2200 Text Editing Utilities User Manual

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2200 Text Editing Utilities User Manual

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WANG LABORATORIES, INC.

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HOW TO USE THIS MANUAL

This manual provides instructions for operators who wish to use the programs of the Text Editing Utilities. Familiarity with the 2200 System is helpful but not a prerequisite for running the programs. Before actually applying the Utilities, it is advised that operators run the programs and experiment with the various aspects involved in each.

Brief descriptions of the Text Editing Utilities programs are each followed by detailed operating instructions.

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CHAPTER 1
GENERAL INFORMATION

CONFIGURATION REQUIREMENTS

The revised Text Editing Utilities run on Systems with a minimum of 16K memory and a dual floppy disk. They can run on a Wang 2200C with Options 2 and 5, the WCS/20, or the 2200T. Up to four systems may be multiplexed to the diskette or disk unit. It is recommended that an upper/lowercase CRT be installed; though not mandatory, it aids in the accessing of files and the viewing of documents. A Wang printer is required to output hard copies of documents stored on disk.

The standard Wang keyboard is the Model 2223. Page 3 shows the key layouts and paper tabs for the right-hand side of the keyboard. Carefully remove the plastic caps from the keyboard, take out the existing labels, cut out the appropriate labels from page 3, and insert them where indicated. These labeled keys are those referred to in the instructions for the Text Editor program.

Cut out these tabs and use them to replace the ones presently on the 2223 Keyboard.

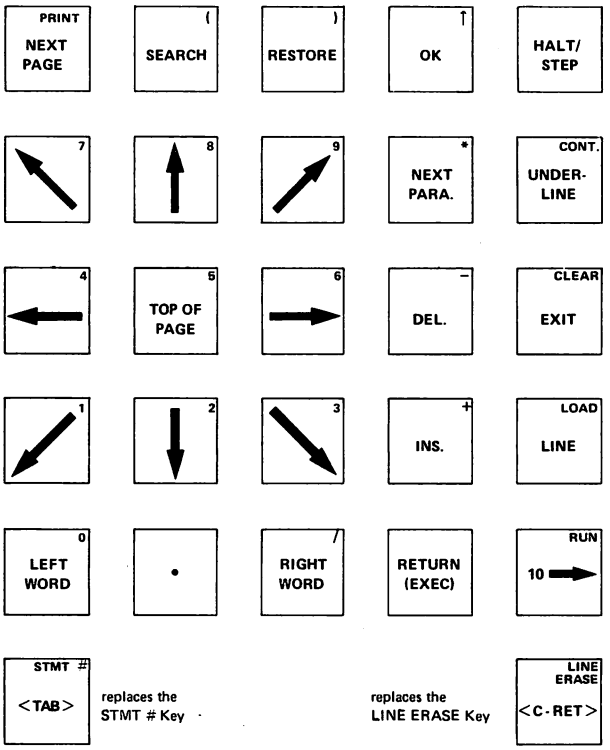


Figure 1.1 Model 2223 Keyboard

FUNCTION STRIP

As an aid when using the Text Editing Utilities, a blank function strip is included. Label it as follows:

NO.	FUNCTION	NO.	FUNCTION
'0	MOVE TEXT	'9	INITIALIZE VOLUME
'1	TEXT EDITOR	'10	<TAB>
'2	GLOBAL REPLACE	'11	EXIT
'3	DOCUMENT/LETTER ASSEMBLY	'12	<C-RET>
'4	DISK TABLE OF CONTENTS	'13	EDIT
'5	DELETE A DOCUMENT	'14	TEXT ENTRY
'6	COPY TEXT	'15	MENU
'7	PRINT ADDRESSES	'21	NEXT PAGE
'8	PRINT A DOCUMENT	'26	<C-TAB>
		'28	<->
		'31	LOG ON/OFF

UPPERCASE KEYBOARD FUNCTIONS	'16	'17	'18	'19	'20	'21 NEXT PAGE	'22	'23	
LOWERCASE KEYBOARD FUNCTIONS	'0 MOVE TEXT	'1 TEXT EDITOR	'2 GLOBAL REPLACE	'3 DOC'T/LETTER ASS'Y	'4 DISK TABLE OF CONTENTS	'5 DELETE A DOC'T	'6 COPY TEXT	'7 PRINT ADDRESSES	

'24	'25	'26 <C-TAB>	'27	'28 <->	'29	'30	'31 LOG ON/OFF
'8 PRINT A DOCUMENT	'9 INIT. VOLUME	'10 <TAB>	'11 EXIT	'12 <C-RET>	'13 EDIT	'14 TEXT ENTRY	'15 MENU

Figure 1.2 Sample Labeled Function Strip

PURPOSE OF TEXT EDITING UTILITIES PACKAGE

This software package allows a user to add text editing capabilities to Wang Computer Systems. It contains utilities that create and edit text, store text on disk, maintain the disk, and print out stored text.

Both "hard disks" and floppy diskettes have 'random access', which means that any document stored on disk/diskette can be retrieved without a time consuming search. A volume (or a diskette) can hold up to 200 records containing 15 lines of 64 characters each or 15 lines of 80 characters each, depending on the size of the CRT. Each volume requires 1007 sectors of unused disk space. This manual refers to both disks and diskettes as disks - operations for each are the same unless specifically stated. For any questions concerning disk operations, refer to the 2200 Disk Memory Reference Manual.

Text is entered via the 2200 keyboard thereby saving it directly onto disk. Text to be edited is displayed on the CRT. With the use of several text editing keys on the keyboard, the cursor can be easily located any place within the text for corrections, insertions, and deletions.

There are various functions that this package can perform. Each of these functions is initially displayed on the CRT as part of the standard MENU. By pressing the appropriate function key (FN KEY), any of these word processing-type functions can be initiated. The rest of this manual describes these functions and how they are performed. This package is designed for use by an operator with a minimum of training.

FORMATTING DISKS

New disks must be formatted before any information can be written on or read from them. For instructions on formatting disks, refer to the 2200 Disk Memory Reference Manual.

> NOTE:
>
> Do NOT format the System Disk. A disk only has to be formatted once. Do not format a disk that has text stored on it, since formatting erases all information that has been previously stored.

SYSTEM START-UP

At the beginning of the day, all equipment should be turned on. This includes turning on the CRT, disk drive, and CPU. When the power is turned on, the disk drive starts up and the CRT is activated; however, the CRT takes about 10 to 15 seconds to warm up.

Arrows are printed on floppy diskettes indicating which side should be up and which end should be inserted into the disk drive first. No information can be recorded on a PROTECTED diskette, nor can it be formatted. Any attempt to write on a PROTECTED diskette elicits ERROR 71. To correct the error, cover the hole near the edge of the diskette with a folded TAB. Consult the Disk Memory Reference Manual for loading and preparing disks.

> NOTE:
>
> When the power is turned off, program or text information stored in memory is lost.

SYSTEM DEFAULTS

Certain values that are necessary to the operation of this system must be specified during start-up. In most instances, these values do not change frequently after they are initially set. To accommodate this static condition, but to allow for the possibility of change, the program maintains the initial values (defaults) and displays them on the screen during start-up with the option to change them. A value can be changed temporarily (until log-off) or for a longer term.

At the beginning of the program, the screen displays all of the system information with the corresponding default values. The operator has the option of maintaining or changing the defaults. Touching RETURN (EXEC) with no other entry causes the system to automatically select the response displayed on the screen as the default. If any or all are changed, the operator has the option of replacing the value temporarily or long term.

SYSTEM START-UP OPERATING INSTRUCTIONS

DISPLAYS	INSTRUCTIONS
1. READY :_	1. Position the toggle switch on the keyboard to Keyword/A. Mount Text Editing Utilities Disk in a disk drive. Touch CLEAR and RETURN(EXEC).
2. READY :LOAD DCT/XXX, "START" :_	2. Type LOAD DCT/XXX, "START", where XXX is the device address of the disk unit containing the Text Editing Utilities disk. Touch RETURN(EXEC).
3. READY :LOAD DCT/XXX, "START" :RUN	3. Touch RUN and RETURN(EXEC).

4. ON WHAT DEVICE ARE PROGRAMS LOCATED (1-6), DEFAULT =1
?-/

1. 310
2. B10
3. 350
4. 320
5. B20
6. 360

5. ARE SYSTEM DEFAULTS OK (Y/N), DEFAULT = Y
?-/

1. NO. OF USERS - SINGLE
2. TEXT DISK ADDR. - 310
3. OUTPUT DISK ADDR. - B10
4. CRT SIZE - 64
5. PRINTER ADDR. - 215
6. PRINTER DEVICE - MATRIX

6. SELECT NO. TO CORRECT (1-6), DEFAULT = NONE
?-/

1. NO. OF USERS - SINGLE
2. TEXT DISK ADDR. - 310
3. OUTPUT DISK ADDR. - B10
4. CRT SIZE - 64
5. PRINTER ADDR. - 215
6. PRINTER DEVICE - MATRIX

7. NO. OF USERS (1-2), DEFAULT =1
?-/

1. SINGLE
2. MULTIPLE

4. Enter the number corresponding to the device address of the disk unit containing the utilities and touch RETURN (EXEC). Only numbers one through six are valid. Touch RETURN (EXEC) with no other entry to maintain #1 (310) as the default. Go to step 5.

5. Enter Y, RETURN(EXEC) or touch RETURN (EXEC) with no entry to accept the system defaults as displayed on the screen. Go to step 13. Enter N, RETURN (EXEC) if any or all of the system defaults are unacceptable. Go to step 6.

6. Enter the number corresponding to the system default to be changed, RETURN (EXEC). Enter RETURN (EXEC) with no other entry when no more changes are to be made. Go to step 13.
If 1 is entered, go to step 7.
If 2 is entered, go to step 8.
If 3 is entered, go to step 9.
If 4 is entered, go to step 10.
If 5 is entered, go to step 11.
If 6 is entered, go to step 12.

