ , and [RETURN] .

*SHOW FILES

```
Volume = MEMOS

    File        File      Start     Size        Create        Create
    Name        Type      Address   (sectors)   Date (M/D/Y)  Time
    ---------   ------    -------   ---------   ------------  --------
    LETTER1     Ascii        32         3        10/21/81     12:19 PM
    LETTER2     Ascii        35         1        10/21/81     12:28 PM
```

                FILE DIRECTORY SHOWING PACKED VOLUME

Copy Function

When do you use the copy function? The copy function is used to move data
from one place to another. This allows you to review the contents of the file,
make small changes, or make duplicate copies. Your data can be copied in any
of the following ways:

- from Display to File
- from File to Display
- from File to File (a 2nd disc drive is required)
- from Volume to Volume (a 2nd disc drive is required)
- from Display to Printer (see Section 4, "Printing Your Data")
- from File to Printer (see Section 4, "Printing Your Data")

From Display to File

Copying your data from the display to a file can be easily done. Assuming that your data is currently on the display, copy your data to a file by doing the following:

Step 1. If the command channel is present, press the `COMMAND` key and place the cursor under the first line of data where you want it to begin copying onto a file.

Step 2. Press `COMMAND` , `COPY` , `ALL` , `DISPLAY` , `TO:file` , type in the name of a file not previously used, such as "LETTER3", and press `RETURN` .

*COPY ALL FROM DISPLAY TO LETTER3

The data from the display will begin copying onto the new file (**LETTER3**) in drive #1 unless otherwise specified. When the red indicator light stops blinking, the file (**LETTER3**) will be completely recorded. The command channel disappears and reappears at the completion of the copying function.

Step 3. If you wish to verify that the new file (**LETTER3**) is present on the file directory:

*SHOW FILES

Press `SHOW` , `FILES` , and `RETURN` .

Your new file (**LETTER3**) will be the last file listed on the file directory.

```
Volume = MEMOS

    File        File    Start     Size      Create        Create
    Name        Type    Address   (sectors) Date (M/D/Y)  Time
    ----------  ------  -------   --------- ------------  --------
    LETTER1     Ascii   32        3         10/21/81      12:19 PM
    LETTER2     Ascii   35        1         10/21/81      12:28 PM
    LETTER3     Ascii   36        3         10/22/81      10:27 AM

         FILE DIRECTORY WITH NEW FILE LETTER3
```

From File to Display

When you are not sure what is in a particular file, you can copy it to the display and review it. To copy your data from a file to the display, perform the following:

Step 1. Clear the display by pressing the ⬉ (home up) and `CLEAR DSPLY` keys.

Step 2. Press `COMMAND` (if the command channel is not already displayed), `COPY` , `FILE` , type in your file name, in this example, "LETTER3", press `to` , `DISPLAY` , and `RETURN` .

*COPY FILE FROM LETTER3 TO DISPLAY

The file will begin reading onto the display. To stop this copying routine, press `RETURN` . However, once you stop the reading, you cannot read the rest of the data from your file. If you want to read the entire file, let it read until the end. During the copying routine, the command channel disappears at the beginning and reappears at the completion.

NOTE: Although the terminal can copy all of your data from a file, it only allows you to read approximately the last 100 lines of data on the display. If your data is more than 100 lines, you may use the Edit Mode to copy the data.

An abbreviated copying procedure may be used to copy a file to the display:

Press `COMMAND` (if the command channel is not already displayed), type in the file name, "LETTER3", and press `RETURN` .

*LETTER3

The contents of the file (**LETTER3**) are copied onto the display. If you wish to stop the copying routine at any time, press the `RETURN` key. However, if you wish to continue the copying routine, you must repeat the above procedure.

From File to File

You may use the copying function to backup your files onto a particular diskette for future referencing. Although copying from file to file can be done using one diskette on the same disc drive, it is not practical for backup purposes. Copying from file to file should be done using the optional second disc drive and an additional formatted diskette. The first disc drive (drive #1) should contain the diskette from which you want to copy the file. The diskette in the optional second disc drive (drive #2) must have enough space on it to copy the file from the diskette in drive #1. The volume names of both diskettes must be different from each other.

Let's copy the file "LETTER2" on volume "MEMOS" in drive#1 to a file called "LETTER2A" on volume "REPORTS" in drive #2:

Step 1. Insert another diskette in disc drive #2, format it (if it hasn't already been formatted), and name it "REPORTS". (Refer to "Formatting and Naming a Diskette" in Section 2.)

Step 2. Press `COMMAND` (if the command channel is not already displayed), `COPY` , `FILE` , type in file and volume name from drive #1, "LETTER2;MEMOS", press `to` , type in file and volume name of diskette in drive #2, "LETTER2A;REPORTS", and press `RETURN` .

*COPY FILE FROM LETTER2;MEMOS TO LETTER2A;REPORTS
_____

From Volume to Volume

Making a duplicate copy of your volume is a good idea for backup purposes. Copying your data from one volume to another volume involves the use of a second disc drive and another formatted diskette. The first disc drive (drive #1) should contain the diskette from which you want to copy the volume. The other diskette which is installed in drive #2 should have its volume name purged if one exists. To copy data from one volume to another volume, perform the following steps:

Step 1. Load the diskette with the data on it into drive #1.

