Pocket Wordstar®
Reference Manual

For Release
3.0

MicroPro International Corporation
33 San Pablo Avenue
San Rafael, California 94903 USA

WHAT YOU HAVE

Your Pocket WordStar software package contains a disk, one manual, and a command card. Here's what you have:

YOUR DISK
The disk contains the following Pocket WordStar program files:

- **WSMSGS.OVR**
- **WSOVLY1.OVR**
- **MAILMRGE.OVR**
- **PRINT.TST**
- **WS.COM**
- **WSU.COM**
- **INSTALL.COM**
- **WS.INS**

YOUR MANUAL
The following program manual enables you to learn the practical uses of Pocket WordStar software at your own pace:

The Pocket WordStar Reference Manual is a comprehensive description of the program. If you're a first-time user, read it through. You'll learn more about program features. An old pro now? Use this guide for reference and keep the command card handy.

The Mailmerge Reference is a program that works with Pocket WordStar to perform special printing tasks.

The command card lists, by function, the most frequently used Pocket WordStar commands.

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1. INTRODUCING POCKET WORDSTAR

CONTENTS

1. Introducing Pocket WordStar

You command the Pocket WordStar program from the keyboard of your computer, using your regular keys and one special key marked CONTROL or CTRL. Onscreen messages and symbols show you how to use the program. Keep an eye on the screen and you won't get lost.

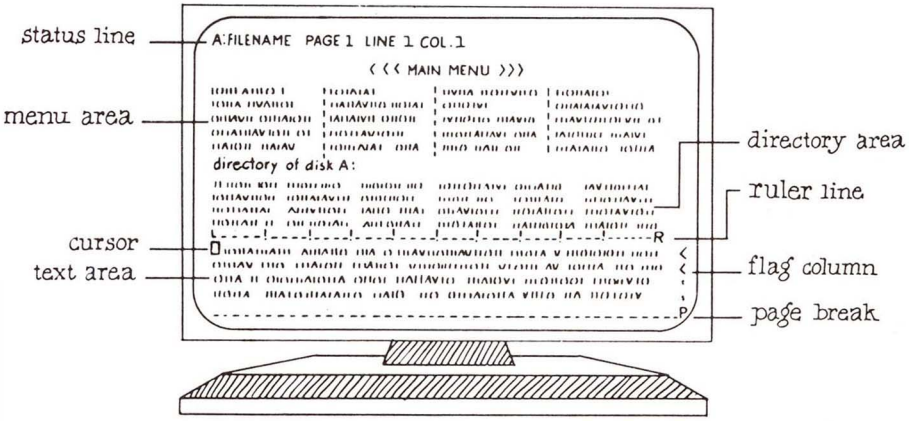
If you are new to computers and word processing, read this chapter carefully and refer to glossary at the back of this manual. If you are experienced, you may want to read selectively.

THE BIG PICTURE

Pocket WordStar is highly flexible and very visible. Watch the screens as you give commands, and information in various parts of the screen will guide you. You won't see all the information all the time, but it will be there when you need it.

WHAT YOU SEE

Here are the parts of the screen:



The *status line* indicates whether or not you are editing or printing and whether certain editing features are in operation.

The *menu area* displays lists of commands (menus), help screens, messages, or questions (prompts).

The *cursor*, a small block of light, locates your place on the screen as you type.

TABLE OF CONTENTS

How to Use This Book

You are the most important character in this book. The Reference Manual describes every feature and command of the Pocket WordStar program with you in mind. After the opening chapters introduce the program, you will find the book organised by tasks that Pocket WordStar can do for you.

REFERENCE AIDS
When you want access to information, use the following reference aids:

Table of Contents at the beginning of the manual	List of every subject covered in the ten chapters and four appendices
Table of Contents at the beginning of each chapter	Closer look at the subjects covered in the chapter
Summary Table at the end of each chapter	Chart of commands covered in the chapter

As you read, cross-references tell you where to find more information. Cartoons and illustrations illuminate the way, and signposts give you easy access. Watch for these symbols:

filename
filename.EXT

When you see one of these imitation file names in a procedure, use it as a reminder to insert an appropriate file name from your own directory.

n

'Any number'

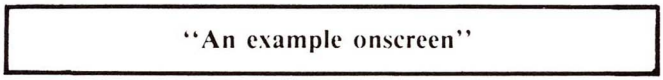
◊ *n*

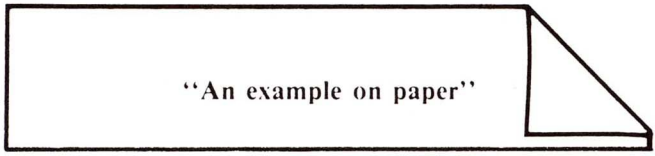
'Refer to this page (n) of the Pocket WordStar Reference Manual for more information.

'CAUTION'

'REMEMBER'

'Keep this in mind'





'RETURN Key'

A single key command

A two-key command

A three-key command

A dot command

An option that only works with a previously entered command

You may find it easier to learn some commands by the mnemonic devices which appear in boldface when applicable. You can remember, for example, to open a file with **D** to edit in **D**ocument mode.

NOTE: ^ or CTRL represents the control key on your keyboard.

The *text area,* which can be moved (scrolled) up or down, is where your work appears.

The *directory* lists all the files on your disk except those ending with the extensions .COM, .HEX, .SYS, .OVR, .REL, or .$$$.

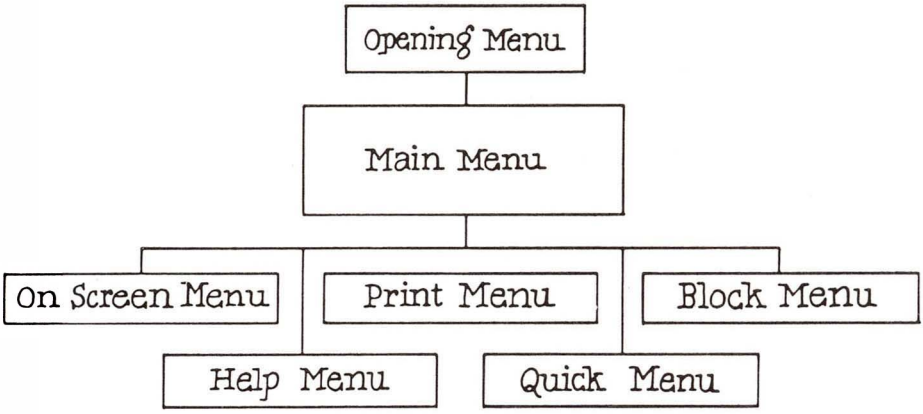
The *ruler line* indicates margins and tabs.

The *flag column* remains blank on lines ending with a soft carriage return; in all other lines, a symbol relating to text format or layout will appear.

The *page break display* indicates where the program will stop printing one page and begin another.

WHERE YOU ARE

The seven Pocket WordStar menus are your greatest aids. They are like signposts at the top of your screen, showing you where you are. Your path through the programs looks like this:



The most important part of the screen is the text area where your work appears. How does your work get there? When you're at the Opening Menu, you command Pocket WordStar to open a file for your work, and you give the file a name. Then the Main Menu appears. Here you enter your work and give commands from your keyboard. Until you command the program to save your file, however, the work on the screen is not stored on your disk and could be lost. Saving files is very important.

To avoid losing files during a power failure, use the save-and-resume command periodically as you work. Your file will be stored in its current form, and you can continue to work without having to re-open the file. ◊9-2

There are two modes for working with files in Pocket WordStar, document and non-document. Document mode is tailor-made for word processing. Non-document mode, which eliminates many word processing features, is useful when you want to enter data or write computer programs. You choose the mode suited to your task as you open a file.

You are in command of Pocket WordStar. With Pocket WordStar commands you can work in your files, arranging and editing your work. You can also work with your files without opening them; for example, you can print a file or give it a new name.

When working with your files, you type commands or respond to questions (prompts) on the screen. Typing commands in Pocket WordStar is simple. Sometimes all that is required is a single keystroke. At other times, you press both the command key and the control key for the results you want. And sometimes you type a command right into a file.

Before you can begin typing Pocket WordStar commands, you must take these steps:

GETTING READY

STEP 1 Turn on the computer and bring up (boot) your operating system.

STEP 2 Make a backup copy of the Pocket WordStar disk. Use the copy to run Pocket WordStar. Refer to your system documentation for exact instructions on how to copy a disk.

TYPES OF COMMANDS

There are four types of commands in Pocket WordStar: single key, control key with one other key, control key with two other keys, and dot commands (which are discussed in Chapter 7). When entering any Pocket WordStar command, you can use either upper or lowercase letters, and you never have to press RETURN or any other key after the command letter.

Single-Key Commands

The Opening Menu offers a choice of single key commands, such as **D** (**D**ocument mode). To activate a command, press the single letter shown. Pressing the control key at the same time has no effect on a single-key command.

Two-Key Commands

Some commands require that you hold the control key down while you press a second key. An example is the cursor movement command **^D.**

Three-Key Commands

You perform many operations in Pocket WordStar, such as saving files (^ KD), by using three-key commands.

To enter a three-key command, hold down the control key (CTRL) while you press the first key; then release CTRL and press the second key.

Responding to Prompts

Some commands cause a prompt to appear on the screen, You may, for example, be asked to name a file, to answer yes or no to a question, or to enter a number. The following guidelines apply when you respond to a prompt:

- Use either upper or lowercase letters.
- Type simply the first letter of yes or no; type **Y** or **N.**
- After your response (except Y or N), press the carriage return key 

- If you have made an error, press **^ U** immediately to interrupt the current command. ◊1-9
- Use special editing characters to simplify entering a file name. ◊1-9

Toggle Switches

Some commands turn a feature off or on. These features are called toggle switches. Margin release, for example, is a Pocket WordStar toggle switch. ◊6-5

STARTING WORK IN POCKET WORDSTAR

HOW TO ENTER POCKET WORDSTAR

After booting the system, and typing ICPM, you'll see your system prompt on the screen, usually a symbol, such as this one:

```
A>
```

At this prompt you can enter Pocket WordStar. You have a choice of three methods. The first, the basic entry method, introduces you to Pocket WordStar's Opening Menu. The second and third methods, which involve some shortcuts, are discussed at the end of the chapter.

Entering Pocket WordStar

BASIC METHOD
With this method you enter Pocket WordStar and then choose an activity from a list of commands. Begin at the system prompt:

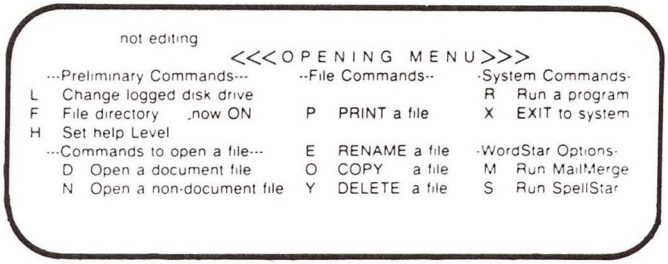
TYPE **WS** RETURN

SEE copyright message

Included with the copyright message is the information about your system that was entered during the Pocket WordStar installation program.

THE OPENING MENU
The next display will appear automatically, but you can hurry it along by pressing the space bar after the copyright message appears.

SEE Opening Menu ◊2-2



64K versions of Pocket WordStar have a slightly reduced opening menu. However, most of the missing functions can be performed directly from CPM.

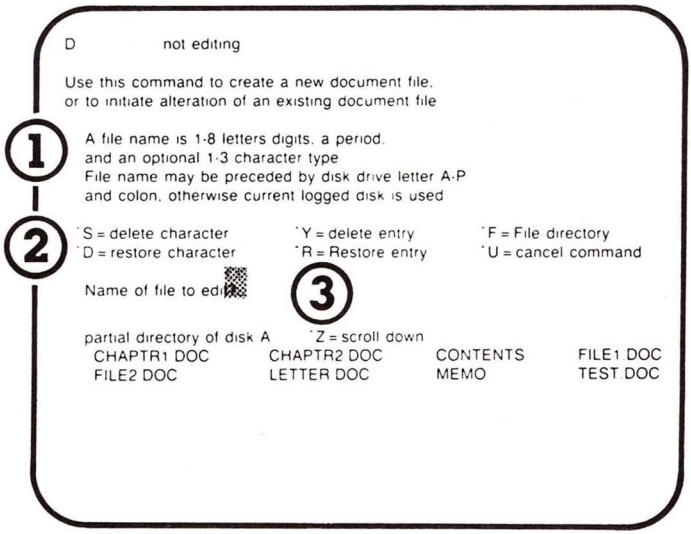
Opening Menu Commands

Opening a File

D With the Opening Menu on your screen, you can open a new or existing file in document mode. (Non-document mode is explained in Chapter 10).

TYPE **D**

A new screen appears and explains the use of the **D** (**D**ocument) command, gives you the file-naming requirements, and lists part of the current directory. You'll read more about each of these items later in this chapter. Here is the screen you'll see:



1 Naming Files

CHOOSING A NAME

- Do not use names that are already in use on the current disk.
- Exclude question marks, asterisks, and other special characters which may affect your system.
- Use upper and lowercase letters interchangeably.

You may include a period followed by an extension of one to three characters to describe the type of file. For example, you might add .LET after each letter file name, .REP after each report or .912 to indicate that September 12 was the last editing session.

These are valid file names:

RESUME
REPORT.JAN
INDEX
LETTER.521

Extensions

Don't use the extension .BAK because it's used by the Pocket WordStar program to name backup copies. If other software on your system also creates files with extensions, avoid duplicating these as well. Check the product documentation.

Files on Other Disk Drives

To edit a file on another drive, you must include the name of the drive. If you want to edit file LETTER.DOC on disk B, enter three pieces of information (disk drive, file name, and extension):

TYPE **B:LETTER.DOC**

To economise on disk space, you may occasionally want to store the results of an editing session on another disk. To edit a file named RESUME.LJL on disk A and store the new version on disk B, enter these four pieces of information:

TYPE **A:RESUME.LJL B:**

When you save the file after editing, it will be on disk B, not A.

Correcting Typing Errors

SPECIAL KEYS
The D Screen includes a list of editing keys. These keys, pressed while holding down the control key, allow you to correct typing errors as you enter a file name. You can use them whenever you respond to a prompt that ends with a question mark.

To give a two-key command, such as **^S,** hold down CTRL while you type **S.**

Here is a table which describes the purpose of each key on the D Screen:

② SPECIAL EDITING CHARACTERS

Keys	Purpose
^S	Erases one character to the left. BACKSPACE, DELETE, or **^H** may also be used.
^D	Restores one erased character at a time to the right. The restored characters are repeated from the last response given to the same prompt.
^Y	Erases the entire response.
^R	Restores the entire last response to the same prompt. If you delete an entry with **^Y**, **^R** can recall it. Check carefully, however, to be sure that the recalled entry is the one you want.
^F	Displays the file directory for the currently logged disk drive until you enter a file name. **^F** does nothing if the directory is already on the screen.
^U	Interrupts and terminates the current command, requests that you press the ESCape key, and clears any commands or text already typed.
^Z	Moves (scrolls) your view of the file directory down when all the lines won't fit on your screen, adding new lines at the bottom of your screen.
^W	Moves (scrolls) your view of the file directory up, adding new lines at the top of your screen.

Many of the keys described as special editing characters have a double identity. At any of the Opening Menu screens or in certain file operations, these keys serve the purposes indicated in the chart. Once you begin editing 'inside' a file, however, you'll see the same characters on the Main Menu as cursor control commands.

Use **^U** to interrupt commands from almost anywhere in the Pocket WordStar program.

Your Response

HOW TO ENTER YOUR FILE NAME

The cursor awaits your response to the prompt on the screen.

SEE **Name of file to edit?**

TYPE *filename* RETURN

If you have named a file not yet contained on the disk, the words NEW FILE will appear briefly just below the prompt.

If you see this message when you intend to edit an existing file, you probably mistyped the name or logged onto the wrong disk. Abandon editing by pressing **^KQ,** which returns you to the Opening Menu. ◊9-3

WHAT HAPPENS AFTER YOU PRESS RETURN
The next screen you'll see is the Main Menu and, below it, either your existing file or a blank text area ready to be filled.

STORING FILES

HOW TO USE SAVE COMMANDS
Use save commands as you work on a file and when you finish. Save commands store your work on the disk and protect it against unnecessary loss. ◊9-2

The save – **D**one command (**^**KD) stores your current file and returns you to the Opening Menu.

PRESS **^KD**

SEE **WAIT**
Saving file A: *filename*

SEE Opening Menu

PRINTING YOUR DOCUMENT

ANOTHER OPTION MENU
At this point you can print your file. You give the basic print command at the Opening Menu. ◊9-10

Here are the steps:

STEP 1 Prepare your printer. Refer to your printer manual for information.

STEP 2 At the Opening Menu

TYPE **P**

TYPE *filename*

PRESS **ESC**

NOTE: By pressing ESCape, rather than RETURN, you ignore a list of print options that would otherwise appear. Print options will be explained in Chapter 9.

Your document will be printed just as you designed it on the screen.

LEAVING POCKET WORDSTAR

HOW TO EXIT

When you finish working with a file, use this procedure to leave Pocket WordStar:

SEE Opening Menu

TYPE **X** (e**X**it)

SEE operating system prompt

NOTE: When you leave Pocket WordStar, you usually remain on the currently logged disk. Some operating systems, however, return you to the original disk.

If you plan to be away from the computer for a while, you may want to turn it off completely. *Always remove disks before turning off the power.*

ALTERNATE METHODS OF ENTERING POCKET WORDSTAR

Editing and Storing on One Disk

HOW TO BYPASS THE OPENING MENU

To enter a Pocket WordStar file directly, you include a file name, either new or existing, at your operating system prompt. This method works in document mode only and does not accommodate non-document files.

SEE your system prompt

TYPE **WS** *filename*

SEE copyright message

Then you can begin editing:

SEE Main Menu and your file

If you enter a new name, first you'll see the following:

SEE **NEW FILE**

Then you'll go into the new file:

SEE Main Menu and blank text area

If the file you want to edit is located on a different disk drive, include the disk drive name. If the file named RESPONSE is located on disk drive B, for example, the command looks like this:

TYPE **WS B:RESPONSE** RETURN

SEE the file you named

Editing on One Disk and Storing on Another

BYPASS AND CHANGE DISKS
When space on your disk is limited, you can edit a file on one disk and place the result on another. To edit a file which occupies more than half of your disk, you *must* use this method:

TYPE file's present disk drive (and a colon)

filename

the second disk drive (and a colon)

RETURN

Make sure you don't type anything but RETURN after the name of the second disk drive (including the colon), not even a space.

Note that you can omit the file's present disk drive if it's your currently logged drive.

Here's an example that tells Pocket WordStar you want to edit the file BOOK.DOC on disk C and save it on disk B:

TYPE **WS C:BOOK.DOC B:** RETURN

After you edit and save the file named BOOK.DOC on disk C, the new version is placed on disk B. The file on disk C will have been renamed BOOK.BAK and will serve as your backup file.

If you use a save-and-resume command (^ KS), each successive save command will result in a location switch; you will edit on disk B and save on disk C, then edit on C and save on B, and so on. ◊9-2

2. USING MENUS

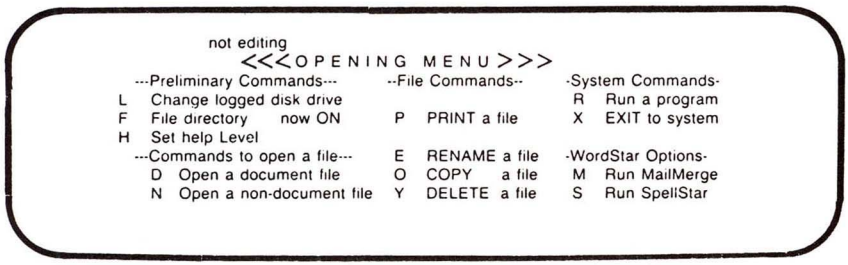
CONTENTS

2. Using Menus

The Pocket WordStar program has seven major menus which provide an onscreen guide to Pocket WordStar commands. This chapter lists all of these menus, along with quick references to command explanations throughout this manual.

OPENING MENU

After you start the Pocket WordStar program, the Opening Menu appears. Here's what you see:



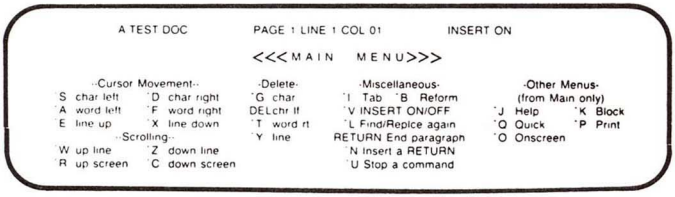
The commands on the Opening Menu are for tasks performed either before or after you begin work on a file, such as changing the logged disk drive or printing a file.

The following table lists the commands on the Opening Menu and indicates where to get more information about them:

OPENING MENU CHOICES					
Preliminary Commands			**File Commands**		
L	Change logged disk drive	p.9-7	P	PRINT a file	p.9-10
F	File directory	p.9-4	E	RENAME a file	p.9-5
H	Set help level	p.2-7	O	COPY a file	p.9-4
			Y	DELETE a file	p.9-6
Commands to open a file			**System Commands**		
D	Open document file	p.1-7	R	Run a program	p.9-7
N	Open non-document file	p.10-2	X	EXIT to system	p.9-9
WordStar Options					
			M	Run MailMerge	p.2-1

MAIN MENU

When you open a document **(D)** or non-document **(N)** file, you'll see the Main Menu. Here it is:



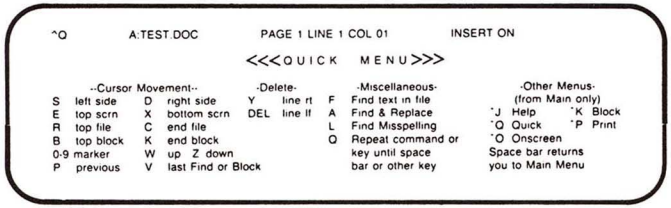
The following table tells you where to find more information about each of the Main Menu commands:

CURSOR MOVEMENT			
^S	char left	Moves cursor one character to the left	p.3-4
^D	char right	Moves cursor one character to the right	p.3-4
^A	word left	Moves cursor one word to the left	p.3-4
^F	word right	Moves cursor one word to the right	p.3-4
^E	line up	Moves cursor up one line	p.3-5
^X	line down	Moves cursor down one line	p.3-5
SCROLLING			
^W	up line	Moves screen view up one line	p.3-5
^Z	down line	Moves screen view down one line	p.3-5
^R	up screen	Moves up one whole screen	p.3-5
^C	down screen	Moves down one whole screen	p.3-5
DELETE			
^G	char	Deletes character	p.3-9
DELETE	chr lf	DELETE Key deletes one character to the left	p.3-9
^T	word rt	Deletes one word to the right	p.3-10
^Y	line	Deletes one full line	p.3-10
MISCELLANEOUS			
^I	Tab	Moves cursor to next tab mark	p.6-7
^B	Re-form	Rearranges text to form paragraphs within margins	p.3-11
^V	INSERT ON/OFF	Toggle switch for insertion feature	p.3-7
^L	Find/Replce again	Continues the search of a ^QA or ^QF command	p.5-3
RETURN	End paragraph	Inserts a "hard" carriage return into text	p.3-14
^N	Insert a RETURN	Inserts a "hard" carriage return into text	p.3-4
^U	Stop a command	Interrupts many commands before executed	p.1-9
OTHER MENUS			
^J	Help	Displays the Help Menu	
^K	Block	Displays the Block Menu	
^Q	Quick	Displays the Quick Menu	
^P	Print	Displays the Print Menu	
^O	Onscreen	Displays the Onscreen Menu	

The last section of the Main Menu identifies five other menus. Take a look at them now, one at a time.

QUICK MENU

When you press ^**Q** at the Main Menu, you'll see the **Q**uick Menu:



The Quick Menu lists commands that activate other commands until specific conditions are reached. For example, ^**S** moves the cursor one character to the left and ^**QS** moves the cursor all the way back to the left end of the line.

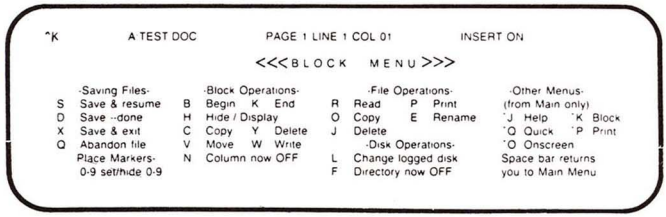
The ^**Q** commands are explained in subsequent chapters.

- Cursor movement commands ◊3-15
- Delete commands ◊3-16
- Miscellaneous commands:

  ^QA and ^QF ◊5-2
  ^QL ◊5-3
  ^QQ — ◊3-5

BLOCK MENU

When you press ^**K** at the Main Menu, you'll see the Bloc**K** Menu illustrated here:



The Block Menu lists commands for manipulating blocks of text, whether the block is a whole file or only a portion of text.

On 64K systems, blocks may be limited in size, necessitating several block moves to move a large portion of text.

The **^K** commands are described on these pages.

- Saving Files ◊9-2
- Block Operations ◊4-3
- File Operations ◊9-4
- Disk Operations ◊9-8

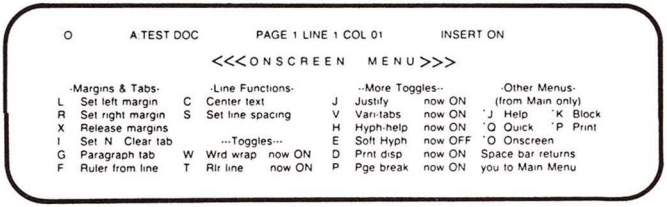
To save you the trouble of closing a file and returning to the Opening Menu, the Block Menu includes commands for file and disk operations which duplicate those on the Opening Menu.

Refer to the following chart for a comparison of these commands:

OPENING MENU (outside file)	BLOCK MENU (inside file)	FILE AND DISK OPERATIONS
L	**^KL**	Change logged drive
F	**^KF**	Turn file directory on/off
P	**^KP**	Print
E	**^KE**	Rename
O	**^KO**	Copy
Y	**^KJ**	Delete

ONSCREEN MENU

You reach the **O**nscreen Menu by pressing **^O** at the Main Menu.

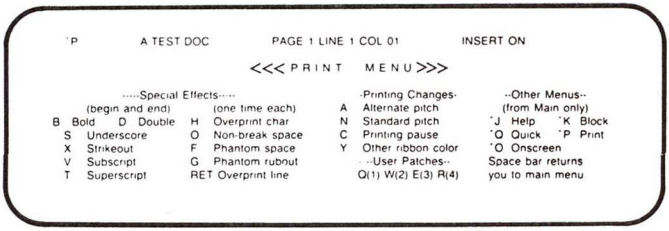


The Onscreen Menu lists commands for formatting text. The effects of these commands can be seen right on the screen. This menu also shows the status of most toggle switches. If you forget whether a toggle switch is on or off, you can press **^O** and look.

The **^O** commands for formatting text are explained in Chapter 6.

PRINT MENU

When you press ^P while editing a file at the Main Menu, you see the Print Menu.

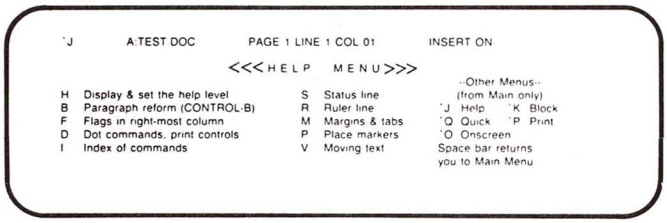


The Print Menu lists commands which affect design of the printed page. Unlike ^O commands, their effects are not visible on the screen. When you press ^P with one of the letters on the Print Menu, the letter will appear on the screen, preceded by the control symbol. ^PB appears as ^B on the screen, for example.

The ^P commands are explained in Chapter 7.

HELP MENU

The Help Menu appears when you press ^J at the Main Menu:



The Help Menu is a condensed guide to Pocket WordStar. If you press a letter other than **H** after **^J,** you'll see a help screen that explains one general feature or function of the program. from the Help Menu, you can also set (^JH) the level of onscreen assistance (help level) which the program will give you.

Help Screens

Some help screens consist of multiple frames. For instance, when you press **^JD,** you'll first read about dot commands, then press the space bar several times to see lists of all the dot commands. If you don't want to look at all of the multiple frames, press **^U** to return to editing.

The following chart shows how to use the help (^J) menus:

COMMAND	HELPS YOU TO
^JB	re-form a paragraph
^JD	use Dot commands for printing
^JF	interpret Flags in farthest right column
^JH	set the Help level
^JI	locate commands
^JM	set Margins, tabs, line spacing, justification
^JP	set and use Place markers
^JR	interpret the Ruler line
^JS	interpret the Status line
^JV	moVe blocks of text

To see the HELP screens, simply run your Pocket WordStar program and using these commands display them on screen.

Setting the Help Level

You can set the help level after you enter Pocket WordStar and before you start your work by pressing **H** at the Opening Menu. The level you choose here will remain in effect until you change it with **^JH.**

You can also set the help level while you are working on a file by pressing **^JH** at the Main Menu. With **^JH** you can set the help level as often as you like.

