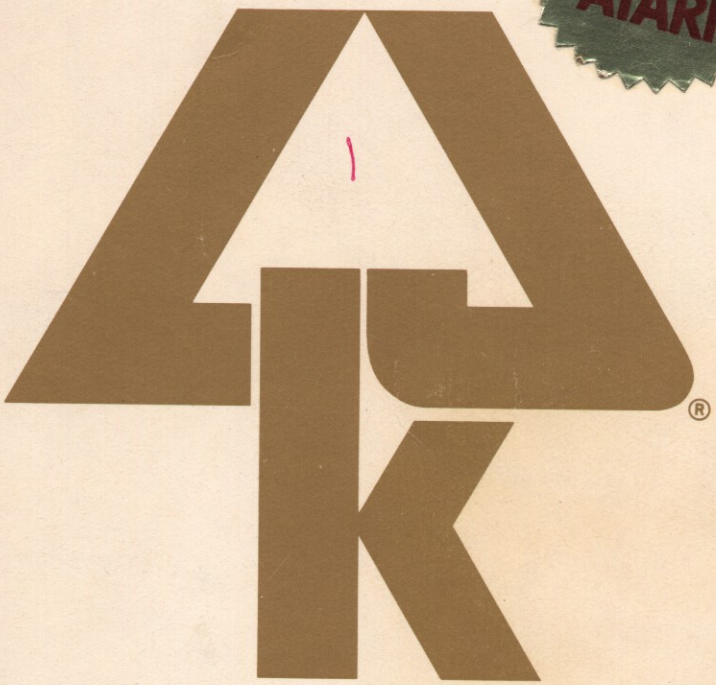

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Make your writing easy:

■ Write letters ■ Create reports ■ Edit your work ■ Change a word ■ Correct typos ■ Move lines ■ Combine paragraphs ■ Underline ■ Justify ■ Change margins ■ Indent ■ Bold face ■ Easy to learn ■ Fast ■ Menu driven ■ Logical commands ■ Works with any printer ■ Plus much more

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IMPORTANT

BECAUSE LETTER PERFECT IS A NON PROTECTED PROGRAM, LJK WILL OFFER ASSISTANCE AND SUPPORT *ONLY* TO REGISTERED OWNERS OF THE PROGRAM.

FAILURE TO REGISTER THE PROGRAM ON THE ENCLOSED REGISTRATION FORM WILL FORFEIT ALL PRIVILEGES OF OWNERSHIP INCLUDING FUTURE UPDATES AND CUSTOMER SUPPORT. ANY CORRESPONDENCE SHOULD INCLUDE YOUR PROGRAM REGISTRATION NUMBER.

TABLE OF CONTENTS

LETTER PERFECT V.6—GETTING STARTED

Section 1—Introduction

Welcome to Letter Perfect, a character-oriented word processing system. This program is designed for use with Atari computers with a minimum of 32K of memory and at least one drive. Letter Perfect will enable you to produce virtually any type of printed text, from letters to reports, memos to lists. You can edit your text, delete sections or words, insert lines or characters, move blocks of text, and search for special words. You also have the ability to format the printed version of your text and to change that format within the text. All your work can be saved on magnetic disks.

Letter Perfect is capable of merging text files with database files from another system, such as Data Perfect<tm>. This ability allows you to produce individualized form letters by including whatever information you want from the database. Letter Perfect can also be used in conjunction with a spell-checking system, such as Spell Perfect<tm>. With Spell Perfect you can add words to, delete words from, and make copies of your Dictionary.

This manual has been designed to introduce you to Letter Perfect through "hands-on" experience with the program. We urge you to work through both this section and the Tutorials that follow, using the computer along with the manual. After you have finished the Tutorials, we suggest you read through the Reference section, as there are some functions of Letter Perfect that are not included in the Tutorials. In the Appendix you will find detailed instructions for configuring Letter Perfect to your printer so that you can get the widest possible range of appearances and text styles on your printouts. An Index is provided for quick reference while you use Letter Perfect.

For those who are new to computing, a Vocabulary and Symbols list is provided on the following page. We suggest you read through it to familiarize yourself with some of the terms and symbols that will be used throughout this manual.

All Letter Perfect files are written in LJK DOS. To convert files from LJK DOS to Atari DOS and vice versa, you will need the LJK Utilities Program.

Make a backup copy of your Letter Perfect program disk using the procedure on page 7. Place the Master disk in a safe place and use the Backup as your working copy.

Because Letter Perfect is a non-protected program, LJK will offer assistance and support *only* to registered licensees of the program.

Failure to register the program on the enclosed Registration Form will forfeit all privileges, including future updates and customer support. Any correspondence should include your program registration number.

Table 1
Vocabulary and Symbols

CTRL	The Control Key
ESC	The Escape Key
Buffer	A temporary storage area for text.
Database	A set of organized data outside the program.
Default	The values already in the computer. For example, if you do not specify a particular value for the left margin, the computer will use the default value of one inch.
Delimiter	A character that marks the end of a block of text. Also called "marker".
Footer	A line of print that will appear at the bottom of every page. There are blank lines between the main text and the footer.
Header	A line of print that appears at the top of every page. There are blank lines between the header and the main text.
Hex	An abbreviation for "hexadecimal," or base 16 counting.
Marker	A character that marks the end of a block of text. It is usually used to define an area of text that will be moved to or copied to the buffer.
Menu	A list of commands or choices that appears on the screen.
Page	When used in reference to the text on the monitor, a page is the visible text on the screen. If you can't see a line or a word, it is on another page.
Parsing	Refers to the moving of an entire word to the next video line. If the number of spaces remaining on the current line is less than the number of letters in the word you are typing, the word will be parsed to the next line.
Scroll	One of the types of video movement. The screen is scrolling when one line of type disappears at the top of the screen while a new line of type appears at the bottom. The other type of movement is paging (the entire page on screen is replaced by a new page).
String	A set or series of letters, numbers, and/or spaces. "String" is a six character string, while "a string" is an eight character string (the space counts as a character).
Truncate	To cut off part of a string or sequence. When part of a line is truncated, it does not affect the rest of the line.

Section 2—Configuring the Program

The copy of Letter Perfect that you have purchased is unconfigured; that is, you need to tell the program various things about your computer's hardware and printer. At the end of the configuration sequence, all the data will be stored on the program disk. From then on, you will enter the program directly whenever you use Letter Perfect as the boot disk.

Should you ever need to reconfigure the program (you have changed printers, 80 column boards, etc.), you can easily access the configuration sequence again. You will be told more about that at the end of this section.

The Appendix contains a detailed explanation of how to configure Letter Perfect to your printer. For now, however, we are going to explain the configuration just enough to get the program running on your computer. Once you have learned something about the functions of Letter Perfect, you will be better able to decide how you want the program and printer set up.

Place the Letter Perfect disk in the drive (Drive 1 if you have a two drive system), and turn the computer on. The program will load automatically. You will now see the menu printed below.

> If the disk spins in the drive but nothing appears on your screen, turn the computer off and back on again. This time, however, press the **ESC** key while the disk spins.

This menu determines how Letter Perfect will appear on your screen. If you have 80 column video capability, you need to enter the number beside the name of your 80 column board and press **RETURN**. If you are not sure which board you have, check with your owner's information or contact your dealer. If you do not have an 80 column board, then you have 40 column video. Press **RETURN**.

The 0 option, Exit, will leave the program unconfigured. After entering 0 and pressing RETURN, wait for the disk to stop spinning. You will be prompted to insert another disk into the drive, and press # (SHIFT 3) to confirm your command. Pressing any other key will return you to the Letter Perfect configuration.

The next menu to appear on your screen is illustrated below.

```
          --- DISK DRIVE DEFAULTS ---

    0.  Previous Menu
    1.  Accept all
    2.  File Drive:                    1
    3.  Dictionary Drive:              2
    4.  Set Double Density?           No

SELECT [0-4] : 1
```

Letter Perfect is pre-set for a two drive (single density) system. If your system is different from the one described in the menu, you can change the default drive specifications now. To change, for example, the Dictionary Drive to Drive 1, you would enter 3 RETURN to select the correct option. The cursor will move to the value for Option 3 and wait. Now enter the number of the drive you want for the Dictionary; for example, to set Drive 1, you would now type 1 RETURN. To set the default for Double Density, change Option 4 to "Yes".

When you are satisfied with the default values as shown on the screen, press RETURN to continue with the configuration. You will hear the disk drive operate for a moment, and then you will see the next menu appear on the screen.

```
Print File:
Directory

  sample    LP    11        EPSON     PRT    3
  CENT      PRT    3        QUME      PRT    3
  PROWTR    PRT    3        NEC       PRT    3
  PC8023    PRT    3        OKD922    PRT    3
  ALT8510   PRT    3        ALT8023   PRT    3

Free: 408
```

This menu displays the files on the program disk. As you can see, there are nine "PRT" files; all of these are names of printers. Each file contains some pre-set defaults and other information specific to the printer named. If your printer is listed, type in that filename and press RETURN. If your printer is **not** named, choose a printer that is compatible—these are listed in your printer's User's Manual. Remember that all this information can be changed; right now, we just want the system configured enough to allow you to run Letter Perfect. Enter the name of the selected file and press RETURN. If you press RETURN without selecting a file, the information from the last configuration will be kept (since this is your first configuration, the Epson information will be in the memory). Your screen will now show the question printed below.

```
Edit printer values? [Y/N] : N
```

At this point you have the option to accept the pre-set printer values or to change them to values you have chosen. For now, we are going to accept the default values. Press RETURN, and the Exit Menu will appear on the screen.

```
--- EXIT MENU ---

0.  Previous menu
1.  Save data to program disk
2.  Save to disk & add to directory
3.  Goto beginning
4.  Exit without update

SELECT [0-4] : 1
```

This is the last menu of the configuration sequence. We are going to keep all the configuration data we have entered, so you press RETURN. You will hear the disk spin for a few moments, and then you will see the Main Menu of Letter Perfect.

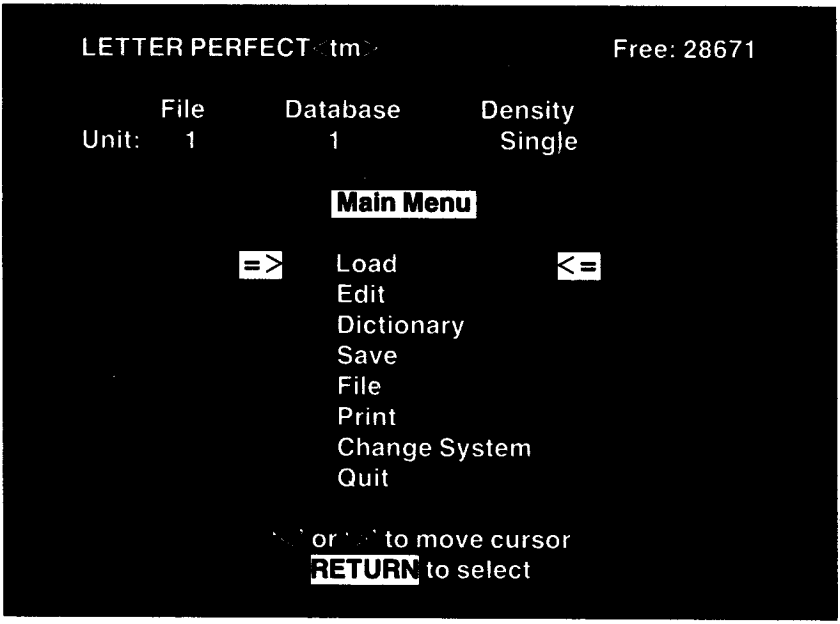
From now on, whenever you use Letter Perfect as your boot disk, you will enter the program at the Main Menu. If you should ever need to change the configuration data we just entered, follow this procedure:

1. Place the program disk in the drive.
2. Turn the computer on.
3. While the disk is loading, press ESC.

You will then be returned to the start of the configuration process. For additional information and help configuring your program, consult the Appendix.

Section 3—Choosing Commands

Your screen is now displaying the Main Menu. The Main Menu will always be the first thing displayed when you start Letter Perfect (unless you have decided to reconfigure your program). A diagram of the Main Menu is shown below.



The line entitled "Unit" indicates how your system is currently defined. This line shows the same information as the second configuration menu. Any changes you made at that time will be reflected here.

The next line is the title of the menu, shown in reverse video. Below the menu title is a list of commands. Each command will take you to a different part of Letter Perfect, and each part has a specific function. There are two ways to indicate your choice of command:

1) Type in the first letter of the command. For example, to Load a file, you would type **L** or **l**—it doesn't matter if you type in lower case or upper case.

2) Move the cursor (the pointers that are on both sides of the list). To move the cursor, use the "<" and ">" keys. The cursor wraps around the list; in other words, to get from the last entry to the top entry, you can either press **<** seven times, or press **>** once. After the cursor is positioned, press **RETURN**.

Section 4—Making A Backup

You can make a backup copy of the program from within Letter Perfect. The program is written on a single-density disk. In order to make a back-up copy, your system must be set for single density (i.e., the Unit line **must** read single density). If it is necessary to change the Unit line, follow the instructions given in Reference Section 7.

When your system is set for single-density disks, press F for File while on the Main Menu. The screen will show another menu, titled "File Menu" in inverse video. Now press B for Backup.

You will see "Delete, press #:" at the top of the screen. This is a safety feature to keep you from accidentally deleting something you haven't saved. In this case, you will be deleting whatever is in the Editor. Since you don't have anything in the Editor, there is no problem. Press # (SHIFT 3). If it is necessary for some reason to abort the backup operation, press RETURN instead.

The screen will now show the message, "Insert Blank Disk, press #:". If you are using a two drive system, insert the blank disk in Drive 2; with a one drive system, remove the Letter Perfect disk and insert the blank disk in Drive 1. **Be sure that the disk is blank, or that you have absolutely no use for it, since all information is going to be erased. Put a write-protect tab on the original Letter Perfect disk before going any further!** Press # to continue, or RETURN to avoid erasing the disk and start over.

With a two drive system, you need only sit back and wait for the copy to be made. On a one drive system, however, you will need to swap disks from time to time. A message will appear on the screen when it is time to change disks, and the message will also remind you which disk to insert. When you have inserted the correct disk, press RETURN.

Your backup is complete when you are returned to the File Menu. Press M to return to the Main Menu. Now that you have a backup, put the original disk in a safe place and work from the backup. It is a good idea to put a write-protect tab on the backup disk as well. You really need a program disk only to boot the system; files and projects can be stored on other disks. All your configuration information has been transferred to the backup disk. If you decide to reconfigure the program, you will have to remove the write-protect tab.

LETTER PERFECT V.6—TUTORIAL

Tutorial 1

To introduce you to many of the basic functions of Letter Perfect, you are going to edit and print a business letter. The uncorrected letter is already on your disk, and there is a copy of it on the next page. You will learn more about Letter Perfect, in less time, by working through an example. Keep your command sheet nearby!

Step 1—Loading

The first thing to do is load the letter into the program from the disk. Position the cursors around the "Load" command on the Main Menu and press RETURN. The screen will show you a list of all the files on the disk. The letter is saved in the file named "sample". Type in the word sample and press RETURN. Do not type the "LP" that follows the filename—this is a tag added by Letter Perfect whenever a file is saved.

Step 2—Entering the Editor

After a few seconds, the program will return you to the Main Menu. The file "sample" has been loaded into the memory. To make corrections, press E for edit and the uncorrected letter will appear on the screen.

Before you go any further, take a look at the screen. The cursor is at the top left corner. Any letter shown in inverse video is a printer command. The inverse video "F" on the first line indicates a Format Line. The left arrows (←) indicate carriage returns. As you can see in the first paragraph, there is not always a carriage return at the end of a screen line. Whenever you type a carriage return, the printer will be forced to change lines; for this reason, pressing the RETURN key is called a "forced carriage return". In general, only press RETURN when you **definitely** want a line feed, such as at the end of a paragraph or after a short address line. **Don't** press RETURN in the middle of a paragraph, even if you're at the end of a screen line. Let Letter Perfect take care of this.

Step 3—Correcting

Format Line and Character Delete

As you can see from the printed version on the next page, the letter is not justified along either margin. To correct this, we are going to set the justification and margin values back to the default values. Move the cursor to the second line by pressing the CTRL key and the . key at the same time. Now press and hold the CTRL key and then press the F key.

> Whenever you are going to use the CTRL key in conjunction with another key, you **must** press CTRL first and **hold** it while you press the second key. This type of command is written CTRL n.

File Name New Sample

3708 Johnson Road
Granite City, Illionis 62040
November 1, 1979

MR. HOWARD CUMMINGS
5811 flaming Leaf Court
North Chicago, Illinois 60064

Thank you for your recent inquire about product. Yours has been one of many that we have received and the favorable introduction of it to the market is most encouraging.

At the present time time we have been handling the orders we have received on a first come basis.

We anticapate that production will meeet inventory requirements in about two weeks. We are sorry for this inconvenience, but will make arrangements for you to receive your order in the quickest time possible.

We are sending under separate cover, our most recent publication, UNDERSTANDING MICROCOMPUTERS. This publicaton is we feel a valuable contributions to this new product and hope that it will serve to compensate you for having to wait for your order.

If there is any way that we be of further service to you, or may help you during this delay feel free to contact us.

Sincerely yours,

Robert C. Berryworth
Customer Relations

RCB:KLB

The inverse "F" indicates a format command. Type d (this must be a lower case "d"); the "d" tells Letter Perfect to return to default values, and it will do so automatically at printing time. The other character on the line must be deleted. To delete, press CTRL DELETE BACKSPACE. As you can see on the screen, the cursor is on the carriage return symbol. Press RETURN. There will be no change on the edit screen, except, of course, for the new Format command.

Cursor Movement and Line Insert

There should be more blank lines between the two addresses. To insert them, first move the cursor to the line just after the date. Move the cursor down by pressing CTRL ↓ once for each line. (To move the cursor up one line, press CTRL ↑.) To insert four blank lines, press SHIFT INSERT RETURN four times.