Step 2. Load the other diskette into drive #2.

Step 3. Determine the volume status of the diskette in drive #2:

Press [COMMAND] (if the command channel is not already displayed), ■ SHOW ■ , ■ VOLUMES ■ , and [RETURN] .

*SHOW VOLUMES

If the second volume is not formatted, it will read "nonfmt". If it is formatted, it will read "nolabl" or will have a volume name. If it reads "nolabl", you can begin the copying routine that follows. If you need to format the volume, refer to "Formatting and Naming a Diskette" in Section 2. If the volume has a name, you need to purge it, refer to "Purging a Volume" in Section 2.

Step 4. You can begin the copying routine when the volume in drive #2 has been formatted, but unnamed. Copy the volume from drive #1 to the volume in drive #2:

Press ■ COPY ■ , ■ VOLUME ■ , type in volume name, in this example "MEMOS2", press ■ TO ■ , type in location of drive destination, "2", and press [RETURN] .

*COPY VOLUME FROM MEMOS2 TO DISC#2

The red indicator lights on both disc drives will begin blinking on and off. A message is displayed, indicating that the volume is being copied. When the copying routine is completed, the message will disappear and both red indicator lights will go off. The command channel which disappeared at the beginning of the copying routine will reappear at the completion.

Step 5. Verify that both volumes are present:

Press ■ SHOW ■ , ■ VOLUMES ■ , and [RETURN] .

*SHOW VOLUMES

The volume directory will indicate that both volumes have the same volume name (MEMOS2). This means that the second volume is a duplicate of the first volume. You should rename it to distinguish it from the original.

```
VOLUME NAME        HP-IB ADDRESS
----------------   -------------

Local    Disc        Start of    Space   Sector    Create          Create     Write
Volume   Type#Unit   Free Space  Left    Stagger   Date (M/D/Y)    Time       Protect
------   ---------   ----------  -----   -------   ------------    --------   -------
MEMOS2   mfD#1           39      1017      5         10/21/81      12:16 PM     NO
MEMOS2   mfD#2           39      1017      5         10/21/81      12:16 PM     NO
```

       VOLUME DIRECTORY SHOWING DUPLICATE VOLUME NAMES

Step 6. Remove the original volume from drive #1 and rename the duplicate volume in drive #2. Let's rename "**MEMOS2**" to "**SALES**":

Press disc , RENAME , VOLUME , type in current name, "**MEMOS2**", press TO , type in new name, "**SALES**", and press RETURN .

*RENAME VOLUME FROM MEMOS2 TO SALES

Step 7. Verify that the duplicate volume has a new name:

Press SHOW , VOLUMES , and RETURN .

The duplicate volume's new name is **SALES.**

*SHOW VOLUMES

```
VOLUME NAME       HP-IB ADDRESS
----------------  -------------

Local   Disc        Start of    Space  Sector   Create        Create    Write
Volume  Type#Unit   Free Space  Left   Stagger  Date (M/D/Y)  Time      Protect
------  ---------   ----------  -----  -------  ------------  --------  -------
SALES   mfD#1              39   1017      5       10/21/81     12:16 PM   NO
```

        VOLUME DIRECTORY FOR DUPLICATE VOLUME RENAMED "SALES"

4

Printing Your Data ——————— 4

Introduction

This section provides instructions on how to print your data from the display or file to a printer. For the discussion in this section, it is assumed that the printer is already connected to the terminal.

The Printer

The terminal recognizes two types of interfaces: (1) RS232 and (2) HP-IB. An RS232 interface allows only one type of printer to be connected to the terminal. The HP-IB interface allows one or more printers and/or plotters to be connected to the terminal.

The following printers can be connected to the terminal's RS232 type interface:

• HP 2601A
• HP 2631B opt. 240
• HP 9871A

The following printers can be connected to the terminal's HP-IB type interface:

• HP 2631B opt. 046
• HP 2631G std.
• HP 2671A/G
• HP 7245B
• HP 9871A opt. 001

You can identify the type of printer you have installed in your terminal by checking the connector type at the rear of the terminal.

