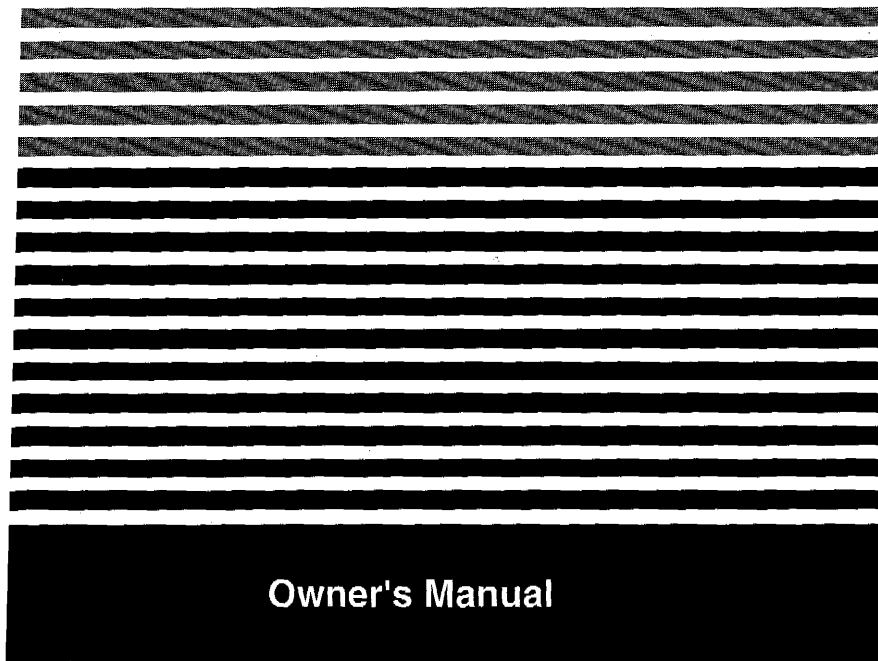


brother®

WORD PROCESSOR

WP-230B

WP-335B



Owner's Manual

US English

FCC NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment has been certified to comply with FCC standards, which are applied to the U.S.A. only. A shielded interface cable should be used according to FCC 15.27 (a). Changes or modifications not expressly approved by Brother International Corp. could void the user's authority to operate the equipment.

DOC NOTICE

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the radio interface regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe B prescrite dans le règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

For operational assistance, you may call our customer service representatives at (901) 373-6256.

To order brochures on other Brother products or to locate your nearest Authorized Service Center or Authorized Dealer, you may call our automated voice response system at (800) 284-4357 (anytime).

To order Brother accessories by Visa, Discover, or MasterCard, you may call (800) 284-4357, or complete the order form included in the packaging material with this product and fax both sides of it to (800) 947-1445.

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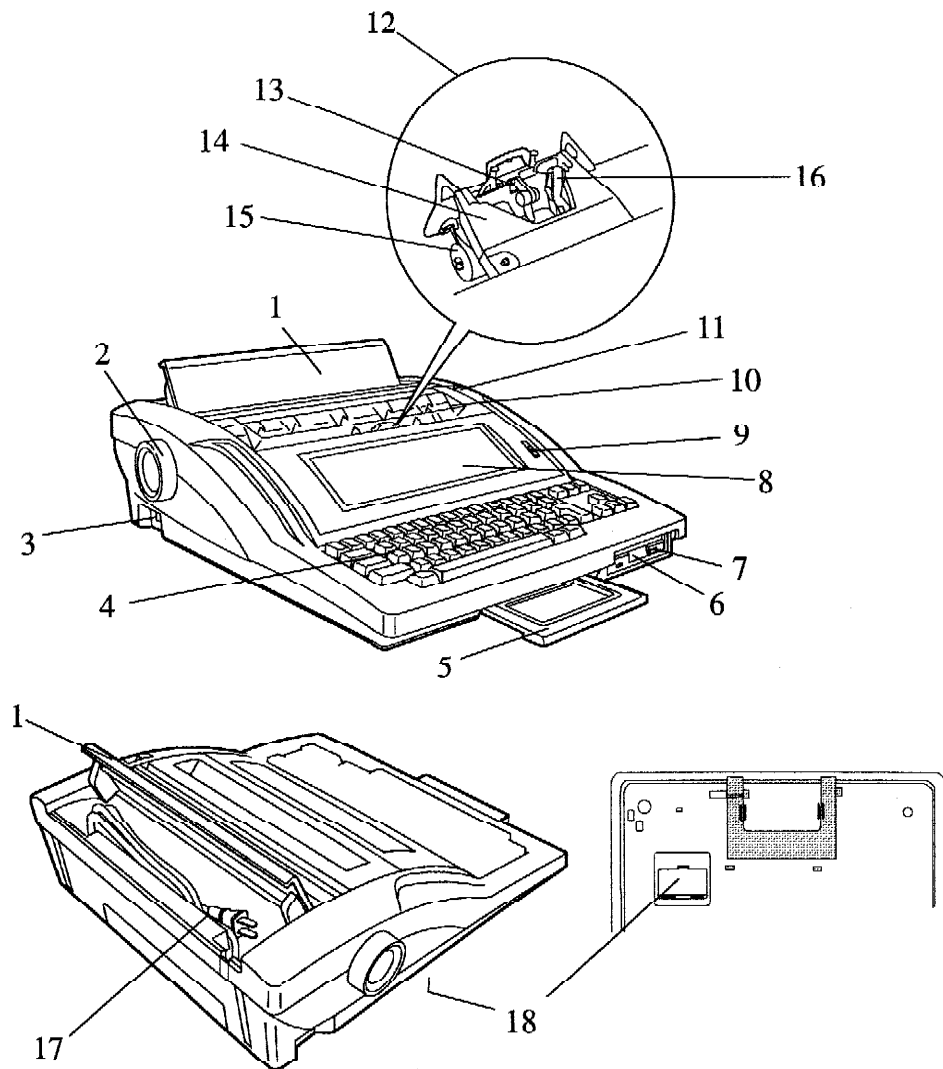
Getting Started

How to Use this Manual

You may use this manual as a reference or follow the step-by-step instructions to learn the processes. The Appendix provides a quick reference guide, a glossary, and an index.

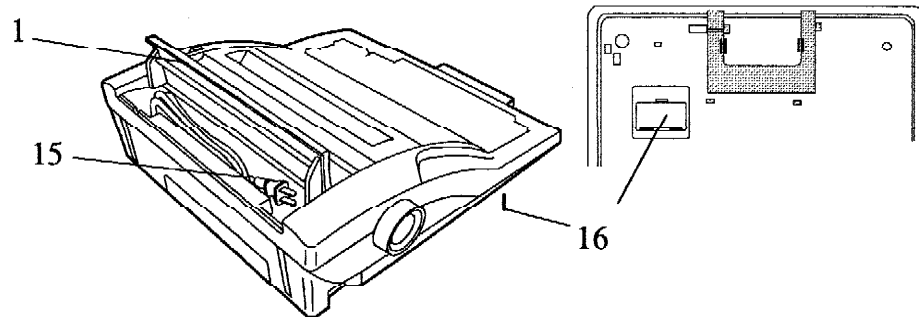
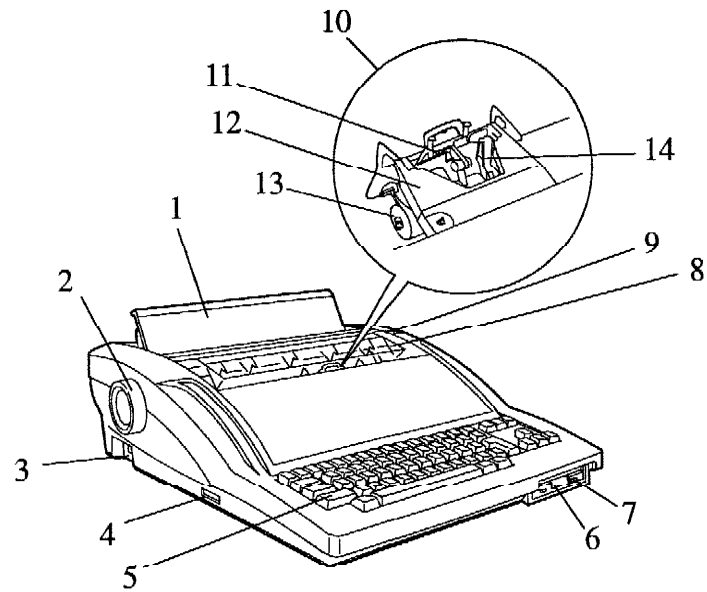
Part Names _____

WP-230B Word Processor



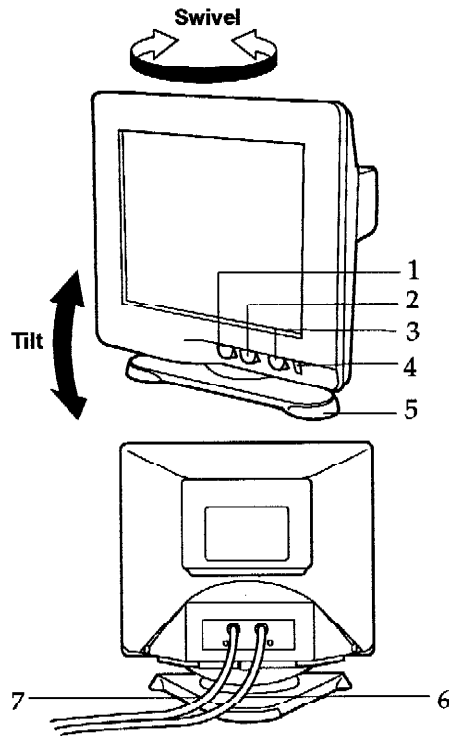
1	Paper Support	Supports paper for insertion and covers power cord compartment.
2	Platen Knob	Feeds paper manually.
3	Power Switch	Turns the word processor ON and OFF.
4	Keyboard	Character and function keys.
5	Carrying Handle	Pulls out for easy transportation.
6	Disk Drive	Insert diskettes here.
7	Disk Eject Button	Releases an inserted diskette.
8	LCD	Displays text and messages.
9	Brightness Control	Controls the display brightness.
10	Acoustic Cover	Suppresses printing sounds and protects the printing carriage.
11	Paper Release Lever	Unlocks the platen for paper positioning.
12	Carriage	Printing unit.
13	Cassette Daisy Wheel	Can be changed when a different style of print is desired.
14	Cassette Ribbon	Transfers the characters to the paper.
15	Correction Tape	Used to erase characters.
16	Daisy Wheel Lock Lever	Releases the cassette daisy wheel when pulled towards you.
17	Power Cord Compartment	Holds the power cord when transporting the word processor.
18	BOOKMAN® Card Compartment (Model WP-230B)	Insert the optional BOOKMAN® card here.

WP-335B Word Processor



1 Paper Support	Supports paper for insertion and covers power cord compartment.
2 Platen Knob	Feeds paper manually.
3 Power Switch	Turns the word processor ON and OFF.
4 Display Output Connector	Connect the signal cable attached to the monitor to this output connector.
5 Keyboard	Character and function keys.
6 Disk Drive	Insert data or program diskettes here.
7 Disk Eject Button	Press this button to release an inserted diskette.
8 Acoustic Cover	Suppresses printing sounds and protects the printing carriage.
9 Paper Release Lever	Unlocks the platen for paper positioning.
10 Carriage	Printing unit.
11 Cassette Daisy Wheel	Can be changed when a different style of print is desired.
12 Cassette Ribbon	Transfers the characters to the paper.
13 Correction Tape	Used to erase characters.
14 Daisy Wheel Lock Lever	Releases the cassette daisy wheel when pulled towards you.
15 Power Cord Compartment	Holds the power cord when transporting the word processor.
16 BOOKMAN® Card Compartment (Model WP-335B)	Insert the optional BOOKMAN® Card here.

Monitor (WP-335B)



- | | |
|-----------------------------|---|
| 1 Contrast Control | Turn this knob clockwise to increase the contrast, and counterclockwise to decrease it. |
| 2 Brightness Control | Turn this knob clockwise to increase the display brightness, and counterclockwise to decrease it. |
| 3 Power Switch | Turns the display ON and OFF. |
| 4 Power Indicator | Illuminates when the power is on. |
| 5 Stand | The stand allows the unit to be rotated 90° horizontally, and 17° vertically. |
| 6 Signal Cable | Connect this cable to the monitor connector on the word processor. |
| 7 Power Cord | Plug this cord into an AC outlet after the signal cable is connected. |

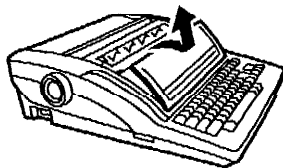
Setting Up

Removing the Packing Pieces

Before you plug in the word processor, open the acoustic cover and remove the yellow plastic pieces shown in the illustrations.

CAUTION:

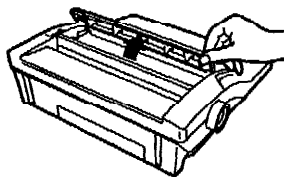
- *If the plastic pieces are not removed, damage to the word processor may occur when the power is turned on. The yellow plastic pieces do not need to be re-installed unless you are transporting the word processor over a great distance.*



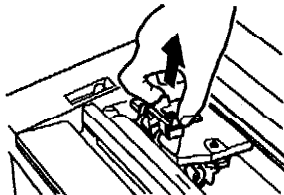
For the WP-230B model, remove the protective cover.

NOTE:

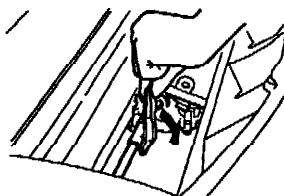
The protective cover should always be re-installed whenever you are not using the word processor.



Lift the acoustic cover.



Remove the yellow plastic pieces.



NOTE:

Be sure to reinstall the acoustic cover. The acoustic cover is equipped with a safety switch. Your word processor will not operate unless the acoustic cover is securely closed.

Installing the Monitor Stand (WP-335B)

Make sure that the monitor is **not** connected to the AC outlet.

Carefully set the monitor face down with the underside facing you.

NOTE:

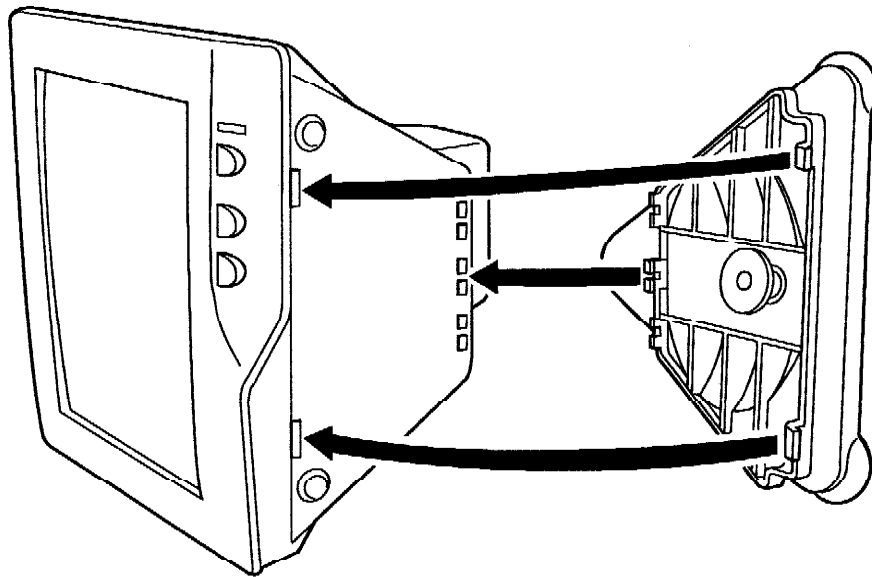
The monitor stand is of the tilt/swivel type. Once the stand is installed, you can turn the monitor laterally and vertically.

Installation

CAUTION:

Please follow the steps below exactly. The base of the monitor can be easily damaged if these directions are not followed.

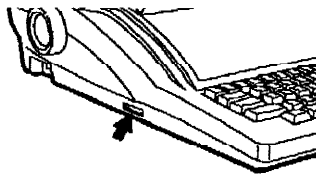
1. Align the tabs on the stand with the matching slots in the base of the monitor.
2. Insert the tabs into the slots.
3. Slide the stand toward the front of the monitor until the latch clicks into the locked position.



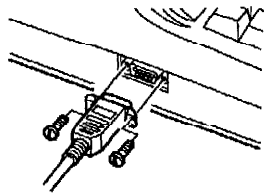
Connections (WP-335B)

CAUTION:

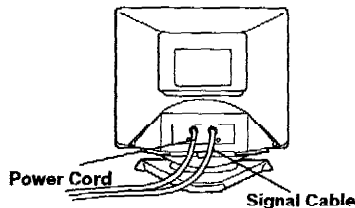
- Make sure both yellow plastic pieces have been removed from the unit before the power is turned on.
- Always be sure to connect the monitor to the word processor before plugging either the word processor or the monitor into an AC outlet.
- It is a good idea to disconnect both AC plugs when the word processor is not being used for a long period. **Always disconnect the power cords during thunderstorms.**



Connect the signal cable attached to the monitor to the word processor monitor connector located at the left side of the word processor.

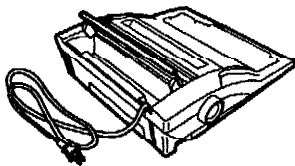


Make sure that the connector is pushed all the way in, and tighten the screws.

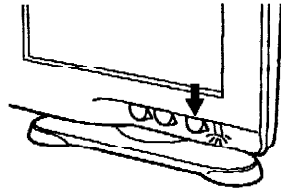


Plug the power cord of the monitor to an AC outlet.

NOTE: Since the magnetic field of the monitor can cause disk drive malfunction, it is best to place the word processor to the right of the monitor.

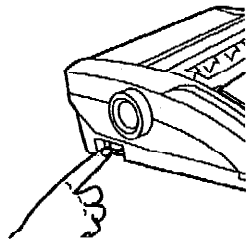


Open the power cord compartment cover of the word processor and plug the cord into an AC outlet.



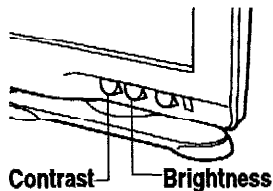
Press the power switch on the monitor. The power indicator illuminates.

NOTE: If the power indicator does not illuminate, check the power cord.



Turn on the power switch. The switch is located on the left side toward the rear of the word processor.

NOTE: If the word processor does not respond, check the power cord and then make sure that the acoustic cover is securely latched.



Adjust the display brightness and contrast with the controls located below the screen. A good setting of the contrast allows you to clearly distinguish bold characters from normal characters on the screen.

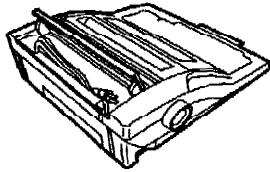
- **Screen Saver (WP – 335B model only)**—If any key has not been pressed for five minutes, the screen changes to a “screen saver” to protect the screen. To return to the previous screen, press **CODE** or **SHIFT**.
- **Screen Reverse Display (WP – 335B model only)**—You can reverse the display from white to black and black to white by pressing **CODE + SHIFT + R**.

CAUTION:

When you switch the word processor off, wait at least 10 seconds before switching it on again. Failure to wait 10 seconds may disrupt the start-up sequence, resulting in faulty operation and possible hardware damage.

Transporting the Word Processor (WP-230B) ---

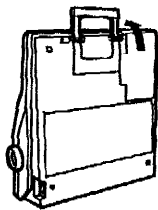
To prepare the word processor for transportation or storage:



Disconnect the AC plug, and carefully fit the power cord into its compartment as shown in the illustration. Close the power cord compartment cover (paper support).



Install the protective cover. Fit the front of the cover into the holes, and lower the back part of the protective cover.



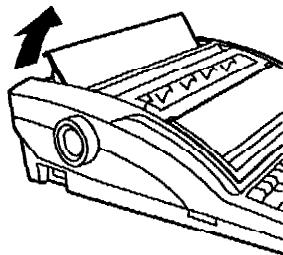
Pull out the carrying handle.

Inserting Paper ---

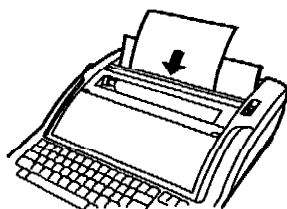
NOTE:

When using the word processor, you do not have to insert paper until you have finished editing your document and are ready to print.

Paper Support ---

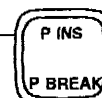


Lift the paper support.



Insert paper as shown.

Automatic Insertion



Press **P INS** to advance the paper automatically to the printing position (one inch from the top). To change that position, press **CODE + P UP** or **CODE + P DOWN**.

Manual Insertion



Rotate the main roller knob to advance the paper.



If the paper is not properly aligned, advance the sheet half way, push the paper release lever toward the rear, and manually match the corners of the paper. Pull the paper release lever back to its original position and turn the platen knob until the paper is in the desired position.

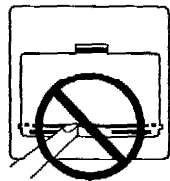
Precautions

To ensure maximum usability of your word processor, please follow these recommendations:

WARNING:

To reduce the risk of electric shocks, do not attempt to disassemble the unit. There are no user-serviceable parts inside. Some components inside the unit use high voltages that can be of sufficient magnitude to constitute a risk of electric shock. Any servicing should be referred to qualified service personnel.

- In case of malfunction, overheating, or other problems, immediately disconnect the AC plug and contact qualified service personnel.
- Do not attempt to disassemble the word processor. It has no user-serviceable parts inside.
- Do not tug on the power cords or on the signal cable. To disconnect, be sure to always grasp the plug itself.
- Avoid dropping the word processor.
- Avoid direct exposure to sunlight and other sources of heat.
- Avoid spills. If any liquid enters the word processor, immediately disconnect the AC plug and contact qualified service personnel.
- Avoid locations subject to excessive moisture or dust.
- Do not use sprays in the vicinity of the word processor. Aerosols are extremely harmful to the disk drive.
- Disconnect the AC plugs during thunderstorms.
- Do not place heavy objects on the keyboard.
- Always keep the air vents free from obstruction to avoid overheating the word processor.
- Clean with a soft, dry cloth only. Avoid using chemicals, solvents, and detergents.
- To avoid interference, do not place the word processor too close to a radio or television. If the word processor is too close to a television set, the disk drive may not work properly. For the same reason, do not place the monitor too close to the word processor.
- If you switch the word processor off, wait at least 10 seconds before switching it on again. Failure to wait 10 seconds may disrupt the start-up sequence, resulting in faulty operation and possible hardware damage.



- Never touch the rubber or metal parts in the BOOKMAN® card compartment as this could cause damage.

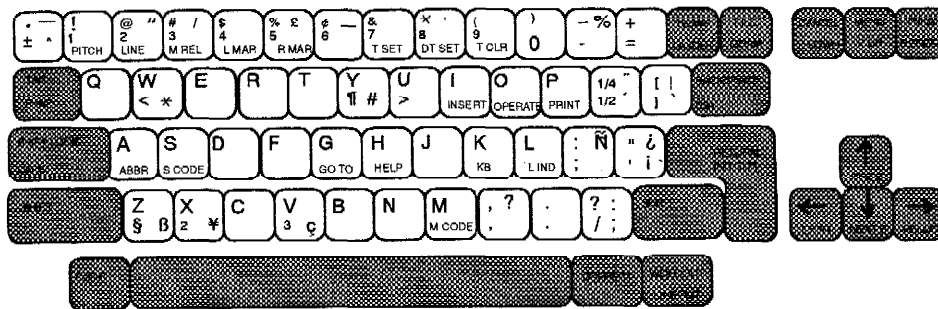
Keyboard Layout

This word processor has more keys than a common typewriter. In order to get a clear understanding of the keyboard, we will distinguish three classes of keys as described below. Most keys are auto-repeat: If you hold down the key, it repeats until you release the key.

In this Owner's Manual, **CODE + a second key** indicates that the **CODE** key must be held down while the second key is pressed.

The Character Keys

The character keys are used to type the actual text. They are very similar to the character keys of a common typewriter except that this word processor accepts different daisy wheels, and therefore makes available a greater number of characters.

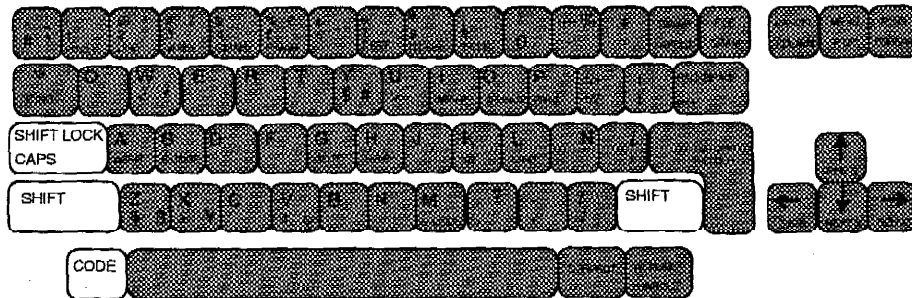


NOTES:

- The characters available when the keyboard is set to I (standard) appear on the left of each key.
- The characters available when the keyboard is set to II (international) appear on the right of each key.
- The characters available when the keyboard is set to III (symbol) are not shown on the keys.
- To change from keyboard I to II or III, press **CODE + K (KB)**.

The Keyboard Control Keys

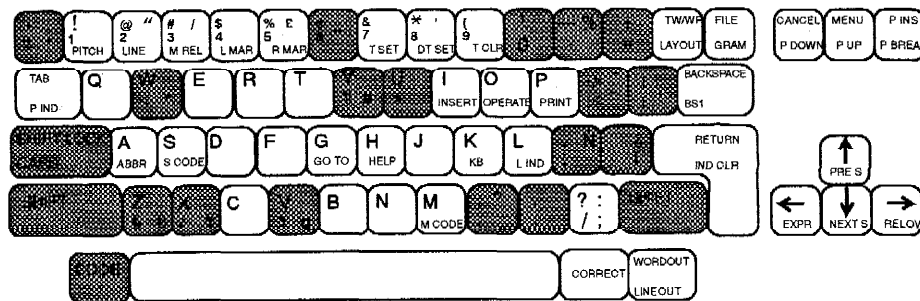
The keyboard control keys are used to modify the effect of the other keys. Pressing **SHIFT** or **CODE** alone will not produce any effect. To modify the effect of another key, you must hold down **SHIFT** or **CODE** while pressing the key to be modified. In this manual, such a double keystroke will be symbolized by the “+” sign.



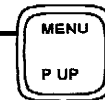
KEY	FUNCTION
SHIFT + character key	To type an uppercase character.
CODE + another key	To type the character indicated in green on the keys, or to start a function (see Function Keys).
CAPS	Locks the keyboard in uppercase mode.
CODE + CAPS	Locks the keyboard in capital mode.

Function Keys

Many functions can be started with **CODE + another key**. In contrast to the character keys, their effect does not depend on which daisy wheel is installed. The function keys that apply to all applications are indicated by green labeling. Other function keys are available. For more details, see **Function Keys** on page 278.



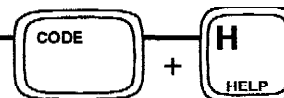
Menu Key



For easy operation, most functions are selected from a menu.

Once you get acquainted with the word processor, however, you might find that selection from a menu is time consuming. For faster operation, many functions of the menus can also be started by **short-cut keys**. A complete list of the function menus and available short-cut keys is given in the Appendix.

On-Screen Help Information



Since this product is designed to last for many years, you may need to review the meaning of a function you have not used in a while. Press **CODE + H (HELP)**. Short definitions of the functions will appear on the screen. The different keys that you may use for scanning the information and to return to your work are also indicated on the screen.

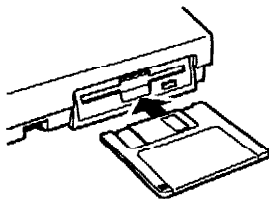
Diskettes

This word processor accepts only the following types of 3.5-inch diskettes:

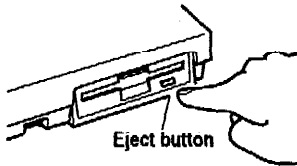
MF-2DD (Double Sided/Double Density/Double Track)

MF-2HD (Double Sided/High Density/Double Track)

Inserting and Removing a Diskette



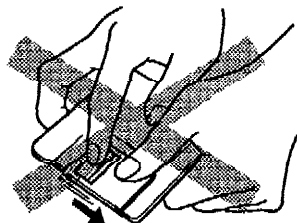
Insert the diskette as shown in the illustration. To remove the diskette, press the eject button.



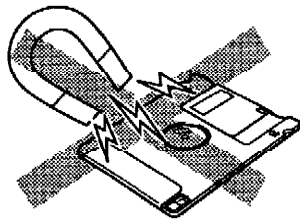
CAUTION—*The diskette may be inserted and removed when the power is either on or off. It may also be left in the disk drive while transporting the word processor. However, you should never insert or remove it while a message indicates that a diskette operation is in progress.*

Caring for Your Diskettes

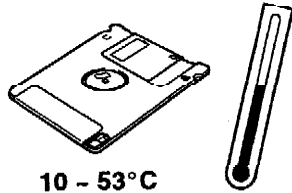
The area in the diskette where the data is actually stored is very similar to the magnetic material used to make cassette tapes. When a tape is damaged, you hear terrible background noises, but you can still hear some music. On a diskette, the slightest damage, such as a scratch, or a small amount of dust on the sensitive material can easily spoil an entire file and make it unusable. The protective case of the 3.5-inch diskettes protects the sensitive diskette surface. (The metallic shutter automatically opens and exposes this sensitive surface only when the diskette is inserted into the disk drive.) Additional precautions must be taken in order to ensure reliable maintenance of your files.



Never open the shutter of the diskette and never touch the surface directly.



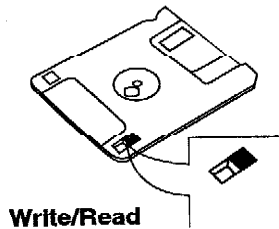
Do not use magnetic materials near the diskette.



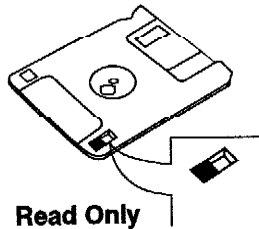
10 - 53°C
(50 - 127°F)

Never expose the diskette to extremely high or low temperatures.

Write-Protecting Your Diskettes



Write/Read



Read Only

All 3.5-inch diskettes have a switch that protects their contents from accidental erasure. When the switch is in its **READ ONLY** position, you cannot erase old information or store new information on the diskette. Put the switch in the **READ ONLY** position to protect a diskette containing valuable information.

Initializing New Diskettes

A diskette can be used only after being **formatted**—that is, initialized by the system for specific use by that system. One frequently-used analogy is that the magnetic coating on the diskette is like a blank sheet of paper. Although you can write anything anywhere on the blank sheet, things are much more organized if you add ruled lines. The initializing program creates the electronic equivalent of ruled lines on the diskette. Different systems use different formats. Standards exist, but, in general, systems cannot share diskettes without special conversion of hardware or software.

This machine uses standard DOS formats of 1.44 megabytes (for 2HD diskettes) or 720 kilobytes (for 2DD diskettes) that are recognized by most personal computers running on DOS. Your machine will therefore be able to share diskettes with personal computers running on DOS.

During formatting, the machine will ask you whether the diskette is 2DD or 2HD, so be sure to check before inserting the diskette.

When a diskette is accessed, the word processor checks the format of the diskette. If the diskette is unformatted or has a different format, the following prompt appears:

Initialize? Press RETURN (yes) or CANCEL (no).

CAUTION:

Initializing a diskette erases any data that might be on it. If you initialize a diskette from a personal computer, for example, the files will be completely destroyed. Press CANCEL, if you do not wish to initialize, and insert another diskette.

If the diskette is new or contains unimportant data, press **RETURN** to format the diskette. The word processor asks for confirmation:

Delete all files on this disk? Press Y (yes) or N (no).

If the diskette contains important information that you want to keep, this is your last chance. Press **N** and insert another diskette.

To format, press **Y**. This message appears:

Select the format type. Press 1 for Double density or 2 for High density.

Press **1** to format a 2DD diskette, or **2** to format a 2HD diskette. If necessary, remove the diskette to check the density (2DD or 2HD), then re-insert the diskette.

Once the diskette has been initialized, it will be in the proper format for use with this Brother word processor, and you will also be able to use it with most personal computers.

- *This machine can also recognize and read data from diskettes that have been used with some Brother word processors. For more details, please contact your dealer.*

Backing up a Diskette ---

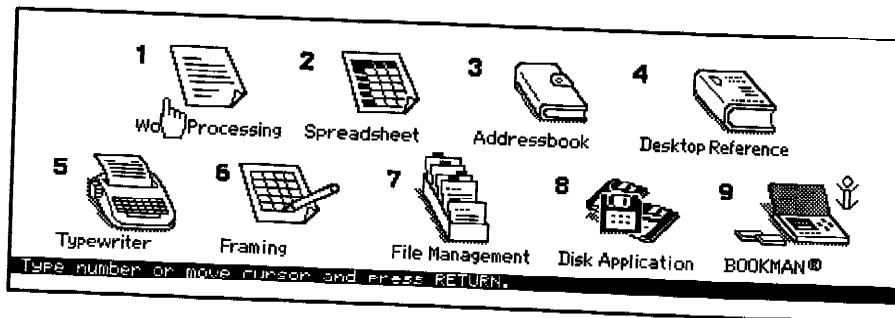
The best insurance against losing important data is to make backups (copies) of each important file. With this word processor, you can copy individual files of your choice to another diskette, or copy the entire contents of a diskette to another diskette.

Operation Overview

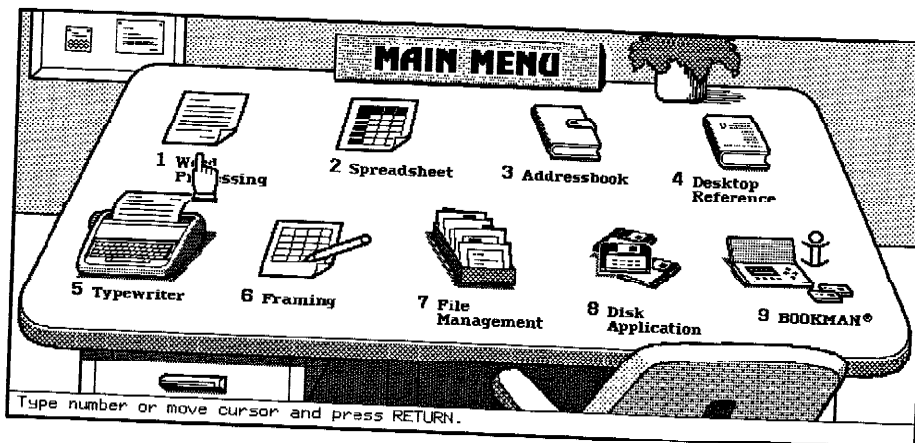
The Main Menu

When you turn the word processor on, the Main Menu appears:

WP-230B



WP-335B



The Main Menu displays the available applications in the form of icons. To use an application, use the cursor keys to select an icon, and press **RETURN**. You can also press the number key indicated for each icon (1 for Word Processing, etc.).

The following applications are available:

Word Processing	The Word Processing application (WP application) is used to type and format documents on screen. You can save the document on diskette or print it at any time.
Spreadsheet	This application is used to create and edit numeric tables and to perform automatic calculations.
Addressbook	This application is used to create lists of names, addresses, telephone numbers, etc., that can be used to automatically print labels. The data contained in an Addressbook file can also be automatically merged in a Word Processing file.
Desktop Reference	The Desktop Reference application is used to find information about a specified word. When available, the information includes a definition, hyphenation, and synonyms. If the specified word is misspelled, a list of suggestions is displayed.
Typewriter	In the Typewriter application (TW application), the word processor becomes an electronic typewriter with many advanced features normally available only on word processors. You will use the TW application most often for typing envelopes, short notes, and for filling in forms.
Framing	The Framing application allows you to design useful tables. The frames can be saved on diskette and printed at any time. Once a frame is printed, you can use the TW application to fill it with text.
File Management	This application is used to organize your files on diskette.
Disk Application	This application allows you to start additional programs that come on diskettes (Black Jack, Poker, Cards, Numbers, Block, Freezer).
BOOKMAN®	In this application, you can view information provided by the Franklin® BOOKMAN® cards.

Supplemental Programs _____

Self-Demonstration _____ +

This built-in program shows you examples of what you can do with your word processor.

1. Turn the power on to display the Main Menu.
2. Press **CODE + D**.
3. Follow the instructions displayed on the screen. The following is a summary of available operations:

KEY	OPERATION
RETURN	To advance one screen at a time.
CANCEL	To go back to the first screen of the self-demonstration.
FILE	To end the demonstration and return to the Main Menu.

Tutorial _____ +

This program teaches you how to operate the word processor.

1. Insert the Tutorial diskette in the disk drive.
2. Turn the power on to display the Main Menu.
3. Select Disk Application and press **RETURN**, or press **8** or **CODE + Q** to display a menu of the programs contained in the diskette.
4. Select TUTOR.APL and press **RETURN**. The program starts.
5. Follow the instructions displayed on the screen.
6. To end the program and return to the Main Menu, press **CANCEL**. This message appears:

Cancel? Press RETURN (yes) or CANCEL (no).

Press **RETURN** to quit or **CANCEL** to continue.

Business Letter Template _____

This program contains examples of business letters that you can use with the Word Processing program.

Spreadsheet Template _____

This program allows you to create a spreadsheet easily.

Punctuation Alert _____

This program will help you to find punctuation problems in your document.

WP Conversion _____

This PC software is used for converting document files between your Brother word processor and other word processing programs.

Lotus® Conversion _____

This program allows you to convert files from Lotus® format.

Game Pack _____

This collection of games includes Black Jack, Poker, Cards, Numbers, Block, and Freezer.

Optional Programs

The following programs on diskette can be purchased separately. To use one of these programs, insert the program diskette in the disk drive, and select Disk Application on the Main Menu to display the list of programs contained in the diskette. Select the desired program to start it.

Five-Language Translator

This program provides you with five language translation dictionaries (English, French, German, Dutch, and Spanish).

Conversion Calculator

This program carries out numerical conversions between different unit systems (miles to km, etc.).

Elements of Style

This program provides you with the principal rules of style for the English language.

Encyclopedia

This program provides you with useful information about almost any subject.

Typing Tutor

This program helps you learn the keyboard and improve your typing skills.

Form Typing

This program is used for making personalized forms.

Personal Check Typing

This program allows you to type your personal checks.

Tetris _____

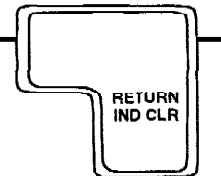
Tetris is a game in which you fit together groups of squares as they fall.

Turnabout _____

Turnabout is a game of strategy similar to Othello.

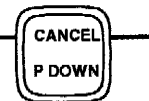
Differences between Word Processing and Typewriting _____

The Return Function_____



The "Word Wrap" feature of this word processor allows it to go to the next line automatically. Words that do not fit on the line "wrap" to the next line. When you want to start a new paragraph, press **RETURN**. The symbol ↵ appears. It is your signal to the word processor that the "paragraph ends here."

The Cancel Function_____

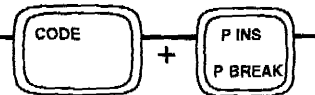


The **CANCEL** key allows you to cancel a selected function. It is handy when you have pressed the wrong key, or when you change your mind.

On-Screen Symbols

Special symbols appear in the text to remind you that you used a format function (for example, the symbol ↵ that appears when you press **RETURN** to start a new paragraph). Such symbols are never printed on paper.

Automatic Page Breaks



The word processor automatically breaks your text up into pages according to your specifications. The position of these automatic page breaks is flexible and is readjusted for you by the word processor if you modify the text.

To force the word processor to start a new page at any point, press **CODE + P BREAK**. This inserts the symbol ↵ in the text.

Caps Lock vs. Shift Lock

The caps lock function is not the same as the shift lock function on a common typewriter. Both eliminate the need to reach for **SHIFT** to type an uppercase (capital) letter, but they differ in their effect on other keys.

The Shift Function



You already know that holding down **SHIFT** and pressing **1** gives you "!", the exclamation mark.

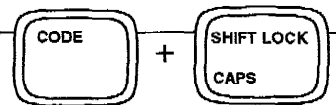
While **SHIFT** is pressed, the **SHIFT** indicator appears on the screen. The indicator disappears as soon as you release **SHIFT**.

The Shift Lock Function



If you press **SHIFT LOCK**, the **SHIFT** indicator is displayed permanently, and all the characters you type are uppercase (**A** = "A", **1** = "1"). To release this mode, press **SHIFT**.

The Caps Lock Function



When you need to type long strings of both capital letters and numbers, such as “ACCT. NO. BC104”, press **CODE + CAPS**. The **CAPS** indicator appears on the screen to tell you that the keyboard is locked in capital mode (**A = A**, but **1 = 1**). To release this mode, press **CODE + CAPS** again.

Comparing Two Documents on Screen

With this word processor, you can split the screen in half and work with two documents simultaneously. This is useful, for instance, when you are working in one document and need to refer to information in a second document.

Word Processing

Starting Word Processing



1 Word Processing

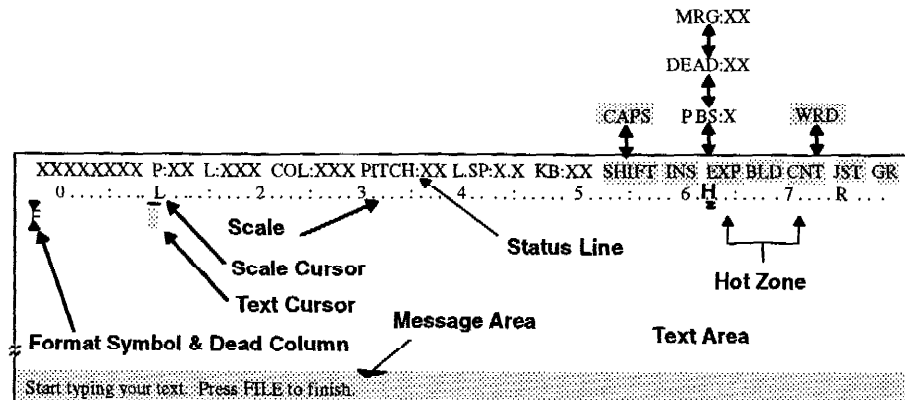
1. Turn the power on to display the Main Menu.
2. Use the cursor keys (←, →, ↑, and ↓) to select the Word Processing (WP application) icon and press **RETURN**, or press **1**. The WP INDEX screen appears:

<<WP INDEX>>		REMAIN: XXXX.XX	
*NEWFILE	TEXT1 .WPT (XX.X)	TEXT2.WPT (XX.X)	
TEXT3 .WPT (XX.X)	TEXT4 .WPT (XX.X)	TEXT5.WPT (XX.X)	
TEXT6 .WPT (XX.X)	TEXT7 .WPT (XX.X)	TEXT8.WPT (XX.X)	
Select a file and press RETURN. Press CANCEL to display MAIN MENU.			

3. Use the cursor keys to select *NEWFILE and press **RETURN**. The WRITE/EDIT screen shown on the next page appears, and you can start creating your document.

WRITE/EDIT Screen

The WRITE/EDIT screen shown below appears when you start the WP application. All text input and editing is done here.



The following reminder appears on the message area (and remains until you press any key):

Start typing your text. Press FILE to finish.

Status Line

The status line reminds you where you are and how you have told the word processor to format your text. Most indicators are followed by a value (example: PITCH:10) and are always displayed. The ones on the right appear (in reversed color) only when the corresponding function is being used (example: BLD when the bold function is on). For a complete list of status indicators, see Function Menus on page 287.

Scale

The scale on the screen of the word processor is the electronic equivalent of the scale on the top of a typewriter, which assists you in determining the position of characters on a page. The numbers indicate the position from the left edge of the paper. Other symbols remind you of some format settings (example: **L** and **R** indicate the position of the left and right margin). For a complete list, see Symbols Displayed on the Scale on page 295.

NOTE:

The scale can be turned off in order to get one additional line of text on the screen. For details, see Example 2 on page 34.

Text Area

The bulk of the screen is your work area—a window into your document. Although it only shows a few lines at a time (79 characters for the WP-230B model or 89 characters for the WP-335B model), if your document is longer or wider, you can move the window up, down, left, and right. The only part you cannot use is the “dead column” (to the left of column 0), which the word processor reserves for the “format change” symbol **E** or **F**. Other symbols appear in the text to remind you of the format functions you have used, but these symbols do not print. (For a complete list, see Symbols Displayed in Text on page 295.)

NOTE:

The text area can be split to display two documents simultaneously. For details, see Dual Screen on page 91.

Text and Scale Cursors

A lighted square (the text cursor) indicates your current position in the text area. Another cursor, the scale cursor, is an underline that indicates your position on the left of the scale and follows the horizontal movement of the text cursor.

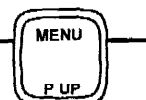
Message Area

This line is reserved for guide messages (prompts) that ask you a question, give direction, or display error messages that warn you when something is wrong. When no prompt and no error message are displayed, this line is used for your text.

NOTE:

For a list of error messages, see Error Messages on page 300.

Menu



When you press **MENU**, the upper line of the screen is temporarily replaced with a menu of functions. The following instructions show you how to choose an item from the menu. Example 1 shows you how to select Right Margin Flush, and Example 2 shows you how to turn off the scale

1. To display the menu, press **MENU**. The leftmost function (STYLE) is automatically selected and appears in reversed color (we will call this the selection cursor).

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
--------------	-------	---------	----------	----------	--------	------	------------

NOTE:

Pressing **CANCEL** returns you to the WRITE/EDIT screen.

2. Press ← or → to move the selection cursor to the right or left.
3. When the selection cursor is on the desired function, press **RETURN** or ↓. A sub-menu appears below the selected function.

NOTES:

- The PAGE PRINT function is an exception: pressing ↓ produces a beep, and pressing **RETURN** executes the function without displaying a sub-menu.
- Once you get acquainted with the menu, use **accelerators** instead of steps (2) and (3). The accelerator key for each function is displayed in bold on the menu. Accelerators allow you to select and execute a function without first moving the selection cursor. For example, the accelerator for CTR/RMF is **C**. Typing **C** (either upper or lower case) while the Function Menu is displayed immediately shows the CTR/RMF sub-menu regardless of the position of the selection cursor.

Example 1: You select CTR/RMF.

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
		CENTERING					
		RIGHT MARGIN FLUSH					

NOTES:

- You can use this sub-menu to center the text or to align it flush with the right margin. (For details see Centering on page 61, or Right Margin Flush on page 63.)

- *Bold characters on the sub-menus indicate the accelerator keys for the functions. For example, to select and start the right margin flush function, type **R**.*
- *Pressing **CANCEL** returns you to the WRITE/EDIT screen. However, when a sub-menu is displayed, you can select another sub-menu without returning to the Function Menu. Use ← and →.*
- *Instead of using the menu, you can access the right margin flush function by pressing **CODE + R** at the WRITE/EDIT screen. This quick access is called a "short-cut," which is a common form of explanation in this manual. (See Function Keys on page 287 for a complete list of short-cut keys.)*

Example 2: You select FORM.

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
						PAPER SIZE	
						HEADER	
						FOOTER	
						SCALE LINE ON/OFF	
						DUAL SCREEN	
						CHANGE SCREEN	

This example shows you how to turn the scale on/off.

1. Type **F** to select FORM.
2. Type **S** to select SCALE LINE ON/OFF. You are back to the WRITE/EDIT screen. If the scale was displayed, it is now turned off, and vice versa.

When the scale is OFF

XXXXXXXX	P:XX	L:XXX	COL:XXX	PITCH:XX	LSP:X.X	KB:XX
▼						
F						

When the scale is ON

XXXXXXXX	P:XX	L:XXX	COL:XXX	PITCH:XX	LSP:X.X	KB:XX
0.....	1.....	2.....	3.....	4.....	5.....	6.....
▼						
F						

Typing Text

Type your text just as you would on a typewriter. The text appears on the screen instead of being printed on paper. If you make a mistake, press **BACKSPACE** or **CORRECT** to delete. For more details on corrections, see *Revising Text – Basic Functions* on page 39.

When your text is complete, see *Saving a File* on page 76.

You can print your text after you have created it. See *Printing a Document* on page 79.

Hot Zone

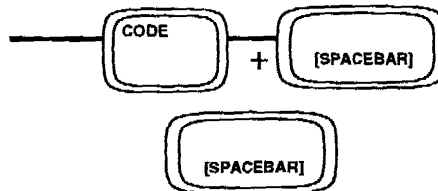
The last six columns before the right margin are defined as the **hot zone**. The $\frac{H}{2}$ symbol on the scale corresponds to the point at which a typewriter bell would ring to warn you that you are about to run into the right margin. The word processor knows how to break text so that it automatically “wraps” to the next line.

Word Wrap

Word wrap allows you to type a paragraph continuously without being concerned about carriage returns. In the hot zone, a word extending beyond the right margin is moved to the next line automatically. You need only to press **RETURN** to break a line and start a new paragraph.

Word wrap is always active on the word processor. This feature permits continuous typing and helps build typing speed. The text cursor automatically moves to the next line whenever a space or hyphen is typed in the hot zone.

Space vs. Permanent Space

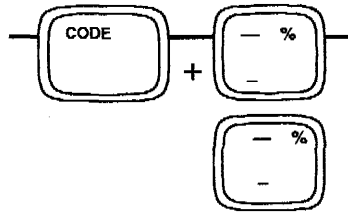


Spaces entered by pressing the **[SPACEBAR]** are word separators called “soft” spaces. When entered in the hot zone, they force the cursor to move to the next line. In justify mode, the soft spaces are adjusted to produce an even right margin. (See *Automatic Justification* on page 64.)

Permanent spaces entered by pressing **CODE + [SPACEBAR]** are special spaces that link words together, protecting them from being separated on different lines.

A permanent space is displayed with the symbol $\frac{H}{2}$ and is considered part of the two words it links. Such a space is never adjusted by the automatic justification function, and does not cause the cursor to move to the next line when entered in the hot zone.

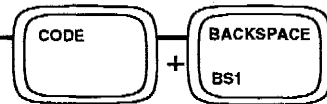
Hyphen vs. Permanent Hyphen



Typing a hyphen (–) in the hot zone automatically sends the cursor to the next line. This becomes a soft hyphen, displayed as a dotted hyphen, and will disappear if subsequent revisions or reformatting moves the word out of the hot zone, for example when you change the margins.

A permanent hyphen, entered with **CODE** + **[-]**, is used with words that always require a hyphen (mother-in-law, for example). In the hot zone, a permanent hyphen does not send the cursor to the next line. Outside the hot zone, all hyphens are permanent, so it is not necessary to press **CODE**.

Superimposed Characters (Permanent Backspace)



It is possible to create characters that are not available on the keyboard (¥, for example) by superimposing two characters.

1. Type the first character (**Y** in our example).

NOTE:

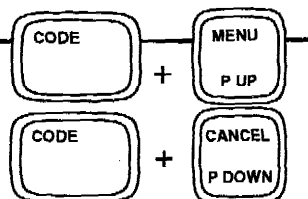
Enter the characters in either order, but start with the one you want to appear in the text area.

