Text Editing Pac

HP-83/85

USER INSTRUCTIONS

1. To load the program
   a. Insert the Editor cartridge
      into the tape transport.
   b. Type:LOAD "EDITOR"[ENDLINE]
2. When the program has been
   loaded
   a. Press [RU
3. When the   as
   shown   tion
                                    er

                                    IT
                                    LETE

MATERIAL LIST

EE ROM PAC
DESCRIPTION   PART NUMBER QTY

CIR BOARD   9222-1122
ACC. BROC.   8055-0002
OVERLAY   8055-0063
OVERLAY   8055-0064
BAG PLAS.   3012-0022
LABEL,CTN   7111-9001   1
EE ROM ASM   00098-17004
MANUAL   00098-90062

NOTICE

**HEWLETT
PACKARD**

HP-83/85

Text Editing Pac

May 1981

Introduction

These text editing programs are designed to enable you to enter and edit text lines which can then be output to a tape file or the printer. The display is used to interact with the text in memory. Up to 150 lines or 5600 characters can be entered as a single file in the 16K version. The special function keys are used to perform the various options in each program. The operations are executed when you press the specific special function key. The time to execute each operation is dependent on the amount of text in memory and the operation being performed. Program flow should be clear after using the program with the user instructions a few times.

The first program, EDITOR, is designed to initially enter text into memory and to move it around so that it can then be output to a tape file or printer. The intent of the second program, EDITSR, is to take an existing file from the tape and make major replacements or listings based on a match of an entered match string which can be a word or phrase of up to 80 characters in length. This last feature will enable you to customize or personalize a generalized text file.

The example will show most of the features of the programs and also further illustrate their usage.

Contents

Using the HP-85 and Text Editing Pac

These Text Editing programs bring the power of text editing to the HP-85 Personal Computer. The HP-85 is a personal computer and *not* a dedicated text editing system, and this affects the text editing procedures you will use.

Initialization

Because of its special function in the BASIC language used by the HP-85, the comma cannot be used when entering text from the keyboard. So the first step you perform before beginning to enter text should be the initialization procedure, where you select another keyboard character to replace the comma as you key text into the display.

Once you've selected a comma replacement character, you use it wherever you want a comma printed in the final text. For example, if you had selected the slash (/) as a comma replacement character, you would enter text from the keyboard to the CRT screen like this:

```
The comma replacement
character/ seen here as a
slash/ is used to replace
the comma when entering text
from the keyboard to the dis-
play.
```

However, when that text was printed or recalled to the display, the commas would automatically appear wherever you wanted them, like this:

```
The comma replacement
character, seen here as a
slash, is used to replace
the comma when entering text
from the keyboard to the dis-
play.
```

As with the comma replacement character, you can specify a tab character during the initialization procedure. Since the HP-85 normally ignores leading spaces in a line, this tab character is necessary if you want a line of text to be indented. When specifying the tab character, you also select the column at which the line will begin. For example if you had selected the pound sign (#) as the tab character, and the tab column as column 5, you would enter text as shown in the top example; when output, text would appear as in the bottom example:

```
#Usin9 the tab character lets
you indent lines where desired/
to mark para9raphs or create
columns.

        Usin9 the tab character lets
you indent lines where desired,
to mark para9raphs or create
columns.
```

You are permitted only a single tab character and column at any time; to change the tab character or column, you must perform that part of the initialization routine again.

In order for the comma replacement character and tab character to affect text that is input from the keyboard, you must perform the initialization procedure before the lines are sent to the text bank.

Errors and Loss of Text

The Text Editing programs save text for you in a portion of the HP-85 computer's memory. As you are learning to perform text editing, you will probably make a few errors, and these errors, while of course not harmful to the computer, can cause the text editing programs to halt and can even result in the loss or inaccessibility of your text.

However, following a few simple procedures when you have generated an error or the system fails to respond to the special function keys or other keyboard inputs will usually prevent the loss of the text in memory and allow you to proceed with your editing.

1. *Wait until the program is ready for another input or operation*. In some cases, you may have simply attempted to enter text or perform an operation from the keyboard before the program is prepared to accept your input— that is, while it is still processing a previous input or command.

2. *Press* KEY #5 (DONE) *to return to the main routine, then begin again*. If you're "lost" or can't remember what input is required next, simply press the [DONE] special function key to return to the calling routine, then try your input again.

3. *If you hear a single "beep" or see an error message displayed as you are entering or editing text, press* (CONT) *(continue) and then try to figure out what you've done wrong*. Pressing (KEY LABEL) to see the key labels may help. (Don't press (PAUSE) before pressing (CONT) –the program has already been halted by the error.) A double beep merely indicates that one operation or entry has been terminated and the computer is ready for another entry.

Any time the text editing programs are halted, you must be extremely careful of your keyboard inputs. When a program is halted and you attempt an input, the computer first checks to see if the input is a valid BASIC command, and then to see if it is a valid expression. If the input is neither, the computer returns an error message.

If you fail to press (CONT) before proceeding after an error, some inputs, such as a valid line number (e.g., 79) followed by (END LINE), or a valid BASIC command such as 19 PRINT, can cause all text held in the HP-85's memory to be lost.

In attempting to clear an error, if the HP-85 responds to your pressing of (CONT) with a display of "CONTINUE BEFORE RUN", you have lost all text currently held in memory. You must press (RUN) and start completely over, including initialization.

Text Entry

You may think of the portion of HP-85 memory in which text is stored and edited as the text bank. With the normal 16K of HP-85 memory, the text bank can contain up to 150 lines or 5600 characters; with the optional memory module inserted into the HP-85, the text bank is expanded to a capacity of 450 lines or 18,000 characters.
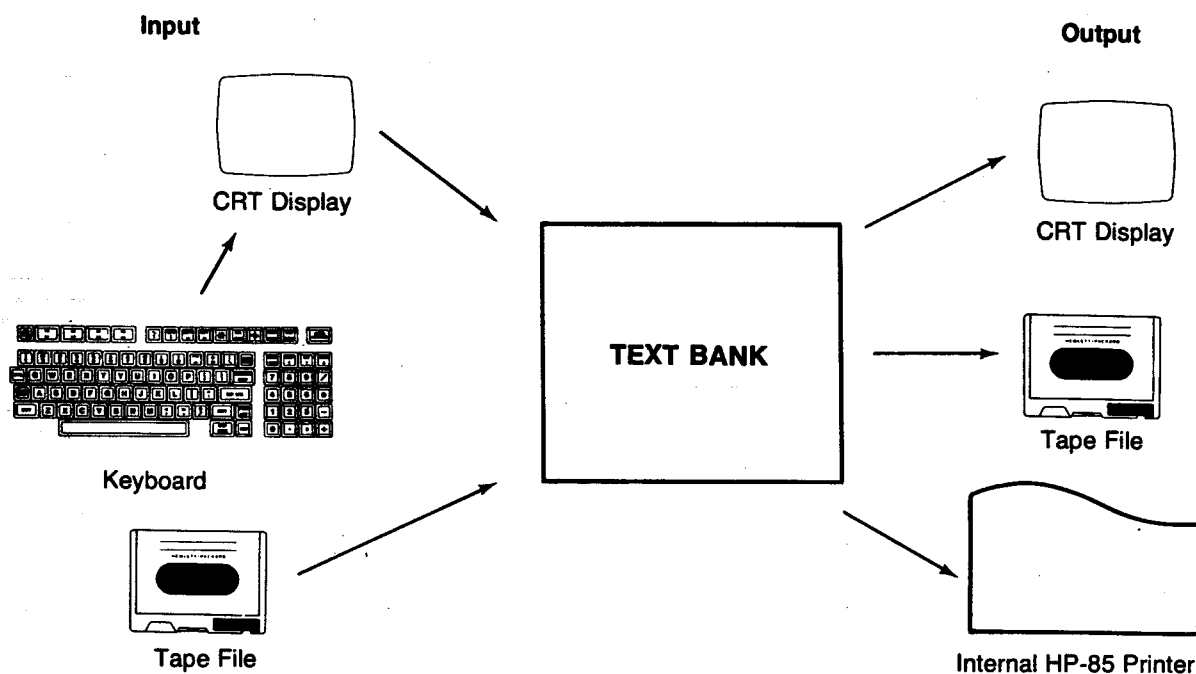
Input to the text bank can come from the CRT display or from a tape file. Once in the bank, text can be stored there, edited, and output to the CRT display, to the printer, or to a tape file.

Lines of Text

The HP-85 with the Text Editing Pac is a line-oriented system. Once a group of characters has been delineated as a line, it can indeed be changed, but it will not affect or "wrap around" onto other lines.