HP-IB TYPE
CONNECTOR
WITH GROUND STRAP

RS232 TYPE
CONNECTOR
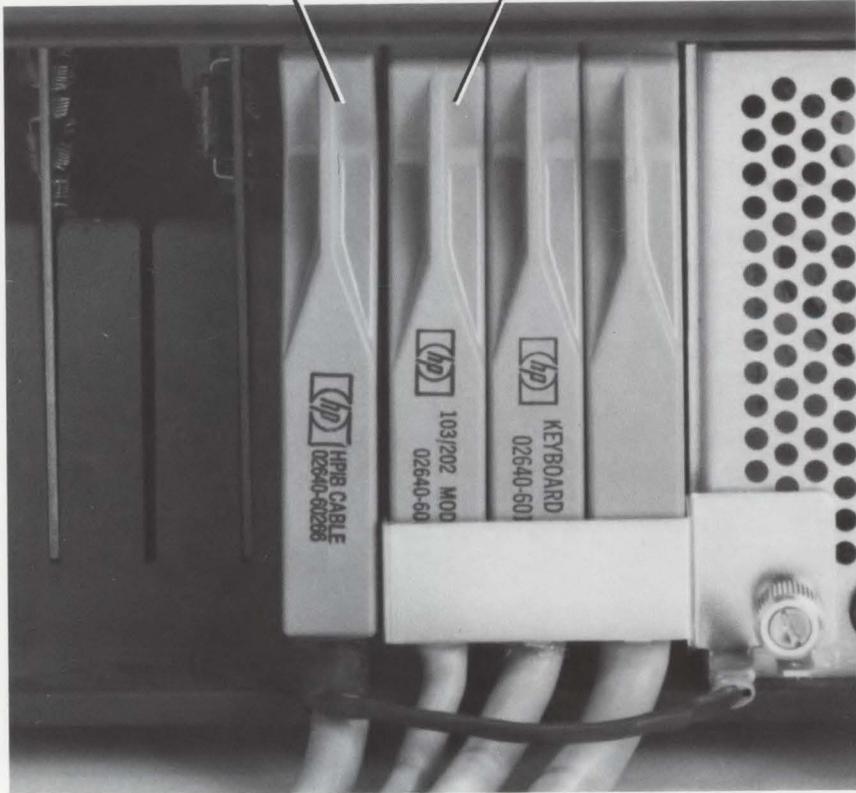
Accessing the printer is done through the command channel. To access an RS232 type printer, you will use the **EX PRNTR** command. To access an HP-IB type printer, you may use either the **SH PRNTR** or **HP-IB#** command. An address **#** (number) is assigned to an HP-IB type printer. Check with your HP representative for the HP-IB type printer and its assigned printer address.

Copying from Display to Printer

NOTE: Copying data from the display to a printer is limited to what the terminal's display memory will hold, which is approximately 100 lines of data.

To copy your data from the display to the printer, do the following:

Step 1. Turn on the printer and make sure that the printer has been loaded with paper.

NOTE: There are two types of printer papers: (1) Single Sheets and (2) Continuous Feed. Single sheets are 8-1/2 x 11 typing or copying paper, which are used for data with less than 63 lines. Continuous feed printer paper may be a roll of thermal paper or computer type paper with a creased or serrated marking for each 11-inch page.

Step 2. Make sure that the data on the display is exactly the way you want it copied. Using the cursor control keys, place the cursor at the beginning of the data you want copied.

Step 3. Press `COMMAND` (if the command channel is not already displayed), `COPY` , `ALL` , `DISPLAY` , then select the printer type, in this example, `EX PRNTR` , and press `RETURN`.

*COPY ALL FROM DISPLAY TO EXTERNAL PRINTER

During the printing operation, the cursor will read through all your data lines on the display until the printing is completed. The command channel disappears at the beginning of the printing operation and reappears at the completion.

Copying from File to Printer

To copy your file to a printer, perform the following steps:

Step 1. Turn on the printer and make sure that the printer has been loaded with paper.

Step 2. Insert the diskette with the file you want copied in the disc drive.

Step 3. If you are not sure what file you want to copy, do the following:

Press `COMMAND` (if the command channel is not already present), `SHOW` , `FILES` , and `RETURN` .

*SHOW FILES
_____

Your file directory will be displayed .

Step 4. Press `COMMAND` (if the command channel is not already displayed), `COPY` , `FILE` , type in the name of the file that you want copied, in this example "LETTER2", press `to` , `EX PRNTR` , and `RETURN` .

*COPY FILE FROM LETTER2 TO EXTERNAL PRINTER
_____

The command channel disappears at the beginning of the printing operation and reappears at the completion.

5

Loading Programs _____ 5

Introduction

Programs recorded on the diskette can be easily loaded into the terminal for local use. This section will give you procedures on how to get started using the BASIC Interpreter program. The BASIC Interpreter is stored on the diskette labeled "BASIC/AUTOPLOT/47", which is furnished with the terminal.

Loading the BASIC Interpreter

To execute a custom BASIC program, you must first load the BASIC Interpreter if it hasn't already been loaded. If it has been previously loaded, press the [RETURN] key and the terminal will display the BASIC prompt character ">". This will signify that the BASIC Interpreter is loaded and is running. You can skip to "Loading and Running a BASIC Program from a File".

To load the BASIC Interpreter into the terminal, perform the following steps:

Step 1. Make sure that the terminal is in local mode ([REMOTE] key is up) and disc drive #1 does not contain a diskette.

Step 2. With the terminal power on, insert the diskette labeled "BASIC/ AUTOPLOT/47" (part no. 02647-13401) into disc drive #1.

Step 3. Press [COMMAND] (if the command channel is not already displayed), type in "AUTO" following the asterisk, and press [RETURN] .

*AUTO
_____

The program will load automatically with the red indicator light going off and on. At the completion of loading the program, the red indicator light will go off and the terminal will display the message "TERMINAL READY", followed by a program selection table:

```
            BASIC/AUTOPLOT/47

     (c) HEWLETT-PACKARD CO 1982

            02647 13401

            Rev A-2142 42
```

Select AUTOPLOT program f1 - f7							LOAD BASIC
f1 PIE	f2 BAR	f3 LINEAR	f4 LOG/LOG	f5 Y-LOG	f6 X-LOG	f7 SLIDE	f8 BASIC

The labels across the bottom of the table correspond to the softkeys (`f1` through `f8`) located at the top of the keyboard.