2. Press **CODE** + **BS1**. The first character appears now in reversed color, and the cursor moves next to the P BS indicator on the status line.
3. Type the second character (“=” in our example) on the status line. As soon as the second character is typed, the cursor moves back to the text area and you are ready to resume normal typing.

NOTES:

- When you move the cursor back to the first character (press ← at this point, for example), the second character re-appears next to the P BS indicator.
- To delete superimposed characters, delete the first character (press **BACKSPACE** or **CORRECT**).

Subscripts and Superscripts



Characters in subscript and superscript appear below or above the baseline. The word processor allows you to enter and print subscripts and superscripts. The procedure parallels what you would do on a typewriter, except that instead of physically rotating the main roller knob, you press **CODE + P DOWN** and **CODE + P UP**.

NOTES:

- The word processor prints subscripts and superscripts the same distance (1/12 inch) below or above the line, regardless of the current line spacing.
- For Model WP-230B, superscript characters appear as a reverse-color black box on the upper half of the character. Subscript characters have this box on the lower half of the character.

Try to enter "e=mc²".

1. Type "e=mc".
2. Press **CODE + P DOWN**.
3. Type "2."
4. Press **CODE + P UP**.

NOTES:

- To enter subscripts, follow the steps above, but reverse the **CODE + P DOWN** and **CODE + P UP** keys.
- Each pair of keys (**CODE + P DOWN** and **CODE + P UP**) cancels the other, and the two pairs must always be used in combination. If you try to press one of the pairs more than once, the word processor beeps.

Extra Characters

The extra characters are those marked in green on your keyboard (for example, ">"). To enter such a character, hold down **CODE** and press the character key.

NOTE:

If a green character appears on the right of a key (for example **B**), it means that the character is available only with KB II (international keyboard).

Accents ("Dead" Keys)

This word processor's multilingual keyboard supports the accented vowels of such languages as French, German, and Spanish.

1. When typing, you must press **CODE + K (KB)** to switch the KB indicator on the status line to II (international) or III (symbol). (See Character Set on page 68.)
2. When printing, you must have the appropriate daisy wheel. (See Changing Daisy Wheel Cassette on page 303.) Remember that the accented characters and other special characters on the international or symbol keyboards can be printed only if you install the appropriate daisy wheel.
3. Only the base character is entered in the text area. The accent is entered next to the indicator DEAD on the status line.

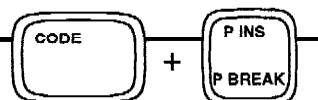
If you have ever used a typewriter, you already know the basic procedure: Type the accent and then the base character. Unlike regular keys, the accent keys are dead—that is, the cursor does not move afterward so the base character appears under the accent. Make sure that the keyboard is set to KB:II (international), and try the following example.

1. Type the "¨" accent. The accent appears next to the indicator DEAD. The cursor is reversed and waits for you to enter a base character. You are allowed to enter a maximum of two dead characters. If you make a mistake, press **CANCEL** or **CORRECT** to delete the dead characters and retype.
2. Type the letter "o". The letter with its accent ¨ now appears in the text area.

NOTES:

- With some combinations of accents and base characters (such as ¨ and ^), the base character appears alone and in reversed color in the text area. When you subsequently move the cursor to the base character (press ← at this point, for example), the accent re-appears next to the DEAD indicator.
- To delete an accented character, proceed as you would for a normal character (press **BACKSPACE** or **CORRECT**).

Automatic Page Breaks



The word processor automatically breaks your text up into pages according to your specifications. (See Vertical Layout on page 70.) The position of these automatic page breaks is flexible and is re-adjusted for you by the word processor if you modify the text.

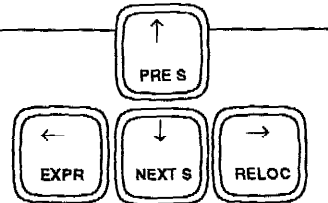
You may also decide to force the word processor to start a new page at any point by pressing **CODE + P BREAK**. This inserts a symbol ↓ in the text (and forces any text beyond that point to the next page).

Revising Text – Basic Functions

Moving the Text Cursor

To make a revision, you must first go to that part of the document. A word processor uses a text cursor to indicate your current position in the document.

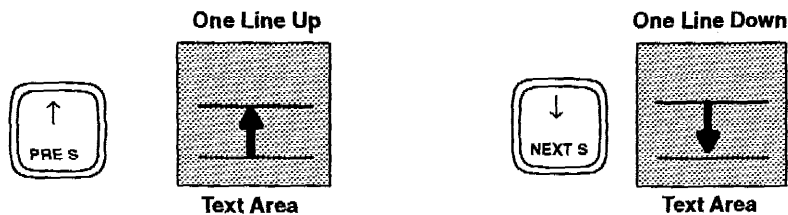
Moving One Position at a Time



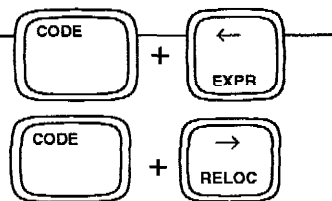
The cursor keys ←, →, ↑, and ↓ move the text cursor one position in the direction of the arrow on the keys.

NOTES:

- Pressing ← and → does not move the cursor beyond the margins.
- Pressing → at the end of a line sends the cursor to the beginning of the next line; pressing ← then sends it back to the end of the previous line.
- If the cursor is at the top or bottom of the text area, ↑ and ↓ automatically shift ("scroll") the text up or down to show you more text unless you are at the beginning or the end of the document.



Jumping Left and Right

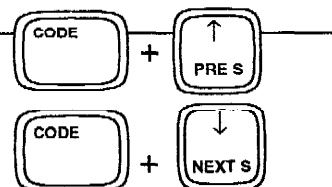


The Express Backspace and Relocation functions take you to the beginning and end of the current line of text, respectively.

NOTES:

- **CODE + EXPR** moves the cursor to the left margin. If you press **CODE + M REL** at the left margin, the cursor goes all the way to the left edge. When you are in the middle of an indented paragraph (see Paragraph Indent on page 59), it goes back to the temporary left margin.
- **CODE + RELOC** moves the cursor to the end of the current line but does not jump past a symbol that signals the end of a paragraph (↵, ¶, and ↓). If you press **CODE + M REL** at the right margin position, the cursor goes all the way to the right edge.

Moving One Full Screen at a Time

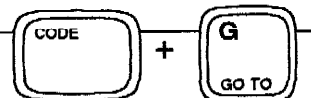


Action	Result
Press CODE + PRE S once.	Moves the cursor to the top of your screen.
Press CODE + PRE S again.	Moves the cursor to the previous screen.
Press CODE + NEXT S once.	Moves the cursor to the bottom of your screen.
Press CODE + NEXT S again.	Moves the cursor to the next screen.

NOTE:

- You cannot enter text in the last line at the bottom of the screen because it is reserved for messages. If there is no more text because you are at the beginning or end of your document, the screen window does not scroll.

GOTO Page



The GOTO Page function moves the cursor immediately to the beginning of any page of the document.

1. Press **CODE + G (GO TO)**. The word processor asks you to type in the number of the page you wish to move the cursor to.

PAGE: 1

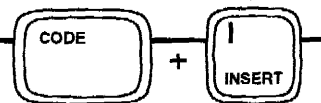
2. Type the desired page number, then press **RETURN** to move the cursor to that page.

NOTES:

- If you have entered an incorrect page number, press **CORRECT**, or stop the operation with **CANCEL**.
- If you enter a page number that is higher than the number of the last page, the cursor moves to the last page.
- Instead of typing a page number, press one of the cursor keys just after pressing **CODE + G (GO TO)**:

Press CODE + G , then press:	Result
↑	Moves the cursor to the beginning of the current page; moves to the beginning of the previous page when the cursor is at the beginning of the current page.
↓	Moves the cursor to the beginning of the next page.
←	Moves the cursor to the beginning of the document.
→	Moves the cursor to the end of the document.

Inserting Text



Pressing **CODE + I (INSERT)** switches the word processor between insert and overwrite modes, and turns the INS indicator on and off accordingly.

In overwrite mode (Indicator INS off), each character you type replaces the current character. You type over the existing data and your new data replaces the old data. (Overwrite is the "default"; that is, every time the power is turned ON, the word processor starts in Overwrite.)

In insert mode (indicator INS on), the characters you type appear in front of the cursor; the rest of the line automatically moves to the right, and, if necessary, the last word moves to the next line.

NOTE:

Since deleting unnecessary characters is usually easier than retyping characters that have been deleted, it is a good idea to make sure that the word processor is in the insert mode before you start revising.

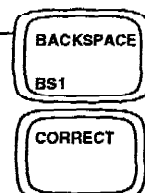
Deleting Text

You can delete text in four different ways:

- A character at a time
- A word at a time
- A line at a time
- A block at a time (see Deleting a Block on page 45.)

Whichever way you choose, the word processor automatically closes the gap and reformats the text to fit the margins and the page length.

Deleting a Character

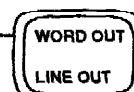


Press **BACKSPACE** or **CORRECT** to delete one character to the left of the cursor.

NOTE:

BACKSPACE and **CORRECT** also delete paragraph end symbols ¶, ¶, ¶, and ¶ except when these symbols are located just before a format symbol E or ¶ or a centering symbol H.

Deleting a Word

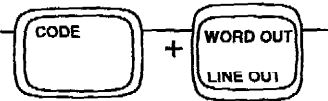


To delete a word, position the cursor on the space immediately following the word and press **WORD OUT**. Pressing **WORD OUT** removes any portion of a word to the left of the cursor, up to the previous blank space.

NOTE:

You can use this feature when you mistype a word, where deleting it and typing it over would be faster than correcting it.

Deleting a Line



To delete a line, position the cursor anywhere after the last character of the line and press **CODE + LINE OUT**. Pressing **CODE + LINE OUT** removes any portion of a line to the left of the cursor, up to the beginning of the line.

Splitting and Joining Paragraphs

1. Press **CODE + I (INSERT)** if the INS indicator is off.
2. Position the cursor at the point you want to split and press **RETURN** to insert a ↵ symbol.
3. Position the cursor at the beginning of the second paragraph, and press **BACKSPACE** or **CORRECT** to delete the ↵ symbol of the first paragraph.

NOTE:

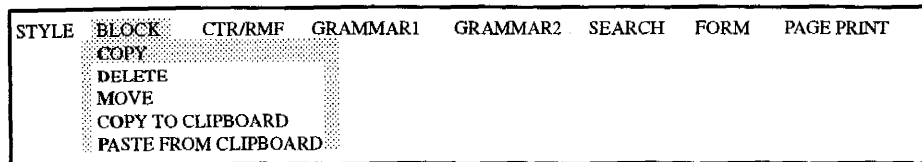
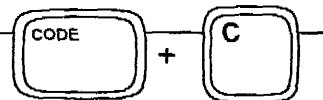
It is not possible to join two paragraphs that have two different formats (e.g., margin settings).

Revising Text – Advanced Functions —

Block Operations

You can copy, delete, or move a block of text to another part of the document, or copy it into a different file.

Copying a Block within the Document



1. Place the cursor on the first character of the block you want to copy.
2. Press **MENU** to display the menu.
3. Type **B** to select **BLOCK**.
4. Type **C** to select **COPY**.
- **Short cut:** Instead of (2), (3), and (4), press **CODE + C**.

Move cursor to block end. Press RETURN or to store CLIPBOARD press CODE+T.

5. Move the cursor to the end of the block to be copied. As you move the cursor, the block is selected (reverse image). Move the cursor back toward the beginning of the block to deselect. All key combinations used to move the text cursor can be used when selecting a block. (See Moving the Text Cursor on page 39.)
6. When the block to be copied is selected, press **RETURN**.

Move cursor to destination for blocked text and press RETURN.

7. Move the cursor to the location where you want to insert the selected block and press **RETURN**. The selected block is automatically copied to that position, and the document is reformatted to conform to the modified sections of the document. (See Formatting the Page on page 55.)

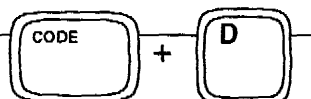
NOTES:

- The block is inserted regardless of the current mode (insert or overwrite). The block never overwrites text at the destination position.
- Press **CANCEL** at any step to cancel the function.
- Since the block copy operation increases the size of your document, the word processor may run out of memory. If this happens, the copy operation is cancelled and the following message appears:

Not enough memory remaining.

You must either first delete part of the document to free some space, or try to copy a smaller block.

Deleting a Block



STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
	COPY						
	DELETE						
	MOVE						
	COPY TO CLIPBOARD						
	PASTE FROM CLIPBOARD						

1. Place the cursor on the first character of the block you want to delete.
 2. Press **MENU** to display the menu.
 3. Type **B** to select BLOCK.
 4. Type **D** to select DELETE.
- **Short cut:** Instead of (2), (3), and (4), press **CODE + D**.

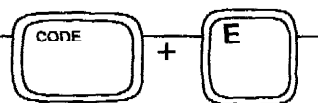
Move cursor to end of block to delete and press RETURN.

5. Move the cursor to the end of the block to be deleted. As you move the cursor, the block is selected (reverse image). Move the cursor back toward the beginning of the block to deselect. All key combinations used to move the text cursor can be used when selecting a block. (See Moving the Text Cursor on page 39.)
6. When the block to be deleted is selected, press **RETURN**. The word processor asks for confirmation:

Delete? Press RETURN (yes) or CANCEL (no).

7. If you press **RETURN**, the block (displayed in reversed color) is deleted, and any text following the block is formatted to the same style as the text before it. (See Formatting the Page on page 55.)

Moving a Block



STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
	COPY						
	DELETE						
	MOVE						
	COPY TO CLIPBOARD						
	PASTE FROM CLIPBOARD						

1. Place the cursor on the first character of the block you want to move.
 2. Press **MENU** to display the menu.
 3. Type **B** to select **BLOCK**.
 4. Type **M** to select **MOVE** and press **RETURN**.
- **Short cut:** Instead of (2), (3), and (4), press **CODE + E**.

Move cursor to end of block to move and press **RETURN**.

5. Move the cursor to the end of the block to be moved. As you move the cursor, the block is selected (reverse image). Move the cursor back toward the beginning of the block to deselect. All key combinations used to move the text cursor can be used when selecting a block. (See Moving the Text Cursor on page 39.)
6. When the block to be moved is selected, press **RETURN**.

Move cursor to destination for blocked text and press **RETURN**.

7. Move the cursor to the location where you want to insert the selected block and press **RETURN**. The selected block is automatically transferred to that location, and the document is reformatted to conform to the modified sections of the document. (See Formatting the Page on page 55.)

NOTES:

- The block is inserted regardless of the current mode (insert or overwrite). The block never overwrites text at the destination position.
- Press **CANCEL** at any step to cancel the function.

Copying a Block to the Clipboard

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
	COPY						
	DELETE						
	MOVE						
	COPY TO CLIPBOARD						
	PASTE FROM CLIPBOARD						

Part of the memory, called the clipboard, allows you to store a block of text from a document. The contents of the clipboard can be inserted in the same document or in any other document you are working on.

You may copy a block stored in the clipboard as many times as you want. However, each time you store a new block in the clipboard, you erase the previous contents of the clipboard.

NOTES:

- The clipboard is erased when the power is turned off.
- The clipboard may contain up to 4 kb (about 4,000 characters).

1. Place the cursor on the first character of the block you want to copy to the clipboard.
2. Press **MENU** to display the menu.
3. Type **B** to select BLOCK.
4. Type **O** to select COPY TO CLIPBOARD.

Move cursor to block end and press RETURN.

5. Move the cursor to the end of the block to be copied to the clipboard. As you move the cursor, the block is selected (reversed color). Move the cursor back toward the beginning of the block to deselect. All key combinations used to move the text cursor can be used when selecting a block.
6. When the block is selected, press **RETURN**.

NOTE:

Press **CANCEL** at any step to cancel the function.

If the clipboard is empty, the block is immediately copied to the clipboard.

If the clipboard already contains data, the current contents of the clipboard are displayed, and you are asked whether you want to proceed.

<< COPY TO CLIPBOARD >>

OK to delete current CLIPBOARD data?

The quick brown fox . . .

Use cursor to select and press RETURN.

(YES) (NO)

Select (YES) and press **RETURN** to overwrite the contents of the clipboard with the selected block, or select (NO) and press **RETURN** to cancel the operation.

Pasting from the Clipboard

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
	COPY						
	DELETE						
	MOVE						
	COPY TO CLIPBOARD						
	PASTE FROM CLIPBOARD						

The contents of the clipboard can be recalled and inserted or pasted into any WP file you are working on.

1. Place the cursor on the location where you want to insert the contents of the clipboard.
2. Press **MENU** to display the menu.
3. Type **B** to select BLOCK.
4. Type **P** to select PASTE FROM CLIPBOARD.

- **Short cut:** Instead of (2), (3), and (4), press **CODE + T**.

If there is no text in the clipboard, you hear a beep.

If there is text in the clipboard, the text is displayed, and you are asked whether you want to paste it into the document.

<< PASTE FROM CLIPBOARD >>

Do you want to paste this in file?

The quick brown fox . . .

Use cursor to select and press RETURN.

(YES) (NO)

Select (YES) and press **RETURN** to paste the contents of the clipboard into your document, or select (NO) and press **RETURN** to cancel the operation.

Searching for Text

In addition to using the cursor keys to move throughout your text, you can find any location in your file quickly by using the search function.

The word processor allows you to scan the document for all occurrences of a specific piece of text, called a **string**, and, at your option, replace all or some of those occurrences with another string. (See Search and Replace on page 51.)

A string may be up to 63 characters long, and may include "dead" and superimposed characters. (See Defining a Search String on page 50.)

Starting a Search

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
					SEARCH		
					REPLACE		
					HYPHEN SCAN		
					WORD COUNT		

This function scans the text from the current text cursor position and pauses when the string is found, waiting for you to tell it whether to stop there or continue to the next occurrence.

1. Place the cursor at the beginning of the section that you want to scan. If you want to scan the entire document, for example, move the cursor to the beginning of the text.
2. Press **MENU** to display the menu.
3. Type **R** to select SEARCH.
4. Type **S** to select SEARCH.

Type search word(s). Press RETURN to start search.
SEARCH : _____

5. Enter the text you are looking for and press **RETURN**.
6. Wait for the word processor to find the first occurrence. The following prompt appears:

Press RETURN to search again, or press CANCEL to stop search.

7. If this is the place you are looking for, press **CANCEL** and do the necessary editing. If you want to continue to the next occurrence, press **RETURN**.

NOTE:

When there are no more occurrences, the following message appears, and will automatically disappear when you press a key.

Word(s) not found.

8. Resume normal word processor operation or go back to step (1) to search for another string—or for the same string again. The search string remains in memory until you define another or turn the power off.

Defining a Search String

- The 63-character limit refers to the number of characters you see on the screen. An accented character (made with a dead key) or superimposed characters (made with a permanent backspace) count as a single character even if it takes two or more keystrokes to type.
- The search function distinguishes between upper- and lower-case letters. For example, if you specify “ALPHA,” it does not stop at “alpha” or “Alpha.”
- Each space that you type with the [SPACE BAR] in the string or in the text counts as one character.
- The string input area initially appears as a continuous underline. Everything before the trailing underline is considered part of the string. The string shown below, for example, is five characters long because it ends with two spaces.

Type search: word(s). Press RETURN to start search.

SEARCH :AAA

- The search function stops at every string that matches the specified string—even if the match is inside a word. If the specified string is “at,” it stops at the “at” in such words as “hat” and “attention.” To search only for the word “at,” specify “_at_”, leaving a space on each side of the word.
- The search function ignores “soft spaces” that are added by the justify function and hyphens other than permanent ones. If “word processor” is the specified string, the function will stop at “word__processor” if there is an extra space inserted by the justify function and at “word pro-cessor” if the hyphen was typed in the hot zone.
- The search string cannot contain styles such as bold, underline, subscript, or superscripts because the search function ignores them. If you specify “A2”, it stops at “A2”, “A²”, “A₂”, and all combinations with bold and underline as well.
- Pressing **CANCEL** during string input stops the search function, but the string remains in memory until you define another, or turn the power off.

Search and Replace

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
					SEARCH		
					REPLACE		
					HYPHEN SCAN		
					WORD COUNT		

With the search and replace function, you can replace some or all occurrences with another text string. Applications include quick correction of a misspelled or mistyped word everywhere that it occurs (from "conveyer" to "conveyor" or vice-versa), replacement of key words (from "brother" to "sister"), and capitalization of key words for emphasis (from "word processor" to "WORD PROCESSOR").

The word processor automatically reformats your document if the replacement word is not the same length as the original.

1. Place the cursor at the beginning of the section that you want to scan. If you want to scan the entire document, for example, move the cursor to the beginning of the text.
2. Press **MENU** to display the menu.
3. Type **R** to select **SEARCH**.
4. Type **R** to select **REPLACE**.

Type search and replace word(s). Press ↑, ↓ to select, RETURN to start search.	
SEARCH	<input type="text"/>
REPLACE :	<input type="text"/>

5. Enter both the text that you want to look for and the replacement text. Press ↑ and ↓ to shift between the two input areas and press **RETURN** when input is completed.

Global? Press RETURN (yes) or TAB (no).

6. If you press **RETURN**, all occurrences from the cursor position to the end of the document are automatically replaced. When the function has been completed, the cursor moves to the end of the file and returns to the normal edit mode. To stop the function in progress, press **CANCEL**.
If you press **TAB**, the word processor stops at the first occurrence, and displays the following message:

Press RETURN to replace word(s), TAB not to replace word(s), CANCEL to exit.
--

7. To replace this occurrence, press **RETURN**. The word processor carries out the change, then stops at the next occurrence and displays the above message again.

To search for the next occurrence without replacing, press **TAB**. The word processor stops at the next occurrence and displays the above message again. To stop searching and return to the normal edit mode, press **CANCEL**. If you mistakenly press this key, re-start from step (1). Since the search and replace strings remain in memory until you define others, you do not have to re-enter them in step (5).

NOTE:

When there are no more occurrences, the following message appears, and automatically disappears when you press any key.

Word(s) not found.

NOTE:

If you repeatedly replace strings with longer ones in a very long document, you may run out of memory. In such a case, the function is canceled and the following message appears:

Memory full.

The message remains until you delete part of the document to free some memory space. After deleting part of the file, save it, and start a new file.

Hyphen Scan

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
					SEARCH		
					REPLACE		
					HYPHEN SCAN		
					WORD COUNT		

A problem arises with word wrap when the distance between margins is small or when typing text in languages like German using very long words. Since word wrap automatically transfers a word that cannot fit in the current line to the next line, excessively long blank spaces may appear, resulting in a poor layout.

The hyphen scan function automatically detects such long blank spaces and gives you a chance to hyphenate the long words. It allows you to type your text without making any manual hyphenations (except, of course, a permanent hyphen).

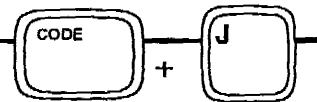
1. After your text is typed, place the cursor at the beginning of the section that you want to scan. If you want to scan the entire document, for example, move the cursor to the beginning of the text.
2. Press **MENU** to display the menu.
3. Type **R** to select SEARCH.
4. Type **H** to select HYPHEN SCAN.

5. The hyphen scan function scans your text down from the cursor position and searches for lines containing blank spaces longer than the six columns of the hot zone. The long word transferred to the next line by word wrap is displayed in reverse color. The following message appears:

Move cursor, press RETURN to hyphenate, TAB to continue, CANCEL to exit.

6. If you want to hyphenate this word, place the cursor at the most suitable hyphenation position and press **RETURN**. The word is hyphenated and the portion of the word to the left of the hyphen is transferred to the previous line. The hyphen scan function searches for the next occurrence of a long blank space.
If you want to skip this occurrence and keep the word without a hyphen, press **TAB**. The whole word is transferred to the next line, where it was originally, and the hyphen scan function searches for the next occurrence of a long blank space.
Press **CANCEL** if you want to end the hyphen scan function.

Word Count



STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
					SEARCH		
					REPLACE		
					HYPHEN SCAN		
					WORD COUNT		

Word Count scans your text in WP and tells you how many times a given word has been used in the current file. It also allows you to search for each occurrence of any word used. Words are displayed in descending order of frequency, with words of the same frequency listed alphabetically. The scan continues toward the end of the document. The word processor can count the occurrence of up to 2,000 different words. About 55 words (averaging 7 characters each) are displayed at a time.

1. Position the cursor at the head of the paragraph in the text where you want to start counting.
2. Press **MENU** to display the function menu.
3. Type **R** to select SEARCH.
4. Type **W** to select WORD COUNT. A message indicating that counting is in progress will appear on the screen. When counting is completed, the Word Count screen (similar to the one which follows) appears:

<< WORD COUNT >>	
3 of	3 to
2 and	2 function
2 with	1 word
To search, select a word and press RETURN.	

- **Short cut:** Instead of steps (2), (3), and (4), press **CODE + J**.

NOTES:

- Underlining, bold, superscript, subscript, and dead keys are ignored when scanning words. This means that "book", "book", and "book" are counted as identical words.
 - However, capital letters are taken into account. This means that "book", "Book", and "BOOK" are counted as different words.
 - Up to 255 occurrences of a single word can be counted.
5. If you want to search for each occurrence in the text of a particular word, place the cursor on the word and press **RETURN**. You can scroll the list with ←, →, ↑, ↓, **CODE + PRE S**, and **CODE + NEXT S**.

NOTE:

Pressing **CANCEL** during the search returns you to the **WRITE/EDIT** screen.

6. To search for the next occurrence of the word, press **CODE + J** again. The block cursor is on the word sought previously on the Word Count screen. Then, press **RETURN**. If there are no further occurrences, the following message appears and you return to the **WRITE/EDIT** screen.

Word(s) not found.

NOTES:

- Words which have been searched for can be replaced with synonyms using the *Thesaurus* functions. For details, see *Thesaurus* on page 144.
- To recount the words when the **WORD COUNT** screen is still displayed, press **CODE + J**. The following message appears:

To search, select a word and press RETURN. To recount, press CODE + J.

Formatting the Page ---

An important advantage to a word processor is that it allows you to change the left, right, top, and bottom margins, tabs, and other layout parameters on the screen without having to retype. The word processor automatically adjusts the text to fit the new width and page length.

Format Change Symbol ---

The word processor reserves the dead column of the text area (column 0) for the format change symbol ¶ or ¶. Each time you change the format—that is, the left or right margin, tabs, justification, etc.—this symbol appears in the dead column at the beginning of the paragraph, and the word processor automatically adjusts the text to fit the new setting. These new settings affect not only the current paragraph, but also all subsequent text up to the next format change symbol. The text above the symbol remains unchanged.

Deleting a Format Change Symbol ---

To delete a format change symbol ¶ or ¶ :

1. Place the cursor at the left margin on the same line as the symbol. (Remember that the format symbol is on the left side of the screen.)
2. Press **MENU**.
3. Press the → to Block.
4. Press the ↓ to Delete.
5. Press **RETURN**. You will get a message that states:

Move the cursor to the end of the block, and press RETURN.

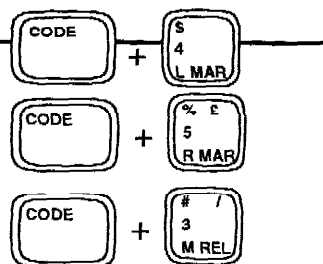
6. Press the ← one time only. This moves the cursor to the end of the previous line.
7. Press **RETURN**. This message appears: "Delete? Press RETURN (Yes) or CANCEL (No)."
8. Press **RETURN** again. The format symbol disappears, and the text returns to the previous format.

Delete? Press RETURN (Yes) or CANCEL (No).

NOTE:

Be sure when selecting the format symbol that you do not select any other characters in the block. If you do, these symbols are deleted with the format symbol.

Left and Right Margins



The left and right margins are set to columns 10 and 75, respectively, each time you start with a *NEWFILE. You can change margins at any time, before, during, or after typing the text. Each time you move the left or right margin, a $\overline{\text{E}}$ or $\overline{\text{R}}$ symbol appears in the dead column of the first line of the current paragraph. A $\overline{\text{E}}$ or $\overline{\text{R}}$ symbol always follows the \leftarrow , \rightarrow , or \downarrow symbols. The new setting affects the whole document from the current line up to the next $\overline{\text{E}}$ or $\overline{\text{R}}$ symbol. If there is some text already input in the affected portion, it automatically readjusts to fit between the new margins. Text above the $\overline{\text{E}}$ or $\overline{\text{R}}$ symbol remains untouched.

1. Move the cursor to the new position for the left or right margin while observing the scale. (See Moving the Text Cursor on page 39.) If the new position is beyond the current margins, press **CODE + M REL** when the cursor is on the margin to allow the cursor to move past the margin.
2. Press **CODE + L MAR** to set the new left margin, or **CODE + R MAR** to set the new right margin. The L or R symbol on the scale moves accordingly.

NOTES:

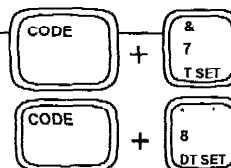
- If you mistakenly press **CODE + M REL** when there is no need to change the margins, press **CANCEL** to resume normal editing.
- The minimum distance between margins is set to 2 inches. The maximum distance is 9 inches (maximum printing width of the word processor) and, in terms of columns, depends on the pitch as indicated in the following table:

Pitch (characters per inch)	Distance Between Margins (columns)	
	Minimum # characters	Maximum # characters
10 (Pica)	20	90
12 (Elite)	24	108
15 (Micron)	30	135

Tabs and Decimal Tabs

If you have been using a typewriter, you already know how convenient tabs are for aligning text. Decimal tabs provide additional convenience when typing numbers. Decimal tabs automatically align a column of numbers at the decimal point instead of the first character. The scale indicates these two types of tabs with T for normal tabs, and D for decimal tabs.

Setting Tabs



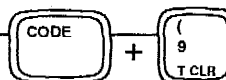
You can change tabs before, during, or after typing the text.

1. Move the cursor to the position where you want a tab. (See Moving the Text Cursor on page 39.)
2. Press **CODE + T SET** to set a normal tab or **CODE + DT SET** to set a decimal tab at the current cursor position. The corresponding symbol T or D appears on the scale. You can set up to 30 tabs and decimal tabs. Setting a tab where you already had a decimal tab replaces the D with a T and vice versa.

NOTES:

- When the *NEWFILE is opened, there are no tabs set.
- Since the pitch determines the actual position on the printed page, the columns may appear at undesired positions if you change the pitch of a table formatted with tabs and decimal tabs.

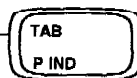
Clearing Tabs



1. To clear a single tab or decimal tab, move the cursor to that position and press **CODE + T CLR**.
2. To clear all tabs and decimal tabs, hold down **CODE + T CLR** until the following message appears:

All tabs cleared.

Using Tabs while Typing



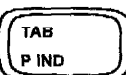
1. Press **TAB** to move the cursor to the next tab to the right. A symbol → appears on the screen just before the new text cursor position to remind you that there is now a tab in the text.

NOTE:

If there is no tab to the right, the cursor moves to the right margin.

2. Type your text.
3. Repeat steps (1) and (2) above for each column in your table.

Using Decimal Tabs while Typing



Decimal tabs are a convenient feature unique to word processors that allow you to align columns of numbers by their decimal points. When you move the cursor there with **TAB**, the cursor remains fixed in that column, and each character that you type appears to the left of the tab. Once you type the decimal point, however, the decimal point appears at the tab, and the cursor returns to normal operation.

1. Press **TAB** to move the cursor to the next decimal tab to the right. A symbol → appears on the screen just before the text cursor to remind you that there is now a tab in the text.

NOTE:

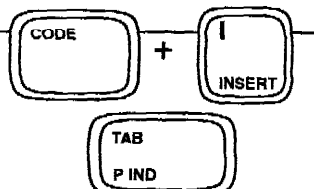
If there is no tab to the right, the cursor moves to the right margin.

2. Type the number.
3. Repeat the above procedure for each column in your table.

NOTE:

*The cursor returns to normal operation if you press **RETURN** or **TAB**.*

Inserting Tabs



You may type your number or text first, and then align the columns with tabs.

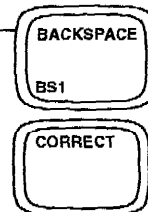
1. If the INS indicator is off, press **CODE + I (INSERT)** to switch to the insert mode.

NOTE:

*If the insert mode is off, pressing **TAB** moves you to the next tab without aligning the text.*

2. Place the cursor on the beginning of the word that you want to align.
3. Press **TAB**. The word processor automatically adjusts the text to fit the margins and page length.

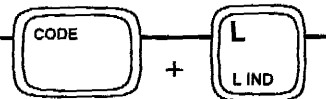
Removing Tabs



You can also remove a tabs to change tabulated text to a paragraph.

1. Place the cursor just after the tab symbol \rightarrow on the screen.
2. Press **BACKSPACE** or **CORRECT**. The word processor automatically adjusts the text to fit the margins and page length.

Line Indent

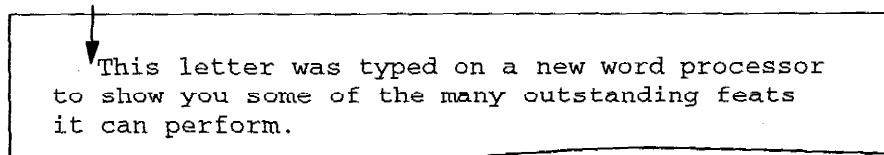


Pressing **CODE + L (L IND)** is the same as typing five permanent spaces. The primary purpose is indenting the first line of a paragraph.

NOTE:

If the word processor is not in insert mode, these five spaces overwrite the five characters at the cursor location.

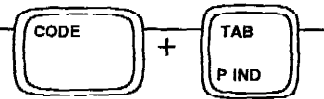
Line Indent



Paragraph Indent

The paragraph indent function may be considered as a temporary left margin.

Setting the Temporary Left Margin



When you need to indent text from the left margin, the paragraph indent feature indents text to a tab. When the indent is released, the cursor returns to the original left margin. See Setting Tabs on page 55.

1. Set the tabs you will need for any of the indented paragraphs.

NOTE:

If your document has multiple levels of paragraph indentation, it is a good idea to set all the tabs when you start.

2. If you have text, such as a section number that you want outside the indented block, type that data.
3. Press **CODE + P IND** as many times as necessary to move the cursor to the tab setting you want to be the new temporary margin. The word processor displays a \rightarrow symbol just before the new cursor position to remind you that the following text is indented.

NOTE:

*If you change your mind, press **BACKSPACE** or **CORRECT** to remove the paragraph indent symbol \rightarrow .*

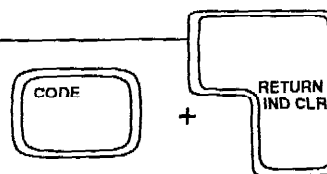
This letter was typed on a new word processor to show you some of the many outstanding feats it can perform.

In fact, you have seen some of these features in this letter: The paragraph indent feature allows you to indent paragraphs within your document.



Paragraph Indent

Returning to the Original Left Margin



At the end of the indented paragraph, press **CODE + IND CLR** to restore the original left margin. The word processor marks the end of the indented paragraph with a ¶ symbol to indicate that the paragraph indent mode has been exited.

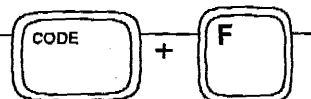
NOTE:

*To indent a paragraph after it has been typed, place the cursor on the first character of the paragraph to be indented, and press **CODE + P IND** to reposition it at the tab position. At the edge of the indented block, press **CODE + IND CLR** to restore the original left margin.*

Centering

The centering function centers a line as characters are typed, or a line already typed. You can center text either between margins or between tabs.

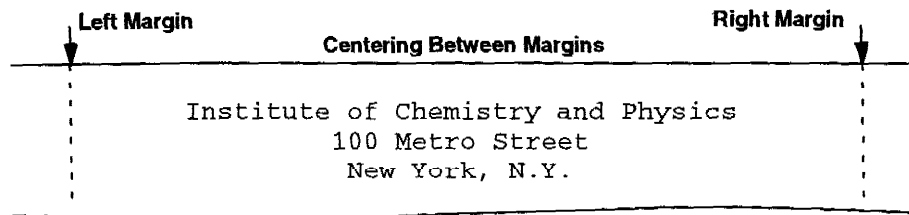
Centering Between Margins



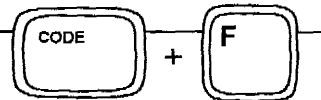
STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
		CENTERING					
		RIGHT MARGIN FLUSH					

When you center between margins, the position of the cursor in the line does not matter.


1. Press **MENU** to display the menu.
2. Type **C** to select CTR/RMF.
3. Type **C** to select CENTERING. The cursor moves to the center between the margins. The symbol for centering between margins |+| appears in the line. If the text has already been typed, it is automatically centered.
- **Short cut:** Instead of (1), (2), and (3), press **CODE + F**.
4. Type the text.
5. Press **RETURN** to finish the centering operation.



Centering Between Tabs

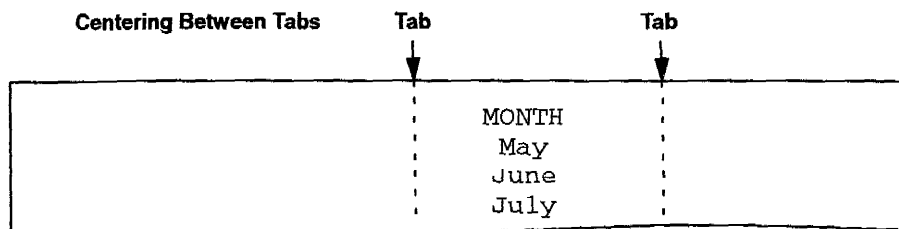


STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
		CENTERING					
		RIGHT MARGIN FLUSH					

1. Press **TAB** as many times as necessary to reach the desired tab position (the position that will become the left edge of the centering range).
2. Press **MENU** to display the menu.
3. Type **C** to select CTR/RMF.
4. Type **C** to select CENTERING. The cursor moves to the center point between the tab position where the cursor was in step (1) and the next tab to the right, or the right margin if there are no more tabs set. A centering symbol  appears on the line. If the text has already been typed, it is automatically centered.
- **Short cut:** Instead of (2), (3), and (4), press **CODE + F**.
5. Type the text.
6. Press **RETURN** to finish the centering operation, or **TAB** to move to the next tab.

NOTES:

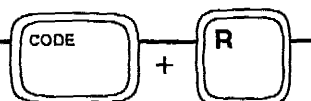
- Centering between a tab and the right margin is possible, but not between the left margin and a tab.
- Centering between a tab and a decimal tab is not possible.



Undoing Centering

To exit the Centering function, press **CANCEL** (you may also select **CENTERING** from the menu, or press **CODE + F**). To bring centered text flush with the left margin of the centering range, position the cursor just after the centering symbol [+] or [C] and press **BACKSPACE** or **CORRECT** to delete.

Right Margin Flush



STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
		CENTERING					
		RIGHT MARGIN FLUSH					

The right margin flush function aligns text along the right margin.

1. If the text to be aligned flush with the right margin has not been typed yet, skip this step. To align existing text, place the cursor on the first character of that text. If you want to align the whole line, place the cursor on the first character of the line.
2. Press **MENU** to display the menu.
3. Type **C** to select CTR/RMF.
4. Type **R** to select RIGHT MARGIN FLUSH. The cursor moves to the right margin. A right margin flush symbol <= appears in the line. If the text has already been typed, it is automatically aligned flush with the right margin (any blank space at the end of the shifted line will be cut off).
- **Short cut:** Instead of (2), (3), and (4), press **CODE + R**.
5. Type the text. The cursor will not move, but the text that you type is scrolled to the left.
6. Press **RETURN** to finish the right margin flush operation and bring the cursor to the beginning of the next line.



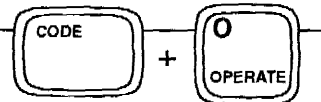
Undoing a Right Margin Flush Format

To exit the right margin flush mode, press **CANCEL** (you may also select **RIGHT MARGIN FLUSH** from the menu, or press **CODE + R**). To undo an existing right margin flush format, delete the right margin flush symbol \leftarrow using **BACKSPACE** or **CORRECT**.

Automatic Justification

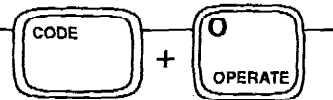
The justify function adjusts the spacing between words so that every complete line of text is aligned with both left and right margins.

Entering Justified Text

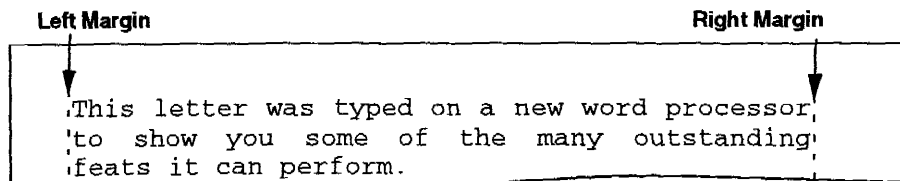


1. Press **CODE + O (OPERATE)** to turn the JST indicator on and start typing.
When you type a space or a hyphen in the hot zone, the cursor moves to the next line and the current line is justified.
2. To resume normal typing, press **CODE + O (OPERATE)** again to turn the JST indicator off.

Justifying Existing Text



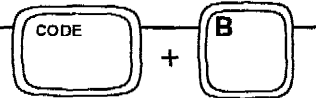
1. Place the cursor at the first paragraph that you want to justify.
2. Press **CODE + O (OPERATE)** to turn the JST indicator on. A $\overline{\text{E}}$ or E symbol appears in the dead column of the first line of the paragraph and the text is automatically justified from this line down to the next $\overline{\text{E}}$ or E symbol (if any exists) or down to the end of the document. If your document contains many $\overline{\text{E}}$ or E symbols you must repeat these steps in order to justify the whole text.



Text Emphasis

You can add special emphasis to text in your document with bold face type, underlining, and the expand function which automatically inserts a blank space between each character.

Boldface Characters



STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
BOLD	OFF						
UNDERLINE	OFF						
EXPAND	OFF						

1. If you want to turn the bold function on before typing, skip this step. To bold the type face of a portion of text already typed, position the cursor at the beginning of that portion.
2. Press **MENU** to display the menu.
3. Type **S** to select **STYLE**.
4. Type **B** to select **BOLD**.

NOTE:

*You can turn the **BOLD** function ON/OFF by pressing the [SPACE BAR] or **B**.*

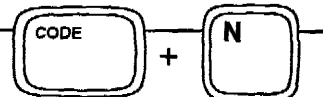
5. Press **RETURN**. The bold function is ON and the BLD indicator is displayed.
 - **Short cut:** Instead of (2), (3), (4), and (5), press **CODE + B** to switch the bold function ON/OFF.
6. The text you now type or the text you select by moving the cursor right/down is displayed in bold. If you move the cursor past the desired position, move back to deselect. To move the cursor one line at a time, press **↑** and **↓**.
7. To return to normal typing, repeat steps (2), (3), (4), and (5) to turn the bold function OFF, or press **CODE + B**.

NOTE:

To remove bold characters, place the cursor just after the last bold character, turn the bold function on, and move the cursor left/up. Turn the bold function off to remove bold.

Using the **Boldface** is a way of making a word, phrase, or entire paragraph stand out and catch the reader's eye. The **Boldface** feature has a

Underline



STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
BOLD	OFF						
UNDERLINE	OFF						
EXPAND	OFF						

1. If you want to turn the underline function on before typing, skip this step. If you want to underline a portion of text already typed, place the cursor at the beginning of that portion.
2. Press **MENU** to display the menu.
3. Type **S** to select **STYLE**.
4. Type **U** to select **UNDERLINE**.
5. Press the **[SPACE BAR]** to select **CNT** (continuous underlining) or **WRD** (word underlining).
6. Press **RETURN**. The corresponding indicator is now on.
 - **Short cut:** Instead of (2), (3), (4), (5), and (6), press **CODE + N** to switch the underline function **CNT/WRD/OFF**.

NOTE:

*If you select continuous underlining, all words and blank spaces are underlined.
With word underlining, blank spaces are not underlined.*

7. The text you now type or the text you scan by moving the cursor right/down is underlined. If you move the cursor past the desired position, move back to remove the underline. To move the cursor one line at a time, press **↑** and **↓**.
8. To return to normal typing, repeat steps (2), (3), (4), (5) and (6) to turn the underline function off, or press **CODE + N**.

NOTE:

To remove underlining, place the cursor just after the last underlined character, select either **CNT** or **WRD**, and move the cursor left/up. Turn the underline function off to stop removing underlining.

Continuous Underline

Using Underline is a way of making a word, phrase, or entire paragraph stand out and catch the reader's eye. The Underline feature has a

Word Underline

Using Underline is a way of making a word, phrase, or entire paragraph stand out and catch the reader's eye. The Underline feature has a

Expand

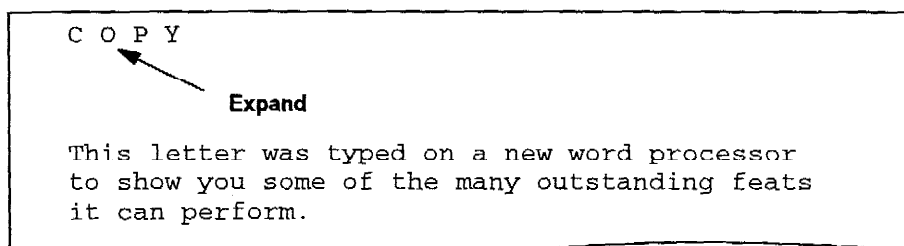
STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
BOLD	OFF						
UNDERLINE	OFF						
EXPAND	OFF						

The expand function is available only while entering text. You cannot use it to reformat text that has been typed.

1. Press **MENU** to display the menu.
2. Type **S** to select STYLE.
3. Type **E** to select EXPAND.
4. Press the **[SPACE BAR]** to turn the EXPAND function ON/OFF.
5. Press **RETURN**. The EXP indicator is now on.
6. The text you now type is expanded, with a permanent space automatically inserted after each text character. (See also Space vs. Permanent Space on page 35.)
7. To return to normal typing, repeat steps (1), (2), (3), and (4).

NOTE:

The permanent spaces inserted with the expand function cannot be removed automatically. To undo the expand format, delete the permanent spaces one by one using **BACKSPACE** or **CORRECT**.

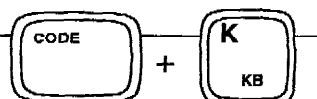


Character Set

The display on this multilingual word processor supports all European languages written with the Roman alphabet, Greek, and mathematical symbols. To type English text, all you need is the standard daisy wheel that comes with your word processor. There are other styles and pitches available.

However, if you have to type French text, or text requiring mathematical symbols, you need the corresponding Daisy Wheel(s) to have all the special characters correctly printed.

Switching the Keyboard



While typing your text with the WP application, you must select the desired keyboard in order to have the characters properly displayed on the screen. This is done by pressing **CODE + K (KB)**. These keys switch the KB indicator through the following cycle:

KB: I → II → III → I

Keyboard Selection	Use
I (Standard)	For English text.
II (International)	For European languages using Roman alphabet.
III (Symbol)	For Greek letters and mathematical symbols.

NOTE:

For more details regarding the characters available in each keyboard, see *Character Keys* on page 276.

Changing the Daisy Wheel

The word processor remembers which keyboard selection was used to enter your text, and prompts you to insert the corresponding daisy wheel when you print your document. (For more details, see *Changing the Daisy Wheel Cassette* on page 303.)

Horizontal Positioning

The display indicates the left margin and all other horizontal distances in terms of columns. On paper, however, the width of these columns depends on the selected pitch. This word processor supports three character widths:

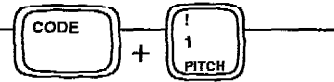
Name	Character Spacing
Pica	10 characters per inch (cpi)
Elite	12 cpi
Micron	15 cpi

Screen Width vs. Paper Width

The distance between the left and right margins must be smaller than the paper width. Suppose your paper is 8.5 inches wide and you are using Pica pitch (10 cpi). You can fit a maximum of 85 characters per line. The distance between margins should therefore be smaller than 85 columns on the screen (check the COL indicator on the status line). The following table indicates the maximum distance between margins for letter-size paper:

Width	Maximum Characters Between Margins		
Letter Size 8.5 inch	10 (Pica)	12 (Elite)	15 (Micron)
	85	102	127

Changing the Pitch



The pitch is set automatically to 10 when the power is turned on. Pressing **CODE + PITCH** cycles the PITCH indicator through the following values:

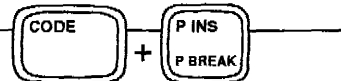
PITCH: 10 → 12 → 15 → 10

When the pitch is changed, a format symbol ¶ or ¶ appears in the dead column of the first line of that paragraph. The text is automatically reformatted down from the format symbol.

Vertical Layout

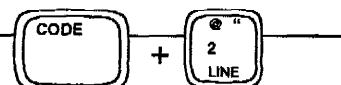
Just as the word processor formats your lines to fit within the desired left and right margins, it also automatically breaks your text up so that the maximum number of lines fit onto the page with the desired line spacings, top and bottom margins, and other formatting instructions that you specify.

Page Breaks



The text is automatically formatted so that the maximum number of lines can fit on one page. Each time you want to start a new page, press **CODE + P BREAK**. A page break symbol ⇓ indicates that point, and the cursor moves to the next line. The page count (P indicator) is incremented, and the line count (L indicator) restarts from 1. If you change your mind, you can always erase this symbol (and eliminate the page break) with **BACKSPACE** or **CORRECT**.

Line Spacing



Pressing **CODE + LINE** cycles the L.SP indicator through the following values:

L.SP: 1.0 → 1.5 → 2.0 → 1.0

Line Spacing	Number of Lines per inch
1.0	6 lines/inch
1.5	4 lines/inch
2.0	3 lines/inch

To keep the maximum amount of text in view at all times, the word processor uses only single spacing on the screen. The number next to the L indicator, however, reflects the actual line count on paper. If you are at the top of your text with the cursor on line 1, for example, each time that you press ↓, the number that appears next to the L indicator depends on the line spacing as follows:

Line Spacing	Line Numbers
1.0	1, 2, 3, 4, 5, 6, 7,.....
1.5	1, 2 (2.5), 4, 5 (5.5), 7, 8 (8.5), 10,....
2.0	1, 3, 5, 7, 9, 11, 13,.....

Paper Size Settings

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
						PAPER SIZE	
						HEADER	
						FOOTER	
						SCALE LINE ON/OFF	
						DUAL SCREEN	
						CHANGE SCREEN	

The paper size function allows you to specify all vertical layout parameters except line spacing (which you may change anywhere on the page). This feature is used to adjust your top and bottom margins.

1. Press **MENU** to display the menu.
2. Type **F** to select FORM.
3. Type **P** to select PAPER SIZE.
4. The PAPER SIZE screen shown below appears.

WP-230B

XXXXXXXX P:XX L:XXX COL:XXX PITCH:XX L.SP:X.X KB:XX

PAPER SIZE XXX (LINES)

TOP MARGIN X

TOP SPACE X

TEXT AREA XXX

BOTTOM SPACE X

BOTTOM MARGIN X

▼ HEADER X

▼ FOOTER X

Set each item and press ↑ ↓. Press RETURN to finish.