7. Enter the number corresponding to the number of users, RETURN (EXEC). Enter 1, RETURN (EXEC) or touch RETURN (EXEC) with no other entry for a single user. Enter 2, RETURN (EXEC) for multiple users. Go to step 6.

NOTE:

For a 2200 that has both a multiplexed disk and a single disk, the system disk must be mounted in the multiplexed disk drive if the answer to question 7 was 'MULTIPLE'.

8. ON WHAT DEVICE IS TEXT LOCATED (1-6), DEFAULT = 2
?-/

1. 310
2. B10
3. 350
4. 320
5. B20
6. 360

8. Enter the number corresponding to the device address of the disk unit containing the disk where text information will be stored and touch RETURN(EXEC). Go to step 6.

9. ON WHAT DEVICE IS OUTPUT TEXT FILE LOCATED (1-6), DEFAULT =1
?-/

1. 310
2. B10
3. 350
4. 320
5. B20
6. 360

9. Enter the number corresponding to the device address of the disk unit where output text information will be stored and touch RETURN(EXEC). Go to step 6.

10. ENTER CRT SIZE (64/80), DEFAULT =64
?--/

10. Enter the 2-digits (64 or 80) representing the screen length (in character spaces) of the CRT and touch RETURN (EXEC). Touch RETURN (EXEC) with no other entry to maintain the default size of 64. Go to step 6.

11. SELECT PRINTER ADDRESS (1-2), DEFAULT = 1
?-/

1. 215
2. 211

11. Enter the number corresponding to the printer address and touch RETURN (EXEC). Touch RETURN (EXEC) with no other entry to maintain the default address of 215 (a printer not a typewriter). Go to step 6.

12. SELECT PRINT DEVICE (1-3), DEFAULT = 1
?-/

1. MATRIX PRINTER
2. DAISY WHEEL PRINTER
3. SELECTRIC TYPEWRITER

12. Enter the number corresponding to the specific print device and touch RETURN (EXEC). Touch RETURN (EXEC) with no other entry to maintain the matrix printer as the default print device. Go to step 6.

13. DO YOU WISH TO SAVE THESE DEFAULTS (Y,N), DEFAULT = N
?-/

13. Enter Y, RETURN (EXEC) to permanently save the values entered as the system defaults. Enter N, RETURN (EXEC) to temporarily use the values entered without saving them. Go to step 14.

14. ENTER THE TERMINAL NUMBER (1-4). ?-/	14. Enter the terminal number and touch RETURN(EXEC). The system remembers this number and no other system using the same disk can log on with the same number. In this way, each system using the disk is uniquely identified and no two computers are able to access the same text volume at the same time.

NOTE:

The error message: "THE TERMINAL SPECIFIED IS ALREADY ACTIVE HALT/SF'31 = OVERRIDE" is displayed for one of two reasons:

1. Choosing a number that is already in use. Enter a different number.

2. Failure to LOG OFF after using the system, permitting the terminal number to remain active. Touch HALT/STEP and FN KEY '31 to proceed to the menu. Make sure no one else is logged on with the same terminal number before doing so because depressing FN KEY '31 overrides any previous log on procedure. This OVERRIDE procedure is recommended only as a recovery when the LOG OFF program was not run.

POWER ON

This program should only be used on two occasions: (1) when the system is first installed so the "ACTIVE" file is initialized. The active file contains information as to what systems and volumes are in use and (2) as a recovery procedure in the event of a power loss. This program should not be used in place of the START-UP program.

POWER ON OPERATING INSTRUCTIONS

DISPLAYS	INSTRUCTIONS
1. READY :_	1. Mount the system disk, type CLEAR, and touch RETURN(EXEC).
2. READY :LOAD DCT/XXX, "POWER ON"	2. Type LOAD DCT/XXX, "POWER ON", where XXX is the device address of the disk unit, and touch RETURN(EXEC).
3. READY :LOAD DCT/XXX, "POWER ON" :RUN	3. Type RUN and touch RETURN(EXEC).

STANDARD PROMPTS AND ERROR MESSAGES

In the Text Editing Utilities Package, almost every program requires opening a text volume for input or output, and most require naming the document being worked with. Rather than repeating instructions, standard prompts are listed below together with possible resulting error messages and possible recovery procedures.

MOUNT DISK AND ENTER VOLUME NAME.
?--------/
DEFAULT NAME = (volume name)

Mount the correct volume if it has not already been mounted, enter the volume name, and touch RETURN(EXEC). To terminate the current program, enter the volume name STOP and the MENU is displayed. The default name of the volume is always displayed. Touching RETURN(EXEC) assumes the default name.

VOLUME NAME DOES NOT EXIST OR IS SCRATCHED.

This message appears when the volume name entered does not appear in the disk catalog. Type LIST DCT/XXX (XXX=device address), which displays the actual volume name(s) on the mounted disk. This message also appears if the name is misspelled or entered in uppercase and is being recalled in lower case (or vice versa). The name must be entered identically to the way it is stored in the disk catalog, including upper/lowercase characters and underlining. If the volume name (file name) has been scratched, this message also appears. The system assumes it does not contain valid data and rejects the name.

THIS VOL. IS ALREADY IN USE.

This message appears when attempting to access a volume that is already in use. Either wait until the volume is available or use a different volume.

A VOL. NAME MUST BE ENTERED.

This message is displayed when a volume name has not been given. The first time the system asks for a volume name, the operator must enter one and touch RETURN(EXEC). Every time after that a volume name is requested, by simply touching RETURN(EXEC), the system assumes that the default name is being referred to.

LINE LENGTH FOR VOLUME WRONG SIZE.

This message appears when an operator uses a volume having lines of 64 characters on a system logged on as having an 80-character CRT. It also appears when attempting to use a volume having lines of 80 characters on a system logged on as having a 64-character CRT.

A DOCUMENT NAME MUST BE ENTERED.

This message occurs when an operator simply touches RETURN(EXEC). A document name must be entered.

(document name) IS NOT ON DISK.

The name entered is not on the Table of Contents of the mounted disk. Check spelling and be sure the correct volume is mounted.

ENTER THE NUMBER OF RECORDS TO SKIP.

The document specified was found in the Table of Contents. The entire document may be processed by skipping 0 records or simply touching RETURN(EXEC). To skip over the first part of the document and process only the latter part of it, enter the number of records to be bypassed. The number of records to be bypassed may be estimated in either of two ways:

1. Figure 15 typewritten lines per record or 4 records per typewritten page. This is not exact since not all records contain a full 15 lines.

2. By using the Table of Contents program, determine the size of the document. Then take a proportion of the number of records shown to determine how many records to skip. For example, if a document contained 20 records, to be positioned halfway through the document, skip 10 records.

A PROMPT ASKING FOR SOME PARTICULAR INFORMATION.

?_-----/

A prompt appears on the CRT with the cursor on the next line. Starting at the cursor position, one or more dashes appear indicating the number of characters that may be entered. Do not enter more characters than there are dashes.

Type the requested information. Mistakes may be corrected while typing by using backspace. It backs the cursor up one space and erases the character above it.

If the information entered contains one or more underlined letters, first type the entry ignoring any underlines. Do not touch RETURN(EXEC); touch the LINE key. This places the cursor at the beginning of the line. Retype the line by entering all non-underlined characters and touching the underline key for all underlined characters. The entire line must be entered in this way.

DEFAULT = 'X'

A preset system response where 'x' equals the value that the system is preset to. By touching RETURN (EXEC) with no other entry when selecting a response from a number of choices, the system automatically selects the value as displayed.

CHAPTER 2
PROGRAMS

MENU PROGRAM (FN KEY '15)

The MENU program is the primary program of this package. After performing any operation, the system always returns to this program. The MENU lists what operations are available and allows the user to choose which operation to perform next.

When the MENU program is run, it causes the MENU to be displayed on the CRT (see Figure 2.1). The keys (labeled '0 to '15) that run across the top of the keyboard are called Special Function Keys (FN KEYS). When the Shift Key is depressed, these keys represent Special Functions '16 to '31. To perform any of the operations listed, merely press the corresponding Special Function Key.

During the operation of any program, touching HALT/STEP and Special Function Key '15 causes the MENU to be displayed. To return to the beginning of that program or any other program, depress the appropriate key. Certain hardware problems may occur when the MENU is not displayed after using HALT/STEP, FN KEY '15. In this case, touch RESET, then FN'15. If this still does not work, there may be a hardware problem that requires a Wang Service Representative.

When a program is complete and the system returns to the Menu, the volume is automatically released, allowing another terminal to access the volume.

```
                    *** 2200 ***
              ***** TEXT EDITING UTILITIES *****
      PRESS APPROPRIATE FUNCTION KEY TO PERFORM DESIRED FUNCTION

                    PROGRAMS IN THIS SYSTEM

FN KEY    PROGRAM NAME                FN KEY    PROGRAM NAME

  '0      MOVE TEXT                    '6       COPY TEXT
  '1      TEXT EDITOR                  '7       PRINT ADDRESSES
  '2      GLOBAL REPLACE               '8       PRINT A DOCUMENT
  '3      DOCUMENT/LETTER ASSEMBLY     '9       INITIALIZE VOLUME
  '4      DISK TABLE OF CONTENTS       '15      MENU
  '5      DELETE A DOCUMENT            '31      LOG ON/OFF

STOP
:_
```

Figure 2.1 MENU Displayed on CRT

LOG ON/OFF (FN KEY '31)

When the MENU is displayed after finishing with all work to be done, depress FN KEY '31 to clear the terminal number from the 'ACTIVE' file on the system disk or to return to System Start-Up.

The LOG OFF program should be run prior to executing a CLEAR command or turning the power off. Failure to log off before clearing the memory prevents logging on with the same terminal number without using a restart procedure. The LOG ON program should be run if any of the responses given in System Start-Up must be altered, for example, to change or add an address for the output text file.

After depressing FN KEY '31, the following prompt appears:

```
DO YOU WANT TO LOG 'ON' OR 'OFF'?
?---/
```

After typing 'ON' or 'OFF', touch RETURN(EXEC) and the following message is displayed:

```
TERMINAL X IS LOGGED OFF,
```

where X is your terminal I.D. number.