> Whenever you are going to use the SHIFT key in conjunction with another key, you **must** press SHIFT first and **hold** it while you press the second key. This command has the same procedure as CTRL n commands and is written SHIFT n.

Search and Replace

Next, the street name needs to be capitalized. We can use a search and replace command to do this. Press CTRL R. At the top of the screen you will see "Search:" and the cursor. Type in flaming and press RETURN. The screen now shows "Replace:" and the cursor. Type in Flaming and press RETURN. The cursor will move down to the word "flaming" and wait for you. If this is a place where "Flaming" is more appropriate, as it is, press the space bar. If, however, "flaming" had been correct in that position, you would press RETURN to continue the search and leave that word unchanged. The cursor will then continue on down the text until it reaches the end. Had the cursor found another "flaming" in the text, it would have stopped again. If you have a very long text and you are using the replace and search, you can stop the cursor by pressing ESC.

Top of Text

To return to the top of the text, press SHIFT CLEAR. The letter needs a salutation, but to insert it we have to move to the correct place in the letter. Using the same command as before, move the cursor to the line above the first paragraph. Press SHIFT INSERT to insert a blank line on the screen, type Dear Mr. Cummings:, and press RETURN. As you have probably noticed, a line is inserted **just above** the line the cursor is indicating. Now insert a blank line between the address and the salutation using the line insert command you just learned.

Move Cursor One Word

In the first paragraph, the word "inquire" is incorrect. To change it to "inquiry", we have to change the last letter. Move the cursor to the correct line and press CTRL Y. As you can see, CTRL Y moves the cursor one full word to the right. (Likewise, CTRL W moves the cursor one word to the left.) Keep going until you get to the word "inquire", and then move to the "e" by pressing CTRL →. When the cursor is on the "e", type in y.

Change Page

If you are at the bottom of the page, or if you can't see any more changes on this page, go on to the next. To change pages, press CTRL O. To go back one page, press CTRL Q.

Delete Word

The next error is the duplication of the word "time" in the second paragraph. Move to that line and advance to the first occurrence of the word "time" by pressing CTRL Y. To delete the word "time", press CTRL N. This command deletes the word to the right, as well as the space beside it. Likewise, CTRL L deletes the word and space to the left.

Continuous Insert

The last line in this paragraph should read "first come, first served basis", so we need to add the words "first served". The easiest way to do this is to enter the continuous insert mode. Move the cursor to the space between "come" and "basis" and press CTRL I. Note: you may see a change in the appearance of the screen or the cursor after giving the CTRL I command. This will depend on your hardware. Now type , first served. As you can see, the word "basis" backs up as the new letters are added. Once you have added the necessary letters, repeat the CTRL I command. The screen (or cursor) will return to normal.

Advance One Paragraph and Character Delete

The third paragraph has been indented although the other paragraphs have not. To eliminate the indent, advance to the beginning of that paragraph with a CTRL 6 command. Now press DELETE BACKSPACE; as you can see, this command deletes the character immediately to the left of the cursor. Repeat the command until the word "We" is flush with the left margin.

Underlining

Advance to the fourth paragraph using the CTRL 6 command again. In this paragraph, we need to eliminate the underlining of the word "Understanding". As you can see, there is no underline on the screen. There is, however, an inverse video "U" directly before the word "Understanding" and another after it. The inverse video "U" is an underline toggle character; in other words, the first "U" turns on the underline, while the second one turns the underline off. The underline command is only effective when the file is being printed. To eliminate the underlining, we just delete the toggles. Move the cursor under the inverse video "U", and use the CTRL DELETE BACKSPACE command to delete it. Repeat this for the second toggle.

> Both the underline toggle (CTRL U) and the boldface toggle (CTRL B) remain in effect until another toggle turns the command off or there is a forced carriage return.

Insert Character

The words "we feel" need to be set off from the sentence by commas. To do this, we need to insert two commas. Move to the space behind the word "is" and press CTRL INSERT. All the characters to the right of the cursor will back up one space. Press , and move to the space just behind the word "feel". Insert another comma by repeating the procedure. Now move to the next paragraph using the CTRL 6 command again. You need to insert the words "may" (to change the line "we may be") and ", please" (after the word "delay") in this paragraph. You have already learned the commands necessary to make these changes.

End of Text

The next error to correct is at the bottom of the letter. The initials of the secretary need to be in lower case letters. We could get to the bottom one line at a time, or one paragraph at a time, but there is a faster way. The command CTRL E takes you directly to the end of the file. Press CTRL E, back up to the "K" of "KLB", and type in klb.

You have now corrected the letter! Press ESC to leave the Editor. You will be returned to the Main Menu.

Step 4—Saving

If you want to save your corrections, press S from the Main Menu. The screen will change and you will be shown a directory of files on your disk. You can either accept the default shown on top of the screen (that is, to save your version of "sample" under the same name and erase the original version), or you can enter a new name to save your corrected letter

under. A new name has to begin with a letter and should not exceed 12 characters. If you accept the default, the original "sample" file will be erased! Press RETURN to accept the default or ESC after you have entered the new name. The program will then return you to the Main Menu. Your file is still in the Editor.

Step 5—Printing

Now that the letter is corrected, you will want to get a printout of it. First, press P or move the cursors to the "Print" command on the Main Menu. The screen will change to show you the "Print Menu"; as you can see, you have a choice of printing the file on the screen or on the printer. For now, let's just get a copy from the printer.

Select the "Printer" command. You will hear a beep, and the prompt "Copies, pages" will appear at the top of the screen. Right now, we want one copy of the entire file. Since that is the default, just press RETURN. The screen will tell you to place the paper at the top of the form and press RETURN; do so. The printer will begin printing your letter.

When the file has been printed, the screen will show you a directory of your disk and ask if you want to merge a file. If you wanted to attach another file to the letter without any breaks in headings or page numbers, you would type in that filename at this point. For now, though, just press RETURN. You will be returned to the Print Menu. To get to the Main Menu, press M.

Tutorial 2

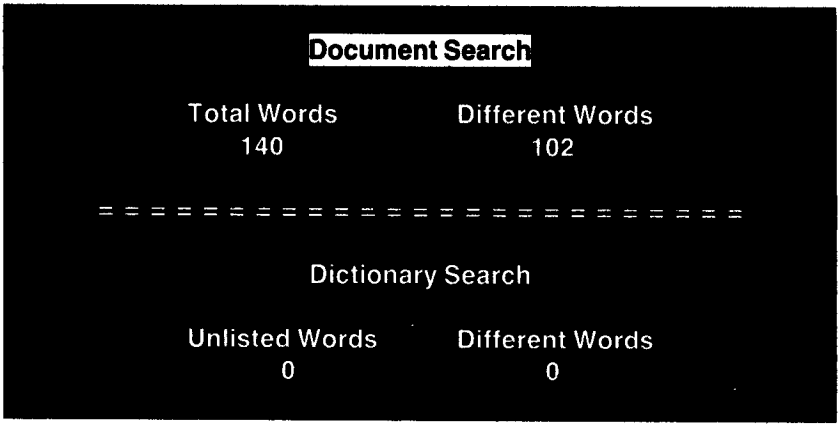
Now that you have corrected the sample letter, you need to spell check it. This Tutorial will show you how to use the spell checking capabilities of Letter Perfect.

Step 1—Checking the File

Since we have not loaded a new file, the corrected sample letter is still in the Editor. Be sure that the "Unit" line of the Main Menu is correct for your system. If you need to change the "Unit" line, read Reference Section (7) for instructions. 5 0 P5

If you have a two-drive system, place your Dictionary Disk in the drive you designated as the "Database Drive". Be sure you have the correct side of the dictionary face up; the dictionary is double density on one side and single density on the other.

To check the file, press D from the Main Menu. The screen will change to resemble the one on the next page.



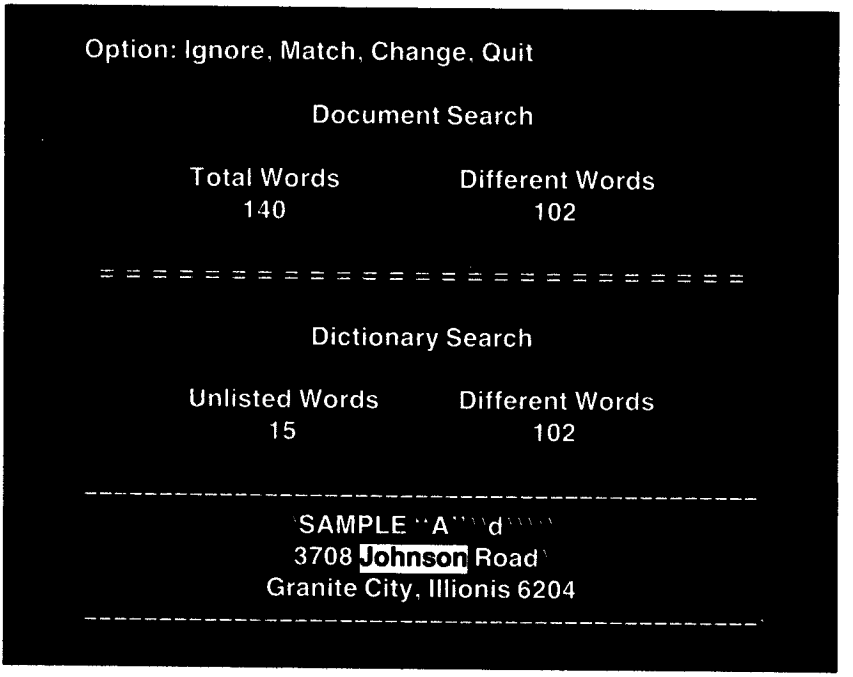
If you have a two-drive system, the drive with the Dictionary Disk will automatically begin to operate as soon as the counters on the screen have stopped changing. This means that the words in the Dictionary are being compared to the words in the file.

With a one-drive system, the prompt "Insert Dictionary Disk" will appear at the top of the screen. Remove the file disk from the drive and replace it with the Dictionary Disk. When you are ready, press RETURN. The Dictionary Disk will now begin to spin in the drive.

With either type of system, you will see the words "Dictionary Search" printed in inverse video on your screen, and the counters at the bottom of the screen will begin to change. When the number of "Different Words" is the same for both the dictionary and the document search, the search is complete, and the Dictionary Disk will stop spinning.

Step 2—Correcting

Regardless of your type of system, your screen will now resemble the following:



At the top of the screen are listed all the options available to you. They are: Ignore, Match, Change, and Quit. These options will be explained more fully in a little while. The text in the window is a portion of the text file being checked; the "^" characters are called "carets" and represent places where there are format commands or control characters in the text. The highlighted (inverse video) word is the first unmatched word in the file. Only words of 3 letters or longer are checked.

Aborting the Check

If you selected the wrong file for checking, you can now abort the checking procedure. To abort, press **Q**. A prompt will appear asking you to press **#** to confirm your command. If you wanted to abort the checking procedure, you would press **#**; this time, however, press any other key to resume the check. You will have the chance to end the checking procedure every time a word is shown in the window, but this is the time to end if you want no changes made at all.

The three remaining options have to do with the word shown in inverse video in the window. Ignoring a word means to leave that word in the text as it appears, and to ignore all other occurrences of that word in the file. Matching a word means to display a list of all words in the dictionary that sound like the highlighted word. Changing a word gives you the opportunity to correct or alter the highlighted word yourself.

Ignoring a Correct Word

We will now work through the correction of the sample file. The window is displaying the highlighted word "Johnson". This word is spelled correctly; it was highlighted because it is not in the dictionary. Press I. "Johnson" will not be changed, and it will be ignored wherever else it occurs in the file. After the I key is pressed, the text will begin moving through the window again.

Changing a Word

The next highlighted word is "Illionis". This word should be "Illinois", so it needs to be changed. Press C, and "illionis" will be printed at the top of the screen. The word will not be capitalized; capitalization is ignored while changing, but the capital letters will be replaced when the corrected word is returned to the file.

Whenever a word is printed at the top of the screen, you have several editing commands available to you. These commands are listed in the table below.

Editing Commands

CTRL →	Move cursor right
CTRL ←	Move cursor left
CTRL A	Move cursor to beginning of word
CTRL Z	Move cursor to end of word
CTRL INSERT	Insert character at cursor
CTRL DELETE	Delete character at cursor
DELETE	Delete character left
ESC	Accept word up to cursor
RETURN	Accept entire word

To correct the spelling of "Illionis", move the cursor to the letter "o", and type in no. The word is now spelled correctly. Press RETURN; this will enter the word into the file exactly as it appears on the change line, regardless of the fact that the cursor is in the middle of the word.

> Note the difference between ESC and RETURN. ESC accepts the word only up to (and not including) the cursor character; RETURN accepts the entire word as it appears on the screen. When changing an entire word, use the RETURN command, but when shortening a word, use the ESC command.

The text has moved through the window again, and the newly highlighted word is "HOWARD". This time, press I to ignore the word. The Dictionary does not contain proper names. The words "CUMMINGS" and "Chicago" will also appear; press I for each of them. The word "Illinois" will now be highlighted. This time the word is spelled correctly, so press I to ignore it.

Matching a Word—Selecting From the List

The next highlighted word is "anticapate". This time we will use a different option to check the spelling. Press M; you will hear the Dictionary disk spin for a few moments, and then a list of words that sound like "anticapate" will appear on the screen.

```
Option: More, Sel, Quit
    1 anticipated          2 anticipating
    3 anticipation         4 anticipate
    5 antiseptic           6 handicapped
-----------------------------------------------
      s we have received on a first come, firs
      t served basis. We anticapate that prod
      uction will meeet inventory requirements
-----------------------------------------------
```

Whenever you are not sure of the spelling of a word, do a Match on it. As you can see, the word is actually spelled "anticipate", and it is designated as word number 4 on the list.

You could go back to the checking mode and Change the word yourself, but there is an easier way. Press S for Select; a prompt will appear, asking you for the number of the word you want. Press 4 RETURN. The word "anticipate" will now be printed at the top of the screen. You have a chance to edit the word before inserting it into the text. All the editing commands listed in the previous table may be used here. When you are satisfied with the word, press RETURN (or ESC if applicable) and the word will be inserted into the text.

> The Quit option on the "More, Sel, Quit" menu does not take you back to the Main Menu of Letter Perfect. It returns you to the "Ignore, Match, Change, Quit" spell checking menu.

Matching a Word—Multiple Lists

The window will now be highlighting the word "meeet". Press M to Match it. This time, a long list of words appears on the screen. Actually, though, the list is even longer; press M for More, and more words that sound like

"meeet" will be printed. If you continue to press M, you will eventually run through all the lists and be returned to the first one. Since the correct spelling is word #28 of the first list, get back to that first list and Select word #28. Insert it into the file by pressing RETURN.

The next two words to be highlighted, "quickest" and "MICROCOMPUTERS", are spelled correctly. Press I for each of them.

The next word highlighted is "publicaton". Press C to Change it. Correct the word by moving to the last letter (CTRL Z), backing up twice (CTRL ←), inserting a space (CTRL INSERT), and typing i. Now press RETURN to insert the word into the text.

The last four words to be spell checked are names and initials. They are all spelled correctly, but they are highlighted because they are not in the dictionary. Use those words to practice some of the editing and matching commands you have learned.

Now that the file has been checked, you will need to save it. The save procedure varies, depending on whether you have a one- or two-drive system.

Step 4—Saving

With a one-drive system, the prompt "Insert File Disk" will appear at the top of the screen. Remove the Dictionary Disk from the drive and insert the File Disk (in this case, the Program Disk). Press RETURN when you are finished. A directory of the disk will print on the screen and the prompt "Save File:" will appear. Press RETURN to accept the default and replace your incorrectly spelled file, or enter a new filename and press ESC.

If you have a two-drive system, a directory of the File Disk will print on the screen automatically. Press RETURN or a new filename and ESC when the prompt appears.

Before you begin making files and letters of your own, you should take some time to read through the rest of the manual. There are many functions of Letter Perfect that you have not learned about yet. Also, it is a good idea to make some formatted disks now, before you make any files that need to be stored. Instructions for formatting disks can be found in Reference Section 5.6. You may also want to place a write-protect device on the Program disk you are now using.

LETTER PERFECT V.6—REFERENCE

Section 1—Load

Each time you start Letter Perfect, the program is loaded into the computer and the Editor is empty. If you want to start a new file, you just enter the Editor and start typing. If you want to work on an already existing file, however, you must first load that file into the Editor.

Any file designated as a Letter Perfect file (filename LP) on the disk currently in the drive can be loaded. Only one file can be loaded at a time. To load a file, you need to select the "Load" option on the Main Menu. You will hear the disk spin, and a directory of all files on the disk will appear on the screen. A sample directory is shown below.

```
Load File:
Directory

  Letter    LP    14        memo      LP     5
  recipes   LP    14      # REPORT    LP    21

Free: 476
```

As you can see, there are four files on this disk. The "LP" beside the filename indicates that the file is a Letter Perfect text file (as opposed to a printer file or database, for example). The number shows how much space the file takes up on the disk. The "#" symbol indicates that the file "REPORT" is locked. More information on locked files is given in Reference Section 5.2.

Once the directory has been printed, you enter the name of the file you want to work on. After typing the name, press **RETURN**; you will be returned to the Main Menu and the file will be in the Editor. If the file you were looking for is not on this disk, you can press **RETURN** without entering a filename. That will also return you to the Main Menu.

You need to be careful when typing the filename to be loaded. The filename must be typed *exactly* as it appears in the directory but *do not type the "LP" extension*. For example, typing **letter** will get you an error message saying "File not found". Only typing **Letter** will load that file. If you get the error message, press any key and you will return to the Main Menu.

Once a file is loaded, any file that had been in the Editor is replaced. Be sure you have saved any work done in the Editor before loading a new file. If you attempt to load a file but change your mind, you can press **RETURN** when asked for the filename. The loading operation will be aborted, and the work that had been in the Editor will still be there.