Step 4. Press BASIC, which corresponds to `f8` . The BASIC Interpreter will be loaded. At the completion of loading, the terminal will display the available workspace and the BASIC prompt character "**>**".

```
Hewlett Packard BASIC/47 Interpreter   Rev A-2142-42
HP BASIC/47 -- REV. A-2142-42
 XXXXX BYTES STACK SPACE
 XXXXX BYTES WORK SPACE
>
```

NOTE: If the terminal is turned off, BASIC must be reloaded. If you "exit" BASIC and do not turn the power off, you may get BASIC by pressing `COMMAND` to bring up the command channel, type "**BASIC**", and press `RETURN` .

Loading and Running a BASIC Program from a File

A BASIC program previously saved on a diskette can be loaded into the BASIC workspace by doing the following:

Step 1. Make sure that the BASIC Interpreter has been loaded and it is running (pressing [RETURN] will display the BASIC prompt ">"). If necessary, reload the BASIC/Autoplot/47 diskette in the disc drive; and then type "**BASIC**" in the command channel and press [RETURN] .

Step 2. If a diskette is presently in the drive, remove it before loading your BASIC program.

Step 3. Insert your diskette with the previously saved BASIC program in the disc drive. If you know the name of your BASIC program file, skip to step 5.

Step 4. If you are not sure what is the name of your BASIC program file on the diskette, do the following:

Press [COMMAND] (if the command channel is not presently displayed), **SHOW** , **FILES** , and [RETURN] .

* SHOW FILES
_____

Your file directory will be displayed and the command channel will be present. Press [COMMAND] to remove the command channel and press [RETURN] to restore the BASIC prompt ">".

Step 5. Following the BASIC prompt ">", type in "**GET**" followed by the file name in quotes, in this example "**STATPACK**", and press [RETURN] .

Example: > GET "STATPACK" [RETURN] .

The red indicator light will blink as "**STATPACK**" is loading. At completion, the terminal will print out your program "**STATPACK**" to indicate that it is now loaded and is ready to be run.

Step 6. If you wish to verify that the program "**STATPACK**" has been loaded, type "**LIST**" following the prompt ">" and press [RETURN] . The program will be listed.

The program will remain in the terminal until it is scratched or the terminal is turned off.

Step 7. To run your program, type in "**RUN**" following the BASIC prompt "**>**" and press RETURN . Alternately, type in "**RUN**" and your program name in quotes, in this example "**STATPACK**" following the prompt "**>**" and press RETURN .

Method 1: **> RUN,** then press RETURN .

Method 2: **> RUN "STATPACK",** then press RETURN .

Additional BASIC programming information is described in the *BASIC/47 Manual,* part number 02647-90038.

6

Using Autoplot/47 _____ 6

Introduction

The BASIC/Autoplot/47 diskette is used to generate a variety of business charts. As an example in this section, you will learn how to select and use the pie chart. Use of the other charts is described in the *Autoplot/47 Manual,* part number 02647-90042.

Selecting the Program

To select the pie chart from the program selection table, do the following:

Step 1. If the BASIC/Autoplot/47 diskette is already loaded and running in the disc drive (pressing RETURN will display the BASIC prompt "▸"), skip to step 4.

Step 2. If a diskette is presently in the disc drive, remove it before' inserting another diskette.

Step 3. Insert the BASIC/Autoplot/47 diskette in the disc drive.

Step 4. If the command channel is not currently displayed, press the COMMAND key, type "AUTO", and press RETURN .

*AUTO
_____

The program selection table will be displayed:

```
              BASIC/AUTOPLOT/47

       (c) HEWLETT-PACKARD CO 1982

              02647-13401

              Rev A-2142 42
```

							LOAD BASIC
Select AUTOPLOT program f1 - f7							
f1 PIE	f2 BAR	f3 LINEAR	f4 LOG/LOG	f5 Y-LOG	f6 X-LOG	f7 SLIDE	f8 BASIC

Step 5. Select the pie chart program by pressing PIE (f1). The red indicator light will blink on and off during loading and then go off at completion. After about a minute, the pie chart menu will be displayed.

The Pie Chart Menu

Pie Charts

Title   Subtitle

Label	Value	Explode	Shade	Pen
0				

Plotter ?
AUTO-SORT?   Yes

Filling-In the Menu

The pie chart menu above contains fields that must be filled-in with data. The TAB key is used to move the cursor forward from field to field. Holding down the CNTL key and pressing the TAB key moves the cursor back to previous fields. The meaning of each field is explained below. Once the fields have been filled, the data can be plotted on the display for review (see "Plotting Data to the Display" for plotting instructions), modified if desired, and then plotted to a plotter (see "Plotting Data to a Plotter").

The pie chart menu fields are as follows:

• **Title.** Type in a title name up to 40 characters in this field.

• **Subtitle.** Type in a subtitle name of up to 37 characters in this field.

• **Label.** You may type in a label name up to 20 characters for each pie section. You may have up to 10 pie sections.