If 'ON' was keyed in, the System Start-Up procedure is initiated.

INITIALIZE VOLUME (FN KEY '9)

This program creates a VOLUME for storing text on a disk. In the 2200 Text Editing Utilities Package, a volume is a cataloged data file of 1007 sectors containing a Table of Contents and the necessary pointers to store one or more documents.

For a system using floppy diskettes, one diskette contains one volume (a volume and a diskette can be thought of as one and the same). On a fixed/removable disk pack, more than one volume can be stored. By using the LIST DCT command, the disk catalog can be listed. This shows each volume on the disk pack as a data file of 1007 sectors.

This program creates the data file and initializes the Table of Contents and the pointers. It is, therefore, necessary to scratch the disk first if using floppy diskettes, or if using a fixed/removable disk pack ensuring that the disk has previously been scratched.

If using a floppy disk, execute the following command:

```
SCRATCH DISK R LS=3, END=1023
```

If using a fixed/removable disk pack that has never been used before, consult the Disk Memory Reference Manual to determine what parameters to use, and then scratch the disk. If putting a volume on a fixed/removable disk pack that already contains programs or data files, do not scratch the disk, since this erases any program or data files already stored on the disk. The disk platter must contain at least 1007 free (unused) sectors to perform volume initialization.

INITIALIZE VOLUME OPERATING INSTRUCTIONS

DISPLAYS	INSTRUCTIONS
SYSTEM NOW LOADING INITIALIZE VOLUME	
INITIALIZE VOLUME	
1. MOUNT THE APPROPRIATE DISK AND PRESS RETURN(EXEC). ?_/	1. Mount the disk to be initialized and touch RETURN(EXEC).
2. ENTER THE VOLUME NAME ?_--------/	2. Enter the name of the volume to be created and touch RETURN(EXEC).

	NOTE: If initializing on a multiplex system, the entire disk is hogged until initialization is complete. A temporary halt to a program (approximately 15 seconds) may occur if the disk is being accessed by another party. A pause between steps 2 and 3 of initialization causes a halt to disk accessing for the length of the pause.
3. ENTER LINE LENGTH (CRT SIZE) FOR VOLUME- 64 or 80 ?--/	3. Enter size of CRT and touch RETURN(EXEC).
4. DO YOU WISH TO INITIALIZE MORE VOLUMES? (Y/N) ?-/	4. To initialize more volumes, touch Y, RETURN(EXEC), and return to step 1. To terminate the program, touch N, RETURN(EXEC), and the MENU is displayed.

TEXT EDITOR (FN KEY '1)

The Text Editor Program has two purposes. It can be used for inputting text directly into the system (stored on disk) or for correcting text already stored on disk. There are basically five types of operations available in this program. They are Text Entry, Positioning the Cursor, Inserting Text, Deleting Text, and Disk Operations.

There are two modes of operation for the Text Editor. They are the Text Entry Mode, which must be used when typing characters, and the Edit Mode, which must be used when performing any of the other four operations. The bottom line of the CRT always indicates which mode is being utilized. A good rule to remember is: use the typewriter section of the keyboard only when in TEXT ENTRY (FN '14) and use the special keys to the right of the keyboard only when in EDIT (FN '13). Typing text in the Edit Mode can produce some unexpected results.

The Text Editor Program can perform the following operations:

Text Entry (FN '14)

Text Entry is used for inputting text onto a disk. With this operation the computer keyboard is used as a regular typewriter. The system must be in the Text Entry Mode. RETURN(EXEC) is unnecessary except to end a paragraph; the computer automatically breaks a line after the 63rd (or 79th) character is typed, bringing the entire word down to the next line.

There are certain keywords and codes used by an operator in the Text Editor Program. Some of these typewriter-like functions are performed by simply depressing a Special Function Key, while others are entered by typing the "less than" symbol, the keyword (capital letters), followed by the "greater than" symbol. These keywords are used to instruct the system of certain formatting operations. The following is a list of these codes/keywords and descriptions of their functions:

KEYWORD	FUNCTION
<MEMO>	An operator note can be entered following this keyword. It is displayed on the CRT, but never on printout.
<TAB>FN'10	When printout is formatted, the system moves the printer to the next defined tab stop.
<C-TAB> FN'26	Defines an indented portion of text. Each line is indented on the specified tab stop until a <C-RET> is entered.
<C-RET> FN'12	Defines the end of a paragraph or the end of an indented portion of text.
<FORMAT>	Allows a format to be entered as part of a document. Format information includes an adjust zone, right-hand margin, and up to seven tab stop locations. See Appendix B for format layout.
<CENTER>	The characters following this keyword are centered during printout. The right and left-hand margins in the format are used in determining the center of a page.
<-> FN'28	This code indicates a required hyphen. In the adjust and justify modes, a hyphen is not printed unless it is the last character in a line. If a hyphen is desired regardless of location, this code should be used.
<PAGE>	This code may be followed by a lowercase p, s, or d. A 'p' causes a new page to begin, an 's' causes lines to be single-spaced, and a 'd' causes lines to be double-spaced.
<S>	This code indicates a required space and is used to avoid splitting two words at the end of a line, defining them as a unit.
<BS>	The required backspace is used when one character must be played back over another, for example, backspacing after a <C-TAB> when aligning columns of numerical data. It cannot be used to slash zeros or for underlining.

Underline

To underline a word or phrase just typed, depress FN'13 and touch the LEFT WORD key. This moves the cursor back to the beginning of the word. Touch the underline key once for each character that is to be underlined. Depress FN'14 to return the system to the Text Entry Mode and continue typing.

NOTE:

The print module will recognize any keyword that is underlined and will respond as if that keyword is not underlined. (Accidental underlining, therefore, will not alter the original intent of a keyword.) The only exception is the coded hyphen: "<->" is intrerpreted as "-".

When the bottom of the screen is reached, depress Special Function Key '13 and touch the OK Key. The page, as typed, is written onto the disk. The next page is then brought onto the screen. This page normally contains the last three lines of text from the previous page. If these lines are edited on the "next page", the edited lines replace the original lines (see Figure 2.2). Depress Special Function Key '14 and continue typing. None of the text typed is stored on the disk until the OK Key is touched. After the whole document is typed and the last page is stored on the disk, place the system in the Edit mode and depress EXIT key or FN '11. The system then inquires if the user wishes to start over.

Besides typing original documents, Text Entry can be used to correct misspelled words. To change an incorrect letter, position the cursor below it and type over the incorrect letter with the correct letter. Also, a word may be replaced with another word of the same length by simply typing over the entire word with the replacement word.

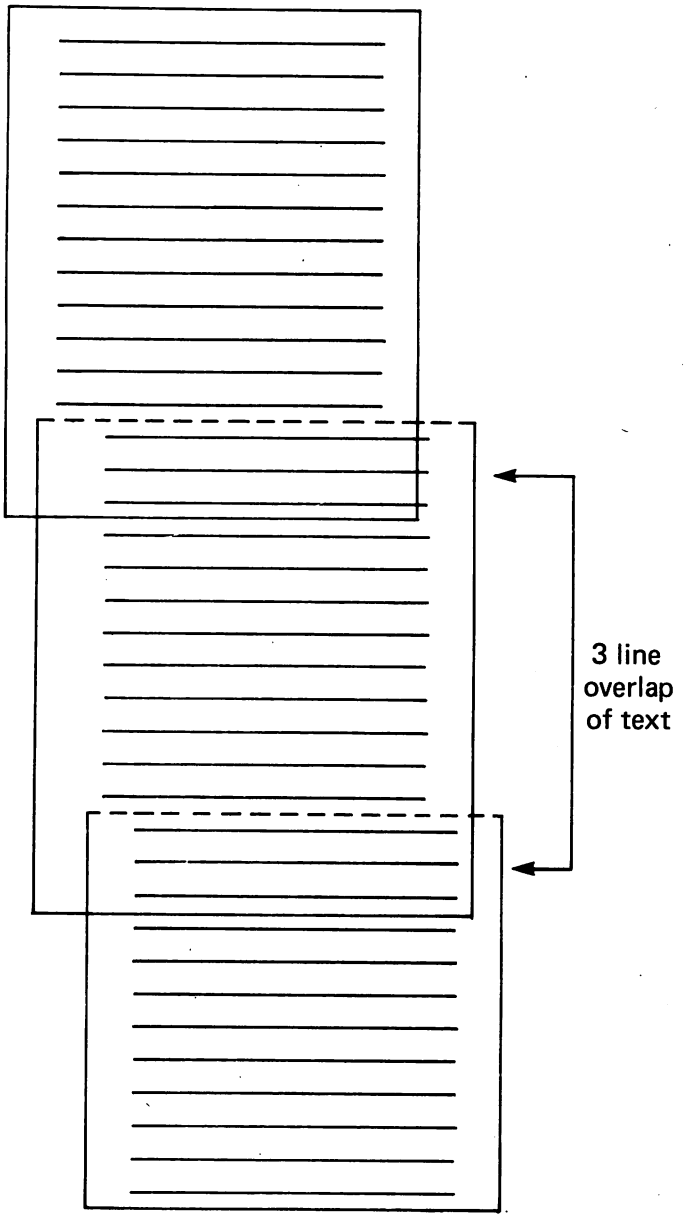


Figure 2.2 Text Entry - Sample Pages from CRT

Positioning The Cursor (FN '13)

This operation must be performed in the Edit Mode. The following keys are used for positioning the cursor:

ARROW KEYS - move the cursor up or down one line, to the left or right one letter, or diagonally up or down one line and two spaces over. The key labeled 10→moves the cursor 10 spaces to the right. If 10 spaces to the right falls off the current line, the cursor drops down to the start of the next line and continues until it has moved 10 spaces.

TOP OF PAGE - moves the cursor up to the top left-hand corner of the CRT.