Section 2—Edit

2.0 Introduction

The Editor is the work area of Letter Perfect. All writing and correcting of text is done here. It may help to think of the Editor as an endless blackboard, but with many additional features. As with a blackboard, you can write and erase easily. Using the Editor, however, you can also eliminate blank areas, move text without rewriting it, insert lines and letters into text, and specify exactly how you want your printed copy to look.

There are several basic features of the Editor that need to be explained before any others. When you first enter the Editor, you will see a mostly blank screen. There will be a line of print at the top, identifying Letter Perfect and showing how much free space remains in the Editor. This free space is roughly equal to the number of characters you can enter before running out of room. Directly below this line, at the far left side, you will see the cursor.

When you enter text into the Editor, you don't have to bother with carriage returns as you do with a typewriter. When your words approach the end of the video line, Letter Perfect will count the number of spaces left on the line and compare them to the letters in the word you are typing. If there is not enough space, Letter Perfect will print the word on the next line and insert blanks or nulls to fill out the current line. This is called "parsing". During editing, some words may start on one line and finish on the next because of text movement. When it becomes difficult to read the text because of these broken words, you can rejustify the entire text. This will cause Letter Perfect to re-parse the text and eliminate the broken words.

Whenever you press RETURN, you will see a carriage return character on the screen. This character represents a place where the printer will change lines and is called a forced return. You should only press RETURN when it is necessary to have a carriage return on the printed text, such as at the end of a paragraph or to insert a blank line. Letter Perfect will take care of the rest of the carriage returns.

Each time a forced return is entered or the text on the screen is parsed, the free space indicator at the top of the screen is updated. By keeping an eye on this indicator, you will know how much room you have left for your text.

Most commands in the Editor require you to press two or more keys, with the first key of the sequence being a function key. **Whenever you use the CTRL or SHIFT key in a command, you must hold down that key while you press the next key in the sequence.**

For your convenience, Letter Perfect can generate a set of four additional printer characters (listed below). The characters will be produced on your printer as they appear below; they may or may not appear that way on your screen. Screen appearance depends on your system's hardware.

CTRL , produces {
CTRL / produces ~
CTRL ; produces `
CTRL . produces }

To leave the Editor, simply press ESC. If anything is in the copy buffer, you will hear a beep and an error message will appear at the top of the screen. The buffer must be empty before you can leave the Editor. This is a safety check to eliminate losing information accidentally.

2.1 Cursor Movement

During editing, you will need to move the cursor around the screen and from page to page. The commands to do this are explained in this section.

Cursor Right CTRL →

To move the cursor one space to the right, press CTRL and the right arrow →. If the cursor is at the far right end of the line, it will move to the first position on the next line, at the far left end. If the cursor is at the far right end of the last line on screen, the screen will scroll up one line. The cursor will appear on the far left side, but any character in that position will not be shown. To tell whether or not there is a character there, you must move another space.

Cursor Left CTRL ←

To move one space to the left, press CTRL and the left arrow key ←. If the cursor is at the far left end of the line, it will move to the last position on the previous line (at the far right end). If the cursor is at the far left end of the top line of the screen, the screen will change to show the previous page with the cursor at the far right end of the second to last line (the top line of the original page becomes the bottom line of the new page).

Beginning of Line CTRL A

To move immediately to the beginning (far left end) of the current line, press CTRL A. The cursor will move to the first position on the line. If the cursor is already at the left end of the line, nothing will happen.

End of Line CTRL Z

To move immediately to the far right end of the current line, press CTRL Z. The cursor will move to the position just past the last entered character on the line (including spaces); this may not be the last possible position on the line. If the cursor is already at the right end of the line, nothing will happen.

One Line Down CTRL ↓

To move one line down, press CTRL and the down arrow key ↓. The cursor will move one line down while staying in the same column. If you are on the last line of the text, the cursor will move to the position after the last character entered. The command will do nothing from then on.

One Line Up CTRL ↑

To move up one line, press CTRL and the up arrow key ↑. The cursor will move up one line while staying in the same column. If you are at the top of a page, the current page will be replaced on screen by the previous one, and the cursor will be on the second to last line of the new screen. If you are on the first line of the program, you will hear a beep and the cursor will move to the position at the far left of the top line.

Before

This is an example of the
way this command works near
the top of a page.

After

Last line of the previous page.
This is an example of the

The underline shows the location of the cursor.

End of Page CTRL 0 (zero)

To move the cursor directly to the bottom of the page from any position, press CTRL 0. The cursor will move to the position just past the last entered character on the page; this may not be the last possible position. If the cursor is already at the end of the page, nothing will happen.

Top of Page CTRL CLEAR

To move the cursor directly to the top of the page from any position, press CTRL CLEAR. The cursor will move to the first position on the page, on the far left end of the top line. If the cursor is already at the top of the page, nothing will happen.

One Word Right CTRL Y

To shift the cursor one word to the right, press CTRL Y. The cursor will shift to under the first letter of the next word. If you are at the end of the line, the cursor will move to the first letter of the first word on the next line. If you are at the end of a page, the screen will scroll.

Before: the first line After: the first line

The underline shows the location of the cursor.

One Word Left CTRL W

To shift the cursor one word to the left, press CTRL W. The cursor will shift to under the first letter of the previous word. If you are at the beginning of a line, the cursor will move to the first letter of the last word on the previous line. If the cursor is at the top of the screen, the screen will change to show the previous page, and the cursor will be under the first letter of the last word on the second to last line.

Before

This is an example of the
way this command works near
the top of a page.

After

Last line of the previous page.
This is an example of the

The underline shows the location of the cursor.

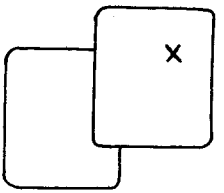
Advance Paragraph CTRL 6

To move the cursor to the beginning of the next paragraph, press CTRL 6. The cursor will move to under the first character of the next paragraph. Remember that a paragraph is defined by a forced carriage return. If you are at the end of the text when you give this command, nothing will happen.

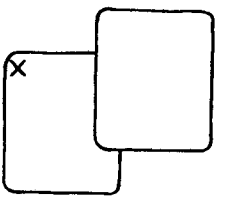
Next Page CTRL O

To move to the next page of text, press CTRL O. The screen will change to show the next page of text, with the cursor at the far left end of the top line. If you are at the end of the text, the cursor will move to the position just past the last entered character on the page. From then on, the command will have no effect.

Before



After



The "x" shows the location of the cursor.

Previous Page CTRL Q

To return to the previous page of text, press CTRL Q. The screen will change to show the previous page, with the cursor located at the far left end of the top line. If you are on the first page, you will hear a beep and the screen will reprint.

The "x" shows the location of the cursor.

Beginning of Text SHIFT CLEAR

To return to the beginning of the text from any point, press SHIFT CLEAR. The screen will change to show the first page of the text, and the cursor will be on the top line at the far left end. This command will have the same effect from anywhere in the text.

End of Text CTRL E

To move to the end of the text from any point, press CTRL E. The screen will change to show the last page of the text, and the cursor will be in the position just after the last entered character. This command will have the same effect from anywhere in the text. If you are already at the end of the text, this command will have no effect.

Jump to Marker CTRL X

To move the cursor to a marker in the text, press CTRL X. Instructions for setting a marker are in Reference Section 2.8. The cursor must be located before the marker in the text for this command to work. When the command is given, the screen will scroll until the cursor is resting below the marker. If this command is given without a marker in the text or if the cursor is located after the marker, the screen will scroll and the cursor will be placed at the end of the file (the position just past the last entered character).

The X represents the cursor location, while the M shows the marker location.

2.2 Deletions

One of the advantages to Letter Perfect word processing is the ease with which you can delete and rewrite parts of your text. All the delete commands are described below. In the examples, the underline shows the position of the cursor.

Character Right CTRL DELETE BACKSPACE

To remove the character the cursor is indicating, press CTRL DELETE BACKSPACE. The character will disappear, and the remaining characters to the right on that line will shift over one position.

Before: misstake After: mistake

Character Left DELETE BACKSPACE

To remove the character directly to the left of the cursor, press DELETE BACKSPACE. The character will disappear. If there are any characters to the right of the cursor, these characters will move one position to the left.

Before: misstake After: mistake

Word Right CTRL N

To remove the word to the right of the cursor, press CTRL N. A word is defined as all characters from the cursor position up to, and including, the next space. The cursor must be located under the first letter of the word to ensure deleting the entire word.

Before: first mistake After: mistake
Before: first After: fi

Word Left CTRL L

To remove the word to the left of the cursor, press CTRL L. If the cursor is located in the middle of a word when the command is given, that word will be the one deleted. To be sure of deleting the word to the left, place the cursor in the space between the two words or under the first letter of the next word.

Before: the first line After: the line
Before: the first line After: first line

Current Line CTRL 5

To remove the video line in which the cursor is positioned, press CTRL 5. The video line will be deleted, the cursor will move to the left end of the screen, and the next line will move into the position of the deleted line. This command will work from any position in the video line.

Line From Cursor SHIFT DELETE BACKSPACE

To remove one line of video type, measured from the current cursor position to the same column on the next line, press SHIFT DELETE BACKSPACE. This is more easily visualized using an example.

Before:
This is an example of the "line from cursor" delete
command. The underline shows where the cursor is.

After:
This is an example of line shows where the cursor is.

This command will work from any position on the video line, and the cursor will not move. If there is not a complete line of text after the cursor, the line will be deleted as far as possible, and the cursor will be followed by blanks.

Delete Functions

Delete functions are commands that can be used to eliminate large sections of text. Delete functions are always accompanied by a beep and the appearance of a prompt line at the top of the screen. After you have selected which delete function you want, you will be asked to confirm your command by entering a # keystroke (SHIFT 3). Any other keystroke will cancel your command.

All After Cursor CTRL K A

To remove all text after the cursor position, press CTRL K. When the prompt appears, press the A key. To confirm your command, press the # key. The cursor character and all text following will disappear from the screen, and the cursor will stay in the same place. If you do not want to delete, press any other key to cancel the command.

All Before Cursor CTRL K B

To delete all text before the position of the cursor, press CTRL K. When the prompt appears, press the B key. To confirm your command, press the # key. All text before the cursor (not including the cursor character) will disappear from the screen. The remaining text will be moved so that it begins at the top left hand corner of the screen, it will be rejustified, and the cursor will be placed at the top left corner position. If you do not want to delete, press any other key to cancel the command.

Up To Marker CTRL K M

To delete all text from the cursor position to a marker in the text, press CTRL K. When the prompt appears, press the M key. To confirm your

command, press the # key. Instructions for setting a marker are in Reference Section 2.8. All text between the cursor and the marker, including the character the cursor is indicating, will be deleted. The cursor will stay in the same position, but the text will move so that the first character after the marker is the cursor character. The marker itself will disappear. The cursor must be ahead of the marker in the text for this command to work. If you do not want to delete, press any other key to cancel the command.

All Text (New File) CTRL K N

To delete all text in the Editor (in order to start a new file), press CTRL K. When the prompt appears, press the N key. To confirm your command, press the # key. The screen will go blank, the cursor will be at the top left of the screen, and the Editor will be empty. If you do not want to delete, or if you have not yet saved the work in the Editor, press any other key to cancel the command.

To End Of Paragraph CTRL K P

To delete up to the next paragraph of text, press CTRL K. When the prompt appears, press the P key. To confirm your command, press the # key. Remember that a paragraph is defined by a forced carriage return. If the cursor is at the beginning of a paragraph when this command is given, that entire paragraph will disappear and the cursor will not move. If the cursor is in the middle of a paragraph, the remainder of that paragraph (including the cursor character) will be deleted. The text will shift so that the next character after the paragraph is the cursor character; the cursor itself will not move. If you do not want to delete, press any other key to cancel the command.

Copy Buffer CTRL K C

To delete the contents of the copy buffer, press CTRL K. When the prompt appears, press the C key. To confirm your command, press the # key. Instructions for using the copy buffer are in Reference Section 2.6. You cannot leave the Editor until the buffer is empty. If you give this command when there is no text in the buffer, nothing will happen. If you do not wish to delete, press any other key to cancel the command.

All Tabs CTRL K T

To delete all tab stops, press CTRL K. When the prompt appears, press the T key. **This function does not have the safety check.** All tabs will be wiped out. To check the location of the tabs before you delete, press CTRL T.

2.3 Insertions

There are three different commands to allow you to insert characters into existing text. You can insert as much or as little text as you wish. In the examples below, the underline shows the location of the cursor.

Single Character CTRL INSERT

To insert one character position into the text, press CTRL INSERT. The position is inserted immediately to the left of the cursor. The character position is entered as a space, with the cursor beneath it.

Before: example After: exam_ple

Single Line SHIFT INSERT

To insert one video line into the text, press SHIFT INSERT. If the cursor is at the far left end of a line when this command is given, a blank line will be inserted immediately above the line of the cursor. The cursor will then be at the far left end of a blank line. What happens when the cursor is in the middle of the line is best shown by example.

Before:
The underline in this sentence__shows the location of
the cursor.

After:
The underline in this sentence__
shows the location of
the cursor.

As you can see, one full video line is inserted from the cursor location around to the same column in the next line. The cursor itself does not move. This command will work from any position in the line.

Continuous CTRL I

To perform continuous insertion, press CTRL I. You may see a change in your screen or cursor after giving the command; this will depend on your system's hardware. Continuous insertion means that the text following the cursor will "back up" as new text is entered (as opposed to being written over). The newly entered character will appear exactly where the cursor is, and whatever character the cursor had been on will move (with the rest of the text) one space to the right. It is difficult to write in this mode for any length of time, as the screen becomes very distracting. To turn off the continuous insertion, press CTRL I again.

2.4 Searches

A convenient function of word processing is the ability to search through a document for a particular word or phrase. Letter Perfect has three

searching functions, two of which are also replacing functions. Beware: searches will only work for the part of the text located after the cursor; to ensure searching the entire document, move the cursor to the top of the file before searching.

Search CTRL S

To begin a search for a specific character string, press CTRL S. You will hear a beep, and the prompt "Search:" will appear on the top line of the screen. Type in the character string you want to search for and press RETURN. Capital letters are ignored; the character string will be located wherever it appears, regardless of how you type it. The cursor will move to the first appearance of the string, and you will hear a beep. To continue looking, press the space bar. The screen will scroll if the search extends over more than one page. To stop the search, press any character at a pause, or ESC. If allowed to finish on its own, the search will stop at the end of the text, with the cursor at the position just after the last entered character.

Replace CTRL R

To replace a specific character string in a file, press CTRL R. You will hear a beep, and the prompt "Search:" will appear at the top of the screen. Type in the string you are looking for and press RETURN (capital letters do not matter). You will hear another beep, and the prompt "Replace:" will appear at the top of the screen; now type in the new string and press RETURN (capital letters *do* matter here). The cursor will move to the first occurrence of the "Search" string in the text, pause, and you will hear a beep. To replace, press the space bar. If, however, you do not want to replace that particular string, press RETURN. The screen will scroll if the search extends over more than one page. To end the search in the middle of the text, press ESC. If allowed to finish, the search will stop at the end of the file, with the cursor located just behind the last entered character.

Global Replace CTRL CAPS

To replace a specific character string wherever it appears in a file, press CTRL CAPS. You will hear a beep, and the prompt "Search:" will appear at the top of the screen. Type in the string you are looking for and press RETURN (capital letters do not matter). You will hear another beep, and the prompt "Replace:" will appear at the top of the screen; now type in the new string and press RETURN (capital letters *do* matter here). The cursor will scroll through the text, replacing the character string wherever it occurs. To abort the search/replace in the middle of the text, press ESC. If allowed to finish, the search will stop at the end of the file, and the cursor will be located just behind the last entered character. The Global Replace is a quick, convenient function, but you must be careful when you use it. *The string will be replaced, without exception,*

everywhere it occurs, including in the middle of words. For example, if you are globally replacing "the" with "this", you will also get words like "whethisr" and "thisre" and other odd combinations. To avoid this, you can specify the search string as " the ", since spaces can be part of a string. Remember, though, to keep the spaces in the replacement string (" this "); otherwise, the words will run together.

2.5 Tabs

Tabs are position markers that make it easy to move to a specific spot on a line. They are especially useful for typing columns. The Editor of Letter Perfect has a set of default tabs located every five spaces, but these can be deleted, added to, or changed easily. Saving a file does not save its tab positions, although the text will stay at its tabbed column. Erasing a file from the Editor memory does not erase the tab positions.

Show Tabs CTRL T

To see the location of all tabs, press CTRL T. Across the top of the screen will appear a line of dots and plus signs. The dots represent cursor positions and the plus signs are the positions of the tabs. The line will stay on the screen until you enter a forced return, until you enter a command that requires a prompt, or until the Editor returns the cursor to the left side of the screen. Any tabs you set after giving this command will not show on the line; to see the new tabs as well, give the command again.

Set Tab SHIFT TAB

To set a tab at the cursor position, press SHIFT TAB. The cursor will not move and there will be no change in the screen. If you issue this command at a position where there is already a tab, nothing will happen.

Clear Tab CTRL TAB

To clear (erase) the tab at the cursor position, press CTRL TAB. The cursor will not move and there will be no change in the screen. If you issue this command at a position where there is no tab, nothing will happen.

Tab Over TAB

To move the cursor to the next tab position, press TAB. The cursor will shift to the next tab position. Any characters in between will be left alone. If you issue this command at a position after which there are no more tabs, the cursor will not move.

Reset Default Tabs CTRL 2

To restore the default tabs, press CTRL 2. This will erase all current tab positions and replace them with the default tab positions of every fifth

space. These tabs are set automatically each time you start the Letter Perfect program.

2.6 Text Moves

Letter Perfect has a temporary text storage area called a buffer. Text can be entered into the buffer and then copied from, or be moved to another position. This makes it easy to move large pieces of text from one area of a file to another without a lot of retyping. The buffer holds approximately seventeen screen pages of text; depending on your system, this value could be higher or lower. You can put many pieces of text into the buffer at different times without erasing any text already there. The text is "stacked"; that is, the new text is placed immediately after the last bit of text in the buffer. In order to put text into the buffer, you must put a marker at the end of the area you want to move or copy. For instructions on placing a marker, refer to the "Set Marker" command of Reference Section 2.8. You cannot leave the Editor until the buffer is empty.