The help-level screen tells you the current level of onscreen assistance and displays a prompt that lets you change that level. Here it is:

```
^J^H      A:FILENAME XXX  PAGE 1  LINE 1  COL 14        INSERT ON
HELP LEVELS
   3    all menus and explanations displayed.
   2    main editing menu (1-control-char commands) suppressed.
   1    prefix menus (2-character commands) also suppressed.
   0    command explanations (including this) also suppressed.

The current help level is 3.

Enter SPACE or new help level (0, 1, 2, OR 3)
```

To change the help level, press **^JH,** followed by the number of the help level you require.

Pressing **^JH3** will offer you all the help that you need any time that you need it.

3. ENTERING AND EDITING TEXT

CONTENTS

3. Entering and Editing Text

PROGRAM FEATURES

Use **^KS** frequently to save your work. **^KS** allows you to save and then re**S**ume work without leaving your file or the Pocket WordStar program. Press **^QP** to return **Q**uickly to your work **P**lace prior to saving.

◊9-2

Word Wrap and Justification

Word wrap keeps track of the number of characters and spaces on each line. If you type beyond the right margin, words automatically move to the next line. The cursor appears at the end of the 'wrapped' word so you can continue typing. You can enter an entire paragraph at high speed before pressing the RETURN key. Word wrap is a toggle switch (^OW).

◊6-2

As you type a paragraph, word wrap inserts spaces between words to align them at the right margin. This process, called justification, is activated by a toggle switch (^OJ).◊6-2

WHAT IS INSERTION?

Insertion is another feature that can be turned on or off with a toggle switch (^V). When on, insertion moves existing text or spaces to the right to make room for what you type at the cursor position. With insertion off, each character you type replaces whatever was in the same cursor position.

Hard and Soft Spaces

The Pocket WordStar program provides three types of spaces: hard, soft, and non-break. Non-break spaces are described in Chapter 7.

WHAT IS A HARD SPACE?

A *hard* space is created any time you press the space bar while entering text. It becomes a permanent part of the file but can be removed by deletion, just like any other character. If you enter two spaces after a period, for example, two spaces will always follow that period. If the period falls at the end of a line, you won't see the spaces. If, however, in re-forming the paragraph, the period moves to the middle of a line, the spaces will be inserted.◊3-11

To form indented paragraphs, type the desired number of spaces at the beginning of each paragraph, or use the tabulator key (TAB or ^I). You insert these spaces, too, as hard spaces.

◊6-7

WHAT IS A SOFT SPACE?
Soft spaces look like hard spaces on the screen, but the Pocket WordStar program distinguishes between them. Soft spaces are not a permanent part of your file. They're inserted and removed selectively as the program forms and re-forms your text within the margins you set.

Paragraphs and Carriage Returns

Paragraph re-forming, controlled by a Pocket WordStar command (^B), reshapes your paragraphs within specified margins. With this command you can automatically re-form every paragraph in an entire file.◊3-11

Hard and Soft Carriage Returns

WHAT IS A SOFT CARRIAGE RETURN?
Soft carriage returns automatically appear at the end of each line as you enter text with word wrap on. They are indicated on the screen by a blank in the flag column. You can rearrange or delete these soft carriage returns when you re-form the text.

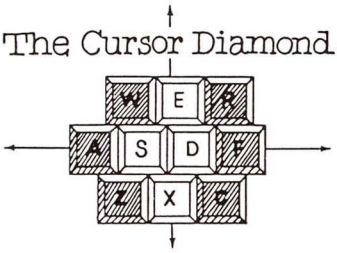
WHAT IS A HARD CARRIAGE RETURN?
You enter hard carriage returns purposely to end a paragraph or to add blank lines. These returns are not moved or removed unless you delete them, and the process of re-forming a paragraph always stops at the first hard carriage return. Hard carriage returns are indicated on the screen by the symbol < in the flag column.

MOVING AROUND IN YOUR TEXT

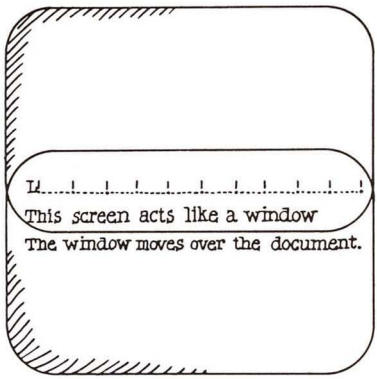
Editing and cursor keys function as normal in Pocket WordStar.

Once you've entered text, you can easily move the cursor around on your electronic page – by character, word, line, or page. You can even move to the beginning or end of a file with a few keystrokes.

In the following illustration, 'The Cursor Diamond', notice the relationship between control characters on the keyboard and the direction in which the cursor moves.



As you move around the screen with the cursor control commands, you will sometimes move to a portion of text not currently displayed on the screen. Imagine the screen as a 'window' onto your text. Scrolling moves that window up, down, left, or right, allowing you to view various portions of your electronic page. Here's an illustration.



Moving Right and Left

Press **^D** to move to the right by one character.

Press **^F** to move the cursor to the first character in the next word.

Press **^QD** to move to the right end of the current line.

If the cursor jumps far to the right, scrolling to a blank screen, you must have moved text or inserted spaces far to the right at an earlier time. Check your status line for the current column, and move the cursor back to the appropriate location.

Press **^S** to move to the left by one character.

Press **^H** (backspace), too, to move to the left, character by character.

Press **^A** to proceed back through your text, word by word.

Press **^QS** to move quickly to the left edge of your screen. The cursor moves to column 1, regardless of the left margin setting.

Moving Up and Down

Press **^E** to move the cursor up one line at a time.

Press **^QE** to move the cursor to the top screen line in the same column.

Press **^W** to scroll the screen window up one line at a time.

Press **^R** to move the cursor upward about three-quarters of a screen.

Press **^QR** to move the cursor back to the beginning of your file in one step.

Use caution when moving the cursor backward through long files; doing so may involve heavy memory requirements.

Press **^X** to move the cursor down one line at a time.

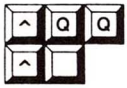
Press **^QX** to move the cursor to the bottom screen line in the same column.

Press **^Z** to scroll the screen window down one line at a time.

Press **^C** to move the cursor down about three-quarters of a screen.

Press **^QC** to reach the end of your file in one step.

Repeating Commands



^QQ.^_ can be combined with most commands to repeat the function until you press another key. For example, if you press **^QQ.^C,** the cursor will move gradually toward the end of your file. You can combine **^QQ.^_**with all cursor movement and deletion commands.

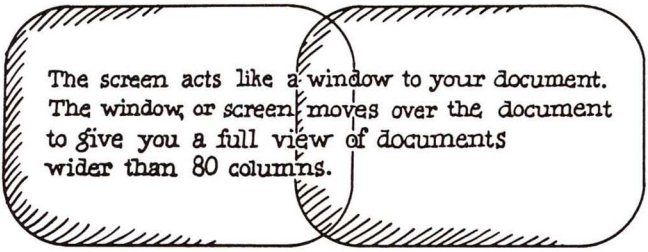
You can control the speed of all**^QQ.^–** commands by following the command with a number. The range is 1-9 with 1 the fastest, 9 the slowest. Unless you specify otherwise, Pocket WordStar sets the speed at 3.

USE SPACE BAR TO STOP REPETITION

Typing any character other than a number halts the repetition. Using the SPACE bar is best because it's a safe target. The space bar halts the process without generating a command, even when the control key is pressed.

Horizontal Scrolling

If you create files wider than the standard 80 columns on the screen, such as those for certain mathematical charts, you'll scroll the screen horizontally across your document. As you move the cursor to the right beyond column 80, the contents of the screen appear to shift to the left, 20 columns at a time.



Pocket WordStar scrolls automatically when necessary. You can also use **^Q** commands to begin horizontal scrolling on a line longer than 80 characters.

◊3-4

Although margin settings can't be wider than 240 characters, horizontal scrolling allows you to view up to 32,000 characters. The practical limits, of course, are often somewhat less.

When you scroll horizontally, watch the status line for the current cursor column. Also check the ruler line, which displays a plus sign (+) when your margin is set beyond the right side of the screen, and the flag column which also displays a plus sign when the text extends beyond the right side of the screen.

Finding Your Place

If you find yourself facing a blank screen and you don't know where you are or where your text has gone, look for a signpost to guide you. the best guide may be the status line or the flag at the end of a line, which tell you where you are in relation to your text. Use **^QQ.^R** or **^QQ^C** to run backward or forward through the file until you find your place.

SLOWING DOWN

You may be surprised by how long the computer sometimes takes to execute a cursor movement command. The further you are from where you're going, the longer it takes. For example, when you're near the beginning of your text, the execution of **^QC** takes longer than when you're near the end.

Backward movement takes longer than forward movement. You'll be wise to avoid long, backward moves whenever possible.

Time differences are almost imperceptible in a short file, but in a long file, you may wonder if your command has registered. Look for the command in the upper left of the status line, sometimes with a WAIT message, before entering another command.

Interpret a computer slowdown as a warning. Your disk may be getting too full. You can find out with a system check. Refer to your system documentation for information.

You'll find suggestions for avoiding and solving the slowdown problem in Chapter 4.

INSERTING TEXT

As you edit, you can easily add any amount of text by inserting it in the file.

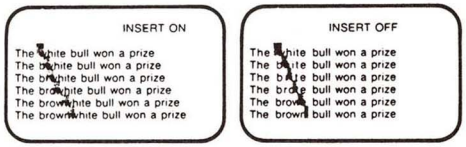
Insertion On and Off

Use **^V** to turn the insertion toggle switch on or off. With insertion on, Pocket WordStar creates space for new text as necessary. With insertion off, Pocket WordStar simply types over existing text.

The insertion switch will be on each time you begin a new editing session. Type **^V** once to turn the switch off; type **^V** again to turn the switch back on. When insertion is on, Pocket WordStar displays **INSERT ON** in the status line.

EFFECT ON ^V ON TEXT ENTRY

When you enter text, turning insertion on or off is a matter of personal preference. Either choice offers its own advantages for correcting certain typing errors. For example, you may want to change **the white bull** to **the brown bull.** With insertion off, you simply type the word **brown** over **white.** With insertion on, Pocket WordStar inserts the word, which gives you **the brownwhite bull.** The following examples show what happens, character by character, as you type:



Pocket WordStar pushes text right of the cursor to make room for new text. You must delete **white** to correct the text.

Insert OFF uses a type-over mode. **Brown** and **white** are the same length so you can just type the correction.

EFFECT ON ^V WHEN ENTERING NEW TEXT

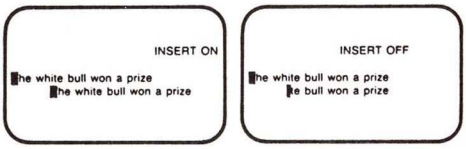
For contrast, suppose you want **the brown and white bull.** With insertion off, you type over any text that follows **the.** You may have to retype lost text. With insertion on, Pocket WordStar creates space for the additional words:

Using the Space Bar

HOW DO SPACE CHARACTERS WORK?

When you use the space bar on your keyboard, you're actually entering space characters in your text. Spaces are treated like any other character, whether insertion is on or off. Each time you press the space bar, the cursor moves one position to the right. With insertion on, spacing inserts a new space character each time you press the bar, which pushes text to the right of the cursor further right. With insertion off, spacing replaces existing text with a space character.

In the following example, assume that the cursor is positioned on the letter **T** at the beginning of the sentence. Then the space bar is pressed six times:



Spaces inserted.

Spaces typed over this text.

Tab Stops

Insertion affects what happens when you use the tabulator key or **^I** to skip the cursor to the next tab stop.◊6-7

TABBING MEANS SPACING

With insertion on, tabbing moves the cursor to the next tab stop, inserting a space at every character position the cursor passes. Text on the line is pushed one space to the right for each space inserted.

Normally, the cursor does not move outside the existing text. For example, you cannot move the cursor down a line (^X) if the new line is beyond the last character you typed in the document. However, you can use the tab key, even at the end of the document.

If you tab while the cursor is in the last line of text and the next tab stop is on a new line, the cursor will skip to the new line. Because the cursor cannot move outside the document, Pocket WordStar creates 'text' by extending your document with spaces and carriage returns as long as you continue tabbing. These spaces become part of the document.

DELETING TEXT

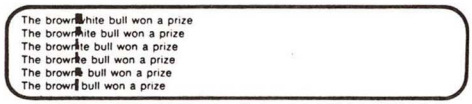
You can remove pieces of text of various sizes ranging from one character to an entire file.

Be sure to position the cursor carefully before inserting or deleting text. All text corrections, insertions, and deletions depend on the current position of the cursor. For example, **^QY** deletes characters from the cursor (including any character under the cursor) to the right end of the line.

Deleting Characters

Use **^G** to delete the character at the cursor's position. Characters to the right of the cursor shift one position to the left each time **^G** is pressed. If you press the keys repeatedly, **^G** continues to delete characters until the end of the line is reached. At the end of a line, **^G** deletes the carriage return, if any, and then pulls up text from the following line and continues deleting characters.

As an example, take another look at the **brownwhite bull.** When you finish typing **brown,** the cursor stops over the second letter **w.** To change the animal into a **brown bull,** type **^G** five times:



If you accidentally hit **^G** a sixth time, the animal becomes a **brownbull.** If insertion is on, press the space bar to convert him back to a **brown bull.** If insertion is off, pressing the space bar will turn him into a **brown ull,** with the cursor on the letter **u.** To rescue the poor animal, either set insertion on (**^V**) and type the letter **b,** or leave insertion off and retype the rest of the sentence.

On some terminals a deletion key (DEL) removes the character to the left of the cursor, shifting the cursor left by one position. Any characters to the right of the cursor also shift left.

If you press the DELete key repeatedly, you'll continue deleting characters and shifting the cursor to the left. When the beginning of the line is reached, the DELete key jumps to the right end of the line above and continues deleting characters, including the carriage return, if any. When it jumps up a line, characters to the right of the cursor jump up with it.

Deleting Words

Use **^T** to delete the word that contains the cursor and any spaces that follow the word, thus closing up the line. If the cursor is within a word, use **^T** to delete the character at the cursor position and the portion of the word to the right of the cursor. When the cursor is between words, use **^T** to delete spaces up to the next word.

If you want to delete a carriage return and any spaces that follow the last word in a line, position the cursor just past the word, and press **^T.** Similarly, if you want to delete an overprint control (**^**P RETURN) set for a line, position the cursor just past the last word in the line, and press **^T.**

HOW ^T LOCATES A WORD
What is a 'word'? To the program, a word is a string of characters that start after a space or punctuation mark and ends with a space or punctuation mark, or both. The following punctuation marks are recognised between words, even if there's no space:

. , : ; ! ?

In the following example, the initial letter of each new word is boldfaced:

When **i**sa **w**ord **n**ot **a w**ord? **N**ever, **y**ou **s**ay.

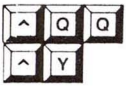
Note that spaces and punctuation are included in the identification of each word, as is the typing error which omitted a space. To move one word at a time with **^A** or **^F,** means to move from one boldfaced letter to the next. To delete a word with **^T** means to delete all characters, starting with one in boldface and stopping at the next.

Deleting Lines of Text and Files

Press **^Y** to delete the entire line that contains the cursor, including the carriage return, if any. If the line is too long to fit on the screen, **^Y** deletes the portion of the line that is not visible as well as the portion on the screen. Lines following the deleted line move up on the screen. The **^Y** command also deletes overprint lines.

Press **^QY** to delete all characters from the cursor to the right end of the line. **^QY does not delete a carriage return at the end of a line, nor does it delete an overprint line.**

Press **^Q** and the DELete key to delete all characters left of the cursor back to the beginning of the line.



Enter **^QQ^Y** to tell Pocket WordStar to delete the line containing the cursor, update the screen, then repeat the command until you stop it.

When you are at the Pocket WordStar Opening Menu, type **Y** to delete a whole file. (Pocket WordStar will also accept **^Y** at this point). When you're editing a file, use **^KJ.** ◊9-6

RE-FORMING PARAGRAPHS

Press **^B** to justify text within a paragraph to current right and left margins. While the paragraph is being re-formed, you'll have the chance to hyphenate at the ends of long lines. The program offers 'hyphen help' by placing the cursor within a word at the end of each line that is too long. ◊6-2

You'll see the following message at the top of your screen:

To hyphenate, press - Before pressing -, you may move the cursor ^S = cursor left, ^D = cursor right

If you hyphenate the word, a soft hyphen will be added. ◊6-2

If you choose not to hyphenate the word, press **^B** again. The word will move to the next line, and the previous line will be realigned.

You can move the cursor within a word to be hyphenated before pressing the hyphen key.

Here is an example of a re-formed paragraph:

This sample paragraph was typed first with narrow margins, then re-formed with wide margins

This sample paragraph was typed first with narrow margins, then re-formed with wide margins

Before **After**

After re-forming a paragraph, you'll find the cursor at the end of the paragraph. The end is defined by a hard carriage return, the end of the file.

USES FOR ^B

Your use of **^B** also involves current margin settings, line spacing (**^**OS), and Pocket WordStar toggle switches that control justification (**^**OJ) and hyphenation (**^**OH), all discussed in Chapter 6.

Thus, you use **^B** to perform the following:

- Correcting and changing margins
- Changing line spacing
- Eliminating or adding right justification within a paragraph
- Assisting in hyphenation

CORRECTING MARGINS CHANGED BY EDITING

A common use for **^B** is to re-form a paragraph that has become messy because of additions and deletions made in the course of editing. For example, inserting text near the beginning of a line pushes the remainder of the line to the right, often right off the screen. After editing the whole paragraph, move the cursor back to the beginning (or to the first messy line), and press **^B** to re-form the paragraph.

EFFECTS OF CHANGING MARGINS

Always remember that you'll use **current** margin settings when re-forming a paragraph. If you enter text that requires frequent margin changes and then continue editing that text, check margin settings on the ruler line before using **^B.** Use **^OF** to change margin settings quickly.◊6-9

If you want text (or dot commands) to appear in the margins, exercise care when using **^B.** Avoid re-forming marginal text into the body of your document. Be especially careful if you speed up re-forming with **^QQ ^ B.** Also consider the capabilities of your printer; don't generate text lines wider than it can print.

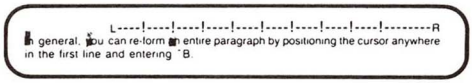
^B, in conjunction with related commands and toggle switches, allows you to change margins, spacing, and justification at any time, even in the middle of a paragraph. The ability to make these changes simplifies layout problems such as making space to insert a picture or diagram.

You can alter margins to insert a diagram as you enter text, or you can wait to edit the text until you know the size of artwork to be inserted.

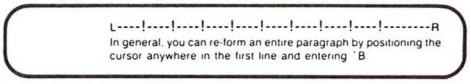
CURSOR POSITIONING

In general, you can re-form an entire paragraph by positioning the cursor anywhere in the first line and entering **^B.** When the left margin is not in column 1, however, re-forming won't affect text to the left of the cursor on the first line of a paragraph; nor will it affect text left of the left margin. Thus, paragraph numbers left of the margin are not always moved by **^B.** If you want to pull the numbers into the paragraph, you must position the cursor at the paragraph number.

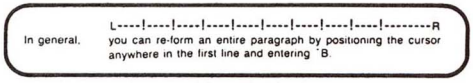
The following examples show the effect of three different cursor positions with **^B.**



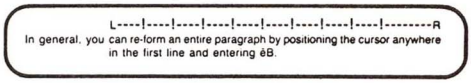
Before ^B



After ^B (1)

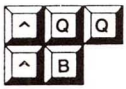


After ^B (2)



After ^B (3)

When you move the left margin to the left and re-form indented text, Pocket WordStar will remove the soft spaces used to form the indentation: Otherwise, the re-formed paragraph would contain large gaps where the spaces fell between words.



Pressing **^QQ ^B** tells Pocket WordStar to re-form the current paragraph and to continue forward through the file, re-forming each paragraph to the current margin settings. With hyphen help off (**^**OH), the process will continue until you press a key or until the end of the file is reached.◊6-2

You can control the speed of the **^QQ ^B** operation by following the command with a number, 1-9, with 1 the fastest and 9 the slowest.

ENTERING HARD CARRIAGE RETURNS

There are two ways to insert a hard carriage return into your text: press RETURN or ^N.

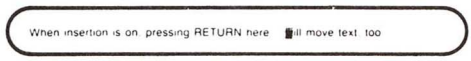
Use RETURN whenever you want a fixed line break – for a new line at the end of a paragraph, a space between lines in a table, or the spaces after headings and titles. When you need a new line while entering text within a paragraph, don't use RETURN; let word wrap do the work.

When you press RETURN, the cursor moves to the beginning of the next line. The result of pressing RETURN, however, also depends on whether the insertion toggle switch (^V) is on or off.

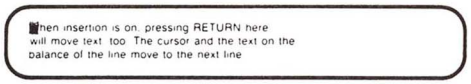
RETURN WITH INSERTION ON

If you press RETURN with insertion on, you insert blank space – a whole line if the cursor is at the beginning of the line, a partial one if the cursor is mid-line. The hard carriage return appears on the line wherever the cursor is positioned before you press RETURN, and any text following the cursor moves along with it.

Here is an illustration:



Before



After

RETURN WITH INSERTION OFF

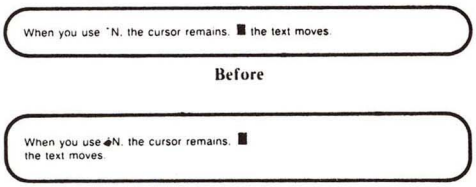
When you press RETURN with insertion off, you move the cursor to the beginning of the next line, without inserting a blank space. Leaving text as-is and moving only the cursor to the next line.

If you set the line spacing greater than 1, pressing RETURN will insert multiple hard carriage returns. Line spacing is set with **^OS.** ◊6-4

When you use **^N,** you always insert one carriage return, leaving the cursor on the same line as the inserted carriage return. Blank space is inserted the same way it is with RETURN, a whole line if the cursor is at the beginning of a line, a partial line if the cursor is mid-line.

There is one major difference between the effect of RETURN and of ^N ^N leaves the cursor where it is and moves text down, but RETURN moves the cursor as well as the text. ^N works the same way with insertion on or off.

Here is an illustration:



SUMMARY TABLE: CURSOR MOVEMENT	
COMMAND	**FUNCTION**
^D	Moves cursor right one character
^F	Moves cursor right one word
^QD	Moves cursor to right end of current line
^S	Moves cursor left one character
^H	Moves cursor left one character
^A	Moves cursor left one word
^QS	Moves cursor to beginning of current line
^E	Moves cursor up one line
^QE	Moves cursor up to top of screen
^W	Leaves cursor in same position; new line appears at top of screen, and window on text moves down one line
^R	Leaves cursor in same position; previous screen reappears
^QR	Moves cursor back to beginning of file
^X	Moves cursor down one line
^QX	Moves cursor down to bottom of screen
^Z	Leaves cursor in same position; new line appears at bottom of screen, and window on text moves up one line
^C	Leaves cursor in same position; next screen appears
^QC	Moves cursor forward to end of file
^QQ^_	Repeats any cursor movement or scrolling command continuously until stopped

SUMMARY TABLE: ENTERING AND EDITING TEXT	
COMMAND	**FUNCTION**
^V	Turns insertion on/off
^G	Deletes character at cursor position
DELETE	Deletes character to left of cursor position
^T	Deletes word from cursor position to the right
^Y	Deletes entire line in which cursor is located
^QY	Deletes all characters from cursor position to the right end of the same line
^QDEL	Deletes all characters from cursor position to the beginning of the same line
^B	Re-forms paragraphs between current margins
RETURN	Inserts a hard carriage return, leaving cursor at beginning of previous line (insertion: on)
^N	Inserts a hard carriage return, leaving cursor at beginning of newly inserted blank line

4. MARKING AND MOVING TEXT

CONTENTS

4. Marking and Moving Text

PLACE MARKERS

WHAT ARE PLACE MARKERS?

Place markers identify text at particular locations in your document. You can return to a marked place with a simple command. Although place markers stay in your file after a save-and-resume command (^KS), they disappear after any other save command.

There are up to ten place markers available, numbered **0-9,** and you can use each number once in a file. You must set each marker in your file before you can use it. If you try to return to a marker that's not set, you'll see the following message:

Press ESCape to return to editing.

Setting the Marks

To set place marker number 1 at your current cursor position, enter the following command:

through

PRESS **^K1**

SEE **1**

To move the same marker to another portion of text, re-issue the command and the same number at the new location. The original location will cease to be marked.

HOW TO HIDE PLACE MARKERS

To remove a place marker from the screen, place the cursor in the first column to the right of the mark and press **^K,** followed by the number. The marker will disappear from the screen, but it will be assigned to the same portion of text until you reassign it. The marker will reappear when you move to it from elsewhere in the text.

Returning to a Place Marker

To return to the place previously marked <**1**>, enter the following command:

through

^Q1 PRESS

The cursor will move to the first column to the right of the marker.

You can move either forward or backward through a document. If, for example, you are editing concurrently several places in a file, mark each location and move from one to another by pressing **^Q** and the respective place number.

Remember that moving backward through long documents is slow and may cause disk-full errors.

BLOCK OPERATIONS

Pocket WordStar block commands enable you to perform various editing tasks automatically – moving a sentence, deleting a column, or copying a paragraph to another part of the document or to another file, for example.

WHAT IS A BLOCK?

A block is a portion of text ranging in length from one word to several pages. You can mark the beginning and end of a Pocket WordStar block, then move, copy, or delete it, and read it from or write it to another file. You can mark only one block at a time, but you can change its size and content at any time before or after an operation upon it.

IS BLOCK SIZE LIMITED?

Block size is the total number of characters from the beginning to the end of the block, including spaces and carriage returns. The amount of text that can be moved or copied at one time varies with the size of your system from about 300 characters in a small system to many thousands of characters in a larger. If your block is too large, an error message will appear.

Marking a Block

HOW TO MARK BLOCKS

Marking a block is similar to setting a place marker. Keep the following points in mind:

- Only one beginning mark (**<B**) and one end mark (**<K>**) can exist at a time.
- The block markers may be moved by simply resetting them, which also deletes them at the original location.
- The beginning and end marks can be set in either order, and they remain in effect until reset, whether used or not.
- Block operations require that the beginning mark precede the end mark in the text.

Mark the beginning of the **B**lock with **^KB.** Move the cursor to the appropriate spot.

^KB PRESS

SEE <**B**>

The symbol will not print as part of your document.

To move the cursor quickly to the beginning mark, press **^QB.** The marker, if hidden by **^KH** (explained in this chapter), will reappear.

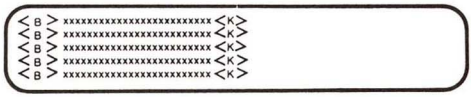
Mark the end of a bloc**K** with **^KK.** Depending on your terminal, either the symbol <**K**> will appear on the screen to mark the spot, or the text between the beginning and end marks will appear highlighted when you set the end mark.

To move the cursor quickly to the end marker, press **^QK.** If the marker has been hidden by **^KH,** it will reappear.

WHERE SHOULD BLOCK BE PLACED?
If the last line of the block is a complete line ending with a carriage return, place the end marker at the beginning of the next line to include the carriage return. Beginning and end markers may also be set in the middle of a line to extract a sentence or other phrase from the middle of a paragraph.

HOW IS THE BLOCK HIGHLIGHTED?
On terminals with highlighting (inverse video or high and low intensity), the entire marked block appears highlighted, without the markers <**B**> and <**K**>. The spaces on the screen after the end of the last line in the block and the flag character (< for hard carriage return) in the last line are included in the highlighted area only if the end marker is set beyond the carriage return at the end of that line.

On terminals without highlighting, the beginning marker and the end marker will appear at the beginning and end of each line within the block, as shown here:



Hiding a Block

Use **^KH,** the block **H**iding command, to remove block markers or remove highlighting from your display. If the block is already hidden, use **^KH** to restore markers or highlighting to the display.

Hiding a Block

Use **^KH,** the block **H**iding command, to remove block markers or remove highlighting from your display. If the block is already hidden, use **^KH** to restore markers or highlighting to the display.

```
Block beginning not marked
(or marker is undisplayed)...
```

You cannot perform a block operation while the marked block or one of the markers is hidden. You'll see the following message:

This interruption gives you a chance to protect your document against accidental block operations. Press ESCape. Then use **^KH** or reset the beginning and end markers until both appear (or block text is highlighted). Repeat your previous command.

Moving Blocks

Use **^KV** to moVe all text in a marked block to the current cursor position. The remaining text will move up to fill the space left by the moved block.

The destination of your block may be anywhere in the text area – between paragraphs or in the middle of a line. Place the cursor wherever you want to move the block, and press **^KV.**

Here is an example:

```
The section of text
which you mark
<B> xxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxxx
<K> is moved where
you indicate.
```

```
The section of text
which you mark
is moved where you
indicate.
xxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxx
```

HOW MANY CHARACTERS MOVE?
The beginning and end markers move with the block and remain in the display. After the move, use **^KH** to hide the markers, both to remove the distraction from the screen and to protect against block commands typed inadvertently. Place markers (0-9) in the marked block do not move with the block; they remain at the block's former place.