LEFT WORD - moves the cursor to the start of the next word to the left of the cursor. If the cursor is in the middle of a word, this key moves the cursor to the start of the current word. If the cursor is located at the far left of a line and LEFT WORD is depressed, the cursor moves to the last character of the line above.

RIGHT WORD - causes the cursor to move to the start of the next word in the text. If there are no more words in the text, the cursor remains where it is.

LINE - moves the cursor to the first character of the line that it is on.

NEXT PARA. - causes the cursor to move to the start of the next paragraph. The program defines a paragraph by its first line starting with a space, a <TAB>, or a <C-TAB>. Also, if a line ends with a<C-RET> it is considered the end of a paragraph. Thus, the next line containing text is the start of a new paragraph. If there is no next paragraph, the cursor moves one line past the current paragraph.

'.' - causes the cursor to move one space to the right of the next period found in the text. A decimal point is considered a period by the programs and, if encountered, stops the cursor.

Inserting Text (FN'13)

This operation must also be performed in the Edit Mode. An insert can be a single character, a word, a sentence, or a paragraph. The cursor must be located where the insertion is to begin. Depress the INS. Key; this places the system in the Insert Mode of operation. (Remember: the bottom line of the CRT always displays what mode is being utilized.)

To insert one or more characters between a pair of characters, move the cursor under the right member of the pair and then press the INS. Key. A plus sign appears and the line shifts over to the right. The letters at the end of the line appear to drop off the line; however, they are not lost. When the insertion is completed, they are restored and the paragraph is adjusted. Characters to be inserted are typed where the plus sign is located. Press RETURN(EXEC) to take the system out of the Insert Mode.

To insert a word between a pair of words, move the cursor under the first character of the right member of the pair and proceed as above. Be sure to type in a space after the inserted word.

If an insert is lengthy, don't touch RETURN(EXEC). RETURN(EXEC) removes the System from the Insert mode. Just continue typing. When the end of the line is reached, the text automatically continues on the next line.

An insert may not go beyond the bottom line of the CRT. When the bottom line is full, the text must be stored on the disk and inserting continued at the top of the next page. When nearing the bottom line of the CRT, the System displays an overflow warning. The only way to exit from this condition is to depress FN KEY '13 (EDIT) and touch NEXT PAGE, RESTORE, or OK.

NOTE:
'OK' is the only key that stores the inserted text on disk.

Example of inserting characters:

Assume the CRT displays the following:

This is an example of insting letters into the middle of some text.

Depress the INS. key; the text above and to the right of the cursor is shifted over one space:

This is an example of ins+ting letters into the middle of some tex

Type an "e". It is inserted in the position where the cursor is located and the rest of the line is shifted over:

This is an example of inse+ting letters into the middle of some te

As typing continues, each letter typed is placed where the cursor is and the remainder of the line is shifted over. The letters at the end of the line appear to drop off the line; however, they are not lost from the memory. They are restored when the inserting is completed. The remainder of the paragraph is automatically adjusted.

This is an example of inser+ting letters into the middle of some t

Touch RETURN(EXEC) to remove the system from the Insert mode. The "+" sign is removed and the line is brought together.

This is an example of inserting letters into the middle of some text

Blank lines are inserted in text by positioning the cursor on the first line to be shifted down, touching the INSERT key, then the LINE key. Touch the INSERT and LINE keys as many times as the number of blank lines desired.

Deleting Text (FN'13)

This program is used to delete characters, words, lines, or sentences from the text. (The System must be in the EDIT Mode.) To delete a character, position the cursor under that character. If a series of characters are to be deleted, position the cursor under the first of the characters. Then touch the DEL. key; a minus sign is placed above the cursor and the line is shifted over. (The bottom of the CRT should display that the System is in the Delete mode.) Touch the DEL. key again and the character to the right of the cursor is deleted. When all the desired characters have been deleted, touch RETURN(EXEC) to remove the System from the Delete mode. The following keys can be used for deleting text:

RIGHT WORD - deletes the word under which the cursor is positioned.

LINE - either deletes an entire line or the remainder of a line depending upon where the cursor is positioned.

'.' - deletes an entire sentence down to the first period that the System encounters. If deleting a sentence from the middle of a paragraph, position the cursor at the end of the previous sentence to delete the two spaces separating the sentences. If this is not done, four spaces will exist between the remaining two sentences. (The two before the deleted sentence and the two after it.)

Example of deleting characters:

Assume the CRT displays the following:

This example shows deletinging of characters.

Depress the DEL. key. A minus sign is placed above the cursor and the remainder of the line is shifted over:

This example shows deleting=ing of characters.

Depress the DEL. key again. This causes the character to the right of the cursor to be deleted and the remainder of the line to be shifted to the left one space. Depress the DEL. key until all the desired characters have been deleted:

This example shows deleting- of characters.

Touch RETURN(EXEC) to remove the system from the Delete mode. The minus sign is removed and the line of text is brought back together. The remainder of the paragraph is adjusted.

This example shows deleting_ of characters.

Disk Operations (FN'13)

The following Disk Operations can be performed by the Text Editor by using the following keys:

NEXT PAGE - causes the next page (15 lines) to be read from the disk and displayed on the CRT. Depressing this key several times enables the user to review and correct the text a page at a time.

OK - stores a page of text on a disk when inserting or making corrections to a page. When all errors have been corrected on a page, press the OK key. This causes the page to be written back onto the disk in its corrected form. Until a corrected page has been written back onto a disk, the disk still retains all the errors of the original page. If the NEXT PAGE key is pressed after making corrections, the disk would not be corrected.

RESTORE - displays the original page on the CRT, prior to changes (before touching the OK key). The current page is read from the disk onto the CRT.

SEARCH - allows the user to search for a word or phrase from the disk or the CRT. Touch the SEARCH key, then type in the word or phrase exactly as it appears in the text, and then touch RETURN(EXEC). The search can be

for a character string up to 64 or 80 characters long. When searching for a character string, use enough letters to make the string as unique as possible. For example, when searching for the character string "is", the System stops every time those letters appear in the text, even in the middle of a word. The word being searched for cannot end with a space.

When the System finds the word being searched for, it places the cursor under the first letter of the word. If the System stops under a word other than the one desired, simply touch SEARCH, RETURN(EXEC) to search for the next instance.

When a word or phrase is not supplied, the system searches for the last word searched for in its memory. If no word or phrase is found in memory, SEARCH terminates. If the word searched for does not appear on the CRT, the System inquires if the user wants the next page searched. If corrections have been made on the current page, but not written on the disk, answer "no". When the page is redisplayed, touch the OK key. Now restart the search by touching SEARCH and RETURN(EXEC). If searching for a word that does not appear on a current page which has no other changes, answer "yes" to continue searching on the following pages.

To exit from the Text Editor, the System must be in the EDIT Mode. Depress the EXIT key or FN'11. The System asks if the user wants to start over. If the answer is "yes", it restarts the Text Editor program. For example, a user may want to search a portion of text on a previous page. The only way to accomplish this would be to EXIT or FN'11 and answer "yes". The cursor would then be properly positioned to search that page. Previous pages can be searched only by going back to the beginning of the document. If the answer is "no", the System assumes there are no more corrections to be made and returns the MENU to the CRT.

TEXT EDITOR OPERATING INSTRUCTIONS

DISPLAYS	INSTRUCTIONS
SYSTEM NOW LOADING TEXT EDITOR TEXT EDITOR 1. MOUNT DISK, ENTER VOL NAME. ?--------/ DEFAULT NAME= (volume name)	1. Mount disk, enter name of volume, and touch RETURN(EXEC).

2. ENTER NAME OF LETTER OR DOCUMENT. ?_-----/	2. Enter name of document to be edited or name of document to be created and stored on disk and touch RETURN(EXEC). If the document is to be edited (already stored on disk), go to step 3. If the document is to be added to the disk, go to step 5.
3. ENTER NUMBER OF RECORDS TO SKIP. ?_---/	3. Enter the number of records to skip, touch RETURN(EXEC), and proceed to step 4.
4. First 15 lines of document are displayed on the CRT. Lines of text are displayed until the entire document has been viewed or FN'11 is depressed.	4. Be sure the System is in the Edit Mode (FN'13). A document may now be edited in any of the ways described in the previous pages. If the document consists of more than 15 lines, be sure to touch the OK Key after each page has been edited. When the entire document has been edited, depress FN'11 to exit and go to step 6.
5. (document name) IS NOT ON DISK. DO YOU WISH TO INCLUDE (Y/N) ?-/	5. If No, touch N, EXEC, and go to step 6. If Yes, touch Y, EXEC, and be sure the System is in the Text Entry Mode (FN'14). A new document can now be added onto disk as previously described. After a page is written, depress FN'13 (EDIT) and touch the OK Key to write the page onto disk. Depress FN'14 to enter another page onto disk. After the entire document is written and stored, depress FN'13 (EDIT) and FN'11 (EXIT) and go to step 6.
6. DO YOU WANT TO START OVER? (Y/N)	6. If yes, touch Y, RETURN(EXEC), and return to step 2. If no, touch N, RETURN(EXEC), and the MENU is displayed.

DISK TABLE OF CONTENTS (FN KEY'4)

This program lists out the Table of Contents so that it can be determined what information is stored on a disk. The program lists the document names in alphabetical order. Alphabetical order on this system starts with a space, followed by numbers (0-9), capital letters (A-Z), and small letters (a-z). Next to each name is listed the amount of space taken up on the volume by a particular document. Space is shown in records. The line size of all the documents (64 or 80) is also displayed. After listing the Table of Contents, the number of records left on the disk available for storing information is displayed. A hard copy of the Table of Contents may also be obtained from the printer. (See Figure 2.3.)

TABLE OF CONTENTS FOR DISK1

LINE LENGTH = 64

DOCUMENT NAME	RECS.	DOCUMENT NAME	RECS.	DOCUMENT NAME	RECS.	DOCUMENT NAME	RECS.	DOCUMENT NAME	RECS.
Data	1		0		0		0		0
Lettr	1		0		0		0		0
Text1	1		0		0		0		0
Text2	1		0		0		0		0
doct.	3		0		0		0		0
memo6	1		0		0		0		0
mnl.	4		0		0		0		0
	0		0		0		0		0
	0		0		0		0		0
	0		0		0		0		0

FREE SPACE = 188 RECORDS.