As you are entering characters from the keyboard, you can correct, add to, or alter them until you signal the end of the line by pressing (END LINE). When you press (END LINE), that line is automatically entered to the text bank, and the display prompts for another input with a question mark (?). Once in the text bank, a line can be deleted, moved, renumbered or output—but only as a complete line.

Line Length

If you type more than 95 characters, counting spaces, into the display, some characters will not be input to the text bank when you press ⌈END LINE⌉. For example:

If you enter 97 characters to the display before pressing ⌈END LINE⌉:

```
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
D
```

The text line input to the text bank will not contain all the characters displayed:

```
BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
D
```

A 95-character text line is useful when you have a full-width peripheral printer at your disposal. For display or for printing on the HP-85's internal printer, however, you will probably find it more convenient to work with text lines that are no longer than a single HP-85 display line—that is, 32 characters.

```
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
```

32-character text lines are easier to work with.

Line Numbers

As lines of text are entered to the text bank, they are automatically assigned *line numbers*. You can see these line numbers if you output a copy of the text from the text bank to the display or the printer. As you will see, line numbers serve as addresses for the various editing operations you perform on text stored in the text bank.

Blank Lines

To create a blank line you can separate a pair of quotation marks with a space, then press ⌈END LINE⌉. Another way is to simply press the TAB character followed by ⌈END LINE⌉. You cannot create a blank line by merely pressing ⌈END LINE⌉— every ⌈END LINE⌉ must be preceded by some keyboard input.

Using the Cursor

Although you can use the cursor commands to move the cursor up, down, left and right around the display, this creates spaces in the lines of text as they are entered to the text bank. For best results, your CRT entries should be as straightforward as possible, using a standard, line-by-line format.

Inputs to Create Special Outputs

Because of the special requirements of the BASIC language used in the HP-85, some types of outputs, such as underlined words or leading quotation marks, can be awkward to create. It is usually easiest to avoid these outputs if possible, but if they are absolutely required, refer to Appendix C, Special Outputs, for instructions.

Pausing for Non-Editing Operations

As with any other HP-85 program, you can pause during text editing to use the HP-85 computer for other purposes. Merely press the (PAUSE) key when you want to exit from the text editing programs. Once either of the text editing programs is paused, you can use the PRINT command or any other BASIC instructions, just as long as you do not do anything that will alter the information held in the HP-85 computer's memory. When you are ready to resume text editing, press (CONT) and proceed where you left off.

Format of User Instructions

The user instructions are your guide to operating the programs in this pac.

Certain key words have been used to indicate specific types of operations. You should become familiar with the meanings of these words so that the intent of the user instructions can then easily be followed.

Key Word	Meaning/Use
INSERT	Put the tape cartridge into the tape transport
PRESS	Push an immediate executable key, e.g., (END LINE) or (RUN)
TYPE	Push a series of keys which form a command, e.g., Type: (LOAD) "EDITOR"
ENTER	Push a series of keys as a response to a machine prompt, e.g., Enter: The text (END LINE)
GO TO Step n	Change the flow in the user instructions
REPEAT	Designates a repeatable group of instructions
NOTE:	Extra comments concerning instructions for this step
TOGGLE	Push a special function key to alternate between two program operation modes

The user instructions are written in outline form so that you can easily follow the instructions and the flow of operation.

Program Operation Hints

These programs have been designed to execute with a minimum amount of difficulty, but problems may occur which you can easily solve during program operation. There are four different types of errors or warnings that can occur while executing a program: input errors, math errors, tape errors and image format string errors.

The input errors include errors 43, 44, and 45. All of these errors will cause a message to be output followed by a new question mark as a prompt for the input. You should verify your mistake and then enter the corrected input. The programs will not proceed until the input is acceptable. There is a more complete discussion of INPUT in your Owner's Manual.

The second type of error that might occur is a math error (errors 1 thru 13). With DEFAULT ON, the first eight errors listed in Appendix E of your Owner's Manual cause a warning message to be output, but program execution will not be halted. The cause of these errors can usually be attributed to specific characteristics of your data and the type of calculations being performed. In most cases, there is no cause for alarm, but you should direct your attention to a possible problem. An example of such a case is found in the Standard Pac when the curve fitting program computes a curve fit to your data which has a value of 1 for the coefficient of determination, r^2. The computation of the F ratio results in a divide by zero, Warning 8.

The third type of error, tape errors (60 thru 75), may be due to several different problems. Some of the most likely causes are the tape being write-protected, the wrong cartridge (or no cartridge) being inserted, a bad tape cartridge, or wrong data file name specification during program execution. Appendix E of your Owner's Manual should be consulted for a complete listing.

The fourth type of error is due to generalizing the output to anticipated data ranges. In many cases, the output has assumed ranges which may or may not be appropriate with your data. Adjusting the image format string for your data will solve this type of problem. You may also want to change the image string if you require more digits to the right of the decimal point.

Whenever a running program is interrupted from the keyboard by inadvertently pressing a key, the system beeps. To continue program execution, press (CONT).

Most programs assume that the printer is 2 and the CRT is 1 and use PRINT and DISP statements accordingly. If you want to ensure that the peripherals are defined as the programs assume, press (RESET) before running a program. The currently defined key labels are obtainable at any time while a program is running by pressing (KEY LABEL). Remember to press (CLEAR -LINE) before pressing (END LINE) if the key labels are in the input line. All files on the tape cartridge have been secured using a security code of HP and a security type of 2. To store a changed version of a program, you must first unsecure the file using HP as the security code and 2 as the security type.

These are the more common problems which may occur during program operation. Your Owner's Manual should be consulted if you need more assistance.

Two versions of the program have been designed to run specifically on either a tape or a disc. The operation of the disc version is explained in Appendix D of this manual.

Editor

Description:

Input

The INPUT option enables you to enter text from either the keyboard or a tape file. The starting line number and the line increment can be specified before the text is entered. Since INPUT clears all text from the text bank before the new text is entered, you should use ADD, REPLACE, or MOVE to alter or add to existing text in the bank.

Output

The output option enables you to store text on a tape file, display the text, or print the text. The text line numbers can be suppressed if you choose. When the text is stored on the tape the line numbers are not stored. Before doing any of the output operations you can specify the beginning and ending lines to be used during this set of output operations. You can change the beginning and ending lines, however they will remain the same until they are changed or until you exit from the OUTPUT section.

Add

The ADD option enables you to add text from either a tape file or the keyboard. The additional text can be added to the front of existing text or at the end of existing text. You can also specify the line number after which the text is to be added. ADD leaves existing text intact in the text bank, merely adding to that text wherever specified.

Delete

The DELETE option enables you to delete lines of text from the text which is currently in memory. The lines to be deleted must be specified before they can be deleted. The TOP and BOTtom of the text can be specified by pressing the appropriate key.

Replace

The REPLACE option enables you to change text in memory by specifying the lines to be replaced and then the source of the new text, either a tape file or the keyboard. If the new text is to be entered from the keyboard, the lines which are being replaced can be displayed. If the replacement text is only a slight modification of the existing text, these modifications can be made using the editing features of the HP-85 and the existing text. The lines to be replaced must be specified before the source. The TOP and BOTtom of the existing text can be specified by pressing the appropriate key.

Move

The MOVE option enables you to move lines of text which are in memory. The lines to be moved are specified first and then the destination is specified. To aid this specification, you can specify the TOP and BOTtom of the text by pressing the appropriate key or you can enter the exact locations. After the appropriate locations have been specified, pressing KEY #1 (EXECUTE) performs the actual move.

Renumb

The RENUMBer option enables you to renumber the text currently in memory. When the text has been edited, line numbers are not always associated with the edited lines. Performing a renumbering operation will associate a line number with each line of text in memory. The beginning line number and the line increment can be entered if you do not want the text numbered from line 1 by increments of one. If text is to be specified for any edit operation, each line that is to be referred to must have a line number.

Init

The INITialize option enables you to specify a tab or indent character, the column number for indenting, and a comma replacement character. If you do not enter these special characters, the actual entry of text may be difficult due to the requirements of INPUT in BASIC.

1. To load the program:
   a. Insert the Text Editor cartridge into the tape transport.
   b. Type: (LOAD) "EDITOR" (END LINE).

2. When the program has been loaded:
   a. Press: (RUN)

3. When the keys are labelled as shown below, select the option and then refer to the proper step.

```
-----------------------------------
REPLACE MOVE     RENUMB   INIT
INPUT   OUTPUT   ADD      DELETE
```

INIT:
   a. Press: KEY #8 (INIT) to specify tab and comma information. (DO FIRST!)
   b. Go to step 4.