Copy To Buffer CTRL 7

To copy the text between the cursor and the next marker into the buffer, press CTRL 7. The cursor will not move, and the original text is still in place. The copied text has been stacked into the buffer. Attempting to copy text without a marker will result in an error message.

Move To Buffer CTRL M

To move the text between the cursor and the next marker into the buffer, press CTRL M. The cursor will not move, but the marker and the text will disappear. The text immediately after the marker's position will move up, and the Editor will reparse and rejustify the remaining text. The original text has been moved into the buffer and stacked there. Attempting to copy text without a marker will result in an error message.

Copy From Buffer CTRL 9

To copy text in the buffer into the main file, position the cursor at the place where you want the text to be inserted. Press CTRL 9. The *entire* buffer will be copied into the text at the cursor position. The file text will be moved back, and the new file will be reparsed and rejustified by the Editor. The copied text is still in the buffer. Using this command without any text in the buffer will result in an error message.

Get From Buffer CTRL 8

To move the text from the buffer into the main file, position the cursor at the place where you want the text to be inserted. Press CTRL 8. The *entire* buffer will be moved into the text at the cursor position. The file text will be moved back, and the new file will be reparsed and rejustified by the Editor. The buffer is now empty. Using this command without any text in the buffer will result in an error message.

2.7 Functions

There are several commands to control the Editor and the appearance of the screen during editing. These commands are presented here.

Quit ESC

To leave the Editor from any point, press ESC. You will be returned to the Main Menu. Your work will stay in the Editor until you load another file or you delete the Editor. Once another file is loaded or the Editor is deleted, the work you did is gone if you did not save it with the Save command from the Main Menu. Regardless of where you Quit, you will start at the top of the file when you re-enter the Editor.

Rejustify Text CTRL J

To rejustify and reparse the text, press CTRL J. The screen will shift to show the first page, and the cursor will be in the top left position. All words that had been split because of editing will now be back together. This command will work from anywhere in the text.

Before:	After:
This is an example o	This is an example
f how the text can g	of how the text can
et out of alignment.	get out of alignment.

Continuous Scroll CTRL 4

To scroll completely through the file in the Editor, press CTRL 4. The file will scroll beginning at the cursor position. To speed up the scroll rate, press the greater than (">") key, and to slow the rate down, press the less than ("<") key. By repeatedly pressing either key, you can obtain any scroll speed you like. To stop the scroll, press the space bar; to restart it, press the space bar again. To cancel the scroll command, press ESC. If the scrolling is cancelled and then restarted, you will have to readjust the speed control. This command is especially useful for finding a specific location in a long file.

Kill Type Ahead Buffer ATARI

The Type Ahead Buffer allows you to continue working even though the computer is still carrying out your last command. There are times, however, when you will realize that the computer is doing something you don't want (for example, it is deleting more words than you wanted it to). To stop the action, you must kill the Type Ahead Buffer. To do this press the ATARI key. The computer will stop whatever it was doing and the type ahead buffer will be empty.

Fix Window Width CTRL 3

To change the number of characters per line on the screen, press CTRL 3. You will hear a beep, and the prompt "Width:" will appear at the top of the screen. Enter the number of characters per line and press RETURN. The number entered must be less than or equal to the maximum character display width of your screen. The minimum value is 25 characters per line. The screen will change to show the first page of the text. The screen width will now be the value you entered, the text will have been reparsed, and the cursor will be in the top left corner.

2.8 Printer Characters

Letter Perfect offers you great variability in the appearance of your printed text. This section describes the various commands that control the printer. None of these commands will show on the printed text, although you will see them on the screen. To remind you of this, the first character is shown in inverse video.

Format Commands CTRL F

The Format Line controls all the margins, spacing, and type-style options. It also provides a place for comments on the file that you do not want to have printed. To select any of these options, press CTRL F; an inverse "F" will appear on the screen. You now enter as many of the format commands listed below as you wish. Each command is described separately. If you do not enter a number after a command that requires one, that command will be ignored. After you have entered all the commands you want, press RETURN.

Defaults d — Entering a d on the Format Line resets all printer specifications to the default values, as entered during the program configuration. However, the page numbering, headers, and footers will not be changed. This allows you to change margins and spacing in the text without disturbing the "frame" of the page.

Reset r — Entering an r on the Format Line resets **everything** to the default values and wipes out headers, footers, and the page numbering as well. This command is helpful when you want to completely change the appearance of a new section of text from a previous one.

Left Margin **m** — To change the left margin, type an **m** on the Format Line and follow it with the number of spaces you want for the margin. For example, if you want a margin of 15 spaces, you would enter **m15**. The number can range from 1 to 256 (a zero means 256). This does not change the right margin. You will usually want to change the line width along with the left margin.

> The change in margins for this sentence is the result of a Format Line margin command and a line width command.

Top Margin **t** — To change the size of the top margin, type a **t** on the Format Line and then the number of lines you want. This number can range from 1 to 256 (a zero means 256). If you have a printer that advances by half-lines, you will need to double this value.

Bottom Margin **b** — To change the size of the bottom margin, type a **b** on the Format Line and then the number of lines you want. This number can range from 1 to 256 (a zero means 256). If you have a printer that advances by half-lines, you will need to double this value.

Line Width **w** — To change the number of characters printed per line, type a **w** on the Format Line and then the number of characters you want. This number can range from 1 to 256 (a zero means 256). By shortening the line width, you are moving the right margin in, and when you increase the width, you push the right margin out. There is no command to fix the right margin directly. The change in the right margin for this sentence is the result of a Format Line width command.

Header Spacing **h** — To change the number of lines between the header and the main text, type an **h** on the Format Line and then the number of lines you want. This number can range from 1 to 256 (a zero means 256). You must enter this command **before** you enter the header itself. If you have a printer that advances by half-lines, you will need to double this value.

Footer Spacing **z** — To change the number of lines between the main text and the footer, type a **z** on the Format Line and then the number of lines you want. This number can range from 1 to 256 (a zero means 256). You must enter this command **before** you enter the footer itself. If you have a printer that advances by half-lines, you will need to double this value.

Justify **j** — The right margin can be blocked (justified) or not as you wish. To justify the margin (the default), type **j 1** on the Format Line. To leave the margin alone, type **j 0**. Even if you change the defaults during configuration, these commands will stay the same. For this paragraph, the justification option has been turned off.

Indent **i** — To indent a block of text a specific number of spaces from both margins, type an **i** on the Format Line followed by the number of spaces you want the text indented. To go back to the original margins, use a Format Line default command.

> The change in margins for this sentence is the result of a Format Line indent command.

Negative Indent **a** — It is possible for the first line of a paragraph to be even with both margins, but to have all the following lines of that paragraph indented a number of spaces. This effect is called a negative indent and is illustrated by this paragraph. To create this effect, enter an **a** on the Format Line, followed by the number of spaces you want the rest of the paragraph to be indented (anywhere from 1 to 255). You need to issue this command immediately before the paragraph begins, and to restore the defaults afterwards. If you want several paragraphs in a row with this effect, you will need to reset the defaults and give the indent command between paragraphs.

Line Spacing **l** — To change the spacing between lines, type an **l** on the Format Line, followed by the number of lines you want. Single spacing is **l 1**, double spacing **l 2**, etc. This number can range from 1 to 256 (a zero means 256). If you have a printer that advances by half-lines, you will need to double this value. The double spacing of this paragraph is the result of a Format Line spacing command.

Printed Lines Per Page **p** — To change the number of lines you want printed on each page, type a **p** on the Format Line and then

the number of lines you want. This number can range from 1 to 256 (a zero means 256). If you have a printer that advances by half-lines, you will need to double this value.

Stop Printing S — The printer defaults are set for continuous-feed (fan-fold) paper. If you need to insert single sheets of paper into the printer, you can issue a "Stop Printer" command. To stop the printer at the end of each page, type S 1. To print continuously, type S 0. Even if you change the defaults during configuration, these commands will stay the same.

Numbering N — Since the computer automatically counts the pages as they print, it is easy to have your pages numbered. To have the numbers printed in sequence starting with page one, put the "@" symbol in either a header or a footer (depending on where you want it printed). If you want to have the pages numbered starting with a specific number, type an N on the Format Line, followed by the number of the first page to be printed. For example, to number the first page "Page 5", type N 5 on the Format Line. The page number can run anywhere from zero to 65535. Make sure the Format Line is located ahead of the header or footer command!

Font F — Depending on your printer and how you configured your program, you may be able to change type styles and sizes (fonts) during the printing of your text. To change fonts, type an F on the Format Line, followed by the number of the font you wish to use. There is a maximum of four fonts, numbered 0, 1, 2, and 3. If you change type size, you will need to change the left margin and line width values. For more information on fonts, check the Appendix and your printer manual.

Comments — You can use the Format Line to write comments about the text that you do not want printed. For example, you may want to write a small reminder of what the file is about or describe the purpose of the letter. To do this, simply type your comment in capital letters on the Format Line. All capitals on the Format Line are ignored by Letter Perfect.

Boldface CTRL B

To turn on the boldface toggle, press CTRL B. An inverse video "B" will appear on the screen. All the text following the "B" will be boldfaced on the printout (if your printer is capable of printing in boldface). This is a toggle command; the command will remain in effect until it is turned off or a forced carriage return is entered. To turn the boldface off, repeat the command.

Underline CTRL U

To turn on the underline toggle, press CTRL U. An inverse video "U" will appear on the screen. All the text following the "U" will be underlined on the printout (if your printer is capable of underlining). This is a toggle command; it will remain in effect until it is turned off or a forced carriage return is entered. To turn the underlining off, repeat the command.

Set Marker CTRL D

To place a marker character (delimiter) in the text, press CTRL D. An inverse video character will appear on the screen. The marker can be used to indicate a particular section of the text or to indicate the end of a passage that is to be placed in the buffer.

Center CTRL C

To center a line on the page, press CTRL C. An inverse video "C" will appear on the screen. Now type the line you want centered. When the page is printed, that line will automatically be centered with respect to the page margins. Only one line can be centered at a time.

This line is the result of a Center command.

Block Right CTRL C CTRL C

To block a phrase or title against the right margin, press CTRL C CTRL C. Two inverse video "C's" will appear on the screen. Now type the line you want blocked. During printing, that line will be typed flush with the right margin. Only one line can be blocked at a time.

This line is the result of a Block Right command.

Header CTRL H

To have a line or phrase typed at the top of every page, press CTRL H. Now type the line you want at the top of the page. When the pages are printed, that line will be in the same position on all of them. Headers are good places for titles or section headings, and you may want to have the page numbers here, too. Headers can be centered (CTRL H CTRL C), blocked along the right margin (CTRL H CTRL C CTRL C), or blocked along the right margin on odd-numbered pages and along the left margin on even-numbered pages (CTRL H CTRL G). You can also combine the header command with commands for underlining and boldface print; turn these commands off after entering the header text. Headers are limited to one printed line per page.

Footer CTRL G

To have a line or phrase typed at the bottom of every page, press CTRL G. Now type the line you want at the bottom of the page. When the pages

are printed, that line will be in the same position on all of them. Footers are good places for page numbers, dates, publication data, and titles. Footers can be centered (CTRL G CTRL C), blocked along the right margin (CTRL G CTRL C CTRL C), or blocked along the right margin on odd-numbered pages and along the left margin on even-numbered pages (CTRL G CTRL G). You can also combine the footer command with commands for underlining and boldface print; turn these commands off after entering the header text. Headers are limited to one printed line per page.

Forced End of Page CTRL P

To have the printing on a page end after a particular passage, press CTRL P. When the printer reaches that point in the text, it will advance to the top of the next page, regardless of how much space remains on the current page. This is very convenient for keeping chapters or sections separated.

2.9 Special Printer Characters

There is a series of commands that govern some very special printer functions. These commands all begin with CTRL V. The "V" will appear in inverse video on the screen. Some printers may not support these functions, or may require special paper handling or command sequences to execute them. Check your printer manual.

Superscript CTRL V ^

To signal the beginning of text you want superscripted (printed above the level of the regular text), press CTRL V, release them, and press ^. You then type in the text you want as a superscript. Superscripts are printed one-half line above the normal text, and are generally used for footnotes and mathematical equations. When you are finished with the superscript, you must return to the normal text line. To do this, issue a subscript command. You can do multiple superscripts (put a superscript on a superscript).

File Line: A billion can also be written as 10V^9V*.

Printed Line: A billion can also be written as 10^9.

Subscript CTRL V *

To signal the beginning of text you want subscripted (printed below the level of the regular text), press CTRL V, release them, and press *. You then type in the text you want as a subscript. Subscripts are printed one-half line below the normal text, and are generally used for chemical and mathematical equations. When you are finished with the subscript, you must return to the normal text line. To do this, issue a superscript

command. You can do multiple subscripts. **Caution: if your printer reverses the direction of the paper feed to produce superscripts and subscripts, the last command given must be a subscript command.** If the last command is a superscript, the paper will not return to the normal feed direction. Entering an additional set of superscript/subscript commands (V ^ V ^) will solve the problem.

File Line: Sucrose can be written as CV*12V^HV*22V^OV*11V^.

Printed Line: Sucrose can be written as $C_{12}H_{22}O_{11}$.

CHR $ Function CTRL V (

You can send control codes directly from Letter Perfect to the printer without having them interpreted as characters to be printed. To do this, you signal the codes as CHR $ Function codes, and enter them this way: press CTRL V, release them, and press (. Now type in the ASCII code (in either decimal form or in hex code preceded by a $) and press). This command is best utilized for accessing special printer features (such as alternate character sets) or clearing specific printer buffers. You may send only one ASCII code per CHR$ command, but you may repeat the command as many times as you wish. For example, to send the command $1B$58, you would need to enter CTRL V ($1B) CTRL V ($58).

File Link CTRL V "

You can link two files so that they are printed consecutively. To do this, press CTRL V, release them, and press ". Now enter the name of the file you want printed after the current file and press RETURN. There are several things you need to beware of when you use this command. First, be sure to save the first file before you print. Once the linked file is printed, the original file is wiped out of the memory. *If you have not saved the original file, you will lose it!* Second, the file to be linked must be on the same disk. Third, the link should occur after a break in text (for example, after a forced return or a "forced end of page" command). Fourth, if you link in the middle of a file, the remainder of that file will not be printed. For example, to like the file "letter" to the end of the file "table", the last line of the file "table" should be CTRL V "letter.

Conditional Page Break CTRL V %

This command is used to avoid having a block of text split between two pages. Move to the beginning of the block of text you want kept together, insert a line (if necessary), press CTRL V, release them, and press %. Now move to the end of the block of text and repeat the procedure. When the text is being printed, Letter Perfect will check to see if there is enough room on the page for the entire block. If there is, it will be printed. If not,

the printer will go to the top of the next page and print the entire block there. You should not change formats (have a Format Line) within a Conditional Page Break block. This command is especially convenient when your text has diagrams or figures.

Halt Printer CTRL V !

You may want to stop the printer at a specific place in a document; you can do this with the "halt printer" command. Move to just before the place where you want the computer to stop printing, press CTRL V, release them, and press !. When the printer reaches that spot in the text, it will stop printing. This command is used when you want to change to a different color ribbon, insert a different set of typing characters, or otherwise change something on the printer. To restart the printer, press RETURN. This command can be issued as many times as you want in a text.

Data Base Functions

Letter Perfect has the ability to merge with a data base file and put information from the data base directly into a Letter Perfect file. To specify the places where the data should be put, a series of special characters must be entered in the text. More information on data base merges can be found in Reference Section 6.3.

Data Base Merge—Number CTRL V # n

To indicate a place where numeric data from a data base will be inserted, press CTRL V, release them, and press #. Follow this with the number of the data base field that is to be placed there. For example, if you want the data from numeric field 7 to be placed after the phrase "You owe us", the line would look like this:

You owe us V#7.

Data Base Merge—String CTRL V $ n

To indicate a place where a character string from a data base is to be put, press CTRL V, release them, and press $. Follow this with the number of the data base field that is to be placed there. Below is an example showing the data base fields on the left and the way an address would be specified in the Letter Perfect file on the right.

Field 1: Title
2: First Name
3: Middle Initial
4: Last Name
5: Street Address
6: City
7: State
8: Zip

SHIP TO:

V$1 V$2 V$3 V$4
V$5
V$6, V$7 V$8

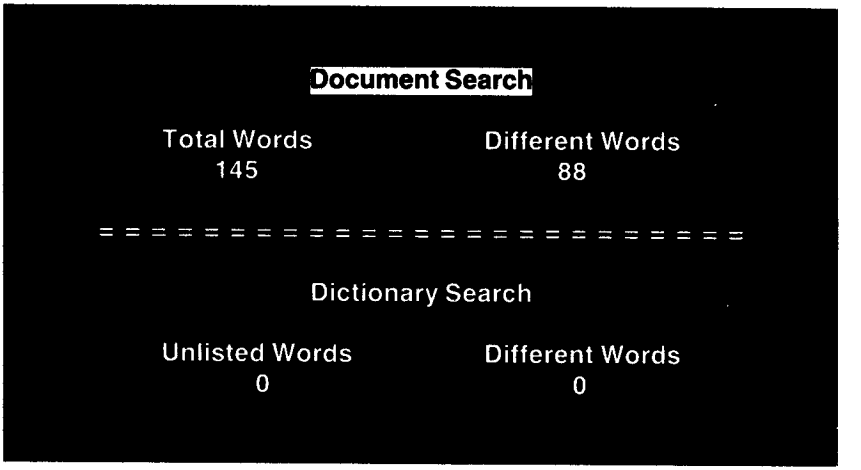
As you can see, the name will be on the first line since all four fields having to do with the name are together. The street address is alone on the second line. The third line has the remaining information; we have put a comma between the city and state and left two blanks between the state and the zip code.