When Pocket WordStar print control or dot commands are within a marked block of text, they move to the block's new location, too. If any of these commands are toggle switches, check both the block and the block's previous location for matching pairs.

Use **^QV** to position the cursor back at the beginning marker's location preVious to moving, copying, or deleting a block. Then check to verify that the move was what you intended.

Copying Blocks

Use **^KC** to Copy a marked block at the cursor's location. The block will appear both at the cursor position and in its original position. You can copy the block successively by pressing **^KC** several times.

Before **After**

Deleting Blocks

Use **^KY** to delete a marked block. The beginning and end markers will be hidden but set at the position where the deleted text was. The cursor rests in the first column to their right.

To avoid accidental deletions, keep the markers hidden between block operations. You cannot stop **^KY** once it has been initiated. Save or copy your document before using deletion commands.

Working with Column Blocks

You may sometimes need to move a column of numbers with a table. If so, column mode enables you to define column-shaped areas in your document.

Use **^KN,** a toggle switch, to turn columN mode on and off when you're working with column-shaped blocks of text. Follow these steps to move a column of text:

STEP 1 Turn on column mode.

PRESS **^KN**

STEP 2 Insert the beginning marker at upper left corner of the column.

PRESS **^KB**

STEP 3 Place the end marker one position to the right of the bottom right corner of the column.

PRESS ^KK

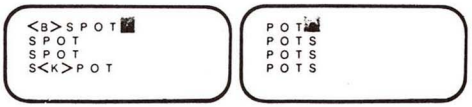
STEP 4 Move, copy, or delete the defined rectangle.

STEP 5 Turn off column mode.

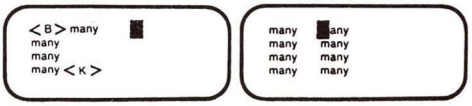
PRESS ^KN

Any time you need to check the status of the **^KN** toggle switch, press **^K** and pause. The Block Menu will appear, and you'll read either 'now ON' or 'now OFF' next to each command that's a toggle switch.

Here's an example of moving a column block:



Here's an example of copying a column block:



When you are using column mode to move columns embedded in text, you may see this message:

The total number of characters in surrounding text is included in the program's calculation, even though it is not included in column-block operations. Keep in mind, too, that the maximum column width is 240 columns.

You can divide a block into two or more smaller portions. Then, after reducing the number of lines in each block, you can repeat the operation until the original block is moved.

Column mode has no impact on normal text entry or editing within a column. You still type from margin to margin, whether or not you are in column mode.

When you include print control characters within a column, be sure to begin and end each line in the column with the print control character.◊7-2

MOVING BLOCKS BETWEEN FILES

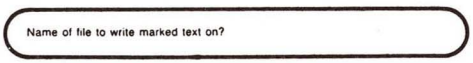
You can copy marked blocks from one file to another when you use the block writing (^KW) and block reading (^KR) commands.

Writing Blocks

Use **^KW** to **W**rite text from the file you're editing to another file. After marking the beginning and end of your block, follow this procedure:

PRESS **^KW**

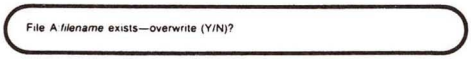
SEE



TYPE *filename* RETURN

When the cursor returns to your previous place in the file, a copy of the block will be in the named file. You can thus save a portion of text as though it were a separate document without moving the cursor or altering the text.

If you name a file that already exists, you'll see the following message:



Respond **Y** if you want to erase and replace (overwrite) text in the existing file with text in the marked block. Respond **N** to preserve the existing file; then enter a different file name.

Reading Blocks

Use **^KR** to **R**ead a previously written block or whole file, pulling it out of storage and into the current document. Follow this procedure:

PRESS **^KR**

SEE

TYPE *filename* RETURN

You'll see a copy of the named file appear at the cursor's present location. The original contents of the file you're editing will shift down to make room for the new text. The contents of the file you read are unchanged.

COMMON USES OF ^KW AND ^KR
When there are standard paragraphs or sections of text that you use frequently, write each into a small, separate file with **^KW** or by normal text entry. Then, whenever necessary, use **^KR** to copy a small file to the cursor position in the document you're currently editing.

Large-Scale Block Operations

Block operations require the computer to move an 'internal cursor' to the location of the marked block, then back to the original position. In large files, the command may be executed very slowly. You run the risk of a disk-full error because so much file space is necessary to perform the operation. Do not create a file longer than 25 pages when you combine files.

For moving and copying text when the source and destination are in large or separate files, you may want to use the following combination of block writing and reading commands.

HOW TO MAKE MOVES SAFELY

STEP 1 Edit the first document.

STEP 2 Mark the desired block of text (^KB and ^KK).

STEP 3 Write the block (^KW) into a temporary file.

STEP 4 Exit from the first document.

STEP 5 Open the second document and put the cursor where you want the text.

STEP 6 PRESS **^KR**

TYPE *filename* used in STEP 3.

You can also use this method for transferring a block with one large file.

HOW TO MOVE COLUMNS BETWEEN FILES
You cannot move marked columns between files, but you can reproduce the effect in either of two ways.

One way is to mark a larger block of text that contains the column. Then write the whole block to the second document, and edit out the unnecessary text. The other way is to copy the column from its surrounding text to a blank space at the end of the file, write it to another file, then read it into a second document.

Use **^KJ** to conserve disk space by deleting any temporary file as soon as you finish using it.

◊9-6

SUMMARY TABLE: BLOCK COMMANDS	
COMMAND	**FUNCTION**
^K 0-9	Marks a place in the text with single digit
^Q 0-9	Returns cursor to previously marked place
^KB	Marks the beginning of a block of text <B>
^QB	Moves cursor to beginning block marker
^KK	Marks the end of a block of text <K>
^QK	Moves cursor to end block marker
^KH	Hides or displays a marked block
^KV	Moves a marked block (including block markers) to cursor position
^QV	Moves cursor back to previous position (Position of beginning marker in block operations, position at end of last command executed in find or find-and-replace commands)
^KC	Copies a marked block (including block markers) to cursor position with no change in original text
^KY	Deletes a marked block from document
^KN	Turns column mode on/off
^KW	Writes a marked block to another file with no change in original text
^KR	Inserts (reads) another file at cursor position in the file currently being edited

5. FINDING AND REPLACING TEXT

CONTENTS

5. Finding and Replacing Text

FINDING WORDS AND PHRASES

Finds a string of specified characters.

HOW TO FIND A PHRASE
To issue a find command without options, follow this simple procedure:

STEP 1 PRESS **^QF**
SEE **FIND?**

STEP 2 TYPE your string (up to 30 characters)

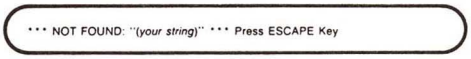
STEP 3 PRESS **ESC**ape

When the cursor appears at the first occurrence of your string, you have three choices:

- To continue work at the cursor's present location
- To repeat the final command with **^L** (explained in this chapter)
- To return to your previous location with **^QV** (also in this chapter)

Be patient. The operation may take few moments to finish.

Your find operation ends when you see this message:



The message indicates one of two conditions:

- There are no occurrences of your find string in the file.
- There are no further occurrences between the cursor position (when you began the operation) and the end of the file.

When you press ESCape, the cursor will appear at the end of your file.

FINDING AND REPLACING

Press **^QA** (Find-And) to find one string and replace it with another.

HOW TO REPLACE A PHRASE
To issue a find-and-replace command without options, follow this simple procedure:

STEP 1 PRESS **^QA**
SEE **FIND?**

STEP 2 TYPE your present string (up to 30 characters) RETURN

SEE **REPLACE WITH?**

STEP 3 TYPE your new string (up to 30 characters)

PRESS **ESC**ape

The cursor will appear at the *next* occurrence of the find string, and a prompt will ask you to approve the replacement.

NOTE: You must position the cursor at the beginning of your file in order to find the first occurrence of your find string.

You'll see a flashing cursor at the first character in your find string and another after **REPLACE (Y/N)** in the upper right corner of your screen. Wordstar will perform the replacement *only* if you type **Y.**

After your command is executed, you'll have three choices:

- To continue work at your present location
- To repeat the find-and-replace with **^L**
- To return to your previous location with **^QV**

HOW TO DELETE A PHRASE
If you simply want to delete your present string from the text, don't type the replacement string. If you type nothing, you'll produce a *null* string. Just press **ESC**ape, and the operation will be underway.

Repeating the Last Command

Press **^L** to repeat your **L**ast find or find-and-replace operation. When you use **^QF** or **^QA,** the operation is performed only once, and the cursor is left at the first occurrence in the text.

You can use **^L** to move through your files quickly and examine or change specific sections of text.

Returning to Your Work Point

Press ^ QV to return the cursor to your preVious place in the text. This spot is *not* the same as your cursor's *original* position except when only one occurrence of your string is found. If you're going to use ^**L many times, mark your original position in the text with a place marker so that you can return there quickly.** ◊4-2

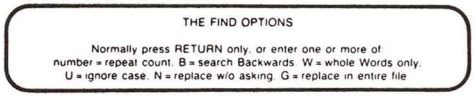
OPTIONS IN FIND COMMANDS

In the simple **^QF** and **^ QA** procedures just covered, you avoided the options question before it was asked by pressing ESCape. If you use RETURN, rather than ESCape, you'll see the options prompt.

TYPE your string (up to 30 characters) 

SEE **OPTIONS (? FOR HELP)**

VIEW YOUR OPTIONS
To view the options, respond with a question mark (**?**) and press RETURN. You'll see the following display:



If you now decide against using options, simply press either ESCape or RETURN. If you *do* want options, type the letter or number for each at this point. Enter upper or lowercase letters with or without spaces; it doesn't matter. Then press RETURN.

Finding *n* Occurrences

The number option works differently with **^QF** and **^QA.**

NUMBER OPTION WITH ^QA
With **^QA,** enter any whole number *(n)* as an option, and the find-and-replace operation will locate the next *n* occurrences of your string.

Use a number greater than the number of words in your file (99999, for instance) to insure that **^QA** will find *all* occurrences of your string between the cursor location and the end of the file.

NUMBER OPTION WITH ^QF
With **^QF,** enter any whole number *(n)* and the find-only operation will locate the **n**th occurrence of your string. For example, if a string is **St. Paul** and you enter **10** as an option, the cursor will appear at the tenth occurrence of **St. Paul.**

Searching Backward

Use **B** (**B**ackward) to reverse the usual order of the **^QF** or **^QA** operation. The search will start at any cursor location and proceed ('backward') toward the beginning of your file.

Searching backward through a long file may produce disk-full problems if your file is very long. To search the whole file, first use **^KS** to return the cursor to the beginning of your file. ◊9-2

Whole Words Only

Use **W** to look for **W**hole words only. Similar but different words or phrases are left alone. For example, **St. Paulette** contains the character **St. Paul,** and a standard search will locate this phrase, unless you specify whole words only by choosing option **W.**

If **St. Paul** lies at the very beginning of your file, the string won't have a space in front of it; under option **W,** Pocket WordStar won't consider it the string you want to locate. Always check the first word of a file when you choose **W.**

Upper or Lowercase

Ignores difference between lower and uppercase.

No Approval Needed

Use **N** (**N**o approval) to replace occurrences of your string automatically. If you know that you want to replace each and every occurrence of your string, choose option **N.** Pocket WordStar will perform the replacement automatically, no questions asked.

Global Replacement

Use **G** (**G**lobal) to search your entire file, from beginning to end. You will see the approval prompt before each replacement:

Answer **Y** or **N.** After executing your instructions, the cursor moves to the next occurrence of your string automatically.

As with all ongoing operations, you can halt a global find or find-and-replace operation with **^U** (interrupt).

There are two variations on the global theme:

1. When you choose the global option **(G)** in conjunction with the backward option **(B),** a **^QA** command sends the cursor to the end of the file and searches from there to the beginning.

2. If you use the global option **(G)** in conjunction with the no-approval option **(N),** Pocket WordStar will change all occurrences of the string.

FAST GLOBAL OPERATIONS
If you don't care to watch every replacement take place, press any non-printing key (like ^ X or ESC). The global operation will be completed at top speed. Why should you press a non-printing key? Because any printable character you type will be added to the end of your document.

VARYING CHARACTERS IN FIND STRINGS

You can introduce certain special cases for variations on your string by using 'wild card' characters with **^QA** and **^QF.** Use them as substitute characters when you answer the prompt **FIND?**

Any Character

Enter **^A (A**ny) into your string by pressing **^P ^A.** Your find operation will locate strings with any single character in place of the wild card. For example, the find string **R^AM** will locate **RAM, ROM, RUM, R.M., R2M, R@M,** etc.

Any Symbol

Enter **^S (S**ymbol) into your string by pressing **^P^S.** Your find operation will locate strings with any character not a letter or a digit in place of the wild card. **R^SM** will locate **R&M, R@M, R#M, R$M, R%M, R*M,** etc.

Other Than

Enter an exception into your find string by pressing **^O** and then the character you want ignored. *(x).* You'll brand that character as **O**ff-limits. For example, defining a string **R^O** = M will find every variation of **RM** except **R = M.**

Carriage Return and Line Feed

Enter **^N** into your find string by pressing **^N.** You'll include a carriage return and line feed in your string. For example, you can answer **FIND?** WITH **St.**(space) **^ NPaul** to locate these two words whenever the end of a line separates them.

The wild-card characters **^P^A,^P^S,** and **^N** should not be confused with the print control characters in Chapter 7.**^PA, ^ PS,** and **^PN** cannot be entered into a find string. The characters look similar on the screen but are *not* interchangeable in practice.

SPACES AND RETURNS IN STRINGS

When you enter a character string in response to the question **FIND?,** you must be precise because Pocket WordStar will search for *exactly* what you type next. For instance, if you type **St. Paul** and then order a search without options, Pocket WordStar will examine each and every character–in order–from the cursor location toward the end of the file until it finds the first **St. Paul** with a single space between the two words.

If word wrap or justification have inserted soft spaces or soft carriage returns between the two words in order to make a line come out even, the phrase is no longer **St.**(single space and no carriage return or line feed)**Paul,** and will therefore be ignored.

Character strings are taken literally.

How *do* you replace all instances of **St. Paul,** regardless of soft spaces or soft carriage returns? Search for **St.**(space) only, since this word isn't likely to show up elsewhere. Have Pocket WordStar replace **St.**(space) with **Minneapolis.** Search again (backward, if you like) for **Paul** and replace this word with a null-string.

APPLICATION: INSERTING AN UNCOMMON PHRASE

If you intend to use a particular word or phrase often in a document – *bilateral conundrum,* for example – you can use **^QA** to make your work easier. Move the cursor to a point in the text where you want to insert your phrase, and follow this procedure:

STEP 1 SEE **FIND?**

RETURN

Pressing RETURN enters a null string, which effectively says, 'Find the cursor's present location.'

SEE **REPLACE WITH?**

STEP 2 TYPE *bilateral conundrum* RETURN

SEE **OPTIONS? (? FOR HELP)**

STEP 3 TYPE **N** (No-approval) RETURN

REPEAT THE PROCEDURE

The phrase *bilateral conundrum* will appear in your text at the cursor location. Wherever and whenever in the text you want the phrase to appear again, press **^L.**

SUMMARY TABLE: FIND, FIND-AND-REPLACE COMMANDS AND OPTIONS

COMMAND	FUNCTION
^QF	Finds a string of specified characters
^QA	Finds one string and replaces it with another
^L	Repeats the last find or find-and-replace command
^QV	Returns cursor to position prior to execution of last command
	Options:
?	Lists options
n	Finds *n*th occurrence of string
B	Searches backward
W	Finds whole words only
U	Ignores difference between upper and lowercase
N	Replaces string with no approval
G	Searches entire file
	Variable characters:
^P^A	Substitutes any character
^P^S	Substitutes any symbol not a character or number
^Ox	Substitutes any character other than **x**
^N	Includes a carriage return and line feed

6. FORMATTING TEXT ON THE SCREEN

CONTENTS

6. Formatting Text on the Screen

You can arrange the text on your electronic page as easily as you enter and correct it. The **O**nscreen formatting commands (**^O**) presented in this chapter enable you to change margins or indentations, for example, even after typing your document. You can also modify displays on the screen, such as the ruler line, with onscreen toggle switches.

Each time you use **^O** to turn a toggle switch on or off, the **O**nscreen Menu reflects the change. You will see 'now ON' or 'now OFF' after the description of each command.

TEXT ENTRY AND RE-FORMING

Various features that work as you enter lines of text include word wrap, justification, hyphen help, soft hyphenation and line spacing.

Word Wrap

Use **^OW** to turn **W**ord wrap on or off. (Default: *on.)* Word wrap is an aid to normal text entry, but you may want to turn it off, for instance, when you type tables. When word wrap is off, you must enter a hard carriage return at the end of each line you type.

Turning word wrap off also activates tab stops set outside the current margins. This feature may be useful, for instance, when you number paragraphs.

Justification

Use **^OJ** to turn **J**ustification on or off. (Default: *on.*) This feature is frequently turned off to type letters. If you type a paragraph with justification on and then turn it off and reform the paragraph (**^**B), you'll see the soft spaces eliminated and the right margin becomes uneven.

Hyphen Help

Use **^OH** to turn **H**yphen help on or off. (Default: *on.*) This feature works during paragraph re-forming (**^**B), causing the cursor to pause in long words that extend beyond the right margin. When it stops in or near a syllable where the word might be hyphenated, an onscreen message offers you these choices:

1. Press the hyphen key to hyphenate at the indicated syllable break.

2. Move the cursor left or right within the word before hyphenating.

3. Press **^B** again to move the whole word to the next line and continue re-forming the paragraph.

WHAT IS A SOFT HYPHEN?
Hyphens entered with a hyphen help are always *soft* hyphens. They print only when they land at the end of a line. The distinction between soft and *hard* hyphens, which always print, is important to remember when you re-form paragraphs.

Soft Hyphen Toggle Switch

Use **^OE** to turn soft hyphenation on or off. (Default: *off.*) When this switch is on, every hyphen you type is a soft hyphen which will print only if it happens to land at the right hand margin. Turning **^OE** on or off has no effect on the soft hyphens entered with hyphen help. (^OE).

Soft hyphens do not occupy an actual column of space. Thus a line which contains a soft hyphen extends beyond the right hand margin on the screen but not on paper.

HOW TO USE SOFT HYPHENS
In most cases, Pocket WordStar discards soft hyphens and closes up the word when re-forming a paragraph. But if the word runs past the end of a line, soft hyphens enable you to break the word as you wish and print the hyphen. You may use **^OE** when typing names and foreign words with consecutive vowels or consonants, as in *de Mon-tes-quieu.*

If a long word appears frequently in your text, turn on the soft hyphen toggle, and use **^QA** with options **G** and **N** to substitute the soft hyphenated word for the unhyphenated word. ◊5-3

If you enter text while **^OE** is on, you may produce unwanted results. For example, you might type a budget report that includes both positive and negative numbers. With soft hyphen entry on, the hyphens that represent minus signs won't print.

HOW TO ENTER A HARD HYPHEN
Some words or names require a hard hyphen, for example, *Boileau-Despreaux.* With **^OE** on, you must enter a required hyphen as a special print character.

Follow these steps to enter a hard hyphen in soft hyphen mode:

STEP 1 PRESS **^P**

STEP 2 TYPE –

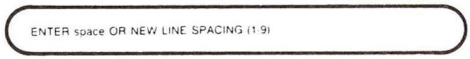
SEE –

^OD has no effect on the hyphens which you enter when you re-form a paragraph with hyphen help. However, if **^ OD** is off, all other soft hyphens will be hidden.

Check the Onscreen Menu (^O) to see if a toggle switch is on or off.

Line Spacing

Use **^OS** to specify **S**pacing between lines. For normal text entry and re-forming, the default is single spacing. When you give the command, you'll see the following prompt:



Type a number to change the spacing before or after you enter the text. Press the SPACE bar to leave the spacing as previously specified. Word wrap and paragraph re-forming will conform to the line spacing you enter.

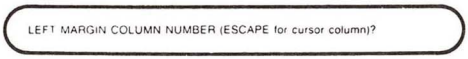
^OS also affects hard carriage returns. For example, when the command **^OS 5** is in effect, each RETURN you enter will result in five hard carriage returns.

MARGINS

The border you leave to the left and the right of your text can be changed at any time. You can reset the margins and then re-form paragraphs or center text between those margins. Word wrap will use the new margins to format text as you enter it. You can also release the margins and place text outside the current margins.

Left Margin

Use **^OL** to set a new **L**eft margin. You will see this prompt:



Enter a number, or press ESCape to set the margin to the current cursor position. The left margin can be set at any column, 1-239. Pocket WordStar begins with the left margin set at column 1.

If you set the left margin to a column number higher than 1, you'll create a wide border to the left of the paragraph. As you edit on the screen, your cursor will still move to column 1 after a carriage return or when you use **^E** or **^X** to cross a line containing only a hard carriage return. As soon as you type any character other than a period, though, the cursor will jump to the specified left margin and resume normal text entry.

If the first character you type is a period, the cursor moves to the right one space at a time, so that you can enter a dot command. ◊7-4

Right Margin

Use **^OR** to set the **R**ight margin. You will see this prompt:

Enter a number, or press ESCape to set the margin at the current cursor column position. The right margin is initially set at column 65 (to produce printed text 6½ inches wide).

LIMITS ON MARGIN SETTINGS
Since most printers cannot print a line with more than 160 characters, you should stay within this limit for printed results.

If you plan to type very long lines, try to limit text editing to columns 1-240. Some Pocket WordStar commands do not operate efficiently beyond column 240.

Margin Release

Use **^OX** to release current margins. You'll reset the left margin at column 1, remove any right margin, and turn word wrap off. Margin release remains in effect until you turn it off by entering a hard carriage return or another **^OX.** When margin release is in effect, you'll see **MAR REL** in the status line.

^OX activates any tab stops that lie outside the currently set margins. The ruler line displays **!** and # characters without hyphens to indicate tab stops outside the margins.

Centering Text

Use **^ OC** to **C**enter text between currently set margins on the line containing the cursor. After you type the text to be centered, position the cursor anywhere in the same line, and enter **^ OC.** You'll see the words move to the center of the line. Spaces entered before or after the text will be ignored.

TABS AND INDENTATION

You may want to indent paragraphs or align columns within the borders of your text. You can use various tabbing commands to arrange your text on the screen.

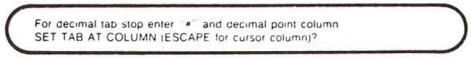
Variable Tabbing

Use **^ OV** if you want to turn off **V**ariable tabbing. (Default: *on.*) Variable tabbing is standard for most text entry and formatting; the alternative is fixed tabbing.

Variable tabbing means that you can set regular and decimal tab stops any place you want. These tab stops always appear in the ruler line.

Regular Tab Stops

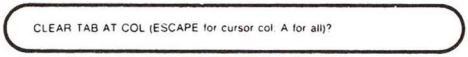
Use **^ OI** to set a tab, just as you would to **I**ndent a line on a typewriter. You'll see the following prompt:



Enter a number, 1-240, to indicate the column where a tab is to be set. Otherwide, press ESCape to set a tab at the cursor's current column, as indicated by the **COL** display of the status line.

You'll see an exclamation point (!) appear in the ruler line at the column you specify.

Use **^ ON** to clear a tab stop. You'll see the following prompt:



Enter a number, 1-240, to indicate the column where a tab is to be cleared. Otherwise, press ESCape to clear a tab at the cursor's current column, as indicated by the **COL** display of the status line.

The characters # and ! in the ruler line show where tabs have been set. If you want to clear a tab but aren't certain what column it's in, move the cursor to the column – using the tab key, if you like – and then press **^ON** and press ESCape.

Use **^I** to skip the cursor to the next tab stop. You can use tab stops only by pressing**^I** or the tabulator key; you don't stop at them as you type or space past them with other keys.

With **^I,** you skip only to tab stops within current margins, except when word wrap is off (^OW) or the margins are released (^OX). With margins released you can use **^I** to skip to every tab stop that is set.

If skipping to the next tab stop takes the cursor past the last character of the document, pressing **^I** will extend the document with enough spaces to allow it to reach the next stop. If the next tab stop is not on the current line, pressing **^I** will generate a carriage return. As long as you press **^I,** you'll continue to extend the document with spaces and carriage returns, even with insertion off.

Decimal Tab Stops

Decimal tab stops provide decimal point alignment for columns of numbers. Here is an example:

Regular Tab	Decimal Tab
.05	.05
760.00	760.00
11.95	11.95
1243966.41	1243966.41
3.14159265	3.14159265

Use the character # to set a decimal tab stop. follow this procedure:

PRESS **^OI**

SEE

```
For decimal tab stop enter "#" and decimal point column.
SET TAB AT COLUMN (ESCAPE for cursor column)?
```

ENTER # and the column number

You'll see the symbol # appear in the ruler line at the column you specify.

When you use **^I** to skip to a decimal tab stop, the cursor stops in the column where the decimal point is to appear. The word 'decimal' appears in the status line to indicate that right alignment is in effect.

WHAT IS RIGHT ALIGNMENT?
Right alignment means that the characters you type appear to the left of the cursor. Right alignment continues until you enter a decimal point, press the SPACE bar or RETURN key, or enter another tab (^I) command. When you end right alignment with a decimal point or a space, the decimal or space will appear in the tab stop column, and you'll resume normal text entry.

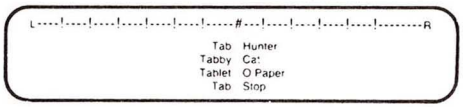
If you try to enter too many characters at a decimal tab stop, Pocket WordStar will turn off right alignment. Instead of running into a previously entered column of characters on the left, your new entry will continue in the tab stop column and then as normal text from left to right.

Avoid setting a decimal tab in column 1. If you enter a fractional number, you'll end up with a period which will be interpreted as a dot command beginning in the first column. ◊7-4

When you set a decimal tab near the right margin, be sure there is enough space for the longest possible entry between the decimal position and the margin. Otherwise, word wrap will carry part of a number to the next line.

USING DECIMAL TABS OUTSIDE MARGINS
You can set decimal tabs outside current margins, but you must release the margins (^OX) before tabbing. Setting a decimal tab stop left of the left margin can be handy when, for example, your text uses paragraph numbers.

ALIGNING ALPHABETIC ENTRIES
Since right alignment at a decimal tab stop can be terminated by either a period or a space, you can enter alphabetic characters at a decimal tab. For example, you might align a column of names by the first name:



Indenting Paragraphs

Use **^OG** to reset the left margin to a tab stop; the effect is temporary indentation. As you enter text, word wrap will automatically return the cursor to the temporary left margin. This margin remains in effect until you press RETURN.

Each time you enter **^OG,** the left margin moves to the next tab stop. For example, the standard ruler line has tab stops set at columns 6, 11, 16, 21, and so on. Pressing **^OG^OG** sets the temporary left margin at column 11. **^OG** is also useful when entering or reformatting text to the left of the margin.

RE-FORMING WITH ^OG
If you re-form a paragraph while a temporary margin is in effect, **^B** uses the temporary margin. If the paragraph ends with a hard carriage return, **^B** releases the temporary margin after re-forming the paragraph.

Temporary margins are particularly useful for entering text, such as outlines, in which the first line of each paragraph requires only a small amount of text to the left of the margin.

CHANGING THE SCREEN DISPLAY

Some Pocket WordStar features help you to gauge how your work will fit on the printed page. These options, the ruler line and the page break display, can be turned on or off.

Ruler Lines

You can use a line from the text area as the model for a new ruler line. The following text lines are all valid for setting a new ruler line:

```
Mary had a little ! Its # was ! as snow
xxxxxxxxxxxxxx! xxx#xxxxx!xxxxxxxx
L.....!.....#.....!.....R
```

The first two lines are equivalent; they set the margins and three tab stops. The last line sets the same margins and tab stops, but the hyphens also clear any other tab stops that may be set. When you need specific tab stops as you enter text, you'll avoid confusion by using a format similar to the third line for your ruler line.

The standard ruler line (default) sets the left margin at column 1, the right margin at column 65, and tab stops at every fifth column (columns 6, 11, 16, 21, and so on through column 56). While editing, you can alter the ruler line by changing margins (^OL and ^OR) and tabs (^OI and ^ON).

Use **^ OF** to change ruler lines quickly by setting the ruler line equal to another line in your text file. Follow this procedure:

STEP 1 Position the cursor anywhere in the desired text line.

STEP 2 PRESS **^ OF**

STEP 3 SEE the ruler line change to the same margins as in the text line.

If the line happens to contain the characters ! and # , **^ OF** will set tabs at the corresponding columns.

In a text line. a hard hyphen is the only other character that is significant in the **^OF** command. Each hyphen represents a text column without a tab stop. Thus a hyphen in the text line clears a tab stop in the corresponding column of the ruler line.

HOW TO PREVENT RULER LINES FROM PRINTING
One way to prevent the printing of a ruler line typed into your text is to connect it to a non-printing comment line. Before typing your ruler line, position the cursor in column 1 of a blank line; then follow this procedure:

TYPE ..