INPUT:
   a. Press: KEY #1 (INPUT) to enter text.
   b. Go to step 5.

OUTPUT:
   a. Press: KEY #2 (OUTPUT) to output text.
   b. Go to step 6.

ADD:
   a. Press: KEY #3 (ADD) to add text.
   b. Go to step 7.

DELETE:
   a. Press: KEY #4 (DELETE) to delete text.
   b. Go to step 8.

REPLACE:
   a. Press: KEY #5 (REPLACE) to replace text.
   b. Go to step 9.

MOVE:
   a. Press: KEY #6 (MOVE) to move text.
   b. Go to step 11.

RENUMB:
   a. Press: KEY #7 (RENUMB) to renumber text lines.
   b. Go to step 13.

Note: If MEMORY FILLED or MEMORY OVERFLOW is displayed, the text bank has been filled or the pointer array has been filled. You must store text from the text bank into a tape file before any further editing can be performed. If the pointer array has been filled, reloading the text from the tape may yield room for more editing operations.

4. INIT

Before you perform any other editing operations, you should initialize the program by selecting a tab character and column and a comma replacement character.

When the keys are labelled as shown, select the desired tab and comma options:
```
DONE
TAB       TAB COL COMMA
```
TAB:

a. Press: KEY #1 (TAB) to enter a tab character.

When TAB CHAR? is displayed:

1) Enter: The tab character (END LINE)

TAB COL:

a. Press: KEY #2 (TAB COL) to enter the tab column.

When TAB COLUMN? is displayed:

1) Enter: The tab column (END LINE)

COMMA:

a. Press: KEY #3 (COMMA) to enter the comma replacement character

When COMMA REPLACEMENT CHAR? is displayed:

1) Enter: The comma replacement character (END LINE)

DONE:

a. Press: KEY #5 (DONE) to return to the main option selection routine.

b. Go to step 3.

5. INPUT

This section permits you to input text from the keyboard or a tape file to the text bank established in HP-85 computer memory. If you do not specify line number, numbering begins with 1. If you do not specify line increment, the increment is 1.

Remember, INPUT causes any text already in the text bank to be cleared (and lost). Other options permit you to add to or alter text in the bank without losing it.

When the keys are labelled as shown, select the desired input option:
```
DONE
KEYBOARD FILE LINE # LINE INC
```
LINE #:

a. Press: KEY #3 (LINE #) to enter the line number of the first line of text.

When ? is displayed:

1) Enter: Line# (END LINE)

LINE INC:

a. Press: KEY #4 (LINE INC) to enter a line increment for the text being input.

When ? is displayed:

1) Enter: Line increment (END LINE)

KEYBOARD:

a. Press: KEY #1 (KEYBOARD) to enter text from the keyboard.

When ? is displayed:

1) Enter: The text (END LINE) a line at a time. Wait for the ? to appear before entering another line.

Note: To stop keyboard entry, press (END LINE) without entering any text.

FILE:

a. Press: KEY #2 (FILE) to enter text from an existing tape file.

When ? is displayed:

1) Enter: The file name (END LINE)

Note: If NOT FOUND is displayed, go to step 5.

DONE:

a. Press: KEY #5 (DONE) to return to the main option selection routine.

b. Go to step 3.

6. OUTPUT

This section permits you to output text from the text bank to a tape file, to the internal HP-85 printer, or to the CRT display.

If you specify no beginning line number, output begins with the top of the text; if you specify no ending line number, output ends with the last line in the text bank.

If you attempt to output to a tape file, you may have to (PAUSE) and perform ERASETAPE first.

When the program is printing a portion of text, you can press the [DISP] special function key to halt printing and switch output to the CRT display.

Use the (ROLL) key to view the desired portion of text in the display.

When the keys are labelled as shown, select the desired output option:

```
-----------------------------------
DONE      BEG LN   END LN
FILE      PRINT    DISP      LIN#-ON
```

FILE:

a. Press: KEY #1 (FILE) to store the text currently in memory in a file on the tape cartridge.

When ? is displayed:

1) Enter: The file name (END LINE)

2) If CREATE MAX:Y/N? is displayed:

   a) Enter: Y(END LINE) to have the maximum file created.

   OR:

   a) Enter: N(END LINE) to have a file created with a minimum of extra space for future growth.

OR:

1) Press: (END LINE) if you do not want to store the text in a file.

PRINT:

a. Press: KEY #2 (PRINT) to print the text currently in memory.

DISP:

a. Press: KEY #3 (DISP) to display the text currently in memory.

LIN#-ON/LIN#-OFF:

a. Press: KEY #4 (LIN#-ON/ LIN#-OFF) to toggle the line printing flag for PRINT/DISP.

DONE:

a. Press: KEY #5 (DONE) to return to the main option selection routine.

b. Go to step 3.

BEG LN:

a. Press: KEY #6 (BEG LN) to specify a beginning line number for all output operations during this set of OUTPUT.

When ? is displayed:

1) Enter: The beginning line number (END LINE)

END LN:

a. Press: KEY #7 (END LN) to specify an ending line number for all output operations during this set of OUTPUT.

When ? is displayed:

1) Enter: The ending line number (END LINE)

7. ADD

This section permits you to add to text already in the text bank. You can add text from the keyboard or from a text file, and you can begin adding at the beginning of the text in the bank, at the end of that text, or after any line.

When the keys are labelled as shown, select the desired add option:

```
-----------------------------------
DONE           TOP
KEYBOARD  FILE  LINE#    BOT
```

KEYBOARD:

a. Press: KEY #1 (KEYBOARD) to add text from the keyboard.
    When ? is displayed:
    1) Enter: The text (END LINE) a line at a time. Wait for the ? to appear before entering another line.

Note: To stop keyboard entry, press (END LINE) without entering any text.

FILE:

a. Press: KEY #2 (FILE) to add text from a text file on the tape.
    When ? is displayed:
    1) Enter: The file name (END LINE)

Note: If NOT FOUND is displayed, go to step 7.

LINE#:

a. Press: KEY #3 (LINE#) to specify the line number after which the text is to be added.
    When ? is displayed:
    1) Enter: Line# (END LINE)

Note: If INVALID LINE is printed, go to step 7.

BOT:

a. Press: KEY #4 (BOT) to add text at the bottom of the current text in memory.

DONE:

a. Press: KEY #5 (DONE) to return to the main option selection routine.
b. Go to step 3.

TOP:

a. Press: KEY #6 (TOP) to add the text at the top of the current text in memory, i.e., in front of the existing text in memory.

8. DELETE

This section permits you to delete lines from the text bank. You can delete any number of lines, you can begin with the first line and delete to a specified line, or you can begin with a specified line and delete to the end of the text in the bank. If END LN or BOT is not specified, only a single line is deleted.

When the keys are labelled as shown, select the desired delete option:

| DONE | BEG LN | TOP | |
| EXECUTE | END LN | | BOT |

BEG LN:

a. Press: KEY #6 (BEG LN) to enter the first line to be deleted.
    When ? is displayed:
    1) Enter: The beginning line number (END LINE)

END LN:

a. Press: KEY #2 (END LN) to enter the last line to be deleted.
    When ? is displayed:
    1) Enter: The ending line number (END LINE)

TOP:

a. Press: KEY #7 (TOP) to delete text starting with the first line of text currently in memory.

BOT:

a. Press: KEY #4 (BOT) to delete text through the last line of text currently in memory.

EXECUTE:

a. Press: KEY #1 (EXECUTE) to perform the actual deletion of text.

DONE:

a. Press: KEY #5 (DONE) to return to the main option selection routine.
b. Go to step 3.

Note: If only the beginning or the ending line is entered, the unentered value is the same as the entered value.

9. REPLACE

This section permits you to replace lines in the text bank. To replace a single line in the text bank with one or a series of new lines, you can

merely select BEG LN, without specifying the end line. You can also specify replacement of lines beginning with the one at the beginning of the text bank or ending with the line at the end of the bank.

When the keys are labelled as shown, select the desired replacement option.

```
DONE      BEG LN    TOP
SOURCE    END LN          BOT
```

BEG LN:

a. Press: KEY #6 (BEG LN) to enter the first line to be replaced.
    When ? is displayed:
    1) Enter: The beginning line number
       (END LINE)

END LN:

a. Press: KEY #2 (END LN) to enter the last line to be replaced.
    When ? is displayed:
    1) Enter: The ending line number (END LINE)

TOP:

a. Press: KEY #7 (TOP) to replace text starting with the first line of text currently in memory.