• **Value.** Type in a numeric value up to 10 characters for each section. Each assigned value is plotted as a percentage of the pie. A minimum of two values is required to plot the pie chart . Negative signs (−) and dollar signs ($) preceding the values are ignored. Do not use commas because they end the number field, for example, "2,135" is interpreted as "2".

• **Explode.** You may set apart or "explode" any section from the pie by typing in "Y". If you do not want to explode a section, type in "N" or leave the field blank.

• **Shade.** Type in a number from 0 to 4 to select a shading pattern for a particular section, if desired. Any of the following patterns can be selected:

  0/blank — No shading with label printed outside the section and percentage printed within the section.
  1 — Solid pattern
  2 — Cross-hatching
  3 — Diagonal lines
  4 — No shading with label and percentage printed outside the section.

Pie Chart Shading Values

3 = Diagonal Lines (20%)

4 =No Pat w/% outsde (20%)

2 = Cross-hatching (20%)

20%

0/Blank = No Shading

1 = Solid Pattern (20%)
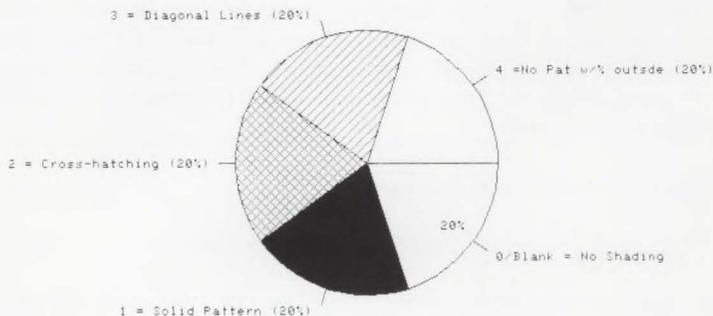
- **Pen.** If you are plotting to an HP 9872 Plotter, type in a number from 1 to 8 to select a corresponding pen color. Leaving the field blank defaults to pen #1. Pen selection is not required when plotting to the display.

- **Plotter.** Assuming that the plotter address is "5", type in "Y" to indicate you are plotting to a plotter. If you are plotting the chart to an overhead transparency, type in "5T". If you are not sure what your plotter address is, ask your HP representative.

  Type in "N" or leave blank to plot the data to the display.

- **AUTO-SORT?** Type in "N" to indicate that the sections will be drawn in the order listed on the menu. Type in "Y" to indicate that the sections will be drawn in accordance with its size. The smallest section is drawn first, followed by the next largest, and so on.

Pie Chart Example

Let's plot a pie chart using the following example:

Step 1. On a piece of paper list the data you wish to be plotted. In this example, let's use the following data:

Title: Marketing Assistant
Subtitle: Survey #3

Labels	Values
Phone Coverage	2.5
Typing	2.0
Filing	0.5
Scheduling	0.5
Recordkeeping	1.0
Purchasing Supplies	0.5
Photocopying	1.0

Step 2. If the pie chart menu is not already displayed, bring up the command channel (press COMMAND), type in "AUTO" and press RETURN . When the program selection table is displayed, press PIE (f1). After about one minute, the pie chart menu will be displayed.

Step 3. Begin filling in the fields with the data above. Use the TAB and CNTL TAB keys to move the cursor forward or backwards to each field. When the appropriate fields have been filled, you are now ready to plot the data.

NOTE: A minimum of two values is required in the values field to plot a pie chart.

Pie Charts

Title			Subtitle		
Marketing Assistant			Survey #3		

Label	Value	Explode	Shade	Pen
Phone Coverage	2.5 hours		1	
Typing	2.0 hours		2	
Filing	0.5 hours		3	
Scheduling	0.5 hours		4	
Recordkeeping	1.0 hours		0	
Purchasing Supplies	0.5 hours		1	
Photocopying	1.0 hours		3	

Plotter ?
AUTO-SORT? Yes

Plotting Data to the Display

To plot your data to the display, do the following:

Step 1. Make sure that the appropriate pie chart menu fields are filled-in. Check that you have typed an "N" in the plotter field or left it blank.

Step 2. Press the [AUTOPLOT] key. The terminal will read all of your data on the pie chart menu and plot your pie chart onto the display.

Marketing Assistant
Survey #3

Step 3. If you wish to modify the pie chart, hold down the [SHIFT] key and press the [AUTOPLOT MENU] key to retrieve the menu. You can now make changes to your data if you wish. After making your changes, press the [AUTOPLOT] key to replot the pie chart.

Plotting Data to a Plotter

If you wish to plot your pie chart on a plotter, do the following:

Step 1. Return to the pie chart menu via the SHIFT / AUTOPLOT MENU keys. Using the cursor control keys, move the cursor to the plotter field and type in "Y" or "5T" if doing a transparency.

Step 2. Turn on the plotter and load a piece of plotting paper into the plotter.

Step 3. Make sure that the plotter pens are present.