WP-335B

```

XXXXXXXXXX P:XX L:XXX COL:XXX PITCH:XX L.SP:X.X KB:XX

PAPER SIZE XXX (LINES)

TOP MARGIN      X
HEADER          X
TOP SPACE       X
TEXT AREA       XXX
BOTTOM SPACE    X
FOOTER          X
BOTTOM MARGIN   X

Set each item and press ↑ ↓ . Press RETURN to finish.
  
```

Settings	Definition
PAPER SIZE	The total length of the paper. The default, 66 lines, is suitable for letter-size paper.
TOP MARGIN	The distance between the top edge of the paper and the header (if present) or the top of the text (when there is no header). The default is 6 lines, which is 1 inch.
HEADER	An optional running header. (See Header and Footer on page 73.)
TOP SPACE	The distance between the header (if present) and the first line of text. If you store a header, you must enter a number for this selection.
TEXT AREA	The number of lines reserved for the body of the text.
BOTTOM SPACE	The distance between the last line of the text and the footer (if present). If you store a footer, you must enter a number for this selection.
FOOTER	An optional running footer. (See Header and Footer on page 73.)
BOTTOM MARGIN	The distance between the footer (if present) or the last line of the text and the bottom edge of the paper. The default is 6 lines, which is 1 inch.

NOTE:

The text cursor cycles through only five of the eight fields on the screen. **HEADER**, **FOOTER**, and **TEXT AREA** are automatically updated by the word processor. The numbers for **HEADER** and **FOOTER** are automatically set to 1 line if you store a header or footer, or 0 lines if there is no header or footer. The length of the **TEXT AREA** is defined as the **PAPER SIZE** less the lines reserved for **TOP MARGIN**, **HEADER**, **TOP SPACE**, **BOTTOM SPACE**, **FOOTER**, and **BOTTOM MARGIN**.

5. Press **↑** and **↓** to change settings.
6. Type the new value and press **↑** and **↓** to move to the next setting you want to change. Notice how the text area value will change to accommodate your selections.
7. After your changes are entered, press **RETURN**. Or, press **CANCEL** to return without saving to the last saved version of the text.

NOTE:

Your text divides into pages automatically according to the settings for the paper size. If you want to begin a new page prior to reaching the line set by the paper size setting, press **CODE + P BREAK**.

Header and Footer

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
						PAPER SIZE	
						HEADER	
						FOOTER	
						SCALE LINE ON/OFF	
						DUAL SCREEN	
						CHANGE SCREEN	

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
						PAPER SIZE	
						HEADER	
						FOOTER	
						SCALE LINE ON/OFF	
						DUAL SCREEN	
						CHANGE SCREEN	

A header is a title line and/or page number that prints automatically at the top of every page. A footer is a similar line at the bottom of the page.

1. Press **MENU** to display the menu.
2. Type **F** to select **FORM**.
3. Type **H** or **F** to select **HEADER** or **FOOTER**.

4. Type the header or footer and press RETURN. The text of the header or footer cannot exceed one line. It disappears from the screen when **RETURN** is pressed, but prints on the line determined by the paper size setting when the text is printed. Pressing **CANCEL** at this step returns the system to the previous mode without entering the header or footer.

NOTES:

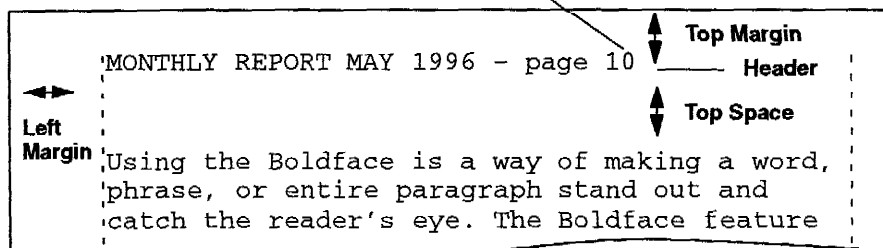
- Entering a header or footer automatically updates the setting of the paper size screen.
- To have page numbering automatically included in the header or footer, type a number enclosed in double quotes. This number increases for each page when printed. (The double quotes do not print.) Begin with number 1 or with a different number if needed. This is useful if, for instance, your document is the third chapter of a book. If chapter 3 starts at page 23, enter "23". Any number up to four digits in length (9999) is accepted.
- Example of a header and a footer with page numbering:

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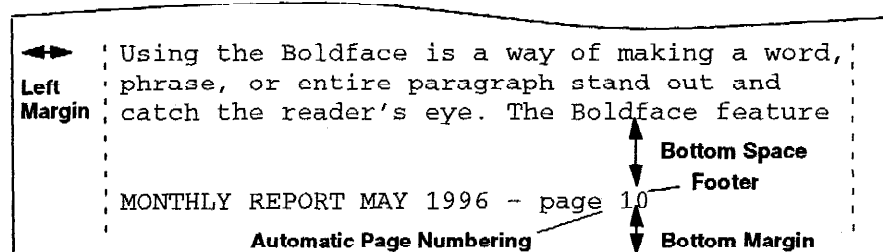
- You can use **BOLD** and **UNDERLINE** with a header and footer. You can also center the header or footer or make it right aligned with the right margin.

Header

Automatic Page Numbering



Footer



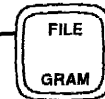
File Operation

The word processor stores each document in a separate "file" on a diskette and under an individual "file name" of up to eight characters that you choose when you store the document for the first time.

You are allowed to save your document at any moment during editing. Once your document is saved, you can start working with another document, or turn the word processor off. The next time you turn the word processor on, you can retrieve your document to edit it. You may also decide to print a document that has been completed and previously saved or the document you are working on.

This word processor also includes several File Utility functions such as file copy, delete, and rename that allow for easy maintenance of your text files.

Viewing the WP INDEX Screen



To view a list of your WP files on a diskette, switch from the WRITE/EDIT screen to the WP INDEX screen, insert that diskette, and press **FILE**.

The word processor assumes that you might want to save the data currently displayed on the WRITE/EDIT screen.

The WP INDEX screen lists all WP files on the diskette. Example:

<<WP INDEX>>		REMAIN: XXXX.XK	
*NEWFILE	TEXT1 .WPT (XX.X)	TEXT2 .WPT (XX.X)	
TEXT3 .WPT (XX.X)	TEXT4 .WPT (XX.X)	TEXT5 .WPT (XX.X)	
TEXT6 .WPT (XX.X)	TEXT7 .WPT (XX.X)	TEXT8 .WPT (XX.X)	
Select a file and press RETURN. Press CANCEL to display MAIN MENU.			

*NEWFILE is not a file stored on the diskette. This is an empty file that allows you to start from scratch.

The name of files actually stored on the diskette is followed with a file name extension that is automatically added by the word processor when you save a file. The extension for WP files is ".WPT". This extension allows the word processor to distinguish between WP files and other files that may be stored on the diskette.

The numbers displayed in parentheses at the right of the file names indicate the size of the files (in kilobytes).

The number following the indicator **REMAIN** shows the remaining space on the diskette.

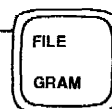
A file name can be selected by moving the cursor (reverse display of the file name) with the cursor keys. If you have more files on the diskette than the amount that can be displayed on the screen, press **↑** and **↓** to scroll the display. Press **CODE + PRE S** and **CODE + NEXT S** to scroll faster.

Saving a File

When you have completed typing and formatting a document, you should save it on the diskette.

Although the word processor allows you to type and print documents without saving them to diskette, saving is a good idea. You might, for example, find a mistake or change your mind just as you put the letter in the envelope. You can always delete unwanted documents later if you need more room. (See *Deleting a File* on page 85.)

Saving a New File



After creating a new file (the file name that appears in the upper-left corner of the screen is ***NEWFILE**), you have the options of saving or abandoning the file.

1. Press **FILE** to display the following prompt on the message line:

Save file? Press RETURN to save, CORRECT to abandon.

2. Press **RETURN** if you want to save the file, or **CORRECT** if the file is not worth saving.

NOTES:

- If you press **CORRECT**, the word processor switches to the **WP INDEX** screen without saving, and your work is lost. The old version of the file will remain untouched on the diskette.
- Press **CANCEL** instead of **RETURN** or **CORRECT** to abandon saving and return to the **WRITE/EDIT** screen.

3. If you have pressed **RETURN**, the word processor asks you to enter a file name:

Type filename and press RETURN.

FILENAME: WPT

4. Type the file name (see Entering a File Name on page 78) and press **RETURN**.
The word processor returns to the WP INDEX screen and you can confirm that the new file appears in the list.

Saving an Edited file

After editing an old file (the file name that appears in the upper-left corner of the screen is not *NEWFILE), you have the options of replacing the old version on the diskette with the new version (overwriting), abandoning the new version, or saving the new version under a separate file name.

1. After editing the file, press **FILE** to display the following prompt:

Save file? Press RETURN to save, CORRECT to abandon.

NOTE:

If FILE is pressed without editing the document, the word processor goes to the WP INDEX screen without prompting you to save the file.

2. Press **RETURN** if you want to save the file or **CORRECT** if you do not want to save the new version of the file.
3. If you pressed **RETURN**, the word processor asks you to enter a new file name:

Type filename and press RETURN.

FILENAME: XXXXXXXX .WPT

4. If you want to keep both the old and new version of your file, type a new file name and press **RETURN**. The current version is saved under this new file name. If you want the current version of the file to replace the old one, press **RETURN** without changing the file name. This message appears:

Filename already exists. Type new filename and press RETURN.

FILENAME: XXXXXXXX .WPT

NOTE:

The above message also appears if you type a file name already in use.

5. Press **RETURN** to overwrite (update) the old file. You can also type a new file name and press **RETURN** if you decide that you want to keep the old file.

Entering a File Name

When you are prompted to enter a file name, the **WP INDEX** screen shows only a list of the text files already saved on the diskette. The list of text files is displayed so that you can easily avoid entering a file name already used for another file. When typing a file name, please keep the following rules in mind:

1. A file name is made of up to eight characters. A beep sounds if you try to enter more. The file name is followed with a period and a three character extension that is automatically created by the word processor. With the **WP** application, this extension is **".WPT"**.
2. The word processor accepts only the following characters in file names: upper and lower-case letters of the alphabet (**A-Z** and **a-z**), the digits (**0** to **9**), and the hyphen (**-**). All others are refused and trigger a beep.
3. The word processor does not distinguish between upper and lower case letters. All letters are automatically converted into capitals.
4. To correct an error, press **BACKSPACE**, **CORRECT**, or **WORD OUT** to erase the preceding letter or use **←** and **→** to move the text cursor back over the name and retype.
5. Check the list of file names to avoid typing a file name that already exists. If you have more files than can be displayed on the screen, press **↑**, **↓**, **CODE + PRE S**, and **CODE + NEXT S** to scroll the file names on the **WP INDEX** when typing a new file name.

Automatic Save Function

This word processor is equipped with an Automatic Save function that prevents the loss of a document if the power is accidentally turned off before you save the file.

When you have created a file and entered up to 2,000 key strokes of data, your word processor will automatically create an **AUTO SAVE FILE**, which is updated every 2,000 strokes. Thus, in the event of an accidental power outage, all but the last input of your file (those after the last updating of the **AUTO SAVE FILE**) are safe.

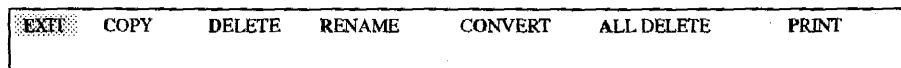
When you turn the power on with a diskette inserted in the drive, the word processor automatically searches for the **AUTO SAVE FILE**. If such a file exists, the word processor recognizes that a power loss occurred during the last session with that diskette, and the following message telling you how to recover the lost file appears:

POWER FAILURE....recover AUTO SAVE FILE? Press RETURN (yes) or CANCEL (no).

Press **RETURN** to recover the contents of the file, or **CANCEL** to delete the **AUTO SAVE FILE** from the diskette.

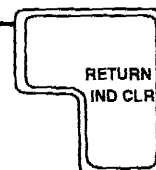
When you save a file, the AUTO SAVE FILE is deleted so that the next time you turn the power on, the AUTO SAVE FILE will not be found, and the above message will not appear.

Returning to the Main Menu



1. Press **MENU** to display the function menu.
 2. Type **E** to select EXIT.
- **Short cut:** Instead of (1) and (2), press **CANCEL**.

Retrieving a File



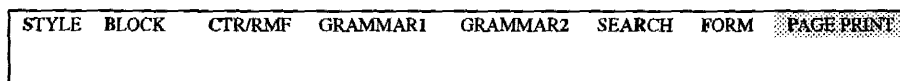
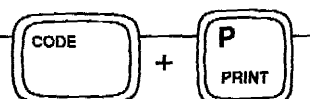
To retrieve an old file to complete typing or editing, you must first display the WP INDEX screen. The WP INDEX screen always appears when you select the WP application from the Main Menu. That screen also appears after you save a WP file, so that you can continue working with another file.

Once the WP INDEX screen is displayed, select the name of the file that you want to retrieve by moving the cursor with ←, →, ↑, and ↓ to its name on the screen and pressing **RETURN**. The file is loaded from the diskette into the word processor's memory, and the beginning of the document will be displayed on the WRITE/EDIT screen.

Printing a Document

You can either print the page currently displayed on the WRITE/EDIT screen or print an entire file after saving it.

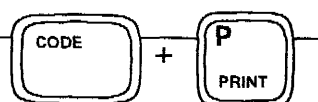
Starting Page Print



When you print a single page from the WRITE/EDIT screen, all settings like header, footer, and keyboard changes are effective. The stop symbols and merge codes, however, do not cause printing to stop but instead are printed as blank spaces.

1. Insert a sheet of paper. (See Inserting Paper on page 11.)
2. Place the cursor on the page that you want to print.
3. Press **MENU** to display the menu.
4. Type **P** to select PAGE PRINT.
- **Short cut:** Instead of steps (3) and (4), press **CODE + P (PRINT)**.
5. To pause or continue printing, see page 82.

Starting File Print



EXIT	COPY	DELETE	RENAME	CONVERT	ALL DELETE	PRINT
------	------	--------	--------	---------	------------	-------

To print the entire document, you must use the WP INDEX screen.

1. Move the cursor to the file that you want to print.
2. Press **MENU** to display the menu.
3. Type **P** to select PRINT. The PRINT MENU screen shown below appears.
- **Short cut:** Instead of steps (2) and (3), press **CODE + P (PRINT)**.

<< PRINT MENU >>		PRINT FILE: XXXXXXXX
STARTING PAGE		1
ENDING PAGE		999
NUMBER OF COPIES		1
HEADER PRINT		YES
FOOTER PRINT		YES
PAUSE FOR KB CHANGE		NO
MERGE PRINT		NO
DOUBLE COLUMNS		NO
SPACE BET. COLUMNS		5

Type number. Insert paper. press RETURN to start printing.

The definition of each setting is explained in the next table.

Option	Definition
STARTING PAGE	The page number of the file on which printing is to start. The setting must be greater than zero and less than 1000. The default is 1 (starting from the first page).
ENDING PAGE	The page number of the file on which printing is to end. Must not be lower than the STARTING PAGE number. If the number is higher than the total number of pages, printing stops after the last page. The default is 999.
NUMBER OF COPIES	The number of copies you want to print. Must be greater than 0 and less than 100. The default is 1 (the pages are printed once).
HEADER PRINT	Press the [SPACE BAR] to switch between YES and NO. If YES, any existing header prints on each page. If NO, no header prints, even if you have entered one.
FOOTER PRINT	Press the [SPACE BAR] to switch between YES and NO. If YES, any existing footer prints on each page. If NO, no footer prints, even if you have entered one.
PAUSE FOR KB CHANGE	Press the [SPACE BAR] to switch between YES and NO. If YES, pauses are made for changing the daisy wheel when necessary. If NO, all pages print out using the same keyboard used for the first character printed. However, if you changed the character pitch during the WRITE/EDIT mode, pauses are made for changing the daisy wheel even if NO is selected.
MERGE PRINT	This should be left as NO when printing ordinary document files. (See Merge Printing on page 96.)
DOUBLE COLUMNS	This should be left as NO when printing ordinary document files. (See Double Column Printing on page 90.)
SPACE BET. COLUMNS	This is used together with the above double columns printing and should be ignored when printing ordinary document files. (See Double Column Printing on page 90.)

NOTE:

The default values for STARTING PAGE, ENDING PAGE, and NUMBER OF COPIES are displayed each time the print menu screen is called up.

4. Move the cursor by pressing ↑ and ↓ to any values you would like to change. Press the **[SPACE BAR]** to switch between YES or NO, or type the desired value for the other options.
5. Insert a sheet of paper and press **RETURN**.

NOTES:

- Press **CANCEL** at any time to return to the WP INDEX screen.
- If there is a wrong setting, the following message appears and you have to correct it to the right setting.

Incorrect setting.

NOTE:

An error message appears if the setting for STARTING PAGE is greater than the last page of the document.

Incorrect page number. Press CANCEL to exit.

6. If this is the first time you are printing the file, or you have previously printed a file using a different pitch, you are prompted to install the proper daisy wheel to match the pitch setting selected. Insert the correct wheel and press **RETURN**. When printing starts, the following message appears:

Printing. Press SPACE to pause.

Pausing/Resuming Printing

[SPACE BAR]

Sometimes you may want to stop printing temporarily—to adjust the paper position, for example.

1. Press the **[SPACE BAR]** to stop the printer. A message indicating that the printer is paused appears.

Printing paused. Press SPACE to continue.

2. Press the **[SPACE BAR]** to restart the printer. This message appears:

Printing. Press SPACE to pause.

NOTES:

- You can press **CANCEL** to stop printing.

- When printing is completed (or canceled with the **CANCEL** key), the word processor returns to the **WRITE/EDIT** screen (page printing) or to the **WP INDEX** screen (file printing).

Daisy Wheel Changes

Each time the word processor finds a pitch change in the file, and, if you selected **YES** for **PAUSE FOR KB CHANGE**, each time the word processor finds a keyboard change, printing stops and a message similar to the following appears:

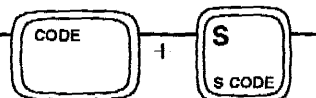
Change to KB:II 12 wheel and press RETURN.

This means that an international daisy wheel of pitch 12 is required at this point. Change the wheel and press **RETURN** to continue printing.

NOTE:

*If you selected **NO** for **PAUSE FOR KB CHANGE**, is set to **NO** in the print menu screen, printing stops for pitch changes, but not for keyboard changes.*

Stop Symbols



You can insert stop symbols ⌘ or Ⓢ in your file to instruct printing to stop at a point. When printing stops, your word processor switches to the typewriter application, and you can type text at that position. This feature is primarily used for applications using form letters with minor changes. For example, if you need to send out two identical letters and the only information that is different is the name and address of the person the letter is being sent to, follow these steps:

1. When creating the letter, press **CODE + S (S CODE)** to insert a stop code at the point where the name and address appears. During printing, you can manually type in the appropriate name and address when the printing stops.
2. Save your file and start file printing as explained above.
3. When the word processor finds a stop code, printing stops and the following message appears:

Stop code. Type text and press PRINT to continue.

4. Type your text (name and address in our example). This text is not stored in memory. The remainder of the file will, however, be reformatted to accommodate the inserted text.
5. Press **CODE + P (PRINT)** to continue printing.

NOTES:

- Stop codes are ignored and replaced as a space if you select **PRINT PAGE** from the **WRITE/EDIT** screen. Stop codes are only effective during file printing through the **WP INDEX** screen. You can print the file as many times as you want, each time inserting different information.
- When printing stops at a stop code, you can cancel printing altogether by pressing **CANCEL**. The **WP INDEX** screen appears.
- When a stop code for direct typing appears at the end of the text area defined in the **PAPER SIZE** setting (54 lines is default) and additional typing exceeds this setting, a beep sounds and the word processor goes into **PAGE END** status. The following message appears:

Page end. Press **CORRECT** to type one more line.

NOTE:

To type one more line, press **CORRECT** and begin typing. Or press **P INS** to change to a new page.

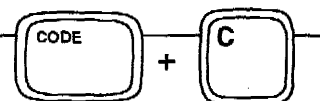
Diskette Utility Functions

To help you keep your document files in order, there are utility functions for discarding out-of-date files and making copies. (See also Initializing New Diskettes on page 19.)

NOTES:

- The following descriptions all assume that you have saved your current document and are already at the **WP INDEX** screen. (See Saving a File on page 76.)
- When you press **MENU**, the functions available in the **WP INDEX** screen are displayed.

Copying a File



EXIT	COPY	DELETE	RENAME	CONVERT	ALL DELETE	PRINT
------	------	--------	--------	---------	------------	-------

You can edit a file and keep both the old and new version on the diskette. (Make a copy of the file before editing it.) You can also copy important files onto a different diskette to back up your work.

1. Move the cursor to the file that you want to copy.
2. Press **MENU** to display the menu.
3. Type **C** to select COPY. The following message appears:

Insert destination disk and press RETURN.

- **Short cut:** Instead of steps (2) and (3), press **CODE + C**.
4. You can create this copy on the same diskette or on a different diskette. To copy on to the same diskette, press **RETURN**. To copy the file to another diskette, remove the source (original) diskette, and insert the destination diskette and press **RETURN**. The following message appears:

Type filename and press RETURN.

FILENAME: XXXXXXXX WPT

5. Enter the new file name and press **RETURN**. If you copy the file to a different diskette, you can use the same file name. The following message appears during the copy operation and disappears after completion. You return to the WP INDEX screen with the cursor on *NEWFILE.

Copying the file....please wait.

NOTE:

*If the specified new file name already exists on the inserted diskette when you press **RETURN** in step (5), the following message appears:*

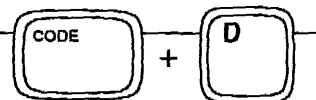
Filename already exists. Type new filename and press RETURN.

FILENAME: XXXXXXXX WPT

NOTE:

*To overwrite the old file, press **RETURN** without changing the file name. Or you can create another file by typing a new filename and pressing **RETURN**. (Then the old file is not overwritten.)*

Deleting a File



EXIT COPY **DELETE** RENAME CONVERT ALL DELETE PRINT

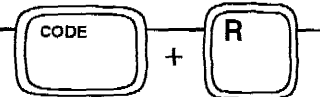
Deleting a file is useful when the diskette is full and you are unable to save files. You may delete unwanted files to make room for your new document.

1. Move the cursor to the file you want to delete.
2. Press **MENU** to display the menu.
3. Type **D** to select DELETE. The following message appears:

Delete? Press Y (yes) or N (no).

- **Short cut:** Instead of steps (2) and (3), press **CODE + D**.
4. Press **Y** to delete the file. The file is deleted and the cursor moves back to the WP INDEX screen. If you press **N**, the message disappears and you return to the WP INDEX screen without deleting the file.

Renaming a File



EXIT COPY DELETE **RENAME** CONVERT ALL DELETE PRINT

To change the name of a file, follow these steps:

1. Move the cursor to the file you want to rename.
2. Press **MENU** to display the menu.
3. Type **R** to select RENAME. The following message appears:

Type filename and press RETURN.

FILENAME: XXXXXXXX WPT

- **Short cut:** Instead of steps (2) and (3), press **CODE + R**.
4. Enter the new file name and press **RETURN**.

NOTES:

- If the specified new file name already exists when you press **RETURN** in step (4), the following message appears:

Filename already exists. Type new filename and press RETURN.

FILENAME: XXXXXXXX WPT

Type a new file name and press **RETURN**.

- If you press **CANCEL** when a message is displayed, you cancel the operation and return to the WP Index screen.

Using Your Brother Word Processing Files in a PC or Using a PC File in Your Brother Word Processor ---

You can transfer word processing data created on your Brother word processor to a personal computer or vice versa. To do this, you must be sure that the files are compatible. This means that the files must be in ASCII (DOS) format and that the files must be contained on a 720 kb or 1.44 Mb DOS formatted diskette.

- **720 kb or 1.44 Mb Formatted Diskettes**

The first step in making the data compatible is the diskette format. The Brother word processor recognizes the type of diskette (720 kb or 1.44 Mb) and formats the diskette to the corresponding DOS compatible format. So, taking files from your Brother word processor to an IBM compatible PC is simple.

However, if you plan to move data from a PC to your Brother word processor, the diskette containing the file must be formatted to a 720 kb or 1.44 Mb DOS format. The file must also be stored in the root directory on the diskette.

You can format your diskettes on the PC or on your Brother word processor. Your PC manual should list the steps necessary to complete this operation. However, many PC users find it difficult to format diskettes on a PC. In that case, to format the diskette on the Brother word processor, insert the diskette into the PC and save the ASCII file to the diskette. (Be sure to save in the root directory.)

- **Converting a File to ASCII Format**

Word processors and computers do not store data in the same format. In order to transfer your text files from your word processor to a computer, or vice versa, the files must be converted to a standard text format that both units can understand. This standard format is called ASCII.

The CONVERT function transforms your text files from the word processing format to an ASCII format. It can also transform ASCII file format files that were created on a computer into the word processing format that your word processor uses.

- **What is an ASCII File**

An ASCII file, which contains text, is stored in a format called ASCII (American Standard Code for Information Interchange). It consists of printable data containing no special formatting codes for underlining, boldface, etc. These special formatting features, such as underlining, do not translate correctly between your word processor and a computer. Therefore, when a file is converted to ASCII, all special formats are eliminated. Once the file is transferred, the file must be reformatted and any special effects must be added.

Conversions to or from ASCII files are carried out according to the IBM PC Code. For details about code page switching, refer to your DOS manual (DOS command **mode device codepage**). A table on page 299 shows all characters that you can correctly convert. Characters which are not included in that table are converted into blank spaces.

Operation

- Your Brother word processor can only read 720 kb or 1.44 Mb DOS formatted diskettes. Be sure the ASCII file created on your personal computer is saved on this type of diskette.
- When you save an ASCII file on diskette using your personal computer, be sure to save the file in the root directory (A:\ or B:\) of the diskette. Your Brother word processor recognizes only those files saved in the root directory.
- Also, be sure to add the extension ".TXT" to the file name of any ASCII file created on your personal computer so that your Brother word processor can identify the file as an ASCII file.

EXIT	COPY	DELETE	RENAME	CONVERT	ALL DELETE	PRINT
				WP TEXT.WPT→ASCII.TXT		
				ASCII.TXT→WP TEXT.WPT		

1. Insert the diskette with the file to be converted in the disk drive.
2. At the WP INDEX screen, press **MENU** to display the menu.
3. Type **0** to select **CONVERT**.
4. Type **W** to select WP TEXT.WPT→ASCII.TXT; or, type **A** to select ASCII.TXT→WP TEXT.WPT.
The CONVERT INDEX screen shows the list of source files (WP files if you selected WP TEXT.WPT→ASCII.TXT or ASCII files if you selected ASCII.TXT→WP TEXT.WPT), and this message appears:

Select a file to convert and press RETURN. Press CANCEL to exit.

5. Move the cursor to the file to be converted and press **RETURN**. You can also press **CANCEL** to exit.
6. When converting a WP file into an ASCII file, you have two options: **TEXT ONLY** and **TEXT WITH LAYOUT**. Press **←** and **→** to select the option and press **RETURN**. The message shown below will appear. This message appears immediately after step (5) when converting an ASCII file into a WP text file.
TEXT ONLY removes any formatting code from the file. When you import such a file into a personal computer word processing program, the text is automatically adapted to the format of the PC word processing program.

TEXT WITH LAYOUT preserves the format of the file. A carriage return is added at the end of each screen line. However, if the margins of your original file are unusually wide, additional carriage returns are placed into the file and re-formatting is necessary.

Insert destination disk and press RETURN.

7. Insert another diskette and press **RETURN**, or press **RETURN** if you want the converted file to be created on the same diskette. The word processor asks you for a file name.

Type filename and press RETURN.

8. Type a file name and press **RETURN**. During conversion, this message appears:

Converting the file....please wait.

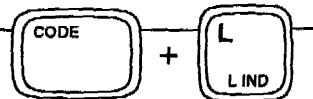
and is replaced with the following message when the conversion is completed:

Converting completed. Insert original disk and press RETURN.

If you converted an ASCII file into a WP TEXT.WPT file, you can now get into that file through your Brother word processing application. If you converted a WP TEXT.WPT file into an ASCII file, you can insert that diskette into your PC and recall the file for use.

9. Insert the original diskette back into the disk drive and press **RETURN**.

Deleting All Files



EXIT COPY DELETE RENAME CONVERT **ALL DELETE** PRINT

1. At the WP INDEX screen, press **MENU** to display the menu.
2. Type **A** to select ALL DELETE. The following message appears:

Delete all files on this index? Press Y (yes) or N (no).

- **Short cut:** Instead of steps (1) and (2), press **CODE + L**.
3. If you press **Y**, all the files on the WP INDEX are deleted, the message disappears, and the cursor moves to *NEWFILE. Pressing **N** stops deleting and you return to the WP INDEX screen.

Advanced Functions ---

This section deals with the most advanced functions in the WP application. These functions enable you to improve the overall quality of your documents further and eliminate most of the mechanical tasks.

Double Column printing prints a document in two columns.

The dual screen function allows you to work on two different documents at the same time.

The layout function for the WP-335B model displays one full page of text at a time (where the WP-230B model displays six pages of text at a time) in a smaller form so that you can have an idea of the general look of your document. You can also use this function to display an entire frame on screen.

The merge function prints many copies of a document, each copy with individual changes such as names and addresses.

Double Column Printing ---

This function allows you to print your text in magazine style, with two columns across the page. A page on the screen prints as a column on paper. In other words, two pages print on a single sheet of paper, the first page as the left column and the second page as the right column.

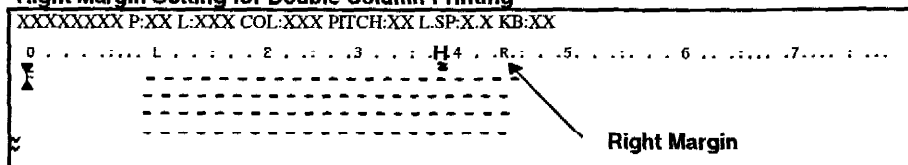
When formatting your document for double column printing, reduce the distance between margins so that both columns and the space between columns can fit on the paper. The margins for the document should be set for one column. Use 12 or 15 pitch in order to fit more text on a line.

NOTES:

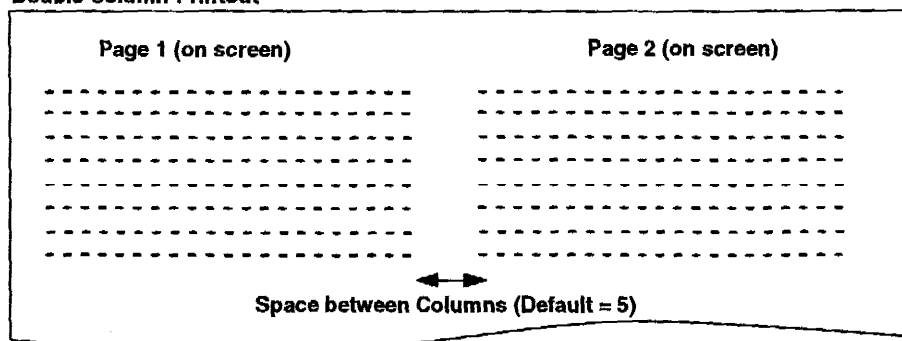
- *Double column printing does not work with merge printing. Merge symbols as well as stop symbols are ignored during double column printing and replaced with blank spaces.*
- *For proper column alignment, the document must not contain any margin, pitch, or line-spacing changes. It may, however, contain any number of keyboard and tab changes.*

1. Proceed as you would to print a text file in standard format.
2. When the print menu screen appears, select YES for DOUBLE COLUMNS. If necessary, enter the SPACE BET(ween) COLUMNS (the default is five blank spaces and the available range is from 1 to 50). You may change other settings on the menu, but you must not select YES for MERGE PRINT.
3. Press **RETURN** to start printing.

Right Margin Setting for Double Column Printing



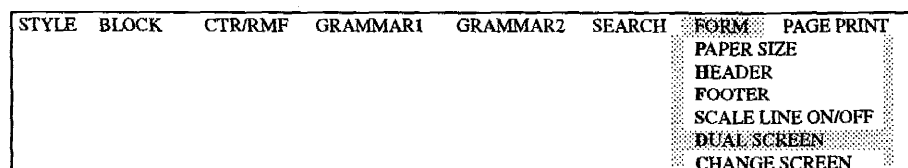
Double Column Printout



Dual Screen

The dual screen function allows you to work on two documents at the same time. This function can be used to compare two documents. You can copy the top file to the bottom file, or vice versa. See Copying a Block to the Clipboard on page 47.

Displaying Two Documents on the Screen



1. While at the WRITE/EDIT screen, press **MENU** to display the menu.
2. Type **F** to select FORM.
3. Type **D** to select DUAL SCREEN. The WRITE/EDIT screen is reduced to its upper half, and the WP INDEX screen appears on the lower half of the display.
4. Select a text file as you would do in the usual WP INDEX screen and press **RETURN**. The text of this file is now displayed in the lower half of the screen.

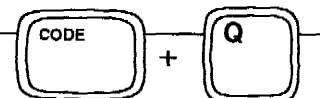
XXXXXXXX P:XX L:XXX COL:XXX PITCH:XX L:SPX.X									
0	1	2	3	4	5	6	7	8	R...
<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">F</div> <div>Text of the first file</div> </div>									
XXXXXXXX P:XX L:XXX COL:XXX PITCH:XX L:SPX.X KB:XX									
0	1	2	3	4	5	6	7	8	R...
<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">F</div> <div>Text of the second file</div> </div>									

5. You can now edit the document in the lower half of the screen the same way you can in the full-size WRITE/EDIT screen. The only difference is that the text area is smaller.

NOTE:

It is possible to increase the text area by one line using the SCALE LINE ON/OFF function. (See Example 2 on page 34.)

Switching to the Other Document



STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
						PAPER SIZE	
						HEADER	
						FOOTER	
						SCALE LINE ON/OFF	
						DUAL SCREEN	
						CHANGE SCREEN	

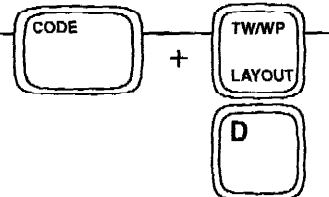
1. Press **MENU** to display the menu.
 2. Type **F** to select FORM.
 3. Type **C** to select CHANGE SCREEN. The cursor moves to the text displayed on the upper half if it was in the lower half, and vice versa.
- **Short cut:** Instead of steps (1), (2), and (3), press **CODE + Q**.

Returning to the Normal WRITE/EDIT Screen

To return to the normal WRITE/EDIT screen, you must save one of the two files that are displayed on the dual screen.

1. Use the CHANGE SCREEN function described above to place the cursor on the document that you want to save.
2. Press FILE and proceed to save or leave the document. The document that was not selected for saving is now displayed on a full-size WRITE/EDIT screen.

Page Layout Preview



When a document is complete, you may want to check the layout in order to make final adjustments. You could try to print a page or the entire document. This word processor provides you with a method for checking the format that is faster and cheaper than printing. The layout function for the WP-230B model displays six pages of text at a time, where the WP-335B model displays one full page of text at a time in a smaller form. This gives you an idea of the general look of your document.

1. While editing a text file, press **CODE + LAYOUT** to switch to the preview screen. Six pages (WP-230B model), or one page (WP-335B model), of your document are displayed simultaneously on the screen in reduced scale. The number of each page appears in normal scale at the upper-left corner of each page (the number of the page that was displayed on the WRITE/EDIT screen appears in reverse color). For example with the WP-230B model, if page 8 was displayed on the WRITE/EDIT screen, pages 7 thru 12 are now displayed, and the cursor is on page 8.
2. Use the cursor keys ←, →, ↑, and ↓ to move the cursor. The cursor keys scroll the screen window by steps of six pages when you try to move the cursor past the current window (WP-230B model).
3. Use the cursor keys ↑, and ↓ to move from one page to another (WP-335B model).
4. To return to the WRITE/EDIT screen, press **RETURN**, **CANCEL**, or **CODE + LAYOUT**. The page that was selected in the preview screen appears now in the normal display. This feature is very convenient when you spot some layout defect in the preview screen. You can select that page number and immediately switch to normal display to correct the defective format.

NOTE:

The text is first displayed according to the setting of the DOUBLE COLUMNS PRINTING option on the PRINT MENU screen: a single column if the option is set to NO, or two columns per page if the option is set to YES. Press **D** to switch from one display mode to the other.

Model WP-230B:

<< LAYOUT >> 7		8	9	REMAIN 32.2K
TOP MARGIN	6			
HEADER	0			
TOP SPACE	0			
TEXT AREA	54			
BOTTOM SPACE	0			
FOOTER	0			
BOTTOM MARGIN	6 10	11	12	
Press D to show -COLUMN -NORMAL				

Model WP-335B:

<< LAYOUT >>		15
TOP MARGIN	6	
HEADER	0	
TOP SPACE	0	
TEXT AREA	54	
BOTTOM SPACE	0	
FOOTER	0	
BOTTOM MARGIN	6	
Press D to show COLUMN/NORMAL		

Data Merge

The data merge is useful when a similar letter is to be sent to numerous addresses, each letter to be typed with a different name and address and different contents. To save you from having to recall, edit, and print the same letter over and over, the merge file function does the job automatically. The following steps summarize the use of this function:

1. To use data merge, first create a file containing the data to be inserted in the letters (the Addressbook file). For details, see Addressbook on page 155. The data to be inserted into a single letter is called a record. A record is made of different labels (label 1, label 2, label 3, etc.) that correspond to the different pieces of information you need to insert in a single letter (name, address, etc.). You must organize your Addressbook file logically: the same label of each record must contain the same type of information. For example, label 1 will contain a name, label 2 an address, label 3 a phone number, etc.
2. Next, create a word processing file containing the text that will be common to all letters (the master document). Where a piece of different information has to be inserted in the text, you insert a merge symbol and enter a label number.
3. When you print the master document, text prints until a merge symbol is found. At that point, the word processor compares the number that you have entered with the merge symbol, and automatically replaces the merge symbol with the data contained in the corresponding label of the first record. When the whole document is printed, the word processor checks the Addressbook file to see if there are more records. If there are no more records, merge printing is completed. Otherwise, printing of the master document starts again, and this time, the next record of the Addressbook file is used. The process is repeated until all records of the Addressbook file have been used.

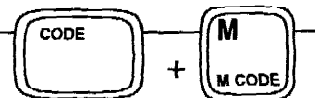
Creating the Addressbook File

To use Data Merge, first create an Addressbook file, which is a file containing the names, addresses, or other data you want to insert in the document. You create that file using the Addressbook program. For details, see Addressbook on page 157, and specifically, Preparing the Record for Merge Printing on page 163.

You can create the Addressbook file specifically for your merged document or use an existing Addressbook file. If you are using an existing file and there are records in the file that you do not want to include in merge printing, be sure to delete the asterisk that appears to the left of such records.

Also be sure to remember which label numbers (columns) in the Addressbook file correspond to the different pieces of information you want to insert.

Creating a Document with Merge Symbols



Your next step is to create the master document with the Word Processing application.

1. Begin typing your document.
2. Once you reach a point in your document where data from the Addressbook file needs to be inserted, press **CODE + M (M CODE)**. A merge symbol **M** appears in the document. The MRG: indicator appears and the cursor appears on its right. The following message appears:

Type number and press RETURN.

3. Type the number of the label that you need at that place in the document. Using the above example, type 1 if you need a MR/MS, 2 if you need a last name, or 3 if you need a first name.
4. To resume normal operation, press **RETURN**. The cursor returns to the text area.
5. Continue typing your document, inserting merge symbols wherever you need variable data from the Addressbook file.

NOTE:

*You can correct a mistake when inserting a merge symbol by pressing **CORRECT** and retyping the correct number.*

6. Press **FILE** to finish the master document.

Merge Printing

When copies of the same letter must be sent to a number of people, the merge printing function extracts the different data, such as addresses and salutations, from the Addressbook file you want to use and incorporates it into the master letter. It then prints as many different copies as there are lines of data (records) with an asterisk in the Addressbook file. Follow the steps below:

1. Refer to Starting File Print on page 80 to print the master document.
2. When the print menu screen appears, select YES for MERGE PRINT. You may also change other settings on the menu as well. Press **RETURN** to exit the print menu screen. The ADDRESSBOOK INDEX screen appears listing all Addressbook files on the diskette. If the Addressbook file you want to use is not on the diskette, insert the correct diskette.
3. Select the Addressbook file that you want to use with the master document and press **RETURN** to start printing. Press **CANCEL** to return to the WP INDEX screen. All the functions available during normal file printing are also available during merge printing.

NOTES:

- If there is no data in the Addressbook file corresponding to a merge symbol in the text file, a single space will be printed.
- Printing of merge data is done according to the mode (**NORMAL**, **BOLD**, **UNDERLINE**, etc.) in effect when the merge symbol was entered.

Business Letter Template Diskette

The Business Letter Template diskette is provided to help you write business letters. The sample letters stored on this diskette are divided into different categories. Each file contains several letters of the same category. After a file is displayed on the **WRITE/EDIT** screen, you can select the letter which fits your purpose. You can then edit that letter by changing names, addresses, dates, etc. You can also add new text. You can then print your letter and save it.

Operation

1. Insert the Brother Business Letters diskette in the disk drive.
2. Select **Word Processing** from the Main Menu. A list of the files stored on the diskette appears on the **WP INDEX** screen.
3. Select the file that you want to use and press **RETURN**. The file appears on the **WRITE/EDIT** screen. The titles of the letters in the file are displayed as the first page of the file.
4. Press **CODE + G (GO TO)** to move to the desired letter.
5. Copy the letter to the clipboard.
6. Press **FILE** to return to the **WP INDEX** screen. Do not save the template file.
7. On the **WP INDEX** screen, select ***NEWFILE** and press **RETURN** to return to the **WRITE/EDIT** screen.
8. Paste the contents of the clipboard.

Your template letter is now displayed on the screen. You can edit, save, and print the file the same way you would do with another **WP** document.

Starting BOOKMAN®

You can start **BOOKMAN®** either from the Word Processing program or from the Main Menu. For details, refer to **BOOKMAN®** on page 265.

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
				EDIT THESAURUS			
				TYPE THESAURUS			
				ABBREVIATED PHRASE MAINTENANCE			
				ABBREVIATED PHRASE LOAD			
				ABBREVIATED PHRASE SAVE			
				BOOKMAN®			

1. Press **MENU** to display the function menu.
2. Press **2** to select **GRAMMAR2**.

3. Press **B** to select BOOKMAN®. This will display the BOOKMAN® screen for the card installed.

- **Short cut:** Instead of steps (1), (2), and (3), press **CODE + 1**.

NOTE:

BOOKMAN® is a reference only. You cannot copy and paste information from BOOKMAN® into a Word Processing document.

Typewriting

When you start Typewriter, you will find that the word processor works just like an electronic typewriter. All your typing quickly prints on paper. The text you type is not stored in memory. If you already have some text in the memory (this is possible because you are allowed to switch to the typewriter application while editing a file), that text is not changed by the operations done with the typewriter application. The typewriter is equipped with a separate line memory allowing for easy correction of a line of text. If a line has to be processed before printing (when centering, for example), the line is temporarily displayed on the screen, and prints when you press **RETURN** or **TAB**.

Starting Typewriter

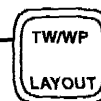
From the Main Menu



5 Typewriter

1. Turn the power on to display the Main Menu.
2. Use the cursor keys to select the icon for Typewriter and press **RETURN** or press **5** or **TW/WP**. The Typewriter screen shown on the next page appears.

From the Word Processing Application



While using the Word Processing application, you can switch to the Typewriter application by pressing **TW/WP**.

NOTE:

When the word processor finds a stop symbol in a file during file printing, it switches to the Typewriter application to allow you to add text manually in the document being printed.

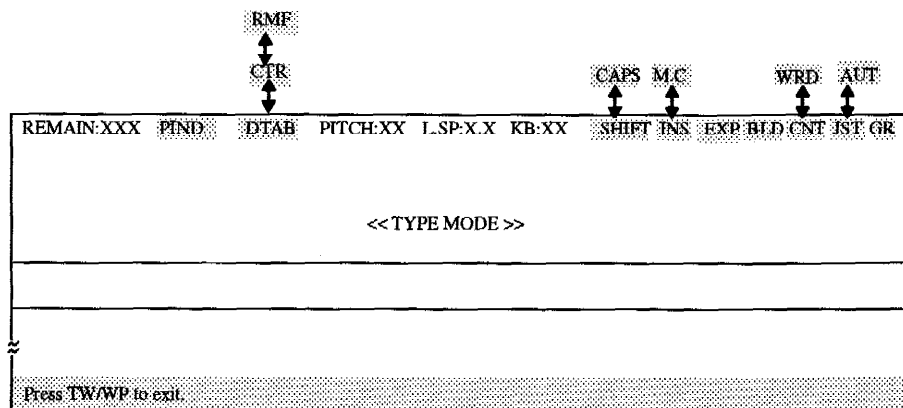
Settings such as left/right margins, tabs, etc. are independent in the Word Processing and Typewriter applications. That is, if you set the left margin to column 5 in Word Processing, then switch to the Typewriter and set the left margin to column 10, this does not change your setting in Word Processing. If you switch back to Word Processing, the left margin is still in column 5.

The typewriter application is divided into four modes: normal mode, where all you type prints directly, with no auto return; auto mode, which is like the normal mode but with auto return; line-by-line mode, which has a one-line memory displayed on the screen as well as auto return; and, justify mode, which also has a one-line memory (with screen display) in addition to justified right margins. These modes are switched by pressing **CODE + O (OPERATE)** in the sequence shown below.

TYPE → TYPE (Auto) → L/L (Auto) → L/L (Justify) → TYPE

Typewriter Screen

The following screen appears when you select the Typewriter icon on the Main Menu. This screen displays the value of various settings and a line of text when the line has to be processed before printing, or when you want to use the line-by-line mode.

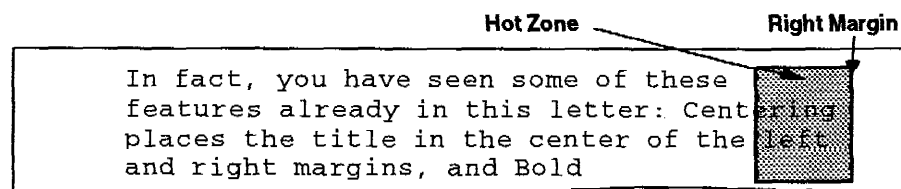


Status Line

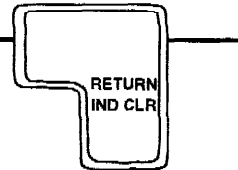
The status line indicators show you where you are and what settings are selected. (For a complete list of the indicators, see Indicators on page 297.)

Hot Zone

The hot zone starts six spaces before the right margin. The typewriter beeps when the carriage enters that zone. The REMAIN indicator tells you the number of characters that you can still type on the current line.

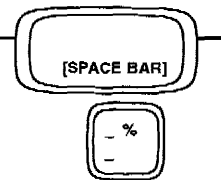


Manual Return



Pressing **RETURN** advances the paper by the current line space and moves the carriage to the left margin.

Automatic Return

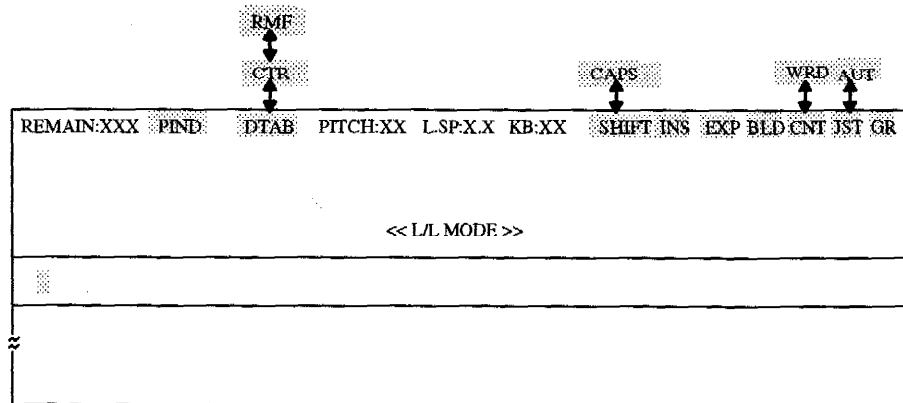
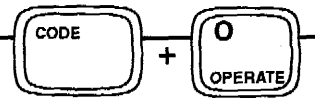


Pressing **CODE + O (OPERATE)** puts the typewriter in the auto mode. The carriage goes to the left margin if you type a space or a hyphen within the hot zone.

NOTES:

- If you do not want the carriage to go to the left margin when you type a space (the next word can still fit in the hot zone), press **CODE + [SPACE BAR]** instead of pressing the **[SPACE BAR]**.
- If you do not want the carriage to go to the left margin when you type a hyphen (the hyphen is part of the word, and the characters following this hyphen can still fit in the hot zone [example: built-in]), press **CODE + [-]** instead of pressing **[-]**.
- If you reach the right margin, the typewriter stops. Press **RETURN** to move the carriage to the left margin or **CODE + M REL** to continue typing beyond the margin.

Line-by-Line Mode



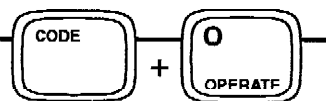
You can enter the line-by-line mode and switch between the other sub-modes by pressing **CODE + O (OPERATE)**.

1. Press **CODE + O (OPERATE)** while in the auto mode of the type mode to display the L/L mode screen. A single line appears in the middle of the screen.

NOTES:

- In L/L mode, automatic return is always used.
 - To justify your text, press **CODE + O (OPERATE)** again and display the JST indicator.
2. Type your text. The text is displayed on the screen as you type, although nothing is printed. If you press a dead key, the carriage does not move until you press the base character.
 3. To print what you have typed, press **RETURN**, **TAB**, **CODE + P IND**, **CODE + L (L IND)**, or **CODE + IND CLR**. Your text prints also after you type a character following a hyphen or a space in the hot zone.

Justification Mode

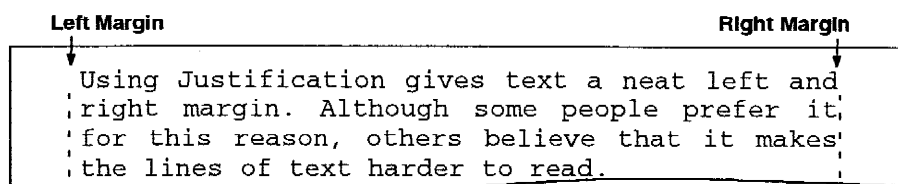


The Justification mode allows you to print text aligned to both left and right margins.

1. Press **CODE + O (OPERATE)** until the JST indicator appears.
2. Type your text. The text appears on the screen, and the carriage moves as you type. If you type a space in the hot zone, justified text prints and the carriage is automatically returned. Typing a hyphen in the hot zone starts printing justified text after typing the next character.

NOTES:

- Pressing **RETURN** aligns the line with the left margin only.
- The carriage does not return to the left margin if you type a space when the last entered character of a word reaches the right margin. In this case, you must press **RETURN**.