Figure 2.3 Sample Table of Contents

DISK TABLE OF CONTENTS OPERATING INSTRUCTIONS

DISPLAYS	INSTRUCTIONS
SYSTEM NOW LOADING DISK TABLE OF CONTENTS	
DISK TABLE OF CONTENTS	
1. MOUNT DISK AND ENTER VOLUME NAME. ?--------/ DEFAULT NAME=(volume name)	1. Mount the appropriate disk, enter the volume name, and touch RETURN(EXEC).
2. TABLE OF CONTENTS FOR (volume name) ***** SORTING TABLE OF CONTENTS *****	2. Table of Contents for disk is being sorted into alphabetical order.

3. TABLE OF CONTENTS FOR (volume name) KEY RETURN(EXEC) TO RESUME. ?_ LINE LENGTH = XX	3. Table of Contents for up to 50 document names is displayed. Touch RETURN(EXEC) and up to 50 more names are displayed. When all names have been displayed, touch RETURN(EXEC) to proceed to next step.
4. TABLE OF CONTENTS FOR (volume name) DO YOU WANT A PRINTED TABLE OF CONTENTS? (Y/N) ?_/ FREE SPACE = ### RECORDS	4. If yes, touch Y, RETURN(EXEC), and proceed to step 5. If no, touch N, RETURN(EXEC), and the MENU is displayed. (### = the number of records still available on the disk. When this falls below 10, a new volume should be started.)

NOTE:

Adding additional records eventually causes the program to halt with a message of DISK or FILE FULL displayed. Depress SFK 15 IMMEDIATELY! Depress SFK 6 to copy onto another disk the text entered prior to the 'FULL' message. Before attempting to edit, add, assemble, copy, or move text, free space on the filled volume by deleting unwanted documents.

5. TURN ON THE PRINTER. KEY RETURN(EXEC) TO CONTINUE. ?/	5. Turn the printer ON, press the SELECT button, and touch RETURN (EXEC).
6. PRINTING TABLE OF CONTENTS	6. The printer produces a hard copy of the Table of Contents for the disk. The MENU is displayed after printing is completed.

COPY TEXT (FN KEY'6)

The program serves three functions: First, it copies the contents of an entire volume for back-up protection (a good practice in case a disk becomes scratched or lost). Second, it copies a single document (convenient when two documents are very similar to each other - copy the first document, giving it another name and then edit the new document). The third type of operation extracts part of one document and gives it a new name.

COPY TEXT OPERATING INSTRUCTIONS

DISPLAYS	INSTRUCTIONS
SYSTEM NOW LOADING COPY TEXT	
COPY TEXT	
1. ENTER THE NAME OF THE OUTPUT VOLUME. ?--------/ DEFAULT NAME= (volume name)	1. Enter the name of the volume to be copied on, and touch RETURN (EXEC). The output volume name may be the same as the input volume name, but if it is, the Copy Volume feature cannot be used.
2. ENTER THE NAME OF THE INPUT VOLUME. ?--------/ DEFAULT NAME= (volume name)	2. Enter the name of the input volume and touch RETURN(EXEC).
3. MOUNT THE INPUT AND OUTPUT DISKS. PRESS RETURN(EXEC) TO CONT. ?_	3. Mount the appropriate disk(s) and touch RETURN(EXEC).

NOTE:

To copy a volume on a system with a dual floppy disk, the output disk address must be the same as the program disk address and the input address must be that of the other drive. Remove the program disk and replace it with the output volume. To copy either 'document' or 'part', on the the same volume, the input and output addresses specified in the System Start-Up program must be the same.

4. ENTER TYPE OF COPY: 'VOLUME', 'DOCUMENT', OR 'PART'
?_--------/

4a. ENTER THE NAME OF THE OUTPUT DOCUMENT
?_-----/
(document name) ALREADY EXISTS

5. ENTER TYPE OF COPY: 'DOCUMENT' or 'PART'
?_--------/

6. ENTER NAME OF LETTER OR DOCUMENT.
?_-----/

7. ENTER THE NUMBER OF RECORDS TO SKIP.
?---/

7a. ENTER THE NAME OF THE OUTPUT DOCUMENT.
?_-----/
(document name) ALREADY EXISTS

4. Step 4 is displayed if the input and output volumes are not the same. Step 5 appears if they are the same.

4a. If the answer is 'VOLUME' and the output file contains the same document name as the one being copied, the system displays step 4a. Enter a new name and touch RETURN(EXEC). Proceed to step 8.

5. Enter 'DOCUMENT' or 'PART' and touch RETURN(EXEC).

6. Enter the name of the document to be copied or copied from and touch RETURN(EXEC).

7. Enter the number of records to be skipped and touch RETURN (EXEC).

7a. If duplicate document names occur, enter a document name that does not exist on the output volume and touch RETURN(EXEC).

If the answer is 'PART', the system displays the first 15 lines of the document. The cursor is positioned at the beginning of the first line.

If the "+" key is touched, the current line is copied to the output volume. The cursor then moves down to the next line. If the cursor is on the last line of the CRT, that line is copied; then the next 15 lines of text are read from disk and displayed on the screen.

If the "-" key is touched, that current line is not copied to the output volume. It is blanked out on the CRT, and the cursor is placed at the beginning of the next line.
If the cursor is on the last line of the CRT, that line is not copied, but is blanked out on the screen. Then the next 15 lines of text are read from the disk and displayed.

If RETURN(EXEC) is touched and the previous keystroke was a "+", the remainder of the CRT is copied. The next 15 lines are read from disk and displayed. If RETURN(EXEC) is touched and the previous keystroke was a "-", the remainder of the display is not copied. The next 15 lines are read from the disk and displayed.

If RETURN(EXEC) is touched just after a new page has been displayed, the system automatically assumes a "+". Thus, to copy several consecutive pages in their entirety, simply touch RETURN(EXEC) after each page is displayed. After the last line of text has been copied, go to step 8.

8. RE-MOUNT SYSTEM DISK IF IT HAS BEEN REMOVED.
   ?-/
   PRESS RETURN(EXEC) TO CONTINUE.

8. If the system disk was removed, remount it and touch RETURN (EXEC.)
   Otherwise, simply touch RETURN (EXEC.)

9. DO YOU WANT TO COPY MORE (Y/N)
   ?-/

9. If yes, touch Y, RETURN(EXEC), and return to step 1. If no, touch N, RETURN(EXEC), and the MENU is displayed.

MOVE TEXT (FN KEY'0)

This program moves sections of text within a document. Before operating the program, print out the document to be moved, specifying unformatted output and mark up the sections of text to be moved. Only lines (in their entirety) can be moved; thus a section of text to be moved may be a line, a paragraph, or many paragraphs. Draw lines separating the different sections of text to be rearranged, and number these sections in the order they are to be arranged. A maximum of nine (9) different sections is allowed.

Running this program consists of informing the System which line starts each section. When all sections are defined, the System automatically rearranges the text.

MOVE TEXT OPERATING INSTRUCTIONS

DISPLAYS	INSTRUCTIONS
SYSTEM NOW LOADING MOVE TEXT PROGRAM	
MOVE TEXT	
1. MOUNT DISK AND ENTER VOLUME NAME ?_--------/ DEFAULT NAME = (volume name)	1. Mount disk containing text to be moved. Enter volume name and touch RETURN(EXEC).
2. ENTER NAME OF LETTER OR DOCUMENT ?_-----/	2. Enter name of document to be rearranged, and touch RETURN (EXEC).
First 15 lines of text displayed.	

The cursor is positioned at the beginning of the first line. Now specify which section of text (1-9) this is going to be on the rearranged document by touching one of the number keys (1-9). For example, if the first line of text is the beginning of the fourth section of text on the 'new' document, touch '4'. When a number key is touched, the system notes that this is the beginning of a certain section. The cursor then moves down one line on the screen.

Now position the cursor on the first line of the next section of text. For example, if the next section of text starts on the eighth line, move the cursor down to line 8. Do this by repeatedly pressing the number key for the section of text being defined. In the above example, "4" was touched when the cursor was on line 1. Now continue touching key "4". Each time that "4" is touched, the cursor moves down one line. When the cursor is positioned on line 8, touch the number key corresponding to the position this section of text will have in the new document. If line 8 is the second section of the rearranged document, touch key "2".

After touching "2", there will be a two to four second delay while the system rewrites the current page of the CRT back to the disk, starting the new section at the beginning of a record. Touch "2" repeatedly to position the cursor on the first line of the next section. Each time a new section of text is defined, there is a delay while the current page is rewritten on disk. Then by repeatedly touching the same number key, the cursor can be moved down to the first line of the next section of text.

If a certain section of text is several pages long, it is not necessary to move the cursor through that section of text a line at a time. When RETURN(EXEC) is touched, the system is instructed that the rest of the text on the CRT is part of the section being defined. Thus, if Section 3 of the document is several pages long, touch RETURN (EXEC) several times until the page containing the start of the next section is displayed on the CRT. Then touch key "3" as many times as necessary to move the cursor down to the beginning of the next section.

When the beginning of the last section has been defined, there is no need to continue through the document. Merely touch the EXIT key or FN'11. This causes the entire document to be rearranged on the disk.

To exit from the program, touch the HALT/STEP key and then Special Function '15. This returns the MENU to the screen with the document still in its original order on disk. Note: Do not touch HALT/STEP when the system is rewriting the current page to the disk; wait until the System finishes writing before touching HALT/STEP.

GLOBAL REPLACE (FN KEY'2)

Global Replace is a text editing program that makes the same change to the text as many times as it appears within a document. There are two options: (1) to automatically replace every instance of a specified character string with another or (2) to stop at every instance of a character string and either replace it or to leave it unchanged.