Step 4. Set the lower left and upper right plotting limits, P1 and P2 respectively, in accordance with the size of the plotting paper:

NOTE: P1 , P2 , and ENTER are plotter keys.

a. Find the current lower left limit (P1) by pressing P1 . If you wish to change P1, use the arrow keys to place the pen at the new lower left limit and press:
   ENTER   P1

b. Find the current upper right limit (P2) by pressing P2 . If you wish to change P2, use the arrow keys to place the pen at the new upper right limit and press:
   ENTER   P2
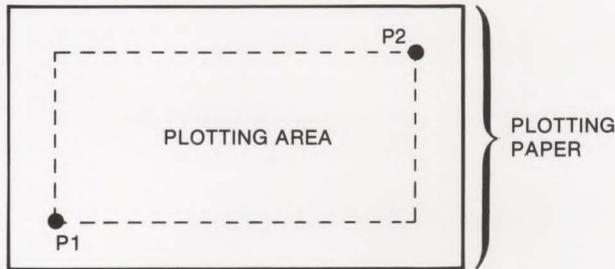
Plotting Limits P1 and P2

Step 5. Press AUTOPLOT to plot your pie chart on the plotter.

NOTE: If you wish to stop the plotting operation early, press the STOP key on the terminal. To continue plotting, however, you must return to the autoplot menu via the SHIFT / AUTOPLOT MENU keys.

7

Logging On To A Computer ____ 7

Introduction

The terminal can be used to operate with a computer. In this section, you will learn how to set up the terminal for on-line use, and how to log on to a computer. Details on how to send and receive data to/from a computer are described in the *HP 2647F Reference Manual*, part no. 02647-90037.

NOTE: The terminal can be operated in one of two operating modes: (1) off-line or local mode and (2) on-line or remote mode. When the [REMOTE] key is up, the terminal is set to operate off-line. When the [REMOTE] key is down, the terminal is set to operate on-line.

Setting-Up the Terminal for On-Line Use

Assuming that the terminal is connected to the computer, set the terminal to on-line by depressing the [REMOTE] key. Make sure that the [AUTO LF] key is up.
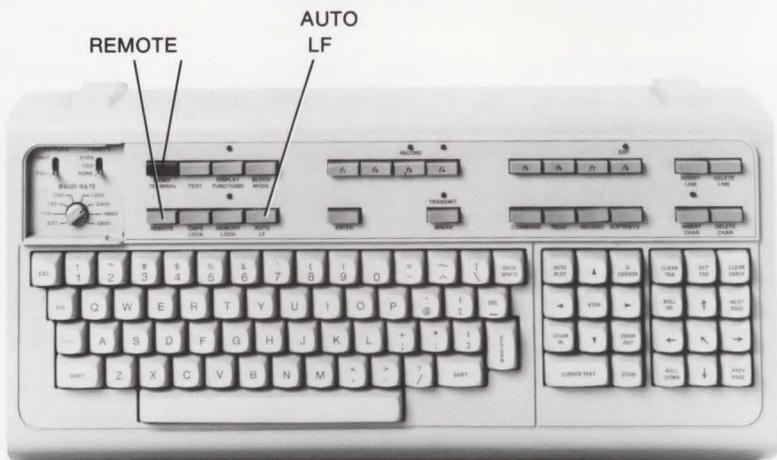
Logging on to a Computer

The terminal may be logged on to most computer systems; however, an HP 3000 Systems Computer is used here as an example. To log on to an HP 3000 Systems Computer, do the following:

Step 1. Press RETURN and the computer will send back a system prompt ":".

Step 2. Following the system prompt ":", type in HELLO and your account name, in this example, "USER.DTD", and then press RETURN.

> : HELLO USER.DTD

NOTE: Account name assignments are required to log on to a computer system. Contact your computer operator for your specific account name.

Step 3. If a message requesting a password is given, type it in, such as "BIG" for example, and then press RETURN. Note that the password (BIG) is not printed on the display as you are typing it in.

NOTE: There may be more than one password assigned to your account. Check with your computer operator for your specific password.

Step 4. When the password is accepted or if no password message is requested, you will get another system prompt ":". This indicates that the computer system is ready to accept a system program that you may request (such as BASIC, EDITOR, and so on).

Information on how to log on to other computer systems is described in the appropriate document supplied with that particular computer system.

8

"Oops" and How To Recover ___ 8

Introduction

Occasionally, you may make errors when operating the terminal. These errors may be the result of pressing the wrong key at the wrong time, or not understanding some of the terminal's operating features, or the terminal may have a problem. This section qcontains procedures for resetting the terminal, how to recover from operator "oops", a list of display messages, and how to test the terminal and disc drive.

Resetting the Terminal

Some terminal problems may require the use of the [RESET TERMINAL] key, located in the upper left corner of the keyboard.

RESET TERMINAL
KEY

There are two types of reset: (1) soft reset and (2) hard reset.

Soft Reset

A soft (normal) reset is performed by pressing the [RESET TERMINAL] key once. This causes the following:

1. Any error messages present are cleared.
2. If [DISPLAY FUNCTIONS] is on, it is turned off.
3. If the Command Mode is on, it is turned off.
4. The Assign Table remains unchanged.
5. On-line operations (record, data communications) are stopped.
6. Device operations (printer, plotter) are stopped.

Hard Reset

A hard (full) reset is performed by pressing the [RESET TERMINAL] key twice within 0.5 second. This has the same effect as turning the power on. It completely reinitializes the entire terminal and should not be used unless necessary. A full reset causes the following:

1. Display memory is cleared. All programmable function keys ([f1]–[f8]) are turned off or set to their default values.
2. Device assignments in the Assign Table are set to their default values.
3. The time and date remain unchanged.
4. If a file is opened, the data may be lost.