PRESS **^P** RETURN

SEE hyphen (-) in the flag column and cursor in the second blank line

TYPE your ruler line RETURN

Another way to store a ruler line is to keep it in a separate file. When you want to change margins and tabs, use **^KR** to read in the file containing the ruler. Then use **^OF** to change the ruler line, and delete the line in your text.

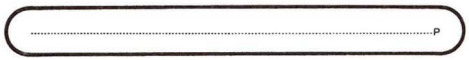
^ O T

Use **^OT** to turn the ruler line display on and off. (Default: *on.*)

Page Breaks

^ O P

Use **^OP** to turn the display of **P**age breaks on and off. (Default: *on.*) When on, this toggle switch inserts a line of hyphens, followed by the letter P in the flag column, to indicate when page breaks will occur in the printed text. Here is an illustration:



This toggle switch also changes the status line display. When it's on, the status line shows **PAGE** and **LINE** numbers. When it's off, the status line shows the total number of **F**ile **C**haracters (FC = nnnn) and **F**ile **L**ines (FL = nnnn) up to the current cursor position.

Use **^OD** to turn the **D**isplay of print controls on and off. By suppressing the controls, you can see how columns and margins will line up when printed.

Be sure to turn print control display on when editing text that contains print controls. If you edit without displaying the controls, you can easily delete an important command.

SUMMARY TABLE: FORMATTING COMMANDS

COMMAND	FUNCTION
^OW	Turns word wrap on/off (default: on)
^OJ	Turns justification on/off (default: on)
^OH	Turns hyphen help on/off (default: on)
^OE	Turns soft hyphenation on/off (default: off)
^P-	Enters a hard hyphen while soft hyphenation is on
^OS	Sets spacing between lines
^OL	Sets left margin
^OR	Sets right margin
^OX	Releases margins
^OC	Centers text on line in which cursor is located
^OV	Turns variable tabbing on/off (default: on)
^OI	Sets tab stops
^ON	Clears tab stops
^I	Skips cursor to next tab stop
^OG	Sets temporary margin at tab stop indicated
^OF	Copies format of a text line into ruler line
^OT	Turns display of ruler line on/off (default: on)
^OP	Turns display of page breaks on/off (default: on)
^OD	Turns display of print controls on/off (default: on)

7. DESIGNING THE PRINTED PAGE

CONTENTS

7. Designing the Printed Page

As you work inside a Pocket WordStar file, you prepare text for the printed result. With print controls and dot commands, you give instructions about the appearance of your document.

Results will vary, depending upon your printer's capabilities. If you print the sample file, PRINT.TST, which is on your distribution disk, you'll see how Pocket WordStar's printing effects work. Whether you have a draft-quality or letter-quality printer, the commands described in this chapter should help you produce the kind of copy you want.

REMEMBER Only those effects that your printer supports will function.

PRINT CONTROLS AND DOT COMMANDS

WHAT IS A PRINT CONTROL?
A print control is a command entered into a Pocket WordStar file by holding down the control key as you type **P** and then another letter. You won't see the **P** on the screen, but you will see the control symbol (^) and the letter. On the printed page, you'll see only the results of the executed command, such as boldfacing or underlining.

HOW TO ENTER PRINT CONTROL COMMANDS
Follow these steps to enter a print control into a file. (^ PB is the boldfacing command described later in the chapter.)

STEP 1 PRESS **^P**

STEP 2 TYPE **B**

SEE **^B**

In the previous example, **^B** does not print but tells the printer to begin boldfacing at that location and continue until another **^B** is encountered.

Consider the following points when using print controls:

- Many print controls are toggle switches. When you enter the print control for underlining (^PS), for example, you turn that switch on. You must enter **^PS** again to turn the switch off at the appropriate place, or Pocket WordStar will underline every character you enter.

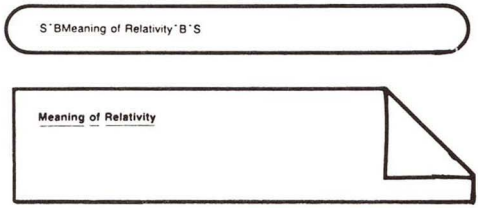
- A print control forces lines of text to extend past the margin. This extension is only a temporary onscreen distortion; print controls occupy space on the screen but not on paper. Use **^OD** to turn off the display of print controls and see the actual alignment of your text.

- If you re-form a paragraph which contains print control characters, the characters will stay with the words they precede and follow.

- You can use print controls anywhere in a file, line or word.

- You can delete print control characters just as you delete ordinary characters.

- You can combine several print control characters to create several special effects. If you enter both boldface *and* underline commands, for example, the results will look like this:



WHAT IS A DOT COMMAND?

A dot command is a print command which is entered into a Pocket WordStar file by typing a period ('dot') in the first column, followed by two characters in upper and lowercase. This two-letter code, which the program recognizes, can be followed by more characters – often whole numbers or words.

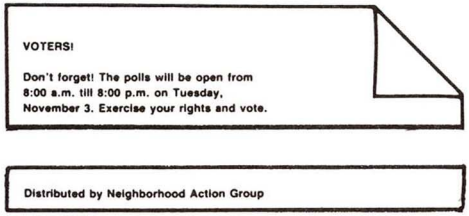
Sometimes, as in the dot command for a page break, there is no text after the command. When there is text, it varies from command to command. Words could indicate whether a toggle switch is on or off or could provide text for headings and footings. A number (*n*) might specify the length of your page or the column in which you want a page number to appear, for example.

The following example shows the placement of dot commands in a document.

```
.FODistributed by Neighborhood Action Group
.OP
VOTERS!

Don't forget! The polls will be open from
8:00 a.m. till 8:00 p.m. on Tuesday,
November 3. Exercise your rights and vote.
.PA
```

Here's what the document would look like when printed:



Follow these guidelines when using dot commands:

- Always begin a dot command in the first column. Then type the required two-letter code followed by an optional space.
- End the line which *precedes* a dot command with a hard carriage return.
- Always follow a dot command with a hard carriage return.
- Use dot commands as needed in a document. Once entered, a dot command stays in effect on every page you print unless you turn it off or return to the default.

HOW TO ENTER DOT COMMANDS

To enter a dot command, keep in mind the following points:

- Even if the left margin is set at a column other than the first, when the first character typed in a line is a dot, it will appear in the first column, allowing you to enter your dot command. (If you later re-form the document with ^ QQ^B, however, the dot commands will move to the new margin.)
- For example, if your left margin is set at 5 and you begin a new line by typing a period, the period will appear in column 1.
- You see a dot command on the screen, but it does not print. In fact, no line (except dot commands for headings and footings) that begins with a period in column 1 ever prints, unless you suppress page formatting when you print.
- Most dot commands are entered at the beginning of a file. If you enter some dot commands at other placess in the file, you may see a warning message on the dot command line and a question mark in the flag column.

- The placement of some dot commands is both logical and strategic. For example, the command for a new page is is placed in the exact spot in the text where you want one page to end and another to begin.

SPECIAL EFFECTS

The special effects that enhance your printed page are often created by print controls which are toggle switches and must be used in pairs. If you use a single print control to turn on a special effect and fail to use another to turn it off, you'll accidentally 'enhance' the rest of your document.

You can use any number of special effects in sequence.

Underscoring

Use **^PS** before and after any letters, words or phrases that you want underlined (underScored). **^PS** does not underline blank spaces.

To produce continuous underlining of both characters and spaces:

STEP 1 PRESS **^PS** (at beginning and end of section to be underlined)

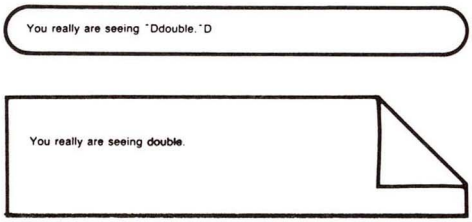
STEP 2 TYPE underline (in spaces between words)

Although on the screen you see only the underlining you entered, the entire section will be underlined when you print.

Double Striking

Use **^PD** to produce **D**ouble striking, a light boldface for emphasising words or phrases. If your printer has a carbon ribbon and you want sharp dark print, you can use double striking on an entire document. Enter **^PD** before and after the words you want to emphasize.

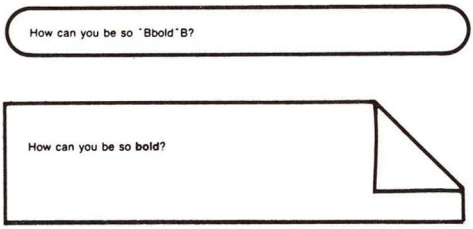
Here is an example:



Boldfacing

Enter **^PB** before and after the words you want to emphasize with **B**oldfaced print. On letter-quality printers, **^ PB** causes multi-striking.

Here is an example:

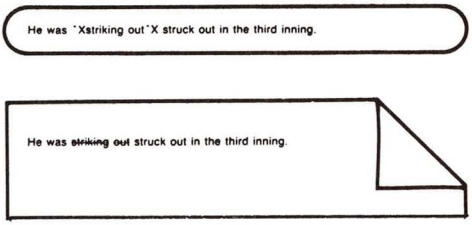


^ PB is a toggle switch. Don't forget to turn boldfacing off, or your whole document will be outrageously bold.

Striking Out

Use **^PX** before and after characters to be crossed out with hyphens but still readable. **^PX** is useful for making corrections visible. Revisions of legal documents, for example, often include deleted text with a line through it.

Here is an example:

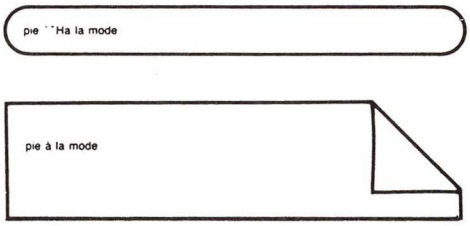


NOTE: **^ PX** prints hyphens over characters but not blank spaces.

Printing Over a Character

Use **^ PH** to instruct the printer to backspace and print a character where one already exists. Insert the command immediately after the character to be printed over. You can use this feature to put an accent mark over a letter or to create a special symbol that does not exist on your keyboard.

See this example:



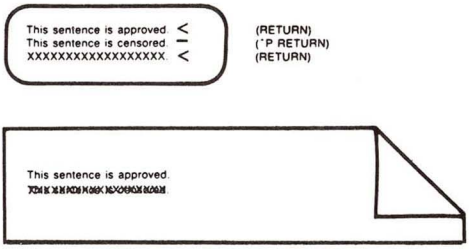
If you enter a series of **^PH** commands several characters will land on top of an existing character.

Printing Over a Line

Use **^ P RETURN** to make a line of text print on top of the preceding line. This command forces the printer to print one line over the preceding line. Use **^P RETURN** at the end of the line you want to print over and repeat the command to overprint more than one line.

When you use **^ P RETURN** you will see a hyphen (-) in the flag column on the right side of your screen.

Here is an example:



Use **^P RETURN** with MailMerge when creating three-column mailing labels. See the MailMerge manual for instructions.

When you assign one line to overprint another, the two lines are, in a sense, connected. To delete one line without deleting the other requires that you delete the **^P RETURN** (a hyphen in the flag column). Position the cursor in the last column of the first line; then press **^T.** You'll see the hyphen disappear and the second line move up. Use **^Q DEL** to delete the 'first' line (on the left) or **^QY** to delete the 'second' line (on the right).

Selecting Ribbon Color

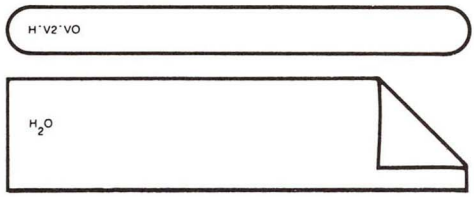
Use **^PY** to select an alternative ribbon color if you have a letter-quality printer with a two-color ribbon.

Use **^PY** in pairs to turn the feature on and off, or you're in for some colorful surprises.

Using Subscripts

Use **^PV** to print subscripts for scientific notation and mathematical equations. Characters between **^PV** commands will be printed below the given line of text.

Here is an example:



If you have a letter-quality printer capable of incremental spacing, subscripts print 3/48 inch below the given line. Most draft-quality printers will roll up one full line. Some, however, have half-line feed capability, which Pocket WordStar can use for subscript.

If you have a draft-quality printer that rolls up one full line, you must double space your text. Then Pocket WordStar can print subscripts in the intervening blank lines. If you don't double space, **^PV** will have no effect.

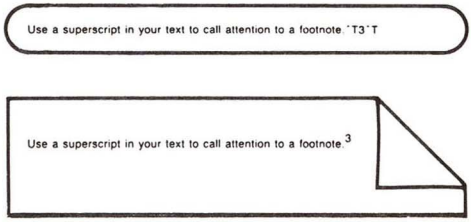
If you have a letter-quality printer, use **.SR,** followed by a number, to adjust the distance the printer **R**olls for subscripts and superscripts. The number (*n*) tells the printer to roll 1/48inch. The default is 3/48inch or .SR 3.

Put **^ SR** in the first column above any text that contains **^ PV** or **^ PT.** To return to the default, use **.SR 3** after the same text.

Using Superscripts

Use **^ PT** before and after the characters which you want printed above a given line of text. Superscripts are useful for footnotes and mathematical equations.

Here is an example:



Read with the preceding section for instructions on using **.SR** with superscript commands.

Using Phantom Characters

Use **^ PF** or **^ PG** in a document to print a phantom character.

These characters are not as ghostly as they sound but they *are* invisible, in a sense. If you have a letter-quality printer you probably have two phantom characters, neither of which appear on your keyboard. When you enter these print controls with print display on (^OD) you see **^ G** or **^ F.** But if print display is off, you see a symbol which varies from system to system. Also, the character that prints in place of a phantom character depends upon your print wheel.

Draft-quality printers are not equipped to respond to **^ PF** and **^ PG.**

NOTE: Unlike most print controls (except ^ PO), phantom characters do occupy space. Each takes up one character position, on both the screen and on paper, whether print display is on or off.

^PF, which is called 'phantom space', prints the character for code 20 hex. On some print wheels, this character is the cent sign (¢). Read your printer manual or try **^PF** to find out what phantom lurks inside your computer.

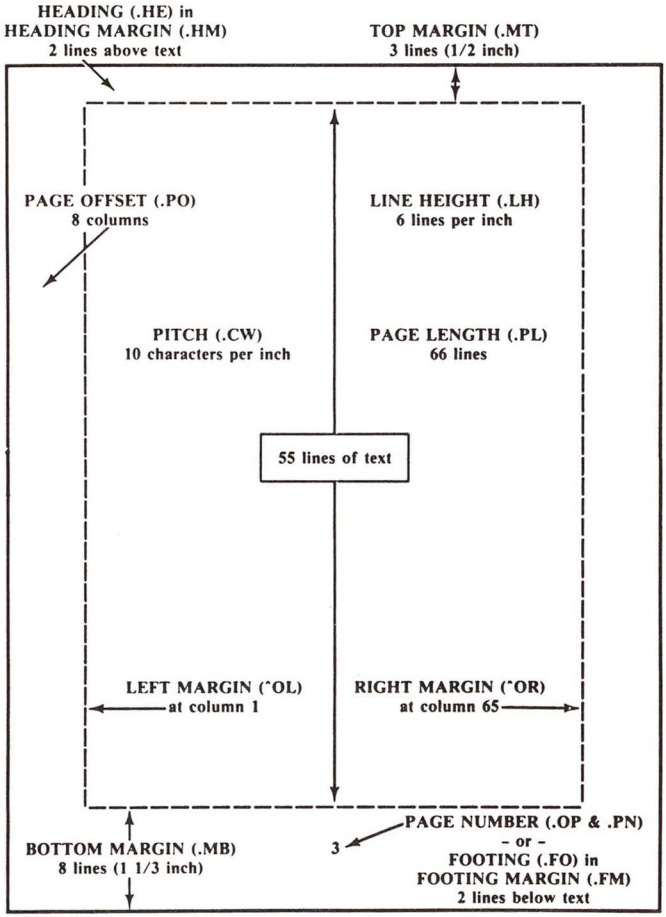
^PG, which is called 'phantom rubout', prints the character for code 7F hex. Try it to see what character your printer will show you. **^PG** may be a double underline, or, if your print wheel is bilingual, the German umlaut.

LAYOUT

In addition to special printing effects, Pocket WordStar provides many other features to help you produce an attractive printed page. The program will automatically arrange text and space on paper for you. But you can also design your own layout by issuing commands to change certain layout features. For example, when you give a command to alter the standard setting of the width of printed characters or the distance between lines of text, you can change the page design dramatically.

WHAT IS A STANDARD PAGE?

The following are the program defaults for an 8½ x 11 inch page, as shown in the illustration of the standard page.



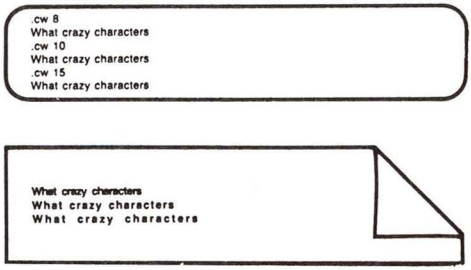
STANDARD PAGE
(With Commands for Changing Layout)

If you want to change this layout, use the commands described in the sections which follow. Often you'll see only the command and not the change on screen, but when you begin to print, presto! Everything will fall into place.

Character Pitch

Use **.CW,** followed by a number, to change type size (**C**haracter **W**idth or pitch). If your printer is capable of microspacing, this command will increase or decrease the number of characters printed per inch. The number (*n*) sets the width of the space in which a character is typed to $^{n}/_{120}$ inch.

See the following example:



The standard character pitch in Pocket WordStar is $^{12}/_{120}$ inch or **.CW 12.** This measurement corresponds to 10 characters per inch, which is normal pitch or pica type. After a change, enter **.CW 12** to return to the default.

Large numbers spread characters out, and small numbers squeeze characters together.

Since spaces are inserted in your text as space characters, they are also affected by changes in character pitch with **.CW.** If your left margin is indented following a **.CW,** for example, the layout will be distorted when you print the page.

Although you can use any number up to 255 after a **.CW** command, a practical range is shown in the following table. Refer to the right margin, as indicated in the table, to stay within the boundaries of a piece of paper which is 8½ x 11 inches.

Dot Command	Characters Per Inch	Right Margin
.CW 4	30	195
.CW 5	24	156
.CW 6	20	130
.CW 8	15	98
.CW 10	12	78
.CW 12	10	65*
.CW 15	8	52
.CW 17	7	46
.CW 20	6	39
.CW 24	5	32

* Pocket WordStar standard

NOTE: This table offers only a sampling and doesn't include all the possible choices between 4 and 24.

The larger the number, the farther apart the characters will be.

On letter-quality printers, you can use the print controls **^PA** and **^PN** to alternate between pitches. You will alternate between pica type (10 characters per inch) and elite type (12 characters per inch), unless you have specified a different pitch with a **.CW** command.

Use **^PA** to tell Pocket WordStar to select an **A**lternate character pitch. Pocket WordStar requires a corresponding command, **^PN,** to return to the standard pitch. If you use **.CW** immediately after **^PA,** the pitch set by the dot command will be the alternate pitch. If you do not use **.CW,** the alternate pitch will be elite type (12 characters per inch).

Use **^PN** at the place in your text where you want to return to **n**ormal character pitch. If you use **.CW** immediately after **^PN,** the pitch set by the dot command will be the standard pitch. If you do not use **.CW,** the standard pitch will be pica type (10 characters per inch).

Spaces

When you design your page, the spaces are as important as the text. Spacing can make the difference between a clear or confusing presentation, and certain Pocket WordStar commands help you to control where blank space falls on the page.

Use **^PO** for a non-break space when you want to keep two words together as you re-form a paragraph. **^PO** keeps two words together with justification on or off during paragraph re-form.

If you have a letter-quality printer, use **.UJ OFF** to turn off micro**J**ustification when you begin typing a table. **.UJ OFF** insures that soft spaces do not push columns out of alignment when the page is printed. Remember to use **.UJ ON** when the table is complete.

Columns that appear perfectly straight on the screen become ragged on paper because of a letter-quality printer's capability of microspacing. Some of these printers take instruction from Pocket WordStar to distribute space in $\frac{1}{120}$- inch increments between words and letters.

Lines formed with word wrap or re-formed with **^B** (with justification on) have soft spaces automatically inserted between words. When these lines are printed, the microspacing feature of some printers causes further justification (microjustification). In most cases, this process improves the appearance of your text, but it often pushes tabular material out of alignment.

The Pocket WordStar default for letter-quality printers is justification on, unless you use this dot command to turn it off.

Vertical Page

You can adjust the number of lines per page, the number of lines per inch, and the size of the top and bottom margins on your page. The flexibility of the program thus enables you to design pages other than the standard 8½ x 11 inches and to build intricate forms.

Align your paper properly in the printer to get the vertical page layout you want.

DOT COMMANDS FOR VERTICAL PAGE
The following dot commands, described fully in this section, control vertical page layout:

.PL	**Page Length**
.LH	**Line Height**
.MT & .MB	**Top and Bottom Margins**
.HM	**Heading Margin**
.FM	**Footing Margin**

You can put these commands anywhere in your file between lines of text. However, because **.LH, .PL, .MB, .MT** affect the page break display on your screen, putting them at the beginning of your document lets you see the page breaks as they will occur in your printed document.

If you put the commands elsewhere in your text, you'll see a warning message on the line and a question mark in the flag column, but you can leave the command where it is – if that's where you want it.

Use **.PL n** to specify **P**age **L**ength by number of lines. If your page has more or less than 66 lines (11 inches), indicate its length with **.PL,** followed by the total number of lines on the page.

Out of the total lines for a specified paper length, the number that will,actually print depends on the other commands you give Pocket WordStar. If no others are given, Pocket WordStar tells the printer to leave the standard margins. IF you use **.MT, .MB, .HM,** or **.FM,** Pocket WordStar will subtract the number of lines specified in each command from the total length in the **.PL** command; be sure to enter **.MT** and **.MB** commands before entering **.PL.**

If your draft-quality printer prints more or less than six lines to the inch, you must use **.PL** every time you print. Multiply the number of lines to the inch by the number of inches on the paper and use this number with **.PL.**

Use **.LH n** to specify line height by 1/48 inch. Thus, to change the default, which is six lines per inch or 8/48 inch, type the appropriate number after **.LH. .LH 8** would be 8/48 or 1/6 inch, for example. **.LH** works only on letter-quality printers.

The following table offers a sample of line heights. Note that using a number smaller than five causes overprinting. Notice, too, that **.LH 16** is twice the Pocket WordStar standard, that is, half as many lines per inch. **.LH 16** provides an easy way to produce a double-spaced document when it's printed. If you want to have a double-spaced text on the screen as well as on paper, use **^OS.**

Dot Command	Lines Per Inch
.LH 5	9.6
.LH 6	8
.LH 8	6*
.LH 10	4.8
.LH 16	3
.LH 24	2

* Pocket WordStar standard

If you change line height, be sure to enter **.LH 8** to return to the default.

Line height affects page length and top and bottom margins. If you enter a command to change line height *before* you enter the other commands, **.PL, .MT,** and **.MB** will be interpreted according to the new line height. If you change line height *after* giving one of these commands, however, the margins and paper length won't be affected by the new setting and will be interpreted according to the default line height.

Here is an example: If you enter **.LH 6** *before* **.MT 4,** your top margin will measure 1/2 inch (4 lines of 8/48 inch each). But if you enter **.LH 6** *after* **.MT 4,** your top margin will measure 1/6 inch (4 lines of 8/48 inch).

Use **.MT n** to specify the number of blank lines at the **T**op of the page. The default is three blank lines and includes the page heading and the heading margin. To increase the amount of text on the page, decrease the top margin; to decrease the amount of text, increase the top margin.

A dot command stays in effect until you turn it off or change its value. If you have changed the top margin for some of your pages, be sure to use **.MT 3** to return to the default.

Use **.MB n** to specify the number of blank lines below your text at the **B**ottom of the page. The default is eight blank lines and includes the page number or footing and the footing margin.

Use **.HM n** to specify the **H**eading **M**argin, i.e. the number of blank lines from the page heading to the body of the text. The default is two blank lines. If you use **.HE** to specify a single-line heading, there will be two blank lines below the heading, making a total of three blank lines at the top of the page – the default for the top margin.

Heading lines are counted as part of your top margin. If you add a heading without adjusting the default margin (three lines), two blank lines will appear between the header and your text.

Use **.FM n** to specify the number of blank lines between the body of your text and the **F**ooting or page number. This command positions the footing within the bottom margin. The default of two blank lines is unaffected even when you change the bottom margin.

Headings and Footings

Headings and footings are single lines of text which are included in the top and bottom margins with the heading and footing margins. You only need to enter these dot commands once, at the start of the file, and your headings and footings will be repeated on every page of a document. The default is no heading and automatic page numbering as footing.

Use **.HE** to insert a single line of **H**eading within the top margin of the page. After typing **.HE,** beginning in the first column, type a space (optional), then text or spaces. You can also use special print controls for custom page numbering. ◊7-18

When you want to return to the default of no heading, use **.HE** alone. If you want the heading to appear flush with the left margin, do not type more than one space between **.HE** and the text.

Here is an example:

```
.HE Chapter 11

This is the story of the great page design.
```

Chapter 11

This is the story of the great page design.

A dot command occupies space on the screen but not on paper.

You can move the heading closer to or farther from the body of the text by changing the heading margin.

Use **.FO** to put a single line of **F**ooting within the bottom margin below the text. After typing **.FO,** beginning in the first column, enter a space (optional), then text or spaces. You can also use special print controls. ◊7-23

The footing appears on every page until you enter **.FO** alone to return to the default, a centered page number. If you want the footing to appear flush with the left margin, do not type more than one space between **.FO** and the text.

Here is an example:

```
.FO 121. Bridges v. California, 314 U.S. 252

In this legal document, the dot command for
a footing is put at the top of the file,
but the footing itself appears at the
bottom of the printed page.
```

In this legal document, the dot command for a footing is put at the top of the file, but the footing itself appears at the bottom of the printed page.

121. Bridges v. California, 314 U.S. 252

If you change the footing margin, the footing moves up or down on the page, but the number of lines of text on the page remains the same.

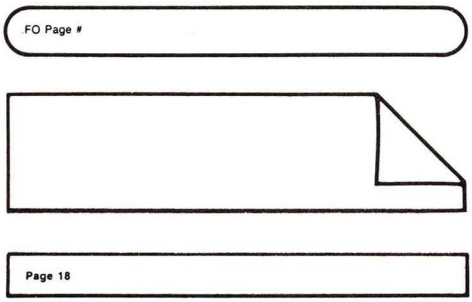
No footing will be printed if the bottom margin is set to zero.

When a command for a heading or footing is given, the character pitch currently in effect stays in effect. If you later change the pitch in the text with **.CW,** neither heading nor footing will be affected. However, if you use **^PA** or **^PN** within the heading or footing, the pitch in effect at the time the heading or footing is printed will affect the command lines as well as the text.

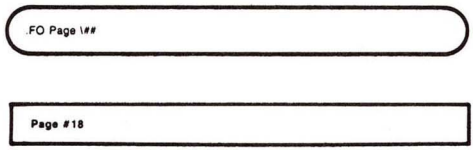
The print control commands for special effects like boldfacing can be used in headings and footings without affecting the body of the text. Conversely, special effects in the text do not affect headings or footings.

There are three special print controls which work only in headings and footings.

Use **^P#** to print the current page number in a heading or footing. Here is an example:



Use **^P** to specify that the next character entered is to be printed exactly as it appears on screen. Here is an example with the back slash:



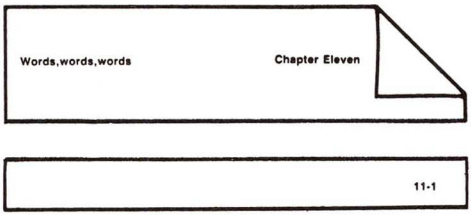
Use **^PK** to print headings and footings for even-numbered pages on the left and for odd-numbered pages on the right.

The following example illustrates how **^PK** works on odd and even numbered pages.

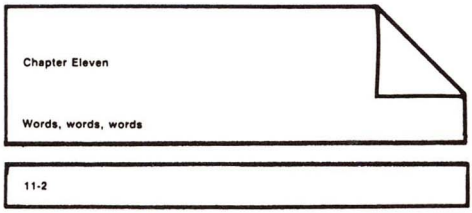
```
.HE ^K                                    Chapter Eleven
.FO ^K                                                11-#

Words, words, words
```

Odd numbered pages will look like the following illustration:



Even numbered pages will look like the following illustration:



Pages

WHAT IS A PAGE BREAK?
Pocket WordStar lerts you decide where one page ends and the next begins. With no commands from you and with 8½ x 11 inch paper in the printer, Pocket WordStar will begin a new page every 66 lines. Because vertical margins account for eleven of these lines, the page break display on your screen shows up at line 55.

Two Pocket WordStar commands, **.PA** and **.CP n,** can help you to avoid page breaks that would produce the following awkward results:

- The first line of a paragraph stranded at the bottom of the page

- The last line of a paragraph sitting alone at the top of the following page
- A chart or a table cut in two

Use **.PA** to insert a **PA**ge break wherever you want it.

When it encounters **.PA,** Pocket WordStar directs the printer to roll a new page.