Section 3—Dictionary

The "Dictionary" command on the Main Menu allows you to check your work for spelling errors by using your Dictionary Disk. Before using this option, be sure that the "Unit" line on the Main Menu describes your system correctly. With a one-drive system, the database drive must be defined as Drive 1; for a two-drive system, leave the database drive defined as Drive 2. For information on how to change the system designation, see Reference Section 7.

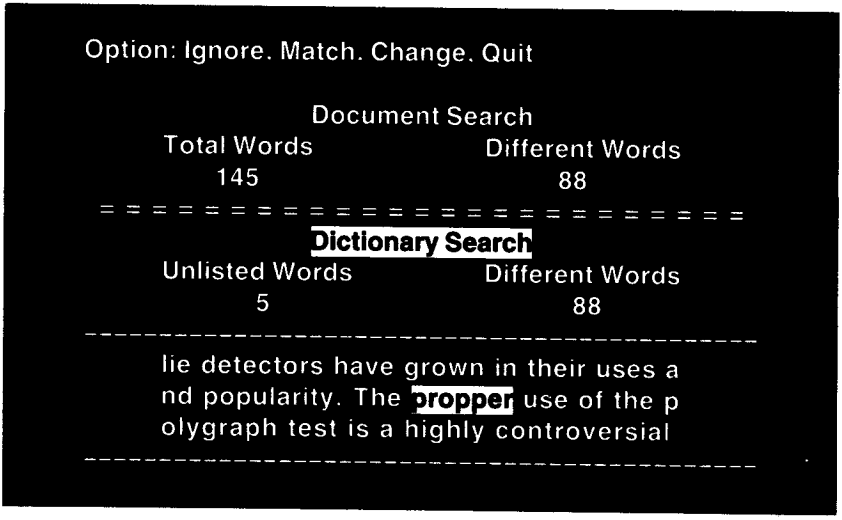
The file you wish to spell check must be in the Editor's memory. You can only spell check one file at a time. Once the proper file is in memory, return to the Main Menu. If you have a two-drive system, you should put the Dictionary disk into the correct drive at this point. Select the Dictionary command.

The screen will change to resemble the one printed below:



The two counters will be changing until all the words in the file have been counted. With a two-drive system, Letter Perfect will automatically switch to the second drive to begin checking the words. If you have a one-drive system, however, the screen will prompt you to "Insert Dictionary Disk" into the drive. After you have done so, press RETURN. With either type of system, the words "Dictionary Search" will now be printed in inverse video, and those two counters will begin changing. When the number of "Different Words" is the same for both the dictionary and the document search, the disk will stop spinning.

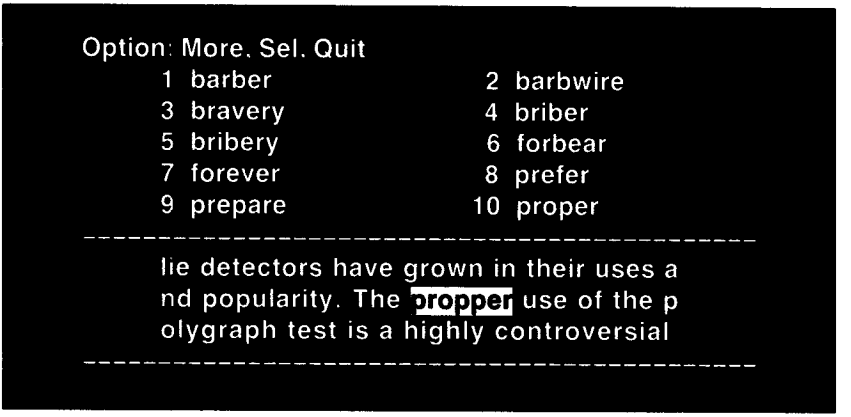
The number of "Unlisted Words" is the number of words that were not found in the dictionary. If there are none, you will be told so. In that event, press RETURN after the message, and you will be returned to the Main Menu. If there are some unlisted words, however, a window with text moving through it will appear at the bottom of the screen. The text will stop at the first unlisted word; it will be highlighted in inverse video. An example of a 40 column screen is shown below.



At the top of the screen will appear your options. They are: Ignore (leave the word as it is and ignore all other occurrences of that word), Match (show a list of all words that sound like this one), Change (print word at top of screen so it can be edited), and Quit (stop the checking procedure—this is followed by a confirmation). Select your option by typing the first letter of that option.

Ignoring a word will leave that word unchanged not only in that position, but any time it occurs in the text. After pressing the I key, the text will begin moving through the window again.

Matching a word will produce a word list at the top of the screen (see figure on next page). If a word has no matches, you will be told so; press RETURN to get back to the checking mode. If a word list appears, you will have the option of asking for More, Selecting a word from the list, or Quitting.



If you ask for more words but there are none, the same list will reprint. Quitting returns you to the checking mode. Selecting a word will produce a prompt to enter the number of the desired word. After you have typed in the number, press RETURN. The word will be printed at the top of the screen and you will have a chance to change it or accept it. If you selected the wrong word, press ESC while the cursor is under the first letter of the word, and you will be returned to the checking mode. If you want the word you have selected, press RETURN. The word will be substituted into the text in place of the highlighted word in the window. If the highlighted word appears more than once in the text, it will be replaced throughout the text. Also, any capitalization of the original word will be kept.

Changing a word will cause the highlighted word to be printed at the top of the screen. You can now alter the word as you wish. A list of the editing commands for this mode is given below. To accept the **entire** word as it appears, press RETURN. To accept the word up to, but not including, the letter over the cursor, press ESC. The word will be substituted into the text in place of the highlighted word in the window. If the highlighted word appeared more than once in the text, it will be replaced throughout the text. Also, any capitalization in the original word will be kept.

Editing Commands

CTRL →	Move cursor right
CTRL ←	Move cursor left
CTRL A	Move cursor to beginning of word
CTRL Z	Move cursor to end of word
CTRL INSERT	Insert character at cursor
CTRL DELETE	Delete character at cursor
DELETE	Delete character left
ESC	Accept word up to cursor
RETURN	Accept entire word

Quitting will produce a prompt at the top of the screen asking for confirmation. If you want to abort the checking process, you will have to press the # key. From there, you will be returned to the Main Menu.

If you have a one-drive system, you will be prompted to "Insert File Disk" once all the unlisted words have been checked. After you have swapped disks, press RETURN.

With either system, you will now be asked to save the file. The screen will look exactly as it does when you give the Save command from the Main Menu. After saving the file, you will be returned to the Main Menu. Although you do not have to save the file, it is a good idea to do so.

Section 4—Save

The "Save" command on the Main Menu allows you to store the contents of the Editor on the disk currently in the drive. To save a file, select the "Save" option on the Main Menu. You will hear the drive operate, and a directory of the files on the disk will appear on the screen. If the file you are saving is brand new, you will be asked to enter a filename. If you are saving an updated version of an already existing file, the original filename will be written beside the prompt. There are a few rules and guidelines to be followed when you save files.

Every file must be saved under a specific filename. This filename can be virtually anything you want within some limitations. The filename should be less than or equal to 8 characters in length (longer names are accepted, but not all of the name may appear on the directory). It can be made up of numbers and symbols as well as letters, although the first character must be a letter. It is a good idea to have the filename correspond in some way to the contents of the file. Calling a file "mine" will work if you have only one file, but pretty soon "mine" will become indistinguishable from "mine2".

If you have been doing some updating on an already-named file, you can save the new work under the same name. To do this, simply press RETURN when asked for a filename. However, if you do this, the original file will be gone for good and only the new version will be on the disk. If you are unsure of your corrections, or if you want the original file for a while yet, name the new version something else.

When you press RETURN, you are telling the computer to accept the video line as it appears. If you decide to rename an updated version of "stutter" as "gab" and you press the RETURN key after the "b", your file will be named "gabtter". To accept the filename up to, but not including, the cursor character, press ESC.

Once a file is saved, it is on the disk but it is still in the Editor, too. This makes it easy to save a file from time to time while working on it. It is a good habit to save your work every few video pages. This ensures that you will not lose too much work should there be a break in power to your computer. Any power interruption will erase the computer's memory, and therefore the Editor.

Section 5—File

5.0 Introduction

The "File" command on the Main Menu gives you access to the housekeeping functions of Letter Perfect. When you select the "File" option, a new menu will appear on the screen, listing seven new commands. Each of these commands is explained below.

5.1 Append

This command is used to combine files. When you select this option, the screen will show a directory of the disk currently in the drive, and a prompt will ask you which file you want to append. Type in the filename and press RETURN; the File Menu will reappear on the screen. The file you selected will be tacked on to the end of the file currently in the Editor. You can append as many files as you wish, so long as the Editor memory has enough room to hold them. If you overflow the Editor memory, the text in the Editor will be damaged.

5.2 Lock

The "Lock" command is used to protect important files from accidentally being deleted or otherwise lost. When you select this option, the screen will show a directory of the disk currently in the drive, and a prompt will ask you which file you want to lock. Type in the filename and press RETURN; the File Menu will reappear on the screen. The file you selected is now locked. A locked file can be loaded and edited, but it cannot be deleted and it cannot be written over. Attempting either of these actions will result in an error message. On the disk directory, a locked file is indicated by a "#" symbol. If you attempt to lock an already locked file, nothing will happen.

5.3 Unlock

This command counteracts the "Lock" command. When you select this option, the screen will show a directory of the disk currently in the drive, and a prompt will ask you which file you want to unlock. Type in the filename and press RETURN; the File Menu will reappear on the screen. The file you selected is now unlocked. If you attempt to unlock an unlocked file, nothing will happen.

5.4 Delete

This command allows you to completely erase a file from the disk currently in the drive. When you select this option, the screen will show a directory of the disk, and a prompt will ask you which file you want to delete. Type in the filename and press RETURN. The screen will show the filename, and a prompt will ask you to enter a "#" to confirm your command. This is a safety check to avoid erasing a file accidentally. If you do want to delete the file, enter #. If you do not want to delete, press any other key and the command will be aborted. You cannot delete a locked file. After the second prompt, you will be returned to the File Menu.

5.5 Backup

This command allows you to make a copy of any formatted disk. Before using this option, you must be sure that the "Unit" line on the Main Menu screen is correct for your system. After selecting the "Backup" option, the prompt "Delete, press #:" will appear at the top of the screen. This prompt allows you to stop the backup process before the text in the Editor is erased. To continue the backup, press #; to abort, press any other key.

You will now be prompted to insert a blank disk. With a two-drive system, this disk will go into the "Database" drive (usually Drive 2); with a one-drive system, you will have to remove the file disk and insert the blank disk. **Caution: be sure that the disk you are putting into the drive is blank or that it does not have anything important on it. The disk is going to be completely erased!**

After the new disk is in the drive, press #. The disk will spin; you will hear some sounds from your drive. The new disk is being formatted and written on.

If you have a two-drive system, there is nothing else to do. Letter Perfect will make the new copy of the disk for you, and return you to the File Menu when it is finished. With a one-drive system, however, you will need to swap the original disk and the blank disk several times. The screen will prompt you to swap disks, and it will also remind you of which disk to insert into the drive. It is a good idea to put a write-protect tab on the original disk when backing up with only one drive. When the copy is finished, you will be returned to the File Menu.

5.6 Format

The "Format" command allows you to prepare any blank disk for Letter Perfect files. Before you can save files on a disk, that disk must be formatted. When you select this option, you will be asked to insert a blank disk. If you have a two-drive system, this disk will go into the "Database" drive.

With a one-drive system, you will need to remove the file disk and insert the blank disk. **Caution: be sure that the disk you are putting into the drive is blank or that it does not have anything important on it. The disk is going to be completely erased!**

After the new disk is in the drive, press #. The disk will spin; you will hear some sounds from your drive. The new disk is being formatted. When the drive light goes out, the format procedure is finished. The disk is now ready to use with Letter Perfect.

5.7 Main Menu

This command returns you to the Main Menu.

Section 6—Print

6.0 Introduction

The "Print" option of the Main Menu controls all output of your files, whether on the screen or on paper. When you select the "Print" option, a new menu will appear on the screen, listing four new commands. Each of these commands is explained below.

The file to be printed is always the file in the Editor. If you are linking files, remember to save the original file before printing, as it is erased from memory when the second file is loaded. It is always a good idea to save a file before printing it.

Each time you print a file, whether on the screen or on paper, you will have a chance to specify the number of copies and the range of pages printed. This makes it easy to check a specific page, or to correct one paragraph and reprint only that page. You can do this when the prompt "Copies, pages:" appears at the top of the screen.

The range and number of copies printed is given with a three number sequence: x,y,z. X is the number of copies; Y is the first page to be printed; Z is the last page to be printed. The numbers are separated by commas. Pressing RETURN without entering any numbers will give you one copy of the entire text. If you skip one number, the default value for that position will be used. The default values are, in order, one copy, first page of text, last page of text.

To make all this clearer, here are some example commands for a seven page paper.

0	No copies; return to Print Menu
1,2	One copy of page two
2,1	Two copies of page one
1,2,4	One copy of pages two through four
5,	Five copies of the entire text
5,	One copy of pages five through the end
,,5	One copy of pages one through five

After entering the number sequence, press RETURN.

To cancel the printing at any time, press ESC. This will return you to the Print Menu.

6.1 Screen

This command allows you to see the output on the screen. It is often helpful to check the file's output appearance on the screen before printing it, as you can catch format errors or change spacing and page breaks without wasting paper.

After selecting this option, you will hear a beep and the prompt "Copies, pages" will appear at the top of the screen. Enter a number sequence as explained in Section 6.0, or press RETURN. You will now be told to press RETURN. Once you have pressed that key, the text will begin to scroll on the screen.

You can speed up the scroll rate by repeatedly pressing the greater than (">") key. Likewise, you can slow the rate by pressing the less than ("<") key. You can stop the scroll at any point by pressing the space bar. To restart, press the space bar again. To cancel the print, press ESC. The characters will show on the screen just as they will appear on paper, except that underlining and boldface will not be visible, and superscripts and subscripts will not be raised or lowered.

At the end of the print, you will be shown a directory of the disk in the drive and asked which file you would like to merge. Merging causes a new file to be printed after the original file, with no break in page numbers. If you do not want to merge any file, simply press RETURN and you will go back to the Print Menu. If you do want to merge a file, type the filename and press RETURN. **Caution:** if you merge a file, you will erase the file you have just printed from the Editor memory. You can merge many files in succession.

6.2 Printer

This option routes the output text to the printer. After selecting this option, you will hear a beep and the prompt "Copies, pages" will appear at the top of the screen. Enter a number sequence as explained in Section 6.0 or press RETURN. You will be told to set the paper at the top of the form and press RETURN. After you have set the printer, press the RETURN key. The text will begin to print. To abort the print, press ESC.

At the end of the print, you will be shown a directory of the disk in the drive and asked which file you would like to merge. Merging causes a new file to be printed after the original file, with no break in page numbers. If you do not want to merge any file, simply press RETURN and you will go back to the Print Menu. If you do want to merge a file, type the filename and press RETURN. **Caution:** if you merge a file, you will erase the file you have just printed from the Editor memory. You can merge many files in succession.

6.3 Database Merge

This command allows you to merge values from a database into a Letter Perfect file. This is especially convenient for producing mailing lists, form letters, and cover letters. You can only merge with a database if you left room for the database entries in the original file. There are special characters to indicate where the database information will go. For more information, see Reference Section 2.9.

After choosing this option, you will hear a beep and the prompt "Insert Database Disk" will appear at the top of the screen. Insert the correct disk into the drive (Drive 2 with a two-drive system, Drive 1 with a one-drive system) and press RETURN. The directory of the Database disk will appear on the screen, and you will be asked to select the correct file. Enter the filename and press RETURN.

You will now be given a chance to specify a search criteria for the database. This search will be done based on the Key Field of the database. If you do not wish to have a search (i.e., you want to print one copy of the text for each record in the database), press RETURN. If you do want to search, enter the value that is in the Key Field of all records you want to print and press RETURN.

Next, you will have a chance to specify the number of copies and the range of pages you want printed. Enter a number sequence as explained in Section 6.0, or press RETURN. For Database Merge printing, the default of RETURN will produce one copy for each Database record. The database information for the first record will appear on the screen, and you will be prompted to set the paper and press RETURN. After pressing that key, the printout will begin. To abort the printout at any point, press ESC. When the printout is finished, you will be prompted to place the File Disk in the drive (if you have a one-drive system).

After you have the File Disk in place, you will be shown a directory of the disk in the drive and asked which file you would like to merge. Merging will allow you to put information from the same database into a different text file. If you executed a search during the previous printing, only the records fitting the search criteria will be printed the second time. To merge a file, type the filename after the prompt and press RETURN. If you do not want to merge, simply press RETURN and you will go back to the Print Menu. **Caution:** if you merge a file, you will erase the file you have just printed from the Editor memory. You can merge many files in succession.

6.4 Main Menu

This option returns you to the Main Menu.

Section 7—Change System

This menu selection enables you to change the system defaults (as shown by the "Unit" line) from the values you entered during configuration. The "Unit" line for a two drive system might look like this:

	File	Database	Density
Unit:	1	2	Single

The numbers indicate which drive the specified disk is in. For the example shown, the file disk is in Drive 1 and the database disk in Drive 2. The "Density" entry refers to your disk drive. If you are equipped for single density disks only, this entry must read "Single".

If you have a one drive system or a double density drive, however, you will need to reset the "Unit" line for your system. If you leave the "Unit" line as it is and attempt to backup a file, you will get an error message. To change the system configuration, select the "Change System" command on the Main Menu. The prompt "File Unit:" will appear at the top of the screen. To accept the current designation, press RETURN. To change the designation, press the correct number for your system. If you type an invalid entry, you will get an error message. Press RETURN to continue, if that happens.