BOT:

a. Press: KEY #4 (BOT) to replace text through the last line of text currently in memory.

SOURCE:

a. Press: KEY #1 (SOURCE) to replace the text.
b. Go to step 10.

DONE:

a. Press: KEY #5 (DONE) to return to the main option selection routine.
b. Go to step 3.

10. **SOURCE**

This section lets you select a source of text for the replacement procedure given in step 9.

When the keys are labelled as shown, select the desired source options(s):

```
KEYBOARD   FILE   DISP
```

DISP:

a. Toggle: KEY #3 (DISP) to select display mode during KEYBOARD replacement. After pressing the DISP key once, pressing KEYBOARD as the next key displays the lines you have selected for replacement.

KEYBOARD:

a. Press: KEY #1 (KEYBOARD) to enter replacement text from the keyboard.
    When ? is displayed:
    1) Enter: The text (END LINE) a line at a time. Wait for the ? to appear before entering another line.

Note: To stop keyboard entry, press (END LINE) without entering any text.

b. Go to step 9.

FILE:

a. Press: KEY #2 (FILE) to enter replacement text from a data file.
    When ? is displayed:
    1) Enter: The file name (END LINE)

b. Go to step 9.

Note: If DOES NOT EXIST is displayed, go to step 10.

11. **MOVE**

This section permits you to move lines of text from place to place within the text bank. You first specify the beginning and ending lines of the text to be moved, and then you specify its destination. Line numbers remain associated with their original lines after a MOVE.

When the keys are labelled as shown, select the desired move option:

```
DONE       BEG LN    TOP
DESTNATN   END LN          BOT
```

BEG LN:

.a.   Press: KEY #6 (BEG LN) to enter the first line to be moved.

When ? is displayed:

1) Enter: The beginning line number [END LINE]

END LN:

a.   Press: KEY #2 (END LN) to enter the last line to be moved.

When ? is displayed:

1) Enter: The ending line number [END LINE]

TOP:

a.   Press: KEY #7 (TOP) to move text starting with the first line of text currently in memory.

BOT:

a.   Press: KEY #4 (BOT) to move text through the last line of text currently in memory.

DESTNATN:

a.   Press: KEY #1 (DESTNATN) to specify the destination and move the text.

b.   Go to step 12.

DONE:

a.   Press: KEY #5 (DONE) to return to the main option selection routine.

b.   Go to step 3.

Attempting to output text without re-numbering after a move may result in a display of INVALID LINE NUMBER. For renumbering procedures, go to step 13.

12.   DESTINATION FOR MOVE

This procedure allows you to select a destination for the text you chose to MOVE in step 11. You can move the text to the top of the text bank, to the bottom of the text in the bank, or to after any line of text in the bank.

When the keys are labelled as shown, select the desired destination option.

```
EXECUTE DEST LN TOP      BOT
```

DEST LN:

a.   Press: KEY #2 (DEST LN) to enter the destination line, i.e., the line number of the line which will be directly in front of the text after it has been moved.

When ? is displayed:

1) Enter: The destination line number [END LINE]

TOP:

a.   Press: KEY #3 (TOP) to move the text to the front of the current text in memory.

BOT:

a.   Press: KEY #4 (BOT) to move the text to the end of the current text in memory.

EXECUTE:

a.   Press: KEY #1 (EXECUTE) to perform the specified move.

b.   Go to step 11.

13.   RENUMB

Line numbers permit you to address individual lines and sections of text in the text bank. After operations such as ADD, DELETE, MOVE, and REPLACE, it may be necessary to renumber in order to make text altered by those operations addressable.

This section permits you to renumber lines auto-matically. You can specify the beginning line of the renumbering scheme, and you can also specify the increment for numbering.

When the keys are labelled as shown, select the desired renumbering options:

```
DONE
EXECUTE BEG LN  LN INC
```

BEG LN:

a.   Press: KEY #2 (BEG LN) to enter the beginning line number of the text after it is renumbered.

When ? is displayed:
1) Enter: The beginning line number
   (END LINE) .

LN INC:

a. Press: KEY #3 (LN INC) to enter the
line increment between lines of text after it
is renumbered.

When ? is displayed:
1) Enter: The line increment (END LINE).

EXECUTE:

a. Press: KEY #1 (EXECUTE) to renumber
the text which is currently in memory.

DONE:

a. Press: KEY #5 (DONE) to return to the
main option selection routine.

b. Go to step 3.

Note: If the beginning line number and the
line increment are not specified in this
step, 1 will be used for any unspeci-
fied value.

EDITSR

Description:

Input

The INPUT option enables you to enter text from either the keyboard or a tape file. The starting line number and the line increment can be specified before the text is entered. Since INPUT clears all text from the text bank before the new text is entered, you should use REPLACE to alter or add to existing text in the bank.

Output

The OUTPUT option enables you to store text on a tape file, display the text, or print the text. The text line numbers are not stored. Before doing any of the output operations you can specify the beginning and ending lines to be used during this set of output operations. You can change the beginning and ending lines, but they will remain the same until they are changed or until you exit from the OUTPUT section.

Replace

The REPLACE option enables you to change text in memory by specifying the lines to be replaced and then the source of the new text, either a tape file or the keyboard. If the new text is to be entered from the keyboard, the lines which are being replaced can be displayed. If the replacement text is only a slight modification of the existing text, these modifications can be made using the editing features of the HP-85 and the existing text. The lines to be replaced must be specified before the source. The TOP and BOTtom of the existing text can be specified by pressing the appropriate key. In addition to the replacement options of the EDITOR program, the EDITSR program contains two additional options which are based on searching for lines containing a specific sequence of characters referred to as the match string. Lines containing the match string can be printed or displayed. The match string can also be replaced by a replacement string in every line where the match string occurs. If text was created with ⌷NAME⌷ in every location a particular name was to go, the match string would be ⌷NAME⌷ and the replacement string would be the particular name. The program on command would replace all lines containing ⌷NAME⌷ with new lines containing the particular name, e.g., Joe Smith. This feature enables you to customize a form letter or update a text file.

Renumb

The RENUMBer option enables you to renumber the text currently in memory. When the text has been edited, line numbers are not always associated with the edited lines. Performing a renumbering operation will associate a line number with each line of text in memory. The beginning line number and the line increment can be entered if you do not want the text numbered from line 1 by increments of one. If text is to be specified for any edit operation, each line that is to be referred to must have a line number.

18

Init

The INITialize option enables you to specify a tab or indent character, the column number for indenting, and a comma replacement character. If you do not enter these special characters, the actual entry of text may be difficult due to the requirements of INPUT in BASIC.

User Instructions

1. To load the program:

   a. Insert the Text Editor cartridge into the tape transport.

   b. Type (LOAD) "EDITSR" (END LINE).

2. When the program has been loaded:

   a. Press: (RUN)

3. When the keys are labelled as shown below, select the option and then refer to the proper step.

   ```
   ------------------------------------
             RENUMB
   INPUT    OUTPUT   REPLACE INIT
   ```

   INIT:

   a. Press: KEY #4 (INIT) to specify tab and comma information. (DO FIRST!)

   b. Go to step 4.

   INPUT:

   a. Press: KEY #1 (INPUT) to enter text.

   b. Go to step 5.

   OUTPUT:

   a. Press: KEY #2 (OUTPUT) to output text.

   b. Go to step 6.

   REPLACE:

   a. Press: KEY #3 (REPLACE) to replace text, search/search & replace text.

   b. Go to step 7.

   RENUMB:

   a. Press: KEY #6 (RENUMB) to renumber text lines.

   b. Go to step 11.

   Note: If MEMORY FILLED or MEMORY OVERFLOW is displayed, the text bank has been filled or the pointer array has been filled. You must store text from the text bank into a tape file to save it before any further editing can be per-formed. If the pointer array has been filled, reloading the text from the tape may yield room for more editing operations.

4. INIT

   Before you perform any other editing operations, you should initialize the program by selecting a tab character and column and a comma replacement character.

   When the keys are labelled as shown, select the desired tab and comma options:

   ```
   ------------------------------------
   DONE
   TAB      TAB COL COMMA
   ```

   TAB:

   a. Press: KEY #1 (TAB) to enter a tab char-acter.

      When TAB CHAR? is displayed:

      1) Enter: The tab character (END LINE).

   TAB COL:

   a. Press: KEY #2 (TAB COL) to enter the tab column.

      When TAB COLUMN? is displayed:

      1) Enter: The tab column (END LINE)

   COMMA:

   a. Press: KEY #3 (COMMA) to enter the comma replacement character.