Basic Typing

Inserting Paper

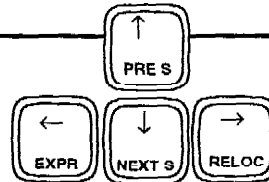


Insert a sheet of paper and press **P INS**. Paper is automatically fed. You can start typing at approximately one inch from the top of the paper. Since the carriage is positioned at the center after automatic insertion, press **RETURN** to move the carriage to the left margin.

NOTES:

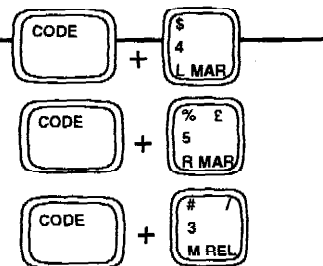
- Paper cannot be inserted this way while in display mode (centering, right margin flush, decimal tab mode).
- Paper can be inserted this way in L/L mode only before entering text on the screen.

The Cursor Keys



You can press the cursor keys to move the carriage (except when a line of text is temporarily displayed). Press ← and → to move the carriage one character pitch to the left or the right. Press ↑ and ↓ to move the carriage up or down by 1/12 of an inch (the paper moves), except when the text is displayed on the screen.

Setting Margins



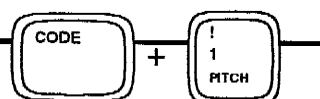
1. Move the carriage by pressing the **[SPACE BAR]** or **TAB** (to move to the right) or **BACKSPACE** or **CODE + EXPR** (to move to the left).
2. If you want to set new margins beyond the old ones, press **CODE + 3 (M REL)** when the carriage reaches the current margin.

3. To set a margin at the carriage position, press **CODE + 4 (L MAR)** or **CODE + 5 (R MAR)**.

NOTES:

- Margins cannot be set while in display mode (centering, right margin flush, decimal tab) or in L/L mode.
- There must be at least 2 inches between margins.
- The margin settings are reset to their default values when you turn the power off, then on.

Selecting the Pitch



Pressing **CODE + 1 (PITCH)** changes the pitch through the following cycle:

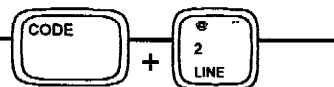
PITCH: 10 → 12 → 15 → 10

Pitch	Number of Characters per inch
10 (PICA)	10 characters per inch
12 (ELITE)	12 characters per inch
15 (MICRON)	15 characters per inch

NOTES:

- The pitch cannot be changed while in display mode (centering, right margin flush, decimal tab mode).
- The pitch can be changed in L/L mode only before entering text on the screen.
- The pitch setting is reset to its default value when you turn the power off, then on.

Selecting the Line Space



Pressing **CODE + 2 (LINE)** changes the line space through the following cycle:

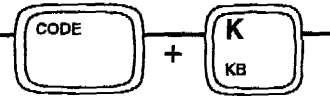
L.SP: 1.0 → 1.5 → 2.0 → 1.0

Line Spacing	Number of Lines per inch
1.0	6 lines per inch
1.5	4 lines per inch
2.0	3 lines per inch

NOTE:

The line space setting is reset to its default value when you switch the power off, then on.

Changing the Keyboard



If you need to print characters that are not available on the current daisy wheel, change the daisy wheel and press **CODE + K (KB)**.

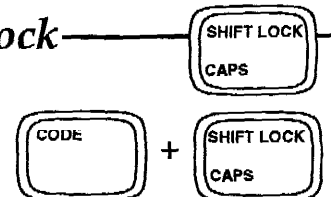
KB: I → II → III → I

Keyboard Selection	Use
I (Standard)	English text
II (International)	Languages using extra characters
III (Symbol)	Mathematical symbols and Greek characters

NOTES:

- See *Character Keys* on page 276 for details.
- The keyboard setting cannot be changed while in display mode (centering, right margin flush, decimal tab mode).
- The keyboard setting can be changed in L/L mode only before entering text on the screen.
- The keyboard setting is reset to its default value when you turn the power off, then on.

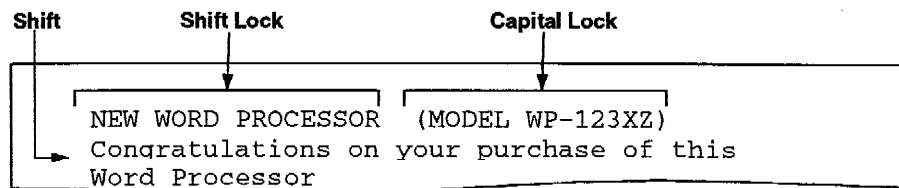
Using Shift Lock and Capital Lock



Uppercase characters print if you hold **SHIFT** down while pressing any character key.

To type an entire string of uppercase characters, press **SHIFT LOCK** once. The **SHIFT** indicator appears and all characters you type will be uppercase characters. To cancel, press **SHIFT**.

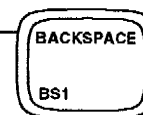
If you want to enter strings of capital letters in combination with numbers, press **CODE + CAPS**. The **CAPS** indicator appears, and all alphabetic keys type capitals while other keys produce lower-case characters. To cancel, press **CODE + CAPS** again. When the **CAPS** indicator is on, holding down **SHIFT** temporarily changes the **CAPS** indicator to the **SHIFT** indicator. Pressing **SHIFT LOCK** in the same circumstance switches to **SHIFT**. Pressing **SHIFT** switches back to **CAPS**.



Backspacing

There are four types of backspace keys: normal, fractional, permanent, and express.

Normal Backspace

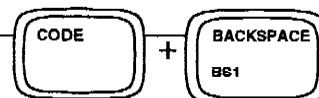


Pressing **BACKSPACE** moves the carriage one space to the left. Hold the key down for quick movement to the left.

NOTES:

- When the text is displayed, pressing **BACKSPACE** deletes the character to the left.
- If the carriage is positioned in the middle of a character, pressing **BACKSPACE** moves the carriage to the beginning of the current character.
- If you press **BACKSPACE** when the carriage is on the left margin or on the left end, the typewriter beeps. Pressing **CODE + M REL** allows the carriage to go beyond the left margin.
- **BACKSPACE** is used in type mode to combine two characters like O and / to create Ø. Type the first character, press **BACKSPACE**, and type the second character. This will not work once the text is displayed. (See Permanent Backspace on page 109.)

Fractional Backspace



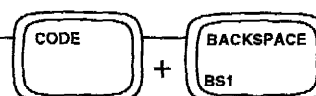
CODE + BS 1 moves the carriage back by 1/60 inch. This allows you to position the carriages precisely for corrections when you have to reinsert a page or when you want to correct a previous line that has uneven spaces between words. For example, this key is also useful to line up your carriage exactly on a point on a preprinted form. The following table relates the 1/60 inch backspace with the selected pitch. You can also use this function to type Roman numerals (which need unusually small spaces between characters).

Pitch	Relative Amount of Backspace
10 (PICA)	1/6 of a character
12 (ELITE)	1/5 of a character
15 (MICRON)	1/4 of a character

NOTES:

- If **CODE + BS 1** is pressed when the carriage is on the left margin or on the left end, the typewriter beeps. Pressing **CODE + M REL** allows the carriage to go beyond the left margin.
- When the text is displayed (centering, right margin flush, decimal tab or L/L mode) you can press **CODE + BS 1** to superimpose characters. (See Permanent Backspace next.)

Permanent Backspace



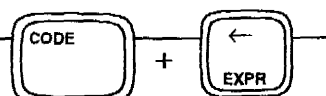
You can use permanent backspace to print superimposed characters in the display mode (centering, right margin flush, decimal tab, and L/L mode). For example, 0 and / are used to produce a "strike-over" zero (Ø), or Y and = to produce a Japanese Yen currency symbol (¥).

1. To type a ¥, first type a Y.
2. Press **CODE + BS1**. The cursor moves one space to the left.
3. Type the = character which is to be superimposed. The Y base character, a permanent backspace symbol ←, and the = character to be superimposed are displayed side by side.

NOTE:

*In type mode, you do not need to press **CODE**. Pressing **BACKSPACE** alone moves the carriage back to the last character allowing you to superimpose another character.*

Express Backspace



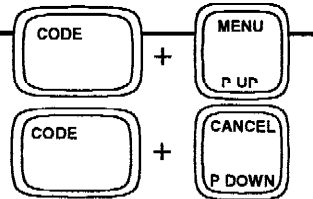
Pressing **CODE + EXPR** moves the carriage to the left margin. If you press **CODE + M REL**, the carriage moves all the way to the left end.

NOTES:

- When you have a paragraph indent and the carriage is located at its right, pressing **CODE + EXPR** once moves the carriage to the paragraph indent; pressing the same keys again moves the carriage to the left margin.

- If **CODE + EXPR** is pressed when the carriage is on the left margin or on the left end, the typewriter beeps.
- Pressing **CODE + EXPR** moves the cursor to the beginning of the line in the display mode.

Subscripts and Superscripts



To type subscripts, press **CODE + P UP**. In the type mode, this moves the paper up 1/12 inch and in the L/L mode moves the cursor to the lower portion of the line on the screen. All the characters you type from now on are printed lower than the previous characters. To cancel this function, press **CODE + P DOWN**.

Superscripts are created similarly, except that you have to start with **CODE + P DOWN** and cancel with **CODE + P UP**.

NOTES:

- For the WP-230B model, characters in subscript and superscript are displayed on the same line as normal characters in the L/L mode. When you input a subscript or superscript or move the cursor to a subscript or superscript, however, only half of the cursor appears (lower-half for subscripts, and upper-half for superscripts).
- If either **CODE + P UP** or **CODE + P DOWN** are pressed twice in a row in type mode, auto correction is turned off. If this is done in the L/L mode after the data has been entered, a beep sounds.

Accents and Special Symbols (“Dead” Keys)

The multilingual keyboard supports the characters with accent marks of such languages as French, German, and Spanish, as well as special symbols.

1. Turn the KB indicator to II (International) or III (Symbol) by pressing **CODE + K (KB)**. (See Changing the Keyboard on page 107.)
2. Install the appropriate daisy wheel. (See Changing Daisy Wheel Cassette on page 303.)
3. Type the dead character. (See Character Keys on page 276.)
4. Type the base character.

NOTE:

In display mode, the dead character and the base character are displayed side by side (Example: ^a).

Corrections

This typewriter has a one line correction memory that makes it possible to erase any character or word automatically. This function, however, works only with the current line.

Automatic Correction

Correcting One Character



To correct a character on the current line, press **BACKSPACE** to move the carriage to the mistyped character, press **CORRECT** to erase, then retype the correct character.

NOTES:

- Pressing **CORRECT** on a space moves the carriage back.
- Pressing **CORRECT** deletes the character positioned left of the cursor while in centering, right margin flush, decimal tab, and L/L modes.

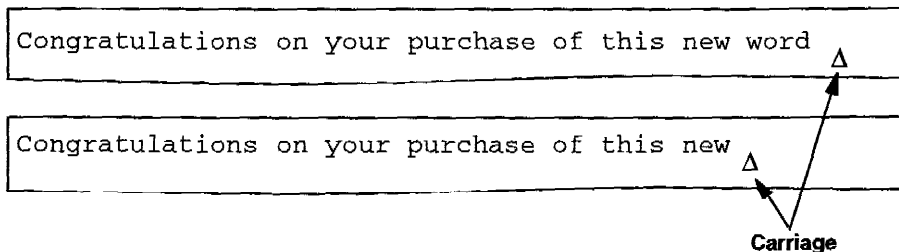
Erasing One Word



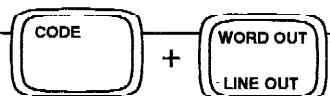
To erase a word, position the carriage next to the right of the last character of the word and press **WORD OUT**. The entire word is erased and you can retype.

NOTES:

- Erasing in progress can be stopped by pressing **CORRECT**.
- Position the cursor to the space immediately to the right of the word to be deleted while in centering, right margin flush, decimal tab, and L/L modes.



Erasing One Line



To erase a line of text, position the carriage to the right of the last character on the line and press **CODE + LINE OUT**. The entire line is erased and you can retype.

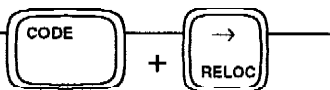
NOTES:

- Automatic erasing in progress can be stopped by pressing **CORRECT**.
- Position the cursor to the space immediately to the right of the last character to be erased while in centering, right margin flush, decimal tab, and L/L modes.

Congratulations on your purchase of this new word Δ

Δ

Relocation of the Carriage

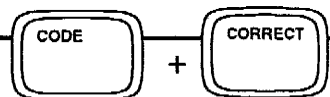


After a correction is made in the middle of the current line, pressing **CODE + RELOC** moves the carriage to the position next to the last character.

NOTE:

Pressing **CODE + RELOC** moves the cursor to the space immediately to the right of the last data while in the centering, right margin flush, decimal tab, and L/L modes.

Manual Corrections



When a correction is required above the current line, or if you have to reinsert the paper, the memory correction does not work because the line memory is cleared each time the paper is fed more than 1/12 inch.

NOTE:

This function cannot be used while in the centering, right margin flush, decimal tab or L/L mode.

1. Press **CODE + P DOWN** or use the platen knob to position the carriage where a correction is required. Move the carriage to the character you want to correct by pressing **BACKSPACE** or the **[SPACE BAR]**. If necessary, use **CODE + BS 1** to accurately position the carriage.

Congr_Δstulations on your purchase of this new word

2. Press **CODE + CORRECT**. The M.C. indicator appears.
3. Retype the same character again. The character is erased and the M.C. indicator disappears.

Congr_Δ tulations on your purchase of this new word

4. Type the desired character.

Congratulations on your purchase of this new word
_Δ

Formatting the Page

On-Screen Editing

When using the functions listed below, the text that you enter appears on the screen but is not typed until you press **RETURN** or **TAB**. These functions are the following:

- Decimal Tab
- Centering
- Right Margin Flush

This is because your typewriter needs to know the whole text before it is able to calculate its position on the paper.

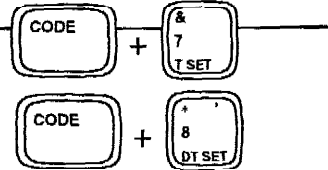
While your text is displayed on the screen, you can edit it using the following keys:

Key	Function
BACKSPACE CORRECT WORD OUT CODE + LINE OUT	To delete character(s) left of the cursor and pull the rest of the text to the left.
← →	To position the cursor.
CODE + EXPR	To move the cursor to the beginning of the line.
CODE + RELOC	To move the cursor to the end of the line.
CODE + I (INSERT)	To switch the insert mode on/off. When the INS indicator is on, typing a character over a (Key: I) previously typed character does not replace the old character. Instead, the new character appears at the cursor position, pushing the rest of the text one position to the right.

Tabs and Decimal Tabs

You can set a total of 30 tabs or decimal tabs. Tabs and decimal tabs make it easy to position the carriage at preset positions and have text arranged in columns. Decimal tabs are used to align the decimal point of numbers with preset positions.

Setting Tabs and Decimal Tabs

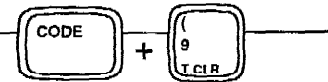


Move the carriage to the desired position and press **CODE + 7 (T SET)** to set an ordinary tab, or **CODE + 8 (DT SET)** to set a decimal tab.

NOTES:

- *Tabs and decimal tabs cannot be set in the display mode.*
- *The tab settings are erased when you switch the power off.*

Clearing Tabs

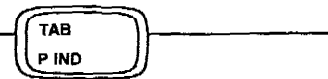


To clear a tab, move the carriage to that position and press the **CODE + 9 (T CLR)**.

To clear all tabs, hold down the same keys until this message appears:

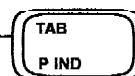
All tabs cleared.

Typing with Tabs



To move the carriage to the next tab to the right, press **TAB**. If there are no more tabs or decimal tabs to the right, the carriage moves to the right margin. When the carriage is at the desired tab, start typing. Press **RETURN** to move the carriage back to the left margin and feed paper, or **TAB** to move to the next tab.

Typing with Decimal Tabs



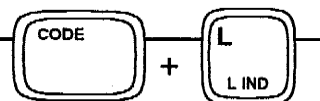
When you press **TAB** to move the carriage to the next decimal tab, the DTAB indicator appears. When this indicator is on, you can type a number, which is displayed on the screen. When you type the decimal point, however, all that you have typed is printed with the decimal point aligned at the decimal tab. You can then enter the fractional part of the number, which is printed as you type it. The carriage then moves to the left margin if you press **RETURN**, or to the next tab or decimal tab if you press **TAB**.

Tab	Decimal Tab
May	129.84
June	34.97
July	7864.81

NOTES:

- Pressing **CANCEL** or **CORRECT** before you type anything turns off the decimal tab function and returns you to normal typing. This is useful when you press **TAB** to move to the next tab and reach a decimal tab instead.
- You cannot use the decimal tab function when the centering or right margin flush function is started.

Line Indent

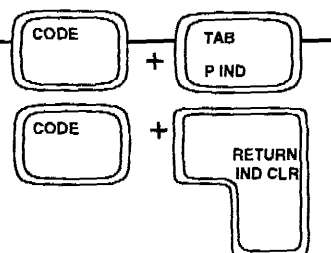


Pressing **CODE + L (L IND)** is the same as typing five spaces. The primary use is in indenting the first line of paragraphs.

Line Indent

↓
This letter was typed on a new word processor
to show you some of the many outstanding feats it
can perform.

Paragraph Indent



Paragraph indent works like a temporary left margin. The most common application is numbered paragraphs.

First set a tab at the desired indent position and press **RETURN**, to move back to the left margin. Press **CODE + TAB (P IND)**. The PIND indicator appears. From now on the carriage returns to that temporary left margin. To cancel this, press **CODE + RETURN (IND CLR)**.

This letter was typed on a new word processor to show you some of the many outstanding feats it can perform.

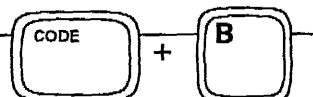
In fact, you have seen some of these features in this letter: Centering has placed the title right in the center of the left and

Paragraph Indent

Text Emphasis (Style)

The style function allows you to highlight an important part of your text using boldface characters, underlining, or expand (a space is inserted between the characters). These functions can be used together in any combination.

Bold



STYLE	CTR/RMF	GRAMMAR
BOLD	OFF	
UNDERLINE	OFF	
EXPAND	OFF	

1. Press **MENU** to display the menu.
2. Type **S** to select STYLE.
3. Type **B** to select BOLD.

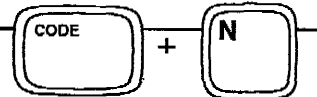
NOTE:

*You can turn the BOLD ON/OFF by pressing the [SPACE BAR] or **B**.*

4. Press **RETURN**. The bold function is ON and the BLD indicator is displayed.
5. Type your text. The characters are in bold.
- **Short cut:** Instead of steps (1), (2), (3), and (4), press **CODE + B** to turn bold ON/OFF.
6. To return to normal typing, repeat steps (1), (2), (3), and (4) to turn bold OFF, or press **CODE + B**.

Using the **Boldface** is a way of making a word, phrase, or entire paragraph stand out and catch the reader's eye. The **Boldface** feature has a

Underline



STYLE	CTR/RMF	GRAMMAR
BOLD	OFF	
UNDERLINE	OFF	
EXPAND	OFF	

1. Press **MENU** to display the menu.
2. Type **S** to select STYLE.
3. Type **U** to select UNDERLINE.
4. Press the [SPACE BAR] to select CNT (continuous underlining) or WRD (word underlining).
5. Press **RETURN**. The corresponding indicator is now on.
- **Short cut:** Instead of steps (1), (2), (3), (4), and (5), press **CODE + N** to turn underline CNT/WRD/OFF.

NOTE:

If you select continuous underlining, all is underlined, including blank spaces. With word underlining, blank spaces are not underlined.

6. Type your text. The characters are underlined.
7. To return to normal typing, repeat steps (1), (2), (3), (4), and (5) to turn the underline function off, or press **CODE + N**.

Continuous Underline

Using Underline is a way of making a word, phrase, or entire paragraph stand out and catch the reader's eye. The Underline feature has a

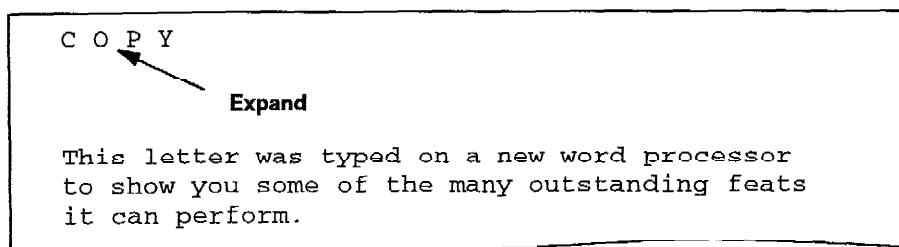
Word Underline

Using Underline is a way of making a word, phrase, or entire paragraph stand out and catch the reader's eye. The Underline feature has a

Expand

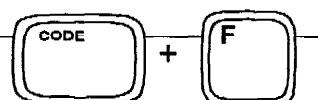
STYLE	CTR/RMF	GRAMMAR
BOLD	OFF	
UNDERLINE	OFF	
EXPAND	OFF	

1. Press **MENU** to display the menu.
2. Type **S** to select STYLE.
3. Type **E** to select EXPAND.
4. Press the **[SPACE BAR]** to turn the EXPAND function ON/OFF.
5. Press **RETURN**. The EXP indicator is now on.
6. The text you now type is expanded, with a permanent space automatically inserted after each text character.
7. To return to normal typing, repeat steps (1), (2), (3), (4), and (5) to turn the expand function OFF.



Centering and Right Margin Flush Functions —

Centering Between Margins or
Between Tabs

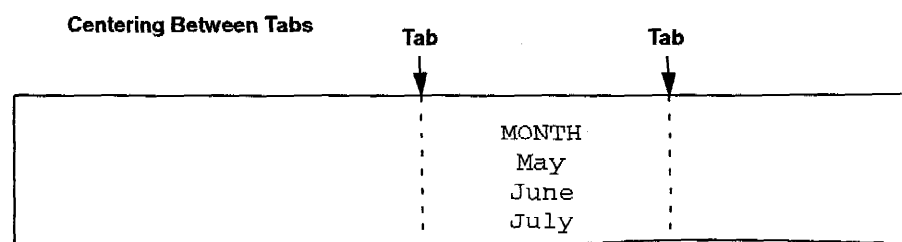
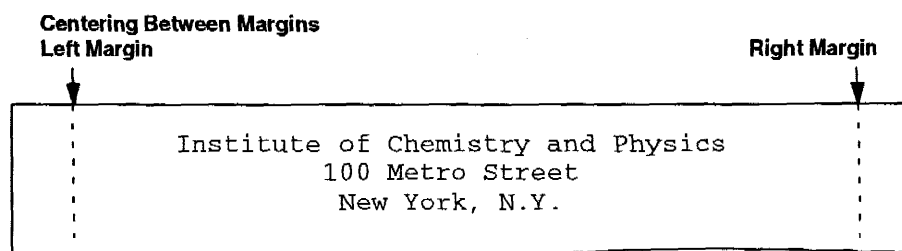


Centering allows you to center text between the margins. You can also center items in a table between two tabs.

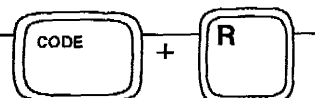
1. To center between margins, position the carriage on the left margin. To center between tabs, press **TAB** to move the carriage to the first tab of the centering range. The text will be centered between that tab and the next tab (or the right margin if there are no more tabs).
2. Press **MENU** to display the menu.
3. Type **C** to select CTR/RMF.
4. Type **C** to select CENTERING. The CTR indicator appears.
 - **Short cut:** Instead of steps (2), (3), and (4), press **CODE + F**.
5. Type your text. The text is temporarily displayed on the screen and you can edit your text.
6. Press **RETURN** or **TAB**. The text prints.

NOTES:

- Pressing **CANCEL** before any data is entered returns you to the normal mode.
- Centering cannot be executed while using decimal tabs or right margin flush.
- You cannot center if the carriage is not first positioned on the left margin or on a tab.



Right Margin Flush (RMF)



STYLE	CTR/RMF	GRAMMAR
	CENTERING	
	RIGHT MARGIN FLUSH	

Right margin flush puts the last character of lines of text on the right margin.

1. Press **MENU** to display the menu.
2. Type **C** to select CTR/RMF.
3. Type **R** to select RIGHT MARGIN FLUSH. The RMF indicator appears.
 - **Short cut:** Instead of steps (1), (2), and (3), press **CODE + R**.
4. Type your text. The text is temporarily displayed on the screen and you can edit your text.

5. Press **RETURN** or **TAB**. The text prints.

NOTES:

- Pressing **CANCEL** before any data is entered returns you to the normal mode.
- You cannot use right margin flush while in the decimal tab or Centering mode.



Grammar Check®

This word processor is equipped with a powerful grammar checker that detects misspelled and redundant words, as well as punctuation errors. You can create a user dictionary to store foreign words or brand names that are not standard English. A separate word count function working together with the Thesaurus provides an easy way to replace a word that appears frequently with adequate synonyms. An additional function, the abbreviated phrase function, allows you to store long strings of words and recall them by typing a simple abbreviation.

Description of Grammar Check

The menu of the WP application displays two separate options: GRAMMAR1 and GRAMMAR2.

GRAMMAR1 (WP Application)

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
			GRAMMAR CHECK				
			GRAMMAR CHECK SET MENU				
			DESKTOP REFERENCE				
			USER DICTIONARY MAINTENANCE				
			USER DICTIONARY LOAD				
			USER DICTIONARY SAVE				

- GRAMMAR1 is used for automatic detection of errors. Two independent functions can be used: Spell Checker, which checks for misspelled or redundant words; and Punctuation Alert, which checks for punctuation errors as well as missing brackets or quotation marks. This option also includes the tools you need to work with personal "user dictionaries" (You can start DESKTOP REFERENCE from this option). You can use Spell Checker in the ALL mode to check the entire document, or in the ONE WORD mode to check the words one by one while you type.

GRAMMAR2 (WP Application)

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
				EDIT THESAURUS			
				TYPE THESAURUS			
				ABBREVIATED PHRASE MAINTENANCE			
				ABBREVIATED PHRASE LOAD			
				ABBREVIATED PHRASE SAVE			
				BOOKMAN®			

- GRAMMAR2 allows you to improve the style of your document and your typing speed. Two thesaurus functions are available: EDIT THESAURUS, which provides synonyms for a word already typed; and TYPE THESAURUS, which provides synonyms for a word that you specify. EDIT THESAURUS replaces with synonyms those words in your document that appear too frequently. The GRAMMAR2 option also includes functions that allow you to create and retrieve a list of "phrases"—that is, combinations of words often used in your document. Once created, you can insert these phrases quickly into your document by typing an abbreviation.

With the TW application, all the functions of Grammar Check are available in the GRAMMAR option.

GRAMMAR (TW Application)

STYLE	CTR/RMF	GRAMMAR
		GRAMMAR CHECK
		USER DICTIONARY MAINTENANCE
		USER DICTIONARY LOAD
		USER DICTIONARY SAVE
		EDIT THESAURUS
		TYPE THESAURUS

- With the TW application, since only the contents of the current line are stored in the memory, Spell Checker always works in the ONE WORD mode, and the Punctuation Alert is turned off. Spell Checker, however, can recheck words already typed as long as you do not switch to the next line. EDIT THESAURUS and TYPE THESAURUS are both available, but EDIT THESAURUS is only available when the text is temporarily displayed on the screen.

Spell Checker (Word Spell) ---

Spell Checker comes with a built-in dictionary of about 95,000 English words. When checking your text, Spell Checker compares each word with the contents of the built-in dictionary. If a word is not found in the built-in dictionary, the word processor assumes that the word in question is misspelled and warns you.

The built-in dictionary contains only standard English words, and considers words like brand names, people's names, or foreign language words as misspelled words, even if those words are correct. If you frequently use such words in your document, you should create a "User Dictionary" and store those words in that dictionary. The user dictionary is kept in the memory for as long as the power is on. When a word cannot be found in the built-in dictionary, Spell Checker scans the user dictionary and warns you if the word cannot be found there.

When a word cannot be found in either dictionary, Spell Checker gives you a menu of options:

- You can **IGNORE** the warning and keep the suspect word unchanged.
- You can ask for **SUGGESTIONS**. In this case, Spell Checker gives possible replacement word(s) for the suspect word.
- You can also directly **RETYPE** the word correctly. Use this option when the error is evident and easy to correct or when the system cannot provide the correct suggestion.
- You can **ADD** the suspect word to the user dictionary. This is useful when the suspect word, although correct, is not a standard English word. Once the word is stored in the user dictionary, Spell Checker does not warn you the next time the same word is found.

Spell Checker also detects double words (you typed the same word twice). When this happens, a menu of options appears:

- You can **IGNORE** the warning and keep the repeated word in the text.
- You can automatically **ERASE** the **SECOND WORD**.

NOTE:

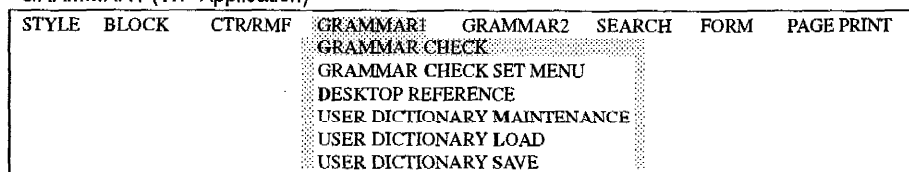
This system is not a replacement for careful proofreading of your documents. It has no way of knowing, for example, whether words are missing or whether a given word is appropriate for the current context. If you type "teh" instead of "the," spell checker alerts you because "teh" is not an English word, but if you type "one" instead of "on," it does not consider it a mistake.

Checking Existing Text (WP Application) —

With the WP application, you can scan the entire document for problems. The scan starts at the word where the cursor is located and works toward the end of the document.



GRAMMAR1 (WP Application)



1. Place the cursor where you want to start checking. For example, if you want to check the entire document, place the cursor on the first word of the document.
2. Press **MENU** to display the function menu.
3. Type **1** to select GRAMMAR1.
4. Type **G** to select GRAMMAR CHECK. The following dialog box appears:



- **Short cut:** Instead of steps (2), (3), and (4), press **CODE + FILE**.
5. Press ← and → to select **ALL** and press **RETURN**. Spell Checker scans your text for misspelled words and displays the message:



While Checking (Suspect & Repeated Words) —

When a suspect or redundant word is found, the above message disappears and is replaced with menu options. The suspect word is highlighted in the text.

Example 1: Let's suppose that you type "The quick broen fox..." ("broen" is suspect)

The screenshot shows a word processor window with a title bar "GR". The text "The quick broen fox ..." is in the main area. A menu bar is visible with the following options: "Use cursor to select. Press RETURN", "SUSPECT WORD: broen", "► MENU ◀", "IGNORE", "SUGGESTION", "RETYPE", and "ADD".

1. Press ← and → to select an option and press **RETURN**.

- If you select **IGNORE**, the word processor searches for the next suspect word. The word "broen" is not be corrected.
- If you select **SUGGESTION**, a menu of possible replacement words appears.

The screenshot shows the same word processor window. The menu bar now includes a list of suggestions: "SUGGESTIONS : brown broken brawn bruin brain brine borne boron". The word "broen" is still highlighted in the text.

2. Press ← and → to select the replacement word and press **RETURN**. The word you choose replaces the one in the text, and the word processor searches for the next suspect word. If the correct word does not appear in the suggestion menu, press **CANCEL** to return to the first menu and select **RETYPE** as explained below.

- If you select **RETYPE**, an input area appears so that you can type the correct word:

The screenshot shows the same word processor window. The menu bar now includes a "WORD:" input field. The word "broen" is still highlighted in the text.

3. Type the correct word and press **RETURN**. The correct word replaces the one in the text, and the word processor searches for the next suspect word.

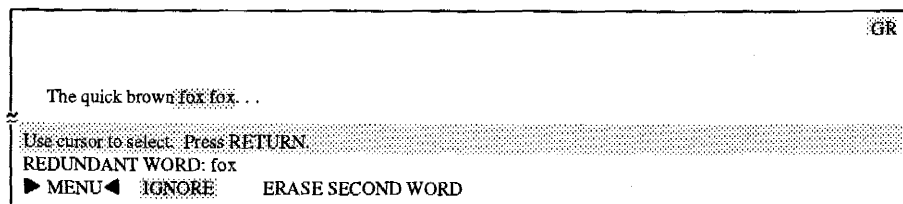
- If you press ↓ first, the suspect word appears in the input area so that you can correct it with a few keystrokes. Press **RETURN** when the word is correct.
- If you select **ADD**, the suspect word is added to the user dictionary. (From now on, the word is considered correct.) The following message appears:

Word added to user dictionary.

NOTE:

If you add words to the user dictionary, you must save the user dictionary onto a diskette before turning the power off. (See "Saving the User Dictionary" on page 135.)

Example 2: Let's now suppose that you have typed "The quick brown fox fox..."

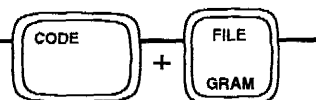


1. Press ← and → to select an option and press **RETURN**.

- **IGNORE**: the word is kept in the text and the word processor searches for the next suspect or double word.
- **ERASE SECOND WORD**: the word is deleted and the word processor searches for the next suspect word.

The process repeats to the end of the document (a message tells you that you have reached the end of the document) or until you press **CODE + FILE** or **CANCEL** to turn Spell Checker off.

Checking While Typing (WP or TW Application)



You can use Spell Checker to check each word as you type. You can do this in WP or TW applications.

Starting Spell Checker

GRAMMAR (TW Application)

STYLE	CTR/RMF	GRAMMAR
		GRAMMAR CHECK
		USER DICTIONARY MAINTENANCE
		USER DICTIONARY LOAD
		USER DICTIONARY SAVE
		EDIT THESAURUS
		TYPE THESAURUS

If you are working in WP, refer to Starting Spell Checker on page 127. The only differences between the One Word procedure and the All procedure are: 1) place the cursor at the location where you are going to type, and 2) when the option menu ALL ONE WORD appears, select ONE WORD. Spell Checker is started.

If you are working with the TW application, proceed as follows:

1. Press **MENU** to display the function menu.
 2. Type **G** to select GRAMMAR.
 3. Type **G** to select GRAMMAR CHECK.
- **Short cut:** Instead of steps (1), (2), and (3), press **CODE + FILE**.

Once Spell Checker is started, the GR indicator appears on the screen. The words you type are checked for spelling or redundancy. If an error is found, the system interrupts your typing and displays menu options. In type mode, when you select a suggested word, or when you retype a replacement word, the old word is erased, and the word processor prints the replacement word.

NOTES:

- In the TW application, when you move the carriage or the cursor over existing text, the word processor detects errors even if spell checker was started after typing that text. (This feature is limited to the current line).
- To disable Spell Checker, press **CODE + FILE**.

Setting the System (WP Application)

In the WP application, the word processor can check for punctuation errors in addition to spelling mistakes and redundancies. See Punctuation Alert (WP Application Only) on page 137.

Before you check existing text (ALL option), you can turn the Spell Checker or the Punctuation Alert on or off as described on the next page.

GRAMMAR1 (WP Application)

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
			GRAMMAR CHECK				
			GRAMMAR CHECK SET MENU				
			DESKTOP REFERENCE				
			USER DICTIONARY MAINTENANCE				
			USER DICTIONARY LOAD				
			USER DICTIONARY SAVE				

1. Press **MENU** to display the function menu.
2. Type **1** to select GRAMMAR1.
3. Type **C** to select GRAMMAR CHECK SET MENU. The following menu appears:

<< Grammar Check SET MENU >>	
CHECK ALL WORDS	
SPELL CHECK	ON
PUNCTUATION ALERT	OFF
Select item and press SPACE to change setting. Press RETURN to finish.	

4. Press **↑** and **↓** to select a function, and press the **[SPACE BAR]** to toggle between ON and OFF. To start Punctuation Alert, move the cursor to PUNCTUATION ALERT and press the **[SPACE BAR]**.

NOTES:

- Both of these options cannot be set to OFF at the same time.
- Punctuation Alert is explained on page 137.

5. Press **RETURN** to save the new setting, or press **CANCEL** to return to your text without saving any changes.

The User Dictionary

How the User Dictionary Works

A user dictionary is created when you select **ADD** to add a word to the dictionary. This dictionary is held in memory for as long as the word processor is on. If you add words to the user dictionary and would like to use the same dictionary for checking other files, you must **SAVE** the user dictionary on a diskette before switching your unit off. (See *Saving the User Dictionary* on page 135.) Later, when you want to use that same dictionary, you must **LOAD** it from the diskette to use it. (See *Loading a User Dictionary* on page 134.)

NOTES:

- Each diskette can hold only one user dictionary. If you save a user dictionary onto a diskette that already contains a user dictionary, the dictionary previously on the diskette is overwritten by the new user dictionary.
- The word processor's memory can hold only one dictionary. If you create a dictionary in the memory, and then load a dictionary from a diskette, the dictionary currently in the memory will be overwritten by the loaded dictionary.

Maintaining the User Dictionary

Besides the **ADD** option that allows you to add a suspect word to the user dictionary, the Spell Checker system provides you with tools for editing the user dictionary.

GRAMMAR1 (WP Application)

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
			GRAMMAR CHECK				
			GRAMMAR CHECK SET MENU				
			DESKTOP REFERENCE				
			USER DICTIONARY MAINTENANCE				
			USER DICTIONARY LOAD				
			USER DICTIONARY SAVE				

GRAMMAR (TW Application)

STYLE	CTR/RMF	GRAMMAR
		GRAMMAR CHECK
		USER DICTIONARY MAINTENANCE
		USER DICTIONARY LOAD
		USER DICTIONARY SAVE
		EDIT THESAURUS
		TYPE THESAURUS

1. Press **MENU** to display the function menu.
2. Type **1** to select GRAMMAR1 (WP application), or type **G** to select GRAMMAR (TW application).
3. Type **M** to select USER DICTIONARY MAINTENANCE. The following screen appears:

<< USER DICTIONARY >>		TOTAL WORDS:XXX
Alfred	Benoit	
Cathy	Packard	
WP	XTY 123	
To add, type word. Press MENU for other options. Press FILE to finish.		
ADD:		

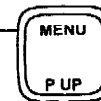
4. To add a new word, type it and press **RETURN**. The new word is inserted in the list in alphabetical order. The word processor tells you if you enter a word that already exists in the user dictionary.

NOTES:

- On the User Dictionary screen, the keyboard is automatically set to KB: I.
- If you have added words to the user dictionary, you must save the user dictionary onto a diskette before turning the power off.

5. To return to normal typing, press **FILE**.

Using the Function Menu



E XIT	D ELETE	A LL DELETE	L OAD	S AVE
Alfred	Benoit			
Cathy	Packard			
WP	XTY 123			
Select from menu and press RETURN.				

- To select a word, press **↑**, **↓**, **CODE + PRE S**, or **CODE + NEXT S**.
- To find a specific entry faster, press **CODE + G (GO TO)** to go closer to the word that you want to select. A message asks you to enter the first letter of the word:

Type letter to move cursor.

Type the letter.

1. From the USER DICTIONARY screen, press **MENU** to display a function menu.
 2. Type **E** to select EXIT.
- **Short cut:** To exit without displaying the menu, press **FILE**.

3. To delete a word, select the word from the user dictionary screen.
4. Press **MENU** and type **D** to select DELETE. The following message appears:

Delete the word from user dictionary? Press RETURN(yes) or CANCEL(no).

- **Short cut:** To DELETE without displaying the menu, press **CODE + D**.
5. Press **RETURN** to delete or **CANCEL** to keep the word in the user dictionary.
 6. To delete all words, type **A** to select ALL DELETE. The following message appears:

Delete all words in user dictionary? Press RETURN(yes) or CANCEL(no).

1. Press **RETURN** to delete or **CANCEL** to keep the user dictionary unchanged.
2. To load a different user dictionary file from a different diskette, insert the diskette in the disk drive, and type **L** to select LOAD.

NOTE:

Remember that loading a user dictionary file overwrites the user dictionary currently in memory.

3. To save the user dictionary, insert a diskette in the disk drive, and type **S** to select SAVE.

NOTE:

Remember that turning the power off clears the user dictionary in memory, and that saving the user dictionary onto a diskette which already contains a user dictionary file overwrites that file on the diskette.

Loading a User Dictionary

The Spell Checker system allows you to have several user dictionaries, but you cannot store more than one on the same diskette. This feature is useful when you are dealing with different kinds of documents. For example, if the documents you have to create most frequently are letters (containing people's names) and sales reports (containing company's names), you can store these two kinds of documents on different diskettes, and create the corresponding user dictionary on each diskette.

NOTE:

If you are using Spell Checker for the first time, your diskette does not contain any user dictionary and you cannot load anything.

If you want to reuse an existing user dictionary, first insert the corresponding diskette in the disk drive.

GRAMMAR1 (WP Application)

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
			GRAMMAR CHECK				
			GRAMMAR CHECK SET MENU				
			DESKTOP REFERENCE				
			USER DICTIONARY MAINTENANCE				
			USER DICTIONARY LOAD				
			USER DICTIONARY SAVE				

GRAMMAR (TW Application)

STYLE	CTR/RMF	GRAMMAR	
		GRAMMAR CHECK	
		USER DICTIONARY MAINTENANCE	
		USER DICTIONARY LOAD	
		USER DICTIONARY SAVE	
		EDIT THESAURUS	
		TYPE THESAURUS	

1. Press **MENU** to display the function menu.
2. Type **1** to select GRAMMAR1 (WP application) or type **G** to select GRAMMAR (TW application).
3. Type **L** to select USER DICTIONARY LOAD. The user dictionary is now in the word processor memory.

Saving the User Dictionary

When the power is turned off, the user dictionary in memory is deleted. If you want to reuse the same user dictionary to check other documents, do not forget to save it before you turn the power off. The current contents of the user dictionary in memory will replace the user dictionary file on the diskette.

GRAMMAR1 (WP Application)

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
			GRAMMAR CHECK				
			GRAMMAR CHECK SET MENU				
			DESKTOP REFERENCE				
			USER DICTIONARY MAINTENANCE				
			USER DICTIONARY LOAD				
			USER DICTIONARY SAVE				

GRAMMAR (TW Application)

STYLE	CTR/RMF	GRAMMAR	
		GRAMMAR CHECK	
		USER DICTIONARY MAINTENANCE	
		USER DICTIONARY LOAD	
		USER DICTIONARY SAVE	
		EDIT THESAURUS	
		TYPE THESAURUS	

1. Press **MENU** to display the function menu.
2. Type **1** to select GRAMMAR1 (WP application), or type **G** to select GRAMMAR (TW application).
3. Type **S** to select USER DICTIONARY SAVE. This message appears:

Press RETURN to save.

4. Press **RETURN** to save the user dictionary on the diskette.

Punctuation Alert (WP Application Only)

Unlike Spell Checker, this function does not look at words but at the character sequences between them. It checks, for example, redundant punctuation, the number of spaces before and after punctuation marks, whether parentheses are balanced, and even whether a new sentence starts with a capital letter. It highlights the suspected sequence, states the rule violated, and, in most cases, suggests a replacement that you can insert by selecting REPLACE.

You should be aware, however, that the Punctuation Alert only reviews certain aspects of punctuation. Please review the Punctuation Rules on page 138 for a better understanding of the items the Punctuation Alert is capable of checking.

Punctuation Alert is available only when you insert the Punctuation Alert diskette that comes with your word processor, when you are working with the WP application, and when you select the ALL option. This function can be used together with Spell Checker—or separately.

Checking the Punctuation

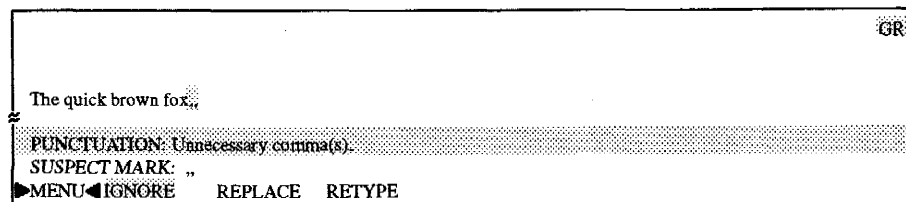
1. Set PUNCTUATION ALERT to ON at the Grammar Check Set menu. See Setting the System (WP Application) on page 130.
2. Insert the Punctuation Alert diskette.
3. Press **CODE + GRAM** to start and select ALL. The word processor loads the program and the Punctuation Alert begins.

NOTE:

If RETURN is pressed without inserting the Punctuation Alert diskette, the following message appears:

Insert Punctuation alert disk and press RETURN.

4. When an error is detected, a menu of options appears. Suppose you have typed "The quick brown fox,,".



5. Press ← and → to select an option and press RETURN.

- **IGNORE:** The Word Processor starts searching for the next punctuation error.
 - **REPLACE:** The suggested mark replaces the mistake, and the word processor starts searching for the next punctuation error.
 - **RETYPE:** An entry area appears, and you can retype the correct mark (instead of retyping, you can press ↓ first to bring the error into the input area, then edit the mark). When you press **RETURN**, the typed or edited mark replaces the error, and the word processor starts searching for the next punctuation error.
6. The process repeats until you reach the end of the document, or until you press **CODE + FILE** or **CANCEL** to turn Grammar Check off.

NOTE:

If the word processor suspects an error but can make no suggestion as to replacement, a screen similar to the one shown below appears, and you are asked to type in a correction.

GR

The quick brown fox)

PUNCTUATION: Missing an open parenthesis, bracket, or quotation mark.

SUSPECT MARK:)

No suggestion.

►MENU ◀ IGNORE EDIT

*Select **IGNORE** to continue to the next mistake or select **EDIT** to correct the error. The word processor returns to WP. The cursor moves to the position after the error and the following message appears:*

Edit the error. Move cursor to starting point and press GRAM to check.

Punctuation Rules

The following are considered punctuation rules:

- Two spaces after periods, exclamation points, and question marks.
Exceptions: Periods used in abbreviations such as "U.S.A." and "a.m."
- Sentences must begin with a capital letter.
- Ellipses are composed of three periods separated by spaces.
- A single space after commas.
Exception: Commas used in numbers such as "100,000" or "\$2,500"
- Only one space after colons and semicolons.
Exception: colons used in times, such as "12:40 p.m."
- No space or only a single space before and after hyphens and dashes.
- No spaces immediately inside parentheses or brackets.

- No period, comma, exclamation point, or question mark following a quotation mark.
- No colon or semicolon in front of a quotation mark.
- No period, comma, colon, or semicolon after an open parentheses or bracket.
- No comma in front of an open parenthesis and bracket.
- Unmatched parentheses, brackets, or quotation marks cause an error.
- Two or more consecutive question marks or exclamation points (such as "!!" or "??") cause an error.
- Consecutive commas cause an error.

Desktop Reference (WP Application)

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
			GRAMMAR CHECK				
			GRAMMAR CHECK SET MENU				
			DESKTOP REFERENCE				
			USER DICTIONARY MAINTENANCE				
			USER DICTIONARY LOAD				
			USER DICTIONARY SAVE				

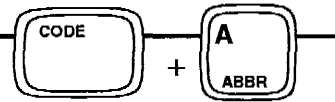
Desktop Reference helps you find information about a word. When available, the information includes definitions, hyphenation, and synonyms. If the word is misspelled, the application tries to provide a list of suggested spellings.

To start Desktop Reference:

1. Press **MENU** to display the function menu.
2. Press **1** to select GRAMMAR1.
3. Press **D** to select DESKTOP REFERENCE. See Desktop Reference on page 235 for details.

Abbreviated Phrases (WP Application)—

Increasing Your Typing Speed



The abbreviated phrase function helps you increase your typing speed when you have to type long strings of words (“phrases”) frequently. You can store the phrases in the abbreviated phrase memory, along with a short abbreviation (the “name” of the phrase). For instance, you can store the phrase “United States of America” together with the name “USA.” Once this has been done, all you have to do to enter “United States of America” in your document is to type “USA” and press **CODE + A (ABBR)**. “USA” is replaced with “United States of America.” If you type a name that does not exist in the abbreviated phrase memory, and press **CODE + A (ABBR)**, you hear a beep.

The abbreviated phrase memory stores a maximum of 30 phrases and names. Each phrase can consist of up to 67 characters, while a name is limited to 8 characters. The total amount of data in the abbreviated phrase memory may not exceed 1,000 characters.

The abbreviated phrase memory can be saved on diskette and, of course, retrieved from the diskette. You can create as many abbreviated phrase files as you want, but you may have only one abbreviated phrase file on a diskette.

Understanding the Abbreviated Phrase Memory

Your word processor stores the abbreviated phrase memory for as long as the unit remains on. If you have created phrases and would like to use these phrases in other files you will be creating later on, you need to **SAVE** this phrase memory onto a diskette. (See *Saving the Abbreviated Phrase Memory* on page 143.) Later, when you want to use the phrases that are stored on a diskette, you can **LOAD** the file into the memory of the unit. (See *Loading an Abbreviated Phrase File* on page 143.)

NOTES:

- *Each diskette can hold only one abbreviated phrase file. If you save an abbreviated phrase memory onto a diskette that already contains an abbreviated phrase file, that file will be overwritten by the new abbreviated phrase file.*
- *The memory of the word processor can hold only one abbreviated phrase memory. If you create an abbreviated phrase memory, and then load an abbreviated phrase file from a diskette, the abbreviated phrase memory will be overwritten by the loaded file.*

Abbreviated Phrase Maintenance

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
				EDIT THESAURUS			
				TYPE THESAURUS			
				ABBREVIATED PHRASE MAINTENANCE			
				ABBREVIATED PHRASE LOAD			
				ABBREVIATED PHRASE SAVE			
				BOOKMAN®			

This section explains how to enter and edit data in the abbreviated phrase memory.

1. Press **MENU** to display the function menu.
2. Type **2** to select GRAMMAR2.
3. Type **M** to select ABBREVIATED PHRASE MAINTENANCE. The following screen appears:

<< ABBREVIATED PHRASE >>		KB:XX
TS	Tom Smith	
USA	:	United States of America
To add, type phrase. To edit, press RETURN. For other options, press MENU.		

4. To enter new data, type the name, press **TAB** to switch to the phrase area; then type the phrase and press **RETURN**.

NOTE:

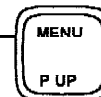
Use only letters, numbers, and periods for the name.

5. To edit a line of data, select the line and press **RETURN**. The data appears in the entry area. Edit the data; then press **RETURN** again.
6. To return to the WP screen and continue typing, press **FILE** or press **MENU** to display the menu and select EXIT.

NOTE:

If you added phrases, you need to save the abbreviated phrase memory on the diskette.

Using the Function Menu for Other Options



EXIT	PRINT	DELETE	LOAD	SAVE
Is Tom Smith				
USA United States of America				
Select from menu and press RETURN				

1. From the ABBREVIATED PHRASE screen, press **MENU** to display a function menu:

NOTES:

- To return to the input screen shown in step (3) above, press **CANCEL**.
 - To select a function from the menu, press ← and → or type the letter displayed in bold.
 - When the menu is displayed, it is not possible to select a line of data.
2. To exit the abbreviated phrase maintenance screen and return to the input screen, type **E** to select EXIT.
 - **Short cut:** To exit without displaying the menu, press **FILE**.
 3. To print the list of phrases and names, type **P** to select PRINT.
 - **Short cut:** To print without using the menu, press **CODE + P (PRINT)**.
 4. To delete a line of data, you must select the data before you display the function menu. When the data to be deleted is selected, press **MENU**, then type **D** to select DELETE. A message asks for confirmation:

Delete? Press RETURN (yes) or CANCEL (no).