The prompt "Database Unit:" will now appear. This value is changed in the same way as the "File Unit" value was. After your entry, the prompt "Density (S/D):" will appear. Press either S or D, according to your disk drive (or RETURN to accept the current designation). You will now be returned to the Main Menu. The "Unit" line has changed to reflect your newly entered values.

Special Note to Users with a Single-Density Drive *and* a Double-Density Drive

Letter Perfect can only be set for one type of drive density at a time. If you wish to use Letter Perfect as a two-drive system, you **must** define the system as single density. If you wish to use the double-density drive, you **must** define the system as one-drive (use the double-density drive's number), double density.

Section 8—Quit

The "Quit" command is the exit from Letter Perfect. Once you have left the program, all work in the Editor is erased.

After selecting the "Quit" option on the Main Menu, the prompt "Insert Boot Disk, press #:" will appear at the top of the screen. If you are going to another program, place the disk for the new program in the drive and press #. You will be transferred to the next program.

If you select the "Quit" option by mistake, or you realize that you have not yet saved the work in the Editor, you can abort the command. Simply press any key but the # key when the prompt appears. You will be returned to the Main Menu and the Editor will be unchanged.

LETTER PERFECT V.6—APPENDIX

Section 1—Error Messages

Error messages are always printed at the top of the screen, and they occur whenever something goes wrong or you attempt something that cannot be done. The error message describes the problem, and is accompanied by a beep. To return to the program, press any key. The error messages are listed below.

Bad Filename

The filename you chose is illegal; it did not begin with an alphabetical character or contained an illegal character.

Buffer Full

You have tried to put more information into the buffer than it can hold. As much text as possible was placed into the buffer before the error message was sent. Whatever text did not fit has been left in its original place in the main file. No more text can be placed in the buffer until some is removed.

Buffer In Use

You tried to leave the Editor while there was still text in the buffer. You cannot leave the Editor until the buffer is empty. You can use the "Get From Buffer" command (CTRL 8) or the "Kill Copy Buffer" command (CTRL K C) to empty the buffer.

Disk Full

The file cannot be saved on the disk currently in the drive; either the file is larger than the remaining space, or the directory cannot accept another file. You will have to save the file on a different (formatted) disk.

File Locked

You have attempted to delete or write over a locked file. If you do want to eliminate the locked file, you will have to unlock it first.

File Not Found

The filename you entered is not on the disk currently in the drive. Check to see that you have typed the filename correctly ("Letter" is not the same file as "letter"). If the filename is not the problem, check to see that the correct disk is in the drive.

I/O

This message means that a hardware input/output error has occurred between the computer and an external device. This message could occur because a disk is not properly seated in the drive, a specified device

does not exist, or similar problems. After you get this message, check that the power is on to all devices, that the system is defined correctly on the "Unit" line of the Main Menu, that the device is in the on-line position, and that there is a disk in the drive with the door closed.

No Buffer

You tried to copy or insert text from the buffer when there was no text in the buffer.

No Delimiter

You tried to move or copy a section of text into the buffer without placing a marker (delimiter) at the end of that block. Nothing will happen, and the cursor will stay where it was before the command was given.

Out Of Memory

This message usually occurs when you enter the Editor. It means that the file is too large to fit in the memory. The end of the file is truncated; this allows you to do some editing, and to find a place to cut off the file. If your file is too large, you can break it into several smaller files and join them during printing. If this message occurs while you are editing, the last line of the file will be erased. If you attempt to merge several files and this message occurs, the end of the file may be scrambled. It is possible that a file is small enough to be loaded and/or printed, but it is too large to be edited. Hint: if you narrow the window width, you will probably save some memory space and be able to edit the file.

Range

While redefining your system, you entered a value that was out of the range permitted for that option (for example, you entered a drive number greater than four). You will have to try again.

Too Large

The file you are trying to load or append is too large for the computer. None of that file will be loaded.

It is also possible to get an error message that does not have a name but that does have a number. For these error messages, consult your Atari Owners Manual.

Section 2—Configuration

Letter Perfect can be configured to work with almost any printer. There are nine different printer files on the Program Disk; each of these files contains pre-set values for characters, functions, and spacings for that printer. The directly supported printers are: Centronics, NEC, C. Itoh

8510, OKIDATA, Epson (with GRAFTRAX$^{PLUS™}$), PC8023, Prowriter, and Qume. If you do not have one of these printers, or if you would like to set up special controlling characters for your printer, you will need to reconfigure Letter Perfect to your specifications.

This Appendix will discuss each configuration menu as it appears, explaining the meaning of each menu option and how Letter Perfect will interpret your responses. The Appendix also contains worksheets showing the default values for directly supported printers. You are encouraged to use these worksheets to select ahead of time the values you want to enter during configuration. Several blank worksheets are also provided.

To restart the configuration process, use the Letter Perfect Program Disk as the boot disk. While the disk is spinning, press ESC. You will see the first menu appear on the screen.

2.1 Video Control

```
--- VIDEO CONTROL ---

0.  Exit
1.  40 Column
2.  Bit 3 full-view 80
3.  Austin 80 column

SELECT [0-3] : 1
```

This menu determines how Letter Perfect will appear on your screen. If you have had a board installed to give you 80 column video, you need to enter the number beside the name of your board. If you are not sure which board you have, check with your owner's information or contact your dealer. If you do not have an 80 column board, then you have 40 column video. Press RETURN.

The 0 option, Exit, is an escape, and will leave the program unconfigured. After entering 0 and pressing RETURN, wait for the disk to stop spinning before you remove it. You will be prompted to insert another disk. **Warning:** your Letter Perfect disk will be unconfigured, so you will need to do some configuring before you can use the Letter Perfect program again.

2.2 Drive Defaults

```
--- DISK DRIVE DEFAULTS ---

0.  Previous Menu
1.  Accept all
2.  File Drive:                    1
3.  Dictionary Drive:              2
4.  Set Double Density?           No

SELECT [0-4] : 1
```

Letter Perfect is pre-set for a two drive (single density) system. If your system is different from the one described in the menu, you can change the default drive specifications now. To change, for example, the Dictionary Drive to Drive 1, you would enter 3 RETURN to select the correct option. The cursor will move to the value for Option 3 and wait. Now enter the number of the drive you want for the Dictionary; for example, to set Drive 1, you would now type 1 RETURN. To set the default for Double Density, change Option 4 to "Yes". When you are satisfied with the default values as shown on the screen, press RETURN to go on to the next menu.

2.3 Printer File

```
Print File:

Directory

  sample    LP    11        EPSON     PRT    3
  CENT      PRT    3        QUME      PRT    3
  PROWTR    PRT    3        NEC       PRT    3
  PC8023    PRT    3        OKD92     PRT    3
  ALT8510   PRT    3        ALT8023   PRT    3

Free: 408
```

The files followed by "PRT" are printer files. If your printer is one of those listed, type in the filename and press RETURN. If your printer is not listed, choose a printer that is similar to or is compatible with your own. If you are not sure which printer to use, consult your printer's Owner's Manual. Pressing RETURN will load the last printer file used. As a last resort, use the Epson file.

2.4 Edit Printer

```
Edit printer values? [Y/N] : N
```

This menu allows you to bypass the rest of the configuration program. By pressing RETURN, you will be taken directly to the last menu in the sequence. If your printer is not one of those listed in the previous menu, you will need to change the values. Also, if you want to set some special control characters for your printer, you will need to enter Y.

2.5 Format Defaults

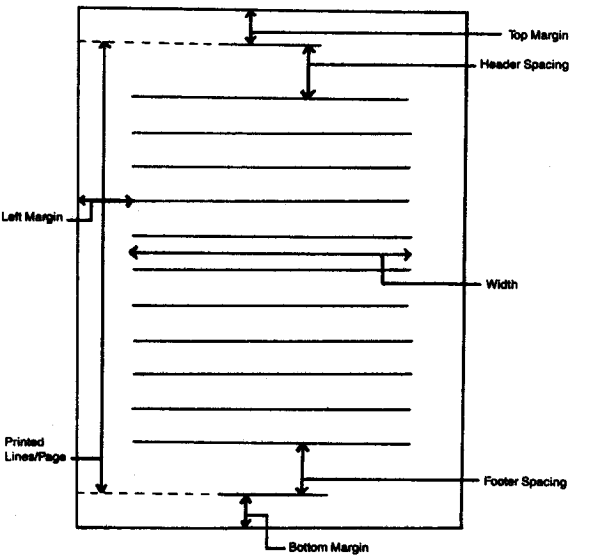
```
--- FORMAT DEFAULTS ---

 0.  Previous menu
 1.  Accept all
 2.  Top margin:                10
 3.  Left margin:               10
 4.  Justify:                    1
 5.  Width:                     64
 6.  Line spacing:               2
 7.  Printed lines/page:       112
 8.  Stop at end of page:        0
 9.  Font:                       0
10.  Margin adjust:              0
11.  Header spacing:             8
12.  Footer spacing:             8
13.  Indent:                     0
14.  Bottom margin:             10

SELECT [0-14] : 1
```

From this menu, all the basic format defaults for Letter Perfect can be set. The defaults shown in the figure are from the Epson file. To change any value, enter the number to the left of the item, and press RETURN. The cursor will move to the value column. Enter the new value; remember that when you press RETURN you are accepting the line **as it appears**. For example, if you are changing the left margin value from 10 to 5, do not just change the "1" to a "5" and hit RETURN—you will end up with 50.

The options are mostly divided into three groups: character specifications, line specifications, and toggles. There are three exceptions to this: Option 0 will return you to the "Disk Drive Defaults Menu" described in Section 2.2, Option 1 will store all the values as they appear on screen and take you to the next menu, and Option 9 indicates your choice of print style. There are four available fonts (0, 1, 2, and 3). You will have the chance to define the fonts and their type styles later.

All the basic default values are set to standard one-inch margins on an 8½ x 11 inch paper. The drawing below shows which parts of the margin and spacing the options refer to.

Margins and Spacing Illustration



The character specifications are Options 3 (left margin), 5 (width), 10 (margin adjust), and 13 (indent). These are all measured in terms of characters regardless of character size. The indent is used for setting blocks of text off from the regular format, while the margin adjust is used to give a "negative indent" to a paragraph. Both can be done from within the file using a Format command. It is always easier to leave the indent and margin adjust values at zero.

The line specifications are Options 2 (top margin), 6 (line spacing), 7 (printed lines/page), 11 (header spacing), 12 (footer spacing), and 14 (bottom margin). Before changing any of these values, you must determine how your printer changes lines. If your printer advances by half-lines, you will need to double all the values you select for these options.

As you can see from the diagram, the top margin is the space between the top of the page and the first typed line, while the header spacing is the distance between the header and the first line of the main text. Footer spacing refers to the number of lines between the end of the main text and the footer. Printed lines/page is the number of lines to be printed on the page excluding the margins but including the header and/or footer. The value for line spacing depends on your printer; if it advances by single lines, the value is one, but if it advances by half-lines, the value is two. The bottom margin value determines the number of lines left between the last typed line on the page and the bottom of the paper. A value of zero indicates a form-feed command.

The remaining options, Options 4 (justify) and 8 (stop at end of page), are toggle options. A zero indicates a "no" answer (don't stop at the end of the page), while a one indicates a "yes" answer (go ahead and justify the text). If you will be using separate sheets of paper for printing, you will want Option 8 set to "1". Justification means aligning the end of each line with the right margin.

2.6 Decimal or Hex Editing

```
Use decimal or hex for edit? [D/H] : H
```

Most of the commands you will be entering for your printer from this point on will need to be numerical codes. This menu allows you to choose which number system you want to use for the commands. It is convenient to use the same system as your printer's Owner's Manual does, since you will be taking most of your numbers from the Manual. To work in hexadecimal, press RETURN; to work in decimal, press D and RETURN.

2.7 Vertical Spacing and Fonts

```
--- VERTICAL SPACING/FONTS ---

 0.  Previous menu
 1.  Accept all
 2.  1/2 Vertical line: S1B.S41.S06
 3.  Full vertical: S1B.S32
 4.  Font 0: S12.S1B.S48
 5.  Font 1: S0F.S1B.S48
 6.  Font 2: S12.S1B.S47
 7.  Font 3: S0F.S1B.S47

SELECT [0-7] : 1
```

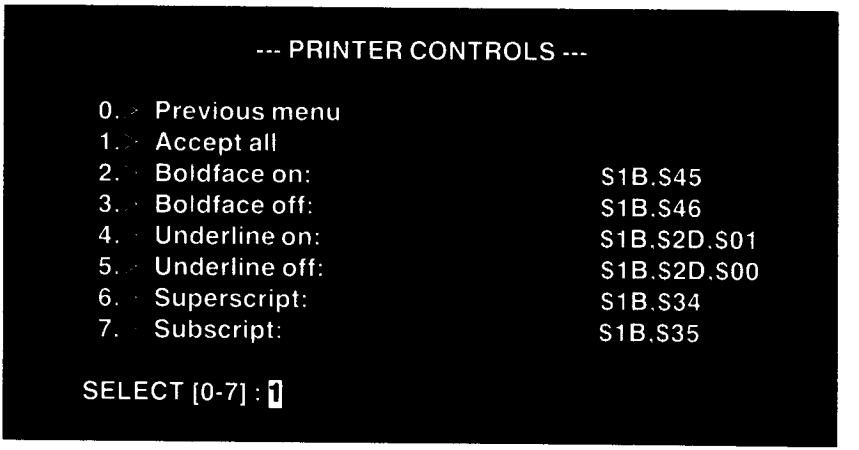
This menu defines the line advances and the type styles (fonts) that can be used during printing. The default values shown are from the Epson file and are in hex notation. For the correct values for your printer, consult your printer's User's Manual. Each value can be as long as three decimal digits or two hex digits (preceded by a "$"); permitted values are 0-255 (decimal) and $0-$FF (hex). The values must be separated by commas (as shown). The number of values permitted varies by printer type.

Option 0 will return you to the "Format Defaults" menu described in Section 2.5. Option 1 will store all values as they appear on the screen and take you to the next menu.

Option 2 specifies the commands that will let the printer advance by half lines. Option 3 specifies the command sequence to return to full vertical line spacing (6 lines/inch). These two commands make it possible to set line spacings of 1½ as well as single and double spacing.

The remaining options allow you to set the various type styles and sizes your printer can use. The font you specified in the menu of Section 2.5 will be the default type, but fonts can be changed from within the text using a Format command. (See Reference Section 2.8 for more information on fonts.)

2.9 Printer Controls



This menu allows you to specify the commands for special printer effects. The default values shown are from the Epson file and are in hex notation. Not all printers will need values here. The sequence can be as long as three three-character values separated by commas (as shown);

additional digits will be truncated. Three characters is the maximum, but two or one character digits are permitted. Zero can be entered as either "0" or "$0".

Option 0 will return you to the menu described in Section 2.7. Option 1 will store all the values as they appear on the screen and advance you to the next menu.

Options 2 and 3 are called "boldface", but the commands for any type of emphasized printing can be placed here. Some printers have a boldface feature that calls for double-striking; depending on your printer, this may mean that the printer head will have to pass over the line twice. Check your printer manual carefully to be sure you get all the character sequences you need.

On some printers, the boldface option is double width printing, enhanced printing, or emphasized printing. Select the type of printing you want as the default, and place that sequence here. It is possible to send hexadecimal characters to the printer from within the program, so you will not be restricted to the printing type you select here.

Options 4 and 5 are the underline commands. Some printers will underline each character after it is typed and then move to the next position, while others will type a line and then go back and underline the specified characters on that line. Check with your printer manual to be sure you have all the necessary character sequences.

Options 6 and 7 control the superscript and subscript functions. Not all printers can produce superscripts and subscripts, as these functions require the paper to be moved up and down by half-line increments. Notice that there is no "off" command for these functions. Superscript is turned off by moving the type back down one half-line to the normal level, which is the same as issuing a subscript command. Therefore, the way to turn off either of these functions is to turn on the opposite one.

Some printers execute superscripts and subscripts by reversing the direction of the paper feed. On these printers, it may be necessary to follow the final command with another superscript-subscript sequence (V^V*) to return the direction of the paper feed to normal. Your printer may have additional requirements for producing superscripts and subscripts (such as being in the incremental print mode); consult your printer manual.

If your printer prints subscripts and superscripts in a way other than those discussed above, Letter Perfect cannot support them.

If you cannot use superscripts and subscripts for any reason, you can define some other print style in these two positions (using superscript for

"on" and subscript for "off"). **Caution:** if you substitute another print style, be sure to mark it on your command sheet! You will need to give the correct keystroke sequence in your text file to initiate the change in styles.

2.9 General Printer Information

This menu gives you a chance to specify some general characteristics of your printer. The defaults shown are from the Epson file and are in hex notation. Option 0 will return you to the menu described in Section 2.8. Option 1 will store all information as it appears on the screen and take you to the next menu. If you selected OKIDATA or Epson as your file back in Section 2.3, you will go directly to Section 2.12.

Option 2 tells Letter Perfect whether or not to expect a double-width character for a boldface character (or whatever you defined as "boldface" in Section 2.8). Double-width characters will affect the justification, so the program needs to know the character size. This is a "Yes/No" option.

Option 3 defines the backspace character. Some printers cannot backspace; if yours is one of these, enter "$00".

2.10 Dot Spacing Information

```
--- PRINTER DOT SPACING INFO ---

0.> Previous menu
1.> Accept all
2.> Value for 0-dot spacing:                S00
    (For dot fill offset)
3.> Max dots to add per char:                S06
    (For justification pad)
4.> HMI Value for 1/120 inch:                S00
    (For bold character)
5.> HMI-Control prefix:                      S00
    (2nd Control value)

SELECT [0-5] : 1
```

There are three types of printing used by printers: normal, proportional, and incremental. Proportional printing means that the letters are of different sizes; for example, an "i" would take up less room than an "m". Incremental printing means that the spacing between the words and characters can be changed.

Option 0 returns you to the menu described in Section 2.9. Option 1 stores all values as they appear on the screen and takes you to the next menu. If the file you chose in Section 2.3 was the Qume or NEC file, you will go directly to Section 2.12.