      When COMMA REPLACEMENT CHAR? is displayed:

      1) Enter: The comma replacement char-acter (END LINE)

   DONE:

   a. Press: KEY #5 (DONE) to return to the main option selection routine.

   b. Go to step 3.

5. INPUT

This section permits you to input text from the keyboard or a tape file to the text bank established in HP-85 computer memory. If you do not specify line number, numbering begins with 1. If you do not specify line increment, the increment is 1.

Remember, INPUT causes any text already in the text bank to be cleared (and lost). Other options permit you to add to or alter text in the bank without losing it.

When the keys are labelled as shown, select the desired input option:

```
--------------------------------
DONE
KEYBOARD   FILE   LINE #   LINE INC
```

LINE #:

a. Press: KEY #3 (LINE #) to enter the line number to specify the line before the text to be input.
    When ? is displayed:
    1) Enter: Line# (END LINE).

LINE INC:

a. Press: KEY #4 (LINE INC) to enter a line increment for the text being input.
    When ? is displayed:
    1) Enter: Line increment (END LINE).

KEYBOARD:

a. Press: KEY #1 (KEYBOARD) to enter text from the keyboard.

    When ? is displayed:
    1) Enter: The text (END LINE) a line at a time. Wait for the ? to appear before entering another line.

Note: To stop keyboard entry, press (END LINE) without entering any text.

FILE:

a. Press: KEY #2 (FILE) to enter text from an existing tape file.

When ? is displayed:
1) Enter: The file name (END LINE).

Note: If NOT FOUND is displayed, go to step 5.

DONE:

a. Press: KEY #5 (DONE) to return to the main option selection routine.

b. Go to step 3.

6. OUTPUT

This section permits you to output text from the text bank to a tape file, to the internal HP-85 printer, or to the CRT display.

If you specify no beginning line number, output begins with the top of the text; if you specify no ending line number, output ends with the last line in the text bank.

If you attempt to output to a tape file, you may have to (PAUSE) and perform ERASETAPE first.

When the program is printing a portion of text, you can press the [DISP] special function key to halt printing and switch output to the CRT display.

Use the (ROLL) key to view the desired portion of text in the display.

When the keys are labelled as shown, select the desired output option.

```
--------------------------------
DONE       BEG LN   END LN
FILE       PRINT    DISP     LIN#-ON
```

FILE:

a. Press: KEY #1 (FILE) to store the text currently in memory in a file on the tape cartridge.
    When ? is displayed:
    1) Enter: The file name (END LINE).
    2) If CREATE MAX:Y/N? is displayed:
       a) Enter: Y (END LINE) to have the maximum file created.

OR:

   a) Enter: N⟨END LINE⟩ to have a file created with a minimum of extra space for future growth.

OR:

   1) Press: ⟨END LINE⟩ if you do not want to store the text in a file.

PRINT:

a. Press: KEY #2 (PRINT) to print the text currently in memory.

DISP:

a. Press: KEY #3 (DISP) to display the text currently in memory.

LIN#−ON/LIN#−OFF:

a. Press: KEY #4 (LIN#−ON/ LIN#−OFF) to toggle the line printing flag for PRINT/DISP.

DONE:

a. Press: KEY #5 (DONE) to return to the main option selection routine.

b. Go to step 3.

BEG LN:

a. Press: KEY #6 (BEG LN) to specify a beginning line number for all output operations during this set of OUTPUT.

   When ? is displayed:

   1) Enter: The beginning line number ⟨END LINE⟩.

END LN:

a. Press: KEY #7 (END LN) to specify an ending line number for all output operations during this set of OUTPUT.

   When ? is displayed:

   1) Enter: The ending line number ⟨END LINE⟩.

7. **REPLACE**

This section lets you replace lines of text in the text bank with lines from the keyboard or a tape file. In addition, this section permits you to list all occurances of a designated text string in the text bank, and it also lets you replace every occurance of that string with a separate replacement string.

When the keys are labelled as shown, select the desired replacement option:

DONE	BEG LN	TOP	SRCH&LST
SOURCE	END LN	BOT	SRCH&RPL

BEG LN:

a. Press: KEY #6 (BEG LN) to enter the first line to be replaced.

   When ? is displayed:

   1) Enter: The beginning line number ⟨END LINE⟩

END LN:

a. Press: KEY #2 (END LN) to enter the last line to be replaced.

   When ? is displayed:

   1) Enter: The ending line number ⟨END LINE⟩.

TOP:

a. Press: KEY #7 (TOP) to replace text starting with the first line of text currently in memory.

BOT:

a. Press: KEY #3 (BOT) to replace text through the last line of text currently in memory.

SOURCE:

a. Press: KEY #1 (SOURCE) to replace the text.

b. Go to step 8.

SRCH&LST:

a. Press: KEY #8 (SRCH&LST) to specify a match string and then list all lines which contain the match string.

b. Go to step 9.

SRCH&RPL:

a. Press: KEY #4 (SRCH&RPL) to specify a match string and a replacement string which will replace the match string in all lines containing the match string.

b. Go to step 10.

DONE:

a. Press: KEY #5 (DONE) to return to the main option selection routine.

b. Go to step 3.

8. REPLACEMENT SOURCE

This section gives you sources for replacement text used in step 7. You may replace text in the text bank with text from the keyboard or from a tape file. You may choose to display or to not display the text to be replaced.

When the keys are labelled as shown, select the desired source option(s):

KEYBOARD   FILE   DISP

DISP:

a. Toggle: KEY #3 (DISP) to select display mode during KEYBOARD replacement. After pressing the DISP key once, pressing KEYBOARD as the next key displays the lines you have selected for replacement.

KEYBOARD:

a. Press: KEY #1 (KEYBOARD) to select KEYBOARD replacement.

When ? is displayed:

1) Enter: The text (END LINE) a line at a time. Wait for the ? to appear before entering another line.

Note: To stop keyboard entry, press (END LINE) without entering any text.

b. Go to step 7.

FILE:

a. Press: KEY #2 (FILE) to select FILE replacement.

When ? is displayed:

1) Enter: The file name (END LINE)

b. Go to step 7.

Note: If NOT FOUND is displayed, go to step 8.

9. SEARCH AND LIST

This section permits you to search for a match string in the text bank and to print or display every occurance of that string.

When the keys are labelled as shown, select the desired search option:

DONE
MATCH$ DISP   PRINT

MATCH$:

a. Press: KEY #1 (MATCH$) to enter the match string.

When ? is displayed:

1) Enter: The match string (END LINE).

Note: The match string must be less than or equal to 80 characters.

DISP:

a. Press: KEY #2(DISP) to display all lines which are found containing the match string.

PRINT:

a. Press: KEY #3 (PRINT) to print all lines which are found containing the match string.

DONE:

a. Press: KEY #5 (DONE) to return to the main option selection routine.

b. Go to step 3.

10. SEARCH AND REPLACE

This section lets you search the text bank for every occurance of a selected group of characters called a match string. Each place the match string occurs, it is replaced by a replacement string of characters.

When the keys are labelled as shown, select the desired search and replace option.

DONE   DISP
EXECUTE MATCH$ REPLACE$ PRINT

MATCH$:

a. Press: KEY #2 (MATCH$) to enter the match string.

When ? is displayed:

1) Enter: The match string (END LINE).

Note: The match string must be less than or equal to 80 characters.

REPLACE$:

a.   Press: KEY #3 (REPLACE$) to enter the replacement string.
    When ? is displayed:
    1) Enter: The replacement string (END LINE)

Note: The replacement string must be less than or equal to 80 characters.

DISP:

a.   Press: KEY #8 (DISP) to have the lines containing the match string displayed.

PRINT:

a.   Press: KEY #4 (PRINT) to have the lines containing the match string printed.

EXECUTE:

a.   Press: KEY #1 (EXECUTE) to perform the specified replacement operation.

DONE:

a.   Press: KEY #5 (DONE) to return to the main option selection routine.

b.   Go to step 3.

11.   **RENUMB**

Line numbers permit you to address individual lines and sections of text in the text bank. After operations such as REPLACE, or SEARCH & REPLACE, it may be necessary to renumber in order to make text altered by those operations addressable.

This section permits you to renumber lines automatically. You can specify the beginning line of the renumbering scheme, and you can also specify the increment for numbering.

When the keys are labelled as shown, select the desired renumbering options:

```
---------------------------------
DONE
EXECUTE BEG LN   LN INC
```

BEG LN:

a.   Press: KEY #2 (BEG LN) to enter the beginning line number of the text after it is renumbered.
    When ? is displayed:
    1) Enter: The beginning line number (END LINE).