- **Short cut:** To delete without using the menu, press **CODE + D**. Press **RETURN** to delete the line or **CANCEL** to keep it in memory.
5. To load an abbreviated phrase file, insert the diskette and type **L** to select LOAD. Remember that loading an abbreviated phrase file overwrites the abbreviated phrase memory.
 6. To save the abbreviated phrase memory, type **S** to select SAVE. Remember that turning the power off clears the abbreviated phrase memory, and that saving the abbreviated phrase memory into a diskette that already contains an abbreviated phrase file will overwrite the file on that diskette.

Loading an Abbreviated Phrase File

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
				EDIT THESAURUS			
				TYPE THESAURUS			
				ABBREVIATED PHRASE MAINTENANCE			
				ABBREVIATED PHRASE LOAD			
				ABBREVIATED PHRASE SAVE			
				BOOKMAN®			

1. Insert the diskette that contains the abbreviated phrase file that you want to use.
2. Press **MENU** to display the function menu.
3. Type **2** to select GRAMMAR2.
4. Type **L** to select ABBREVIATED PHRASE LOAD. The abbreviated phrase file is loaded into the abbreviated phrase memory, and you can now use the abbreviated phrases as explained above.

NOTE:

If you already entered data in the abbreviated phrase memory, that data is overwritten when you load a file. To avoid this, first save the current abbreviated phrase data.

Saving the Abbreviated Phrase Memory

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
				EDIT THESAURUS			
				TYPE THESAURUS			
				ABBREVIATED PHRASE MAINTENANCE			
				ABBREVIATED PHRASE LOAD			
				ABBREVIATED PHRASE SAVE			
				BOOKMAN®			

Since the abbreviated phrase memory clears when the power is turned off, you should always save its contents before you turn the power off.

1. Insert the diskette in which you want to save the abbreviated phrase memory.
2. Press **MENU** to display the function menu.
3. Type **2** to select GRAMMAR2.
4. Type **S** to select ABBREVIATED PHRASE SAVE. This message appears:

Press RETURN to save.

5. Press **RETURN** to save the abbreviated phrase memory on the diskette.

NOTE:

Since the word processor accepts only one abbreviated phrase file per diskette, saving the file will overwrite any old abbreviated phrase file on diskette.

Thesaurus

The Thesaurus is a useful feature that allows you to search for synonyms for a word and, if you want, replace the selected word with a synonym. This Thesaurus contains 45,000 words.

There are two ways to enter the Thesaurus mode: EDIT THESAURUS gives synonyms for the word the cursor is on; while TYPE THESAURUS waits until you type a word and then gives a list of synonyms for that word.

Edit Thesaurus

In the typewriter application, EDIT THESAURUS is available only when the text is temporarily displayed on the screen.

WP Application

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
				EDIT THESAURUS			
				TYPE THESAURUS			
				ABBREVIATED PHRASE MAINTENANCE			
				ABBREVIATED PHRASE LOAD			
				ABBREVIATED PHRASE SAVE			
				BOOKMAN®			

TW Application

STYLE	CTR/RMF	GRAMMAR
		GRAMMAR CHECK
		USER DICTIONARY MAINTENANCE
		USER DICTIONARY LOAD
		USER DICTIONARY SAVE
		EDIT THESAURUS
		TYPE THESAURUS

1. Place the cursor on the word that you want to replace with a synonym. (Let us assume that the word the cursor is on is "still.")
2. Press **MENU** to display the function menu.
3. Type **2** to select GRAMMAR2 (WP application) or type **G** to select GRAMMAR (TW application).
4. Type **E** to select EDIT THESAURUS.

still

Use cursor to select. Press RETURN.

SPECIFIED WORD: still

THESAURUS

VERB (2)

ADJ. (4)

ADV. (4)

NOTES:

- This menu means that the word processor found synonyms for the word “still” in four categories (nouns, verbs, adjectives, and adverbs). The number at the right of each category indicates the number of classes into which that category is subdivided. For instance, VERB (2) means that you will find two lists of verbs that are synonyms of the word “still.” By definition, synonyms are words with (almost) the same meaning. You will find, however, that words belonging to the same class are closer to each other than words from different classes in the same parts of speech.
- If there is no synonym for the specified word, the following message appears:

Synonym not found.

5. Press ← and → to select the category and press **RETURN**, or press **CANCEL** to exit the function. Let’s assume that you selected VERB (2). The following menu appears:

still

Use cursor to select. Press RETURN.

SPECIFIED WORD: still

VERB1

silence

quiet

shut up

hush

shush

6. Press ← and → to select a word. If the complete list cannot fit on the screen, you can scroll the list by pressing ← and → . If there are more than one semantic class, use ↑ and ↓ to display the other classes.

Press **RETURN** to replace the specified word with the selected synonym, or press **CANCEL** to return to the first menu and select another part of speech—or exit the function without replacing the specified word by pressing **CANCEL** again.

If you select a synonym and press **RETURN**, the synonym replaces the current word.

Type Thesaurus

WP Application

STYLE	BLOCK	CTR/RMF	GRAMMAR1	GRAMMAR2	SEARCH	FORM	PAGE PRINT
				EDIT THESAURUS			
				TYPE THESAURUS			
				ABBREVIATED PHRASE MAINTENANCE			
				ABBREVIATED PHRASE LOAD			
				ABBREVIATED PHRASE SAVE			
				BOOKMAN®			

TW Application

STYLE	CTR/RMF	GRAMMAR
		GRAMMAR CHECK
		USER DICTIONARY MAINTENANCE
		USER DICTIONARY LOAD
		USER DICTIONARY SAVE
		EDIT THESAURUS
		TYPE THESAURUS

1. Press **MENU** to display the function menu.
2. Type **2** to select GRAMMAR2 (WP application), or type **G** to select GRAMMAR (TW application).
3. Type **T** to select TYPE THESAURUS. The word processor asks you to type the word for which a synonym is needed:

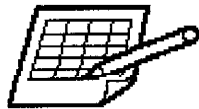
Type word and press RETURN.
SPECIFIED WORD: _____

4. Type the word and press **RETURN**.
- Continue as you would in EDIT THESAURUS (see Edit Thesaurus on page 144).

Framing

Framing allows you to design tables on screen and save the data as a file. Files can be retrieved for further editing or printing. After printing a frame, you can use the TW application to fill in text.

Starting Framing



6 Framing

1. Turn the power on to display the Main Menu.
2. Use the cursor keys to select the Framing icon and press **RETURN**, or press **6**. The FRAMING INDEX screen appears and shows a list of the Framing files (extension ".FRM").
3. Use the cursor keys to select *NEWFILE and press **RETURN**. The FRAMING screen appears, and you can start creating a new frame.

Creating or Editing a Framing File

Framing allows you to create and edit horizontal and vertical lines on the screen. The framing file can be saved, retrieved, and printed. As shown in the example below, a frame is made of single or double horizontal lines and single vertical lines.

NOTES:

- You need the International or Symbol daisy wheel to print frames with horizontal double lines and all vertical lines.
- There is no page or margin control. The number of columns cannot be changed, even if the pitch setting is altered.

- The framing function is separate from the text function, and framing is only for the purpose of creating lines on the screen and printing them. Because of this, text and lines may not be displayed or printed at the same time. Once your frame is printed, use the TW application to type the text.

Operation Modes

The editing function divides into three different modes: MOVE, ADD, and DEL (delete). The shape of the cursor changes according to the mode.

Mode & Cursor Shape	Use this mode to....
MOVE (■)	Moves the cursor without drawing.
ADD (⌞)	Draws vertical and horizontal lines by moving the cursor in the appropriate directions.
DEL (⌞)	Deletes vertical or horizontal lines by moving the cursor along lines in the appropriate directions. The cursor must be moved along the line in the same direction to remove it, i.e., part of a vertical line may not be removed by moving the cursor horizontally through it, nor may part of a horizontal line be removed by moving vertically through it.

Keys and Uses

When the framing screen appears, the following functions are available:

Key	Use
CORRECT	Switches between the MOVE, ADD and DEL modes in the following sequence, and displays a message to indicate the current mode: MOVE → ADD → DEL → MOVE
←, →, ↑, ↓ CODE + EXPR CODE + RELOC CODE + PRE S CODE + NEXT S	Each time you press the cursor keys, the cursor moves one column or line across the screen. In any of the MOVE, ADD, or DEL modes, when CODE is held down and a cursor key pressed, the cursor moves to the next line in that direction, without creating an additional line. When there is no line for the cursor to stop on, the cursor continues to column 1 or line 1, or column 135 or line 73.
[SPACE BAR]	Toggles between single and double horizontal lines. The LINE indicator on the message line indicates the current status of this function with “_” or “=”.
RETURN	Moves the cursor in any mode (MOVE, ADD, or DEL) to the left end of the following line.
CODE + T SET, T CLR	Sets or clears a tab at the cursor position. A framing tab ▮ appears at the corresponding position on the scale line. You can set up to 30 tabs.
TAB	Moves the cursor in any mode (MOVE, ADD, or DEL) to the next tab to the right. If there is no tab set to the right of the cursor, the cursor moves to the right end (the 135th column).

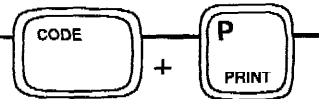
Drawing the Frame

1. While in the MOVE mode, move the cursor to the starting point of a vertical or horizontal line.
2. Press **CORRECT** to switch to the ADD mode.
3. Move the cursor to draw the line and stop when you arrive at the desired end of the line. For a horizontal line, press the **[SPACE BAR]** to switch between a single and double line.
4. Press **CORRECT** to switch to the MOVE mode and repeat steps (1) to (3) to draw all the lines you want in your frame.

NOTE:

To delete a line, switch to the MOVE mode; place the cursor on the line you want deleted, then switch to the DEL mode and move the cursor along the line. Switch back to the MOVE mode when the line is deleted.

Printing the Frame



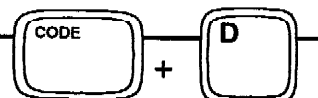
NOTE:

To print the frame properly, you must insert an International or Symbol daisy wheel to print vertical and double horizontal lines. The keyboard should be set to KB:II or KB:III to match the daisy wheel.



1. Press **MENU** to display the menu.
2. Type **P** to select PRINT.
 - **Short cut:** Instead of steps (1) and (2), press **CODE + P (PRINT)**.
3. Follow the instructions in the message line.

Deleting All Lines



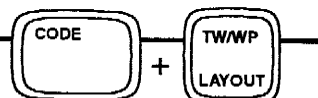
PRINT	ALL DELETE
-------	------------

1. Press **MENU** to display the menu.
2. Type **A** to select ALL DELETE. The following message appears:

Delete? Press RETURN (yes) or CANCEL (no).
--

3. Press **RETURN** to delete or **CANCEL** to quit.
- **Short cut:** Instead of steps (1) and (2), press **CODE + D**.

Previewing a Framing File

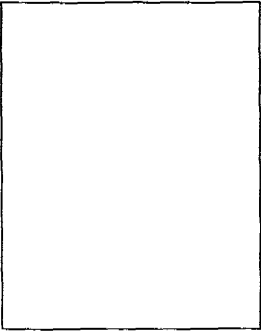


1. While editing a framing file, press **CODE + LAYOUT** to switch to the preview screen. The frame appears on the screen in reduced size:

WP-230B

<p><<FRAMING LAYOUT>></p> <p>PRINT SIZE OF FRAMING DATA</p> <p>WIDTH : XXX CHARACTERS</p> <p>LENGTH : XX LINES</p>	
--	--

WP-335B

<p><< FRAMING LAYOUT >></p> <p>PRINT SIZE OF FRAMING DATA</p> <p>WIDTH : XXX CHARACTERS</p> <p>LENGTH : XX LINES</p>	
--	--

2. To return to the framing screen, press **RETURN**, **CANCEL**, or **CODE + LAYOUT**.

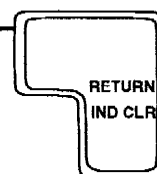
File Operation

Saving the Framing File



When the frame is complete, press **FILE** and proceed to save or delete the framing file the same as you would with a text file. (See Saving a File on page 76.) The framing file is handled in the same way as text files. Framing files are given the file name extension “.FRM”.

Retrieving a Framing File



To edit an existing framing file (a file with the “.FRM” file name extension), select the file on the FRAMING INDEX screen and press **RETURN**. The frame is displayed and its file name appears in the upper-left corner of the screen.

Printing Framing Files

1. Print as you would with a text file. The following message appears:

Insert paper. Select pitch. Move carriage to starting position, press RETURN.

2. Insert paper.
3. Press **CODE + PITCH** to select the pitch.
4. Press the **[SPACE BAR]**, **BACKSPACE**, **CODE + BACKSPACE**, **CODE + P UP**, and **CODE + P DOWN** to position the carriage on the paper at the point where you want the frame to start (the upper-left corner of the frame).
5. Press **RETURN**. The following message appears:

Change to KB:I (or II, III) 10 (or 12, 15) wheel and press RETURN.

NOTE:

You must use an International or Symbol daisy wheel and use the KB:II or KB:III setting to print double horizontal lines properly. If you try to print a frame with the keyboard set to I, vertical lines will be printed using periods (.), and, double horizontal lines will be printed as single lines.

6. Press **RETURN** after you change the daisy wheel. Printing starts.

NOTE:

If the carriage is in a position that would extend the frame beyond the right end of the printer when printing, the following message appears on the message line:

Unable to print. Press CANCEL to exit or press RETURN to print.

NOTE:

*Press **CANCEL** to return to the FRAMING INDEX screen. If you press **RETURN** instead, the following message appears:*

Select pitch. Move carriage to starting position, press RETURN.

Follow steps (2) through (6).

Using the Function Menu

The functions available on the function menu have already been explained in the File Operation section of the WP application. The only difference is that, when required to enter a file name, the extension ".FRM", instead of ".WPT", is created by the word processor.

Here is a list of the available functions:

Function	Description
EXIT	To return to the Main Menu. You can also press CANCEL .
COPY	To copy a Framing file on the same diskette or to another diskette. The word processor allows you to enter a new file name for the copy. See Copying a File on page 84.
DELETE	To delete a Framing file. See Deleting a File on page 85.
RENAME	To rename a Framing file. See Renaming a File on page 85.
ALL DELETE	To delete all Framing files from the diskette. See Deleting All Files on page 89.
PRINT	To print a Framing file. See Printing a Document on page 79.

Addressbook

Use Addressbook to enter and organize information such as a list of names, addresses, and telephone and fax numbers. Each entry is called a record and is displayed as a single row divided into several items. On the top of the list, labels identify each item. The list can be edited, sorted, and printed. You can select parts of the list according to specific conditions and save as a different file.

When you save an Addressbook file, the word processor adds the extension “.MRG” to the file name. You can use files with that extension for merge printing with the WP application.

Starting Addressbook_____



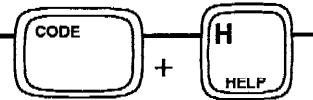
3 Addressbook

1. Turn the power on to display the Main Menu.
2. Press ← and → to select the icon for Addressbook and press **RETURN**, or press **3**. The ADDRESSBOOK INDEX screen appears and lists Addressbook files (extension “.MRG”).
3. Use the cursor keys to select *NEWFILE and press **RETURN**. The DATA INPUT screen shown on page 160 appears, and you can start creating a new file. (If you select an existing file, the ADDRESSBOOK screen shown on page 162 appears first.)

NOTES:

- After you have completed your work, insert a diskette in the disk drive and press **FILE** to save the file on a diskette. For details, see *Saving the Addressbook File* on page 174.
- After saving your work, you see an updated list of your Addressbook files on the screen. To return to the Main Menu, press **CANCEL**, or press **MENU** to display the function menu, select EXIT, and press **RETURN**.

Help Menus



You can start several functions of the Addressbook program by pressing **CODE** + a letter key. The key tops do not necessarily indicate the function of those keys. Before you remember all these keys, the help menus provide you with an easy way to start the functions. A help menu displays the list of functions available at the moment you call it. You can use two different help menus: one from the ADDRESSBOOK or DATA INPUT screen; and one from the ADDRESSBOOK INDEX screen.

1. To display a help menu, press **CODE + H (HELP)**. The list of functions and corresponding keys available at that moment appear on the screen.
2. Press **CODE** + the indicated letter key to start the desired function. The help menu disappears and the function starts.

NOTE:

Press **CANCEL** or press **CODE + H (HELP)** again to cancel the help menu without starting a function.

ADDRESSBOOK and DATA INPUT Screens

COPY	: CODE+C	GOTO	: CODE+G
DELETE	: CODE+D	PRINT	: CODE+P
MOVE	: CODE+E	NEW RECORD	: CODE+N
SORT	: CODE+O	LABEL LONGER	: CODE+T CLR
SELECT	: CODE+L	LABEL SHORTER	: CODE+T SET
INSERT	: CODE+I	CHANGE SCREEN	: CODE+RETURN

ADDRESSBOOK INDEX Screen

COPY	: CODE+C	ALL DELETE	: CODE+L
DELETE	: CODE+D	PRINT	: CODE+P
RENAME	: CODE+R		

DATA INPUT Screen

*NEWFILE	RECORD: XX	KB:XX	REMAIN:XX.XK
MR/MS			
LAST NAME			
FIRST NAME			
TELEPHONE			
FAX NO.			
TITLE			
COMPANY			
ADDRESS			
CITY			
STATE			
ZIP			

Type data. Press CODE+RETURN to display view screen, or FILE to finish.

NOTE:

The labels on the left side of the screen are the default labels that always appear when you start with a *NEWFILE. You can change these labels on the ADDRESSBOOK screen. For details, see Label Entry/Editing on page 167.

To Edit a Record

When the ADDRESSBOOK screen is displayed, you can select a record in order to edit its contents:

1. Press **↑** and **↓** to move the cursor to the record that you want to edit.
2. Press **RETURN**. The contents of the record appears on the DATA INPUT screen and you can start editing.
3. Type or edit the information in each entry field. You may leave some items empty.

NOTES:

- To correct, press **BACKSPACE**, **CORRECT**, **WORD OUT**, and **CODE + LINE OUT**.
 - To move the cursor within a field, press **←**, **→**, **CODE + EXPR**, and **CODE + RELOC**.
 - Press **CODE + I (INSERT)** to switch the insert mode on/off.
 - Press **CODE + BS1** or the dead keys to superimpose characters or to enter an accented letter. If necessary, press **CODE + K (KB)** to switch the keyboard
4. To move the cursor vertically from one item to another, press **↑** and **↓**. Press **RETURN** to move to the beginning of the next item.
 5. If an entry field is too narrow or too wide, move the cursor to any position in the field, press **MENU** to display the function menu, and select **LABEL**.

ADDRESSBOOK Screen

*NEWFILE	RECORD: 1		KD. XX		REMAIN. XX.XX
*1.	:2.	:3.	:4.	:5.	:6.
*MR/MS	:LAST NAME	:FIRST NAME	:TELEPHONE	:FAX NO.	:TITLE
*Mr.	Anderson	John			
*Mr.	Bennet	William			
Press RETURN to enter data, or FILE to finish.					

The ADDRESSBOOK screen lists records. The contents of the records cannot be edited here, but you can perform editing at a larger scale, like copying or moving records.

Moving the Cursor

Press ← and → to move the cursor horizontally across the labels. Press ↑ and ↓ to move the cursor vertically across the records. To move faster and scroll the screen, press **CODE + NEXT S**, **CODE + PRE S**, **CODE + RELOC**, and **CODE + EXPR**.

Editing the Labels

The labels are the column headings. You can make changes to the label names.

1. Use the cursor keys to move the cursor to the label. Change the label name by retyping.

NOTE:

Move the cursor to the label by pressing **TAB** ←, or →. To correct a label name, press **BACKSPACE**, **CORRECT**, **WORD OUT**, or **CODE + LINE OUT**.

2. To return to the data area, press ↓ or **RETURN**.

NOTES:

- To make the entry field longer, select LABEL LONGER and press **RETURN**.
 - To make the entry field shorter, select LABEL SHORTER and press **RETURN**.
 - **Short cut:** Instead of step (5), press **CODE + T CLR** (longer) or **CODE + T SET** (shorter).
6. To save the new or edited record and return to the ADDRESSBOOK screen, press **MENU** to display the function menu, select CHANGE SCREEN, and press **RETURN**.
- **Short cut:** Instead of step (6), press **CODE + RETURN**.

NOTE:

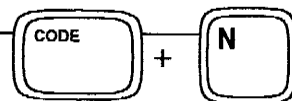
If you want to edit other records, you do not need to return to the ADDRESSBOOK screen. Press **CODE + NEXT S** to display the next record, or **CODE + PRE S** to display the previous one. Press **CODE + G (GO TO)**, then ↑ or ↓ to display the first or last record of the file.

Using the Function Menu (ADDRESSBOOK Screen)

Record Entry/Editing

The following functions help you when editing your records:

Adding a New Record



INPUT DATA	BLOCK RECORD	LABEL	FUNCTION	PRINT
NEW RECORD				
TOP RECORD				
BOTTOM RECORD				

1. Press **MENU** to display the function menu.
 2. Type **I** to select INPUT DATA.
 3. Type **N** to select NEW RECORD. The DATA INPUT screen appears and you can start entering data for the new record. The new record will be at the bottom of the list when you return to the ADDRESSBOOK screen.
- **Short cut:** Instead of steps (1), (2), and (3), press **CODE + N**.

Moving to the Top or Bottom Record

INPUT DATA	BLOCK RECORD	LABEL	FUNCTION	PRINT
NEW RECORD				
TOP RECORD				
BOTTOM RECORD				

INPUT DATA	BLOCK RECORD	LABEL	FUNCTION	PRINT
NEW RECORD				
TOP RECORD				
BOTTOM RECORD				

1. Press **MENU** to display the function menu.
2. Type **I** to select INPUT DATA.

Preparing the Record for Merge Printing —————

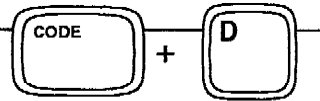
The WP application allows you to prepare master documents that contain merge symbols associated with a label number (see *Creating a Document with Merge Symbols* on page 95). When you print such a master document, you get as many copies as you have “active” records in the Addressbook file (see below to learn how to make a record active or inactive). In the first copy, the word processor merges the data of the first active record. In the second copy, the word processor merges the data of the second active record, and so on. Each merge symbol in the master file replaces the data under the label specified by the merge symbol. For example, if you entered a merge symbol followed with “1” in the master document, that merge symbol will be replaced with the data under the first label of the Addressbook file. When creating the master file, you should remember what kind of data you have in each column—or refer to a printout of the Addressbook file.

An asterisk (*) to the left of a record indicates that the record is active. You can select particular records for merge printing. A new record is automatically active. To make a record inactive, press **[SPACE BAR]**. The asterisk of the selected record disappears. Pressing **[SPACE BAR]** again will re-activate the record.

NOTE:

*You can use the asterisks to select the records you want to print when you print the Addressbook file (see *Printing the Current Addressbook File* on page 177.)*

Deleting Records



INPUT DATA	BLOCK RECORD	LABEL	FUNCTION	PRINT
	COPY			
	DELETE			
	MOVE			

1. To delete records, place the cursor on the first record to be deleted.
2. Press **MENU** to display the function menu.
3. Type **B** to select BLOCK RECORD.
4. Type **D** to select DELETE. The following message appears:

Highlight line(s) to be deleted and press RETURN.

- **Short cut:** Instead of steps (2), (3), and (4), press **CODE + D**.
5. Press **↑** or **↓** to mark the records that you want to delete and press **RETURN**.
This message appears:

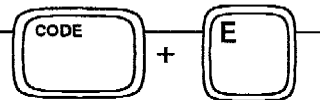
Delete? Press RETURN(yes) or CANCEL(no).

6. Press **RETURN** to delete the marked records or **CANCEL** to quit.

NOTE:

Press **CANCEL** at any time to cancel the operation and return to the ADDRESSBOOK screen.

Moving Records



INPUT DATA	BLOCK RECORD	LABEL	FUNCTION	PRINT
	COPY			
	DELETE			
	MOVE			

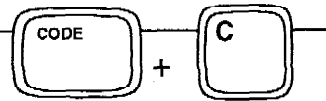
1. Place the cursor on the first record to be moved.
2. Press **MENU** to display the function menu.
3. Type **B** to select BLOCK RECORD.
4. Type **M** to select MOVE. The following message appears:

3. Type **T** to select TOP RECORD or type **B** to select BOTTOM RECORD. The cursor moves to the DATA INPUT screen for the top (first) or bottom (last) record of the file.

Block Operations

BLOCK RECORD allows you to copy, move, or delete a block of records that are adjacent to each other.

Copying Records



INPUT DATA	BLOCK RECORD	LABEL	FUNCTION	PRINT
	COPY			
	DELETE			
	MOVE			

1. To copy records, place the cursor on the first record to be copied.
2. Press **MENU** to display the function menu.
3. Type **B** to select BLOCK RECORD.
4. Type **C** to select COPY. The following message appears:

Highlight line(s) to be copied and press RETURN.

- **Short cut:** Instead of steps (2), (3), and (4), press **CODE + C**.
5. Press **↑** or **↓** to mark the records that you want to copy and press **RETURN**. This message appears:

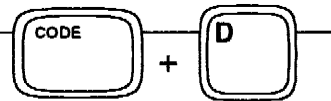
Move cursor to destination for blocked text and press RETURN.

6. Move the cursor to the destination position and press **RETURN**. The marked records appear at the destination position.

NOTE:

Press **CANCEL** at any time to cancel the operation and return to the ADDRESSBOOK screen.

Deleting a Column



INPUT DATA	BLOCK RECORD	LABEL	FUNCTION	PRINT
		NEW LABEL		
		DELETE LABEL		
		LABEL LONGER		
		LABEL SHORTER		

1. To delete one column, place the cursor on the label of the column to be deleted.
2. Press **MENU** to display the function menu.
3. Type **L** to select LABEL.
4. Type **D** to select DELETE LABEL. The following message appears:

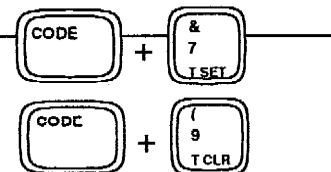
Delete? Press RETURN(yes) or CANCEL(no).

- **Short cut:** Instead of steps (2), (3), and (4), press **CODE + D**.
5. Press **RETURN** to delete the column or **CANCEL** to quit.

NOTE:

Press **CANCEL** at any time to cancel the operation and return to the ADDRESSBOOK screen.

Changing the Width of a Column



INPUT DATA	BLOCK RECORD	LABEL	FUNCTION	PRINT
		NEW LABEL		
		DELETE LABEL		
		LABEL LONGER		
		LABEL SHORTER		

INPUT DATA	BLOCK RECORD	LABEL	FUNCTION	PRINT
		NEW LABEL		
		DELETE LABEL		
		LABEL LONGER		
		LABEL SHORTER		

Highlight line(s) to be moved and press RETURN.

- **Short cut:** Instead of steps (2), (3), and (4), press **CODE + E**.
5. Press ↑ or ↓ to mark the records that you want to move and press **RETURN**.
This message appears:

Move cursor to destination for blocked text and press RETURN.

6. Move the cursor to the destination position and press **RETURN**. The marked records appear at the destination position.

NOTE:

Press **CANCEL** at any time to cancel the operation and return to the **ADDRESSBOOK** screen.

Label Entry/Editing

The LABEL functions allow you to add a new label, delete an existing label along with the data of the same column, and change the width of a column.

Adding a New Label

INPUT DATA	BLOCK RECORD	LABEL NEW LABEL DELETE LABEL LABEL LONGER LABEL SHORTER	FUNCTION	PRINT
------------	--------------	---	----------	-------

1. Move the cursor to the label row.
2. Press **MENU** to display the function menu.
3. Type **L** to select LABEL.
4. Type **N** to select NEW LABEL. The word processor adds a blank column to the right of the last one. The cursor rests on the blank label so that you can start entering the new label.

Move cursor to primary sort label and press RETURN.

- **Short cut:** Instead of steps (1), (2), and (3), press **CODE + O**.
4. Press ← or → to select the label used as the primary sort key and press **RETURN**. For example, if you want the data to be sorted in alphabetic order of the last names, place the cursor on the label "LAST NAME" and press **RETURN**. This message appears:

Move cursor to secondary sort label and press RETURN.

5. Press ← or → to select the label used as the secondary sort key and press **RETURN**. For example, if you want the information for people having the same last name to be sorted in alphabetic order of the first names, position the cursor on the label "FIRST NAME" and press **RETURN**. If you do not want this sort to take place, leave the cursor on "LAST NAME" and press **RETURN**. This message appears:

Use cursor to select. Press RETURN.

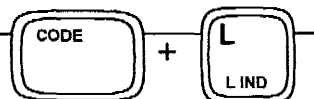
ASCENDING DESCENDING

6. Press ← or → to select **ASCENDING** (alphabetic order) or **DESCENDING** (reverse alphabetic order), and press **RETURN**. The information is sorted and the results appear on the screen.

NOTES:

- Press **CANCEL** at any time to cancel the operation and return to the **ADDRESSBOOK** screen.
- Accented letters and superimposed characters are sorted according to the base character.

Selecting Records



INPUT DATA	BLOCK RECORD	LABEL	FUNCTION SORT SELECT INSEKI	PRINT
------------	--------------	-------	--------------------------------------	-------

1. Press **MENU** to display the function menu.
2. Type **F** to select **FUNCTION**.

As we have seen on page 160, you can also change column widths on the DATA INPUT screen. To make a column larger or shorter, on the ADDRESSBOOK screen, you can also change the following:

1. Move the cursor to the label of the column that you want to change.
 2. Press **MENU** to display the function menu.
 3. Type **L** to select LABEL.
 4. Type **L** to select LABEL LONGER to increase the width, or type **S** to select LABEL SHORTER to decrease the width. The width of the column is increased or decreased by eight characters.
- **Short cut:** Instead of steps (2), (3), and (4), press **CODE + T CLR** to increase, or **CODE + T SET** to decrease.

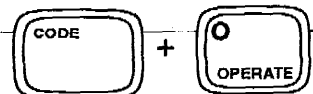
NOTES:

- The width of a single column must be in the range of between 7 and 71 characters. The word processor does not allow you to make a column narrower than the largest data entered in that column.
- The maximum width of a record is 244 characters.

Reorganizing Your File

The FUNCTION option of the menu allows you to sort your information using two different sort keys, or to select records that satisfy specified conditions. The selected records can then be saved on diskette as a separate Addressbook file. This option also allows you to insert blank columns or records.

Sorting the Information



NOTE:

Since the sort operation is irreversible, it is a good idea to save your file before sorting.

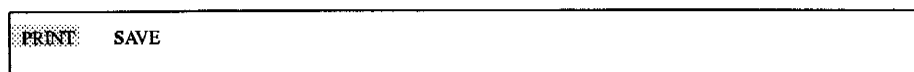
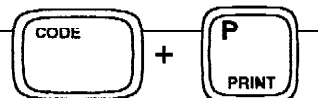
INPUT DATA	BLOCK RECORD	LABEL	FUNCTION SORT SELECT INSERT	PRINT
------------	--------------	-------	--------------------------------------	-------

1. Press **MENU** to display the function menu.
2. Type **F** to select FUNCTION.
3. Type **S** to select SORT. The following message appears:

page 172.

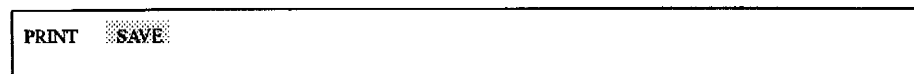
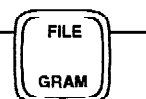
- You can save the selected data on diskette. For details, see Saving the Selected Data on Diskette on page 172.

Printing the Selected Data



1. With the selected data displayed, press **MENU** to display the function menu. Only two functions are available: PRINT and SAVE.
2. Type **P** to select PRINT.
- **Short cut:** Instead of steps (1) and (2), press **CODE + P (PRINT)**.

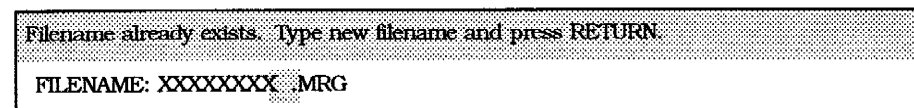
Saving the Selected Data on Diskette



1. Insert a diskette in the disk drive.
2. With the selected data displayed, press **MENU** to display the function menu. Only two functions are available: PRINT and SAVE.
3. Type **S** to select SAVE. The ADDRESSBOOK INDEX screen appears and you are asked to enter a file name.
- **Short cut:** Instead of steps (2) and (3), press **FILE**.
4. Type a file name and press **RETURN** to save the data.

NOTE:

If the file name already exists, this message appears:



Press RETURN if you want to overwrite the existing file. If you want to keep the existing file, type a new file name and press **RETURN**. You can also press **CANCEL** to return to the display of selected information without saving.

3. Type **L** to choose **SELECT**. The **SELECT** screen, similar to the **DATA INPUT** screen, appears:

<< SELECT MENU >>		KB:XX
MR/MS	_____	
LAST NAME	_____	
FIRST NAME	_____	
TELEPHONE	_____	
FAX NO.	_____	
TITLE	_____	
COMPANY	_____	
ADDRESS	_____	
CITY	_____	
STATE	_____	
ZIP	_____	

Type select condition. Press TAB to start select.

- **Short cut:** Instead of steps (1), (2), and (3), press **CODE + L**.

The **SELECT** screen allows you to enter the selection conditions. You may enter more than one condition. For example, if you want to select the records of people living in Atlanta and working for company "XYZ INC.", type "Atlanta" in the entry field **CITY**, and "XYZ INC." in the entry field **COMPANY**. People working for XYZ INC, but living in Othertown will not be selected. People living in Atlanta, but working for a different company will not be selected.

NOTE:

For this function to work correctly, you should be careful to use consistent formats when you enter your records and the selection conditions. Be careful about the capitalization. For this word processor, "Atlanta," "ATLANTA," and "atlanta" are different strings.

4. Enter your conditions. Enter information like you did on the **DATA INPUT** screen. For details, see *To Edit a Record* on page 160.
5. Press **TAB** to start the operation. After a while, the **ADDRESSBOOK** screen displays the selected data.

NOTE:

If the word processor could not find records satisfying your conditions, this message appears:

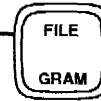
Record(s) not found.

Once the selected data is displayed, you have several options:

- Press **CANCEL** to display the original data again.
- You can print the selected data. For details, see *Printing the Selected Data* on

File Operation

Saving the Addressbook File



The following procedure saves the current Addressbook file or part of the file you have selected using the Select function. The selected data, instead of the current file is saved if you start the procedure below when the selected data is displayed. Otherwise, the entire file is saved.

1. Press **FILE** from the ADDRESSBOOK or DATA INPUT screen. The following message appears:

Save file? Press RETURN to save, CORRECT to abandon.

2. Insert a diskette and press **RETURN** to save the file. Press **CORRECT** to abandon (erase) the file. If you press **RETURN**, the word processor asks you to enter a file name.

FILENAME: .MRG

3. Enter a file name and press **RETURN** to save the file. If you have saved an entire Addressbook file, the updated ADDRESSBOOK INDEX screen appears. If you have saved a part of the file using SELECT, the ADDRESSBOOK screen appears. Press **CANCEL** to return to the ADDRESSBOOK screen and work on the same file again, or load a file from the diskette.

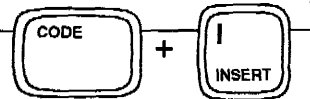
NOTE:

*When the ADDRESSBOOK INDEX screen is displayed, you can press **CANCEL** or use the EXIT option on the menu to return to the Main Menu.*

Retrieving an Addressbook File

1. Display the ADDRESSBOOK INDEX screen and insert the diskette containing the file you want to retrieve.
2. Move the cursor to the file you want to retrieve and press **RETURN**. The file appears on the ADDRESSBOOK screen.

Inserting a Blank Column or Record



INPUT DATA	BLOCK RECORD	LABEL	FUNCTION SORT SELECT INSERT	PRINT

1. To insert a blank column, place the cursor on the label where you want to insert a blank column.

To insert a blank record, place the cursor on the record where you want to insert a blank record.

2. Press **MENU** to display the function menu.

3. Type **F** to select FUNCTION.

4. Type **I** to select INSERT. A blank column or record appears.

- **Short cut:** Instead of steps (2), (3), and (4), press **CODE + I (INSERT)**.

When you insert a blank column, the column that was initially selected and all columns to the right are pushed to the right. A blank column of 15 characters and an empty label appear. The cursor is at the blank label so that you can enter a new label name.

When you insert a blank record, the record you first selected and all records below it are pushed down. The cursor is at the blank record. Press **RETURN** and enter the information on the **DATA INPUT** screen.

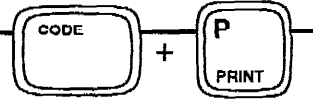
Parameter	Options
PRINT APPLICATION	LABEL: To print formatted labels. LIST: To print a continuous list of data under selected labels.
PRINT RECORDS	ALL: To print all records. SELECTABLE (*): To print only active records.
PITCH	10, 12, or 15: Selects the pitch.
PAUSE FOR KEYBOARD CHANGE	YES: The printer stops to allow daisy wheel change when a keyboard change is found in the file. NO: Keyboard changes are ignored.
LABEL SIZE	3 1/2 inches × 15/16 inch, or 4 inches × 1 7/16 inch. Width × Height of the printout window. This setting is ignored when you are printing a continuous list.
NUMBER OF LABELS ACROSS	1 or 2 This setting determines the number of columns printed on a page. This setting is ignored when you print a continuous list. If the selected size is 4 inches × 1 7/16 inch, you can print only one column.

The next operation depends on your choice for the first setting (LABEL or LIST).

Printing Labels

If you selected LABEL on the PRINT MENU, the POSITION SET PRINT MENU screen appears:

Printing the Current Addressbook File



INPUT DATA	BLOCK RECORD	LABEL	FUNCTION	PRINT
------------	--------------	-------	----------	-------

This word processor offers two methods for printing information in the Addressbook file: LABEL or LIST.

- LABEL printing allows you to print formatted data (for example, first and last name on the first line, company on the second line, and address on the third line, then city and state on the fourth line). The default format is set to match the size of the window on an envelope but can be changed to fit other purposes.
- LIST printing is used to print a continuous list of data under selected labels.

NOTE:

When you print labels or the list of records, only active records are printed. For details about how to make a record active or inactive, see Preparing the Record for Merge Printing on page 163.

1. Press **MENU** to display the function menu.
2. Type **P** to select PRINT. The PRINT MENU screen appears:

<< PRINT MENU >>		PRINT FILE:XXXXXXXX
PRINT APPLICATION		LABEL
PRINT RECORDS		ALL
PITCH		10
PAUSE FOR KEYBOARD CHANGE		YES
LABEL SIZE	3 1/2 x 15/16	
NUMBER OF LABELS ACROSS		1

Press SPACE to change setting. Press RETURN

- **Short cut:** Instead of steps (1) and (2), press **CODE + P (PRINT)**.
3. Press **↑** and **↓** to select a parameter, and **[SPACE BAR]** to set your selections. Press **RETURN** to finish or **CANCEL** to return to the ADDRESSBOOK screen. The meaning of each setting is explained in the following table:

5. When you have completed the position changes, press **RETURN** to print. The leftmost label on the first line of the label area prints from position "0" on the paper scale.

NOTE:

The total number of lines and maximum number of characters that you can print on a single line of a label are shown in the following table.

Printing Window Size	Number of Lines	Pitch	Maximum Length
3 1/2 × 15/16	5	10	34
		12	41
		15	51
4 × 1 7/16	8	10	39
		12	47
		15	59

NOTE:

Please be sure to place the labels directly behind the word processor. They should be properly aligned to feed easily into the unit. You may need to stop printing at some point to straighten the label alignment.

Printing a List

If you selected LIST on the PRINT MENU, the LABEL SET PRINT MENU appears:

<< LABEL SET PRINT MENU >>					
:1.	:2.	:3.	:4.	:5.	:6.
:MR/MS	:LAST NAME	:FIRST NAME	:TELEPHONE	:FAX NO.	:TITLE
* :Mr.	:Anderson	:John	:	:	:
* :Mr.	:Bennet	:William	:	:	:
* :	:	:	:	:	:

Use cursor to select label name and press SPACE to set. RETURN to print.

- To select a label for printing, place the cursor over the label using ← and → and press the [SPACE BAR]. The same key is used to deselect. To switch all labels on, press **CODE** + [SPACE BAR].

NOTE:

If the length of the selected information exceeds the maximum length of a printable line, this message appears:

Too wide to print.

- Press **RETURN** to print or **CANCEL** to return to the PRINT MENU screen.

<< POSITION SET PRINT MENU >>

*a. MR/MS	acb
*b. LAST NAME	g
*c. FIRST NAME	h
d. TELEPHONE	ijk
e. FAX NO.	
f. TITLE	
*g. COMPANY	
*h. ADDRESS	
*i. CITY	
*j. STATE	
*k. ZIP	

Use cursor to select label name and press SPACE to set. CORRECT to clear.
Press RETURN to start printing.

On this screen, you can specify which Addressbook information will be printed in label format and the position of each data item. These items are represented by the letters a through k (default), as shown on the left side of the screen (the items marked with an asterisk will print). The position of these letters in the label area on the right of the screen determine the position of the items when they are printed in label format.

The screen on the previous page shows the default positions. For example, "acb" on the first line indicates that MR/MS(a) prints first, followed by the FIRST NAME(c), and ending with the LAST NAME(b).

A space is inserted between each item. To print punctuation marks, such as a comma between city and state, you must include the punctuation mark when you enter the information on the DATA INPUT screen.

If you do not want to change the default label printing position, press **RETURN** to start printing.

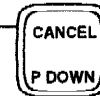
To change the default label printing positions:

1. On the left side of the screen, move the cursor to the information you want to move or add. Press the **[SPACE BAR]**. A second cursor appears in the label area on the right side of the screen.
2. Move the cursor to the place where you want the information and press **RETURN**. The letter that represents the data item appears in the position you have selected in the label area, and the second cursor disappears from the right side of the screen.
3. Repeat steps 1 and 2 to reposition other data items.
4. To remove an item from the label area, move the cursor to that item on the left side of the screen and press **CORRECT**.

Here is a list of the available functions:

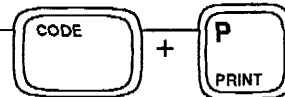
Function	Description
EXIT	Return to the Main Menu. You can also press CANCEL .
COPY	To copy an Addressbook file on the same diskette or on another diskette. The word processor allows you to enter a new file name for the copy.
DELETE	To delete an Addressbook file.
RENAME	To rename an Addressbook file.
ALL DELETE	To delete all Addressbook files from the diskette.
PRINT	To print an Addressbook file.

During Printing

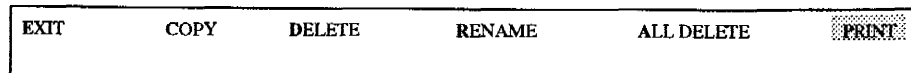


To cancel printing, press **CANCEL**.

Printing a File



1. With the ADDRESSBOOK INDEX screen displayed, insert the diskette containing the file you want to print. When the file list appears, move the cursor to the file you want to print.
2. Press **MENU** to display the function menu.



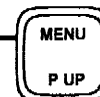
3. Type **P** to select PRINT. The PRINT MENU appears. Follow the steps on page 175.

NOTE:

Printing starts from position "0" on paper scale.

- **Short cut:** Instead of steps (2) and (3), press **CODE + P (PRINT)**.

Using the Function Menu



The other function that are available on the function menu have already been explained in the File Operation section of the WP application. The only difference is that, when required to enter a file name, the extension ".MRG", instead of ".WPT", will be created by the word processor.

Spreadsheet

Spreadsheet allows you to create and edit information arranged in a table format. The file can include both text and numerical data. Arithmetic calculations on numerical data can be carried out automatically.

Introduction

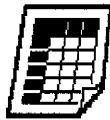
What is a Spreadsheet?

In the past, financial records for any business or organization were always kept by hand in bound form, hence the term “keeping the books.” A sales ledger, for instance, might be laid out as a graph, with the months of the year across the top, and the names of sales personnel or merchandise down the left column. This type of accounting tool had another name; it was called a “spreadsheet.”

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		TOTAL
A) Household Items											
Mortgage/Rent	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000		12,000
Heat/Water	110	110	100	80	70	70	60	60	60		960
Gas & Electric.	35	35	35	30	25	25	25	25	30		350
Phone	35	35	35	35	35	35	35	35	35		420

Even with an electronic calculator, bookkeeping is still a difficult task, especially when revisions or corrections are to be made. This is the major advantage of the electronic spreadsheet—the ability to make changes and corrections at any time, and have all the calculations made for you, quickly and easily. The Brother Spreadsheet combines for you the ease of the electronic calculator and the convenience of an electronic spreadsheet, all packed into the word processor you use everyday!

Starting Spreadsheet



2 Spreadsheet

1. Turn the power on to display the Main Menu.
2. Use the cursor keys to select the Spreadsheet icon and press **RETURN**, or press **2**. The SPREADSHEET INDEX screen appears and lists the Spreadsheet files (extension ".SPR").
3. Use the cursor keys to select *NEWFILE and press **RETURN**. The SPREADSHEET INPUT/EDIT screen shown on page 185 appears, and you can start creating a new file.

NOTES:

- When you finish, insert a diskette in the disk drive and press **FILE** to save the file on a diskette. For details, see *Saving Your Work* on page 223.
- After saving your work, you see an updated list of your Spreadsheet files on the screen. To return to the Main Menu, press **CANCEL**; or to display the function menu, press **MENU**, select **EXIT**, and press **RETURN**.

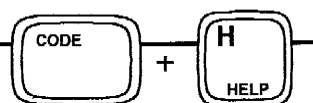
IMPORTANT: You have a choice of creating your own spreadsheets or using one of the pre-formatted templates. At the INPUT/EDIT screen, press **FILE** while the Template diskette is in the disk drive to view the available pre-formatted templates.

In order to use the templates effectively, you must first understand how to use the spreadsheet functions. Review the following sections for complete details on the spreadsheet features and capabilities. You can apply this information to the spreadsheets that you create, as well as the pre-formatted spreadsheets provided.

Input/Edit Mode and Command Mode

There are two different modes for creating and formatting your spreadsheets: the Input/Edit mode allows you to insert and change data within individual cells, and the Command mode allows you to format and modify an entire range of cells at one time.

Help Menus



You can start several functions of Spreadsheet by pressing **CODE** + a letter key. The key tops do not indicate the function of those keys. You do not need to remember all these special keys, because the help menus make it easy for you to start the functions. A help menu lists functions available at that moment. Three different help menus can be displayed: one in the command mode of the Spreadsheet INPUT/EDIT screen, one in the input mode of the same screen, and one on the SPREADSHEET INDEX screen.

1. To display a help menu, press **CODE + H (HELP)**. The list of functions available at that moment—and the corresponding keys—appears on the screen.
2. Press **CODE** + the indicated letter key to start the desired function. The help menu disappears, and the function starts.

NOTE:

Press **CANCEL** or press **CODE + H (HELP)** again to cancel the help menu without starting a function.

Command Mode of the INPUT/EDIT Screen

CTR	:	CODE+F	COPY	:	CODE+C	PITCH	:	CODE+I
RMF	:	CODE+R	DELETE	:	CODE+D	PRINT	:	CODE+P
BOLD	:	CODE+B	MOVE	:	CODE+E	INSERT	:	CODE+I
UNDER	:	CODE+N	LOCK	:	CODE+L	GOTO	:	CODE+G
EDIT	:	TAB						

Input/Edit Mode of the INPUT/EDIT Screen

CTR	:	CODE+F
RMF	:	CODE+R
LOCK	:	CODE+L

SPREADSHEET INDEX Screen

COPY	:	CODE+C	CONVERT	:	CODE+O
DELETE	:	CODE+D	PRINT	:	CODE+P
RENAME	:	CODE+R	ALL DELETE	:	CODE+L

Input/Edit Mode

SPREADSHEET INPUT/EDIT Screen

A1	A	B	C	D	E	F	G	PITCH:10
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

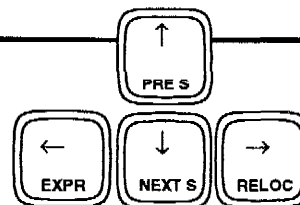
Enter your spreadsheet data. Press FILE to finish.

CAUTION:

There is a possibility that the word processor may run out of memory before filling the entire Spreadsheet with data, depending on the types of data you enter. The word processor warns you of this with the message "Memory full." At this point, you may no longer enter data, only delete data. We recommend that you save your file to the diskette and continue with a new spreadsheet file. Each spreadsheet file may contain about 15 kb of memory.

The SPREADSHEET INPUT/EDIT screen is your electronic spreadsheet. This screen allows you to enter and edit the data of your spreadsheet. It is divided into cells, designated by their positions on the grid, so that the cell at the top left of the sheet becomes A1, the cell diagonally to the right and below it B2, etc.

Moving Around the Screen



When you first see the INPUT/EDIT screen, the cursor is in cell A1, ready for input. You can move the cursor by pressing ←, →, ↑, and ↓ to highlight any cell and to tell the Spreadsheet application where you want an entry. Only a portion of the Spreadsheet is shown on the screen. The Spreadsheet extends far beyond what the screen can show at one time: you can input data into as many as 20 columns (A through T), and 65 rows (1 through 65).

It is also possible to move the cursor faster: **CODE** + a cursor key moves the cursor to a border of the screen and **CODE + G (GO TO)** + a cursor key moves the cursor to an edge of the entire spreadsheet. In both cases, the cursor moves vertically or horizontally in the direction of the cursor key arrow.

Key	Use
← → ↑ ↓	Moves the cursor to the next cell in the direction of the arrow on the key.
CODE + EXPR CODE + RELOC CODE + PRE S CODE + NEXT S	Moves the cursor to the screen edge in the direction of the arrow.
CODE + GO TO + ← CODE + GO TO + → CODE + GO TO + ↑ CODE + GO TO + ↓	Moves the cursor to the spreadsheet edge in the direction of the arrow.

The Input Area

With a paper spreadsheet, you write the data directly in the cells of the sheet. With this electronic spreadsheet, you always type or edit the data of each cell on the top line of the screen, which is called the "Input Area."

There are two ways to input data: direct input, and formula input. Direct input means that you type directly what appears in the highlighted cell. Formula input means that you type a formula in the Input Area. In this case, the result of the formula appears in the cell.

When you move the cursor across the grid to highlight (select) a cell, the contents of that cell are always displayed in the Input Area on the top line of the screen, the way you typed them. What you see in the Input Area may often differ from what is displayed in the cell:

NOTES:

- *If you typed a formula, the formula—not the result—appears in the Input Area. This feature allows for easy editing when a formula is wrong.*

- Even in the case of direct input, the data may look slightly different in the Input Area and in the cell. This is because this word processor allows you to control the layout of the data in the cells. For example, you may want a cell to appear on screen in bold. The data appears in bold in the cell, and in normal face in the Input Area.