> NOTE:
>
> With automatic replacement, the character string being replaced may not be contained within the character string replacing it.

GLOBAL REPLACE OPERATING INSTRUCTIONS

DISPLAYS	INSTRUCTIONS
SYSTEM NOW LOADING GLOBAL REPLACE	
GLOBAL REPLACE	
1. MOUNT DISK AND ENTER VOLUME NAME. ?_--------/ DEFAULT NAME = (volume name)	1. Mount the appropriate disk, enter the volume name, and touch RETURN(EXEC).
2. ENTER NAME OF LETTER OR DOCUMENT. ?_-----/	2. Enter the name of the document on which global replace is to be performed and touch RETURN(EXEC).
3. ENTER THE NUMBER OF RECORDS TO SKIP. ?_---/	3. Enter the number of records to skip and touch RETURN(EXEC).
4. ENTER THE CHARACTERS TO SEARCH FOR. ?_---------- ---------- ----------/	4. Enter the characters to be searched for (maximum of 60) and touch RETURN(EXEC). The character string should be as unique as possible and cannot begin or end with a space.
5. ENTER THE CHARACTERS TO REPLACE THEM WITH. ?_---------- ---------- ----------/	5. Enter the word(s) or phrase (maximum of 60 characters) that are to replace the original character string and touch RETURN(EXEC).

6. DO YOU WANT AUTOMATIC REPLACEMENT OF CHARACTER STRINGS? (Y/N)
?-/

6. If yes, touch Y and RETURN (EXEC); the system finds every occurrence and automatically replaces it. If no, touch N and RETURN(EXEC); the system finds each occurrence, displays it on the screen, and positions the cursor under the first letter of the string. Touch RETURN(EXEC) to replace the string. The system then searches for the next occurrence.

   To leave the string unchanged, touch the space bar. The system again searches for the next occurrence. This procedure continues throughout the document.

   In general, it is best to manually decide whether or not to make the replacement. It is easy for a character string to appear within a word or phrase where it is least expected.

NOTE:

If the character string being searched for was not found in the document, the screen displays: '_____' WAS NOT FOUND. The Program then continues at step 7.

7. DO YOU WANT TO START OVER? (Y/N)
?-/

7. If yes, touch Y, RETURN (EXEC), and return to step 2. If no, touch N, RETURN (EXEC), and the MENU is displayed.

DELETE A DOCUMENT (FN KEY'5)

This program removes unwanted text from a disk so that new information can be stored in its place. After using the utilities awhile, it is likely that a volume will be filled with information. When a document becomes obsolete, this program deletes it from a disk while adding space for new documents. This program has a built-in safety feature which allows the user to view the first three lines of a document before the deletion process begins.

DELETE A DOCUMENT OPERATING INSTRUCTIONS

DISPLAYS	INSTRUCTIONS
SYSTEM NOW LOADING DELETE A DOCUMENT	
DELETE A DOCUMENT	
1. MOUNT DISK AND ENTER VOLUME NAME. ?--------/ DEFAULT NAME = (volume name)	1. Mount disk, enter volume name, and touch RETURN(EXEC).
2. ENTER NAME OF LETTER OR DOCUMENT ?-----/	2. Enter name of letter/document to be deleted, and touch RETURN (EXEC).
3. (document name) IS ON DISK. DO YOU WISH TO DELETE IT? (Y/N) ?-/ Three lines of text are displayed.	3. Check that this is the correct document. If yes, touch Y, RETURN(EXEC), and go to step 4. If no, touch N, RETURN (EXEC), and go to step 5.
4. (document name) IS DELETED FROM DISK. DELETE ANOTHER DOCUMENT (Y/N) ?-/	4. If yes, touch Y, RETURN(EXEC), and return to step 2. If no, touch N, RETURN(EXEC) and the MENU is displayed.
5. NOTHING IS DELETED FROM DISK. DELETE ANOTHER DOCUMENT? (Y/N) ?-/	5. If yes, touch Y, RETURN(EXEC), and return to step 2. If no, touch N, RETURN(EXEC), and the MENU is displayed.

DOCUMENT/LETTER ASSEMBLY (FN KEY'3)

The Document/Letter Assembly program assembles paragraphs and/or documents or creates form letters to be printed out. This program has special features that allow letters to be created very easily. The system considers a letter as a document with a special format. It begins with a heading that may contain a return address and a date, an inside address, and a salutation, all of which may vary from letter to letter. It then has the body of the letter, which may be composed from several paragraphs stored on disk, each under a different name. This program "assembles" a document or letter from one or more such documents on disk.

There are certain codes and keywords used by an operator in the Document/Letter Assembly program. These 'codes' are used to instruct the system to perform certain functions and operations. The following is a list of these keywords/codes and descriptions of their functions.

PAGE	This keyword defines the end of a page within a document. In the assembly of form letters, this keyword also instructs the system to save the next insert if the 'save address' option is selected. Otherwise, when the system encounters this keyword during printout, the printer ejects to a new page.
STOP	This keyword causes the letter writing process to terminate. It defines the end of a document.
<MEMO> INSERT	This code is contained within the document being assembled and allows variable information, such as names and addresses, to be inserted in the same letter as many times as necessary.
EDIT	After this keyword is entered, any necessary editing may be performed.
EDIT OFF	This keyword is used to exit from the EDIT operation.
/ (slash)	This code is entered as an address to indicate that the last form letter has been written.

The following are examples of how this program may be used:

1. An operator has three separate documents (FIRST, SECND, THIRD) to be incorporated into one document. Type FIRST when asked for a document name. When the document is written onto disk, the system again asks for a document name. This time type SECND. This document is written onto the disk right after document FIRST. When asked for another document name, type THIRD. This document is written after SECND. Then type STOP as the last document name.

In example #1, the three documents play out as a single document. To begin documents SECND and THIRD on new pages, use the keyword PAGE as a document name:

FIRST
PAGE
SECND
PAGE
THIRD
STOP

When the System sees a document named PAGE, the printer automatically ejects to the next page.

2. An operator wants to write two documents onto disk. The first document is made up of PART1 and PART2. The second document is made up of a single part named DOCMT. To write these on disk, use the following document names:

PART1
PART2
PAGE
DOCMT
STOP

In this example, PART1 and PART2 would play out as a single document. After the PART2 is printed, the printer ejects to the next page and prints DOCMT. When the system encounters the STOP, printing terminates.

Document Assembly also has an edit feature built into it. It allows last minute corrections to be made to the text before storing it on disk. To do any editing, use the name EDIT (can be typed in all upper or lower case letters) as a document name. Using the name EDIT places the System in the EDIT Mode. When the System is instructed to write a document onto a disk, it reads the document 15 lines at a time into memory and displays them on the CRT. The cursor positioning keys, INS., and DEL., may now be used as in the Text Editor program, to make corrections to the text. When the 15 lines of text are correct, touch the EXIT key. The text on the CRT is written onto disk and the next 15 lines are read into memory and displayed on the CRT. Corrections made during this procedure are written on the new document, but not on the old.

NOTE:

This editing is an abbreviated form of the Text Editor and does not allow for SEARCH, LEFT WORD, or the disk operations of NEXT PAGE, RESTORE, or OK.

If a large part of the document needs no corrections, rather than displaying lines, use EDIT OFF as a document name for the correct section.

Letter Assembly

Letters often have variable information which must appear in each letter. The following is an example of how such variable information is inserted using this program:

The letter might be recorded on disk as follows:

Dear Sir: <C-RET>
<C-RET>
<TAB> We would like to thank you for showing interest in
<MEMO>INSERT Item that customer is interested in
Enclosed is literature describing this product.
One of our Sales Representatives will be contacting
you shortly to answer any questions you might have. <C-RET>
<C-RET>
Sincerely, <C-RET>
<C-RET>
John B. Jones, Jones Industries

When initially recording this type of letter onto disk, write a prompt on the remainder of the line after the<MEMO>INSERT. After the prompt is entered, touch RETURN(EXEC) to end the insert. The insert prompt may prove useful when a letter contains more than one insert.

> NOTE:
>
> A <MEMO> INSERT must always be positioned on the far left of the CRT.

Any line beginning with a <MEMO> code, followed by the word INSERT is treated as a letter insert by the program. When encountered in a letter being written onto disk, the System prints the word INSERT followed by the prompt that is on the remainder of the line. In the above example, the System displays:

Document Assembly

INSERT
Item that customer is interested in
+

Type:
our newest computer.+

Touching RETURN(EXEC) incorporates the insert into the text and the remainder of the paragraph is readjusted. If the insert is more than one line, do not touch RETURN(EXEC). This program has the same "wrap around" feature as the Text Editor. (See page 15.)

If an insert is to contain several lines, depress Function Key '12 for a <C-RET> to start a new line. Every line in an address should end with a <C-RET>. Touching RETURN(EXEC) ends the insert. If names and addresses are to be saved and used in the Print Addresses program, they must be the first insert of each letter. The number of characters in an address, including spaces and keywords, can not exceed 240. If the 'save address' option is selected, the number saved cannot exceed 125.

When an insert has been completed (RETURN(EXEC) has been depressed), the current "page" is displayed on the CRT. Since the System is in the EDIT mode, corrections can now be made to the page. When the page is correct, touch the EXIT key or FN'11. If there are more inserts, the System returns with the proper prompt. A page is never written onto disk if there are more inserts.

> NOTE:
>
> It is recommended that letters/documents with inserts be played out in either ADJUST or JUSTIFY. An insert which does not finish on the page displayed on the CRT might result with a short line print out in the middle of a paragraph.

These instructions should be used when writing documents onto disk, NOT form letters.