LN INC:

a.   Press: KEY #3 (LN INC) to enter the line increment between lines of text after it is renumbered.
    When ? is displayed:
    1) Enter: The line increment (END LINE).

EXECUTE:

a.   Press: KEY #1 (EXECUTE) to renumber the text which is currently in memory.

DONE:

a.   Press: KEY #5 (DONE) to return to the main option selection routine.

b.   Go to step 3.

Note: If the beginning line number and the line increment are not specified in this step, 1 will be used for any unspecified value.

Example

The power and usefulness of these programs cannot be shown completely by a simple example. A simple example will be used though, since a more complex example would be too difficult to follow and not serve the major intent of this example, i.e., demonstrate some of the features of these programs and be easy to follow.

A simple letter is to be written which will demonstrate: INIT, INPUT, OUTPUT, ADD, and REPLACE options in the EDITOR program; INIT, INPUT, OUTPUT, and REPLACE using SRCH&RPL in the EDITSR program.

Type: (LOAD) "EDITOR" (END LINE).
Press: (RUN).

```
----------------------------------
REPLACE MOVE    RENUMB   INIT
INPUT    OUTPUT ADD      DELETE
```

Press: KEY #8 (INIT).

```
----------------------------------
DONE
TAB       TAB COL COMMA
```

Press: KEY #1 (TAB).

```
  TAB CHAR?
   ^
```

Press: KEY #2 (TAB COL).

```
  TAB COLUMN?
  5
```

Press: KEY #3 (COMMA).

```
  COMMA REPLACEMENT CHAR?
  !
```

Press: KEY #5 (DONE).

```
----------------------------------
REPLACE MOVE    RENUMB   INIT
INPUT    OUTPUT ADD      DELETE
```

Press: KEY #1 (INPUT)

```
----------------------------------
DONE
KEYBOARD  FILE  LINE #  LINE INC
```

Press: KEY #1 (KEYBOARD).

```
?
^                [DATE1]
?
"    "
?  ─── ──── ── ───── ── ─ ──   ── ──── ─ ──              ─ ─── ───
"    "
?
Your letter of [DATE2]
?
is being handled by our tech-
?
nical staff.  Due to the amount
?
of research it requires! there
?
will be a short delay in
?
responding.
?
"    "
?
^               Sincerely!
?
"    "
?
"    "
?
^            Customer support
?  (END
    LINE)
```

Press: KEY #5 (DONE).

```
─────────────────────────────────
REPLACE MOVE    RENUMB  INIT
INPUT   OUTPUT  ADD     DELETE
```

A line was omitted during the INPUT operation. Before it can be added using the ADD option, the line number of the line, which will be just above the line to be added, must be determined.

Press: KEY #2 (OUTPUT).

```
─────────────────────────────────
DONE    BEG LN  END LN
FILE    PRINT   DISP    LIN#-ON
```

Press: KEY #2 (PRINT).

```
    1                  [DATE1]
    2
    3
    4 Your letter of [DATE2]
    5 is being handled by our tec
h-
    6 nical staff.  Due to the am
ount
    7 of research it requires, th
ere
    8 will be a short delay in
    9 responding.
   10
   11                  Sincerely,
   12
   13
   14                  Customer sup
port
```

After reading this output, we see that an opening line thanking the customer for writing is missing. Notice that the omitted line is to be placed after line 3. Press: KEY #5 (DONE)

```
----------------------------------
REPLACE MOVE       RENUMB  INIT
INPUT      OUTPUT  ADD     DELETE
```

To add the missing line:

Press: KEY #3 (ADD)

```
----------------------------------
DONE        TOP
KEYBOARD    FILE   LINE#    BOT
```

Press: KEY #3 (LINE#)

Enter the line number of the line before the line is to be added.

```
?
3
```

Press: KEY #1 (KEYBOARD)
Enter the omitted line.

```
?
Thank you for writing to us.
? [END LINE]
```

Press: KEY #5 (DONE)

```
----------------------------------
REPLACE MOVE      RENUMB   INIT
INPUT  · OUTPUT   ADD      DELETE
```

To show the change in the text which is in memory:

Press: KEY #2 (OUTPUT)

```
----------------------------------
DONE       BEG LN   END LN
FILE       PRINT    DISP     LIN#-ON
```

Press: KEY #2 (PRINT)

```
    1                    [DATE1]
    2
    3
        : Thank you for writing to
 us.
    4 Your letter of [DATE2]
    .5 is being handled by our tec
 h-
    6 nical staff.  Due to the am
 ount
    7 of research it requires, th
 ere
    8 will be a short delay in
    9 responding.
    10
    11                      Sincerely,
    12
    13
    14                  Customer sup
 port
```

Press: KEY #5 (DONE)

```
----------------------------------
REPLACE MOVE      RENUMB   INIT
INPUT    OUTPUT   ADD      DELETE
```

Now, renumber the text in memory and then output it with line numbers and then without line numbers.

Press: KEY #7 (RENUMB)

```
----------------------------------
DONE
EXECUTE BEG LN   LN INC
```

To renumber starting with line 1 by increments of 1:

Press: KEY #1 (EXECUTE)

The default values will be used.

Press: KEY #5 (DONE)

```
----------------------------------
REPLACE MOVE      RENUMB   INIT
INPUT    OUTPUT   ADD      DELETE
```

To output the current text:

Press: KEY #2 (OUTPUT)

```
-----------------------------------
DONE      BEG LN   END LN
FILE      PRINT    DISP     LIN#-ON
```

To print the text with line numbers:

Press: KEY #2 (PRINT)

```
    1                  [DATE1]
    2
    3
    4 Thank you for writing to us

    5 Your letter of [DATE2]
    6 is being handled by our tec
  h-
    7 nical staff.  Due to the am
  ount
    8 of research it requires, th
  ere
    9 will be a short delay in
   10 responding.
   11
   12                   Sincerely,
   13
   14
   15                   Customer supp
  ort
```

To print the text without line numbers:

Press: KEY #4 (LIN#-ON)

```
-----------------------------------
DONE      BEG LN   END LN
FILE      PRINT    DISP     LIN#-OFF
```

Press: KEY #2 (PRINT)

```
                [DATE1]

  Thank you for writing to us.
  Your letter of [DATE2]
  is being handled by our tech-
  nical staff.  Due to the amount
  of research it requires, there
  will be a short delay in
  responding.
                    Sincerely,


                Customer support
```

To store the text as it now is:

Press: KEY #1 (FILE)

Call the file LETTR1

```
?
LETTR1
CREATE MAX:Y/N?
N
DONE
```

After the text is stored:

Press: KEY #5 (DONE)

```
------------------------------------
REPLACE MOVE     RENUMB INIT
INPUT    OUTPUT  ADD     DELETE
```

By replacing the word *technical* with *legal* a new letter can be

generated easily.

Press: KEY #5 (REPLACE)

```
----------------------------------
DONE        BEG LN    TOP
SOURCE      END LN            BOT
```

Enter the line numbers to be replaced:

Press: KEY #6 (BEG LN)

```
?
6
```

Press: KEY #2 (END LN)

```
?
7
```

Now specify the source:

Press: KEY #1 (SOURCE)

```
------------------------------------
KEYBOARD    FILE   DISP
```

To ease the replacement, specify that the current text is to be

displayed:

Press: KEY #3 (DISP)

Specify the keyboard as the source and enter the new lines:

Press: KEY #1 (KEYBOARD)

```
is being handled by our tech-

nical staff.   Due to the amount
?
```

Move the cursor up to the displayed lines and make the change:

```
 is being handled by our legal
?
staff.   Due to the amount
?  (END
   LINE)
```

```
------------------------------
DONE      BEG LN    TOP
SOURCE    END LN          BOT
```

Press: KEY #5 (DONE)

```
------------------------------
REPLACE MOVE      RENUMB  INIT
INPUT    OUTPUT   ADD     DELETE
```

Verify that the changes were made correctly:

Press: KEY #2 (OUTPUT)

```
------------------------------
DONE      BEG LN   END LN
FILE      PRINT    DISP    LIN#-ON
```

Print the new letter without line numbers:

Press: KEY #4 (LIN#-ON)

```
------------------------------
DONE      BEG LN   END LN
FILE      PRINT    DISP    LIN#-OFF
```

Press: KEY #2 (PRINT)

```
              [DATE1]

 Thank you for writing to us.
 Your letter of [DATE2]
 is being handled by our legal
 staff.   Due to the amount
 of research it requires, there
 will be a short delay in
 responding.
                 Sincerely,


              Customer support
```

Now store the new letter:

Press: KEY #1 (FILE)

Call the file LETTR2

```
?
LETTR2
CREATE MAX:Y/N?
N
DONE
```

After the text is stored:

Press: KEY #5 (DONE)

Using the EDITSR program we can replace the dummy dates with the actual dates in the text file LETTR1:

Type: [LOAD] "EDITSR" [END LINE].