You can turn off the display of page breaks with **^OP,** but the breaks will still occur.

Use **.CP n** to insert a **C**onditional **P**age break. **.CP n** tells Pocket WordStar: 'Unless there are *n* lines remaining for text on this page, print the next *n* lines of text on the next page.'

If less than *n* lines remain on the page, a page break display appears below the **.CP** command to indicate where the new page begins.

Here is an example in which **.CP** prints all the lines of a chart on one page.

```
.CP6
            CALIFORNIA NATIVE PLANTS

COMMON NAME              BOTANICAL NAME
Larkspur                 Delphinium patens
Fire-Cracker Flower      Dichelostemnia ida-maia
Footsteps-of-Spring      Sanicula arctopoides
```

In this example, the six lines of the table will always print on the same page.

When you do a lot of editing, **.CP n** is a safeguard. No matter how much you change your document, the lines you want kept together stay with the **.CP** command.

PAGE NUMBERING

Three dot commands, **.OP, .PN, .PC,** offer you page numbering options. The default is sequential numbers printed in column 33 (30 if your screen is 64 columns wide).

Use **.OP** to **O**mit **P**age numbers. When Pocket WordStar prints your letters and memos, put **.OP,** beginning in the first column, at the top of your file. Even if your document has several pages, none will be numbered. This command is unnecessary if you use a footing. Your footing can specify numbered or unnumbered pages.

Use **.PN** to restore **P**age **N**umbers after you have used **.OP** to omit them. Don't worry about setting the number; Pocket WordStar automatically picks up sequential numbering. Suppose, for example, that you have a ten-page document file; use **.OP** at the beginning of the file and insert **.PN** on page 6. When you print, you'll see five pages unnumbered and five pages numbered consecutively, 6,7,8,9,10.

Use **.PN n** to set the page number at *n*. Pocket WordStar automatically puts sequential numbers on subsequent pages. For example, if you put **.PN 217** at the top of a page, **218** will automatically be printed on the next page.

Use **.PC n** to specify the **C**olumn number in which the **P**age number appears at the bottom of the page. **.PC n** will only work when you are not using a footing and have not omitted page numbers.

PRINTER PERFORMANCE

Much of your printer's performance depends upon the printer itself. However, Pocket WordStar can control mechanical aspects of printing, such as pauses and movement of the print head.

Bidirectional Printing

Use the toggle switch **.BP** to turn **B**idirectional **P**rinting on and off. Bidirectional printing proceeds in two directions. Letter-quality printers save time by printing left to right and then back again, right to left. **.BP OFF** or **.BP 0** turns bidirectional printing off and **.BP ON** or **.BP 1** turns it on again. **.BP OFF** (or 0) is helpful if you're printing tables or if the character registration or paper feed mechanisms on your printer are not operating well.

Page Offset

Use **.PO n** to specify **P**age **O**ffset, the column in which the print head actually begins to print. This command offsets the entire document to the specified column (*n*). The default is eight columns from the left edge of the paper. To move the text to the left edge of the printer carriage, use **.PO 0** at the start of the document.

Starting and Stopping

HOW TO MAKE THE PRINTER PAUSE

You can start and stop your printer with its own toggle switches, or you can control it from the Opening Menu with **P** or the Main Menu with **^KP.**

Use **^PC** to pause anywhere in the printing of a document file – in the middle of a line or several times in the same line. At lines containing **^PC,** Pocket WordStar automatically suspends bidirectional printing so that printing will pause in the correct place. Imagine what would happen if you placed **^PC** before a phrase to be printed in red and print head approached from right to left. The print head would reach the command and pause – too late for a ribbon change.

When you print the document which contains **^PC,** you will see this message above the Opening Menu:

```
Print paused printing A:FILENAME not editing
```

On the Opening Menu you will see:

```
P Continue PRINT
```

To resume printing, type **P.**

COMMENT LINES

Use two dots, beginning in column 1, to add lines of text which will not print. You can also use multiple comment lines in succession and type up to a practical limit of 240 characters after the two dots.

Here's an example:

```
.. Edited by J.R. 12/9/82
```

Use **.IG** to add a line of text which Pocket WordStar will **IG**nore at print time. Like the two dots, **.IG** can be used as often as you like in a file and has a limit of 2450 characters.

Here's an example:

```
.IG Print two double-spaced copies.
```

SUMMARY TABLE: PRINT CONTROL COMMANDS

COMMAND	FUNCTION
	Special Effects:
^PS	Underlines all characters (not spaces) between first and second occurrence
^PD	Double strikes all characters between first and second occurrence, producing a light boldface
^PB	Boldfaces all characters between first and second occurrence
^PX	Prints hyphens (---) over all characters (not spaces) between first and second occurrence
^PH	Causes next character to print over character in same column
^P RETURN	Causes next line to print over present line
^PY	If printer allows, prints characters between first and second occurrence in alternate ribbon color
^PV	If printer allows, prints characters between first and second occurrence a fractional line below other text, producing subscript
^PT	If printer allows, prints characters between first and second occurrence a fractional line above other text, producing superscript
^PF	For letter-quality printers, prints a character not seen on keyboard (phantom character)
^PG	For letter-quality printers, prints a character not seen on keyboard (phantom rubout)
	Layout:
^PA	For letter-quality printers, sets pitch at 12 characters per inch (elite)
^PN	For letter-quality printers, sets pitch at 10 characters per inch (pica) or—with ^PA—at pitch set by .CW
^PO	Inserts a non-break space between two characters, preventing word wrap or paragraph re-forming from separating two words
^P#	In heading (.HE) and footing (.FO) lines only, prints the current page number
^P\	In headings and footings only, prints the symbol immediately following the slash, rather than interpreting it as a program function
^PK	In headings and footings only, causes text or page numbers to alternate position on left-and-right or odd-and-even pages
	Others:
^PC	Stops printing until you press P again at Opening Menu

SUMMARY TABLE: DOT COMMANDS	
COMMAND	**FUNCTION**
	Layout:
.CW *n*	For letter-quality printers, sets character width to n/120 inch (default: 12/120 inch, 10 characters per inch)
.UJ OFF	Turns microjustification off to print all spaces exactly as they appear on screen (default: on)
.UJ ON	Turns microjustification on, distributing spaces in a line by 1/120 inch increments
.PL *n*	Identifies number of lines on entire page (default: 66 lines, 6 lines per inch on an 11-inch page)
.LH *n*	For letter-quality printers, sets line height to *n*/48 inch (default: 8/48 inch, 6 lines per inch)
.MT *n*	Sets number of lines from top of page to beginning of text (default: 3)
.MB *n*	Sets number of lines from end of text to bottom of page (default: 8)
.HM *n*	Sets number of blank lines between heading (.HE) line and first line of text (default: 2)
.FM *n*	Sets number of blank lines between last line of text and footing (.FO) line (default: 2)
.HE *text*	Prints one given line of text as heading on every page until .HE is used again without text or with a new line of text (default: no heading)
.FO *text*	Prints one line of text as footing on every page until .FO is used again without text or with a new line of text (default: page number, centered)
.PA	Starts new page at indicated line (default: 55 lines of text before a page break)
.CP *n*	Specifies number of lines in which no page break is to occur; *n* lines will stay together on subsequent page
.OP	Omits page numbers (default: consecutive page numbers)
.PN	Returns to accurate page numbers after .OP
.PN *n*	Sets page number at *n* and numbers subsequent pages consecutively
.PC *n*	Sets column at which page number prints when no footing (.FO) is specified (default: center column)
	Others:
.SR *n*	For letter-quality printers, rolls the printer carriage *n*/48 inch before printing a sub or superscript
.BP OFF	For letter-quality printers, prints every line from left to right (default: on)
	-continued-

SUMMARY TABLE: DOT COMMANDS (continued)	
COMMAND	**FUNCTION**
	Layout, (continued):
.BP ON	For letter-quality printers, permits alternate lines to print right to left
.PO *n*	Sets number of columns to indent all lines of document from printer's left margin — in addition to all other indentation in the file (default: 8)
.. *or* .IG	Identifies line of text immediately following as .IG onscreen comment line only, not to be printed

8. WORKING WITH TABLES

CONTENTS

8. Working with Tables

GENERAL GUIDELINES

- Turn insertion off (^V). When this toggle switch is off, a change in one column will not affect other columns on the same line. ◊ Chapter 3

- Turn word wrap off (^OW). When this toggle switch is off, your format will not be ruined by words 'wrapping' into the wrong column. ◊ Chapter 6

- Release the margins when necessary (^OX). With insertion off and the margins released, corrections or additions to one column will not affect another. ◊ Chapter 6

- Define a ruler line for the table. If you are editing an existing table, be sure the ruler line matches the data. Reset the margins, if necessary, (^OL and ^OR). Clear all tab stops (^ONA), then set the tab stops needed for this table (^OI).◊ Chapter 6

- If you need to redefine this ruler line several times, type a copy of it into the text. Then you can reset the ruler line with **^OF** rather than change tabs and margins each time. ◊ Chapter 6

- If you are editing a table that requires decimal tab stops, use **^I** or the tab key to get to the stop. You'll activate the right alignment feature as you move the cursor. Be sure to turn insertion off before tabbing. ◊ Chapter 6

- Use **^KN,** column mode, to simplify moving, copying, and deleting information. ◊ Chapter 4

USING PRINT CONTROLS

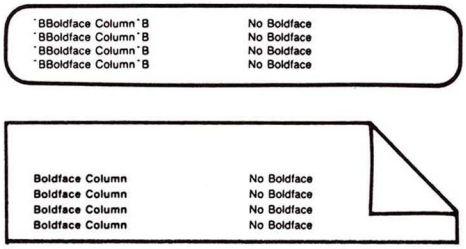
HEADINGS

Table headings frequently require special printing effects such as underscoring (^PS) or boldfacing (^PB). The commands for these effects push text to the right of the screen, making it difficult to align column headings properly. To avoid confusion, simply type the headings and enter print control commands *after* aligning headings. ◊ Chapter 7

You can also use **^OD** to turn print controls off and double-check the alignment. ◊ Chapter 6.

NOTE: Turn the print controls back on (^OD) to make sure that you entered balanced pairs of print commands.

COLUMNS
To make sure that the print control commands for a single column affect only that column, you must enter a pair of commands on *each line* of the column that requires special printing, as in these examples:



AVOIDING MICROJUSTIFICATION AND WORD WRAP PROBLEMS

Letter-quality printers sometimes micro-justify text automatically; this will put tables out of alignment.

Here are several ways to prevent microjustification from affecting your tables:

- Use **.UJ** to turn off justification temporarily. Insert **.UJ OFF** before you type your table and **.UJ ON** when you finish. ◊ Chapter 7
- Use **^OW** or **^OX** to turn off word wrap temporarily. ◊ Chapter 6
- Set the margins much wider than the table to avoid activating word wrap. Since no item can reach the margin, you will also have to end each line with a hard carriage return.

RESCUING TABLES
To rescue a table that you have accidentally re-formed with a **^B** command, follow these steps:

STEP 1 Set the margins much wider than the original table.

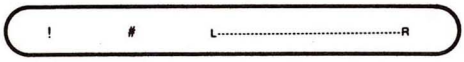
STEP 2 Re-form the table with **^B.**

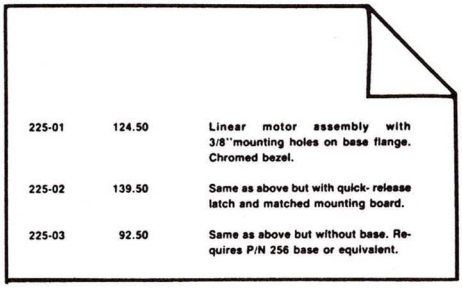
You'll have to re-enter the table if the columns are still completely out of alignment after this step.

STEP 3 If re-forming brings the table close to alignment, correct any minor problems by adding or deleting spaces.

STEP 4 Surround the table with **.UJ** commands to eliminate any soft carriage returns inserted when you press **^B.**

ENTERING TABLES WITH MULTI-LINE ITEMS





225-01	124.50	Linear motor assembly with 3/8"mounting holes on base flange. Chromed bezel.
225-02	139.50	Same as above but with quick- release latch and matched mounting board.
225-03	92.50	Same as above but without base. Requires P/N 256 base or equivalent.

To align unequal columns, use slightly different procedures, depending upon where the multi-line items appear – in the last column, in the first column, or in several different columns.

Multi-line Items in the Last Column

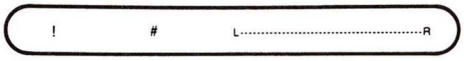
The previous example shows a table with multi-line entries in the last column. Either of two methods will work for this type of table.

The first method requires that you set temporary margins (^OG) as you build tables. Then you can allow word wrap to align column boundaries.

The second method requires more preparation but speeds up entering long tables. Follow these steps:

STEP 1 Press **^OX** to release margins and to display tab stops to the left of left margin.

STEP 2 Define the Pocket WordStar ruler by clearing all tab stops and then setting just those you need, as you see here:



(This ruler was set for the table in the previous example.)

STEP 3 Tab to the first stop and type the first item. Tab to the second stop and type the second item.

STEP 4 PRESS **^OX** to restore margins.

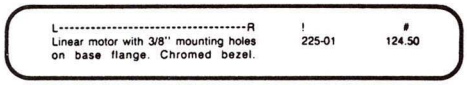
STEP 5 Tab to the third stop, and type the third item. RETURN.

STEP 6 Repeat steps 2-5 until you complete the table.

Multi-line Items in the First Column

When you are typing a table with multi-line items in the first column, follow these steps:

STEP 1 Define the Pocket WordStar ruler by clearing all the tab stops and then setting the ones you need, as you see here:



NOTE: Make sure to set the right margin a few columns short of the first tab stop.

STEP 2 Type the first item of the first entry, allowing word wrap to position the text within the margins.

STEP 3 Move the cursor to the end of the first line, release the margin (^ OX), tab to the second tab stop, and type the second item. Continue tabbing and entering until you have completed the entry for each column. *Don't press RETURN.*

STEP 4 Move the cursor past the right margin in the last line of the first column, then press RETURN twice. Repeat steps 2-4 until you have completed the table.

Be sure the cursor is past the right margin before you press RETURN. Otherwise, margin release won't be cancelled.

9. FILES, DISKS, PRINTOUTS

CONTENTS

9. Files, Disks, Printouts

SAVING FILES

WHY SAVE YOUR FILES?

The ability to save your files is one of the advantages of a word-processing system over a typewriter. You never have to type anything twice – provided you save your work.

Save-and-Resume Command

Press **^KS** to save and re**S**ume work on the same file. The current version of your file will be written onto the disk, and the cursor will go back to the beginning of your file. Enter this save command at any point while working in your file.

PRESS **^KS**

SEE

```
WAIT
Saving file: filename.EXT
```

When your file has been saved, you'll see the following prompt:

```
To return cursor to position before save,
type ^QP before typing anything else.
```

Press **^QP** if you want to return to your **P**lace in the file before you used **^KS.** Otherwise, resume work at the beginning of your file; the prompt will disappear from your screen.

You can speed through the save-and-resume operation by holding down the control key and pressing the keys **KSQP** in quick succession.

Returning to the Opening Menu

Press **^KD** if your work in the current file is **D**one and you're ready to move on to another task. You save your current file and return to the Opening Menu.

Leaving the Program

Press **^KX** if your work is complete, and you want to e**X**it to your operating system. You save the current file, and the cursor appears at your operating system prompt. (A portion of the text you save with **^KX** may remain on the screen, but you can't edit it.)

Abandoning the Current File

Press **^KQ** to **Q**uit editing the current version of a file without saving your changes. The current copy disappears, but the original file – without your latest changes – remains on your disk.

Suppose a misdirected command produces confusion in the working copy of your file. Abandoning the current version in favor of the original is probably easier than trying to undo a major mistake.

Backup (.BAK) Files

HOW TO CREATE A .BAK FILE

After editing, when you press **^KS, ^KD,** or **^KX,** the working copy is written onto a disk and assumes the name of the previous permanent file. The old file becomes a Pocket WordStar backup file with the extension .BAK (*filename.BAK*). Here's what happens to your disk:

1. *Filename.BAK* (if any) is erased.

2. Your permanent *filename.EXT* (without current changes) is renamed *filename.BAK*.

3. Your working copy of *filename.EXT* (including current changes) is written from RAM; it becomes the 'permanent' file for your next editing session.

The first time you save a new file, you'll have only one permanent file. After subsequent save commands, however, each subsequent permanent file becomes the next backup file.

NOTE: You can't edit .BAK files; they're saved in compressed form to conserve memory space. You can rename them, though, before editing. In this chapter you'll learn how to use .BAK files to recover files. ◊9-6

Pocket WordStar helps protect your work by creating a .BAK file at every opportunity. If, however, power irregularities interrupt your work or a magnet affects the disk, your file could still be lost. Avoid these mishaps by making additional copies on separate disks. See your operating system manual for procedures.

OTHER FILE FUNCTIONS

Some of these functions may not appear in your version of Pocket WordStar, but most can be performed direct from CPM.

Reading the Directory

Use **F** at the Opening Menu to switch the **F**ile directory for your currently logged disk drive on or off.

Use **^KF** to read the directory while editing a file. Whenever you need to review file names while editing a file, you can press **^KF.** You'll see part of the text area on your screen replaced by the directory. When you find the file name you need, use **^KF,** a toggle switch, to remove the directory from your display.

Copying Files

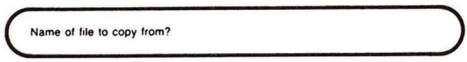
At the Opening Menu, type **O** to c**O**py a file.

Use **^KO** to copy one file while you're editing another. You can't copy the current version of the file you're editing, but you can copy the version without your most recent changes on the disk.

You *can* copy the current version of the file you're still editing, using **^KW.** Insert block markers at either end of the text you want copied, and **W**rite the block to another file. ◊4-8

HOW TO COPY

When you enter either **O** or **^KO,** you'll see the folowing prompt:

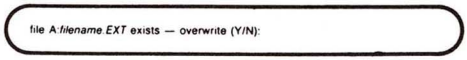


TYPE *filename.EXT* (a valid file currently on your system)

SEE

TYPE *filename.EXT*

If you tell Pocket WordStar to copy into an existing file, you'll see this prompt:



If you type **Y**, the current file *A:filename.EXT* is erased and replaced by the file you're copying. Be sure you want the current file to be deleted before you answer **Y**.

Press **N**, ESCape, or RETURN to answer **N**o; you'll return to the 'copy to?' prompt. Use **^U** to cancel the operation entirely.

You may copy files to and from disks other than the logged disk by entering the full name of the file, e.g. *B:filename.EXT*.

You can copy only one file at a time.

Renaming Files

At the Opening Menu, type **E** to r**E**name a file.

Use **^KE** to rename one file while editing another. You can't rename the file you're currently editing.

When you enter either of these commands, you'll see the following prompt:

You can rename a file on another disk by entering the full name of the file, e.g. *B.filename.EXT*. You cannot, however, change disk assignments while renaming a file; use the file-copying command instead.

If you enter an invalid file name or the name of a file not on your disk, this message will appear:

If you enter a valid file name at the first prompt, a second prompt appears:

When you rename a file, you may also want to rename the corresponding .BAK file.

You can cancel the renaming command by pressing ESCape or RETURN as your only response to one of these prompts, or you can use **^U** to interrupt.

Renaming a file does not affect disk storage requirements.

Deleting Files

At the Opening Menu, type **Y** to delete a file.

Use **^KJ** to delete one file while you're editing another. You can't delete the file you're currently editing.

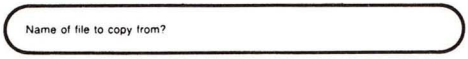
When you enter either of these commands, you'll see the following prompt:

TYPE *filename.EXT* 

Be very careful with this command. You can easily delete the wrong file by mistake, especially when several files have similar names. If you change your mind, cancel the deletion command by pressing ESCape or RETURN as your only response to the prompt, or use **^U** to interrupt.

Recovering a Deleted File

Use .BAK files to recover files you accidentally delete. The process is simple. To recover the erased file *filename.EXT,* press **^KO** (while editing a file) or type **O** (at the Opening Menu). You'll see the following prompt:



TYPE *filename.BAK* 

SEE

TYPE *filename.EXT* 

You can use almost any extension (.EXT), or none at all, in the second file name, but avoid **.BAK.** You can't edit a .BAK file.

CHANGING THE LOGGED DISK DRIVE

At the Opening Menu, type **L** to change the **L**ogged disk drive, the disk drive where the computer's work is currently being done. You'll want to work on a second disk drive whenever your currently logged disk is getting too full.

Use **^ KL** to change the logged disk drive while you're editing a file.

When you enter either of these commands, you'll see the following prompt:

```
The Logged disk drive is now A:
New Logged disk drive (letter, colon, RETURN)?
```

Enter the letter of another disk drive in your system and press RETURN. If you enter the letter of a drive not on your system after you type **L** or **^KL**, you'll cause an error which requires you to restart your system.

RUNNING OTHER PROGRAMS

Type **R** at the Pocket WordStar Opening Menu to **R**un another program, such as a utility supplied with your operating system.

You cannot leave Pocket WordStar while a file operation such as copying or printing, is in progress. The **R** command will take effect after the operation is completed.

To run a program while the cursor is at the Opening Menu, follow this procedure:

TYPE **R**

SEE **COMMAND?**

TYPE the program name 

Type **X** at the Opening Menu to e**X**it from Pocket WordStar. You'll return to your operating system and see the cursor at the operating system prompt.

HOW TO AVOID A 'FULL DISK'

Unlike a filing cabinet, which almost always seems to have a little more room, a disk which is full is really *full.* Either you'll be unable to add more data, or worse, you'll inadvertently erase other files when you try.

Whenever a file has outlived its usefulness on one disk, delete it or copy it to another disk. Remember the following guidelines for the best use of disk space:

- To avoid exceeding disk capacity, use the operating system command that measures either space in use or remaining space on any disk in the disk drive.

- Check to see how much disk space you have before creating or editing any large file. If you need to change disks to gain space, do so *before* you enter a new file. Changing disks at other times can lead to garbled or lost data.

- Leave yourself and your system room to work. Keep in mind that Pocket WordStar may use several temporary files during an editing session.

FILE SIZE AND CAPACITY

If your computer system limits the number of files on a disk, use a system utility rather than Pocket WordStar to check the number of files. Your Pocket WordStar directory does not list some program and system files which *do* take up space on your disk.

You can use Pocket WordStar to check the size of your current file. Use **^ QC** to go to the end of the file and **^ OP** to turn off the page break display; then read the status line:

- **FC** = the number of characters from the beginning of the file to the current cursor location.

- **FL** = the number of lines from the beginning of the file to the cursor line.

Remember the following rules regarding file size:

- Try always to have enough disk space to store three copies of the file you're editing. Remember that you actually create two copies of the file (the permanent file and the .BAK file) if you save your text as frequently as you should. The additional space provides a safety margin for Pocket WordStar temporary files while you're editing.

- Whenever possible, break up a very large document into several smaller files.

TEMPORARY FILES

Very large files don't fit in the memory of a typical personal computer. For portions of your file, Pocket WordStar creates temporary files, usually with the extension .$$$ (*filename $$$*). You don't usually need to be concerned with temporary files. If you're working with a very large file, however, the temporary files can exhaust all remaining disk space.

Pocket WordStar never alters your permanent file (the one on the disk) until you save your work. If you want to return to the beginning from the end of a long file (^QR), Pocket WordStar is forced to write most of the document to a temporary file.

When you use **^QR,** a sluggish response time probably means that it's time to break up your large file. If you cannot divide file contents despite limited disk space, simply avoid **^QR.** Return to the beginning of the file by saving it with **^KS.** Saving the file is safer and faster since most of the text may already be in a temporary file that can be renamed as the newly saved file.

OTHER SHORTCUTS

Try the following commands to move quickly through large files:

- Before a global find-and-replace command (^QA) in a long file, save it with **^KS.**
- Perform block movement and copying commands in large files with the block writing (^KW) and reading (^KR) commands.
- Always save the file (^KS) rather than moving backward through a long file.

WHEN TO CHANGE DISKS

You can change disks safely at the following times:

- when the screen tells you to do so
- if you're operating at the Opening Menu and not printing
- at your operating system prompt

You may need to reset your system if you open the door to your disk drive at any other time.

PRINTING FILES

At the Opening Menu, type **P** to **P**rint a file.

Use **^KP** to print one file while you're editing another. Momentary interruptions caused by Pocket WordStar doing two jobs at once do not affect your editing.

Your computer may not have enough memory to edit and print at the same time. If not, you'll see an error message before your second command is cancelled.

Turn Printing On

HOW TO START PRINTING

Type **P** at the Opening Menu, or press **^KP** while editing a file; you'll see the following prompt:

```
Name of file to print?
```

TYPE *filename* 

SEE list of print options, one at a time

Here's the whole list:

```
Disk file output (Y/N):
Start at page number (RETURN for beginning)?
Stop after page number (RETURN for end)?
Use form feeds (Y/N):
Suppress page formatting (Y/N):
Pause for paper change between pages (Y/N):
Ready printer, press RETURN:
```

When each option appears, you can repond as indicated or press RETURN for the default. If you want defaults in response to every option on the list, press ESCape instead of RETURN after typing your file name.

If you name a file that is not on your logged disk drive, you'll see an error message:

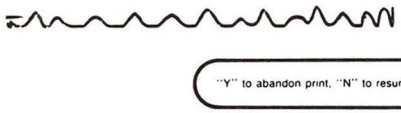
```
file A:filename.EXT not found.
```

Enter a filename that Pocket WordStar can locate. If the file *filename.EXT* exists only on another disk drive, for instance, you can enter *B:filename.EXT*.

Turn Printing Off

HOW TO STOP PRINTING

P and **^KP** are toggle switches that initiate or halt printing. If you try to print the same file you're editing, you'll see an error message.



Type **Y** if you don't want to continue printing the current file.

Type **N** to resume printing immediately.

Press **^U** to suspend printing. The current position in the file is marked so that printing can resume at the same place later. When you're ready, enter **P** or **^KP.**

When the printout is complete, you'll probably have to issue a form-feed command to your operating system or to your printer.

Print Options

The six print options offer you special functions such as pausing between pages, beginning or ending at a page number of your choice, and others.

After you respond to each option prompt, the next appears. If you're concerned with only the first few, press ESCape instead of RETURN to skip the remaining prompts.

OUTPUT TO DISK

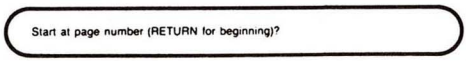
Type **Y** to direct output to a disk file rather than a printer. You'll see the following prompt:

TYPE *filename.EXT*

The resulting file will be a modified image of the printed text file; many formatting commands will not take effect. (^ KO is usually a quicker way to copy the file.) Default: No.

Enter any response other than **Y** for normal output to the printer.

PAGE NUMBERS



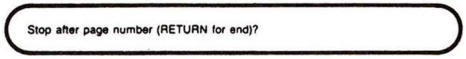
Type a particular page number, followed by RETURN or ESCape.

Type 0 or 1 or press RETURN alone to start printing at the beginning of the document.

If you enter anything but a number, the prompt will stay on your screen. Default: 1.

When you tell Pocket WordStar to start printing near the end of a long document, say on page 30 of 35 pages, there will be a significant pause before printing starts. Pocket WordStar formats, but does not print, the entire document up to page 30 before printing.

NOTE: If you use **^PN** to renumber the pages in your document, the printed pages will be numbered according to your command.



Type a particular page number, followed by RETURN or ESCape. Use this option in conjunction with the start-page option to print selected pages of a document. Default: **end.**

FORM VS. LINE FEED

Type **Y** if the length of your page varies; the printer will advance to the top of each page before printing it.

This form-feed option sends a single machine-language character (OC hex) to the printer, rather than the usual series of line-feed characters. Some printers ignore form-feed signals; please check your manual.

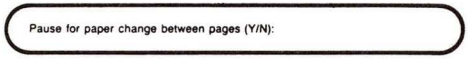
Enter any response other than **Y** for normal instructions. Pocket WordStar will send to the printer the correct number of line-feed characters to advance the paper to the top of the next page. Default: **No.**

CHECKING DOT COMMANDS

Type **Y** to see dot commands printed, as if they were text, instead of performing their page formatting function. This option can be useful for proofreading. Default: **N**o.

Your text and dot commands will print out, line after line, right across folds in the paper unless you force page breaks with **^PL;** print control characters *do* work.

ONE PAGE AT A TIME



Check the printer to be certain that it's plugged in, turned on and ready to print. Be sure the paper is correctly positioned. When everything is ready, press RETURN (or any key) to begin printing.

Type **Y** if you need to use single sheets – letterhead, for example – instead of continuous paper. At the end of each printed page, you'll see the message **PRINT PAUSED** in the status line on your terminal. After you change paper, resume printing by pressing **P** (if at the opening menu) or **^KP** (if editing a file).

GO!