A1	(1+1)							PITCH:10
	A	B	C	D	E	F	G	
1	2							
2								
3								
4								

Entering and Editing Data

To enter data in an empty cell, select that cell and type the data. A small cursor (the input cursor) appears in the Input Area. Press **RETURN** when you finish. The data appears in the cell.

Proceed exactly the same way to replace old data with new data. The old data disappears from the Input Area as soon as you start typing. The new data appears in the cell when you press **RETURN** after retyping.

NOTE:

*If you type a character key while moving through the grid, the word processor switches to the Input/Edit mode, clears the contents of the Input Area and displays the character that you typed. If you press **RETURN** at this step, the character you typed replaces the old data. To avoid this, press **CANCEL** instead of **RETURN**. This restores the original data and returns the word processor to the Command mode.*

To edit old data without deleting it, first press **TAB**. The cursor appears in the Input Area and you can edit the data. Press **RETURN** when the data is edited.

NOTES:

- After typing or editing in the Input Area, press \rightarrow , \uparrow , or \downarrow instead of **RETURN**. These keys enter the data, return to the Command mode, and move the cursor one position in the direction of the arrow on the grid.
- In Input/Edit mode, press \leftarrow and \rightarrow to move the cursor across the data in the Input Area. However, \rightarrow enters the data as explained above if you try to move past the last character. Press **CODE + EXPR** to move to the first character, or **CODE + RELOC** to move to the last one.

To type and correct data	Use
Character keys	To type the data.
BACKSPACE or CORRECT	To delete the character to the left of the cursor.
WORD OUT	To delete the word to the left of the cursor.
CODE + LINE OUT	To delete all characters from the Input Area.
CODE + I (INSERT)	To toggle between the insert/overwrite modes.
←	To move one position to the left.
→	To move one character to the right. If the cursor is to the right of the last character, this key enters the data and selects the next cell to the right.
CODE + EXPR	Moves the cursor to the first character.
CODE + RELOC	Moves the cursor to the last character.

To enter data and return to the command mode	Use
RETURN	To enter the data.
→	To enter the data and select the next cell to the right (only when the cursor is past the last character of the Input Area).
↑ and ↓	To enter data and return to command mode.
CANCEL	Restores the old data.

Alphanumeric Data

Alphanumeric data is any combination of characters (letters, digits, and other characters) used as a label to identify the entries of the spreadsheet, usually as a column heading, such as "JAN." or "12th Region." This data is not to be calculated.

Format Marks

If the label data begins with a letter, it is assumed that this data is not to be calculated. In this case, the data is placed flush left in the cell unless a flush right or centering format mark is used.

If the label begins with any of the following:

+ - (@ 1 2 3 4 5 6 7 8 9 0

it is assumed that this data is to be calculated. In this case, you must use a format mark in order to identify this data as a label and not as a number to be used in a calculation.

Format Mark	Position of the Data
'	Flush left
"	Flush right (CODE + R)—see Help Menus on page 184
^	Centering (CODE + F)—see Help Menus on page 184

Format marks appear in the input area only. They never appear in the cell. The above characters are considered as format marks only when you enter them in the first position of the input area. If they are entered in the middle of the data, they are considered as common characters and will appear in the cell.

NOTES:

- To make sure that alphanumeric data such as a date (e.g., 10-12-1996) or a phone number (e.g., 231-638-7520) is not calculated, always use a format mark.
- Instead of typing the format marks for right alignment (") or centering (^), press **CODE + R** or **CODE + F**. If you press these keys while in command mode, the word processor switches to the Input/Edit mode and the corresponding mark appears in the Input Area.

Maximum Length of Alphanumeric Data

The maximum length of alphanumeric data is 55 characters (the total length of the input area). If the data cannot fit in the cell, it uses the next cells on the grid unless these cells are already occupied. This convenient feature is used for long titles, when you do not want to disturb the layout of the spreadsheet by increasing the width of a column. It should be noted that entering many long alphanumeric data may cause the memory to become full before all cells are used. Also, adjusting the width of many columns to display long alphanumeric data may cause the rows to be cut off in the printout.

Numeric Data

Numeric data are direct numbers or formulas and are calculated. When data is not recognized as alphanumeric, the word processor interprets it as numeric data. In that case, the word processor checks whether or not the data is valid.

NOTES:

- If the data is valid, the result (a number) is calculated. If the number can fit in the cell, it is automatically right-justified. If the number cannot fit in the cell, a string of asterisks (*) fill the cell. The correct number is, however, kept in memory and will be displayed if you adjust the width of the column.
- If the data is not valid, ERROR is displayed in the cell, and a message such as one of the following tells you what is going wrong.

Example 1: If a denominator is zero:

Division by zero.

Example 2: If a result is positive and contains more than 13 digits:

Numeric overflow.

Example 3: If a result is negative and contains more than 13 digits:

Numeric underflow.

Example 4: If a number contains characters other than numerics and decimal point (e.g. 1,000, 100\$, 1A2):

Invalid entry.

Direct Numbers

Direct numbers are digits, and possibly a decimal point. Other characters make the data invalid. The maximum number of digits is 13 (zeroes preceding other digits are not counted). Here are some examples of valid and invalid direct numbers:

Valid	Invalid
1234	1,000 (comma is invalid)
0.94956	125\$ (\$ is invalid)
00001	12a12 (a is invalid)
000000000000001 (zeroes are discarded)	99999999999999 (more than 13 digits)

Formulas

A formula is made up of operators, operands, and possibly pairs of parentheses to change the order of calculation.

Operators

The operators recognized by the word processor are, in order of precedence:

Symbol	Operator
+ -	Positive and negative sign
#	Exponentiation
* /	Multiplication, division
+ -	Addition, subtraction

- The + and - operators are considered as the sign of the following operand when they come first in a formula, or immediately after a left parenthesis or another operator.
- The # operator performs only integer exponentiation. If the exponent (the next operand after #) has a decimal value, it is rounded off to the closest integer before exponentiation is performed. Therefore, you cannot use this operator to calculate roots (although roots can always be written as a decimal exponent in math). Zero with any positive exponent gives zero. Zero with a negative exponent gives "Invalid entry."
- Division by zero is invalid.
- A sequence of three or more operators makes a formula invalid (2+*-1 is invalid).

- A sequence of two operators is valid only if the second operator is a + or – sign (5 * –2 is valid and gives –10 while 1 – * 2 is invalid).

Operands

An operand can be a valid number, the address of a cell containing numeric data, a function, or a valid formula included in a pair of parentheses.

Examples of valid operands	
123	direct number
A1 or a1	cell address; A1 must contain numeric data
@SUM(A1..B6)	valid function
(A1+5*@SUM(B1..B12))	valid formula included in a pair of parentheses

NOTES:

- You can type a cell address using either small or capital letters.
- When a cell address has to come first in a formula, it must be preceded with a + or – sign, or by a left parenthesis. Otherwise, the formula is considered alphanumeric data and is not calculated. Therefore, instead of A1+A2, enter +A1+A2, (A1+A2), or (A1)+A2.
- If a cell referred to contains alphanumeric data, the formula is invalid and **ERROR** is displayed. An empty cell, however, is valid and assumed to contain zero.

Using Simple Formulas

In order to familiarize yourself with the formulas, try the following examples.

1. Enter 1+2 in cell A1. (Place the cursor in A1, type 1+2, and press **RETURN**.)

A1	1+2						PITCH:10
	A	B	C	D	E	F	G
1	3						
2							
3							
4							

The calculation is made automatically and the result displayed in A1. The formula as you typed it, however, remains and appears in the input area whenever the cursor is placed in cell A1.

As you already know, entries such as this do not always have to be numbers. They can also be formulas that direct the system to calculate the result of an operation on numbers already entered into the spreadsheet, using cell addresses rather than direct numbers. This function allows you to create a mathematical relationship between desired cells that remains unchanged, regardless of the content of those cells.

2. Enter 10 in cell A2, then enter 2 in cell B2.

B2	2						PITCH:10
	A	B	C	D	E	F	G
1		3					
2	10	2					
3							
4							

3. Enter +A2+B2 in cell C2 (the + sign is used here because a formula cannot begin with a letter).

C2	+A2+B2						PITCH:10
	A	B	C	D	E	F	G
1		3					
2	10	2	12				
3							
4							

4. Enter +A2-B2 in cell D2.

D2	+A2-B2						PITCH:10
	A	B	C	D	E	F	G
1		3					
2	10	2	12	8			
3							
4							

5. Enter +A2*B2 in cell E2.

E2	+A2*B2						PITCH:10
	A	B	C	D	E	F	G
1		3					
2	10	2	12	8	20		
3							
4							

6. Enter +A2/B2 in cell F2.

F2	+A2/B2							PITCH:10
	A	B	C	D	E	F	G	
1		3						
2		10	2	12	8	20	5	
3								
4								

7. Enter +A2#B2 in cell G2.

G2	+A2#B2							PITCH:10
	A	B	C	D	E	F	G	
1		3						
2		10	2	12	8	20	5	100
3								
4								

8. Now try changing the value in A2 to 20.

A2	20							PITCH:10
	A	B	C	D	E	F	G	
1		3						
2		20	2	12	8	20	5	100
3								
4								

Nothing changes because you have not yet asked the word processor to carry out recalculation.

9. To recalculate, press **MENU**, press ← and → to select RECALC, and press **RETURN**. All the results that depend on the value of A2 are now updated.

A2	20							PITCH:10
	A	B	C	D	E	F	G	
1		3						
2		20	2	22	18	40	10	400
3								
4								

Order of Calculation of a Formula

Calculation of a formula is performed in the order of precedence of the operators: the + or – sign is first attributed to the operand directly to the sign's right, exponentiations are carried out next, then multiplication and divisions, and finally, additions and subtractions.

Example 1: $2 \times 3 \times 4 - 2$

$$8 \times 4 - 2$$

$$32 - 2$$

$$30$$

When two or more operators have the same order of precedence (multiplication and divisions, or addition and subtraction), calculation is carried out from left to right.

Example 2: $1 + 3 + 4 - 2$

$$4 + 4 - 2$$

$$8 - 2$$

$$6$$

$2 \times 3 \times 2$

$$8 \times 2$$

$$64$$

Use parentheses to change the order of mathematical operations. The formula in parentheses is calculated first.

Example 3: $1 + 3 \times 4$

$$1 + 12$$

$$13$$

$(1 + 3) \times 4$

$$4 \times 4$$

$$16$$

Parentheses can be nested. Calculation proceeds from the innermost pair of parentheses.

Example 4: $((3 \times 4 + 1) \times 4 + 3) \times 4 - 12$

$$(13 \times 4 + 3) \times 4 - 12$$

$$55 \times 4 - 12$$

$$220 - 12$$

$$208$$

NOTES:

- Up to 6 pairs of parentheses can be nested. Using more than 6 pairs of nested parentheses makes the formula invalid. The formula is also invalid if parentheses do not come in pairs.
- Parentheses can be used for the simple purpose of making the data numeric. $(A1 + A2)$ or $(A1) + A2$ can be used instead of $+A1 + A2$.

Maximum Length of a Formula

The maximum length of a formula is 55 characters (the total length of the input area). If a formula is longer, try to simplify it by using functions. It should be noted that entering many long formulas may cause the memory to become full before all the cells are occupied.

Math Functions

Functions are made with the @ character, followed by a valid function name in capital or small letters (see list below), and a pair of parentheses containing the argument(s) of the function.

Arguments are the numeric data the function uses to return a result. Valid arguments are numbers and/or cell addresses separated with commas, or a range defined by the addresses of two opposite corners, separated with two periods (..).

Example 1: @SUM(1,A1,4,B6)
 returns the sum 1+A1+4+B6
 @SUM(A1..B4)
 returns the sum A1+B1+A2+B2+A3+B3+A4+B4

Some functions like @INT accept only one argument. In that case, using more than one argument or using a range makes the formula invalid.

A range cannot be used simultaneously with numbers or addresses.

Example 2: @SUM(1,A1..B4) and @SUM(A23,A1..B6) are invalid.

Although a function is a valid operand of a formula, a formula is not a valid argument of a function.

Example 3: 1+A1+@SUM(B2..C5) is a valid formula.
 @SUM(1+2), @SUM(+A1), and @SUM(1+A1) are all invalid.

What is a Range of Cells?

A range is a group of cells enclosed in a rectangle and can be specified by the addresses of two opposite corners. When using math functions, you specify a range using the notation A1..C3, for example. You could also specify the same range with A3..C1, C1..A3, or C3..A1.

A1	A	B	C	D	E	F	G	PITCH:10
1	Range A1..C3 A3..C1, C1..A3, or C3..A1			This is not a range.				
2								
3								
4								

Easy Input of a Range

Rather than typing in the cell address at each corner of the range, you can highlight the range to be used. Spreadsheet defines the top left and bottom right corners of the range.

Suppose you want to calculate the sum of the range A1..E2 and show the result in G1.

G1	A	B	C	D	E	F	G	PITCH:10
1	1	2	3	4	5			
2	6	7	8	9	10			
3								
4								

1. Move the cursor to G1 and type @SUM(. As soon as you type the left parenthesis of the function, the following message appears:

Enter cell specification.

2. Instead of typing A1, move the cursor to A1 and press **CODE + L** (see Help Menus on page 184). @SUM(A1.. is now displayed in the input area.

A1	A	B	C	D	E	F	G	PITCH:10
@SUM(A1..	1	2	3	4	5			
	6	7	8	9	10			

3. Move the cursor to the opposite corner of the range (E2).

E2	@SUM(A1..						PITCH:10
	A	B	C	D	E	F	G
1		1	2	3	4	5	
2		6	7	8	9	10	
3							
4							

4. Press **RETURN**. The cursor is back on G1 and the result is calculated.

G1	@SUM(A1..E2)						PITCH:10
	A	B	C	D	E	F	G
1		1	2	3	4	5	
2		6	7	8	9	10	
3							
4							

5. Press **RETURN** again. The result, 55, appears in cell G1.

G1	@SUM(A1..E2)						PITCH:10
	A	B	C	D	E	F	G
1		1	2	3	4	5	
2		6	7	8	9	10	
3							
4							

List of Functions

Some functions can process only one argument. Arguments may include not only direct number inputs but cell addresses as well.

The most sophisticated function of spreadsheet is that it can process multiple *arguments*. *Arguments may be written individually, separated by commas; or if all the arguments belong to a range, the range can be specified by the addresses of two opposite corners with two periods between as a separator.* You can define arguments as a range or any combination of direct numbers and cell addresses.

1. Functions Using a Single Argument

@ABS

Gives the absolute value of the argument. If the argument is positive, or zero, the same value is returned; if the argument is negative, the opposite of the argument is returned.

@ABS(5) gives 5

@ABS(-5) gives 5

1. Functions Using a Single Argument

@INT

Gives the integer part of the argument. The decimal point and subsequent decimal digits are removed without being rounded off; an integer will remain untouched.

- @INT(5) gives 5
- @INT(0.9) gives 0
- @INT(1.1) gives 1

@SQUARE

Gives the square of the argument. The argument multiplied by itself is returned; the result is always a positive number.

- @SQUARE(5) gives 25
- @SQUARE(-5) gives 25
- @SQUARE(0) gives 0

@SQRT

Gives the square root of the argument. The result multiplied by itself is equal to the argument. The argument may not be negative.

- @SQRT(25) gives 5
- @SQRT(2) gives 1.41421
- @SQRT(-25) is invalid

@ROUND

Rounds off the argument to the number of specified decimal places. Two data entries are required between the parentheses: the argument itself, and a direct number that specifies the number of decimal places. If that number is not an integer, it is first rounded off to the closest integer.

- @ROUND(1.66666,2) gives 1.67
- @ROUND(1.66666,3) gives 1.667
- @ROUND(1.66666,2.1) gives 1.67
- @ROUND(1.66666,2.5) gives 1.667

2. Functions Using Multiple Arguments

@AVG

Gives the average value of the arguments. The sum of the arguments is calculated; then that sum is divided by the total number of arguments.

@AVG(1,2,3,4) gives $(1+2+3+4)/4 = 2.5$

@AVG(175) gives $175/1 = 175$

@COUNT

Gives the number of non-blank cells. This function is an exception to the general rules in that: 1) the arguments MUST be cell addresses, and 2) the cell referred to may contain alphanumeric or numeric data.

@COUNT(A1,A2,A3,A4) gives 3 if A1 contains 5 (numeric), A2 contains your name (alphanumeric), A3 contains ERROR (this is not a blank cell), and A4 is empty.

@MAX

Gives the greatest argument (maximum). Remember that a positive argument is always greater than a negative one.

@MAX(1,234) gives 234

@MAX(1,-99999) gives 1

@MIN

Gives the smallest argument (minimum). Remember that a negative argument is always smaller than a positive one.

@MIN(1,234) gives 1

@MIN(-1,99999) gives -1

@SUM

Gives the sum of the arguments. This function is very useful in shortening long sums when the arguments belong to a range.

@SUM(1,2,3,4,5) gives 15

@SUM(A1,A2,A3,B1,B2,B3) is equivalent to @SUM(A1..B3)

@TSUM

Gives the total sum of a range of cells, and also the sum of each row and column of the range if they contain data. This function is an exception to the general rules in that: 1) the argument MUST be a range, and 2) results are displayed not only in the selected cell (total sum), but also in the column to the right and in the row below the range. You must therefore be sure that the column to the right and the row below the range are empty. See the next page for an example.

2. Functions Using Multiple Arguments

@IF

This special function checks whether or not a specified condition is verified, and displays a value that depends on the result of that check. The general form of this function is @ IF(condition, argument1, argument2), and can be read in plain English as: if the "condition" is satisfied, then display "argument1." If the condition is not satisfied, then display "argument2." The "condition" is usually an arithmetic comparison, using two values (number or cell address) and one of the following comparison operators:

= equal to	<= less than or equal to
< less than	>= greater than or equal to
> greater than	<> not equal to

@IF(A1>100,100,50) gives 100 if A1 is greater than 100, and 50 if A1 is equal to 100 or smaller than 100

@IF(A1>100,100,A1) gives 100 if A1=200 and 60 if A1=60

- "Argument2" can be omitted. In that case, the function returns "argument1" when the condition is satisfied, and zero when the condition is not satisfied. @IF(A1=50,100) is equivalent to @IF(A1=50,100,0)
- If "argument1" and "argument2" are both omitted, the function returns 1 when the condition is satisfied, and zero when the condition is not satisfied. @IF(A1=50) is equivalent to @IF(A1=50,1,0); 100*@IF(A1=50) is equivalent to @IF(A1=50,100)
- The "condition" can be a cell address. In that case, "argument1" and "argument2" must be omitted. The function returns 1 if the cell contains a numeric data, and zero if the cell contains alphanumeric data. @IF(A1) gives 1 if A1=50 and gives 0 if A1 contains a label.

The following example shows how to use the @TSUM function:

1. Enter the numbers shown below in the range A1..C3; then enter @TSUM(A1..C3) in D4.

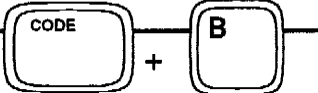
D4	@TSUM(A1..C3)							PITCH:10
	A	B	C	D	E	F	G	
1	1	2	3					
2	4	5	6					
3	7	8	9					
4								

2. Press **RETURN**. The results appear as follows:

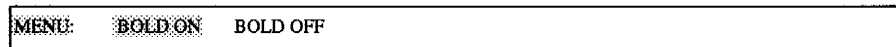
D4	@TSUM(A1..C3)							PITCH:10
	A	B	C	D	E	F	G	
1	1	2	3	6				
2	4	5	6	15				
3	7	8	9	24				
4	12	15	18	45				

Command Mode

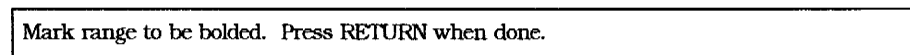
In the Command mode you can format and change an entire range of cells. The Command mode improves the layout of your spreadsheet.

Bold ————— 

1. Move the cursor to a corner of the range that you want to bold.
2. Press **CODE + B** (see Help Menus on page 184). The following menu appears:



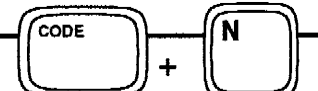
3. Press ← and → to select BOLD ON and press **RETURN**. The following message appears:



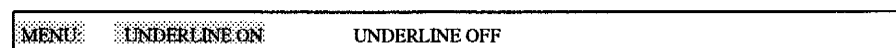
4. Move the cursor to the opposite corner of the range and press **RETURN**. The cells of the range that already contain data appear in bold. Empty cells are unchanged, but if you input data in a cell, the data is bolded.

NOTE:

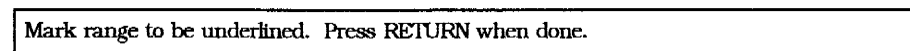
To unbold a range of cells, follow the steps as above, but select BOLD OFF in step (3).

Underline ————— 

1. Move the cursor to a corner of the range that you want to underline.
2. Press **CODE + N** (see Help Menus on page 184). The following menu appears:



3. Press ← and → to select UNDERLINE ON and press **RETURN**. The following message appears:



4. Move the cursor to the opposite corner of the range and press **RETURN**. The cells of the range (even empty cells) are underlined.

NOTE:

*To remove underlining from a range of cells, follow the steps as above, but select **UNDERLINE OFF** in step (3).*

Absolute and Relative Addresses

Whenever the layout of your spreadsheet is changed, and the data within a cell has been copied, the cell reference in the formulas are updated accordingly.

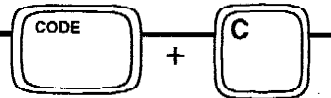
However, there may be times that you do not want the cell address in the formula updated.

If a cell has a relative address, it is always updated to reflect any layout change.

If a cell has an absolute address, it is never updated to reflect any layout change.

All cell addresses are considered relative, unless a "\$" (dollar sign) is placed at the beginning of the cell address in the formula. The dollar sign designates the cell address as being absolute.

Copying a Range of Cells



1. Place the cursor on a corner of the range that you want to copy.
2. Press **CODE + C** (see Help Menus on page 184). This message appears:

Mark range to be copied. Press RETURN when done.

3. Move the cursor to the opposite corner of the range and press **RETURN**. This message appears:

Move block cursor to destination and press RETURN.

4. Move the cursor to the upper-left corner of the destination range and press **RETURN**. The range is copied to the destination.

NOTES:

- *The copy operation replaces the old data with the new data.*
- *Relative addresses are automatically updated.*

Example 1:

1. Enter 3 in A1, 1 in A2, 2 in A3, then enter the formulas $2 * A2 + \$A1$ in B2 and $2 * A3 + \$A1$ in B3. The addresses A2 and A3 are relative while the address \$A1 is absolute. Relative addresses are updated when copied. Absolute addresses are never updated.

B3: $2 * A3 + \$A1$		PITCH:10					
	A	B	C	D	E	F	G
1	3						
2	1	5					
3	2	7					
4							

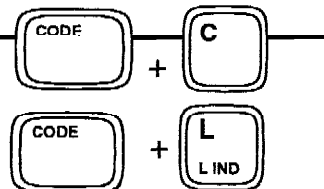
2. Now copy the range B2..B3 to C2. Note that the formulas of C2 and C3 are $2 * B2 + \$A1$ and $2 * B3 + \$A1$. Because \$A1 is an absolute address, it was not changed when copied. (See Absolute and Relative Addresses on page 203.)

NOTE:

Use the RECALC function to update the results.

C2: $2 * B2 + \$A1$		PITCH:10					
	A	B	C	D	E	F	G
1	3						
2	1	5	13				
3	2	7	17				
4							

Copying One Cell to Many Other Cells



1. Place the cursor on the cell that you want to copy.
2. Press **CODE + C** (see Help Menus on page 184). This message appears:

Mark range to be copied. Press RETURN when done.

3. Press **RETURN** without moving the cursor. This message appears:

Move block cursor to destination and press RETURN.

4. Move the cursor to the upper-left corner of the destination range and press **CODE + L** (not **RETURN**).

5. Move the cursor to the lower-right corner of the range and press **RETURN**. The cell is copied to the destination range.

NOTES:

- *Relative addresses are automatically updated. (See Copying a Range of Cells on page 203 and Absolute and Relative Addresses on page 203.)*
- *This variation of the copy function is very useful for automatic input of formulas.*

Example:

1. Enter the data shown below in A1..E1, then enter @SQUARE(A1) in A2.

A2 : @SQUARE(A1)	PITCH:10						
	A	B	C	D	E	F	G
1	1	2	3	4	5		
2	1						
3							
4							

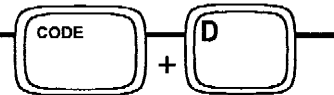
2. Now copy A2 to the range B2..E2.

NOTE:

Use the **RECALC** function to update the results.

B2 : @SQUARE(B)	PITCH:10						
	A	B	C	D	E	F	G
1	1	2	3	4	5		
2	1	4	9	16	25		
3							
4							

Deleting Rows and Columns



1. Press **CODE + D** (see Help Menus on page 184). This menu appears:

MENU:	ROWS	COLUMNS
-------	------	---------

2. Select **ROWS** to delete rows (or **COLUMNS** to delete columns); then press **RETURN**. This message appears:

Position block cursor. Press RETURN when done.

- Place the cursor anywhere in the first row (or column) to be deleted. The word processor asks you to specify the number of rows (or columns) to delete, for example:

Number of rows to delete:

- Type the number and press **RETURN**. The specified number of rows (or columns) are deleted. Existing data past the deleted rows (or columns) are pulled up (or to the left) and any moved formula is updated.

Example 1:

- Enter the data shown below in the range A1..B3; then enter the formula @SUM(A1..B3) in cell C5.

C5 : @SUM(A1..B3)		PITCH:10					
	A	B	C	D	E	F	G
1	1	4					
2	2	5					
3	3	6					
4							
5			21				

- Now delete row 2 and use the RECALC function to update the results.

C4 : @SUM(A1..B2)		PITCH:10					
	A	B	C	D	E	F	G
1	1	4					
2	3	6					
3							
4			14				
5							

NOTE:

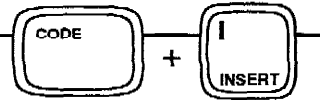
When a function is defined on a range, like in the above example, you cannot delete a row or column that contains a corner of the range.

Example 2:

- Using the same initial data as in the above example; delete row 1.

C4 : @SUM(?..B2)		PITCH:10					
	A	B	C	D	E	F	G
1	2	5					
2	3	6					
3							
4			ERROR				
5							

Inserting Blank Rows and Columns



1. Press **CODE + I (INSERT)**. This menu appears:

MENU:	ROWS	COLUMNS
-------	------	---------

2. Select **ROWS** to insert blank rows (or **COLUMNS** to insert blank columns); then press **RETURN**. This message appears:

Position block cursor. Press RETURN when done.

3. Place the cursor anywhere in the first row (or column) where you want the new rows (or columns) inserted. The word processor asks you to specify the number of rows (or columns) to insert, for example:

Number of rows to insert:

4. Type the number and press **RETURN**. The specified number of blank rows (or columns) are inserted. Data beyond the inserted rows (or columns) are pushed down (or to the right).

Example 1:

1. Enter the data shown below in the range A1..B2; then enter the formula @SUM(A1..B2) in cell C3.

C3	@SUM(A1..B2)						PITCH:10
	A	B	C	D	E	F	G
1	1	3					
2	2	4					
3			10				
4							
5							

2. Now insert a blank row between row 1 and row 2.

C4	@SUM(A1..B3)						PITCH:10
	A	B	C	D	E	F	G
1	1	3					
2							
3	2	4					
4			10				
5							

Example 2:

With the same initial data as in Example 1, insert a blank row between row 2 and row 3.

C4: @SUM(A1..B2)		PITCH:10					
	A	B	C	D	E	F	G
1		1	3				
2		2	4				
3							
4				10			
5							

Example 3:

1. Enter the data shown below in the range A2..B2; then enter the formula (A2*B2) in C2.

C2: (A2*B2)		PITCH:10					
	A	B	C	D	E	F	G
1							
2		300	0.8	240			
3							
4							

2. Now insert a blank column between column A and column B.

D2: (A2*B2)		PITCH:10					
	A	B	C	D	E	F	G
1							
2		300		0.8	240		
3							
4							

Example 4:

With the same initial data as in Example 3, insert a blank column between column B and column C.

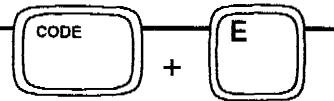
D2: (A2*B2)		PITCH:10					
	A	B	C	D	E	F	G
1							
2		300	0.8	240			
3							
4							

NOTE:

If the insertion you want to make exceeds the limitations of the spreadsheet, the data in the rows or columns on the edge will be lost. The word processor warns you of this and allows you to choose whether to quit the insertion or allow the data to be lost:

Insert will result in data loss. RETURN to insert or CANCEL to quit.

Moving a Range of Cells



1. Place the cursor on a corner of the range that you want to move.
2. Press **CODE + E** (see Help Menus on page 184). This message appears:

Mark range to be moved. Press RETURN when done.

3. Move the cursor to the opposite corner of the range and press **RETURN**. This message appears:

Move block cursor to destination and press RETURN.

4. Move the cursor to the upper-left corner of the destination range and press **RETURN**. The range is moved to the destination and the range that you marked in steps (1), (2), and (3) clears.

NOTE:

The move operation replaces the old data with the new data.

Example:

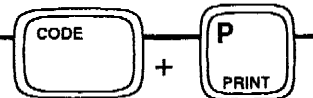
1. Enter the data shown below; then enter the formula @SUM(A1..B2) in A4.

A4: @SUM(A1..B2)		PITCH:10				
A	B	C	D	E	F	G
1	1	3				
2	2	4				
3						
4	10					

2. Now move the cell A4 to D1.

D1: @SUM(A1..B2)		PITCH:10					
	A	B	C	D	E	F	G
1		1	3		10		
2		2	4				
3							
4							

Printing a Range



Printing a range of cells is useful when you are editing a spreadsheet. It allows you to see how your work will actually look on paper. Remember that the application also allows you to print an entire spreadsheet file from the **SPREADSHEET INDEX** screen.

Before you print, press **CODE + PITCH** to change the pitch to 10, 12, or 15 characters per inch.

You can split your spreadsheet manually by inserting page break symbols (↓) with the **CODE + P BREAK** keys.

1. Move the cursor to a corner of the range that you want to print and press **CODE + P (PRINT)**. This message appears:

Mark range to print. Press RETURN when done.

2. Move the cursor to the cell in the opposite corner of the range and press **RETURN**. This message appears:

Insert paper and press RETURN.

3. Insert paper and press **RETURN**. If the spreadsheet is too wide, you may need to insert the sheet of paper horizontally. The word processor now asks you to match the daisy wheel to the selected keyboard and pitch:

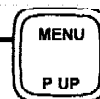
Change to KB:I 10 wheel and press RETURN.

4. Make sure that the daisy wheel installed matches the message specifications and press **RETURN**. Printing starts.

NOTE:

To pause during printing, press the **[SPACE BAR]**. Press the **[SPACE BAR]** again to restart printing. To cancel printing, press **CANCEL**.

Using the Function Menu



1. To display the function menu, press **MENU**.

MENU: COLUMN FORMAT RECALC SORT CLEAR CONVERT

2. To select a function, press ← and → and press **RETURN**.

Changing the Width of Columns

The default width of the columns is 10 characters. However, you can change the width of your column to accommodate the data that you input (or the data that is already in the cell). While a maximum of 55 characters (the maximum length of the input area) may be put into a cell, only a part of that data may be viewed if there is interfering data in the cells to the right. It still remains resident in that cell and may be viewed in the Input Area when the cursor is in that cell. It is not possible to change the width of a cell without changing the width of the column.

1. Place the cursor anywhere within the column you want to change and press **MENU**. The function menu appears:

MENU: COLUMN FORMAT RECALC SORT CLEAR CONVERT

2. Select **COLUMN** and press **RETURN**. This menu appears:

MENU: WIDTH FILL FREEZE RELEASE

3. Select **WIDTH** and press **RETURN**. The letter of the column appears in the Input Area, followed with a number indicating its current width:

Column: A Width: 10

This message appears:

Mark columns for width change. Press RETURN when done.

4. Press ← or → to mark the columns that you want to change and press **RETURN**. The marked columns are indicated in the Input Area (for example, "A-C" if you marked columns A, B, and C),

New width A-C:

and this message appears:

Enter new column width and press RETURN.

5. Type the new width in the Input Area (maximum 55 characters) and press **RETURN**. The width of the marked columns changes.

Filling a Range with Numbers

This function is useful when you want to number rows or columns quickly, or when you need numbers in a range in order to check how math functions are working. As an example, we are going to show how to create a calendar (let us limit it to June 1996).

1. Enter the data shown below and adjust the width of the columns as desired.

A9	SAT						PITCH:10
	A	B	C	D	E	F	G
1	June						
2							
3	SUN						
4	MON						
5	TUE						
6	WED						
7	THU						
8	FRI						
9	SAT						

2. Move the cursor to B3 and press **MENU** to display the function menu.

MENU: COLUMN FORMAT RECALC SORT CLEAR CONVERT

3. Select COLUMN and press **RETURN**. This menu appears:

MENU: WIDTH FILL FREEZE RELEASE

4. Select FILL and press **RETURN**. This message appears:

Mark range to be filled. Press RETURN when done.

5. Move the cursor to G9 to mark the range B3..G9. The word processor asks you to enter a starting value.

NOTE:

The fill function fills the marked range from the upper-left corner down, then starting from the top of the second column, and so on. Three values are necessary: starting, jumping, and ending values. The starting value is written in the upper-left corner. Next numbers are calculated by adding the jumping value to the previously written value. Filling stops when the calculated value exceeds the ending value or when the marked range is filled, whichever comes first.

- Since June First is Saturday, enter -5 for the starting value. The word processor asks you to enter the jumping value and the ending value. Enter 1 for the jumping value and 30 for the ending value. The range fills when you press **RETURN** to enter the ending value.

RT: 5 00000							PITCH:10
	A	B	C	D	E	F	G
1	June						
2							
3	SUN	-5	2	9	16	23	30
4	MON	-4	3	10	17	24	
5	TUE	-3	4	11	18	25	
6	WED	-2	5	12	19	26	
7	THU	-1	6	13	20	27	
8	FRI	0	7	14	21	28	
9	SAT	1	8	15	22	29	

- Delete the contents of cells B3, B4, B5, B6, B7, and B8.

Freezing and Releasing Leftmost Columns on the Screen

Because this spreadsheet is wider than the display screen, you might find at some point that you wish to keep the first column(s) where you can see them while editing the rightmost columns.

Freezing

- Press **MENU** to display the function menu.

MENU: COLUMN FORMAT RECALC SORT CLEAR CONVERT

- Select **COLUMN** and press **RETURN**. This menu appears:

MENU: WIDTH FILL FREEZE RELEASE

- Select **FREEZE** and press **RETURN**. The word processor asks you to indicate the columns you want to frozen. This message appears:

Move block cursor to right of columns to be frozen and press RETURN.

4. Freezing affects from column A to the column just before the column that you choose at this step. Place the cursor and press **RETURN**. An indicator tells you which columns are frozen, for example, if you placed the cursor on column C:

CL	A	B	C	D	E	F	G	PITCH:10
1	June							
2								
3	SUN		2	9	16	23	30	
4	MON		3	10	17	24		
5	TUE		4	11	18	25		

NOTE:

The names of frozen columns are displayed in reverse colors with increased brightness.

5. If you move the cursor to the rightmost columns, you will still see the frozen columns on screen.

NOTE:

You can freeze only one group of columns at a time. Rows cannot be frozen.

Releasing

To release the frozen columns—you must release them if you move the cursor into the frozen columns for editing—follow the steps for freezing, but select **RELEASE** in step (2). A message tells you that the frozen columns have been released:

Frozen columns have been released.

Changing the Format of Numeric Data

This system is quite capable of handling fractional numbers, though it displays the result in decimal numbers. Fractional numbers may even be typed in the Input Area as fractions, but they are displayed on the grid as decimals. The system correctly stores their values.

The word processor does not display decimal numbers by default. However, you can change this using the format function to display up to 5 numbers. This function also allows you to display dollar figures with a dollar sign and two decimal places. It also can display percentage data with the percent sign to a specified number of decimal places, again up to five.

To use the format function, follow these steps:

1. Place the cursor on a corner of the range to be formatted and press **MENU**. The function menu appears:

MENU: COLUMN **FORMAT** RECALC SORT CLEAR CONVERT

2. Select **FORMAT** and press **RETURN**. Specify the range and press **RETURN** again. The **FORMAT** menu appears:

MENU: **FIXED** CURRENCY PERCENT NO DISPLAY

3. Select an option and press **RETURN**. The following operations depend on the option that you selected.

Changing the Number of Decimal Places

1. Select **FIXED** from the **FORMAT** menu to set the number of decimal places that you want to display and press **RETURN**.

MENU: 0 1 2 3 4 5 **Select number of decimal places.**

2. Select the number of decimal places and press **RETURN**. This menu appears:

MENU: **NO COMMAS** COMMAS

3. Select **COMMAS** if you want commas to separate the thousands or **NO COMMAS** if you do not want them. Press **RETURN**.

Displaying Currency Symbols

MENU: **FIXED** **CURRENCY** PERCENT NO DISPLAY

1. Select **CURRENCY** from the **FORMAT** menu to display numbers with two decimal places and a currency symbol; then press **RETURN**. This menu will appear:

MENU: **ZERO DISPLAY** NO ZERO DISPLAY

2. Select **ZERO DISPLAY** if you want zeroes to be displayed or **NO ZERO DISPLAY** if you do not. Press **RETURN**. This menu appears:

MENU: **NO COMMAS** COMMAS

3. Select **COMMAS** if you want commas to separate the thousands or **NO COMMAS** if you do not want them. Press **RETURN**.

Displaying Percentages

MENU: FIXED CURRENCY PERCENT NO DISPLAY

1. Select PERCENT from the FORMAT menu to display percentages (the result is be multiplied by 100 and followed with a percent sign).

MENU: 0 1 2 3 4 5 Select number of decimal places.

2. Select the number of decimal places and press **RETURN**.

Hiding Numeric Data

MENU: FIXED CURRENCY PERCENT NO DISPLAY

1. Select NO DISPLAY from the FORMAT menu and press **RETURN**. This menu appears:

MENU: DISPLAY NO DISPLAY

2. Select NO DISPLAY to hide data (or select DISPLAY to display data that have been hidden) and press **RETURN**.

Hidden data still in memory but is not displayed on the grid. For example, you might have to split complex calculations into more simple steps. In that case, you do not need to display or print intermediate results.

Recalculation

When you input or edit numeric data, the result appears in the selected cell. However, if other cells use this data in a formula, these are not automatically updated. In order to have all results match the new data cells, you must recalculate.

1. Press **MENU** to display the function menu.

MENU: COLUMN FORMAT RECALC SORT CLEAR CONVERT

2. Select RECALC and press **RETURN**.

NOTE:

If you are using formulas that reference cells that are themselves a reference to other cells, it might sometimes happen that the system cannot give the correct results with one recalculation. In such cases, recalculate again until you do not see any results change.

Organizing Your Data

You can create text files as well as numbers and formulas. The next example illustrates this.

Sorting a Range

When you update a file of names, addresses, and phone numbers, you usually add data at the end of the file. To make later reference easier, however, you need some logical organization. Alphabetical order is commonly used. The sorting feature shown here saves you time and effort in the organization of your data. To prepare:

1. Enter the data shown in the illustration:

A1:	Marsh					PITCH:10			
	A	B	C	D	E	F	G	H	
1	Marsh	Henry	Miamiburg	OH	45342				
2	Anderson	John	Denver	CO	82222				
3	Jackson	Howard	Stanford	CA	56904				
4	Bennet	William	Westfield	NJ	28854				
5	Higgins	Ruth	Cambridge	MA	11000				
6	Carter	David	Dallas	TX	76021				
7	Bender	William	Freeport	VT	66622				
8	Higgins	Joyce	Atlanta	GA	30341				
9	Fox	Terry	Fremont	CA	94537				
10	Lee	Kevin	Bedford	TX	76021				
11									

2. If you want, make several copies of the data (using the copy function **CODE + C**) so that you can try several different types of sorts.

You are now ready to go on with the first example:

1. Position the cursor on A1 and press **MENU** to display the function menu.

MENU: COLUMN FORMAT RECALC **SORT** CLEAR CONVERT

2. Select **SORT** and press **RETURN**. This menu appears:

MENU: **SORT** SELECT SORT & SELECT

3. Select **SORT** and press **RETURN**. This message appears:

Mark range to be sorted. Press RETURN when done.

You are going to rearrange the data in alphabetical order by last name (column A). It is important that you mark all the columns so that all data moves together with the names.

4. Move the cursor to E10 to mark the range A1..E10 and press **RETURN**. The word processor asks you to enter the name of the column that the column will be sorted by (primary key).

Primary key:

This message also appears:

Enter column of primary sort key and press RETURN.

This system allows for double sorting—primary and secondary. You want the data to be sorted according to the last name (column A). This is the “primary key,” which must always be in the marked range.

5. Type **A** and press **RETURN**. The word processor asks you to enter the name of the column that will be used for secondary or internal sorting.

Secondary key:

This message also appears:

Enter column of secondary sort key and press RETURN.

If two or more persons have the same last name, you need secondary sorting to maintain proper organization. Use the first name (column B) for secondary sorting.

NOTE:

*When you do not want a secondary sort to take place, press **RETURN** without entering anything.*

6. Type **B** and press **RETURN**. This menu appears:

MENU: ASCENDING DESCENDING

If you select ASCENDING, data will be arranged in alphabetical order. DESCENDING puts data in the order Z–A.

7. Select ASCENDING and press **RETURN**. The last menu appears.

MENU: ALPHABETIC NUMERIC

8. Since the data is alphanumeric, select ALPHABETIC and press **RETURN**. Your data is arranged alphabetically.

A1:	Anderson					PITCH:10		
	A	B	C	D	E	F	G	H
1	Anderson	John	Denver	CO	82222			
2	Bender	William	Freeport	VT	66622			
3	Bennet	William	Westfield	NJ	28854			
4	Carter	David	Dallas	TX	76021			
5	Fox	Terry	Fremont	CA	94537			
6	Higgins	Joyce	Atlanta	GA	30341			
7	Higgins	Ruth	Cambridge	MA	11000			
8	Jackson	Howard	Stanford	CA	56904			
9	Lee	Kevin	Bedford	TX	76021			
10	Marsh	Henry	Miamiburg	OH	45342			
11								

You can use both alphabetic and numeric, ascending and descending sorts to organize the data. You can also use different primary and secondary keys (such as by city and first name) to put your data in the order most suited to your purpose.

Selecting Data From a Range

The **SELECT** option in the **SORT** menu allows you to print rows of data that match a specified condition. However, you may only select numeric data. With the **SALES** template, for instance, you might want to print a list of salespersons whose sales are lower than expected. In the example used previously, the only numeric data was the zip code, so you can use this data here.

1. Place the cursor on a corner of the range you want to select from; then press **MENU**. The function menu appears:

MENU: COLUMN FORMAT RECALC **SORT** CLEAR CONVERT

2. Select **SORT** and press **RETURN**. This menu appears:

MENU: SORT **SELECT** SORT & SELECT

3. Choose **SELECT** and press **RETURN**. This message appears:

Mark range to select from. Press RETURN when done.

4. Move the cursor to the opposite corner of the range and press **RETURN**. The word processor asks you to enter the name of the column to be used.

Select Column A-E:

This message appears:

Enter the select column and press RETURN.

5. Type a letter (**E** in this example) and press **RETURN**. A menu of matching conditions appears:

MENU: EQUAL NOT EQUAL LESS GREATER BETWEEN NOT BETWEEN

If you select **EQUAL**, **NOT EQUAL**, **LESS**, or **GREATER**, the word processor asks you to enter a numeric value (equal or not equal to what, etc.). If you select **BETWEEN** or **NOT BETWEEN**, you are requested to enter the limit values of the bracket.

6. Select **EQUAL** and press **RETURN**. The word processor asks you to enter the value:

Equal to:

We want the list of people whose zip code is 76021.

7. Type 76021 and press **RETURN**. You are asked to insert paper:

Insert paper and press RETURN.

8. Insert paper and press **RETURN**. Change the daisy wheel as required and press **RETURN** again. The printout should appear as follows:

Carter	David	Dallas	TX	76021
Lee	Kevin	Bedford	TX	76021

Sorting & Selecting Data from a Range

MENU: COLUMN FORMAT RECALC SORT CLEAR CONVERT

MENU: SORT SELECT SORT & SELECT

This third option (**SORT & SELECT**) allows you to sort and select in one operation. This is useful when you want the printout to be sorted. To try out this option, use a copy of the data in the previous example.

After you select SORT & SELECT, the word processor first sorts the data and then selects according to the specified criteria. Follow the instructions on the screen for SORT, then the instructions for SELECT.

Clearing a Range

The CI FAR option on the function menu allows you to clear a range quickly.

1. Place the cursor on a corner of the range to be cleared and press **MENU**.

MENU: COLUMN FORMAT RECALC SORT **CLEAR** CONVERT

2. Select **CLEAR** and press **RETURN**. This message appears:

Mark range to be cleared. Press RETURN when done.

3. Move the cursor to the opposite corner of the range and press **RETURN**. The range clears.

NOTE:

Attributes (bold, underline) and format (currency, percentage, etc.) are cleared.

Converting a Range

You may sometimes want to include data from the spreadsheet in a document. To do this, first type the spreadsheet data and convert it into a WP file as explained below. You can then retrieve that file in WP mode and add text.

1. Place the cursor on a corner of the range that you want to convert and press **MENU**. The function menu appears:

MENU: COLUMN FORMAT RECALC SORT **CLEAR** **CONVERT**

2. Select **CONVERT** and press **RETURN**. This message appears:

Mark range to convert. Press RETURN when done.

3. Move the cursor to the opposite corner of the range and press **RETURN**. This message appears:

Insert destination disk and press RETURN.

4. Insert a diskette and press **RETURN**. A list of WP files stored on the diskette appears. The word processor asks you to enter a file name for the converted file:

Type new filename and press RETURN.
FILENAME: XXXXXXXX WPT

5. Type a file name and press **RETURN**. This message appears while the file is converted:

Converting the file....please wait.

and is replaced with this message when the process is completed:

Converting completed.

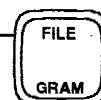
You are now in command mode at the Input/Edit screen. Press any key and the message disappears.

File Operation

The SPREADSHEET INDEX screen allows you to copy a file onto another diskette, delete or rename a file, convert a spreadsheet file into a word processing file, and print a file. You can reach these functions either with the function menu or with the special keys listed in the help menu.

The Spreadsheet Index Screen

Saving Your Work



1. When your spreadsheet is complete, press **FILE**. The following message appears:

Save file? Press RETURN to save, CORRECT to abandon.

NOTE:

If this is the first time you are using the diskette, you need to initialize (format) the diskette before saving.

2. If you do not want to save, press **CORRECT**. The SPREADSHEET INDEX screen appears.

If you want to save your file, insert a diskette, and press **RETURN**. The SPREADSHEET INDEX screen appears and lists the spreadsheet files stored on the diskette. You are asked to enter a file name:

Type filename and press RETURN.

FILENAME: SPR

3. Type a file name and press **RETURN**. The file is saved on the diskette and the SPREADSHEET INDEX screen list is updated.

NOTES:

- A file name may have capital and small letters, numbers and hyphens. No other characters are allowed.
- To correct an error while typing a file name, press **BACKSPACE** or **CORRECT**, **WORD OUT**, **CODE + LINE OUT** or move the cursor with ← and → and retype the file name. Pressing **CANCEL** allows you to escape.
- If you type a file name that exists already, the word processor asks you if you want to overwrite the old file:

Filename already exists. Type new filename and press RETURN.

FILENAME: XXXXXXXX SPR

- If you want to overwrite the old version of the file, press **RETURN**.

- If you do not want to overwrite the file but want to save the new version separately, enter another file name and press **RETURN**.
- If you press **CANCEL**, the same message as in step (1) reappears.
- If there is not enough space remaining on the diskette to contain the file you want to save, the word processor asks you to insert a new diskette with this message:

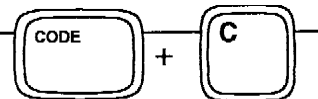
Disk is full, please try again with new disk. Press RETURN.

Insert another diskette and press **RETURN**.

Retrieving a Spreadsheet File

1. Start Spreadsheet or press **FILE** to display the SPREADSHEET INDEX screen.
2. Select the file by pressing ←, →, ↑, and ↓. (Select *NEWFILE to create a new file.)
3. Press **RETURN** to switch to the INPUT/EDIT screen where the file can be edited.

Copying a File on Diskette



1. With the SPREADSHEET INDEX screen displayed, insert the diskette containing the file you want to copy. The list of files on that diskette appears.
2. Press ←, →, ↑, and ↓ to select the file; then press **MENU** to display the function menu.

MENU: EXIT COPY DELETE RENAME CONVERT ALL DELETE PRINT

3. Select **COPY** and press **RETURN**. This message appears:

Insert destination disk and press RETURN.

- **Short cut:** Instead of steps (2) and (3), press **CODE + C** (see Help Menus on page 184).
4. Insert a diskette and press **RETURN**. After a few seconds, the SPREADSHEET INDEX screen appears, and you are asked to enter a new file name.

NOTE:

You may copy a file onto the same diskette. Leave the current diskette in the disk drive when asked to insert the destination diskette.

Type new filename and press RETURN.

FILENAME: XXXXXXXX SPR

5. Type a new file name (one that does not already exist on the diskette) and press **RETURN**. If you enter a file name already used on the diskette, this message appears:

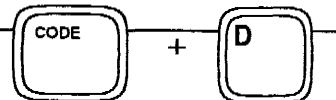
Filename already exists. Type new filename and press RETURN.

FILENAME: XXXXXXXX SPR

6. If you want to overwrite the file, press **RETURN**. If you do not want to overwrite the file, but want to copy the file under a separate file name, enter a new file name and press **RETURN**. The word processor tells you when the operation is completed. You can also press **CANCEL** to return to the SPREADSHEET INDEX without copying.

Copying completed.

Deleting a File on Diskette



1. With the SPREADSHEET INDEX screen displayed, insert the diskette containing the file you want to delete. The list of files on the diskette appears.
2. Press ←, →, ↑, and ↓ to select the file; then press **MENU** to display the function menu:

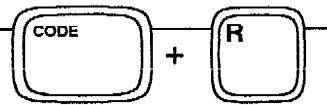
MENU: EXIT COPY **DELETE** RENAME CONVERT ALL DELETE PRINT

3. Select **DELETE** and press **RETURN**. This message appears:

Delete? Press Y(yes) or N(no).

- **Short cut:** Instead of steps (2) and (3), press **CODE + D** (see Help Menus on page 184).
4. Press **Y** to confirm. The file is deleted and the index updated.

Renaming a File on Diskette



1. With the SPREADSHEET INDEX screen displayed, insert the diskette containing the file you want to rename. The list of files on the diskette appears.
2. Press ←, →, ↑, and ↓ to select the file; then press **MENU** to display the function menu:

MENU: EXIT COPY DELETE **RENAME** CONVERT ALL DELETE PRINT

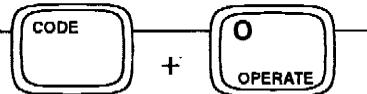
3. Select RENAME and press **RETURN**. This message appears:

Type new filename and press RETURN.