DOCUMENT/LETTER ASSEMBLY OPERATING INSTRUCTIONS

DISPLAYS	INSTRUCTIONS
SYSTEM NOW LOADING DOCUMENT/LETTER ASSEMBLY	
DOCUMENT ASSEMBLY	
1. ENTER THE NAME OF THE OUTPUT VOLUME. ?--------/ DEFAULT NAME = (volume name)	1. Enter the name of the volume the document(s) are to be copied on and touch RETURN(EXEC).
2. ENTER THE NAME OF THE ASSEMBLED DOCUMENT ?-----/	2. Enter the name of the 'new' document and touch RETURN(EXEC).
3. ENTER THE NAME OF THE INPUT VOLUME. ?--------/ DEFAULT NAME = (volume name)	3. Enter the name of the volume the document(s) are to be copied from and touch RETURN(EXEC).

4. DO YOU WANT REPEAT LETTERS? (Y/N) ?_/	4. Enter N (no) and touch RETURN (EXEC).
5. DO YOU WANT TO SAVE ADDRESSES? (Y/N) ?_/	5. (See Print Addresses Program.) If yes, enter Y and touch RETURN(EXEC). If no, enter N and touch RETURN(EXEC).
6. ENTER DOCUMENT NAME. ?_--------/	6. Enter name of paragraph, letter, Keyword, or document to be written onto the disk and touch RETURN (EXEC).
7. COPYING (document name)	7. System copies text onto disk.
8. ENTER DOCUMENT NAME ?_--------/	8. If more documents are to be assembled, return to step 6. When finished copying, type STOP and touch RETURN(EXEC). The MENU is displayed.

Form Letters

If sending the same letter to a large number of people, answer "yes" (Y) when asked to repeat letters.

For example, a document(letter) named LETTR would be typed as:

ENTER DOCUMENT NAME OR KEYWORD? LETTR

When the letter is made up of several parts, type in the names. When only made up of one part or after giving all the names for all the parts, type PAGE, which causes the printer to eject the paper. The CRT then appears as:

ENTER DOCUMENT NAME OR KEYWORD? LETTR
ENTER DOCUMENT NAME OR KEYWORD? PAGE

After giving all the document names, touch RETURN(EXEC). When writing form letters, the System takes the names given, in order, and assembles them on the disk. The number of documents (letters), including Keywords, cannot exceed 20. When the end of the list is reached, the System goes back to the beginning of the list and continues. In the previous example, the System writes the letter onto disk, writes a page code, writes another letter, writes a page code, etc. until a "slash" is used as an insert.

Form letters must contain at least one insert. Typing a slash followed by RETURN(EXEC) for an insert informs the System that the letter is finished.

NOTE:

If the letter had no insert, the letter writing process could not end.

These instructions should be used when writing form (repeat) letters onto disk.

FORM/LETTER ASSEMBLY OPERATING INSTRUCTIONS

DISPLAYS	INSTRUCTIONS
SYSTEM NOW LOADING DOCUMENT/LETTER ASSEMBLY	
DOCUMENT ASSEMBLY	
1. ENTER THE NAME OF THE OUTPUT VOLUME. ?--------/ DEFAULT NAME = (volume name)	1. Enter the name of the volume the document(s) are to be copied on and touch RETURN(EXEC).
2. ENTER NAME OF ASSEMBLED DOCUMENT. ?-----/	2. Enter the name of the 'new' document and touch RETURN(EXEC).
3. ENTER THE NAME OF THE INPUT VOLUME. ?--------/ DEFAULT NAME = (volume name)	3. Enter the name of the volume the document(s) are to be copied from and touch RETURN(EXEC).
4. DO YOU WANT REPEAT LETTERS? (Y/N) ?-/	4. Enter Y (yes) and touch RETURN (EXEC).
5. ENTER NAME OF DOCUMENT OR KEYWORD ?--------/	5. Enter letter/document name or keyword and touch RETURN(EXEC).
6. ENTER NAME OF DOCUMENT OR KEYWORD. ?--------/	6. Return to step 5 as many times as necessary. When finished entering all documents and keywords, simply use RETURN (EXEC) as a keyword.
7. DO YOU WANT TO SAVE ADDRESSES? (Y/N) ?-/	7. (See Print Addresses Program.) If yes, type Y and touch RETURN(EXEC). If no, type N and touch RETURN(EXEC).

8. INSERT
(your prompt is displayed)
+
—

9. The document is displayed with the insert entered.

8. Enter the first insert in your document (<MEMO>INSERT) and touch RETURN(EXEC). Proceed to step 9 unless finished.
In this case, type a slash (/), touch RETURN(EXEC), and the MENU is displayed.

9. The document may now be edited if desired. When the document is correct, depress FN'11 or the EXIT key. Steps 8 and 9 are repeated until all inserts in the letter are entered.

PRINT ADDRESSES (FN KEY'7)

The Document/Letter Assembly program gives the operator the option of saving names and addresses. If this option is chosen, the first insert of each letter is saved. The Print Addresses program prints these names and addresses (first insert) from the last list of assembled letters (and saved addresses).

PRINT ADDRESSES OPERATING INSTRUCTIONS

DISPLAYS	INSTRUCTIONS
SYSTEM NOW LOADING PRINT ADDRESSES	
PRINT ADDRESSES	
1. TURN PRINTER ON AND PRESS RETURN(EXEC). ?/	1. Turn the printer ON, press the SELECT button, and touch RETURN(EXEC).
2. SHOULD PRINTER 'EJECT' OR 'STOP' BETWEEN ADDRESSES? ?_-----/	2. Depending on the action desired enter either STOP or EJECT and touch RETURN(EXEC). STOP = must touch RETURN(EXEC) to print next address. Go to step 3. EJECT = automatically ejects to next top of form. Go to step 4.
3. PRESS RETURN(EXEC) TO CONTINUE. ?-/	3. Touch Return(EXEC) to print next address.
4. END OF PROGRAM	4. The menu is automatically displayed on the screen when printing is complete.

PRINT A DOCUMENT (FN KEY'8)

This program produces printed output of text stored on disk. It allows for two types of output - formatted and unformatted. Formatted output centers lines, tabs, indents, and right justifies. Unformatted output prints out the text on paper as it appears on the screen, showing all center codes, tab codes, etc. and is used primarily for draft copies where content, not formatting, is important.

PRINT A DOCUMENT OPERATING INSTRUCTIONS

DISPLAYS	INSTRUCTIONS
SYSTEM NOW LOADING PRINT A DOCUMENT	
PRINT A DOCUMENT	
1. TURN PRINTER ON AND PRESS RETURN(EXEC) TO CONTINUE. ?/	1. Turn printer ON, press SELECT button on printer, and touch RETURN(EXEC).

NOTE:

The light under the SELECT button will be illuminated. With the 2221W printer, "Line Feed" or "Top Of Form" cannot be done manually when the printer is selected. To perform these operations, the printer must be deselected. With printers other than the 2221W, this is not necessary. Be sure the printer contains enough paper to print out the document. For any questions regarding printer operations, check the corresponding manual.

2. DO YOU WANT FORMATTED OUTPUT? (Y/N) ?-/	2. If output is to be formatted, touch Y and RETURN(EXEC). If output is to be unformatted, touch N, RETURN(EXEC), and proceed directly to step 12.
3. DO YOU WANT TO PROVIDE A FORMAT? (Y/N) ?-/	3. Providing a format requires the operator to enter the line length, tabs, and an adjust zone. If a format is stored as part of the document, type N, RETURN(EXEC), and go to step 8. To enter a format, type Y and RETURN(EXEC).

4. LENGTH OF LINE ?--/	4. Enter the number of characters to be printed per line and touch RETURN(EXEC). Line length cannot exceed 99.
5. START OF ADJUST ZONE. ?--/	5. A small adjust zone produces a tighter right margin than that produced by a larger adjust zone. If the system cannot end a line within the adjust zone, step 15 appears. Enter the number corresponding to the starting position of the user adjust zone and touch RETURN (EXEC). If no adjust zone is desired, enter 1 (one) and touch RETURN(EXEC).
	NOTE: An adjust zone of five (5) means that the system automatically ends the line and starts a new line if any word ends in one of the last five spaces of a line. (For example, with a margin of 70 the adjust zone would start at 65.) The next word is positioned on the next line. If no word ends within the last five characters, the system displays the line and permits the operator to hyphenate the last word (see step 15).
6. NUMBER OF TAB STOPS ?-/	6. Enter the number of tab stops (maximum of 9) and touch RETURN(EXEC). The minimum number of tab stops specified cannot be less than that contained in the text.
7. TAB STOP LOCATION ?--/	7. Enter number where tab is to be set and touch RETURN (EXEC). This step is displayed as many times as the number of tab stops entered in step 6.

NOTE:

When printing a document, the 'NO TABSTOP' message appears when a tab is encountered without a tab stop. Words are lost (not printed) on paper, but the disk is not affected.

8. LEFT MARGIN
?--/

8. Enter the number of spaces desired before each line (where the left margin is located) and touch RETURN(EXEC).

9. ENTER 1 FOR SINGLE SPACING OR 2 FOR DOUBLE SPACING
?-/

9. Enter 1 for single spacing or 2 for double spacing and touch RETURN(EXEC).

10. ENTER LINES PER PAGE.
?--/

10. Enter number of lines to be printed per page and touch RETURN(EXEC). The printer ejects a page after the specified number of lines have been printed.

11. ENTER 'SAME', 'ADJUST', OR 'JUSTIFY'
?-------/

11. Enter the type of playback mode desired and touch RETURN(EXEC).
'SAME' = document is played out exactly as it is stored on disk.
'ADJUST' = document is played back with new line lengths.
'JUSTIFY' = document is played back with a perfectly even right margin.

NOTE:

If a line of an unformatted listing starts with a space or any keyword except <->, and the print line just completed requires adjustment, the excess words or characters from that line will print at the beginning of the next print line; if the paragraph involved is within a <C-TAB>/<C-RET> restriction, the excess words or letters will print on the next line beginning at the defined tab.

It is important to note that under the above circumstances none of the adjusted words or letters on a print line are incorporated into the following print line.