SUMMARY TABLE: FILE OPERATIONS COMMANDS	
COMMAND	**FUNCTION**
	While editing a file:
^KS	Saves work and returns to present file
^QP	Returns cursor to position before last command
^KD	Saves work and exits to Opening Menu
^KX	Saves work and exits to operating system
^KQ	Abandons without saving work in present file
^KF	Turns disk file directory on/off (default: off)
^KO	Copies a file
^KE	Renames a file
^KJ	Deletes any file except the present file
^KL	Changes logged disk drive
^KP	Starts or stops printing
	At the Opening Menu:
F	Turns disk file directory on/off (default: on)
O	Copies a file
E	Renames a file
Y	Deletes a file
L	Changes logged disk drive
M	Runs MailMerge
S	Runs SpellStar
R	Runs another program and returns to WordStar
X	Exits to operating system
P	Starts or stops printing

10. NON-DOCUMENT FILES

CONTENTS

10. Non-Document Files

The Pocket WordStar non-document mode enables you to create files, such as datafiles or computer programs, for use outside Pocket WordStar.

DEFINING NON-DOCUMENTS

Non-document files are simply lists of data. They can be mailing lists, accounting entries in an electronic ledger, or the ordered instructions that make up a computer program.

Non-document datafiles serve as common reservoirs of data that link various kinds of software together.

Computer programs written in hexadecimal code are neither document nor non-document. Do not attempt to edit them with Pocket WordStar.

USING NON-DOCUMENTS

To edit in Non-document mode, press **N** instead of **D** at the Opening Menu. You can still open any file on your disk, even a file written in document mode. But because Pocket WordStar handles non-document files differently, you should avoid editing document files in this mode.

EXAMPLES OF NON-DOCUMENT FILES

- Datafiles created for use with MailMerge. (Follow the directions in your MicroPro manual to write files for these programs.)
- Computer programs in text form
- Any file not created with Pocket WordStar
- Any file created in Pocket WordStar non-document mode

CHARACTERISTICS OF NON-DOCUMENT MODE

ALTERED FEATURES

- No right margin
- Word Wrap off
- Hyphen Help off
- Justification off
- Ruler line display off
- Pagination not working
- Page break display not working
- Paragraph re-forming (^B) not working
- Dot command errors not checked or flagged
- Variable tabbing replaced by fixed tabbing

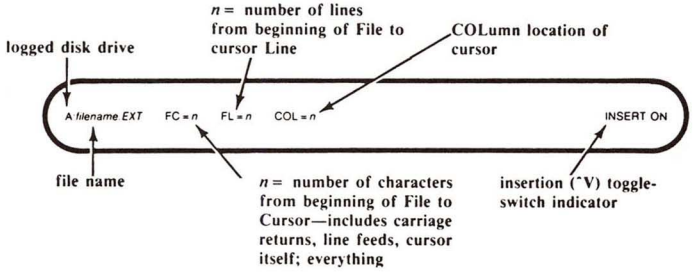
UNCHANGED FEATURES

Here are some standard features that do not change:

- Left margin at column 1
- Print control display on
- Soft hyphen entry off
- Insertion unchanged from last editing session

The Non-Document Screen

The top of your screen looks different in non-document mode. The status line is altered, as this illustration shows:



A handy way to find the length of your file is to press **^QC**, which moves the cursor to the end of the file. Then read **FC** = *n* and **FL** = *n* in the status line.

ENTERING NON-DOCUMENT DATA

You'll use non-document mode mainly to create data storage files for use with other software. Non-document mode follows industry conventions of language, and your non-document datafile must follow a few conventions of form if it's to be read correctly by Pocket WordStar.

NON-DOCUMENT DATAFILES

One example of a non-document file is a datafile that can be used by MailMerge to personalize each form letter that you write with Pocket WordStar. The non-document file provides variable data – names and addresses, for example – which MailMerge inserts in appropriate places in the letter.

HOW TO CREATE A DATAFILE

To create a datafile for use by MailMerge, open a non-document file at the Pocket WordStar Opening Menu:

STEP 1 TYPE **N**

SEE

STEP 2 TYPE *filename* RETURN

SEE blank 'text' area below status line

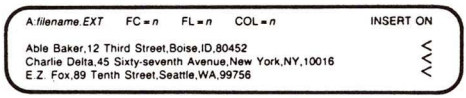
STEP 3 TYPE first item of data,comma,next item,comma etc.

NOTE: See your MailMerge manual for further information.

> If you lack data for any particular field, don't skip the field. Type two commas in a row (,,) to indicate that the data field between them is intentionally empty.

Continue to enter items separated by commas until you have entered all related data and thus completed one data record. Press RETURN to separate this record from the next.

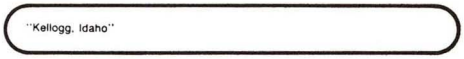
Repeat this procedure until you have typed all your data. The result should look like the following example:



Commas in Data Fields

Surround any item of data which *contains* one or more commas with quotation marks. The data will be read as a single item and not as two. For example, the following phrase contains two items of data:

Add quotation marks to indicate that there is only one item of data:



The program reads the comma in this case, not as a separator, but as part of the data.

The Screen as a Window on Your Work Page

When you want to type lines of text or data that extend past the right edge of your screen, simply continue typing; word wrap is normally off in non-document mode. Unless you end a line with a hard carriage return, your view will scroll past the last column on screen. When you want to read a datafile, a plus mark (+) in the flag column reminds you that a line extends out of sight. Use your normal cursor commands to begin scrolling.

How long a line can you type? Theoretically, you can use several thousand columns, but for your own convenience in editing, you'll probably use far fewer. Extremely long lines also slow down the program's speed in reading.

CONVERTING NON-DOCUMENTS TO DOCUMENT MODE

When you want to edit a non-document file in document mode, you must reformat it. If you have a file created with another program, for instance, you may need to convert carriage returns *within* a paragraph from hard to soft. In document mode, hard returns always indicate the end of a paragraph.

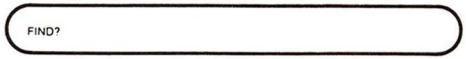
You can use either document or non-document mode to convert hard carriage returns. The capability of paragraph re-forming – not available in non-document mode – makes document mode a better choice.

Simply position the cursor at the beginning of the first paragraph you're converting, and then follow these steps:

HOW TO CONVERT FILES

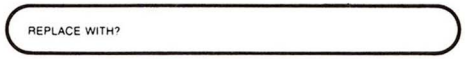
STEP 1 PRESS **^QA**

SEE



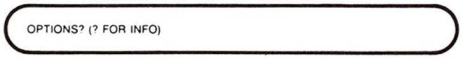
STEP 2 PRESS **^N** RETURN

SEE



STEP 3 TYPE a single space RETURN

SEE



STEP 4 PRESS **N** RETURN

CAUTION (Your **N** entry tells Pocket WordStar to replace without asking for your approval.)

Pocket WordStar finds the first carriage return and changes it to a single space, joining the first and second lines. Then press **^L** to find and change the next carriage return. Continue pressing **^L** until you reach the end of the paragraph.

Don't convert the final return.

You've created a single, very long line with a hard carriage return at the end. To Pocket WordStar, the line is a paragraph. If you've been working in document mode, press **^B.**

As you watch, Pocket WordStar will rework the paragraph, justifying text between the margins and then positioning the cursor at the end.

FIXED TABBING

WHAT IS FIXED TABBING?

Fixed tabbing is a standard feature in non-document mode. Because it is a feature designed mainly for programmers, it should be used with caution by others. Most operating system editors and MicroPro's WordMaster program operate with fixed tabs.

Fixed variable and variable tabbing (the default for document mode) differ in the following way:

VARIABLE TABS	FIXED TABS
Defaults	
Tab stops every 5 columns (1, 6, 11, 16, 21, etc.) Tab stops can be reset	Tab stops every 8 columns (1, 9, 17, 25, 33, etc.) Tab stops cannot be reset
Insertion On	
TAB inserts 5 individual spaces Spaces inserted by TAB are deleted 1 at a time New text entered to the left of a stop pushes old text to the right 1 space at a time	TAB inserts 8 "connected" spaces Spaces inserted by TAB are deleted 8 at a time New text entered to the left of a stop pushes old text to the right 8 spaces at a time
Insertion Off	
TAB moves cursor 5 spaces to the right New text overprints old text and tab stops	TAB moves cursor 8 spaces to the right New text overprints old text and tab stops

Any text that follows a *variable* tab stop lies at the right edge of five individual spaces. Any text that follows a *fixed* tab stop lies at the right edge of a 'single character' eight columns wide.

When you delete a fixed tab stop, the cursor jumps to the left across this single character of eight spaces. When you press TAB while the cursor is to the left of a fixed stop, any text following that stop jumps one eight-space character to the right.

Text entered with insertion on, also pushes text that follows fixed tab stops to the right. With insertion off, new text overprints tab stops and spaces alike, as always.

Use **^OV,** a toggle switch, to turn fixed tabbing on and off in document or non-document mode.

Use **^PI** to enter an **I**ndividual fixed tab into your file when you're otherwise using variable tabs.

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The Microcomputer Software Company

MailMerge®
Reference Manual

MicroPro International Corporation
33 San Pablo Avenue
San Rafael, California 94903 USA

TABLE OF CONTENTS

1. Welcome to MailMerge

... introducing you to MailMerge ...

WHAT YOU HAVE
Your MailMerge package includes this manual and a file on your disk called MAILMRGE.OVR.

A GUIDE TO THIS MANUAL

The MailMerge manual is made up of four chapters which build upon your knowledge of Pocket WordStar. This manual is organised to present concepts and procedures separately. Chapters 1 and 2 describe the concepts of MailMerge. Chapter 3 describes all the MailMerge commands and the procedures for preparing your files. Chapter 4 tells you how to print those files.

SYMBOLS USED IN THIS MANUAL

'Remember'

'Caution'

'Return'

'CTRL'
the control key

◊ **5 or WS**

'Refer'
Refer to the page listed or the Pocket WordStar Reference Manual for more information.

'Commands'
One of these large command symbols appears alongside text that offers the most thorough coverage of the command.

OVERVIEW

MailMerge is a program that works with Pocket WordStar to perform special printing tasks. Merging is its secret. MailMerge takes information from various locations and inserts it into a Pocket WordStar document file, automatically re-forming paragraphs if the information extends beyond the margins. With Pocket WordStar and MailMerge working together, you can accomplish sophisticated printing tasks.

Personalised Form Letters: MailMerge will take a mailing list from one file and a form letter from another to produce individual letters.

Contracts or Standard Documents: MailMerge can change words in a standard document or insert standard paragraphs so that you don't have to retype the words and paragraphs each time they're needed.

Joining Files: MailMerge will print several files in one session to produce one continuous document. One file can be put inside of another, a useful feature for inserting standard paragraphs. Or one file can follow another, as in the chapters of a book.

MailMerge is a very important member of the MicroPro family of products because it links Pocket WordStar to MicroPro data products. MailMerge and Pocket WordStar are an unbeatable pair that gets stronger when they team up with the rest of the MicroPro family.

2. Ideas

... concepts of the MailMerge program ...

HOW MAILMERGE WORKS
MailMerge moves information for you. More specifically, it can merge, connect, and insert.

MailMerge is like the switchman at a railway yard. As the switchman takes orders from the yardmaster, MailMerge takes commands from you.

When trains come down several tracks in the switching yard, the switchman can merge cars from one train with cars from another. MailMerge can merge information (data) from a mailing list into text to create a personalised letter.

The switchman can also connect trains end to end to make one long train. Similarly, MailMerge can connect chapters end to end to make a book. When you give the command to print the first chapter, the program automatically prints the others in succession. This connecting is called chaining.

Although the switchman is not able to put one train inside another, MailMerge can insert text inside of text. For example, you can command the program to print the introductory paragraph of a contract, then print another file which contains a Table of Authorities or references, and then resume printing the contract. This inserting is called nesting.

After you give commands to MailMerge, you press **M** at the Pocket WordStar Opening Menu and either print a document or produce an output file on a disk.

DATA
The data which MailMerge uses come from three sources:

- Datafiles created by MicroPro's Pocket WordStar in non-document mode. ◊WS
- An operator who enters data at the terminal at the time of printing.
- A command at the top of the document itself.

DATAFILES
A datafile is a group of related pieces of information (called records) stored together on a disk.

DATA RECORDS
A data record contains a set of related information. It could be information from a single invoice or from a single entry on a mailing list. Dee Skies is a customer of the Galactica Corporation. When her name and address are entered into a datafile, they become a record. Each time a new name and address is added to the mailing list, a new record is created.

DATA FIELDS
A data field is a single item of information on the mailing list. Dee Skies' name, title, address, and zip code are entered into data fields. Every record in the datafile must have the same number of fields in the same order. Fields are identified by number or by name. For example, the field which contains Ms. Skies' address could be called the address field or the third field.

NOTE: You create datafiles by using Pocket WordStar in non-document mode. This procedure is described in Chapter 3 of this document and in the Pocket WordStar Reference Manual.

VARIABLE DATA
Variable data is information that changes from document to document. If you use the proper commands, MailMerge will merge data into text automatically and continuously to produce personalised letters. The text remains the same, but the data, such as the specific information in the address field of a data record, change with each copy.

MASTER DOCUMENT
A master document, sometimes called a matrix document, provides the text into which you merge data. The text in a master document remains the same each time you print; it could be the body of a form letter or a contract, for example.

A master document is like a form to be filled in. When given the appropriate command, MailMerge puts data into the proper places. In everyday language, the command tells MailMerge, 'Find the variable data for address or phone or name and put them in the text at the indicated place'. In the place where you want variable data inserted, you put special names, called generic names. You enclose the generic names in ampersands (&). MailMerge recognises the ampersands and the generic names and replaces the generic names with the variable data. Chapter 3 includes an illustration of a master document.

A master document is a document file that contains the following:

- dot commands ◊WS
- text
- generic names (Chapter 3)

NOTE: Sometimes you put only dot commands in a document file. This file, called a command file, is discussed later in this chapter. A command file and a master document are not distinct types of files. They are just different names given to Pocket WordStar document files.

DOT COMMANDS

When you use Pocket WordStar, you indicate how you want the printed page to look by putting dot commands in your document file.

A dot command begins with a period (dot) typed in the first column of a Pocket WordStar file. The dot is followed by two characters. The two characters are sometimes followed by a space and more characters. A dot command must always end with a hard carriage return.

MailMerge obeys Pocket WordStar dot commands as well as its own. In MailMerge, dot commands control not only merging, but also other aspects of the printing process.

GENERIC NAMES

A generic name, sometimes called a variable name or variable reference, is a name for variables. It is a general term that describes a set of similar data. For example, the many different towns on a mailing list might be grouped under the generic name 'City' or 'Town'. (You can choose whatever generic name you like). You can also use symbols and abbreviations as generic names. MailMerge recognises a generic name for variables in the text when ampersands (**&**) enclose the name.

CHAIN PRINTING

Chain printing is the printing of one file after another. By putting a dot command that names another file at the end of a file, you command MailMerge to print the other file automatically. There is no limit to the number of files which can be printed in a chain.

Even files from different disks can be chained together. MailMerge accepts a command requesting an operator to change a disk during printing.

NESTED PRINTING

Nested printing is the printing one file inside another. You can put a dot command in a file where you want another file to be inserted. Then you command MailMerge to print the file which is named in the dot command before continuing to print the original file.

COMMAND FILES

A command file is a document file that contains mostly dot commands. A command file is like a recipe for printing with MailMerge. You put all of your MailMerge and Pocket WordStar dot commands into one file and then print that file with **M** at the Opening Menu.

3. Preparation

GETTING STARTED
Before you begin, make a copy of the MailMerge program file and store the original in a safe place.

BASIC ACTIONS

- Make sure your computer is logged on to the drive which contains the MailMerge disk.
- Put dot commands in a Pocket WordStar document file.
- Supply variable data for merging. You may supply data by creating a datafile and giving MailMerge a command to 'read variables' from that file. You may also enter data through the keyboard at the time you are printing. And finally, you may put data in a dot command in the master document.

A MASTER DOCUMENT

Before you can merge data into text, you must create a master document.

A dot command must always begin in the first column of a document file, and must end in a carriage return.

HOW TO CREATE A MASTER DOCUMENT

STEP 1 Start Pocket WordStar.

STEP 3 Enter the Pocket WordStar dot commands that affect page numbering. (.OP or .PN).

STEP 4 (OPTIONAL) Enter the Pocket WordStar dot commands to design the printed page (for example, .PL, .MB.).

STEP 5 (OPTIONAL) Enter the MailMerge dot commands for screen display. (.DM) (.CS) ◊3-19

STEP 6 When data are stored in a datafile, enter the MailMerge dot command followed by the name of a datafile. (.DF)◊3-8

STEP 7 Enter other Pocket WordStar dot commands if desired.

STEP 8 Enter the MailMerge dot commands to supply variable data. (.RV) ◊3-9 (.AV) ◊3-12 (.SV) ◊3-13

STEP 9 Type the text and enclose generic names in ampersands (**&**) where you want MailMerge to insert variable data. Do not add extra spaces. MailMerge will justify text when it prints and margins will be aligned.

If a record in a datafile has an empty field, type a slash and the letter **O** (**/O**) immediately after the generic name but before the closing ampersand. Unless you insert **/O**, MailMerge will leave a blank space in your text where it finds no variable data. ◊3-6

NOTE: **/O** will only work when the generic name that it follows is on a line by itself. Do not use **/O** after a generic name within text.

STEP 10 Enter the Pocket WordStar dot command for page breaks. (.PA).

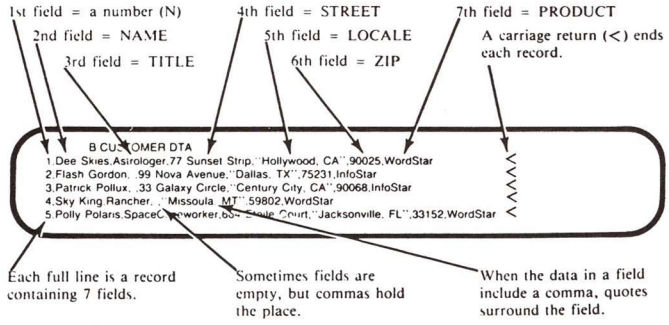
STEP 11 Save the file.

If you complete these steps and have given data to MailMerge, you are ready to print.

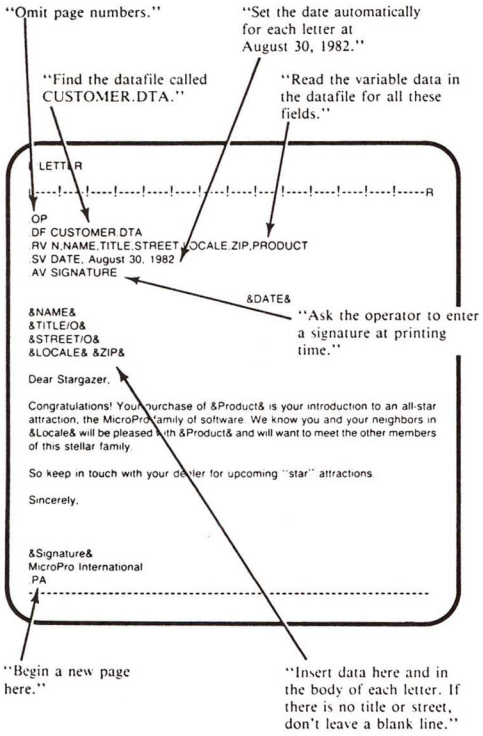
A SAMPLE MASTER DOCUMENT

The illustrations on the following pages show examples of a datafile, a master document, the screen at printing time, and some of the letters that would be produced if the master document were printed with MailMerge.

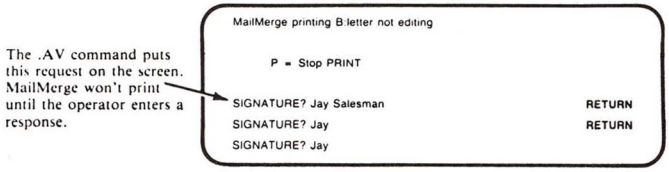
Here is the datafile:



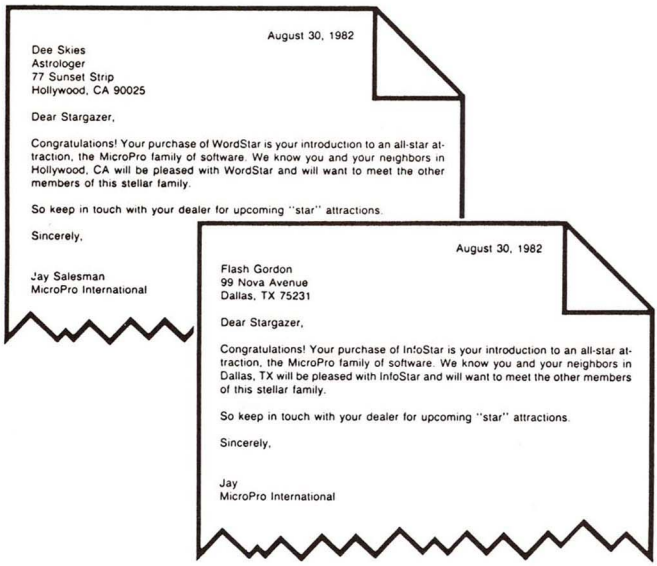
Here is the master document:



Here is the screen at printing time:



Here are the first two letters:



August 30, 1982

Dee Skies
Astrologer
77 Sunset Strip
Hollywood, CA 90025

Dear Stargazer,

Congratulations! Your purchase of WordStar is your introduction to an all-star attraction, the MicroPro family of software. We know you and your neighbors in Hollywood, CA will be pleased with WordStar and will want to meet the other members of this stellar family.

So keep in touch with your dealer for upcoming "star" attractions.

Sincerely,

Jay Salesman
MicroPro International

August 30, 1982

Flash Gordon
99 Nova Avenue
Dallas, TX 75231

Dear Stargazer,

Congratulations! Your purchase of InfoStar is your introduction to an all-star attraction, the MicroPro family of software. We know you and your neighbors in Dallas, TX will be pleased with InfoStar and will want to meet the other members of this stellar family.

So keep in touch with your dealer for upcoming "star" attractions.

Sincerely,

Jay
MicroPro International

USING GENERIC NAMES IN THE MASTER DOCUMENT

A generic name is a general term that describes a set of similar data.

You use generic names in two places in the master document:

- In the commands to supply variable data (.RV, .AV, .SV). Notice that the generic names are *not* enclosed in ampersands when used in these commands.

- In the text wherever you want MailMerge to insert data. Here the generic names *are* enclosed in ampersands.

A **.RV** command contains generic names for all the fields in a datafile. But you do not need to use all of these generic names in your text. Put generic names only where you want data.

An example of generic names chosen to match the fields of a datafile follows:

```
A:EMPLOYEE.LST

201,Davis,Jeffrey,"August 2, 1982","17,000"
202,Bloom,Molly,"January 15, 1980","45,000"
203,Ying,April,"March 4, 1981","28,000"
```

These fields might be given the generic names N (for number), LAST (for last name), FIRST (for first name), DATE (for date), and AMT (for salary). They would then be used in a master document. In the following illustration, notice that even though the date is a field in the datafile and the generic name DATE is in the **.RV** command, &DATE& is not used in the text.

```
B PERSONEL REC

DF EMPLOYEE LST
RV N,LAST,FIRST,DATE,AMT

NUMBER: &N&                          NAME: &LAST&, &FIRST&
                                     SALARY: &AMT&
PA
```

NOTE: The order of generic names in the command **.RV** is the same as the order of the fields in the datafile.

The following is an example of a datafile and the corresponding generic names in a master document.

```
ORDER DTA
Business Electronics,1700 Fifth Ave.,"New York, NY",10011,Mr. Smith,Gizmos
Computer Devices,1455 Van Ness,"San Francisco, CA",94926,Ms. Jones,Whatzits
```

```
DF ORDER DTA
RV NAME,ADDR1,ADDR2,ZIP,BUYER,PRODUCT
AV QUANTITY
SV MONTH,JANUARY

                                     &MONTH&

BILL TO: &NAME&                      SHIP TO: &NAME&
         &ADDR1&                              &ADDR1&
         &ADDR2& &ZIP&                        &ADDR2& &ZIP&
ATTN: &BUYER&                        Balance Due
&QUANTITY& &PRODUCT&

PA
```

At printing time, the screen would look like this:

```
Quantity?
```

After the operator typed a response to the prompt, an order would be printed. Variable data from the datafile would fill the spaces held by &NAME&, &ADDR1&, &ADDR2&, &ZIP&, &BUYER&, and &PRODUCT&. The generic name &MONTH& would be replaced by January, and the operator's response would fill the space held by &QUANTITY&.

Sometimes you may not have data in a field in a record. For example, the following datafile has no data in the third field of the second record. The empty field is indicated by the two commas after the name 'Flash Gordon'. This field might be represented in the text of a master document as &TITLE&.

```
1,Dee Skies,Astrologer,77 Sunset Strip,"Hollywood, CA",90025,WordStar
2,Flash Gordon,,99 Nova Avenue,"Dallas, TX",75231,DataStar
```

To prevent MailMerge from inserting a blank space into the text where &TITLE& appears, you add '/**O**' (slash, capital O) after the generic name and before the closing ampersand.

```
&TITLE/O&
```

The master document would contain the following generic names in a salutation:

```
&NAME&
&TITLE/O&
&ADDR&
&CITY-STATE& &ZIP&
```

The following would be the printed results for both records:

RULES FOR GENERIC NAMES

- Use one to forty letters in upper or lowercase and digits or hyphens. Do not use any other characters.
- Do not use a digit or a hyphen as the first character.
- Select generic names for each field in a record in a datafile and, if using a **.RV** command, list them in the same order they appear in each record.
- You do not need to use all the generic names in the text of the master document.
- Surround generic names with ampersands in the text of a master document. MailMerge will not print the ampersands.

NOTE: MailMerge will print ampersands that do not enclose generic names.

- Do not surround generic names with ampersands in **.RV, .SV,** or **.AV** commands.

DOT COMMANDS FOR MERGING DATA

You use dot commands to merge data into text. These commands are put at the top of a master document in column one. The order of the commands is not important except when you use the dot commands **.DF** and **.RV** to merge data. (The .DF command always precedes the .RV command). Furthermore, the number and combinations of dot commands you may use are not limited unless you are using the command which defines a datafile.

HOW TO GIVE DATA TO MAILMERGE

There are three methods and four dot commands to put variable data into a document:

- **R**ead **V**ariables (.RV) from a **d**atafile (.DF). This combination of dot commands makes MailMerge print documents repeatedly until all the data available from the datafile have been inserted. The two commands must be used together. Without the **.DF** command which names the datafile to be used as a source, the command to read variables is meaningless. MailMerge must have something to 'read'. And without the command to read variables, MailMerge will find the datafile but will not know what to do with it.

```
DF CUSTOMER.DTA
RV N.NAME,TITLE,STREET,LOCALE,ZIP,PRODUCT

&NAME&
&TITLE/O&
&STREET/O&
&LOCALE& &ZIP&

&PRODUCT&
&PRODUCT&
```

- **A**sk (for) **V**ariables (.AV). This command asks the operator to enter information every time it is needed in a document. The dot command which requests variable data is put in the master document, and, at printing time, the request appears on the screen. Printing pauses until an operator enters information to be merged into the text being printed.

```
AV SIGNATURE

&SIGNATURE&
```

- **S**et **V**ariables (.SV). This command sets the variable data within a document every time the generic name enclosed in ampersands is encountered in the text. This dot command, which includes both a generic name and variable data, is put at the top of the master document.

```
.SV DATE, August 30, 1982
                                        &DATE&
```

Define **F**ile. **.DF** followed by a file name identifies a file which will supply variable data. **.DF** followed by a file name and the word 'CHANGE' tells MailMerge to instruct the operator to change a disk for the named file. **.DF** does not work alone; it works with **.RV**. Together, **.DF** and **.RV** cause MailMerge to print the master document until all the variable data requested have been inserted. The **.DF** command always precedes the **.RV** command because MailMerge must 'see' a file before it can 'read' the variables in that file.

Here are some examples of **.DF** commands which could be put at the top of a master document in column one before any **.RV** command appears:

```
.DF MAILIST.DTA

.DF B:CUSTOM.DTA

.DF NAMES.DTA CHANGE
```

NOTE: If you type the word CHANGE after the file named in a **.DF** command, you will see a message on the screen when you print. If you have made a mistake, an error message will appear, but the file will continue printing.

```
***Cannot change disk in drive D:, request ignored
```

If you have not made a mistake, you will see:

```
Insert diskette with file (name of your file); then press RETURN
```

HOW TO WRITE A .DF COMMAND
Follow these STEPS to write a .DF command:

STEP 1 Starting in column one

TYPE **.DF**

STEP 2 PRESS **SPACE**

STEP 3 TYPE *filename*

STEP 4 (OPTIONAL)

RETURN

PRESS **SPACE**

TYPE **CHANGE**

RULES FOR .DF

- Always put **.DF** above **.RV** and above text.
- Do not use more than one **.DF** in a master document.
- Always enter a valid file name for a datafile.

Read **V**ariables. **.RV** tells MailMerge to look at the datafile named in a preceding **.DF** command. The generic names that follow **.RV** name all the fields of the datafile. For instance, if the datafile contains specific account numbers, names, and street addresses, the **.RV** command would contain generic names for number, name, and address.

NOTE: The order of the specific information in the datafile must be the same as the order of the generic names in the **.RV** command. Also, all fields in a datafile must be named in the **.RV** command, even if they will not all be used in the text.