FILENAME: XXXXXXXX SPR

- **Short cut:** Instead of steps (2) and (3), press **CODE + R** (see Help Menus on page 184)
4. Type a new file name (one that does not already exist on the diskette) and press **RETURN**.

Converting a Spreadsheet File



The system allows you to change a spreadsheet file into a text file. You should create the spreadsheet file first. After the spreadsheet file is saved, convert it into a text file as explained below. Then switch to the WP mode and retrieve the converted file. You are now free to add any text to the file.

To convert a spreadsheet file:

1. With the SPREADSHEET INDEX screen displayed, insert the diskette containing the file you want to convert. The list of files on the diskette appears.
2. Press ←, →, ↑, and ↓ to select the file; then press **MENU** to display the function menu.

MENU: EXIT COPY DELETE RENAME **CONVERT** ALL DELETE PRINT

3. Select CONVERT and press **RETURN**. This message appears:

Insert destination disk and press RETURN.

- **Short cut:** Instead of steps (2) and (3), press **CODE + O** (see Help Menus on page 182).
4. To store the converted file on the current diskette, press **RETURN**. To store the converted file on a different diskette, insert the new diskette and press **RETURN**. The word processor asks you to enter a file name:

Type new filename and press RETURN.

FILENAME: XXXXXXXX WPT

5. Type a file name and press **RETURN**. While the file is being converted, the following message appears:

Converting the file...please wait.

and is replaced with this message when the operation is completed:

Converting completed.

Deleting All Spreadsheet Files

1. With the SPREADSHEET INDEX screen displayed, insert the diskette containing the files you want to delete. The list of files on the diskette appears.
2. Press **MENU** to display the function menu:

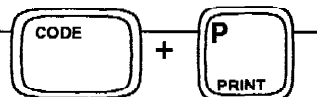
MENU: EXIT COPY DELETE RENAME CONVERT ALL DELETE PRINT

3. Select **ALL DELETE** and press **RETURN**. This message appears:

Delete all files on this index? Press Y (yes) or N (no).

4. Press **Y** to delete all Spreadsheet files on diskette or **N** to quit without deleting. Files other than Spreadsheet files are not erased from the diskette.

Printing a File



1. With the SPREADSHEET INDEX screen displayed, insert the diskette containing the file you want to print. The list of the files on the diskette appears.
2. Press **←**, **→**, **↑**, and **↓** to select the file; then press **MENU** to display the function menu:

MENU: EXIT COPY DELETE RENAME CONVERT ALL DELETE PRINT

3. Select **PRINT** and press **RETURN**. This message appears:

Insert paper and press RETURN.

- *Short cut: Instead of steps (2) and (3), press **CODE + P (PRINT)**.*
- 4. Insert a sheet of paper and press **RETURN**. The word processor asks you to insert a standard daisy wheel (KB I) of the appropriate pitch. Install the daisy wheel and press **RETURN**, or press **RETURN** if the correct daisy wheel is already installed.
- 5. During printing, press the **[SPACE BAR]** to pause and then continue printing, or **CANCEL** to quit.

NOTES:

- *If the data exceeds the printing capabilities, data will be truncated (cut off). It is not possible to change the pitch at the **SPREADSHEET INDEX** screen. If the spreadsheet is too wide, try inserting paper horizontally. If it is still too wide, go back to the **INPUT/EDIT** screen and select a higher pitch or print only a range of the spreadsheet.*
- *Remember that you can enter page break symbols ↴ to stop printing for a paper change.*

Templates

You can use any of the pre-formatted templates or create spreadsheets of your own.

For all templates, enter the data in the blank cells only. Never enter data into the cells that contain a formula.

Listed below are the templates that we have already designed for your use. These files come with an easy-to-use format. All you need to do is enter your data. The cells that are supposed to display a result already contain the appropriate formulas and format.

After you have completed your work on the template spreadsheet, you can give your template a file name and save it on a diskette. Each time you select a template from the Template diskette, a new blank file appears. To recall a template that you previously worked with, recall it from the diskette by the file name you assigned.

Description of the Templates

INTRO — This template is actually an overview file that contains a written introduction to Spreadsheet. It discusses some of the features and capabilities of the Spreadsheet application.

TELEPHONE AND ADDRESS DIRECTORY — This template allows you to keep an organized listing of names and addresses. With the sort capability, you can rearrange this file alphabetically after each addition or edit.

CHECKBOOK — This Checkbook template resembles the ledgers that you receive from your bank. It calculates the balance after you enter your deposits and withdrawals. After entering your deposits and withdrawals, select **RECALC** from the function menu to process the balance column. If you later make changes or additions to the data you entered in the checkbook, use the **RECALC** function to determine the new balance.

MONTHLY BUDGETING — This template helps you keep your personal finances in order. It outlines your monthly expenses.

Once your expenses are itemized, use the **RECALC** function to determine your budget results. Later, if you make changes to the budget, use the **RECALC** function to determine the new totals.

SALES ANALYSIS — This template helps monitor actual versus projected sales results of salespersons. Enter the data for all the cells with the exception of the cells containing formulas (zeros). After you have entered the information for each salesperson, use the **RECALC** function to determine the results. Later, if you make changes or additions to the template, use the **RECALC** function to see the new results.

ANNUAL YIELD (COMPOUND) — This template figures annual yield according to the annual interest rate. Type in the annual interest rate. Use the **RECALC** function to see the results.

SAVING PLANNER — This template calculates your savings over a specified period of time. Enter the requested data. Use the RECALC function to determine the results.

MONTHLY PAYMENT OF LOAN — This template calculates your monthly payments and lists the amount of interest and principal paid per month, for one year. Enter the requested data. Use the RECALC function to see the results for one year.

Retrieving a Template

1. Insert the Template diskette and start the Spreadsheet application. The Templates are stored on the Template diskette. When the SPREADSHEET INDEX screen appears, the list of Templates is displayed.
2. Select the desired template with the cursor and press **RETURN**. The spreadsheet appears on the screen. As you can see, the format has been set up for you already. Move your cursor around the screen. You can see that some columns have formulas already set up for calculations.

Practice Exercise

For practice, recall the template SALES and follow these steps to enter data:

1. Move your cursor to the right of COMPANY and type "DONNLIN SALES COMPANY". Press **RETURN**.
2. Move the cursor down to the right of DIVISION and type "WESTERN". Press **RETURN**.
3. Move the cursor down to the right of DATE and type "5/31/96" (do not forget the format mark). Press **RETURN**.

NOTE:

Each time alphanumeric data looks like a number or a formula, type a single quotation mark at the beginning to tell the word processor that this data is not to be calculated. The single quotation mark is called a "format mark." Other format marks are available.

4. Move the cursor down under SALESPERSON NAME and type "James Elliott". Press **RETURN**.
5. Move the cursor under PROJECTED UNITS and type "17000". Press **RETURN**.
6. Move the cursor under PROJECTED SALES and type "75000". Press **RETURN**.
7. Enter amounts for ACTUAL UNITS and ACTUAL SALES.

NOTE:

The remaining cells to the right display "0" or "100,00%", which indicate that a formula has been entered in these cells. Do not enter data in these cells. If data is entered, the formulas will be deleted.

8. Continue to enter data for each row, remembering not to enter data in the cells with formulas already set up.

Practice Recalculation

Formulas are used to display a result that depends on the contents of other cells automatically.

1. Press **MENU** to display the function menu.
2. Press ← and → to select **RECALC** and press **RETURN**. This automatically updates all formulas.

Practice Printing

Your word processor provides two methods for printing spreadsheets: from the INPUT/EDIT screen or from the SPREADSHEET INDEX screen.

From the INPUT/EDIT Screen

While you are editing your spreadsheet in the INPUT/EDIT screen, press **CODE + P (PRINT)**. The word processor asks you to mark the range that you want to print. This feature is convenient when you have a wide spreadsheet and need to print only part of it. Another advantage of this method is that you can select the pitch.

From the SPREADSHEET INDEX Screen

After saving your spreadsheet file, you can print the entire file from the SPREADSHEET INDEX screen by pressing the same **CODE + P (PRINT)** keys.

Practice Saving the File

For complete instructions regarding file saving, see *Saving Your Work* on page 223.

1. Press **FILE**. This message appears:

Save file? Press RETURN to save, CORRECT to abandon.

2. Insert a diskette and press **RETURN**. This message appears:

Type filename and press RETURN.

3. Give your file a name; then press **RETURN** to save it on diskette and display Spreadsheet Index screen.

NOTE:

If this is the first time you are using the diskette, you need to initialize (format) the diskette before saving.

Using Lotus® 1-2-3® File

Lotus® 1-2-3® files can be converted into Brother Spreadsheet files and used on your word processor. In addition, you can create spreadsheet files on your Brother word processor and then convert them to Lotus® 1-2-3® files.

CAUTION:

When converting Lotus® 1-2-3® files into Brother Spreadsheet files, be sure to store the files on the root directory on the diskette. Your Brother word processor can only read the root directory of a DOS diskette.

Conversions to or from ASCII files are carried out according to the IBM PC Code given on page 299. For information on code page switching, refer to your DOS manual (DOS command **mode device codepage**). The IBM PC code table shows all characters that can be correctly converted. Characters that are not included in that table are converted into blank spaces.

Your word processor comes with a conversion program that can be used on a personal computer to convert files.

1. Insert the diskette containing the conversion program into the A or B drive of the PC.
2. If necessary, type **A:** and press **ENTER** to display the A:> prompt. If the diskette is in drive B, type **B:** and press **ENTER** to display the B:> prompt.
3. Type the conversion program name, SCONV and press **ENTER**. The conversion program starts and displays this message:

Insert data disk and press Enter.

4. Remove the conversion program diskette, insert a diskette in drive A, and press **RETURN**. The word processor asks you to select a conversion direction.

A:	BROTHER SPREADSHEET	(.SPR) ->	LOTUS 1-2-3	(.WK1)
B:	LOTUS 1-2-3	(.WK1) ->	BROTHER SPREADSHEET	(.SPR)

5. Type **A** or **B** and press **ENTER**. A will convert a Brother Spreadsheet file into a Lotus® 1-2-3® file. B converts a Lotus® 1-2-3® file into a Brother Spreadsheet file.

The word processor asks you to enter the name of the file to convert:

Type source filename and press Enter.

6. Type the file name (without extension) and press **ENTER**. The word processor asks you to enter a name for the converted file.

Type new filename and press Enter.

7. Type a file name (without extension) and press **ENTER**. This message appears:

Converting the file....please wait.

After conversion is complete, this message appears:

Convert completed.

8. The word processor then asks you whether you want to convert other files:

Continue to convert? [Y/N]

9. Type **N** to exit the program, or **Y** to return to step (3) and start converting another file.

Sometimes the program cannot convert a cell of a source file. When this happens, the entire file is converted, but the cell that has caused the problem is slightly different from the original. A message shows the number of such cells and the cause of the conversion errors following the message "Convert completed."

Convert completed.
Syntax or format error XXX cells
Formula error XXX cells
Function error Data loss XXX cells
Please check data before using.

Syntax or format error: This may occur when a cell in a Lotus® 1-2-3® file contains more than 55 characters. In this case, only the first 55 characters of the cell will appear in the converted file. This may also happen when a Brother spreadsheet file contains a page break symbol. The page break symbol is converted into a blank space.

Formula error: This error occurs, for example, when the result of a formula in a Lotus® 1-2-3® file is beyond the range of this word processor.

Function error Data loss: This may occur, for instance, when a function available with Lotus® 1-2-3® is not recognized or has a slightly different format (e.g. @SUM(A2..A5,B1..B3) or @COS(45*PI/180)). This also happens when the length of a formula in the Lotus® 1-2-3® file exceeds 55 characters. Please check the Lotus® 1-2-3® file and make sure that only function and formats available on your word processor are used.

Remember that the above messages do not mean that the file cannot be converted. They only mean that some cells cannot be converted properly.

When a file cannot convert, one of these messages appears while the message "Converting the file....please wait" is displayed.

Data full. Unable to convert.

The Lotus® 1-2-3® file is too large.

Cell extend beyond range. Unable to convert.

A cell in the Lotus® 1-2-3® file is beyond the range of 65 rows or 20 columns.

Incorrect file. Unable to convert.

The source file is not recognized.

Password is already set. Unable to convert.

A password restricts access to the Lotus® 1-2-3® file.

Too many errors. Convert cancelled.

This happens when more than 130 cells are lost.

Desktop Reference

Desktop Reference finds information about a specified word. When available, the information includes definitions, hyphenation, and synonyms. If the word is misspelled, Desktop Reference suggests correct spellings.

Starting Desktop Reference _____



4 Desktop Reference

1. Turn the power on to display the Main Menu.
2. Use the cursor keys to select the icon for Desktop Reference and press **RETURN**, or press **4**. The DESKTOP REFERENCE screen appears:

<< DESKTOP REFERENCE >>

WORD:

~

Type word and press RETURN.

NOTE:

- You can also start Desktop Reference from the *WRITE/EDIT* screen of the Word Processing application. See *Desktop Reference* on page 139 for details.

Getting Information About a Word

To search for a word, type the word in the entry field **WORD** and press **RETURN**.

The word processor starts searching for the word. What happens next depends on whether the word is found in the dictionary.

When the Word is Found

When the word on the **DESKTOP REFERENCE** screen is found in the dictionary, the **INFORMATION** screen appears. This screen shows the correct hyphenation position(s) for the word and, when available, a list of definitions.

<< DESKTOP REFERENCE >>	
HYPHENATION:	dis-tin-guish
MEANING(S):	Verb: to cause to be eminent or recognized. Verb: to make noticeable or different. Verb: to perceive and fix the identity of Verb: to perceive with a special effort of the senses or the mind Verb: to recognize as being different
Select meaning with arrow keys and press RETURN	

HYPHENATION: This line displays the specified word with hyphens inserted to show where the word should break at the end of a line. Standard capitalization is also shown.

NOTE:

"NOT AVAILABLE" appears in the HYPHENATION line if the hyphenation information is not available.

MEANING(S): This area displays one or more definitions for the specified word (if available). A definition is made up of two parts:

1. Part of speech (verb, noun, adj., adv.).
2. Meaning of the word.

The same word can often be used as a verb, noun, or other part of speech.

In addition, the same part of speech (verb, for instance) can appear more than once in the **MEANING(S)** area. This happens when a word has different meanings even when used as the same part of speech. For example, "enclose," as a verb, can mean "to shut in on all sides" or "to surround and advance on."

You can select a meaning to see corresponding synonyms by using the cursor and pressing **RETURN**. You can use the function menu for other options. See Using the Function Menu on page 240.

NOTES:

- The ↑ and ↓ indicate that there is more information available than appears on the screen.
- If the word is not present in the built-in Thesaurus, this message appears:

No meanings or synonyms available. Press CANCEL to edit word.

When one of the meanings is selected, synonyms for the selected meanings are displayed.

<< DESKTOP REFERENCE >>	
HYPHENATION:	dis-tin-guish
MEANING(S):	Verb: <u>to cause to be eminent or recognized.</u> Verb: to make noticeable or different. Verb: to perceive and fix the identity of Verb: to perceive with a special effort of the senses or the mind Verb: to recognize as being different
SYNONYM(S):	<u>honor</u> elevate exalt signalize ennoble
Select another word for hyphenation with RETURN. Select a new meaning with TAB.	

SYNONYM(S): This line displays synonyms for the word in the HYPHENATION line, corresponding to the selected definition in the MEANING(S) area.

When the SYNONYM screen appears, the selected meaning is underlined; synonyms corresponding to that meaning are displayed; and the first synonym of the list is selected (highlighted).

Select one of the synonyms by using the cursor keys and press **RETURN** to display the information for the selected word.

Use the function menu for other options. See Using the Function Menu on page 240.

Selecting a Meaning

1. If the MEANING(S) area is not active, (there is no highlighted definition), first press **TAB**.
2. Press ↑ and ↓ to select a meaning.
3. Press **RETURN**.

Synonyms for the selected meaning appear. The first synonym is highlighted and the selected meaning is underlined.

Selecting a Synonym

1. If you want to see all the information on a particular synonym, use the cursor keys to highlight the desired synonym.
2. Press **RETURN**.

When the Word Cannot Be Found

If the specified word is misspelled or not present in the dictionary, the word processor lists possible replacement words in the SUGGESTIONS line, in the same manner as the Spell Checker.

<< DESKTOP REFERENCE >>													
WORD:	taght												
SUGGESTIONS:	<table><tr><td>teat</td><td>tight</td><td>tat</td><td>tit</td><td>taught</td><td>taut</td></tr><tr><td>tutee</td><td>torte</td><td>turret</td><td>tatty</td><td></td><td></td></tr></table>	teat	tight	tat	tit	taught	taut	tutee	torte	turret	tatty		
teat	tight	tat	tit	taught	taut								
tutee	torte	turret	tatty										
Word not found. Select word and press RETURN, or press TAB to edit word.													

From this point, you can take one of the following steps:

- Select one of the suggested words.
- Edit the word to correct the mistake.
- Start searching for a new word.
- Use the function menu for other options. See Using the Function Menu on page 240.

NOTE:

The ↑ and ↓ indicate that there is more information available than appears on the screen.

Selecting One of the Suggested Words

1. Use the cursor keys to highlight the desired word.
2. Press **RETURN**.

Since the selected word exists in the dictionary, the INFORMATION screen appears.

Correcting the Word

1. Press **TAB** to move the cursor to the WORD entry field.

The list of suggestions disappears. Press **RETURN** without editing the word, to display the same list of suggestions.

2. Edit the word. You can press ← and → to position the cursor; and **BACKSPACE**, **WORD OUT**, or **CODE + LINE OUT** to delete characters.
3. Press **RETURN**.

The word processor starts searching for the new word and again displays a list of suggestions if the word cannot be found, or switches to the INFORMATION screen if the word is found.

Using the Function Menu

EXIT	USER DICTIONARY MAINTENANCE	NEW WORD
-------------	------------------------------------	-----------------

Returning to the Main Menu

Select **EXIT** to quit the Desktop Reference application and return to the Main Menu (or to the Word Processing application when you enter the Desktop Reference from the WP application).

1. Press **MENU** to display the menu.
2. Press **RETURN** or **E**.
 - **Short cut:** On the *DESKTOP REFERENCE* screen, press **CANCEL** instead of doing steps (1) and (2).

Adding the Word to the User Dictionary

USER DICTIONARY MAINTENANCE allows you to add a word to your user dictionary. This works exactly like the **ADD** option of Spell Checker. For more details, see Maintaining the User Dictionary on page 130.

1. Press **MENU** to display the menu.
2. Press **U** to select **USER DICTIONARY MAINTENANCE**, and press **RETURN**.

NOTE:

You can use **USER DICTIONARY MAINTENANCE** only when the cursor is on the **WORD** entry field of the **DESKTOP REFERENCE** screen.

Searching for a New Word

NEW WORD sends the cursor to the **WORD** entry field of the **DESKTOP REFERENCE** screen. The entry field clears and you can enter a new word.

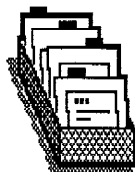
1. Press **MENU** to display the menu.
2. Press **N** to select **NEW WORD**, and press **RETURN**.

The **DESKTOP REFERENCE** screen reappears and you can enter another word.

File Management

File Management allows you to organize your files on diskette. Most functions available with the File Management application are also available on the INDEX screen of the WP, Framing, Addressbook, and Spreadsheet applications. However, these INDEX screens only list files used in the corresponding applications. The INDEX screen of the File Management application lists all files that this word processor can use (except the User Dictionary and Abbreviated Phrase file), which makes file maintenance easier.

Starting File Management _____



7 File Management

1. Turn the power on to display the Main Menu.
2. Insert a diskette in the disk drive.
3. Press ← and → to select the File Management icon and press **RETURN**, or press **7**. The FILE MANAGEMENT screen appears.

You can distinguish different types of files by file name extension:

Type of File	File Name Extension
Word Processing	.WPT
ASCII	.TXT
Spreadsheet	.SPR
Addressbook	.MRG
Framing	.FRM
Lotus®1-2-3®	.WK1

NOTE:

When creating or renaming a file with your personal computer, make sure that you use the proper file name extensions. There are two errors that you should try to avoid:

The first error is to change the file name extension of a file that has been created on your Brother word processor. For example, if you use your personal computer to change the extension ".WPT" to ".WP", your Brother word processor will not recognize the file and will not display it on the FILE

MANAGEMENT screen.

The second error is to create a file in a format that cannot be recognized by your Brother word processor and give it one of the above file name extensions. (For example, if you used your personal computer to create a graphic file, and you gave that file the file name extension ".WPT", this file would then appear on the FILE MANAGEMENT screen, but your Brother word processor would not be able to display the contents of the file.)

Other differences between the FILE MANAGEMENT screen and the other INDEX screens you can access from the individual applications are:

- You cannot select a file and press **RETURN** to edit the file.
- There is no file name with an asterisk such as *NEWFILE, which means that you cannot start creating a new file from this screen.
- You cannot print a file from this screen.

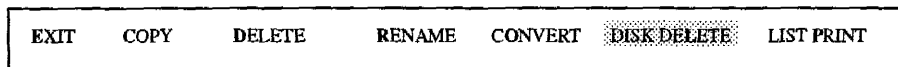
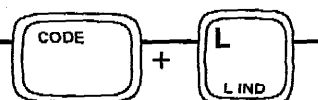
The Function Menu ---

The functions available on the function menu are explained in the File Operation section of the WP application. When you enter a file name while renaming and copying a file, the correct file name extension is automatically displayed.

Here is a list of the available functions:

Function	Description
EXIT	To return to the Main Menu. You can also press CANCEL .
COPY	To copy a file on the same diskette or on another diskette. The word processor allows you to enter a new file name for the copy. See Copying a File on page 84.
DELETE	To delete a file. See Deleting a File on page 83.
RENAME	To rename a file. See Renaming a File on page 86.
CONVERT	To convert an ASCII file into a WP file or vice versa. See Using Your Brother Word Processing Files in a PC or Using a PC File in Your Brother Word Processor on page 87.
DISK DELETE	To delete all files from the diskette. See explanations below.
LIST PRINT	To print the list of file names in the inserted diskette.

Disk Delete



This function allows you to delete all files on a diskette at one time.

1. Press **MENU** to display the function menu.
2. Type **L** to select DISK DELETE. This message appears:

Delete all files on this disk? Press Y (yes) or N (no).

- **Short cut:** Instead of steps (1) and (2), press **CODE + L**.

3. Press **Y** to format. This message appears:

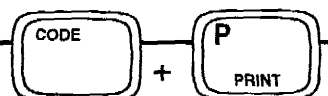
Select the format type. Press 1 for Double density or 2 for High density.

4. Press **1** to format a 2DD diskette, or **2** to format a 2HD diskette. If necessary, remove the diskette to check the density (2DD or 2HD), then re-insert the diskette.

CAUTION:

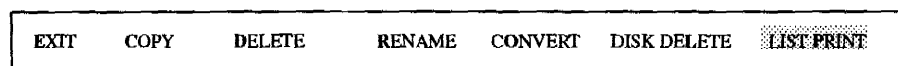
When you perform a DISK DELETE, all files on the diskette are deleted and cannot be restored. This includes not only files displayed on the INDEX screen, but also files with a file name extension not recognized by your Brother word processor, as well as any file not in the root directory.

List Print



This feature allows the user to print a list of all files displayed on the screen.

1. Insert a diskette in the disk drive.
2. Press **MENU** to display the function menu.



3. Type **P** to select LIST PRINT. This message appears:

Insert paper and press RETURN.

- **Short cut:** Instead of steps (2) and (3), press **CODE + P**.

4. Press **RETURN** to print. This message appears:

Change to KB:1 12 wheel and press RETURN.

NOTE:

- If current KB information is I or II, this message is not displayed and you can skip to step (5).

5. Press **RETURN** to start printing. This message is displayed during printing:

Printing. Press SPACE to pause.

NOTES:

- Printing format is as follows:

DISK		Used: XXXX.X Free: XXXX.X	
AAAAAAAA.WPT (XXX.X)	BBBBBBBB.WPT (XXX.X)	CCCCCCC.WPT (XXX.X)	
DDDDDDD.WPT (XXX.X)	EEEEEEE.WPT (XXX.X)	FFFFFFF.WPT (XXX.X)	
TEXT .TXT (XXX.X)	SPREAD .SPR (XXX.X)	LOTUS .WK1 (XXX.X)	
FRAM . FRM (XXX.X)	:	:	:
:	:	:	:

- Only the files displayed on the screen print. This means that the files listed below are not printed:

Files with an extension that is not supported by this model.

Files with hidden attributes, such as User Dictionary and Abbreviated Phrase (even if it is the one for this model).

Disk Copy

This function allows you to copy all files contained on a diskette to another diskette (backup copy).

NOTE:

You cannot perform a disk copy function on a high density diskette (1.44 Mb) formatted double density (720 kb). Also the word processor does not allow a disk copy function when the diskette format is not the same (i.e., 1.44 Mb to 720 kb, or 720 kb to 1.44 Mb).

Although it does not appear on the function menu, the Disk Copy function is available from WP, Addressbook, Framing, and File Management screens.

CAUTIONS:

- **The Disk Copy function erases the text in the CLIPBOARD from memory.**
- **Copying an entire diskette to another destroys any data on the destination diskette. Check the destination diskette before starting. Be sure your destination diskette has been initialized.**

1. Press **CODE + SHIFT + C**. This message appears:

Insert source disk and press RETURN.

2. Insert the source (original) diskette and press **RETURN**. The word processor starts reading files from the source diskette. Since the memory space is limited, the word processor may not be able to read all files in one step. After a while, this message appears:

Source disk : 720K/2DD Use the same format type for destination disk.
Insert destination disk and press RETURN.

or

Source disk : 1.44MB/2HD Use the same format type for destination disk.
Insert destination disk and press RETURN.

These messages appear only the first time the source disk is inserted and the **RETURN** key is pressed. After that, the message "Insert destination disk and press **RETURN**" appears.

3. Insert the destination diskette and press **RETURN**. The word processor transfers files read from the source diskette onto the destination diskette. If all the files of the source diskette have not been transferred yet, the word processor asks you to re-insert the source diskette. Repeat steps (2) and (3) until all files have been transferred to the destination diskette. You may need to insert these diskettes a number of times before all files are copied to the destination diskette.

NOTE:

The word processor knows which diskette is the source diskette and which one is the destination diskette. If you mistakenly insert a wrong diskette, one of these messages appears:

Incorrect disk. Insert destination disk and press RETURN.

Incorrect disk. Insert source disk and press RETURN.

NOTE:

*Press **CANCEL** at any time (except during diskette access) to cancel the operation.*

4. When copying is complete, the normal message of the INDEX screen reappears.

Conversion

This PC software converts document files between different word processing programs and Brother.

IMPORTANT:

This program was created to facilitate converting your documents from the Brother word processing format, and other leading word processing formats. Practically all formatting, text enhancement, and other control codes are correctly translated, so that little or no touching up of the converted document is required.

However, in some cases, the translation results are not as accurate as we would like them to be. We warn you against these situations, and we recommend that you review each file after the conversion is done to check for any irregularities.

NOTE:

If you are using a PC with a mouse, the conversion software does not support the mouse. Use the cursor keys to scroll through the menu or press the highlighted letter to select an option.

Introduction

The Brother Conversion software allows you to convert documents between different word processing formats and the Brother format.

It takes document files created by one word processing program (**source files**) and converts them to Brother files (**destination files**), and vice versa.

Practically all the formatting, text enhancement, and other control codes are correctly translated, so that little or no touching up of the converted document is required.

See the chart below for possible PC → Brother conversion:

Convert From	To
Ami Pro	Brother
ASCII	
DisplayWrite®	
IBM®DCA/RFT	
IBM® Writing Assistant®	
Microsoft® Word™ family Word for DOS Word for Windows® Word for Macintosh®	
Microsoft® Works (DOS)	
Microsoft® Write	
pfs:® series pfs:Write® pfs:Professional Write pfs:First Choice	
WordPerfect® (DOS/Windows) Version 4.x Version 5.x Version 6.x	
WordStar® WordStar 3.x/4.0 WordStar 5.0 – 7.0 (DOS)	
WordStar-2000®	

NOTES:

- IBM DCA/RFT stands for IBM's Document Content Architecture, Revisable Form Text.
- ASCII stands for American Standard Code for Interchange of Information. ASCII (print) files are suitable for sending to a printer that supports backspace and form-feed functions.
- When converting to Microsoft Word for Windows or Word for Macintosh, the conversion software produces Word for DOS files, which can be read by these programs directly without any loss of formatting.

- When converting to late revision word processors, the *Brother Conversion software* may in some cases convert to an older revision file format, which the newer word processors can read without losing any document text or formatting.

The following chart lists possible Brother → PC conversions:

Convert From	To
Brother	Ami Pro Version 1 Version 2 Version 3
	ASCII Document Print
	DisplayWrite Version 2 Version 3 Version 4 Version 4.2 Version 5 or 5/2
	IBM DCA/RFT
	Microsoft Word (DOS) Version 3.0 or prior Version 4.0 Version 5.0 Version 5.5
	Microsoft Word for Windows® Version 1.0 Version 2.0 Version 6.0
	Microsoft Word for Macintosh
	Microsoft Works Version 1 Version 2
	Microsoft Write
	WordPerfect (DOS/Windows®) Version 4.1 Version 4.2 Version 5.0 Version 5.1 Version 5.2 Version 6.0 Version 6.1
	WordStar Version 3.x Version 4.0 Version 5.0

Convert From	To
	Version 5.5 Version 6.0 Version 7.0
	WordStar-2000 Release 1.x Release 2.x Release 3.x

Installing and Starting the Brother Conversion Software

We recommend that you make a copy of the Brother Conversion software diskette before you start the installation. You can work from the copy made, and keep the original diskette in a safe place in case it is needed in the future.

Computer System Requirements

The Brother Conversion Software runs under MS-DOS on any IBM-PC, PC/AT, PS/2 and compatible computer. The computer must have at least one disk drive, a hard disk drive, and 512 kb or more of memory.

Installing and Starting from Your Hard Disk Drive

To install the Brother Conversion Software on your hard disk drive, turn on your computer. The C> prompt appears. (If you are using Windows, exit Windows and get the C> prompt.) Then insert the Brother Conversion Software diskette in your disk drive, default to that drive (by typing either A: or B:) and type INSTALL.

For example:

```
C>A:  
A>INSTALL
```

This starts the installation program, which automatically creates a directory, on your C: drive, named "BROTHER" and copies all necessary files into that directory.

The installation program also creates a batch file on your C: drive called "CONVERT.BAT".

Each time you want to start the Brother Conversion Software, type the command CONVERT at the C> prompt:

For example:

```
C>CONVERT
```

After a brief opening screen, the Conversion screen appears.

- *The top line of your screen is used to explain and to clarify the current function selected. As you move the block cursor on screen, the explanations change depending on the function.*

PC → Brother	Brother → PC	Source	Destination	Convert	Options	Exit
Current Software Settings						
Convert From: WordPerfect 5.x			Convert To: Brother WP			
Source: (empty)			AutoSelect: Yes			
Destination: (empty)			Conversion Log: Yes			
↑↓→←: Move Choice ENTER: Select Chosen Option ESC: Exit from Window						

PC → Brother Brother → PC Source Destination Convert Options Exit

Ami Pro
 ASCII
 IBM DCA/RFT
 IBM Writing Assistant
 Microsoft Word family →
 Microsoft Works (DOS)
 Microsoft Write
 pfs: series →
 WordPerfect →
 WordStar →
 WordStar 2000

Current Software Settings

Convert From: WordPerfect 5.x
 Source: (empty)
 Destination: (empty)

Convert To: Brother WP
 AutoSelect: Yes
 Conversion Log: Yes

↑↓→←: Move Choice ENTER: Select Chosen Option ESC: Exit from Window

254 Conversion

Or, cancel this screen by pressing **Esc**, in which case the source format remains unchanged. The status panel at the bottom of the screen shows the format you have selected.

Your selection stays in effect even the next time you run the Brother Conversion Software, so you do not have to repeat the procedure unless you want to change your selection.

Converting Brother to PC Word Processing Files

The Brother→PC menu screen allows you to convert your Brother files to the word processing format of your choice:

PC > Brother	Brother → PC	Source	Destination	Convert	Options	Exit
Ami Pro	▶					
ASCII	▶					
DisplayWrite	▶					
IBM DCA/RFT	▶					
Microsoft Word (Dos)	▶					
Microsoft Word for Windows	▶					
Microsoft Word for Macintosh	▶					
Microsoft Works (DOS)	▶					
Microsoft Write	▶					
WordPerfect (DOS/Windows)	▶					
WordStar	▶					
WordStar 2000	▶					

Current Software Settings	
Convert From: Brother WP	Convert To: XXXXX
Source: (empty)	AutoSelect: Yes
Destination: (empty)	Conversion Log: Yes

↑↓→←: Move Choice	ENTER: Select Chosen Option	ESC: Exit from Window
-------------------	-----------------------------	-----------------------

Select the word processing format you want to convert to. To make your selection, move the highlight bar to the format you are choosing. In most cases, the software asks you for the version of the destination program. For example, if you select WordPerfect, you see the following screen:

PC → Brother	Brother → PC	Source	Destination	Convert	Options	Exit
		Ami Pro				
		ASCII				
		DisplayWrite				
		IBM DCA/RFT				
		Microsoft Word (Dos)				
		Microsoft Word for Windows				
		Microsoft Word for Macintosh				
		Microsoft Works (DOS)	Version 4.1			
		Microsoft Write	Version 4.2			
		WordPerfect (DOS/Windows)	Version 5.0			
		WordStar	Version 5.1			
		WordStar-2000	Version 5.2			
			Version 6.0			
			Version 6.1			
Current Software Settings						
Convert From: Brother WP			Convert To: XXXXXX			
Source: (empty)			AutoSelect: Yes			
Destination: (empty)			Conversion Log: Yes			
↑↓→←: Move Choice ENTER: Select Chosen Option ESC: Exit from Window						

Move the highlight bar to the specific version; then press **Enter**. You can press **Esc** at any time to return to the conversion screen.

The status panel at the bottom of the screen shows the format you selected.

Source

Use the Source functions to identify source files, to specify the disk drive and directory where the source files are located, and to choose the files to convert:

PC → Brother	Brother → PC	Source	Destination	Convert	Options	Exit
		AutoSelect				
		Drive				
		Directory				
		Files (s)				
Current Software Settings						
Convert From: WordPerfect 5.x			Convert To: Brother WP			
Source: (empty)			AutoSelect: Yes			
Destination: (empty)			Conversion Log: Yes			
↑↓→←: Move Choice ENTER: Select Chosen Option ESC: Exit from Window						

AutoSelect

The Brother Conversion software is capable of automatically identifying document files belonging to your source formats. This is called the AutoSelect feature. This feature is particularly useful when you have document files along with assorted other files in the same subdirectory, since you can then automatically exclude the irrelevant files.

Select Yes or No from the AutoSelect feature from the sub-menu.

If the source format cannot be automatically identified, then the AutoSelect option appears dimmed on most monitors and cannot be selected.

Drive

The Drive function allows you to enter the letter indicating the disk drive where the source files to be converted are located.

Type the drive letter and press **Enter**.

Directory

The Directory function allows you to enter the name of the directory where the source files to be converted are located.

Type the name of the directory, and press **Enter**.

File(s)

The File function allows you to select the specific file(s) to be converted.

When you select this option, a screen appears listing files in the source drive and subdirectory. If AutoSelect was set to Yes, only those files belonging to the source file format appear on the screen.

Move the highlight to the name of the file that you want to convert and press **[SPACE BAR]** to select that file. (You may cancel this screen by pressing **Esc**, in which case you will be returned to the Main Menu, leaving the previous setting unchanged.) You may select as many files as desired, then press **Enter** to close the screen. The status window at the bottom of the screen shows the source file name (if one file was selected) or the number of files (if multiple files were selected).

Destination

Use the Destination function to indicate where you want to place the converted files or to name the converted files.

PC → Brother	Brother → PC	Source	Destination	Convert	Options	Exit
<div>Location ▶ File Name(s)</div>						
Current Software Settings						
Convert From: WordPerfect 5.x Source: (empty) Destination: (empty)			Convert To: Brother WP AutoSelect: Yes Conversion Log: Yes			
↑↓→←: Move Choice ENTER: Select Chosen Option ESC: Exit from Window						

Location

The location function allows you to indicate where (which disk drive and directory) the converted files should be placed. When you select this option, the following screen appears:

PC → Brother	Brother → PC	Source	Destination	Convert	Options	Exit
<div>Location ▶ File Name(s)</div> <div>Different ▶ Same</div> <div>Drive Directory</div>						
Current Software Settings						
Convert From: WordPerfect 5.x Source: (empty) Destination: (empty)			Convert To: Brother WP AutoSelect: Yes Conversion Log: Yes			
↑↓→←: Move Choice ENTER: Select Chosen Option ESC: Exit from Window						

Different: Means the destination files will be placed in either a different disk drive or different subdirectory from the source files. You are prompted to enter the destination drive and the subdirectory path.

Same: Means the destination files will be placed in the same disk drive and subdirectory as the source files. At any time while specifying the destination file name(s), press **Esc** to return to the Main Menu.

The status panel at the bottom of the screen shows the destination.

File Name(s) _____

This function allows you to specify the name(s) of the converted file(s). As in standard DOS conventions, you can use "*" or "?" to keep portions of the name(s) the same as those of the corresponding source document file(s).

When converting files from other file formats to Brother, the converted files must always have .WPT extension, since the result of the conversion are Brother files. Therefore, only an 8-letter name field can be specified.

There may be occasions when the conversion program has to break up a single source document into several Brother files. In this case, the converted file names will automatically have sequential numbers appended to their name(s). For example, if a source document name MEMO.DOC is broken into three destination files, the converted files are named MEMO.WPT, MEMO-1.WPT, and MEMO-2.WPT. Similarly, a file named DOCUMENT.TXT, if broken up into two files, would result in DOCUMENT.WPT and DOCUME-1.WPT.

Convert _____

After all the necessary set ups have been done, the highlight bar moves to the Convert command. Press **Enter** to convert.

The screen changes to a different mode to show you which files are being converted, and how much conversion is done so far.

Options _____

Use the Options function to record information about the conversion process or change the appearance of your screen.

PC → Brother Brother → PC Source Destination Convert Options Exit

Conversion Log
Display

Current Software Settings

Convert From: WordPerfect 5.x
Source: (empty)
Destination: (empty)

Convert To: Brother WP
AutoSelect: Yes
Conversion Log: Yes

↑↓→←: Move Choice ENTER: Select Chosen Option ESC: Exit from Window

Conversion Log

This function creates a file to record information about the conversion process.

PC → Brother Brother → PC Source Destination Convert Options Exit

Conversion Log → Yes
Display → No

Convert From: WordPerfect 5.x Current Software Settings
Source: (empty) Convert To: Brother WP
Destination: (empty) AutoSelect: Yes
Conversion Log: Yes

↑↓→←: Move Choice ENTER: Select Chosen Option ESC: Exit from Window

Some features in a document cannot be converted because they are not supported by the destination word processor.

The program can record such exceptions in a log file that contains an audit trail. The audit trail log file is a simple ASCII text file, which may be reviewed or printed after doing a conversion.

If the log file does not exist when you run the program, your Brother word processor automatically creates one and writes the log into it. If the file already exists, the program adds the new information to the end of the file, leaving the previous information in it intact. Therefore, the log file can accumulate the audit trail over successive conversion sessions.

The log file created is named "CONVERT.LOG", and is saved in the Brother directory.

The log file can be viewed on the screen using the DOS type command.

Example:

```
C>TYPE C:\BROTHER\CONVERT.LOG
```

For each conversion session, the audit trail records the date and time the conversion was performed, source and destination word processing formats, and the exception summary results for each file converted.

You have the option to allow the program to create the log or not to create one. You can select Yes or No for the Conversion Log feature from the sub-menu.

Display

This function changes the appearance of your screen. The program allows you to specify high intensity or reverse video emphasis and whether you prefer a "black-on-white" or "white-on-black" screen.

If you have a color monitor, you can also select from any of the color schemes available.

Select Display from the Options Menu. The following screen appears:

PC → Brother	Brother → PC	Source	Destination	Convert	Options	Exit
					Conversion Log: Yes	
					Mono (with Intensity)	
					Mono (with Rev Video)	
					Mono (White on Black)	
					Blk & Wht (Backdrop)	
					Color 1 (Blue)	
					Color 2 (Magenta)	
					Color 3 (Red, Blue)	
					Color 4 (Red, Green)	
					Color 5 (Green)	
					Color 6 (Brown)	
					Color 7 (Yellow)	
Sample Message Window						
Current Software Settings						
Convert From: WordPerfect 5.x			Convert To: Brother WP			
Source: (empty)			AutoSelect: Yes			
Destination: (empty)			Conversion Log: Yes			
↑↓→←: Move Choice ENTER: Select Chosen Option ESC: Exit from Window						

Move the highlight bar to the scheme of your choice. The color scheme will change to adapt to the new selection. When you find a scheme you like, press **Enter** to select it. Or press **Esc** to leave the original display scheme unchanged.

Exit

You can use this function to exit the program at any time. Move the highlight bar to the **Exit** choice in the menu and press **Enter**.

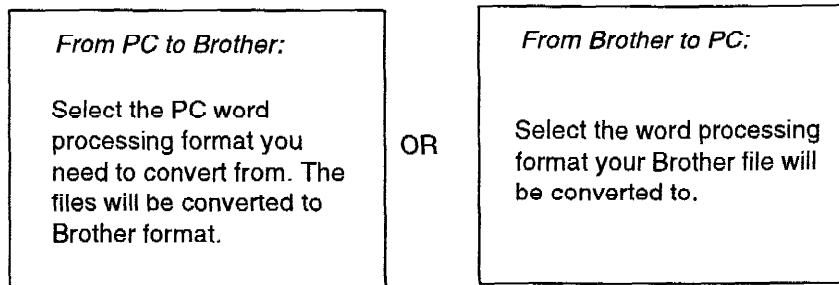
The program double checks to make sure you really want to exit by displaying the following screen:

Are you sure you want to exit? [Y/N]:		
Current Software Settings		
Convert From: WordPerfect 5.x	Convert To: Brother WP	
Source: (empty)	AutoSelect: Yes	
Destination: (empty)	Conversion Log: Yes	
↑↓ →←: Move Choice ENTER: Select Chosen Option ESC: Exit from Window		

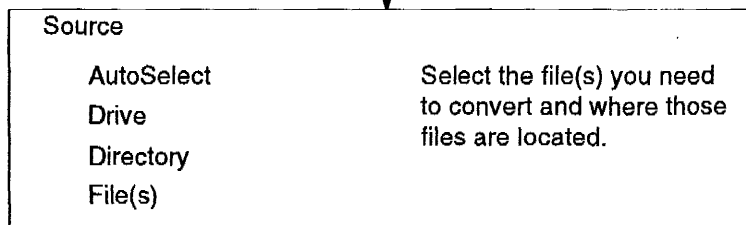
Type **Y** and press **Enter** to exit to DOS; or type **N** and press **Enter** to stay in the program.

Conversion Steps

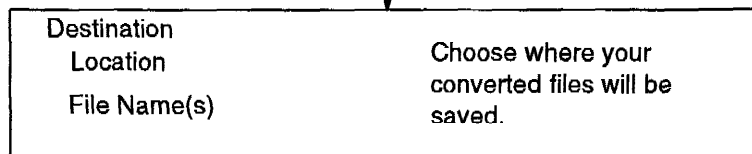
STEP 1



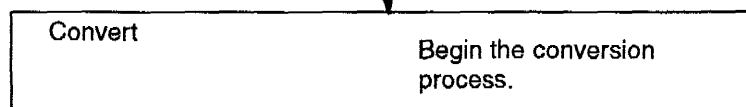
STEP 2



STEP 3



STEP 4



BOOKMAN®

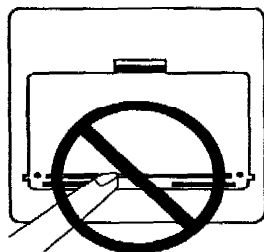
Your Brother word processor has been designed to accept BOOKMAN® cards, which are made by Franklin Electronic Publishers, Inc., and are sold separately. Each BOOKMAN® card that you purchase comes with its own User's Guide, which explains how to use the card with your word processor. Refer to those instructions to use each BOOKMAN® card.

Keep in mind that BOOKMAN® cards are designed to work in Franklin® hand-held units as well as your Brother word processor.

Before You Start

CAUTION:

- Make sure the power is turned off before installing or removing a BOOKMAN® card. Failure to do this could cause damage to your machine.



- Never touch the rubber or metal parts in the card compartment as this could cause damage.

Attaching BOOKMAN® Stickers

Because BOOKMAN® cards are used with a number of different electronic products that each have slightly different keyboards, a set of stickers has been provided in order to give you full access to all BOOKMAN® features. These stickers are easy to use and can be adhered to the front of some of the keys on your keyboard.



Place stickers here.

Find the BOOKMAN® key stickers that came with your word processor (they include four colored dots).

Attach the BOOKMAN® key stickers to the front of your keys according to the table shown on the next page. (NOTE: A pair of tweezers may help you.)

BOOKMAN® Card User's Guide

Read completely the User's Guide for the BOOKMAN® card you have purchased to have a good understanding of the functions available and how to use them.

<i>On the front of this key ...</i>	<i>Place this sticker.</i>	<i>On the front of this key ...</i>	<i>Place this sticker.</i>
	RED dot		CAP
	GREEN dot		SPACE
	YELLOW dot		+
	BLUE dot		÷
	BACK		☆
	UP PREV		CLEAR
	DN NEXT		-
	ENTER		X
	HELP		MENU
	? *		ON/OFF

Installing a BOOKMAN® Card

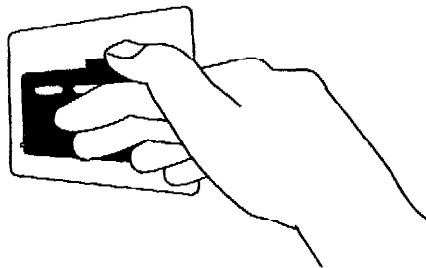
1. Turn the word processor off.
2. Lift the front of the word processor (section nearest you with keyboard). Continue raising the word processor until it rests perpendicular to the surface of your desk or table.

NOTE:

When your machine is in the correct raised position, it feels stable and secure while standing on end.

3. Remove the piece of protective plastic from the BOOKMAN® compartment by holding the word processor upright and using the other hand to press down on the tab at the top of the plastic piece. (This piece of plastic says, "THIS CARTRIDGE IS BLANK.")

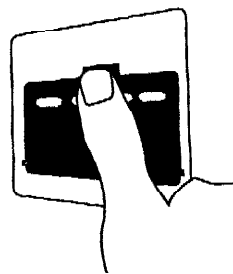
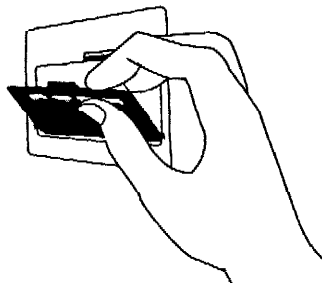
NOTE: This is the same way you will remove a BOOKMAN® card.



4. After pulling down on the tab, pull out at the top of the card to remove.

NOTE: Be sure that the power is still off.

5. With your hand still holding the word processor where the bottom of it is facing you, insert the BOOKMAN® card (lettering on card facing you). Place the long bar on the BOOKMAN® card to fit in the slot at the bottom of the BOOKMAN® card compartment on the machine.



6. Press card in until it snaps securely into place.

How to Start

You can start BOOKMAN® either from the Main Menu or from Word Processing.

Starting from the Main Menu



1. Turn the machine on to display the Main Menu.
2. Press **9** or move the cursor to the BOOKMAN® icon using the cursor keys, and press **RETURN**. The screen of the installed BOOKMAN® card appears.

Starting from Word Processing

STYLE	BLOCK	CTR/RMF	GRAMMARI	GRAMMAR2	SEARCH	FORM	PAGE PRINT
				EDIT THESAURUS			
				TYPE THESAURUS			
				ABBREVIATED PHRASE MAINTENANCE			
				ABBREVIATED PHRASE LOAD			
				ABBREVIATED PHRASE SAVE			
				BOOKMAN®			

1. Press **MENU** to display the function menu.
 2. Press **2** to select GRAMMAR2.
 3. Press **B** to select BOOKMAN®. This will display the BOOKMAN® screen for the card installed.
- **Short cut:** Instead of steps (1), (2), and (3), press **CODE + I**.

If you try to start BOOKMAN® from the Main Menu or from Word Processing without having first installed a BOOKMAN® card, this message appears:

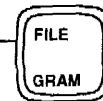
No card installed. Turn the power OFF and install the card or press CANCEL.

If you have a card, turn the power off and insert it. Press **CANCEL** if you do not want to insert a card.

NOTES:

- **BOOKMAN®** cannot be started while using **CENTERING**, **RIGHT MARGIN FLUSH**, and a **DECIMAL TAB**.
- Data from a **BOOKMAN®** Card cannot be printed or copied into a word processing file.

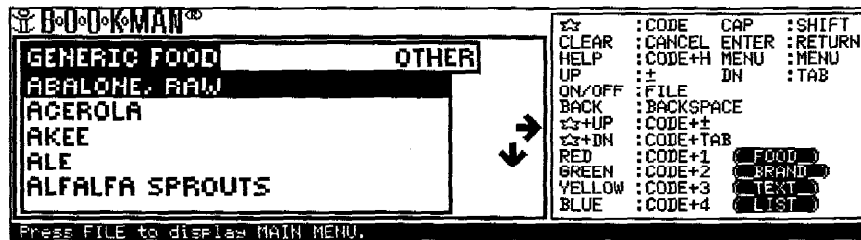
Closing BOOKMAN®



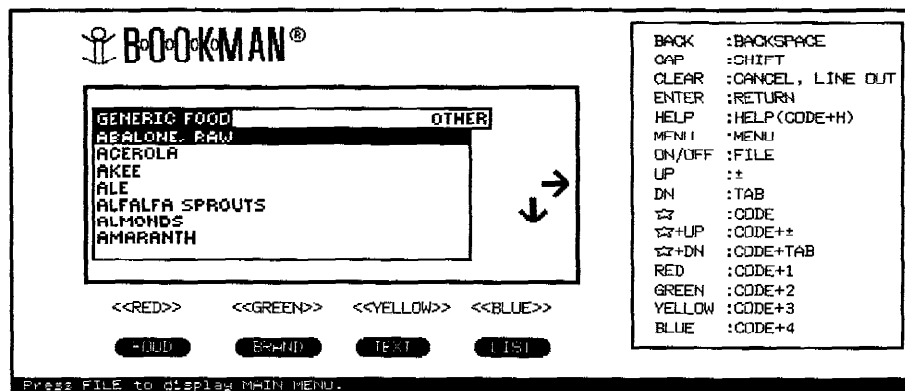
While viewing the **BOOKMAN®** screen, you can press **FILE** at any time to return to Word Processing if you accessed **BOOKMAN®** from Word Processing, or to the Main Menu if you accessed **BOOKMAN®** from the Main Menu.