Operator "Oops"

The following discussion describes typical operator "oops" situations and how to recover. Included in this discussion are operator type situations involving the use of the terminal, printer, and plotter.

Terminal "Oops"

Table 8-1 lists terminal operator "oops" and how to recover from them.

Table 8-1. Terminal "Oops"

Terminal "Oops"	Recovery Procedure
Keyboard locks up	Do a soft reset. (Press [RESET TERMINAL] once.)
Cursor doesn't move	Do a soft reset. (Press [RESET TERMINAL] once.)
Press [RETURN] key and nothing happens.	No auto line feed; depress the [AUTO LF] key.
Recording data and a message indicating that there isn't any space available appears on the display.	Volume is out of space. If purged files are present, pack the diskette (see "Packing the Diskette" in Section 3); otherwise, use a new diskette.
The terminal is connected to the computer and you are getting erroneous characters on the display or nothing is happening.	Communication switch settings may be incorrect. Contact your system programmer or HP representative for help.

Printer "Oops"

Table 8-2 lists possible printer "oops" and how to recover from them.

Table 8-2. Printer "Oops"

Printer "Oops"	Recovery Procedure
Copy operation from display to external printer doesn't work.	Make sure printer is turned on. Printer address assignment may be incorrectly assigned. Do a Show Assignment command to verify. Cable connection between printer and terminal may be bad.
Copy operation from display to external printer doesn't print all of the data.	Forgot to home the cursor before executing the Copy command. Remove the command channel, home the cursor (press ⟨↖⟩), and execute the Copy command.
Printing operation is occurring and there is not enough paper to print all of the data.	Pressing the ⟨RETURN⟩ key will stop the printing. Reload the printer with an adequate supply of paper and reinitialize the printing sequence.

Plotter "Oops"

Table 8-3 lists possible plotter "oops" and how to recover from them.

Table 8-3. Plotter "Oops"

Plotter "Oops"	Recovery Procedure
A plot is in progress and you wish to stop it to make a change.	Pressing the ⟨STOP⟩ key on the terminal will stop the plot. To resume, you must return to the menu via the ⟨SHIFT⟩ / ⟨AUTOPLOT MENU⟩ keys.
Plotting begins at the wrong place.	Attempted to plot without resetting the plotting limits, P1 and P2. See "Plotting Data to a Plotter" in Section 6.
Plotter doesn't respond.	Check to see if the plotter has been turned on. Make sure that a "Y" is in the plotter field. See "Filling-In the Menu" in Section 6.

Messages

A variety of display messages inform you of terminal operating status, improper commands, or malfunctions. Messages appear in the lower left corner of the screen. Pressing ⌜RETURN⌟ will clear the message, unless it is a result of an unrecognizable command typed in the command channel. Pressing ⌜DELETE LINE⌟ will clear the unrecognizable command form the command channel.

Table 8-4 gives an alphabetical listing of some of the messages that you may encounter when operating the terminal, their meaning, and any action that may be required to recover. A more comprehensive message listing is given in the *2647F Reference Manual.*

Table 8-4. Messages

MESSAGE	HELPFUL HINTS
Bad disc format	Either an unformatted or unlabeled diskette is in the drive. Refer to "Formatting and Naming a Diskette" in Section 2.
Bad disc unit	"DISC#" was not used or no disc number given. See "Formatting and Naming a Diskette" in Section 2.
COPY VOLUME not allowed	The "to" volume has not purged. Purge the "to" volume name, then execute the Copy Volume command. See "Purging a Volume" in Section 2.
CREATE VOLUME not allowed	Volume has not been purged; purge the volume, then execute the Create Volume command. Refer to "Purging a Volume" and "Formatting and Naming a Diskette" in Section 2.
CTUR001 (as a file name)	A file is open. Probably a CTU emulator file. Do a MARK File command. Refer to the "Cartridge Tape Emulation" discussion in the 2647F Reference Manual, part no. 02647-90037.
Directory is full	Attempted to add more files to a volume. If the volume contains purged files, pack the diskette to gain more volume space or use another diskette. See "Packing a Diskette" in Section 3.

Table 8-4. Messages (Continued)

MESSAGE	HELPFUL HINTS
Disc COPY in progress <m>	<m> is the sector currently being copied while the Copy Volume command is in progress.
Disc PACK not allowed	Attempted to pack the diskette while a file remains open. Probably a CTU emulator file. Do a MARK File command. Refer to the "Cartridge Tape Emulation" discussion in the 2647F Reference Manual, part no. 02647-90037.
Disc READ FAIL	Diskette may be faulty. Use a new diskette; if problem continues, call your local HP representative.
Disc SEEK FAIL	Drive door may be open; close door. Diskette may be faulty; use new diskette.
Disc VERIFY FAIL	Diskette is write-protected; remove write-protect tab. Refer to "The Diskette" in Section 2.
Disc VERIFY in progress	Indicates that Verify Volume command is in progress.
Disc WRITE FAIL	Diskette may be faulty; use new diskette.
File is already open	A file is open. Probably a CTU emulator file. Do a MARK File command. Refer to the "Cartridge Tape Emulation" discussion in the 2647F Reference Manual, part no. 02647-90037.
File name already exists	Attempted to Copy or Record data to an existing file. Specify a new file name, rename the existing file, or purge the existing file and execute the command. See "Renaming a File" in Section 3.
File name not found	File name does not exist or it exists as a purged file. Use Show Files to list the unpurged files; use Show Purged to list the purged files. See "Purging and Unpurging a File" in Section 3.