Characters are produced by printing dots in a specific pattern on the paper. With incremental printing, the number of dots between characters varies in order to justify the text. Option 2 sets the reference point for dot spacing; put the value for zero-dot spacing here. This character will never be sent, but it is needed as a reference for all other spacing characters. This value is usually $00 or $30, but check your printer manual to be sure.

Option 3 sets the maximum number of dots that can be added to each character during justification. Regardless of the value you gave for Option 2, this value is simply a number. For example, if you want a maximum value of 5 dots, you would enter $05 regardless of whether you entered $00 or $30 for Option 2.

For Options 4 and 5, "HMI" stands for "Horizontal Motion Index". This is the distance the printing head moves between characters or words. To produce boldface printing, the head moves over $1/120$" and retypes the

character. The HMI is a three character sequence: ESC CHAR VALUE. For Option 4, enter the value for the HMI that will move the head the correct distance (or that will send a command to move over one dot). For Option 5, give the value for the second character of the HMI.

2.11 Proportional Characters

```
--- PROPORTIONAL CHARACTER SET ---

0. Previous menu
1. Accept all
2. Edit all characters
3. Edit on demand

SELECT [0-3] : 1
```

The values entered from this menu tell Letter Perfect the size of the characters printed by your printer.

As usual, Option 0 will return you to the last menu, the one discussed in Section 2.10. Option 1 will store all the character size values as they are in memory and take you to the next menu.

Choosing Option 2 will have the screen display each printable character individually. You will have the chance to edit or accept each character in turn.

Option 3 also allows you to edit each character, but instead of displaying one character at a time, the characters are scrolled on the screen. To stop and restart the scroll, press any key. To edit a value, press RETURN. You will be asked which line number you want to edit; enter the correct value and press RETURN. After entering the new value for the character, the scroll will resume.

2.12 Exit and File

```
--- EXIT MENU ---

0. Previous menu
1. Save data to program disk
2. Save to disk & add to directory
3. Goto beginning
4. Exit without update

SELECT [0-4] : 1
```

This is the final menu of the configuration series. Most of the options are self-explanatory, but each is especially useful in a different situation.

Option 0 will return you to the menu discussed in Section 2.11. Option 3, however, will return you to the very first menu ("Video Control", Section 2.1). Option 1 will take all the edited values and all the remaining default values and copy them onto the program disk.

Option 2 allows you to create a printer file of your own, containing all the values from this configuration. If you choose this option, the next time you configure the program, your file will be displayed along with the other printer files. This is a good idea if you made extensive changes during this configuration. After selecting this option, you will be asked for a name for your file; this filename must follow the standard rules for all Letter Perfect filenames.

Option 4 is an escape. Selecting this option will eliminate all the changes you made during this configuration, but leave intact the information from the previous configuration.

Once you have stored the configuration data, the screen will display the Main Menu. Whenever you use Letter Perfect as your boot disk, you will enter the program at this point.

Centronics Printer Worksheet

Format Default Values

Top Margin	5	Font	0
Left Margin	12	Margin Adjust	0
Justify	1	Header Spacing	4
Width	76	Footer Spacing	4
Line Spacing	1	Indent	0
Printed Lines/Page	56	Bottom Margin	5
Stop At End Of Page	0		

Printer Command Sequences

Item	Val 1	Val 2	Val 3	Val 4	Val 5	Val 6	Val 7
1/2 Vertical Line						XXX XXX	XXX XXX
Full Vertical Line						XXX XXX	XXX XXX
Font 0 (Proportional)	$1B	$11				XXX XXX	XXX XXX
Font 1 (16.7 CPI)	$1B	$14				XXX XXX	XXX XXX
Font 2 (10 CPI)	$1B	$13				XXX XXX	XXX XXX
Font 3 (10 CPI)	$1B	$13				XXX XXX	XXX XXX
Boldface On	$1B	$0E		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Boldface Off	$1B	$0F		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline On	$0F			XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline Off	$0E			XXX XXX	XXX XXX	XXX XXX	XXX XXX
Superscript	$1B	$1E		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Subscript	$1B	$1C		XXX XXX	XXX XXX	XXX XXX	XXX XXX

Miscellaneous Values

Bold Char. Dble. Wid.	YES/no	Max. Dots To Add	$06
Backspace Character	$00	HMI Value	$00
0-Dot Spacing	$00	HMI Control Prefix	$00

CI 8510/Prowriter Printer Worksheet

Format Default Values

Top Margin	10	Font	0
Left Margin	9	Margin Adjust	0
Justify	1	Header Spacing	8
Width	86	Footer Spacing	8
Line Spacing	2	Indent	0
Printed Lines/Page	112	Bottom Margin	10
Stop At End Of Page	0		

Printer Command Sequences

Item	Val 1	Val 2	Val 3	Val 4	Val 5	Val 6	Val 7
1/2 Vertical Line	$1B	$54	$31	$32		XXX XXX	XXX XXX
Full Vertical	$1B	$41				XXX XXX	XXX XXX
Font 0 (Proportional)	$1B	$50				XXX XXX	XXX XXX
Font 1 (17 CPI)*	$1B	$51				XXX XXX	XXX XXX
Font 2 (10 CPI)*	$1B	$4E				XXX XXX	XXX XXX
Font 3 (12 CPI)*	$1B	$45				XXX XXX	XXX XXX
Boldface On	$1B	$21		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Boldface Off	$1B	$22		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline On	$1B	$58		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline Off	$1B	$59		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Superscript**	$1B	$72	$0A	XXX XXX	XXX XXX	XXX XXX	XXX XXX
Subscript**	$1B	$66	$0A	XXX XXX	XXX XXX	XXX XXX	XXX XXX

Miscellaneous Values

Bold Char. Dble. Wid.	yes/NO	Max. Dots To Add	$06
Backspace Character	$00	HMI Value	$00
0-Dot Spacing	$30	HMI Control Prefix	$00

*Fonts 1, 2, and 3 cannot be justified. To justify non-proportional fonts, use printer driver file "alt CI8510".

**Superscript and subscript will only work when printer is in the incremental print mode. This mode must be turned on at a forced carriage return (end of paragraph) using the CHR$ command (Reference Section 2.9). The command to turn on incremental printing is ▼ ($1B) ▼ ($5B); to turn the mode off, the command is ▼ ($1B) ▼ ($5D).

alt CI 8510 Printer Worksheet

Format Default Values

Top Margin	10	Font	0
Left Margin	8	Margin Adjust	0
Justify	1	Header Spacing	8
Width	77	Footer Spacing	8
Line Spacing	2	Indent	0
Printed Lines/Page	112	Bottom Margin	10
Stop At End Of Page	0		

Printer Command Sequences

Item	Val 1	Val 2	Val 3	Val 4	Val 5	Val 6	Val 7
1/2 Vertical Line	$1B	$54	$31	$32		XXX XXX	XXX XXX
Full Vertical	$1B	$41				XXX XXX	XXX XXX
Font 0 (12 CPI)	$1B	$45					
Font 1 (17 CPI)	$1B	$51					
Font 2 (10 CPI)	$1B	$4E					
Font 3 (12 CPI)	$1B	$45					
Boldface On	$1B	$21		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Boldface Off	$1B	$22		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline On	$1B	$58		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline Off	$1B	$59		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Superscript*	$1B	$72	$0A	XXX XXX	XXX XXX	XXX XXX	XXX XXX
Subscript*	$1B	$66	$0A	XXX XXX	XXX XXX	XXX XXX	XXX XXX

Miscellaneous Values

Bold Char. Dble. Wid.	yes/NO
Backspace Character	$00

*Superscript and subscript will only work when printer is in the incremental print mode. This mode must be turned on at a forced carriage return (end of paragraph) using the CHR$ command (Reference Section 2.9). The command to turn on incremental printing is V ($1B) V ($5B); to turn the mode off, the command is V ($1B) V ($5D).

Epson Printer Worksheet

Format Default Values

Top Margin	10	Font	0
Left Margin	10	Margin Adjust	0
Justify	1	Header Spacing	8
Width	64	Footer Spacing	8
Line Spacing	2	Indent	0
Printed Lines/Page	112	Bottom Margin	10
Stop At End Of Page	0		

Printer Command Sequences

Item	Val 1	Val 2	Val 3	Val 4	Val 5	Val 6	Val 7
1/2 Vertical Line	$1B	$41	$06			XXX XXX	XXX XXX
Full Vertical	$1B	$32				XXX XXX	XXX XXX
Font 0 (10 CPI, DS off)	$12	$1B	$48				
Font 1 (17 CPI, DS off)	$0F	$1B	$48				
Font 2 (10 CPI, DS on)	$12	$1B	$47				
Font 3 (17 CPI, DS on)	$0F	$1B	$47				
Boldface On	$1B	$45		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Boldface Off	$1B	$46		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline On	$1B	$2D	$01	XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline Off	$1B	$2D	$00	XXX XXX	XXX XXX	XXX XXX	XXX XXX
Superscript	$1B	$34		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Subscript	$1B	$35		XXX XXX	XXX XXX	XXX XXX	XXX XXX

Miscellaneous Values

Bold Char. Dble. Wid.	yes/NO
Backspace Character	$00

NOTE: This printer driver file is meant for Epson printers with GRAFTRAX$^{PLUS™}$.

NEC Printer Worksheet

Format Default Values

Top Margin	10	Font	2
Left Margin	10	Margin Adjust	0
Justify	1	Header Spacing	8
Width	64	Footer Spacing	8
Line Spacing	2	Indent	0
Printed Lines/Page	112	Bottom Margin	10
Stop At End Of Page	0		

Printer Command Sequences

Item	Val 1	Val 2	Val 3	Val 4	Val 5	Val 6	Val 7
1/2 Vertical Line	$1B	$5D	$53			XXX XXX	XXX XXX
Full Vertical	$1B	$5D	$57			XXX XXX	XXX XXX
Font 0						XXX XXX	XXX XXX
Font 1						XXX XXX	XXX XXX
Font 2						XXX XXX	XXX XXX
Font 3						XXX XXX	XXX XXX
Boldface On				XXX XXX	XXX XXX	XXX XXX	XXX XXX
Boldface Off				XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline On				XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline Off				XXX XXX	XXX XXX	XXX XXX	XXX XXX
Superscript	$1B	$39		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Subscript	$0A			XXX XXX	XXX XXX	XXX XXX	XXX XXX

Miscellaneous Values

Bold Char. Dble. Wid.	yes/NO	Max. Dots To Add	$05
Backspace Character	$08	HMI Value	$41
0-Dot Spacing	$4A	HMI Control Prefix	$5D

OKIDATA 92 Printer Worksheet

Format Default Values

Top Margin	10	Font	0
Left Margin	10	Margin Adjust	0
Justify	1	Header Spacing	8
Width	64	Footer Spacing	8
Line Spacing	2	Indent	0
Printed Lines/Page	112	Bottom Margin	10
Stop At End Of Page	0		

Printer Command Sequences

Item	Val 1	Val 2	Val 3	Val 4	Val 5	Val 6	Val 7
1/2 Vertical Line	$1B	$25	$39	$0C		XXX XXX	XXX XXX
Full Vertical	$1B	$36				XXX XXX	XXX XXX
Font 0 (10 CPI, DPC)	$1E	$1B	$30				
Font 1 (17 CPI, DPC)	$1D	$1B	$30				
Font 2 (12 CPI, DPC)	$1C	$1B	$30				
Font 3 (10 CPI, CQC)	$1E	$1B	$31				
Boldface On	$1B	$48		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Boldface Off	$1B	$49		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline On	$1B	$43		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline Off	$1B	$44		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Superscript	$1B	$4A		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Subscript	$1B	$4C		XXX XXX	XXX XXX	XXX XXX	XXX XXX

Miscellaneous Values

Bold Char. Dble. Wid.	yes/NO
Backspace Character	$00

PC 8023 Printer Worksheet ✓

Format Default Values

Top Margin	10	Font	0
Left Margin	12	Margin Adjust	0
Justify	1	Header Spacing	8
Width	76	Footer Spacing	8
Line Spacing	2	Indent	0
Printed Lines/Page	112	Bottom Margin	10
Stop At End Of Page	0		

Printer Command Sequences

Item	Val 1	Val 2	Val 3	Val 4	Val 5	Val 6	Val 7
1/2 Vertical Line	$1B	$54	$31	$32		XXX XXX	XXX XXX
Full Vertical	$1B	$41				XXX XXX	XXX XXX
Font 0 (Proportional)	$1B	$50				XXX XXX	XXX XXX
Font 1 (17 CPI)*	$1B	$51				XXX XXX	XXX XXX
Font 2 (10 CPI)*	$1B	$4E				XXX XXX	XXX XXX
Font 3 (12 CPI)*	$1B	$45				XXX XXX	XXX XXX
Boldface On	$1B	$21		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Boldface Off	$1B	$22		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline On	$1B	$58		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline Off	$1B	$59		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Superscript**	$1B	$72	$0A	XXX XXX	XXX XXX	XXX XXX	XXX XXX
Subscript**	$1B	$66	$0A	XXX XXX	XXX XXX	XXX XXX	XXX XXX

Miscellaneous Values

Bold Char. Dble. Wid.	yes/NO	Max. Dots To Add	$06
Backspace Character	$00	HMI Value	$00
0-Dot Spacing	$00	HMI Control Prefix	$00

*Fonts 1, 2, and 3 cannot be justified. To justify non-proportional fonts, use printer driver file "alt PC8023".

**Superscript and subscript will only work when printer is in the incremental print mode. This mode must be turned on at a forced carriage return (end of paragraph) using the CHR$ command (Reference Section 2.9). The command to turn on incremental printing is ▼ ($1B) ▼ ($5B); to turn the mode off, the command is ▼ ($1B) ▼ ($5D).

alt PC 8023 Printer Worksheet

Format Default Values

Top Margin	10	Font	0
Left Margin	8	Margin Adjust	0
Justify	1	Header Spacing	8
Width	77	Footer Spacing	8
Line Spacing	2	Indent	0 5
Printed Lines/Page	112	Bottom Margin	10
Stop At End Of Page	0		

Printer Command Sequences

Item	Val 1	Val 2	Val 3	Val 4	Val 5	Val 6	Val 7
1/2 Vertical Line	$1B	$54	$31	$32		XXX XXX	XXX XXX
Full Vertical	$1B	$41				XXX XXX	XXX XXX
Font 0 (12 CPI)	$1B	$45					
Font 1 (17 CPI)	$1B	$51					
Font 2 (10 CPI)	$1B	$4E					
Font 3 (12 CPI)	$1B	$45					
Boldface On	$1B	$21		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Boldface Off	$1B	$22		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline On	$1B	$58		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline Off	$1B	$59		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Superscript*	$1B	$72	$0A	XXX XXX	XXX XXX	XXX XXX	XXX XXX
Subscript*	$1B	$66	$0A	XXX XXX	XXX XXX	XXX XXX	XXX XXX

Miscellaneous Values

Bold Char. Dble. Wid.	yes/NO
Backspace Character	$00

*Superscript and subscript will only work when printer is in the incremental print mode. This mode must be turned on at a forced carriage return (end of paragraph) using the CHR$ command (Reference Section 2.9). The command to turn on incremental printing is V ($1B) V ($5B); to turn the mode off, the command is V ($1B) V ($5D).

Prowriter/CI 8510 Printer Worksheet

Format Default Values

Top Margin	10	Font	0
Left Margin	9	Margin Adjust	0
Justify	1	Header Spacing	8
Width	86	Footer Spacing	8
Line Spacing	2	Indent	0
Printed Lines/Page	112	Bottom Margin	10
Stop At End Of Page	0		

Printer Command Sequences

Item	Val 1	Val 2	Val 3	Val 4	Val 5	Val 6	Val 7
1/2 Vertical Line	$1B	$54	$31	$32		XXX XXX	XXX XXX
Full Vertical	$1B	$41				XXX XXX	XXX XXX
Font 0 (Proportional)	$1B	$50				XXX XXX	XXX XXX
Font 1 (17 CPI)*	$1B	$51				XXX XXX	XXX XXX
Font 2 (10 CPI)*	$1B	$4E				XXX XXX	XXX XXX
Font 3 (12 CPI)*	$1B	$45				XXX XXX	XXX XXX
Boldface On	$1B	$21		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Boldface Off	$1B	$22		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline On	$1B	$58		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline Off	$1B	$59		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Superscript**	$1B	$72	$0A	XXX XXX	XXX XXX	XXX XXX	XXX XXX
Subscript**	$1B	$66	$0A	XXX XXX	XXX XXX	XXX XXX	XXX XXX

Miscellaneous Values

Bold Char. Dble. Wid.	yes/NO	Max. Dots To Add	$06
Backspace Character	$00	HMI Value	$00
0-Dot Spacing	$30	HMI Control Prefix	$00

*Fonts 1, 2, and 3 cannot be justified. To justify non-proportional fonts, use printer driver file "alt CI8510".

**Superscript and subscript will only work when printer is in the incremental print mode. This mode must be turned on at a forced carriage return (end of paragraph) using the CHR$ command (Reference Section 2.9). The command to turn on incremental printing is [V] ($1B) [V] ($5B); to turn the mode off, the command is [V] ($1B) [V] ($5D).