With **.DF** and **.RV** in a master document, MailMerge reads all the fields and recognises generic names which are enclosed in ampersands (**&**) in the text.

Then it replaces them with the information you want from the datafile.

HOW TO WRITE A .RV COMMAND

STEP 1 Starting in column one.

TYPE **.RV**

STEP 2 PRESS **SPACE**

STEP 3 TYPE generic names for all the fields in your datafile. Separate them with commas.

RETURN

The following example shows you a **.RV** command in two proper forms. The first command uses a comma and a space to separate the generic names. The second uses only commas.

```
.RV N, Name, Street, City
```

```
.RV N,Name,Street,City
```

RULES FOR .RV

- Never use ampersands around generic names.
- Never put **.RV** before **.DF.**
- You may put other dot commands between **.RV** and **.DF.**
- **.RV** must come before any text which is to be merged with data read by the **.RV.**
- Always provide generic names for all the fields in a datafile even though you may not want to use all of them.
- A generic name may be no longer than 40 characters.
- A **.RV** command may be no longer than 240 characters.
- The list of generic names may be too long for one line of your screen. If you do not want to use the horizontal scroll feature of Pocket WordStar, use as many **.RV** commands as necessary to read the variables from one datafile.

The following example illustrates the preceding rule::

```
NAMES.DTA
1, Queen Elizabeth II, Buckingham Palace, Westminster, England
```

```
LETTER.TXT
L----!----!----!----!----!----!----!----!----!----!----!----!----!----!----R

.DF NAMES.DTA
.RV RECORD-NUMBER, ROYAL-TITLE, PALATIAL-ESTATE
.RV CAPITALCITY, COUNTRY
```

- Never vary the order of the fields from the order followed in the datafile when you list the generic names after the **.RV.** If you do, MailMerge will insert data into the wrong places in your text.

Ask (for) **V**ariables. **.AV** commands MailMerge to ask for variable data at printing time. If a **.AV** command is put into a master document, a prompt appears on the screen at printing time, and the printer pauses. Printing will not resume until an operator enters information. The **.AV** command contains a generic name. If MailMerge finds the same generic name enclosed in ampersands in the text, the information which the operator types will be inserted into the text.

NOTE: If you use only **.AV** commands to merge data, you will print one document at a time. After a document is printed you must start MailMerge again from the Pocket WordStar Opening Menu.

If however, **.DF** and **.RV** commands are used in the same master document, the request for variables will appear on the screen each time MailMerge reads a new record in the datafile. MailMerge will ask for variables until all the data from datafile have been merged into the text.

You can write a simple **.AV** command with just a generic name. If you do, the generic name and a question mark appear on the screen at printing time.

You can also write more complex **.AV** commands. If you add a comma and a digit, you can limit the number of characters an operator can type in response to the question on the screen. The cursor stops after the operator types the maximum number of characters.

This feature is a safeguard against mistakes. In the following example, the number would prevent the operator from entering more than five characters for a zip code:

```
AV ZIPCODE, 5
```

This command in the master document will produce this prompt on the screen:

```
P = Stop PRINT
ZIPCODE?
```

If the operator typed 654321, the screen would show this prompt:

```
ZIPCODE? 65432_
```

You can create a **.AV** command that will display a message as a prompt on the screen rather than just the generic name. The prompt is enclosed in quotation marks and is typed before the generic name in the **.AV** command. This feature is helpful when you want to give clear instructions to the operator who will enter data. A **.AV** command with a message prompt still requires a response from an operator before MailMerge will print or output a file. Although the generic name is not seen on the screen, it is written in the **.AV** command after the comment. The opertor's response will be inserted into the text at the place where the generic name is enclosed in ampersands.

```
.AV "CITY,STATE?",ADDR2
```

This command in the master document will produce the following prompt on the screen at printing time:

```
CITY, STATE?
```

```
.AV "Enter name as: Last, First", Name
```

This command in the master document will produce the following prompt on the screen at printing time:

```
Enter name as: Last, First:
```

HOW TO WRITE A .AV COMMAND

STEP 1 Starting in column one TYPE **.AV**

STEP 2 PRESS **SPACE**

STEP 3 TYPE one generic name

OR

TYPE a prompt enclosed in single or double quotation marks

AND

TYPE a comma and one generic name

STEP 4 (OPTIONAL)

TYPE a comma and a digit

RULES FOR .AV

- Do not use ampersands around variable names.
- A line beginning with **.AV** may be no longer than 240 characters.
- A generic name may be no longer than 40 characters.
- You may use any number of **.AV** commands.
- You may use **.AV** commands anywhere in a file.

Set **V**ariables. **.SV** tells MailMerge to insert variable data throughout the master document wherever the generic name appears enclosed in ampersands. The **.SV** command includes the information *in the master document.* MailMerge neither goes to a datafile nor asks the operator for data, but simply looks at the command itself.

The **.SV** command includes both the generic name for variable data and the information that will be substituted for the generic name. **.SV** is very useful when a piece of information appears many times in a document, because one edit will change every occurrence.

The following example shows you a use of **.SV:**

```
.SV PARTY1, Fred Falcon
.SV PARTY2, Eric Eagle
This contract is between
&PARTY1& and &PARTY2&.
```

This contract is between
Fred Falcon and Eric Eagle.

HOW TO WRITE A .SV COMMAND

STEP 1 Starting in column one

TYPE **.SV**

STEP 2 PRESS **SPACE**

STEP 3 TYPE one generic name and a comma

STEP 4 PRESS **SPACE**

STEP 5 TYPE variable data

RULES FOR .SV

- Do not use ampersands around generic names.
- A **.SV** may be no longer than 240 characters.
- A generic name may be no longer than 40 characters.
- You may use any number of **.SV** commands.
- **.SV** commands anywhere in the master document.

DOT COMMANDS FOR INSERTING FILES

File **I**nsert. **.FI** commands MailMerge to insert a named file where the **.FI** appears, either at the end of a file or in the middle of text. When MailMerge joins one file to the end of another and you print, the results are called 'chain printing'. When MailMerge inserts one file inside of another, and you print, the results are called 'nested printing'. If you insert one file inside another, MailMerge will obey all the dot commands in the inserted file before returning to the original file.

If you want MailMerge to pause so you can change a disk, type the word CHANGE at the end of a **.FI** command.

The following examples show you **.FI** commands. Chapter 4 gives more sample uses of **.FI.**

```
.FI MAILLIST.DTA

FI HEADING CHANGE
```

NOTE: If you type the word CHANGE after the file named in a **.FI** command, you will see a message on the screen when you print. If you have made a mistake, an error message will appear:

```
***Cannot change disk in drive D:, request ignored.
```

If you have not made a mistake, you will see:

```
Insert diskette with file (name of your file); then press RETURN
```

HOW TO WRITE A .FI COMMAND
Follow these STEPS to write a .FI command:

STEP 1 Move the cursor to the desired location in the file

STEP 2 Starting in column one

TYPE **.FI**

PRESS **SPACE**

STEP 3 TYPE the letter of the disk drive and a colon (:) if file to be inserted is not on the logged disk drive.

STEP 4 TYPE file name of the file to be inserted

STEP 5 PRESS **SPACE**

TYPE **CHANGE** if file is on another disk

RULES FOR .FI

- There is no limit to the number of **.FI** commands which can be used in sequence for chaining files.

- No more than seven files can be inserted inside one another with **.FI** commands.

DOT COMMANDS FOR MULTIPLE COPIES

Repeat Until the End of Datafile is Reached. **.RP** commands MailMerge to repeat the printing of a file if that file uses a datafile to supply variable data for merging.

There are two uses for **.RP:**

- You can use **.RP** for repeated printing. You insert a file which contains **.RP** and **.RV** commands into another file which contains a **.DF** command. **.RP** will cause repeated printing until all the data in the file have been read.

  If a number (**n**) follows **.RP,** MailMerge reads the datafile n times and prints all the document n times.

- If a file contains **.DF** and **.RV, .RP** followed by a number will read the datafile n times and will print all the documents n times.

Chapter 4 explains the uses of **.RP** as they relate to command files and repeated printing.

HOW TO WRITE A .RP COMMAND
Follow these STEPS to write a .RP command:

STEP 1 Starting in column one

TYPE **.RP**

PRESS **SPACE**

STEP 2 (OPTIONAL)

TYPE any number

RETURN

RULES FOR .RP

- Put **.RP** near the beginning of a file and avoid using **.RP** at the end of a file. If you must use **.RP** at the end of a file, follow the command with a carriage return.
- **.RP** has no effect unless a datafile is in use.
- **.RP** should not be used unless a **.RV** is in the same file.
- **.RP 0** is the same as **.RP 1.** Both print the document once.

DOT COMMANDS FOR RE-FORMING TEXT AT PRINTING TIME

AUTOMATIC RE-FORMING
When MailMerge inserts variable data into a master document, it automatically re-forms paragraphs. The Pocket WordStar paragraph re-form command **^B** works similarly. MailMerge looks at the paragraph into which the variable data will be inserted. The program inspects the margins, the line spacing, and the right edge of text to determine if it is justified or ragged right. Then MailMerge puts the data in place and forms lines of the appropriate length.

CAUTION

When MailMerge inserts variable data into a master document, page breaks may occur differently on paper than they do on the screen. To prevent awkward page breaks, use the Pocket WordStar dot command **.CP** to keep certain lines of text on the same page.

The process of adjusting the length of lines of text with variable data is called **print time line forming.** Print time line forming is an automatic feature of MailMerge. To turn off this automatic feature and to adjust justification at printing time, use the dot commands, .PF, .OJ, and .IJ which are described here and on the following pages.

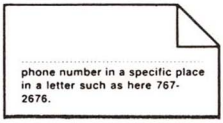
Print Time Line **F**orming. **.PF** controls the printing of lines of text which include variable data. **.PF** is followed by one space and either DIS, OFF, or ON. Put these dot commands in column one above the lines of text you want to re-form at printing time.

NOTE: DIS is an abbreviation for 'discretion' and indicates that a command will go into effect at the discretion of MailMerge. For example, when you use **.PF DIS,** MailMerge will start print time line forming when it sees a generic name in your text and will stop at a hard carriage return. The DIS (discretionary situation) is the default or standard situation.

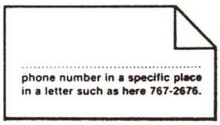
For most documents, you will allow automatic print time line forming. In some cases, however, you may want to suppress this feature. For example, suppose you want to print client phone numbers on the right edge of your text and do not want MailMerge to re-form the paragraph and split the number at the hyphen. Look at the following example:

```
DF NEW.DTA
RV Name, Phone

                    This is an example of a situation
                    in which you might want to turn
                    off the MailMerge feature of
                    print time line forming. Suppose
                    you want to insert a client's
                    phone number in a specific place
                    in a letter such as here &PHONE&.
```

If print time line forming is on, the telephone number will print on two lines.

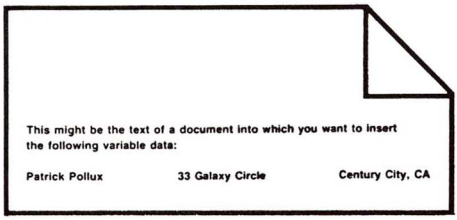


If print time line forming is off (.PF OFF), the telephone number will print on one line.

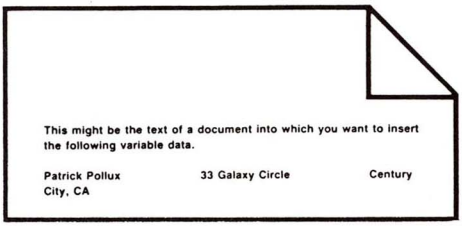


Turning off print time line forming is useful when you want to print data, for example a mailing list, in the text of another document. In this case, the variable data will extend beyond the margins of the text as in the following example:

```
.OP
.DF CUSTOMER.DTA
.RV N, NAME, TITLE, ADDRESS, CITY-STATE, ZIP, PRODUCT
.PF OFF
This might be the text of a document into which you want to insert
the following variable data:

&NAME&          &ADDRESS&          &CITY-STATE&
```



If you do not use **.PF OFF** as in the previous example, the printed result might look like this:



.PF DIS is the default or standard situation in which MailMerge automatically forms lines within the set margins and re-forms paragraphs after new data is inserted.

.PF OFF stops the automatic feature so that variable data which is inserted into text will change the length of lines or the form of a paragraph.

.PF ON turns on print time line forming so that lines of text which contain variable data will be reformed automatically.

Output **J**ustification. When print time line forming is operating, **.OJ** determines whether the right margin of the text being printed (output) is ragged or justified. **.OJ** is followed by DIS, ON, or OFF and only works when print time line forming is on.

.OJ DIS is the default or standard situation in which text that contains variable data is put onto the same form as the text which was edited. **.OJ DIS** will re-form text that includes variable data into text with either a ragged right or a justified margin.

.OJ ON forms lines which are justified when print time line forming is on.

.OJ OFF forms ragged right lines when print time line forming is on.

Input **J**ustification. When print time line forming is operating, **.IJ** determines whether the right margin of the text which has been edited (input) is ragged or justified. **.IJ** is followed by DIS, ON, or OFF and only works when print time line forming is on.

.IJ DIS is the default or standard situation in which MailMerge interprets the edited text just as it has been entered. The program determines if the input (edited text) has a ragged right or a justified margin.

.IJ ON tells MailMerge to interpret the input (the edited text) as justified.

.IJ OFF tells MailMerge the input text should have a ragged right margin.

DOT COMMANDS FOR ONSCREEN DISPLAYS WHEN PRINTING

Two dot commands, **.CS** and **.DM,** affect what the operator sees on the screen while MailMerge is printing. These commands are particularly useful when you need to instruct the person printing with MailMerge. They are also helpful when you have many **.AV** commands which fill the screen at printing time, and you want to clear the screen for easier reading.

Display **M**essage. **.DM** tells MailMerge to show text on the screen when it prints the master document. You can display as many messages as you like. Each **.DM** will cause a line of text to appear below a preceding message. The display scrolls up when the screen is full.

With this command, you can tell what document is being printed, making it unnecessary to look at the printer. MailMerge will insert variable data into the message if it recognises generic names enclosed in ampersands. For example, you can see what form letter you are printing by using a **.DM** command as in the following example:

```
.DM Now printing letter to &NAME&
```

This command in the master document will display the following message on the screen at printing time:

```
P = Stop PRINT
Now printing letter to Dee Skies
```

Here are other examples of **.DM** commands:

```
.DM Now printing Chapter 7
.DM Load envelope in printer, press P
.DM Insert next disk in drive B
```

HOW TO WRITE A .DM COMMAND
Follow these STEPS to write a .DM command:

STEP 1 Starting in column one

TYPE **.DM**

STEP 2 PRESS **SPACE**

STEP 3 TYPE your message

RULES FOR .DM

- A **.DM** command may be no longer than 240 characters.
- Insert a generic name enclosed in ampersands in the command when you want to insert data into the message.

Clear **S**creen. Put **.CS** in the master document after **.AV** or **.DM** commands to make it easier to read the screen at printing time. **.CS** clears the s creen when MailMerge is printing. Like **.DM, .CS** can also be followed by a message:

```
CS
```

OR

```
CS Enter data when questions appear
```

HOW TO WRITE A .CS COMMAND
Follow these STEPS to write a .CS command:

STEP 1 Starting in column one

TYPE **.CS**

STEP 2 (OPTIONAL)

PRESS **SPACE** and

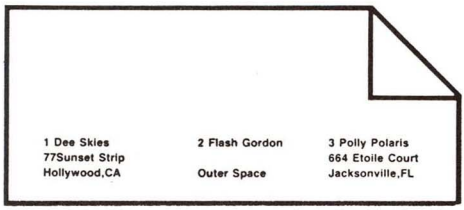
TYPE a message

RETURN

USING DATAFILES

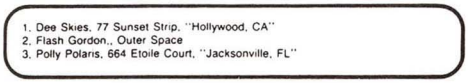
Information stored in a datafile must conform to a consistent pattern. The order of fields, the number of fields, and the correct use of commas, carriage returns, and spacing are extremely important in datafiles. You must organise your information or it will not merge properly into the master document.

Consider this example. A mailing list looks like this on paper:



Note that Flash Gordon has no street address. In a mailing list on paper, there is a blank space where the street would be. In a datafile, the missing street address is called an empty field.

A datafile containing your list would look like this on the screen:



EMPTY FIELDS
Notice that the empty field, the missing street address, is marked by an extra comma. Because MailMerge 'reads' fields by recognising commas, an empty field must be enclosed within commas just as a field that contains data would be. Without the extra comma for the empty field, MailMerge would use the data in the next field as the street address.

Notice that the order of the fields does not change. The number is first, the name is second, street address is third, city/state is fourth. Another datafile might use a different order, perhaps putting names in the last field; but the order within a single datafile must be consistent.

The fields are separated (delimited) by commas, and records are separated by carriage returns. Notice the last field in the first and third records of the example. Because these fields themselves contain commas, the entire field is enclosed in quotation marks. Though we say t hat MailMerge 'reads' data from a datafile, the program really just recognises commas and carriage returns.

If the variable data in a field contains a comma (for example, the city and state 'Hollywood, CA'), you must put double quotation marks around that variable data *before* you use a comma to separate fields. 'Count your commas' is a good rule for datafiles. If one record contains an incorrect number of commas to separate fields, data will be put in the wrong places in a master document.

You can store information in datafiles either with:

Pocket WordStar in non-document mode.

NOTE: A common extension to the file name of a datafile is .DTA. MailMerge will recognise the .DTA datafiles from other MicroPro products, and you can then use that data in Pocket WordStar document files.

If you use Pocket WordStar to create a datafile, you must use non-document mode. In non-document mode, word wrap does not function, and tabs are in a fixed position. You do not re-form paragraphs when you create a datafile. Word wrap and paragraph re-form insert soft carriage returns into a file. MailMerge does not distinguish between soft and hard carriage returns. And a hard carriage return signifies the end of a record to MailMerge.

Because of the horizontal scroll feature of Pocket WordStar, a record in a datafile can extend beyond the set margins. The practical limit, however, is 240 columns.

HOW TO CREATE A DATAFILE
Follow these STEPS to create a datafile:

STEP 1 At the Pocket WordStar Opening Menu

TYPE **N**

SEE Name of file to edit?

STEP 2 TYPE *filename*

RETURN

STEP 3 Starting in column one

TYPE first item of variable data

STEP 4 TYPE a comma

(OPTIONAL) PRESS **SPACE**

STEP 5 TYPE variable data in next field

OR

TYPE a comma if you lack data for that field

REPEAT STEPS 4 and 5 until you complete one record (which may be longer than one line visible on your screen)

RETURN

REPEAT STEPS 3 through 5 until you have typed all your data

STEP 6 Save your file

Study this example datafile called CUSTOMER.DTA:

```
CUSTOMER.DTA
1,Dee Skies,Astrologer,77 Sunset Strip,"Hollywood, CA",90025,WordStar
2,Flash Gordon,,99 Nova Avenue,"Dallas, TX",75231,DataStar
3,Patrick Pollux,,33 Galaxy Circle,"Century City, CA",90068,DataStar
4,Sky King,Rancher,,"Missoula, MT",59802, WordStar
5,Polly Polaris,SpaceCaseworker,664 Etoile Court,"Jacksonville, FL",33152,WordStar
```

RULES FOR DATAFILES

- Do not create datafiles with Pocket WordStar in document mode.
- Use .DTA as the extension to the file name to identify it as a datafile.
- Do not create records in lines longer than 240 characters.
- Separate fields with commas.
- End every record with RETURN.

You may use a carriage return instead of a comma to separate fields if, for instance, a record forms a very long line on the screen. However, it is not recommended. Some other programs recognise only commas to separate fields and only carriage returns to separate records. You must follow the same format in creating a datafile with Pocket WordStar in non-document mode. Otherwise, you will not be able to use that datafile with other programs.

Never use RETURN in the middle of a field.

- If a field contains a comma or is preceded or followed by a space, surround the field with quotation marks. Make sure that the commas which separate fields are *outside* of the quotation marks.

- Never omit a field. If you have no data, create an empty field using an optional space and a required comma.

MailMerge will not work if the last field in the last record of a datafile is empty.

- Never vary the order of fields in a datafile.

4. Printing

...starting...interrupting...chain printing...nested printing... command files...copies...

HOW TO START

Follow these STEPS to print a document file which contains MailMerge dot commands:

STEP 1 At the Pocket WordStar Opening Menu

TYPE **M**

STEP 2 You see the prompt

```
Name of file to MailMerge?
```

TYPE the name of the file which contains MailMerge dot commands

STEP 3 Ready the printer

STEP 4 PRESS **ESC**ape and print

OR

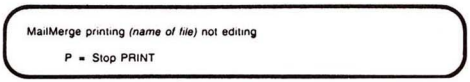
RETURN to print with options

You see the prompts

```
not editing

Name of file to MailMerge? letter
For default press RETURN for each question:
    Disk file output (Y/N):
    Start at page number (RETURN for beginning)?
    Stop after page number (RETURN for end)?
    Number of copies (RETURN for 1)?
    Use form feeds (Y/N):
    Suppress page formatting (Y/N):
    Pause for paper change between pages (Y/N):
Ready printer, press RETURN:
```

NOTE: Your response to the fourth question determines the number of duplicate copies to be printed.

STEP 5 You see the prompts



NOTE: Printing with options in MailMerge is very similar to printing with options in Pocket WordStar. Consult your Pocket WordStar Reference Manual for an explanation of these options.

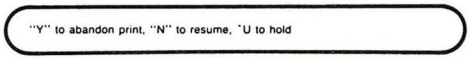
HOW TO STOP

While MailMerge prints, you see **P = Stop PRINT** highlighted on your screen.

Follow these STEPS to stop printing:

STEP 1 TYPE **P**

STEP 2 You see the prompt



PRESS **Y**

Typing **P** to stop printing will not always work. If your document contains a **.AV** command and the cursor is resting after a question on the screen, 'P' will be interpreted as data. See the following instructions.

IF MAILMERGE IS WAITING FOR DATA FROM AN OPERATOR
Follow these STEPS if there is a question on the screen requesting data:

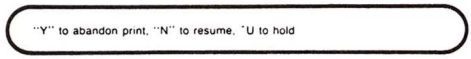
STEP 1 You see the cursor positioned after a screen prompt

PRESS **^U**

STEP 2 You see the prompt

PRESS **ESC**ape and rapidly TYPE **P**

STEP 3 You see the prompt



TYPE **Y**

HOW TO INTERRUPT

Perhaps you want to change the ribbon or insert envelopes into the printer. You can command MailMerge to interrupt printing at any one of three stages:

- Before you save the file which you will print
- After you save the file but before you print
- While you are printing the file you saved

BEFORE SAVING THE FILE AND PRINTING
Follow these STEPS to interrupt before saving the file and printing:

STEP 1 Open a file

STEP 2 At the top of the file, before the dot commands

PRESS **^P**

TYPE **C**

You see on the screen: **^C**

STEP 3 Enter dot commands and text

STEP 4 Save the file

STEP 5 At the Opening Menu, print with MailMerge

MailMerge will print. When it encounters the **^C** in your file, MailMerge will stop printing, and you will see the Pocket WordStar Opening Menu. On it, you will see highlighted:

AFTER SAVING THE FILE AND BEFORE PRINTING
Follow these STEPS to interrupt after saving the file and before printing:

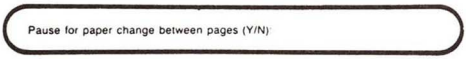
STEP 1 PRESS **M**

STEP 2 You see the prompt

TYPE *filename*

PRESS RETURN 7 times

STEP 3 You see the prompt



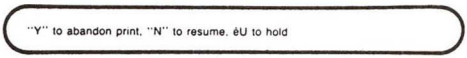
TYPE **Y**

RETURN

DURING PRINTING
Follow these STEPS to interrupt during printing:

STEP 1 PRESS **P**

STEP 2 You see the prompt

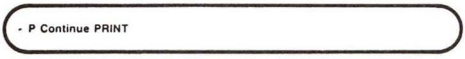


PRESS **Û**

You see the prompt

STEP 3 Press **ESC**ape

You see the Pocket WordStar Opening Menu. On it, you will see highlighted



CHAIN PRINTING

With chain printing, you can join many files – files holding chapters of a book, for example. If you put a **.FI** command at the end of each file and then print the first file, MailMerge automatically links the other files in the chain.

B:CHAP.1

This is the first chapter.
.FI CHAP.2

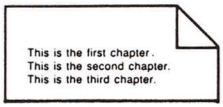
B:CHAP.2

This is the second chapter.
.FI A:CHAP.3

A:CHAP.3

This is the third chapter.

By printing CHAP.1 with MailMerge, you will get this result:



NOTE: Chapters can be put on disks in different drives as in the previous example.

HOW TO PRODUCE CHAIN PRINTING
Follow these STEPS to produce chain printing:

STEP 1 Open a file

STEP 2 TYPE the text

STEP 3 Move the cursor to the end of the file

STEP 4 Starting in column one

(OPTIONAL) TYPE **.PA** if you want the next file to start on a new page

RETURN

STEP 5 TYPE **.FI**

STEP 6 If the file to be chained is not located on the logged disk drive,

TYPE the letter naming the disk drive and a colon.

STEP 7 TYPE the name of a file to be next in the chain

STEP 8 Save the file

REPEAT STEPS 1 through 8

STEP 9 At the Opening Menu, print with MailMerge

OR

Use a command file to produce chain printing.◊4-7

NESTED PRINTING

Nested printing is a valuable tool for including a standard paragraph in many different documents. When you want to put an entire file inside another and another inside of *that* one and still another inside of *that* one (up to seven times), use nested printing.

Nesting can also mean putting many files inside of one file. There is no limit to the number of files that can be nested this way.

HOW TO PRODUCE NESTED PRINTING
Follow these STEPS to produce nested printing:

STEP 1 Open a file

STEP 2 TYPE the text

STEP 3 Move the cursor to the place where you want to insert another file

STEP 4 Starting in column one

TYPE **.FI**

STEP 5 PRESS **SPACE**

STEP 6 If the file to be inserted is not located on the logged disk drive,

TYPE the letter naming the disk drive and a colon

STEP 7 TYPE the name of the file to be inserted

STEP 8 Continue with the text

STEP 9 Save the file, then either

STEP 10 Open file named in STEP 7

REPEAT STEPS 2 through 9 no more than six times

OR

STEP 11 REPEAT STEPS 1 through 9 any number of times

STEP 12 Print the file opened in STEP 1 with MailMerge

RULES FOR NESTED PRINTING

- You can nest as many as seven files inside one another (illustration #1).
- You can nest as many files as you like in one file (see illustration #2).

COMBINED TASK PRINTING WITH COMMAND FILES

With MailMerge, you can combine several printing tasks by creating one special file called a command file.

A command file is a document file with little or no text in it and no specific form. It can be as simple as a series of **.FI** commands to chain files, which could be, for example, the chapters of a book. Or a command file can contain a complex series of commands that print many master document files, each of which uses a datafile. However you design a command file, when you print that file with MailMerge, all the dot commands will go into action.

MAILING LIST TASKS

The example which follows illustrates what happens when a command file for printing letters and matching envelopes is printed with MailMerge.

```
B:COMMAND

L----!----!----!----!----!----!----!----!----!----!----!----!----!----R
.DM Print letters, then envelopes
.AV "Enter name of letter file", LETTER
.AV "Enter name of datafile", DATAFILE
.FI &LETTER&
.FI ENVLOPES
```

MailMerge displays these messages on the screen, and the operator types the following responses, pressing RETURN after each response.

```
Print letters, then envelopes
Enter name of letter file: FORM.LTR
Enter name of datafile: CUSTOMER.DTA
```

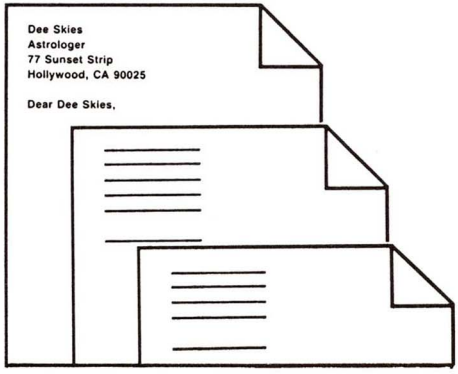
MailMerge finds the file called FORM.LTR.

```
B:FORM LTR

L----!----!----!----!----!----!----!----!----!----!----!----!----!----R
.DF &DATAFILE&
.RV N,NAME,TITLE,STREET,LOCALE,ZIP,PRODUCT
&NAME&
&TITLE/O&
&STREET/O&
&LOCALE& &ZIP&
Dear &NAME&,




.PA
```

MailMerge finds the datafile called CUSTOMER.DTA.

```
B:CUSTOMER.DTA

1,Dee Skies,Astrologer,77 Sunset Strip,"Hollywood, CA",90025,WordStar
2,Flash Gordon,...
```

MailMerge inserts the data into the letters and prints the letters. (MailMerge will pause for a paper change if the operator prints with options and requests a pause).