Table 8-4. Messages (Continued)

MESSAGE	HELPFUL HINTS
File size too large	Attempted to Create a file too large for the remaining space on the volume. Either Pack the diskette if there are any purged files, or use a new diskette. Refer to "Formatting and Naming a Diskette" in Section 2.
FORMAT VOLUME not allowed	Atempted to format an unpurged volume; purge the volume, then execute the Format Volume command. Refer to "Formatting and Naming a Diskette" in Section 2.
Illegal date	Attempted incorrect format for date; use <mm>/<dd>/<yy> in Set Date command. See "Setting the Time and Date" in Section 3.
Illegal file name	Attempted to use illegal characters in the file name; they must be letters or numbers and cannot exceed 10 characters. The first character cannot be a number. See "Creating a New File" in Section 3.
Illegal HP-IB ADDR	HP-IB address specified did not exist. Refer to "The Printer" in Section 4.
Illegal unit number	A character other than "1" or "2" was used with "DISC#". See "Formatting and Naming a Diskette" in Section 2.
Illegal volume name	Attempted to use illegal characters in the volume name when using the Create or Rename commands. Characters must be letters or numbers. See "Formatting and Naming a Diskette" in Section 2.
INVALID DEVICE SPECIFIED	Used a reserved word for a file name, such as "Graphics" or device name is misspelled. Use another word or correct the spelling. Refer to "Creating a New File" in Section 3.
No Disc controller attached	Disc controller PCA not present in the terminal. Contact your HP representative for assistance.
No disc in drive	Missing diskette, insert diskette in disc drive.

Table 8-4. Messages (Continued)

MESSAGE	HELPFUL HINTS
NO EXTERNAL PRINTER	No printer connected or no printer interface installed in the terminal. Call your HP representative for assistance.
NO HP-IB PCA	No HP-IB PCA in the terminal or the HP-IB device's cable is not connected. Contact your HP representative for help.
No more disc space	The volume is full. Pack the diskette if the volume contains purged files; otherwise, use a new diskette. Refer to "Packing the Diskette" in Section 3.
NO PAPER ON EXTERNAL PRINTER	Paper out; resupply paper.
NO SHARED PRINTER	No shared printer connected to HP-IB. See "The Printer" in Section 4.
PRINT FAIL	External printer failed. Make sure printer is on.
PROGRAM NOT FOUND	Unable to find program with name specified in the command channel. Do a Show Files to find the file name.
PURGE FILE not allowed	Usually a CTU emulator file is opened. Do a Rewind L Tape or R Tape command. See the "Cartridge Tape Emulation" discussion in the *HP 2647F Reference Manual*, part number 02647-90037.
Retry of disc operation	A disc command failed during its execution; retry of command is in progress.
"SOURCE"="DESTINATION"	Trying to read and write to the same device; change one of them. Refer to "Using the Command Channel" in Section 1.
Volume is write-protected	The write-protect notch on the diskette is covered. Remove the tab covering the notch. See "The Diskette" in Section 2.

Table 8-4. Messages (Continued)

MESSAGE	HELPFUL HINTS
Volume name not allowed	Atempted to specify a volume name as part of the new file name when executing the Rename File command. Omit the volume name when specifying the new file name. See "Renaming a File" in Section 3.
Volume name not found	Incorrect volume name used, do a SHOW VOLUMES to list the correct volume name. See "Renaming a Volume" in Section 2.

Testing the Terminal

You can test the terminal by pressing the TEST key. This is a GO/NO-GO check to see if the terminal is operating properly. The terminal test cannot be performed if the terminal is in the Edit Mode. Pressing the TEST key causes the keyboard lights to be turned on. The lights remain on during testing of the terminal and go off at completion. When the terminal beeps and a pattern similar to one below is displayed, the terminal is functioning properly. If an error occurs, the terminal has failed self-test. To resume the test press RESET TERMINAL. If the test fails again, ask your HP representative for assistance.

Large Character Set
Line Drawing Set
Math Set
Roman Set

secondary status
primary status

Testing the Disc Drive

The disc drive can be tested using an unprotected diskette with data that need not be saved. To test the disc drive, perform the following:

Step 1. Make sure that there isn't a diskette already installed in the disc drive. Insert the unprotected diskette with data that need not be saved in the disc drive.

Step 2. Press COMMAND (if the command channel is not already displayed), next , next , next , TEST , DISCS , RETURN .

*TEST DISCS

The red indicator light will go on and off during the test and go off at completion. One of the following messages may appear:

* **Disc self test OK**
* **No disc controller attached**
* **Disc self test Fail, Unit is <u>, Test is <t>, Subtest is <s>, Head is <h>**

If either of the last two messages is displayed, contact your HP representative for assistance.

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