QUME Printer Worksheet

Format Default Values

Top Margin	10	Font	2
Left Margin	10	Margin Adjust	0
Justify	1	Header Spacing	8
Width	64	Footer Spacing	8
Line Spacing	2	Indent	0
Printed Lines/Page	112	Bottom Margin	10
Stop At End Of Page	0		

Printer Command Sequences

Item	Val 1	Val 2	Val 3	Val 4	Val 5	Val 6	Val 7
1/2 Vertical Line	$1B	$1E	$05			XXX XXX	XXX XXX
Full Vertical	$1B	$1E	$09			XXX XXX	XXX XXX
Font 0						XXX XXX	XXX XXX
Font 1						XXX XXX	XXX XXX
Font 2						XXX XXX	XXX XXX
Font 3						XXX XXX	XXX XXX
Boldface On				XXX XXX	XXX XXX	XXX XXX	XXX XXX
Boldface Off				XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline On				XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline Off				XXX XXX	XXX XXX	XXX XXX	XXX XXX
Superscript	$1B	$0A		XXX XXX	XXX XXX	XXX XXX	XXX XXX
Subscript	$0A			XXX XXX	XXX XXX	XXX XXX	XXX XXX

Miscellaneous Values

Bold Char. Dble. Wid	yes/NO	Max. Dots To Add	$07
Backspace Character	$08	HMI Value	$02
0-Dot Spacing	$0B	HMI Control Prefix	$1F

Prowtr Print **Printer Worksheet**

Format Default Values

Top Margin	10	Font	0
Left Margin	80	Margin Adjust	0
Justify	D	Header Spacing	8
Width	62	Footer Spacing	2
Line Spacing	2	Indent	05
Printed Lines/Page	64	Bottom Margin	10
Stop At End Of Page	0		

Printer Command Sequences

	Item	Val 1	Val 2	Val 3	Val 4	Val 5	Val 6	Val 7
ESC P	1/2 Vertical Line	$1B	$54	$31	$32		XXX XXX	XXX XXX
	Full Vertical	$1B	$41				XXX XXX	XXX XXX
ESC P	Font 0	$1B	$50	Prop				
ESC N	Font 1	$1B	$4E	PICA ✓				
ESC E	Font 2	$1B	$45	ELITE				
ESC Q	Font 3	$1B	$51	compressed				
ESC !	Boldface On	$1B	$21		XXX XXX	XXX XXX	XXX XXX	XXX XXX
ESC 39	Boldface Off	$1B	$22		XXX XXX	XXX XXX	XXX XXX	XXX XXX
ESC X	Underline On	$1B	$58		XXX XXX	XXX XXX	XXX XXX	XXX XXX
ESC Y	Underline Off	$1B	$59		XXX XXX	XXX XXX	XXX XXX	XXX XXX
0	Superscript	0	0		XXX XXX	XXX XXX	XXX XXX	XXX XXX
0	Subscript	0	0		XXX XXX	XXX XXX	XXX XXX	XXX XXX

Miscellaneous Values

Bold Char. Dble. Wid.	Yes/No	Max. Dots To Add	
Backspace Character		HMI Value	
0-Dot Spacing		HMI Control Prefix	

Notes: _____

_____ Printer Worksheet

Format Default Values

Top Margin	_____	Font	_____
Left Margin	_____	Margin Adjust	0
Justify	_____	Header Spacing	_____
Width	_____	Footer Spacing	_____
Line Spacing	_____	Indent	0
Printed Lines/Page	_____	Bottom Margin	_____
Stop At End Of Page	_____		

Printer Command Sequences

Item	Val 1	Val 2	Val 3	Val 4	Val 5	Val 6	Val 7
1/2 Vertical Line						XXX XXX	XXX XXX
Full Vertical						XXX XXX	XXX XXX
Font 0							
Font 1							
Font 2							
Font 3							
Boldface On				XXX XXX	XXX XXX	XXX XXX	XXX XXX
Boldface Off				XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline On				XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline Off				XXX XXX	XXX XXX	XXX XXX	XXX XXX
Superscript				XXX XXX	XXX XXX	XXX XXX	XXX XXX
Subscript				XXX XXX	XXX XXX	XXX XXX	XXX XXX

Miscellaneous Values

Bold Char. Dble. Wid.	Yes/No	Max. Dots To Add	_____
Backspace Character	_____	HMI Value	_____
0-Dot Spacing	_____	HMI Control Prefix	_____

Notes: _____

_____

_____ Printer Worksheet

Format Default Values

Top Margin	_____	Font	_____
Left Margin	_____	Margin Adjust	0
Justify	_____	Header Spacing	_____
Width	_____	Footer Spacing	_____
Line Spacing	_____	Indent	0
Printed Lines/Page	_____	Bottom Margin	_____
Stop At End Of Page	_____		

Printer Command Sequences

Item	Val 1	Val 2	Val 3	Val 4	Val 5	Val 6	Val 7
1/2 Vertical Line						XXX XXX	XXX XXX
Full Vertical						XXX XXX	XXX XXX
Font 0							
Font 1							
Font 2							
Font 3							
Boldface On				XXX XXX	XXX XXX	XXX XXX	XXX XXX
Boldface Off				XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline On				XXX XXX	XXX XXX	XXX XXX	XXX XXX
Underline Off				XXX XXX	XXX XXX	XXX XXX	XXX XXX
Superscript				XXX XXX	XXX XXX	XXX XXX	XXX XXX
Subscript				XXX XXX	XXX XXX	XXX XXX	XXX XXX

Miscellaneous Values

Bold Char. Dble. Wid.	Yes/No	Max. Dots To Add	_____
Backspace Character	_____	HMI Value	_____
0-Dot Spacing	_____	HMI Control Prefix	_____

Notes: _____

_____

Proportional Characters Worksheet—Centronics Printers

(Key: Char. = Character, D.W. = Dot Width)

Char.	D.W.	Char.	D.W.	Char.	D.W.	Char.	D.W.
Space	$07	8	$0C	P	$0E	h	$0C
!	$07	9	$0C	Q	$0E	i	$08
"	$0A	:	$07	R	$0F	j	$06
#	$0F	;	$07	S	$0C	k	$0C
$	$0C	<	$0C	T	$0E	l	$08
%	$10	=	$0C	U	$10	m	$10
&	$0E	>	$0C	V	$10	n	$0C
'	$07	?	$0C	W	$12	o	$0C
(	$07	@	$0E	X	$10	p	$0C
)	$07	A	$10	Y	$10	q	$0C
*	$0C	B	$0F	Z	$0A	r	$0A
+	$0C	C	$0E	[	$0C	s	$0C
,	$07	D	$10	\	$0C	t	$0A
-	$0C	E	$0E	]	$0C	u	$0C
.	$07	F	$0E	^	$0C	v	$0C
/	$0C	G	$10	_	$0C	w	$10
0	$0C	H	$10	'	$07	x	$0C
1	$0C	I	$0A	a	$0C	y	$0C
2	$0C	J	$0E	b	$0C	z	$0A
3	$0C	K	$10	c	$0A	{	$0A
4	$0C	L	$0E	d	$0C	|	$07
5	$0C	M	$12	e	$0C	}	$0A
6	$0C	N	$10	f	$0A	~	$0C
7	$0C	O	$10	g	$0C		

Proportional Characters Worksheet—C. Itoh 8510 and Prowriter Printers

(Key: Char. = Character, D.W. = Dot Width)

Char.	D.W.	Char.	D.W.	Char.	D.W.	Char.	D.W.
Space	$07	8	$0C	P	$0D	h	$0C
!	$07	9	$0C	Q	$10	i	$08
"	$0A	:	$07	R	$0F	j	$07
#	$0E	;	$07	S	$0C	k	$0A
$	$0C	<	$0C	T	$0E	l	$08
%	$10	=	$0C	U	$0F	m	$10
&	$0D	>	$0C	V	$10	n	$0C
'	$07	?	$0C	W	$11	o	$0C
(	$07	@	$0E	X	$0B	p	$0C
)	$07	A	$10	Y	$0E	q	$0C
*	$0C	B	$0F	Z	$0B	r	$0A
+	$0C	C	$0E	[	$0C	s	$0C
,	$07	D	$0F	\	$0C	t	$0A
-	$0C	E	$0F	]	$0C	u	$0C
.	$07	F	$0F	^	$0C	v	$0C
/	$0C	G	$0E	_	$0C	w	$10
0	$0C	H	$0F	`	$07	x	$0C
1	$0C	I	$09	a	$0C	y	$0C
2	$0C	J	$0D	b	$0C	z	$0A
3	$0C	K	$0C	c	$0A	{	$0A
4	$0C	L	$0D	d	$0C	|	$07
5	$0C	M	$11	e	$0C	}	$0A
6	$0C	N	$10	f	$0A	~	$0C
7	$0C	O	$0F	g	$0C		

Proportional Characters Worksheet—P. C. 8023 Printers

(Key: Char. = Character, D.W. = Dot Width)

Char.	D.W.	Char.	D.W.	Char.	D.W.	Char.	D.W.
Space	$07	8	$0C	P	$0E	h	$0C
!	$07	9	$0C	Q	$0E	i	$08
"	$0A	:	$07	R	$0F	j	$06
#	$0E	;	$07	S	$0C	k	$0C
$	$0C	<	$0C	T	$0E	l	$08
%	$10	=	$0C	U	$10	m	$10
&	$0D	>	$0C	V	$10	n	$0C
'	$07	?	$0C	W	$12	o	$0C
(	$07	@	$0E	X	$10	p	$0C
)	$07	A	$10	Y	$10	q	$0C
*	$0C	B	$0F	Z	$0A	r	$0A
+	$0C	C	$0E	[	$0C	s	$0C
,	$07	D	$10	\	$0C	t	$0A
-	$0C	E	$0E	]	$0C	u	$0C
.	$07	F	$0E	^	$0C	v	$0C
/	$0C	G	$0E	_	$0C	w	$10
0	$0C	H	$10	'	$07	x	$0C
1	$0C	I	$0A	a	$0C	y	$0C
2	$0C	J	$0E	b	$0C	z	$0A
3	$0C	K	$10	c	$0A	{	$0A
4	$0C	L	$0E	d	$0C	|	$07
5	$0C	M	$12	e	$0C	}	$0A
6	$0C	N	$10	f	$0A	~	$0C
7	$0C	O	$10	g	$0C		

Proportional Characters Worksheet—_____ Printer

(Key: Char. = Character, D.W. = Dot Width)

Char.	D.W.	Char.	D.W.	Char.	D.W.	Char.	D.W.
Space		8		P		h	
!		9		Q		i	
"		:		R		j	
#		;		S		k	
$		<		T		l	
%		=		U		m	
&		>		V		n	
'		?		W		o	
(		@		X		p	
)		A		Y		q	
*		B		Z		r	
+		C		[		s	
,		D		\		t	
-		E		]		u	
.		F		^		v	
/		G		_		w	
0		H		`		x	
1		I		a		y	
2		J		b		z	
3		K		c		{	
4		L		d		|	
5		M		e		}	
6		N		f		~	
7		O		g			

Notes: _____

_____

Proportional Characters Worksheet—_____ Printer

(Key: Char. = Character, D.W. = Dot Width)

Char.	D.W.	Char.	D.W.	Char.	D.W.	Char.	D.W.
Space		8		P		h	
!		9		Q		i	
"		:		R		j	
#		;		S		k	
$		<		T		l	
%		=		U		m	
&		>		V		n	
'		?		W		o	
(		@		X		p	
)		A		Y		q	
*		B		Z		r	
+		C		[		s	
,		D		\		t	
-		E		]		u	
.		F		^		v	
/		G		_		w	
0		H		`		x	
1		I		a		y	
2		J		b		z	
3		K		c		{	
4		L		d		|	
5		M		e		}	
6		N		f		~	
7		O		g			

Notes: _____

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Section 3—Margin and Line Width Values

Whenever you change type sizes (fonts), you need to change the line width and margin values as well. In the tables below are listed the necessary values to maintain a one-inch margin on all sides of the paper for each pre-set font.

CI 8510 and Prowriter

Font	Type Size	m	w	
0	Prop.	9	86	
1	17 CPI	11	110	←NO JUSTIFICATION→
2	10 CPI	7	64	←NO JUSTIFICATION→
3	12 CPI	8	77	←NO JUSTIFICATION→

PC 8023

Font	Type Size	m	w
0	Prop.	12	76
1	17 CPI	11	110
2	10 CPI	7	64
3	12 CPI	8	77

Alternate CI 8510/Prowriter and PC 8023

Font	Type Size	m	w
0	12 CPI	8	77
1	17 CPI	11	110
2	10 CPI	7	64
3	12 CPI	8	77

Epson

Font	Type Size	m	w	
0	10 CPI	10	64	
1	17 CPI	17	110	
2	10 CPI	10	64	DOUBLE STRIKE
3	17 CPI	17	110	DOUBLE STRIKE

Okidata

Font	Type Size	m	w	
0	10 CPI	8	64	
1	17 CPI	13	110	
2	12 CPI	9	77	
3	10 CPI	8	64	CORRESP. QUALITY

Centronics

Font	Type Size	m	w
0	Prop.	12	76
1	16.7 CPI	12	108
2	10 CPI	7	64
3	10 CPI	7	64

LETTER PERFECT V.6—INDEX

Boldface print indicates a command

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Format Commands pg. 33
Blocking (Start + Center + Header pg. 37
End print on page, pg. 38 (CTRL P)
Print pg. 47, Copies

When formatting disk Boot Letter Perfect and put disk in Unit #1 (Don't put disk to be formatted in Unit 2)

For word processing Boot disk (1 to B:H)
then remove from Unit #1 and put in file disk.
Unit 2 for Directory only

LETTER PERFECT®

ATARI COMMANDS
VERSION 6

Advance By Paragraph	CTRL 6
Boldface Toggle	CTRL B
Center Next Line	CTRL C
Clear Tab At Cursor	CTRL TAB
Continuous Insert Mode Toggle	CTRL I
Continuous Scroll	CTRL 4
Copy From Buffer	CTRL 9
Copy To Buffer	CTRL 7
Delete All After Cursor	CTRL K A
Delete All Before Cursor	CTRL K B
Delete All Tabs	CTRL K T
Delete All Text (New)	CTRL K N
Delete Character Left	Del Backs
Delete Character Right	CTRL Del Backs
Delete Copy Buffer	CTRL K C
Delete Current Video Line	CTRL 5
Delete (kill) Functions	CTRL K
Delete Line From Cursor	SHIFT Del Backs
Delete Next Paragraph	CTRL K P
Delete Up To Marker	CTRL K M
Delete Word Left	CTRL L
Delete Word Right	CTRL N
Delimiter	CTRL D
Fix Window Width	CTRL 3
Footer	CTRL G
Forced End Of Page	CTRL P
Format Line	CTRL F
Get Text From Buffer	CTRL 8
Global Replace	CTRL CAPS
Go To Beginning Of Line	CTRL A
Go To Beginning Of Text	SHIFT CLEAR
Go To Bottom Of Page	CTRL @
Go To End Of Line	CTRL Z
Go To End Of Text	CTRL E
Go To Next Page	CTRL O
Go To Previous Page	CTRL Q
Go To Top Of Page	CTRL CLEAR
Halt Printer	CTRL V !
Header	CTRL H
Insert Character At Cursor	CTRL INSERT
Insert Line At Cursor	SHIFT INSERT
Jump To Marker	CTRL X
Kill Type Ahead Buffer	ATARI
Move Cursor Down One Line	CTRL ↓
Move Cursor Left	CTRL ←
Move Cursor Right	CTRL →
Move Cursor Up One Line	CTRL ↑
Move To Buffer	CTRL M
Move Word Left	CTRL W
Move Word Right	CTRL Y
Quit The Editor	ESC
Rejustify Text	CTRL J
Replace	CTRL R
Search	CTRL S
Set Default Tab	CTRL 2
Set Tabs At Cursor	SHIFT TAB
Show Tabs	CTRL T
Tab To Next Tab Stop	TAB
Underline Toggle	CTRL U

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CURSOR MOVES

Cursor Left	CTRL + ←
Cursor Right	CTRL + →
Beginning Of Line	CTRL + A
End Of Line	CTRL + Z
Down One Line	CTRL + V
Up One Line	CTRL + ^
Jump To Marker	CTRL + X
Advance Paragraph	CTRL + 6
Bottom Of Page	CTRL + @
Top Of Page	CTRL + CLEAR
Next Page	CTRL + O
Previous Page	CTRL + Q
Beginning Of Text	SHIFT + CLEAR
End Of Text	CTRL + E
Word Left	CTRL + W
Word Right	CTRL + Y

DELETIONS

Character Left	Del Backs
Character Right	CTRL + Del Backs
Current Video Line	CTRL + 5
Line From Cursor	SHIFT + Del Backs
Word To Left	CTRL + L
Word To Right	CTRL + N
Delete Functions (kill)	CTRL + K

DELETE FUNCTIONS

(Preceeded By CTRL K)

All After Cursor	A
All Before Cursor	B
Copy Buffer	C
Up To Marker	M
All Text (New)	N
To End Of Paragraph	P
All Tabs	T

FUNCTIONS

Continuous Scroll	CTRL + 4
Fix Window Width	CTRL + 3
Rejustify Text	CTRL + J
Kill Type Ahead Buffer	ATARI
Quit The Editor	ESC

TABS

Clear Tab At Cursor	CTRL + TAB
Reset Default Tabs	CTRL + 2
Set Tab At Cursor	SHIFT + TAB
Tab To Next Tab Stop	TAB
Show Tabs	CTRL + T

TEXT MOVES

Copy To Buffer	CTRL + 7
Copy From Buffer	CTRL + 9
Move To Buffer	CTRL + M
Get Text From Buffer	CTRL + 8

INSERTIONS

Character At Cursor	CTRL + INSERT
Continuous Insert Mode	CTRL + I
Line At Cursor	SHIFT + INSERT

SEARCH AND REPLACE

Search	CTRL + S
Replace	CTRL + R
Global Replace	CTRL + CAPS

SPECIAL PRINT CHARACTERS

(Preceeded By CTRL V)

CHR $ Function	(
Conditional Page Break	%
Data Base Number n	# n
Data Base String n	$ n
File Link	"
Halt Printer	!
Subscript	*
Superscript	^

PRINTER CHARACTERS

Very Special Print Character	CTRL + V
Boldface Toggle	CTRL + B
Center Next Line	CTRL + C
Footer	CTRL + G
Forced End Of Page	CTRL + P
Format Line	CTRL + F
Header	CTRL + H
Marker At Cursor	CTRL + D
Underline Toggle	CTRL + U
Forced End Of Line	RETURN
{	CTRL + ,
~	CTRL + /
`	CTRL + ;
}	CTRL + .