Press: [RUN]

```
------------------------------------
          RENUMB
INPUT    OUTPUT   REPLACE INIT
```

To initialize the comma replacement character:

Press: KEY #4 (INIT)

```
------------------------------------
DONE
TAB        TAB COL COMMA
```

Press: KEY #3 (COMMA)

```
     COMMA REPLACEMENT CHAR?
     !
```

Press: KEY #5 (DONE)

```
------------------------------------
          RENUMB
INPUT    OUTPUT   REPLACE INIT
```

Load the text from the tape:

Press: KEY #1 (INPUT)

```
------------------------------------
DONE
KEYBOARD   FILE   LINE #   LINE INC
```

Press: KEY #2 (FILE)

```
     ?
     LETTR1
     DONE
```

Press: KEY #5 (DONE)

```
------------------------------------
          RENUMB
INPUT    OUTPUT   REPLACE INIT
```

Replace [DATE1] with August 21, 1979.

Press: KEY #3 (REPLACE)

```
------------------------------------
DONE     BEG LN   TOP      SRCH&LST
SOURCE   END LN   BOT      SRCH&RPL
```

Press: KEY #4 (SRCH&RPL)

```
------------------------------------
DONE                        DISP
EXECUTE MATCH$   REPLACE$   PRINT
```

Press: KEY #2 (MATCH$)

```
  ?
  [DATE1]
```

Press: KEY #3 (REPLACE$)

```
  ?
  August 21¦1979
```

Press: KEY #4 (PRINT)

Press: KEY #1 (EXECUTE)

```
     1              [DATE1]
          :         August 21,19
  79
```

```
──────────────────────────────────
DONE      BEG LN   TOP       SRCH&LST
SOURCE    END LN   BOT       SRCH&RPL
```

Press: KEY #4 (SRCH&RPL)

```
──────────────────────────────────
DONE                        DISP
EXECUTE  MATCH$   REPLACE$   PRINT
```

Press: KEY #2 (MATCH$)

```
  ?
  [DATE2]
```

Press: KEY #3 (REPLACE$)

```
  ?
  August 17¦1979
```

Press: KEY #4 (PRINT)

Press: KEY #1 (EXECUTE)

```
     5 Your letter of [DATE2]
        : Your letter of August 17,
  1979
```

```
------------------------------------
DONE ·     BEG LN    TOP        SRCH&LST
SOURCE     END LN    BOT        SRCH&RPL
```

Press: KEY #5 (DONE)

```
------------------------------------
           RENUMB
INPUT      OUTPUT    REPLACE INIT
```

Now to print the final letter:

Press: KEY #2 (OUTPUT)

```
------------------------------------
DONE       BEG LN    END LN
FILE       PRINT·    DISP       LIN#-ON
```

Press: (LIN#-ON)

```
------------------------------------
DONE       BEG LN    END LN
FILE       PRINT     DISP       LIN#-OFF
```

Press: KEY #2 (PRINT)

```
                    August 21,1979


    Thank you for writing to us.
    Your letter of August 17,1979
    is being handled by out tech-
    nical staff. Due to the amount
    of research it requires, there
    will be a short delay in
    responding.
                    Sincerely,


                    Customer support
```

Appendix A
Program Modification

Both the EDITOR and EDITSR programs are designed for a 16K computer. By changing just three lines in each of these programs, you can modify these programs for more lines or more text. The total memory used by the text string T$ and the pointer array A( ) must be less than or equal to 7400 bytes for the 16K machine and 23528 bytes for the 32K machine.

The lines that need to be changed are lines 20, 30, and 40. The desired number of lines times four is the dimension of the array, e.g., 20 INTEGER A(4× # of lines) ... should be re-entered if the number of lines is changed. The dimension of T$ in line 30 should be set to the maximum number of characters which can be entered into memory. In line 40, the value of L0 is set to the dimension of T$ and L2 is set to the number of lines. After these lines have been entered, the programs should be stored before using them.

The text editing program documentation is stored as two text data files on the tape. The comments and major variable definitions for EDITOR are in the text file EDCOM. EDCOM2 contains the definitions and variable definitions for the program EDITSR. To list either set of documentation, load the EDITOR program and then after pressing (RUN), input the text file, EDCOM or EDCOM2, and then output the text without line numbers on the printer.

Appendix B
Text Structure

This section explains the use of the five pointers that are employed by the text editing programs to load and access the text lines in the text bank. By referring to the diagrams in this appendix, you can see a pictorial representation of the lines in the text bank before and after each editing operation.

NOTATION

:ccc	designates a line which has been edited and does not have a line number for reference until the text is renumbered.
3 ccc	desginates a numbered line of text.
(Φ)	designates the null line, i.e., nothing has been entered into the text bank.

POINTERS

TOP	designates the pointer which points to the first line of text.
BOTTOM	designates the pointer which points to the next line after the last line of text in the text bank.
BEG LN	designates the pointer which points to the beginning line of a text block.
END LN	designates the pointer which points to the ending line of a text block.
DEST LN	designates the pointer which points to the line of text which will be in front of a moved block of text.

INPUT

Before	After
TOP → Φ BOTTOM → Φ	TOP → 1 ccc 2 ccc 3 ccc 4 ccc 5 ccc 6 ccc 7 ccc 8 ccc BOTTOM →

Before an INPUT operation, both the TOP and BOTTOM pointers are pointed to the null line; after an INPUT, the TOP pointer points to the top of the text, and the BOTTOM pointer points to the location after the last line of text in the bank.

35

ADD (TOP)

Before	After
TOP → 1 ccc	TOP → ⎧ : ccc
2 ccc	Added ⎨ : ccc
3 ccc	Text ⎩ : ccc
4 ccc	1 ccc
5 ccc	2 ccc
6 ccc	3 ccc
7 ccc	4 ccc
8 ccc	5 ccc
BOTTOM →	6 ccc
	7 ccc
	8 ccc
	BOTTOM →

ADD (after a LN#)

Before	After
TOP → 1 ccc	TOP → 1 ccc
LN# → 2 ccc	2 ccc
3 ccc	Added ⎧ : ccc
4 ccc	Text ⎨ : ccc
5 ccc	⎩ : ccc
6 ccc	3 ccc
7 ccc	4 ccc
8 ccc	5 ccc
BOTTOM →	6 ccc
	7 ccc
	8 ccc
	BOTTOM →

ADD (BOTTOM)

Before	After
TOP → 1 ccc	TOP → 1 ccc
2 ccc	2 ccc
3 ccc	3 ccc
4 ccc	4 ccc
5 ccc	5 ccc
6 ccc	6 ccc
7 ccc	7 ccc
8 ccc	8 ccc
BOTTOM →	Added ⎧ 9 ccc
	Text ⎨ 10 ccc
	⎩ 11 ccc
	BOTTOM → ·

DELETE (BEG LN to END LN)

Before	After
TOP → 1 ccc	TOP → 1 ccc
2 ccc	2 ccc
BEGIN → 3 ccc	6 ccc
4 ccc	7 ccc
END LN → 5 ccc	8 ccc
6 ccc	BOTTOM →
7 ccc	
8 ccc	
BOTTOM →	

DELETE (TOP to END LN)

Before	After
TOP → 1 ccc	TOP → 4 ccc
2 ccc	5 ccc
END LN → 3 ccc	6 ccc
4 ccc	7 ccc
5 ccc	8 ccc
6 ccc	BOTTOM →
7 ccc	
8 ccc	
BOTTOM →	

DELETE (BEG LN to BOTTOM)

Before	After
TOP → 1 ccc	TOP → 1 ccc
2 ccc	2 ccc
3 ccc	3 ccc
4 ccc	4 ccc
BEG LN → 5 ccc	BOTTOM→
6 ccc	
7 ccc	
8 ccc	
BOTTOM →	

MOVE

Before	After
TOP → 1 ccc	TOP → 1 ccc
2 ccc	2 ccc
BEG LN → 3 ccc	5 ccc
END LN → 4 ccc	6 ccc
5 ccc	7 ccc
6 ccc	Moved { 3 ccc
DEST. LN → 7 ccc	Text { 4 ccc
8 ccc	8 ccc
BOTTOM →	BOTTOM→

MOVE is the equivalent of a DELETE followed by an ADD with the same text and different pointers.