MailMerge finds the file called ENVELOPES.

```
B:ENVLOPES

L....!....!....!....!....!....!....!....!....!....!....!....!....!....R
 C
 PL 25
 MT 15
 MB 0
 DF &DATAFILE&
 RV N,NAME,TITLE,STREET,LOCALE,ZIP,PRODUCT

 &NAME&
 &STREET&
 &LOCALE& &ZIP&
 .PA
 ..............................................................
```

MailMerge finds the datafile called CUSTOMER.DTA.

```
B:CUSTOMER.DTA

1,Dee Skies,Astrologer,77 Sunset Strip,"Hollywood, CA",90025,WordStar
2,Flash Gordon,...
```

MailMerge inserts the data and prints the first envelope.

```
Galactica Corporation
508 Halibut Ave
Ether City, CA 94706


                                  Dee Skies
                                  77 Sunset Strip
                                  Hollywood, CA 90025
```

MailMerge pauses for the operator to put the next blank envelope in the printer and then continues to print and to pause until envelopes for every customer have been printed.

CHAIN PRINTING

You can use a command file to chain files together. Rather than putting **.FI** commands at the end of each file, make a command file with several **.FI** commands. When you give MailMerge the name of your command file, it prints all the files in succession.

Look at the following example. If you print the command file called B:BOOK.TXT, Chapters 1, 2, and 3 will automatically be printed.

```
B:BOOK.TXT

FI CHAPTER1.TXT
FI CHAPTER2.TXT
FI CHAPTER3.TXT
```

NOTE: You can even use a command file to print a book that is large enough to fill several disks. Type the word CHANGE at the end of the **.FI** command if the file named is on another disk.

ASK FOR VARIABLES

A command file is useful when printing form letters that ask the operator to insert variables. For example, perhaps you send out monthly bills that require an operator to enter the current date. If the **.AV** command for the date is put in the master document, the operator must type the date for every bill printed. However, if the **.AV** command is put in a command file and the generic name is enclosed in ampersands in the master document, the operator needs only type the date once, and it will appear on every bill.

By using a command file, you can print a letter using different datafiles at different times. This command file could be useful, for example, when you have a mailing list composed of several files or even several disks.

Also, a command file could contain **.AV** commands which ask for the names of a master document file and of a datafile. The master document file would contain **.DF** and **.RV** commands. Instead of containing specific file names, the **.AV, .FI,** and **.DF** commands would use variable names for the type of file requested.

The following example illustrates this use of the command file. (Refer also to the example in the section on command files and mailing list tasks in this chapter). ◊4-7

When printed with MailMerge, the command file in this example would first display a message on the screen telling the operator that form letters were being printed. Then prompts requesting the names of a letter file and a corresponding datafile would be displayed. After the operator typed the responses, MailMerge would print the form letter. When it encountered .DF &DATAFILE& in the form letter, MailMerge would go to the datafile named by the operator, read the data, insert it into the master document, and print versions of the form letter. The operator could then print the same command file again but name a different datafile, and MailMerge would print another series of form letters.

```
B COMMAND LET
L----|----|----|----|----|----|----|----|----|----|----|----|----|----|----R
DM Print form letters
AV"Enter file name of letter to print:", LETFILE
AV "Enter file name of datafile:", DATAFILE
FI &LETFILE&
```

```
B:LETFILE
L----!----!----!----!----!----!----!----!----!----!----!----!----!----!-----R
.DF &DATAFILE&
.RV NAME, ADDR1, ADDR2

&NAME&
&ADDR1&
&ADDR2&

Dear &NAME&,

This is a personalized form letter created by MailMerge, the newest addition to
my MicroPro family.
```

MAKING COPIES

There are three kinds of copies in MailMerge:

- Duplicate copies. MailMerge can produce many copies of the same document just as a copy machine can.
- Repeated printing. This is the 'form letter' concept. MailMerge will print a master document repeatedly, changing data in each copy.
- Duplicate copies of documents that are the result of repeated printing. MailMerge can combine the two types of printing listed above to produce many copies of a form letter. Or it can produce another document in several versions.

DUPLICATES

Before you print, follow these STEPS to print duplicate copies of a document:

STEP 1 Open the file you want to print

STEP 2 Starting in column one at the beginning of the file

TYPE **.PN 1**

AND

TYPE **.RPn** (n is number of copies desired)

At the start of printing, follow these STEPS to produce duplicate copies:

STEP 1 RETURN 4 times

STEP 2 You see the prompt

```
Number of copies?
```

RETURN for one copy

OR

TYPE any number

STEP 3 RETURN

STEP 4 PRESS **ESC**ape

REPEATED PRINTING
Follow these STEPS to produce repeated printing:

STEP 1 Create a master document that includes **.DF** and **.RV** commands

STEP 2 Create a corresponding datafile

STEP 3 Print the master document with MailMerge

OR

STEP 1 Create a master document that includes **.RV** and **.RP** commands

STEP 2 Create a datafile

STEP 3 Create a command file that contains a **.DF** command that names the datafile in STEP 2 and a **.FI** command that names the master document file in STEP 1.

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APPENDICES

CONTENTS

Appendix A
ERROR MESSAGES

The following list shows error, warning, and informational messages that may appear on your terminal screen as you work in Pocket WordStar. Most error messages are self explanatory; those that are not are explained here.

Occasionally you'll see the description 'Fatal Error' in a message – a colorful way of saying that you're going to lose the work done in your current editing session. Simply reset your system before continuing. The loss will be minimal if you're in the habit of saving your work often.

Some messages require that you press the ESCape key before continuing. Doing so ensures that Pocket WordStar does not proceed to the next command, even if you have types ahead. Pressing the ESCape key does not affect your document.

!!! or NOISE from terminal

Situation. You are typing too fast, and there is no more space to store characters for later processing. Keystrokes are being lost.

Action. Stop typing or release the key you're repeating. When the computer has stopped making entries, continue editing.

@@@@

Situation. Pocket WordStar has tried to display a message from the file WSMSGS.OVR, which isn't available. All or part of many error messages will appear, including the error number, if any, followed by @@@@. Menus, however, will be completely unavailable.

Action. Copy the WSMGS.OVR file off your distribution disk onto disk drive A or the drive you are currently using.

?

Situation . A question mark appears in the flag column, highlighted, opposite incomplete or apparently invalid dot commands.

Action. Check for correct letters, missing numeric arguments, or numbers greater than 255, except with the **. PN** command. The question mark appears as you enter a command; disregard it until your command is complete.

Allow print to finish before editing a file.
Your system does not have enough memory to
permit simultaneous editing and printing.

Situation. You can't select **D** or **N** from the Opening Menu while printing because there is not enough memory available to perform both functions at once.

Action. See **Getting Started** for memory requirements.

BDOS ERR R/O

Situation. This operating system message or something similar may appear when you change disks at an inappropriate time or neglect to type ^ **C** after changing disks.

Action. Refer to the section on changing disks in your operating system manual.

Can't display page breaks in a non-document file

Situation. The command to display page breaks(^ OP) has no effect in non-document editing.

Action. Proceed with your editing.

Can't edit a file of type .BAK or.$$$.
- rEname or cOpy before editing

Situation. When the **D** or **N** command is selected from the Opening Menu, you cannot enter a file name that ends in **. BAK** or **. $$$.** The Opening Menu remains on the screen.

Action. Rename the file or, for a file of moderate size, open a new file, and then read the **. BAK** or **. $$$** file into it with the additional file reading a command (^ KR). (Copying too large a file may give you a disk-full error.)

Disk d: not ready

Situation. This operating system message or something similar may appear when the disk drive contains no disk or the drive door has not been closed. Pocket WordStar requires that a disk be in every drive you address.

Action. After inserting a disk and closing the drive door, wait a few seconds before giving a command.

End edit (^ KD) before starting print
Your system does not have enough memory to
permit simultaneous editing and printing

Situation. You can't give the print command (^ KP) during an edit, or your operating system's available memory isn't enough for Pocket WordStar.

Action. Run the operations at different times.

···ERROR E5: That place marker is not set
···Press ESCAPE Key

Situation. The marker indicated wasn't set during current editing.

Action. Press the ESCape key to continue. Set the mark using ^ **K 0-9.**

···ERROR E6: Block begining is not marked (or marker is undisplayed).
···Press ESCAPE Key

Situation. The beginning mark has not been set on the block of text you're attempting to move (^ KV), copy (^ KC), delete (^ KY), or write (^ KW). This message will also appear if the beginning mark is hidden by either ^ **KB** or ^ **KH.**

Action. Set the beginning mark using ^ **KB,** or redisplay the marker with ^ **KH.**

···ERROR E7: Block end is not marked (or marker is undisplayed).
···Press ESCAPE Key

Situation. The end mark has not been set on the block of text you're attempting to move (^ KV), copy (^ KC), delete (^ KY), or write (^ KW), or the mark is hidden with ^ **KH.**

Action. Set the end mark using ^ **KK,** or redisplay the marker with ^ **KH.**

···ERROR E8: Block end marker is before block begining marker
···Press ESCAPE Key

Situation. When the end marker is placed earlier in the document than the beginning marker, Pocket WordStar can't find the block to move, copy, delete, or write.

Action. Correct the markers and then reissue the command.

···ERROR E9: Block too long - Move or delete in two smaller blocks
···Press ESCAPE Key

Situation. The amount of text between markers is more than Pocket WordStar can move or delete. The larger the memory on your system, the larger the block Pocket WordStar will move or delete. (The block-write command isn't subject to any size limitation).

Action. Divide the large block into smaller pieces, and move or delete them one at a time.

···ERROR E10: Cursor is not in range for column move/copy
···Press ESCAPE Key

Situation. If you have given a number of special control commands, the cursor could possibly be located in a position to the left of the left margin. The cursor must lie between the left margin and column 240.

Action. Move the cursor within the range and reissue the column-move or copy command.

···ERROR E11: That file exists on destination disk. Delete existing file first, or use a different disk.
···Press ESCAPE Key

Situation. You cannot copy the file you're editing on the specified disk because that disk contains a file with the same name.

Action. Use the rename command to change one of the file names, or insert a different disk to accept the destination file.

···ERROR E12: Disk is full ···Press ESCAPE Key

Situation. You have run out of space on your current disk.

Action. The following suggestions permit you to save your work when you receive this message:

1. If the cursor position is near the beginning of a large file when you receive this message and you haven't already tried to save the file, you may be able to move the cursor nearer the end. Then try to save the file with ^ **KS.**

2. If this message appears when the cursor is toward the end of the file or while saving the file, delete (^ KJ) any unnecessary files or any files that you can replace later from another disk. Then continue editing.

3. If deleting files doesn't allow you to finish the editing and you don't have much work to lose, stop editing, make more disk space available by moving some files, and repeat your editing.

4. If you have made substantial changes and don't want to lose your editing but can't get enough disk space to finish, take one of the following actions:

   a. Use the block-write command (^ KW) to put changed portions of the file on any extra space on your other disk drive. Recombine the document in later editing.

   b. Delete unchanged portions of the document, thenn recover them from the .BAK file or from a previous backup copy.

5. If the disk-full message results from a block-write command (^ KW), the above suggestions won't work. Delete (^ KJ) the incomplete file. Then arrange additional disk space, repeat the block-write command, and continue editing.

   If the message reappears when you press ESCape, your editing is lost. To avoid running out of space, use the system's file status utility frequently to check your file sizes and disk space.

```
···ERROR E13: Column read/write is not allowed.
···Press ESCAPE Key
```

Situation. Column read/write commands are not a feature of the Pocket WordStar program.

Action. You can duplicate the effects of column-read or write commands by using column mode (^ KN), block writing (^ KW), and block reading (^ KR).

```
···ERROR E38(-42): Bad overlay file or wrong version overlay file
···PressESCAPE Key

···ERROR E43(44): Wrong version overlay file
···PressESCAPE Key
```

Situation. You cannot use an incorrect or damaged version of the WSOVLY1.OVR file.

Action. Make a new copy of WSOVLY1.OVR from your distribution disk. If the problem persists, call your dealer.

```
···ERROR E46: Overlay file WSOVLY1.OVR not found
···PressESCAPE Key
```

Situation. The WSOVLY1.OVR file is not on your current disk.

Action. Check your directory, and if necessary, make a new copy from your distribution disk.

···ERROR E47: File (MAILMRGE.OVR or SPELSTAR.OVR) not found
(The separately supplied file MAILMRGE.OVR or
SPELSTAR.OVR) is required for use of chosen function.)
···PressESCAPE Key

Situation. You can only choose **M** or **S** at the Opening Menu when the corresponding file is available on disk drive A or on your currently logged disk.

Action. Check your directory. Make a new copy from your distribution disk if necessary.

ERROR E52: Program is an empty file! ···Press ESCAPE Key

Situation. You have entered an invalid program name while using **R** at the Opening Menu. You may have a bad copy of the program, or a system error may have occured, leaving only your program name.

Action. Copy the program from the original disk and run it again.

ERROR E53: Program too big for memory available under Pocket WordStar
···Press ESCAPE Key

Situation. Your system does not have enough memory to run the specified program while in Pocket WordStar.

Action. Exit from Pocket WordStar to run the program.

FATAL ERROR F23: Invalid screen height or width

Situation. An error made in installation has set the screen to an unacceptable height or width.

Action. See **Getting Started** for instructions on custom installations.

FATAL ERROR F25: Insufficient memory or your operating system is not relocated to make all RAM available

Situation. Not enough memory is available to operate Pocket WordStar. 56K is the minimum memory requirement.

Action. See your dealer.

FATAL ERROR F27: Diskette directory is full

Situation. You have exceeded the number of file directory entries a disk can hold. This number depends on your system, but it's often 64 on single-density disks.

Action. Keep track of the number of files per disk, especially if you have many small files. Large files (over 16K) require an additional entry for each 16K. When counting files, remember that Pocket WordStar generates two working files each time you save a file.

---FATAL ERROR F28: Close failure. System failure, or you changed disks

---FATAL ERROR F29: Rename failure. System failure, or you changed disks

Situation. If either of these messages appears, Pocket WordStar has encountered one of three problems:

1. An operating system error has occurred.
2. You have changed the disk in a drive while editing.
3. You have deleted either the input file or the work file with ^ **KJ.**

Action. Exit from Pocket WordStar, turn the computer off, then on, and reboot. If this doesn't work, call your dealer.

File A: filename in use by Pocket WordStar

Situation. You cannot rename, copy to, or delete a file currently being edited.

Action. Complete your current operation and then proceed to rename, copy, or delete the file.

File A: filename not found.

Situation. The file named in response to the copy, delete, rename, write, or print command does not exist.

Action. Enter the corrected name, including the disk drive, if necessary, or press RETURN to discontinue the command.

File A: filename opened by another user.

Situation. You cannot access a file in use by another operator on your system.

Action. Proceed with another file or wait until the file is available.

File A: filename already exists.

Situation. The new file name in your rename command exists on the currently logged disk.

Action. Choose a different name or rename the existing file.

File A: filename exists – overwrite? (Y/N):

Situation. You cannot copy one document into another, already existing document.

Action. Type **Y** to erase the contents of the existing document and proceed with the copy. Type **N** to leave the existing contents undisturbed; then specify a new name.

File A: filename not on the same drive.

Situation. When using the renaming command, you have reffered to a file located on another disk. Renaming will not transfer a document from one disk to another.

Action. Use the copy command to move a copy of the file to the correct disk drive.

Finishing print of .BAK file before saving
(Type ^ U to cancel Save command)...

Situation. You gave a save command while printing the .BAK file of the file currently being edited.

Action. The Pocket WordStar program waits for printing to finish, then saves the file.

Finishing print of same file before saving
(Type ^ U to cancel Save command)...

Situation. You cannot give a save command (^ KD, ^ KS, ^ KX) while printing the same file concurrently.

Action. The Pocket WordStar program waits for printing to finish, then saves the file. If printing is paused, type ^ U to cancel the save command, then enter commands to continue or abandon printing.

···INTERNAL ERROR I15: Invalid copy length ··· Press ESCAPE Key

···INTERNAL ERROR I16: Invalid address ··· Press ESCAPE Key

···INTERNAL ERROR I17: Memory full ··· Press ESCAPE Key

···INTERNAL ERROR I18: Memory shortage ··· Press ESCAPE Key

File WS.COM not found
Cannot RUN a program unless WS.COM is available

Situation. WS.COM is unavailable. It was not found on either disk drive A or on your currently logged disk drive.

Action. If WS.COM has been renamed since installation, you must re-install or rename the file WS.COM. Refer to **Getting Started** for instructions.

File WSMSGS.OVR not found. Menus &
messages will display as @@@@ only.

Situation. If the WSMSGS.OVR file, which contains message text, is not found on disk drive A or your currently logged disk drive, the characters in many messages and menus will be replaced with @@@@. The help level is reset to zero to minimize the display of messages and menus.

Action. Copy the WSMGS.OVR file from your distribution disk onto disk A or your currently logged disk drive.

Finishing print before exit
(type ^U to cancel exit command)

Situation. You entered **X** from the Opening Menu, or ^KX while editing, at the same time you were printing.

Action. Printing continues, and the exit to the operating system occurs when printing is complete.

···INTERNAL ERROR I19: Pointer 64K from cursor
···Press ESCAPE Key

···INTERNAL ERROR I36: Bad ovly # ···Press ESCAPE Key

Situation. These are internal errors, which rarely occur during normal operations.

Action. Save your work immediately, and exit to the operating system. To further protect your file, make a copy of the backup file. Then re-enter Pocket WordStar and check your file. Please report these errors to your dealer.

···INTERUPTED ···Press ESCAPE Key

Situation. You pressed ^ U to interruptthe command in progress or to discard additional characters typed ahead.

Action. Press the ESCape key and continue editing.

Invalid file name: A:filename

Situation. The name you entered cannot be accepted by Pocket WordStar. Some character in the name may not be acceptable to your system.

Action. Enter a new file name. You'll find file-naming guidelines in the reference manual and in your system documentation. The **D** command on the Opening Menu produces a summary of the information on screen.

LOAD ERROR or TOO BIG

Situation. This operating system message or something similar may appear when you try to enter Pocket WordStar. The Pocket WordStar program will not fit in the space available.

Action. You need at least 56K of memory to run Pocket WordStar.

···NOT FOUND: " " ···Press ESCAPE Key

Situation. The find (^ QF), replace (^ QA) or find/replace again (^ L) command can't locate the specified string between the cursor position and the end of the document.

Action. If you haven't located all occurrences of the specified string, reposition the cursor and repeat the search

···Print output disk is full. Print paused···

Situation. The disk containing the print output file is full and printing is automatically halted.

Action. Use either or both of the following solutions:

1. To continue printing, make additional disk space available, then press ^ **KP.**

2. To abandon printing, type **PPY** at the Opening Menu, or, while editing, type ^ **KP**^ **KPY.** You can then delete the disk output file which is currently incomplete.

Put at file begining for correct page break display

Situation. If the page break display is on, this message will appear in the text when you enter **.PL, .MT, .MB,** or **.LH** after the beginning of a file. The command entered into the file may be misinterpreted by the print function. The message is on the screen only and is not printed.

Action. To avoid the problem, move the dot command to the beginning of your file.

···WARNING: Disk full
Deleting old .BAK file to make space
(Normally, the previous backup is deleted
only after edit is successfully completed.)

Situation. Your disk may be filling up, or the files are so large that two to three files fill one disk.

Action. Save the document you're working on, and make more space available by deleting unwanted files or by moving some files to new disks.

···WARNING: Word too long to fit margins

Situation. There are too many characters to fit between the currently set left and right margins with no word break. The message also appears during paragraph re-forming (^B) when a word is too long. The Pocket WordStar program looks about 10 characters beyond the margin for a break and allows the word to project into the right margin if it finds the break. If no break is found, the word is split at the margin.

Action. You can leave the line wide, or delete the excess characters.

···WARNING:
Wrong version of WSMSGS.OVR —
Some messages may be incorrect···

Situation. The current file WSMSGS.OVR is from a version of Pocket WordStar other than the one you are running.

Action. Pocket WordStar continues to run, but any attempt to display a message not in the text file will yield:

If this displays you are using wrong version of WSMSGS.OVR

WARNING: You are editing the same file as you are printing.
Pocket WordStar will not allow you to save the edited version
until the print has completed or has been abandoned

Situation. You cannot save a file that is being printed

Action. Save the edited version when printing is complete.

WARNING: You are printing the same file as you are editing.
The last saved version will be printed, not reflecting un-
saved changes. Furthermore, Pocket WordStar will not allow you to
save the file being edited while the print is in progress.

Situation. You cannot print (^ KP) your current file until you finish editing.

Action. Finish printing before you save your current editing.

You are trying to run an uninstalled Pocket WordStar.
Please run INSTALL first

Situation. The INSTALL program has not been run correctly on your terminal and printer.

Action. See **Getting Started** for details.

Appendix B

Glossary of Terms and Concepts

APPLICATIONS — Specific uses for a program. With Pocket WordStar, for example, you can create letters, mailing lists, proposals, resumes, reports, timetables, etc.

ASCII — **A**merican **S**tandard **C**ode for **I**nformation **I**nterchange. This character coding technique enables computers made by different manufacturers to interpret patterns of bits in the same way.

BACKUP FILE — A duplicate of another file, which you create for safekeeping. A special kind of backup file, *.BAK,* is automatically created by Pocket WordStar when you save the file you've been editing. You can't edit a .BAK file.

BAUD — A measurement (in bits per second) of the speed with which information is transmitted between two computer devices, a computer and a printer, for example. If the transfer rate of a computer is 9,600 baud, 9,600 bits of information can be transmitted between the computer and the printer each second.

BINARY — Belonging to a system of numbers having **2** as its base. A bit, which is a binary digit, has a value of 0 or 1.

BIT — A short form of 'binary digit'. A bit is the smallest unit of data and has a value of 0 or 1.

BLOCK — A portion of text ranging in length from one word to several pages. During editing, you mark blocks in order to move, copy, or delete text.

BOARD — A short form of 'circuit board', the flat piece of plastic on which electronic circuits in a computer are printed.

BOOT — Bring the operating system into your computer's memory to begin processing. To *reboot* is to

	rerun the program that starts your operating system. A *boot* program is a short set of instructions used to load a larger program.
BUFFER	An area for temporary storage of data. Information coming into a printer, for example, is often placed in a buffer to await processing.
BYTE	A sequence (or group) of binary bits used to represent one character of information. On some microcomputers a byte consists of 8 bits; on others, 16 or 32 bits. Most microcomputers process information one byte at a time. (Note: A 16-bit machine processes two 8-bit bytes at a time.)
CHARACTER	A single digit, letter, punctuation mark, space, or other symbol which the computer can read or write.
COMMAND	An instruction transmitted to your computer when you press specified keys. See **Control commands** and **Dot commands.**
CONTROL COMMANDS	Commands issued to the computer when you press a key (or keys) while holding down the control key.
CONTROL KEY (CTRL)	A key, often represented by the caret symbol (^), used with other keys to command the computer to perform specific functions.
CRT	**C**athode **R**ay **T**ube. CRT's are like TV sets. They are used to display images, letters, digits, symbols, punctuation marks, and other data. Sometimes you will hear your terminal referred to as a CRT.
DAISY WHEEL PRINTER	A specialty printer with a circular element resembling a daisy which rotates characters into place for printing. See **Specialty printer.**
DATA	Information stored or processed by the computer.
DATAFILE	A group of related pieces of information, called *records,* stored together on a disk. A record

consists of *fields,* single items of information. If a datafile consisted of a mailing list, for example, a record might contain all the information about a single addressee. One field within that record might contain the name, another the street address, another the city, etc.

DIRECTORY An onscreen list of the file names on your disk. See **Disk drive.**

DOT COMMANDS Print commands which begin with a period ('dot') typed in the first column (at left margin) of a Pocket WordStar file.

ERROR MESSAGE A statement that appears on your screen when your computer is unable to continue processing. The message tells you what the problem is and how to solve it.

FIELD See **Datafile.**

FILE A storage unit for information that has been entered into your computer in the form of text, data, or programs. A file is usually stored on disk and identified by a unique name.

A *document file* contains text or other information entered in document mode. A *non-document file* contains information entered in non-document mode.

See **Datafile.**

FLAG A symbol relating to text format which appears in the last column to the right on your screen, the 'flag column'. The symbol for hard carriage return (<) appears there, for example.

FORM FEED The movement of one page through the platen on your printer.

FORMAT The way you arrange text on your screen, using commands for setting margins, centering text, etc.

FUNCTION CODES Coded directions to the terminal or printer to perform specific actions such as setting tabs,

backspacing, or positioning the cursor on the terminal screen.

HARD COPY Your printed copy as opposed to your disk copy.

HARDWARE The mechanical and electronic components of a computer system.

HELP SCREENS Onscreen messages that explain how to use Pocket WordStar's features. The *help menu* directs you to various help screens.

By choosing a *help level,* you can regulate how many messages and menus will appear on the screen.

HEXADECIMAL (hex) A numbering system with a base of 16 (as opposed to the decimal system, with a base of 10). Your Pocket WordStar Installation Manual contains a chart for converting decimal numbers either to hexadecimal or to ASCII.

HIGHLIGHT Emphasize a character, word, or block of text by making it either brighter or dimmer than the surrounding text.

HYPHEN HELP A Pocket WordStar feature that finds places where hyphenation would improve the appearance of your text. You decide whether to hyphenate that word.

INPUT/OUTPUT Input refers to any information coming into the computer. Output refers to processed information going out of a computer.

INSERT Add characters or spaces to your text.

INSTALLATION Running the INSTALL program which is provided on your distribution disk. This program, presented in a simple question and answer format, helps you give Pocket WordStar the information it needs about your particular terminal and printer.

JUSTIFICATION The alignment of text within given margins. The left margin is justified as you enter your

	text. Word wrap justifies the right margin by adding small spaces between words.
K (SPACE ON DISK)	The abbreviation for kilobyte (1,000 bytes). 1K is equal to 1,024 bytes (or 1,024 characters) of memory. The more bytes of memory a computer has, the more information it can store.
LOAD	Transfer data or programs into a computer's memory.
MEMORY	See **RAM, ROM,** and **Buffer.**
MENU	A screen display that lists options or commands from which you choose, just as you would select courses from a restaurant menu.
MICRO-JUSTIFICATION	A Pocket WordStar feature which distributes spaces (1/120th inch) between words in order to justify text to the right margin.
MODE	A set of features operating while you work on a file. In Pocket WordStar's *document mode,* for example, various program features (such as fixed tabbing and word wrap) speed up the job of word processing. In *non-document mode,* on the other hand, the same features are turned off.
OPERATING SYSTEM	A collection of programs that 'runs' the computer. Using your operating system, you can tell your computer the name of the program you want to run – in this case, Pocket WordStar. The system finds Pocket WordStar and begins its operation. Your operating system also determines when and how information is sent to your terminal, printer, disk drives, and other components. The terms *Operating System* and *Control Program* are often used interchangeably.
PAGE OFFSET	A page format command which sets the number of columns that the text will be indented from the left margin when printed.
PARALLEL INTERFACE	Also called *parallel transmission.* The mode in which information is transmitted between locations one byte at a time. Parallel transmission

	is usually faster but more complicated than serial transmission. See **Serial interface.**
PLATEN	The roller that moves paper through the printer – like the platen on a typewriter.
PORT	A connection between the computer and another component. For example, your computer sends information to the printer through one of its ports.
PROGRAM	A coded set of instructions which tells a computer what to do and how to do it. By changing the code, you can alter the functioning of a program. To program a computer means to write the coded instructions for its operation.
PROMPT	A question or statement that appears on your screen, indicating that the computer is ready to process your instructions.
RAM	**R**andom **A**access **M**emory. An area of computer memory where information can be read or written before it is saved on a disk. Data in RAM are lost when electrical power to the computer is interrupted. RAM is measured in K bytes; e.g., a computer with 32K RAM has 32,768 bytes of random access memory.
READ	Copy information from a disk or other component into RAM.
RE-FORM	Align text between right and left margins.
ROM	**R**ead **O**nly **M**emory. You cannot write in the ROM portion of your computer, only read from it. Information is stored once in ROM (usually by the manufacturer) and cannot be changed.
SAVE	Command the program to write information from RAM onto a disk.
SCROLL	Move the screen view (or 'window') up, down, to the right or to the left. You can scroll one line, one column, or one whole screen at a time.

SERIAL INTERFACE Also called *serial transmission.* The mode in which information is transmitted one bit at a time between the computer and another component (terminal or printer).

SPECIALTY PRINTER A letter-quality printer, often equipped with a 'daisy wheel', that has capacities for backspacing and microjustification as well as interchangeable printing elements.

STRING A sequence of letters, numbers, or other characters.

TOGGLE SWITCH A command key that, when pressed once, turns a feature on and, pressed again , turns it off.

UTILITY PROGRAM A program designed to do a routine task. Utility programs help you move or examine files and check that the components of your computer system (computer, terminal, printer, disk drives, etc.) are set up properly. Utility programs are usually supplied to you with your operating system.

VARIABLE A symbol representing a value that changes. In a computer program, space is set aside in memory for the symbol (X) and a value which X represents (X = 1). As you run the program, the value of the variable may change (X = 2). The new value will replace the old value in RAM.

WORD WRAP A Pocket WordStar feature that automatically moves words to the beginning of the next line when you type beyond the right margin.

WRITE Copy information from RAM onto a disk.