12. MOUNT DISK AND ENTER VOLUME NAME.
?--------/
DEFAULT NAME = (volume name)

12. Mount appropriate disk, enter volume name, and touch RETURN (EXEC).

13. ENTER NAME OF LETTER OR DOCUMENT.
?-----/

13. Enter the name of the letter or document to be printed and touch RETURN(EXEC).

14. ENTER THE NUMBER OF RECORDS TO SKIP
?---/

14. Enter the number of records to skip and touch RETURN(EXEC). To print the entire document, simply touch RETURN(EXEC). The printer plays out the document. When finished printing out a document, the MENU is displayed.

15. NO ADJUST

POSITION CURSOR UNDER FIRST CHARACTER OF NEXT LINE.
PRESS SPACE FOR NEXT LETTER, BACKSPACE TO BACK UP.
PRESS "-" TO HYPHENATE AND PRESS RETURN(EXEC) TO PUT WORD ON NEXT LINE.

15. This step is optional and only used if an adjust zone was entered in Step 5. When a hyphenation decision is required, the printer ceases operation and the line appears on the CRT. The cursor is located under the first position of the adjust zone. Position the cursor (by spacing or backspacing) under the character which is to begin the next line. 2 options are available:

A) Position the cursor where the hyphen is to be located, touch "-", and the remainder of the word appears on the next line.

B) Position the cursor under the beginning of the word in the adjust zone, touch RETURN(EXEC), and the entire word appears on the next line.

16. END OF PROGRAM

16. The menu is automatically displayed on the screen when printing is complete.

DATA CONVERSION PROGRAM

This revised version of the 2200 Text Editing Utilities has many features not on the original version. One of the main differences is the way text is stored on the disk. Therefore, diskettes containing text created on the old system cannot be used with the new system. This program copies text from the old diskettes onto volumes created on the new system.

This program makes three assumptions: (1) the operator has a dual floppy diskette drive with 310 as a device address, (2) the output disk volume has been created on the new system with the Initialize Volume program, and (3) the output disk does not currently contain any text.

Instructions:

Log on as having a system disk device address of 310 and a text volume device address other than 310. Press FN KEY'9 and initialize the text disk, then execute the following three commands:

Enter CLEAR P, touch RETURN(EXEC).
Enter LOAD DCF "HLDA010M", touch RETURN(EXEC).
Enter RUN, and touch RETURN(EXEC).

DATA CONVERSION PROGRAM OPERATING INSTRUCTIONS

DISPLAYS	INSTRUCTIONS
1. PLEASE MOUNT DISK AND ENTER VOLUME NAME. ?--------/ DEFAULT NAME = (volume name)	1. Mount the newly initialized disk, enter the volume name, and touch RETURN(EXEC).
2. MOUNT THE OLD DISK IN DRIVE 310 AND PRESS RETURN(EXEC).	2. Remove the system disk from drive 310 and replace it with the text data disk to be converted. Touch RETURN(EXEC). The system now writes the contents of the old disk onto the new disk in the new format. This process takes about four minutes.
3. RE-MOUNT THE PROGRAM DISK IN DRIVE 310 AND PRESS RETURN(EXEC).	3. Remove the old disk and remount the system disk. Touch RETURN (EXEC).
4. DO YOU WANT TO CONVERT MORE FILES? (Y/N) ?-/	4. To convert more disks touch Y, RETURN(EXEC), and return to step 1. If no, touch N, RETURN(EXEC), the MENU is displayed.

APPENDIX A
HELPFUL HINTS

1. To delete a word and replace it with another word:

   a) Position the cursor under the first letter of the word to be deleted.

   b) Press DELETE.

   c) Press RIGHT WORD.

   d) Press INSERT.

   e) Type the word which is to replace the deleted word.

2. Make copies of all valuable disks with the COPY TEXT program.

3. Corrections are easier if performed after a complete page of text has been entered.

4. The System and data disks must be unprotected.

5. Every line written onto disk must include at least one space (space bar depressed once).

6. Before printing out a document, be sure the entered format is correct (i.e., sufficient number of tabs, correct tab stop locations, etc.).

7. The Text Editor program has an additional option which allows the aligning of columnar text. This can be achieved by using <BS> to backspace after a <C-TAB>. If there are too many columns to fit on one line of the CRT, before reaching the end of that particular line touch hyphen, RETURN(EXEC), and then continue entering text. When played out in ADJUST, all columns will be printed on the same line.

8. If desired, words may be prehyphenated when entering text. When printed out in ADJUST or JUSTIFY, this type of hyphen appears only if it happens to be the last character in a line. (Required hyphens, <->, always appear.)

APPENDIX B
FORMAT LAYOUT

The following is the layout of a format statement as it is stored on the 2200:

<FORMAT>AAA BBB CCC DDD EEE FFF GGG HHH III JJJ

Where:

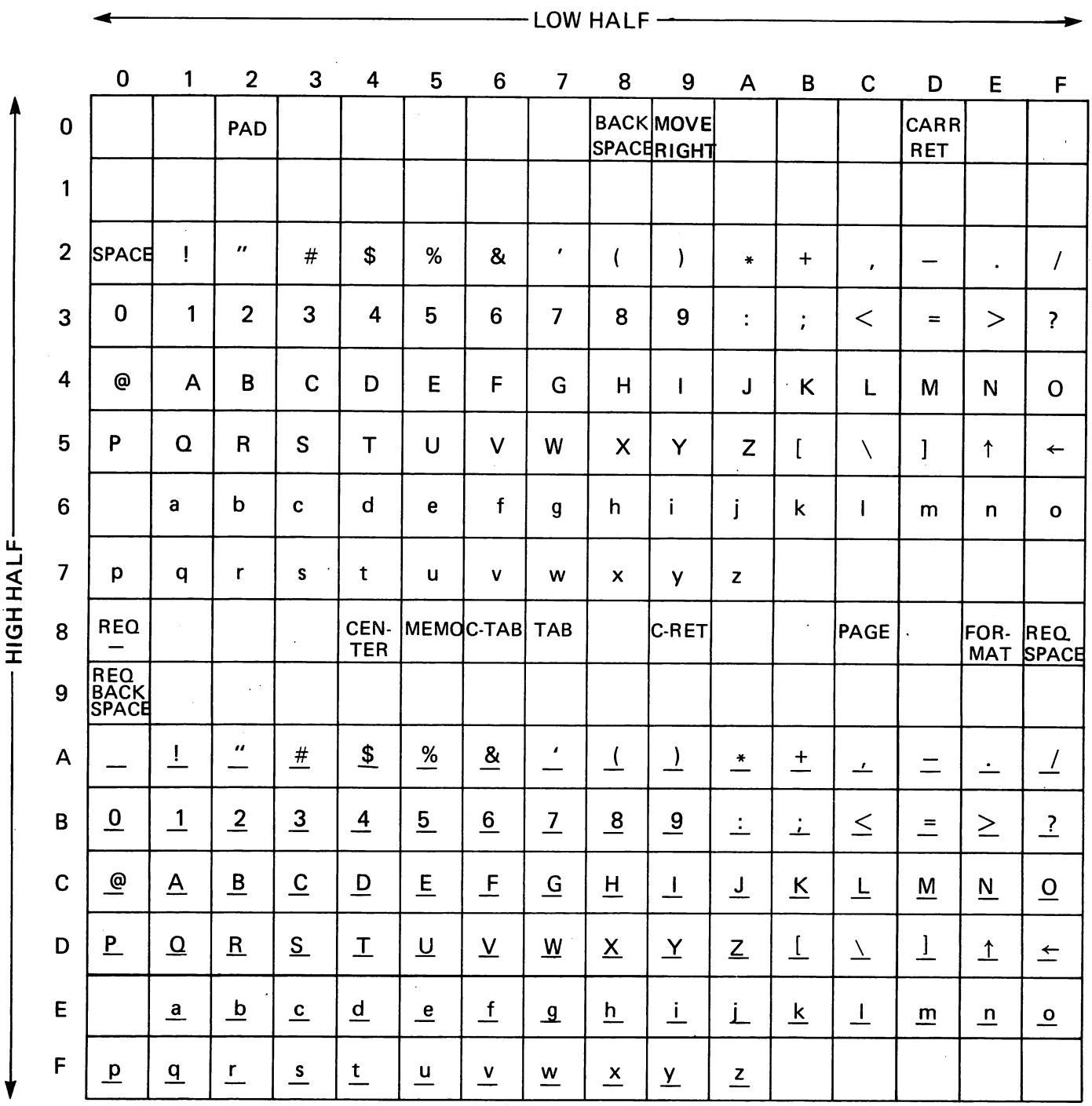
AAA = Start of adjust zone.
BBB = Line length.
CCC = Location of first tab stop.
DDD = Location of second tab stop.
EEE = Location of third tab stop.
FFF = Location of fourth tab stop.
GGG = Location of fifth tab stop.
HHH = Location of sixth tab stop.
III = Location of seventh tab stop.
JJJ = Number of valid tab stops.

The fields AAA and BBB specify the size of the adjust zone. For example, if an adjust zone started at location 065 and the line length were 070, then the six characters in locations 65 - 70 would constitute the adjust zone. If no adjust zone is desired, set AAA = 001. In effect, this makes the whole line the adjust zone.

The field JJJ tells the computer how many of the tab stop locations to read. For example, if two tab stop locations are specified in fields CCC and DDD, then field JJJ would contain 002 and the computer would not read the numbers stored in fields EEE through III.

APPENDIX C
2200 HEX CODES

The following codes are those used internally by the 2200:



	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0			PAD						BACK SPACE	MOVE RIGHT				CARR RET		
1																
2	SPACE	!	"	#	$	%	&	'	(	)	*	+	,	–	.	/
3	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
4	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
5	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	↑	←
6		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
7	p	q	r	s	t	u	v	w	x	y	z					
8	REQ —				CEN-TER	MEMO	C-TAB	TAB		C-RET			PAGE		FOR-MAT	REQ SPACE
9	REQ BACK SPACE															
A	_	!	"	#	$	%	&	'	(	)	*	+	,	–	.	/
B	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
C	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
D	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	↑	←
E		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
F	p	q	r	s	t	u	v	w	x	y	z					

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