REPLACE

Before	After
TOP → 1 ccc	TOP → 1 ccc
2 ccc	2 ccc
3 ccc	3 ccc
BEG LN → 4 ccc	: ccc
5 ccc	: ccc
END LN → 6 ccc	Replacement { : ccc
7 ccc	Text { : ccc
8 ccc	: ccc
BOTTOM →	7 ccc
	8 ccc
	BOTTOM→

REPLACE is the equivalent of a DELETE followed by an ADD with the same pointers and different text.

Appendix C
Special Outputs

You can use the BASIC language CHR$ command to create special outputs, such as underlined characters, entire lines enclosed in quotation marks, and leading spaces (other than those specified by your tab character.) For example, to output an underlined Ĥ, you would:

1. Return control from the text editing program to the HP-85 by pressing (PAUSE).

2. Key in (NUM("Ĥ")) followed by (END LINE). The HP-85 then shows you the ASCII decimal code number for the Ĥ character. (These decimal codes are also available in the HP-85 Pocket Guide.) For Ĥ, this number is 65.

3. Press (CONT) to return control to the text editing program.

4. At the point in the line where you want the underlined character, key in CHR$ followed by the total of the character's decimal code number plus 128, enclosed in parentheses. Thus, to create an underlined Ĥ, you'd input CHR$(193) to the text bank.

5. When output from the text bank, the character appears underlined, as, for example, Ĥ.

You can generate other special outputs, such as leading quotation marks or spaces which are normally suppressed by the HP-85, using the CHR$ command followed by the space or character's decimal code in parentheses.

Appendix D
Using the Disc Version

The following information will increase your understanding of the disc version of this pac, and hopefully facilitate operation of the programs.

Printer Prompt

You have the ability to choose the output device by selecting the proper output code. After loading the program and pressing (RUN) , the printer prompt will ask you to specify the output device with the following codes:

Enter: 1 (END LINE) will direct system output to the CRT

Enter: 2 (END LINE) will direct system output to the internal printer

other numbers of specific printers will direct system output to an external printer

A system output test is included with the above entry which will advance the desired printer one line if the system is operating properly.

Output via the CRT

When the CRT is chosen as the output device, the program will pause when displaying more than one full screen to allow full retention of output data. Simply press (CONT) to continue viewing until output is complete.

Operating Limits

The maximum operating limits of some of the programs have been slightly modified to accommodate the disc version of this pac. This need only be of concern as you approach these maximum operating limits.

References to Tape

All references to tape in this manual will be understood as references to the current mass storage medium, and therefore will apply to the disc version of this pac.

Appendix E

Using an External Printer

The two programs in the HP-85 Text Editing Pac are designed to operate with the internal printer of the HP-85. By following the instructions given below, these programs may be converted to run with any printer.

After making the revisions for each program, be certain to execute the TRANSLATE command.

To preserve the original programs, prepare a new cartridge containing these revised programs or store these revised programs under a new name on the original cartridge.

Program: EDITOR

```
20 INTEGER A[600],L0,L1,L2,P0,P1
,P2,P3,P4,P5,P6,P7,N0,N1,N2,N3,N
,D,T0,T1,T2,T3,T9,I,M,Q7
30 DIM T$[4000],B$[96],A$[6],T9$
[1],C$[1],D$[96]
40 M,N2,N,T9=0 @ L0=4000 @ L1=96
 @ L2=150 @ P0=-3 @ N0,N1=1 @ T9
$,C$=""
41 CLEAR @ GOTO 43
42 BEEP @ CLEAR @ DISP "INCORREC
T PRINTER SPECIFICATION" @ DISP
@ DISP
43 DISP "Please specify the prin
ter...","(1,2, or OTHER).". @ DIS
P
44 DISP TAB(5);"1 = the*CRT",TAB
(5);"2 = the internal printer"
45 DISP "OTHER = number of an ex
ternal          printer" @ DISP
46 ON ERROR GOTO 42
47 DISP @ INPUT Q7
48 PRINTER IS Q7 @ PRINT
49 OFF ERROR

90 CRT IS 1 @ PRINTER IS Q7 @ IF
 Q7>2 THEN PRINTER IS Q7,80
95 GOTO 160
```

```
710 PRINTER IS T2 @ IF T2=2 AND
Q7>2 THEN PRINTER IS Q7,80
715 GOTO 850

960 F=0 @ PRINTER IS Q7 @ IF Q7>
2 THEN PRINTER IS Q7,80
965 RETURN

1920 T0,T2,F=0 @ PRINTER IS Q7 @
 IF Q7>2 THEN PRINTER IS Q7,80
1925 GOSUB 2590

TRANSLATE END LINE
```

Program: EDITSR

```
20 INTEGER A(600),K3,K4,X1,X2,D,
Q7
30 DIM T$[4000],B$[96],A$[6],T9$
[1],C$[1],D$[96],R$[80],M$[80]
40 M,N2,N,T9=0 @ L0=4000 @ L1=96
 @ L2=150 @ P0=-3 @ T9$,C$="" @
S,N0,N1=1
41 CLEAR @ GOTO 43
42 BEEP @ CLEAR @ DISP "INCORREC
T PRINTER SPECIFICATION" @ DISP
@ DISP
43 DISP "Please specify the prin
ter...","(1,2, or OTHER)." @ DIS
P
44 DISP TAB(5);"1 = the CRT",TAB
(5);"2 = the internal printer"
45 DISP "OTHER = number of an ex
ternal          printer" @ DISP

46 ON ERROR GOTO 42
47 DISP @ INPUT Q7
48 PRINTER IS Q7 @ PRINT
49 OFF ERROR

80 ON KEY# 6,"RENUMB" GOTO 1210
@ ON KEY# 4,"INIT" GOTO 1460 @ C
RT IS 1 @ PRINTER IS Q7
85 IF Q7>2 THEN PRINTER IS Q7,80

550 PRINTER IS T2 @ IF T2=2 AND
Q7>2 THEN PRINTER IS Q7,80
555 GOTO 670

740 F=0 @ PRINTER IS Q7 @ IF Q7>
```

```
2 THEN PRINTER IS Q7,80
745 RETURN


1000 T0,T2,F=0 @ PRINTER IS Q7 @
 IF Q7>2 THEN PRINTER IS Q7,80
1005 GOSUB 1530


1645 IF Z=2 AND Q7>2 THEN PRINTE
R IS Q7,80
```

TRANSLATE `END LINE`

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HEWLETT-PACKARD LISTENS

To provide better computer support for you, the Application Engineering group needs your help. Your timely inputs enable us to provide higher quality software and **inform you of future modifications or improvements to this pac.** Your reply will be extremely helpful in this effort.

1.   Pac Name: _____

2.   How important was the availability of this pac in making your decision to buy a Hewlett-Packard computer?
     ☐ Would not buy without it.
     ☐ Important
     ☐ Not important

3.   How did you find out about this pac?
     ☐ Advertisement   ☐ HP Sales Representative
     ☐ Dealer   ☐ Other

4.   What is the major application area for which you purchased the pac?

     _____

5.   In the space below, please list the three best or most useful features of this pac.

     _____
     _____
     _____
     _____

6.   What additions or changes would you make to this pac?

     _____
     _____
     _____
     _____

7.   What additional application pacs would you like to see developed?

     _____
     _____

8.   What plug-in modules do you own?
     ☐ 16K RAM
     Enhancement ROMs: _____
                          _____

THANK YOU FOR YOUR TIME AND COOPERATION.

_____
Name   Position

_____
Company

_____
Address

_____
City   State

_____
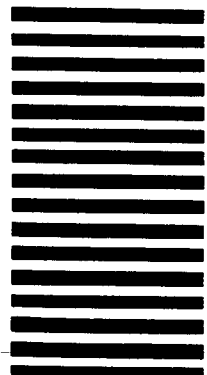Zip Code   Phone

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HP 83/85 Text Editing Pac
Addendum Card

The tape cartridge included with this Pac contains two sets of programs. The tape directory should contain the following:

```
NAME     TYPE  BYTES  RECS  FILE
EDITOR   PROG   256    56    1
EDITSR   PROG   256    56    2
EDCOM    DATA    96   101    3
EDCOM2   DATA    96   101    4
PDITOR   PROG   256    51    5
PDITSR   PROG   256    51    6
PDCOM    DATA    96    29    7
PDCOM2   DATA    96    32    8
```

The program names that begin with the letter P have been modified to operate with any printer, those without a P use the internal printer of the HP-85 exclusively.

The only other difference between the two sets of programs is that with the "P" versions, up to 4000 characters can be entered (or retrieved) as a single file in the 16K version.

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