Using a BOOKMAN® Card

With the WP-230B model, a screen similar to this Diet & Nutrition Guide card appears when you start **BOOKMAN®** from the Main Menu:



With the WP-335B model, a screen similar to this Diet & Nutrition Guide card appears when you start BOOKMAN® from the Main Menu:



- When you start BOOKMAN® from Word Processing, the message at the bottom of the above screen is replaced by this one:

Press FILE to display CREATE/EDIT screen.

- The left part of the screen is the BOOKMAN® display. Its actual contents depend on the card installed.
- The right part of the screen is a key equivalence list. The left column shows the name of the keys on the original electronic book; the right column shows the keys that you have to use on your Brother machine. (Stickers are provided if you wish to attach them to your keyboard.)
- The lower-left part of the screen on the WP-335B model indicates the function of the "color" keys. (The WP-230B gives the function of color keys on the right part of the screen.) The function of the four colored keys depends on the actual card installed. Refer to the list on the next page for the functions of a few BOOKMAN® cards:

Function of the color keys for different cards.				
Card	Red	Green	Yellow	Blue
Diet & Nutrition Guide	FOOD (food menu)	BRAND (brand or restaurant menu)	TEXT (nutrition text menu)	LIST (personal list menu)
Parent's Emergency Medical Guide	INFO (information)			
Bartender's Guide	DRINK (drink menu)	GLOSS (glossary)	HINTS	HOW TO
Parker's Wine Guide	WINES (wines menu)	GLOSS (glossary)	RGNS (regions)	MAPS
Betty Crocker's Cookbook	MORE (more matches)	NUTR (nutrition information)	INGR (entry screen)	LIST (note list)
Movie Views	CAST (cast list)	DIR (director list)	GAMES	THEME (theme list)
Total Baseball Encyclopedia	MAX (maximum statistics)	MIN (minimum statistics)	GT/LT (greater than/less than)	BAT/PIT (batting & pitching statistics)

Check with your dealer about the availability of more cards.

NOTE:

Pressing CODE + H (HELP) will almost always display a help message related to the operation you are currently carrying out.

Using Your Keyboard

To find a key, you can either refer to the key equivalence list displayed on the screen, or use the key stickers.

Example: To use the BACK function:

- The on-screen list shows that the equivalent of the BACK key is **BACKSPACE**.
- You can also find that the BACK sticker on your keyboard is on the **BACKSPACE** key.

If a BOOKMAN[®] key is not mentioned in the on-screen list, you can assume that the key has the same label on your keyboard.

Example: The **SPACE** key, arrow keys, and the character keys.

The **CARD** key is mentioned in the **BOOKMAN®** software. The **CARD** key has no equivalent key on your Brother unit. The original electronic book comes with a built-in card and a slot for the user to insert a second card. The **CARD** key allows the users to select which card they wish to work with. Since your unit allows for only one card to be inserted, there is no need for a **CARD** key.

When the **BOOKMAN®** User's Guide instructs you to press **☆ + a character key**, such as **☆ + Q**, you will press **CODE + Q**. You can also use a numeric key alone: **1** for **CODE + Q**, **2** for **CODE + W**, and so on.

The "equivalent" of the **ON/OFF** key is **FILE** and is used to exit **BOOKMAN®**. (Your Brother word processor uses a power switch, and is not switched off when you press **FILE**.)

When these cards are used in a Franklin® **BOOKMAN®** device, you are able to view a self demonstration. Because the operation of this unit is fully explained in this guide and in the individual user's guides for each card, the self demonstration is not necessary.

HELP_____

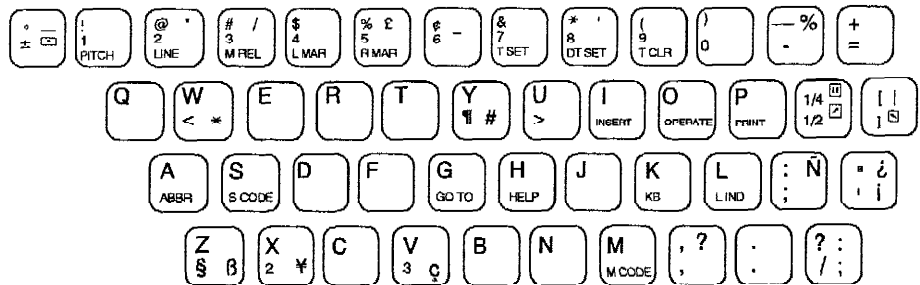
Pressing **CODE + H (HELP)** will usually display a help message related to the operation you are currently carrying out.

Appendix

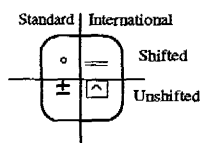
This section provides quick access to reference information. For example, if you do not remember the meaning of an error message, indicator, or symbol that appears on the screen, you will find a short definition and the page of this manual where more information is provided.

Character Keys ---

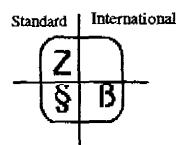
Standard (I) and International (II) Keyboard



Keys with a single character (standard alphabet)
(Unshifted: small letter; shifted: capital letter)



Keys with more than one black character

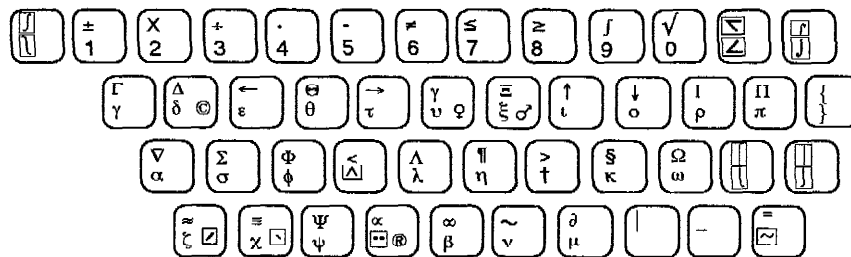


Keys with a green character (extra character obtained with the **CODE** key)

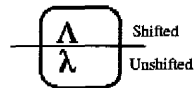
NOTE:

In the above illustration, dead keys are indicated with a small box.

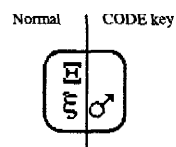
Symbol (III) Keyboard



Keys with a single character (same character when shifted or unshifted)



Keys with more than one character (Unshifted: lower case; shifted: upper case)



Keys with a third character (extra character obtained with the **CODE** key)

NOTES:

- In the above illustration, dead keys are indicated with a small box.
- To compose large mathematical symbols, use two dead characters and a blank space as the base character.

Examples: \sum (sum) and \int (integral)

Function Keys

The following list of function keys can be used as a quick reference guide. The list is organized in alphabetic order by function. The page(s) of this manual where you can find more details about the operation are listed. For functions selected from a menu, see also Function Menus on page 287.

NOTE:

The functions marked with an asterisk () can be selected from many screens.*

Function	Function Key or Short Cut	Screen & Menu	Page
ABBREVIATED PHRASE LOAD		WP WRITE/EDIT (GRAMMAR2)	143
ABBREVIATED PHRASE MAINTENANCE		WP WRITE/EDIT (GRAMMAR2)	141
ABBREVIATED PHRASE (recall)	CODE + A (ABBR)	WP WRITE/EDIT	140
ABBREVIATED PHRASE SAVE		WP WRITE/EDIT (GRAMMAR2)	143
ALL DELETE (files)*	CODE + L	INDEX screens (except File Management)	89
ALL DELETE (lines)	CODE + D	FRAMING	152
ALL DELETE (words)		USER DICTIONARY	134
BACKSPACE*	BACKSPACE		42
BACKSPACE 1	CODE + BS1	TW	108
BOLD	CODE + B	SPREADSHEET	202
		TW (STYLE)	117
		WP WRITE/EDIT (STYLE)	65
BOOKMAN®	CODE + /	WP WRITE/EDIT (GRAMMAR2)	269
BOTTOM RECORD		ADDRESSBOOK EDIT (INPUT DATA)	164
CANCEL*	CANCEL		26
CAPS*	CODE + CAPS		27

Function	Function Key or Short Cut	Screen & Menu	Page
CENTERING	CODE + F	TW (CTR/RMF)	120
		WP WRITE/EDIT (CTR/RMF)	61
CENTERING (^ format mark)	CODE + F	SPREADSHEET	189
CHANGE SCREEN	CODE + RETURN	ADDRESSBOOK DATA INPUT	159
	CODE + Q	WP WRITE/EDIT (FORM)	92
CLEAR		SPREADSHEET	221
CONVERT (file)	CODE + O	SPREADSHEET INDEX	226
		FILE MANAGEMENT	244
		WP INDEX	87
CONVERT (block)		SPREADSHEET	221
COPY (block)	CODE + C	ADDRESSBOOK EDIT (BLOCK RECORD)	165
		WP WRITE/EDIT (BLOCK)	44 47
COPY (cell)	CODE + C	SPREADSHEET	203 204
COPY (file)*	CODE + C	INDEX screens	84
COPY TO CLIPBOARD		WP WRITE/EDIT (BLOCK)	47
CORRECTION*	CORRECT		42 111
CURRENCY		SPREADSHEET (FORMAT)	215
CURSOR KEYS*	↑, ↓, ←, →		39
CURSOR SHAPE SWITCH	CORRECT	FRAMING	150
DECIMAL TAB SET	CODE + DT SET	TW	115
		WP WRITE/EDIT	57

Function	Function Key or Short Cut	Screen & Menu	Page
DELETE (abbreviated phrase)	CODE + D	ABBREVIATED PHRASE	142
DELETE (block)	CODE + D	ADDRESSBOOK EDIT (BLOCK RECORD)	166
		WP WRITE/EDIT (BLOCK)	45
DELETE (file)*	CODE + D	INDEX screens	85
DELETE (label)	CODE + D	ADDRESSBOOK EDIT	168
DELETE (row/column)	CODE + D	SPREADSHEET	205
DELETE (word)	CODE + D	USER DICTIONARY	134
DEMONSTRATION	CODE + D	MAIN MENU	23
DESKTOP REFERENCE		WP WRITE/EDIT (GRAMMAR1)	139
DISK APPLICATION	CODE + Q	MAIN MENU	23
DISK COPY	CODE + SHIFT + C	INDEX screens (except SPREADSHEET INDEX)	247
DISK DELETE	CODE + L	FILE MANAGEMENT	245
DOUBLE COLUMNS SWITCH	D	WP PAGE LAYOUT VIEW	93
DUAL SCREEN		WP WRITE/EDIT (FORM)	91
EDIT THESAURUS		WP WRITE/EDIT (GRAMMAR2)	144

Function	Function Key or Short Cut	Screen & Menu	Page
EXIT*	CANCEL, FILE	ABBREVIATED PHRASE	142
		USER DICTIONARY	133
	CANCEL	FILE MANAGEMENT	244
		FRAMING INDEX	155
		WP INDEX	79
		DESK TOP REFERENCE	240
		ADDRESSBOOK INDEX	180
		SPREADSHEET INDEX	183
EXPAND		TW (STYLE)	119
		WP WRITE/EDIT (STYLE)	67
EXPRESS BACKSPACE*	CODE + EXPR		40
FILE*	FILE		76
FILL		SPREADSHEET (COLUMN)	212
FIXED		SPREADSHEET (FORMAT)	215
FOOTER		WP WRITE/EDIT (FORM)	73
FREEZE		SPREADSHEET (COLUMN)	213
GO TO*	CODE + G (GO TO)		40
GRAMMAR CHECK	CODE + GRAM	TW (GRAMMAR)	130
		WP WRITE/EDIT (GRAMMAR1)	127
HEADER		WP WRITE/EDIT (FORM)	73
HELP*	CODE + H (HELP)		16
HYPHEN*	-		36

Function	Function Key or Short Cut	Screen & Menu	Page
HYPHEN SCAN		WP WRITE/EDIT (SEARCH)	52
INDENT CLEAR	CODE + IND CLR	TW	117
		WP WRITE/EDIT	61
INSERT*	CODE + I (INSERT)		41
INSERT (label/record)	CODE + I (INSERT)	ADDRESSBOOK EDIT (FUNCTION)	173
INSERT (row/column)	CODE + I (INSERT)	SPREADSHEET	207
JUSTIFY	CODE + O (OPERATE)	TW	104
		WP WRITE/EDIT	64
KEYBOARD*	CODE + K (KB)		68
LABEL LONGER	CODE + T CLR	ADDRESSBOOK DATA INPUT (LABEL)	161
		ADDRESSBOOK EDIT (LABEL)	169
LABEL SHORTER	CODE + T SET	ADDRESSBOOK DATA INPUT (LABEL)	161
		ADDRESSBOOK EDIT (LABEL)	169
LAYOUT (preview)	CODE + LAYOUT	FRAMING	152
		WP WRITE/EDIT	93
LEFT MARGIN	CODE + L MAR	TW	106
		WP WRITE/EDIT	56
LINE INDENT	CODE + L (L IND)	TW	116
		WP WRITE/EDIT	59
LINE OUT*	CODE + LINE OUT		43
LINE SPACING	CODE + LINE	TW	106
		WP WRITE/EDIT	70
LIST PRINT	CODE + P (PRINT)	FILE MANAGEMENT	245

Function	Function Key or Short Cut	Screen & Menu	Page
LOAD (abbreviated phrase)		ABBREVIATED PHRASE	143
LOAD (file)*	RETURN	INDEX screens (except File Management)	79
LOAD (user dictionary)		USER DICTIONARY	134
MANUAL CORRECTION	CODE + CORRECT	TW	112
MARGIN RELEASE	CODE + M REL	TW	105
		WP WRITE/EDIT	56
MENU*	MENU		16
MERGE CODE	CODE + M (M CODE)	WP WRITE/EDIT	95
MOVE	CODE + E	ADDRESSBOOK (BLOCK RECORD)	166
		WP WRITE/EDIT (BLOCK)	46
MOVE (cells)	CODE + E	SPREADSHEET	209
NEW LABEL		ADDRESSBOOK EDIT (LABEL)	167
NEW RECORD	CODE + N	ADDRESSBOOK EDIT (INPUT DATA)	164
NEXT SCREEN*	CODE + NEXT S		40
NEW WORD		DESK TOP REFERENCE	240
NO DISPLAY		SPREADSHEET (FORMAT)	216
OPERATE	CODE + O (OPERATE)	TW	103
PAGE BREAK	CODE + P BREAK	SPREADSHEET	210
		WP WRITE/EDIT	38
PAPER DOWN	CODE + P DOWN		37
PAPER INSERT	P INS		12
PAPER SIZE		WP WRITE/EDIT (FORM)	71

Function	Function Key or Short Cut	Screen & Menu	Page
PAPER UP	CODE + P UP		37
PARAGRAPH INDENT	CODE + P IND	TW	117
		WP WRITE/EDIT	59
PASTE FROM CLIPBOARD	CODE + T	WP WRITE/EDIT (BLOCK)	48
PERCENT		SPREADSHEET (FORMAT)	216
PERMANENT BACKSPACE*	CODE + BS1		36
PERMANENT HYPHEN	CODE + -		36
PERMANENT SPACE	CODE + [SPACE BAR]		35
PITCH*	CODE + PITCH		70
PREVIOUS SCREEN*	CODE + PRE S		40
PRINT (abbreviated phrases)	CODE + P (PRINT)	ABBREVIATED PHRASE	142
PRINT (file)*	CODE + P (PRINT)	INDEX screens (except File Management)	80
PRINT (frame)	CODE + P (PRINT)	FRAMING	154
PRINT (label)	CODE + P (PRINT)	ADDRESSBOOK	176
PRINT (list)	CODE + P (PRINT)	ADDRESSBOOK	178
PRINT (page)	CODE + P (PRINT)	WP WRITE/EDIT (PAGE PRINT)	79
RECALC		SPREADSHEET	216
RELEASE		SPREADSHEET	214
RELOCATION*	CODE + RELOC		40
RENAME*	CODE + R	INDEX screens	86
REPLACE		WP WRITE/EDIT (SEARCH)	51
RETURN*	RETURN		26

Function	Function Key or Short Cut	Screen & Menu	Page
RIGHT MARGIN	CODE + R MAR	TW	105
		WP WRITE/EDIT	56
RIGHT MARGIN FLUSH	CODE + R	TW (CTR/RMF)	121
		WP WRITE/EDIT (CTR/RMF)	63
RIGHT MARGIN FLUSH ("format mark)	CODE + R	SPREADSHEET	189
SAVE (abbreviated phrase)		ABBREVIATED PHRASE	142
SAVE (file)*	FILE		76
SAVE (user dictionary)		USER DICTIONARY	135
SCALE LINE ON/OFF		WP WRITE/EDIT (FORM)	34
SEARCH		WP WRITE/EDIT (SEARCH)	49
SELECT	CODE + L	ADDRESSBOOK EDIT (FUNCTION)	170
		SPREADSHEET (SORT)	219
SHIFT*	SHIFT		27
SHIFT LOCK*	CAPS		27
SORT	CODE + O	ADDRESSBOOK EDIT (FUNCTION)	169
		SPREADSHEET (SORT)	217
SORT & SELECT		SPREADSHEET (SORT)	220
SPACE*	[SPACE BAR]		35
STOP CODE	CODE + S (S CODE)	WP WRITE/EDIT	83
TAB	TAB		57 115
TAB CLEAR	CODE + T CLR		57 115
TAB SET	CODE + T SET		57 115

Function	Function Key or Short Cut	Screen & Menu	Page
TOP RECORD		ADDRESSBOOK EDIT (INPUT DATA)	164
TYPE THESAURUS		WP WRITE/EDIT (GRAMMAR2)	146
		TW (GRAMMAR)	146
TYPEWRITER/WORD PROCESSOR	TW/WP		100
UNDERLINE	CODE + N	SPREADSHEET	202
		TW (STYLE)	118
		WP WRITE/EDIT (STYLE)	66
USER DICTIONARY MAINTENANCE		DESK TOP REFERENCE	240
		TW (GRAMMAR)	132
		WP WRITE/EDIT (GRAMMAR1)	132
USER DICTIONARY LOAD		TW (GRAMMAR)	135
		WP WRITE/EDIT (GRAMMAR1)	134
USER DICTIONARY SAVE		TW (GRAMMAR)	136
		WP WRITE/EDIT (GRAMMAR1)	136
WIDTH		SPREADSHEET (COLUMN)	211
WORD COUNT	CODE + J	WP WRITE/EDIT (SEARCH)	53
WORD OUT*	WORD OUT		42

Function Menus

The following table can be used as a quick guide for the functions available from the function menus. The characters printed in bold indicate the short cut keys.

WP WRITE/EDIT Screen

Function Menu	Sub-menu	Short-cut Key	Page
STYLE	BOLD	CODE + B	65
	UNDERLINE	CODE + N	66
	EXPAND		67
BLOCK	COPY	CODE + C	44
	DELETE	CODE + D	45
	MOVE	CODE + E	46
	COPY TO CLIPBOARD		47
	PASTE FROM CLIPBOARD	CODE + T	48
CTR/RMF	CENTERING	CODE + F	61
	RIGHT MARGIN FLUSH	CODE + R	63
GRAMMAR1	GRAMMAR CHECK	CODE + GRAM	127
	GRAMMAR CHECK SET MENU		130
	DESKTOP REFERENCE		139
	USER DICTIONARY MAINTENANCE		132
	USER DICTIONARY LOAD		134
	USER DICTIONARY SAVE		135

Function Menu	Sub-menu	Short-cut Key	Page
GRAMMAR2	EDIT THESAURUS		144
	TYPE THESAURUS		146
	ABBREVIATED PHRASE MAINTENANCE		141
	ABBREVIATED PHRASE LOAD		143
	ABBREVIATED PHRASE SAVE		143
	BOOKMAN®	CODE + /	146
SEARCH	SEARCH		49
	REPLACE		51
	HYPHEN SCAN		52
	WORD COUNT	CODE + J	53
FORM	PAPER SIZE		71
	HEADER		73
	FOOTER		73
	SCALE LINE ON/OFF		34
	DUAL SCREEN		91
	CHANGE SCREEN	CODE + Q	92
PAGE PRINT		CODE + P (PRINT)	79

ABBREVIATED PHRASE Screen _____

Function Menu	Short-cut Key	Page
EXIT	FILE or CANCEL	142
PRINT	CODE + P (PRINT)	142
DELETE	CODE + D	142
LOAD		142
SAVE		142

USER DICTIONARY Screen

Function Menu	Short-cut Key	Page
EXIT	FILE or CANCEL	133
DELETE	CODE + D	133
ALL DELETE		133
LOAD		133
SAVE		133

WP INDEX Screen

Function Menu	Sub-menu	Short-cut Key	Page
EXIT		CANCEL	79
COPY		CODE + C	84
DELETE		CODE + D	85
RENAME		CODE + R	86
CONVERT	WP TEXT.WPT -> ASCII .TXT		88
	ASCII .TXT -> WP TEXT.WPT		88
ALL DELETE		CODE + L	89
PRINT		CODE + P (PRINT)	79

TW Application

Function Menu	Sub-menu	Short-cut Key	Page
STYLE	BOLD	CODE + B	117
	UNDERLINE	CODE + N	118
	EXPAND		119
CTR/RMF	CENTERING	CODE + F	120
	RIGHT MARGIN FLUSH	CODE + R	121

Function Menu	Sub-menu	Short-cut Key	Page
GRAMMAR	GRAMMAR CHECK	CODE + GRAM	130
	USER DICTIONARY MAINTENANCE		132
	USER DICTIONARY LOAD		134
	USER DICTIONARY SAVE		135
	EDIT THESAURUS		144
	TYPE THESAURUS		146

FRAMING Screen

Function Menu	Short-cut Key	Page
PRINT	CODE + P (PRINT)	151
ALL DELETE	CODE + D	152

FRAMING INDEX Screen

Function Menu	Short-cut Key	Page
EXIT	CANCEL	155
COPY	CODE + C	155
DELETE	CODE + D	155
RENAME	CODE + R	155
ALL DELETE	CODE + L	155
PRINT	CODE + P (PRINT)	155

SPREADSHEET INPUT/EDIT Screen

Function Menu	Sub-menu	Page
COLUMN	WIDTH	211
	FILL	212
	FREEZE	213
	RELEASE	214
FORMAT	FIXED	215
	CURRENCY	215
	PERCENT	216
	NO DISPLAY	216
RECALC		216
SORT	SORT	217
	SELECT	219
	SORT & SELECT	220
CLEAR		221
CONVERT		221

SPREADSHEET INDEX Screen

Function Menu	Short-cut Key	Page
EXIT	CANCEL	223
COPY	CODE + C	224
DELETE	CODE + D	225
RENAME	CODE + R	226
CONVERT	CODE + O	226
ALL DELETE	CODE + L	227
PRINT	CODE + P (PRINT)	227

ADDRESSBOOK EDIT Screen

Function Menu	Sub-menu	Short-cut Key	Page
INPUT DATA	NEW RECORD	CODE + N	164
	TOP RECORD		164
	BOTTOM RECORD		164
BLOCK RECORD	COPY	CODE + C	165
	DELETE	CODE + D	166
	MOVE	CODE + E	166
LABEL	NEW LABEL		167
	DELETE LABEL	CODE + D	168
	LABEL LONGER	CODE + T CLR	168
	LABEL SHORTER	CODE + T SET	168
FUNCTION	SORT	CODE + O	169
	SELECT	CODE + L	170
	INSERT	CODE + I (INSERT)	173
PRINT		CODE + P (PRINT)	172

ADDRESSBOOK DATA INPUT Screen —————

Function Menu	Sub-menu	Short-cut Key	Page
CHANGE SCREEN		CODE + RETURN	160
LABEL	LABEL LONGER	CODE + T CLR	160
	LABEL SHORTER	CODE + T SET	160

ADDRESSBOOK SELECT Screen —————

Function Menu	Short-cut Key	Page
PRINT	CODE + P (PRINT)	172
SAVE	FILE	172

ADDRESSBOOK INDEX Screen —————

Function Menu	Short-cut Key	Page
EXIT	CANCEL	179
COPY	CODE + C	179
DELETE	CODE + D	179
RENAME	CODE + R	179
ALL DELETE	CODE + L	179
PRINT	CODE + P (PRINT)	179

FILE MANAGEMENT Screen

Function Menu	Sub-menu	Short-cut Key	Page
EXIT		CANCEL	244
COPY		CODE + C	244
DELETE		CODE + D	244
RENAME		CODE + R	244
CONVERT	WP TEXT.WPT-> ASCII .TXT		88
	ASCII .TXT -> WP TEXT.WPT		88
DISK DELETE		CODE + L	244
LIST PRINT		CODE + P (PRINT)	245

DESKTOP REFERENCE Screens

Function Menu	Short-cut Key	Page
EXIT	CANCEL	240
USER DICTIONARY MAINTENANCE		240
NEW WORD		240

Symbols

The following lists describe the symbols that appear on the screen. Two kinds of symbols exist:



- Symbols displayed on the scale
- Symbols displayed in the text that are never printed

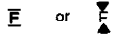













Symbols Displayed on the Scale

Symbol	Meaning	Page
L	Position of the left margin	56
R	Position of the right margin	56
T	Position of a tab stop	57
D	Position of a decimal tab stop	57
$\frac{H}{2}$	Beginning of the hot zone	35
0, 1, 2,...	Absolute position from the left edge of the paper	32
¶	Position of a tab in the FRAMING screen	150

Symbols Displayed in the Text

All the following symbols are displayed in the text area of the WP application (unless otherwise specified).

Symbol	Meaning	Page
	ADD CURSOR: indicates that the cursor can be used to add lines on the FRAMING screen	149
|+|	CENTERING BETWEEN MARGINS: displayed at the left of the centered string when the centering function is activated	61
¶	CENTERING BETWEEN TABS: displayed at the left of the centered string when the centering function is activated	62
	DELETE CURSOR: indicates that the cursor can be used to delete lines on the FRAMING screen	149

Symbol	Meaning	Page
 or 	FORMAT CHANGE: displayed in the dead column, in front of the first line of a reformatted paragraph	32
	INDENT CLEAR: displayed at the end of an indented paragraph when CODE + IND CLR is pressed	61
	LINE FEED: displayed at the end of a paragraph when RETURN is pressed	27
	MERGE CODE: displayed at the cursor position when CODE + M (M CODE) is pressed	95
	MOVE CURSOR: indicates that the cursor can be moved across the FRAMING screen	149
	PAGE BREAK: displayed at the end of a paragraph when CODE + P BREAK is pressed	38
	PARAGRAPH INDENT: displayed at the left of a tab stop when the cursor has been moved with CODE + P IND	59
	PERMANENT BACKSPACE: displayed by the TW application between the base character and the superimposed character when CODE + BS1 is pressed (L/L, centering, right margin flush, and decimal tab)	109
	PERMANENT SPACE: displayed at the cursor position when CODE + [SPACE BAR] is pressed	35
	RIGHT MARGIN FLUSH: displayed at the left of the aligned string when the right margin flush function has been activated	63
 or 	STOP SYMBOL: displayed at the cursor position when CODE + S (S CODE) is pressed	83
	TAB: displayed at the left of a tab stop when the cursor has been moved with TAB	58

Indicators

The following list describes the indicators that appear on top of the screen. In the following list, the "X's" stand for variable indication.

Indicator	Meaning	Page
AUT	On when the auto return function of the TW application is activated	102
BLD	On when the bold function is activated	65 117
CAPS	On if the keyboard is in caps lock mode	28 105
COL:XXX	Number of the current column	69
CNT	On when the continuous underline function is activated	66 118
CTR	Displayed when the centering function is on (TW application)	120
DEAD:XX	Displays the dead character when the cursor is on the base character (WP application)	38
DTAB	Displayed when the decimal tab function is on (TW application)	115
EXP	On when the expand function is activated	67 119
GR	On when the Spell Checker is activated	127
INS	On when the insert mode is activated	41
JST	On when the justify function is activated	64 104
KB:XX	Current keyboard selection (I, II, or III)	68 107
L:XXX	Number of the current line	70
L.SP:X.X	Current line spacing (1.0, 1.5, or 2.0)	70
M.C	On when the manual correction function of the TW application is activated	112

Indicator	Meaning	Page
MRG:XX	Prompts you to specify the label number of the information to appear at the current position in a merged document	95
P:XX	Number of the current page	31
P BS:X	Displays the superimposed character when the cursor is on the base character (WP application)	36
P IND	Displayed when the paragraph indent function is on (TW application)	117
PITCH:XX	Current pitch (10, 12, or 15)	70 106
RECORD:XX	Indicates the number of the record on which the cursor is positioned (Address Book application)	162
REMAIN	TW application: Indicates the number of characters which can be typed until the right margin is reached	101
	In other screens: Indicates the remaining free space on the diskette	76
RMF	Displayed when the right margin flush function is on (TW application)	121
SHIFT	On if the keyboard is in uppercase mode	27 107
TOTAL WORDS:XX	Indicates the total number of words in the user dictionary.	133
WRD	On when the word underline function is activated	66 118
XXXXXXXX	Displayed at the upper-left corner of the WRITE/EDIT screen: Name of the current file	31

IBM PC Code

The following table shows the printable characters that can be correctly translated when using the separate conversion program provided on diskette, or the conversion function on the WP INDEX or FILE MANAGEMENT screens. Empty cells in that table correspond to control codes or characters that are converted into blank spaces.

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0				0	@	P	'	p	Ç	É	á					
1			!	1	A	Q	a	q	ü	æ	í				ß	±
2			"	2	B	R	b	r	é	Æ	ó					
3			#	3	C	S	c	s	â	ô	ú					
4			\$	4	D	T	d	t	ä	ö	ñ					
5			%	5	E	U	e	u	à	ò	Ñ					
6			&	6	F	V	f	v		û	ª					
7			'	7	G	W	g	w	ç	ù	º					
8			(	8	H	X	h	x	ê	ÿ	¿					
9			)	9	I	Y	i	y	ë	Ö						
A			*	:	J	Z	j	z	è	Ü						°
B			+	;	K	[	k	{	ï	ø	½					
C			,	<	L	\	l	l	î	£	¼					
D			-	=	M	]	m	}	ì	¥	ì					2
E			.	>	N	^	n	~	Ä							
F			/	?	O	_	o			f						

Error Messages

Please consult the following table when an error message appears.

Message	Cause	Remedy
Memory full.	You attempted an operation that would require more memory than the total limit of 32 kilobytes.	Delete some parts of the text using BACKSPACE , CORRECT , WORD OUT , CODE + LINE OUT , or the block delete function. You may also try to copy a smaller block. Save the file and start a new file.
Unidentified disk error. Insert another and press RETURN.	Defective diskette.	Consult your local Brother Service Center.
	You attempted to copy an uninitialized source diskette.	Initialize the diskette. (This will erase any files previously stored on the diskette.)
Insert disk and press RETURN.	The diskette is not inserted when you start a read operation, or the diskette is removed during read or write operation (a message was telling you to wait).	Insert the diskette and press RETURN . Avoid removing or inserting a diskette while prompted to wait.
Disk is write protected. Release the protection and press RETURN to retry.	You are using a write-protected diskette.	Use another diskette or disengage the write protection.
Check printer.	Malfunction of the printer mechanism.	Consult your local Brother Service Center.

Message	Cause	Remedy
Incorrect disk. Insert another and press RETURN.	The selected file cannot be found on the inserted diskette (you changed the diskette so that the INDEX screen and the inserted diskette do not match).	Press CANCEL or reinsert the correct diskette and press RETURN .
Check disk.	Malfunction of the disk drive.	Consult your local Brother Service Center.
Incorrect format type or damaged diskette. Press CANCEL.	Defective diskette	Consult your local Brother Service Center.
	You attempted to copy an uninitialized source diskette.	Initialize the diskette. (This will erase any files previously stored on the diskette.)
ROM down.	Malfunction detected in your word processor's Read Only Memory.	Consult your local Brother Service Center immediately.
RAM down.	Malfunction detected in your word processor's Random Access Memory.	Consult your local Brother Service Center immediately.
Incorrect Format.	Double Column printing with line-spacing, pitch, or margin changes.	Remove any line-spacing, pitch, or margin changes from your document before printing in Double Columns.
Cover open.	The acoustic cover is open.	Close the acoustic cover firmly.

Troubleshooting Chart

Your word processor has been precision-manufactured to give you years of trouble-free use. In the rare case that trouble does happen, you will probably be able to find the solution in the table below. If you cannot, please do not attempt to repair the word processor yourself. Instead, please contact your local Brother Service Center.

Problem	Solution
Nothing works after the word processor has been switched on.	Check that the power cord is plugged in. Check that the acoustic cover is firmly closed.
Printout is impossible or difficult to read.	Check that the cassette daisy wheel is inserted correctly. Check that the cassette ribbon is positioned correctly. Check that the installed daisy wheel matches the selected KEYBOARD.
Correction on paper is impossible.	Check to see if the correction tape has run out and replace it if necessary. Check that the correction tape is installed properly. Check that the correction tape you have purchased corresponds to the cassette ribbon you are using.
All seems normal after the word processor has been switched on, but nothing is displayed.	Adjust the brightness controller.
Printed and displayed characters do not match.	Check that the installed daisy wheel matches the selected KEYBOARD. Check that the PAUSE FOR KEYBOARD CHANGE is selected as NO on the Print Menu screen.
Diskette operation is not possible.	The diskette has been damaged, or a television set is located too close to the drive. Try with another diskette and/or move the word processor.

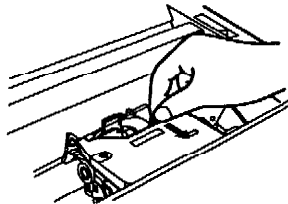
Accessories

Changing Daisy Wheel Cassette

This word processor uses Brother daisy wheel cassettes, which are print elements housed in clear plastic. This ensures that fingers never touch the typeface, thereby reducing the risk of damage. One wheel comes with the word processor. Others providing different type sizes, styles, and character sets are also available.

NOTE:

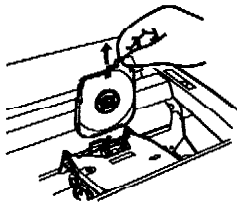
If the cassette is not inserted properly or the daisy wheel is not locked in position, there may be no printout, an incorrect printout, or the wheel may break.



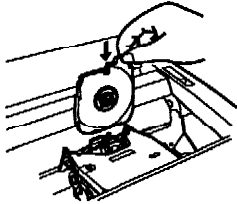
Lift the acoustic cover, and then release the daisy wheel by pulling the lever toward you.

NOTE:

It is not necessary to remove the ribbon when replacing the daisy wheel.



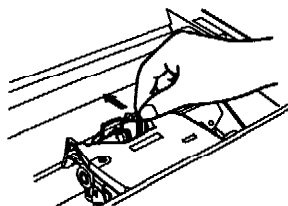
Remove the cassette by the "ear" on the top right.



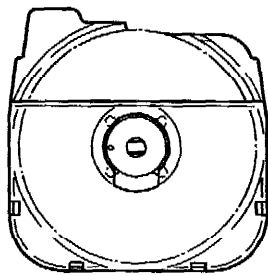
Slide the new cassette into the slot.

NOTE:

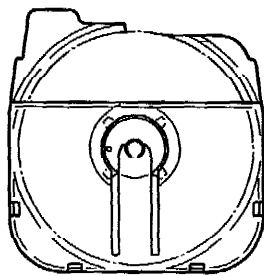
Use only Brother Cassette Daisy Wheels and make sure the cassette is not inserted backwards. (The "ear" should be on the right.)



Be sure to slide the lever back to its original position to lock the daisy wheel in place. Press the lever forward once more to assure the daisy wheel is properly set, and close the acoustic cover.



Type A



Type B

NOTE:

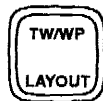
Please check the shape of your daisy wheel cassette before replacing the daisy wheel. The daisy wheel cassette type B cannot be used with this word processor.

Changing Ribbons

This word processor uses ribbons enclosed in handy cassettes. Two types of ribbons are available, Brother Correctable Ribbon model #1030 and Brother Nylon Ribbon model #1032.

NOTE:

Use only Brother ribbons. Ribbons of different brands, or Brother ribbons other than models #1030 and #1032 will not fit into the word processor, or could affect the operation of the word processor.



Turn the power on and use TW/WP to switch the word processor to the Typewriter application.



Press the **[SPACE BAR]** and **BACKSPACE** to move the carriage to the center of the platen.



Lift the acoustic cover.

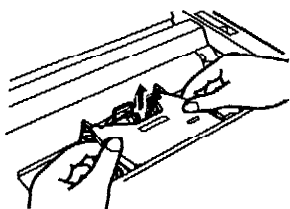
NOTE:

It is not possible to move the carriage while the acoustic cover is open. Close the acoustic cover to re-position the carriage.

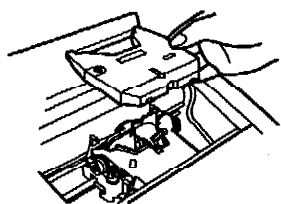
Grasp the cassette with both hands, raise the front end and lift out.

NOTE:

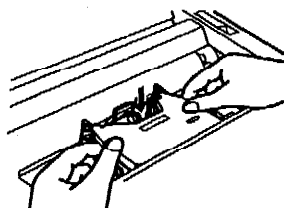
The amount of ribbon remaining can be checked through the viewing hole on the right side of the cassette.



Turn the feed knob on the left side of the new cassette counterclockwise to take up any slack.



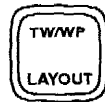
Align the arrow on the cassette with the center of the cassette holder, slide the ribbon between the guides, and use both hands to ease the cassette into the holder.



Gently press down on the front of the cassette until it clicks into place. Once again turn the feed knob counterclockwise to take up any slack. Close the acoustic cover.

Changing Correction Tapes

This word processor uses correction tape to correct printing errors. Two types of correction tapes are available, Brother Lift off tape model #3010 (for use with the correctable film ribbon) and Brother Cover up tapes model #4010 (for use with the nylon ribbon).



Turn the power on and use TW/WP to switch the word processor to the Typewriter application.



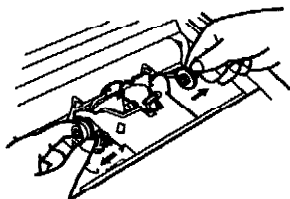
Use [SPACE BAR] and BACKSPACE to move the carriage to the center of the platen.



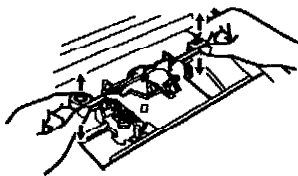
Lift the acoustic cover and remove the ribbon cassette, if installed. (See Changing Ribbons on page 304.)

NOTE:

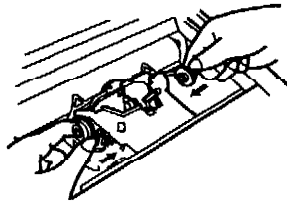
It is not possible to move the carriage while the acoustic cover is open. Close the acoustic cover to re-position the carriage.



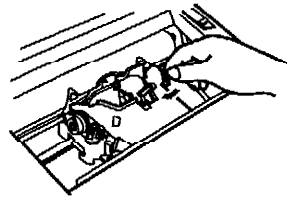
Grasp the spools with your thumbs in the positions shown and pull them off their mounts. Bring the tape back to a position parallel with the platen and then lift it up and out.



Pass the new tape through the left guide, behind the ribbon guide, and out through the right guide. The rough side of the tape should face the platen.



Mount the feeder spool on the pin on the left and the take-up spool on the pin on the right.



Turn the take-up spool counterclockwise until a small amount of white tape has been wound around it.
Replace the ribbon cassette and close the acoustic cover.

Specifications

Display	LCD, 14 lines x 80 columns CRT, 20 lines x 90 columns
Keyboard	65 keys Auto repeat function 3 selectable character sets
Printer Daisy wheel Paper capacity Typing capacity Copy capacity Typing speed Character pitches Line spacing Printing direction Ribbons Correction tapes	Built-in daisy wheel printer Cassette (96 characters) 326.9 mm (12.87") 228.6 mm (9") Original + 4 copies 13 characters/second 10, 12, 15 (90, 108, 135 characters/line max.) 1.0, 1.5, 2.0 bi-directional Correctable film (approx. 50,000 characters) Nylon (approx. 500,000 characters) Lift off & cover-up (up to 1,400 characters)
Memory Correction memory Internal memory	One line 128 kb
General Voltage Weight: LCD Display Model CRT Display Model Dimensions: LCD Display Model CRT Display Model	110 ~ 120V 5.8 kg 15 kg 16.4 inches (W) x 5.35 inches (H) x 17.2 inches (D) (417 mm (W) x 136 mm (H) x 437.5 mm (D)) Monitor: 23.6 inches (W) x 20.8 inches (H) x 20.8 inches (D) 600 mm (W) x 530 mm (H) x 530 mm (D)

Glossary

ABBREVIATED PHRASE	To increase your typing speed, you can store frequently used strings in a special abbreviated phrase file and recall any string by merely typing its abbreviation (which has been stored along with the string).
ABSOLUTE ADDRESS	A spreadsheet cell address specified in a formula that is not updated if you change the layout of your spreadsheet.
ADDRESS	The position of a spreadsheet cell, designated by its row and column number.
ALPHANUMERIC DATA	Data entered into a spreadsheet that cannot be calculated.
ARGUMENT	The information you must supply when using a spreadsheet function.
ACCELERATOR	Instead of selecting a function from a menu with ← or → and then pressing RETURN to activate the function or to display a submenu, you may press the letter keys that appear in bold on the menu. This character is called an accelerator.
ADDRESSBOOK	The Addressbook application is used to create and edit lists of names, addresses, telephone numbers, etc.
BACKUP	A copy of all the data on a diskette that you keep in case your original data is damaged.
BLOCK OPERATIONS	The block operations on this word processor allow for on-screen cutting & pasting tasks. They include block copy, move, delete, copy to clipboard, and paste from clipboard.
BOLDFACE	Boldface characters are thicker than normal characters.
BOOKMAN®	This application allows you to use optional BOOKMAN® Cards.
CELL	On a spreadsheet, the intersection of a row and a column, and where one piece of information is stored.
CENTERING	A layout function that automatically allows you to center a line between margins or tabs.

COLUMN	With the Addressbook application, a vertical grouping of information that represents one category, such as NAME or ADDRESS. With the Spreadsheet application, a vertical area on the grid which is one cell wide.
CONVERSION	Changing computer data into a form that can be used by a different computer system or program to convert a Word Processing file into an ASCII file and vice versa as well as a Spreadsheet file or a part of a Spreadsheet file into a Word Processing file.
CORRECTION MEMORY	A special memory used by the TW application to temporarily store the text of the current line. Since the typewriter knows the contents of the current line as well as their position on the paper, corrections can be carried out without retyping the wrong character. The correction memory is cleared as soon as the carriage advances to the next line.
CURSOR	1) A blinking box used to select a position on the screen; 2) a block-shaped illuminated area used to select menu items by highlighting the item in reverse image.
DAISY WHEEL	A removable plastic wheel with spokes extending out from the center that is used for printing on this word processor.
DEAD KEY	A key that produces a character but does not move the cursor or carrier one position to the right. Dead keys are usually used to type the accent marks used in such languages as French, German, and Spanish.
DECIMAL TAB	A special tab used to neatly align a column of numbers the same way you align them when carrying out a sum manually.
DIRECT NUMBER	Spreadsheet data, consisting of digits and possibly a decimal point that can be used in calculations.
DISK DRIVE	The mechanism that writes data to and reads data from the diskette.
DISKETTE	A thin, magnetic-coated diskette on which computer data can be stored.
DOUBLE COLUMNS	Allows you to print your document PRINTING in two columns. On the screen, the text is displayed continuously in one column.

DUAL SCREEN	This function splits the display in two halves and allows you to work simultaneously with two documents.
EDITING	Editing text means to modify it. With this word processor, you may edit a line in L/L mode or the entire document (WP application). You can also edit user dictionaries, abbreviated phrase files, merge data files, and framing files.
ELITE	One of the available pitches on this word processor. Elite pitch corresponds to 12 characters per inch. When you select this pitch, make sure that the daisy wheel in use bears the indication "12".
EXPAND	A Word Processing and Typewriter function that changes the appearance of text by inserting a space after each character.
EXPRESS BACKSPACE	A Typewriter and Word Processing function that moves the carrier or cursor quickly to the left margin.
EXTENSION	A period followed by a maximum of three characters, that are added to the end of a file name to identify the application in which the file was created. This word processor automatically adds the proper extension to your file names.
FILE	The unit in which data is stored on the diskette, for example, a single Word Processing document.
FOOTER	A line of text that is printed automatically at the bottom of each page. With this word processor, the footer includes an automatic page numbering function.
FORMAT	1) The way a diskette is organized for storing files. This word processor uses 720 kb and 1.44 Mb DOS formats. 2) The visual arrangement of text on a page, determined by such factors as margin and tab settings, justification, centering, etc.
FORMAT MARK	Characters that designate spreadsheet data as alphanumeric, and can also be used to place data flush to one side or at the center of a cell.
FORMATTING	A process by which the system divides a new diskette into sections that organize the storage of your files.

FORMULA	With the Spreadsheet application, you may input data in order to automatically perform a mathematical operation.
FRACTIONAL BACKSPACE	A Typewriter function that moves the carrier backwards by 1/60th of an inch.
FREEZE	Keeping the first column(s) of a spreadsheet on the screen while displaying the rightmost columns.
FUNCTION	Formulas "built-in" to the Spreadsheet application that allow you to perform common calculations and other tasks without entering long formulas yourself.
FUNCTION MENU	A listing of available operations that can be performed. By pressing the MENU key, you may choose an operation available for the selected mode.
HEADER	A header is a line of text that is printed automatically at the top of each page. With this word processor, the header includes an automatic page numbering function.
HELP MENU	Screen that appears when you press CODE + H (HELP) that displays a list of "short-cut" function you can perform by pressing CODE plus a character key.
HOT ZONE	The range of six characters just before the right margin. A beep sounds when the carrier enters the hot zone (TW application). In auto carriage return mode, and with the WP application, a space or a hyphen typed in the hot zone triggers a carriage or cursor return.
HYPHEN	This word processor distinguishes two different kinds of hyphens: permanent hyphens and "ghost hyphens." A permanent hyphen is obtained with the hyphen (-) key outside the hot zone, and with CODE + the hyphen key in the hot zone, and is always printed. A ghost hyphen is obtained with the hyphen key alone in the hot zone. Such a hyphen triggers the word wrap function.
HYPHEN SCAN	The hyphen scan function detects the lines of the document with too many blank spaces and helps you insert hyphens in order to improve the layout.

INDEX	A list of all the files on a diskette. On this word processor, you can also display an index of files created with a specific application.
INITIALIZE	To delete all data from a diskette to prepare it for formatting.
INSERT MODE	The mode in which you can insert text at the current cursor position without deleting other text.
INTEGER	A whole number (no fractional value).
INTERNATIONAL KEYBOARD	The keyboard setting that offers accents required by such languages as French, German, and Spanish.
JUSTIFICATION	When a line is printed in justify mode, the word processor divides the total length of the line, minus the length of the actual characters, by the number of spaces between words to obtain equal spacing between words. The first character of the line is aligned with the left margin, and the last one with the right margin.
LABEL	The word or other set of characters that identifies each category of information in an Addressbook file or Spreadsheet file.
LINE-BY-LINE	One of the options of the TW application. The text of the current line is displayed until the line is completed. Meanwhile, you are free to edit the contents of the line directly on the display.
LINE INDENT	The LINE INDENT function allows you to quickly insert five blank spaces at the beginning of a line. This feature can be used to neatly mark the beginning of a new paragraph.
LINE OUT	The LINE OUT function allows you to quickly erase the current line, from the carrier or cursor position to the beginning of the line.
LIST PRINT	This function allows you to print a list of the files stored on a diskette.

MEMORY	A special part of the word processor where data can be stored. An electronic memory is divided into small units called "bytes" where a single character can be stored. See also RAM and ROM.
MENU	A list of functions you can select by positioning the cursor at the desired function and pressing RETURN .
MERGED DOCUMENT	An advanced function which allows you to automatically print many copies of a document (a letter, for example) using variable data (names and addresses, for example) stored in a separate Addressbook file.
MICRON	One of the available pitches on this word processor. Micron pitch corresponds to 15 characters per inch. When you select this pitch, make sure that the daisy wheel in use bears the indication "15."
OPERAND	The data in a spreadsheet formula on which a mathematical operation will be performed. In a spreadsheet formula, an operand can be a number, address, function, or formula enclosed in parentheses.
OPERATOR	The character in a spreadsheet that specifies the mathematical operation to be performed (+, -, #, *, and /).
OVERWRITE MODE	The mode in which inserting text at the current cursor position deletes the existing text at that position.
PAGE LAYOUT VIEW	In general, the word "layout" refers to the distribution of the text on a page. The page layout view function of this word processor allows you to preview several pages on the screen by compressing the size of the characters. On that screen, you are not able to read your text, but you have a global view of your document. The function also allows you to preview framing data.
PARAGRAPH INDENT	A function that allows you to temporarily reset the left margin at a tab position.
PERMANENT HYPHEN	A hyphen entered with + for word that always require a hyphen.

PICA	One of the available pitches on this word processor. Pica pitch corresponds to 10 characters per inch. When you select this pitch, make sure that the daisy wheel in use bears the indication "10."
PITCH	The number of characters you can type per inch, based on the Pitch setting and the daisy wheel you are using. Pica, Elite and Micron pitches are available on this word processor if you have the corresponding daisy wheels.
PLATEN	The rubber roller driving the paper up and down. The movement of the platen can be controlled with the keyboard, or manually, by turning the platen knob. We recommend that you never type anything without inserting paper to prevent the platen from becoming coated with ink.
PUNCTUATION ALERT	The Punctuation Alert Function (WP only) checks your text for punctuation errors, missing spaces, brackets, etc.
RAM	Random Access Memory—a memory you can write in or read from. All the information you input from the keyboard is stored in this type of memory. The RAM is always cleared when you turn the power off.
RANGE	A range of cells is a portion of the spreadsheet that is enclosed in a rectangle. Many functions, such as move, copy, delete, and print can be applied to a range.
RECALCULATION	With the Spreadsheet application, a result that is related to other cells through a formula can be recalculated if the contents of the cells have been modified. Since recalculation of a large spreadsheet is time consuming, the word processor lets you edit without recalculating automatically each time you edit a cell. Recalculation is carried out only when you activate the function.
RECORD	A record is an entry of an Addressbook file. It may contain different items but must fit on a single line.
REDUNDANCY CHECK	Redundancy check is a function of the Spell Checker. It detects repeated words.

RELATIVE ADDRESS	A spreadsheet cell address in a formula that is updated if you change the layout of your spreadsheet.
RELEASE	Freeing "frozen" columns in a spreadsheet so that the data can be edited.
RELOCATION	The relocation function automatically moves the carrier or cursor to the end of the current line after correction has been carried out in the middle of the line.
REVERSE IMAGE	A way of highlighting text by reversing the screen image so that text appears dark and the area surrounding it appears light.
RIGHT MARGIN FLUSH	A layout function that allows you to align the text of a line automatically with the right margin. This is useful, for instance, when you type the date on a letter.
ROM	Read Only Memory. This kind of memory is where the manufacturer has stored the software for this word processor. This permanent memory is not cleared when you turn the power off.
ROW	On a spreadsheet, a horizontal grouping of information which is one cell high.
SCALE	The line at the top of the display that shows the horizontal position of the cursor as well as the position of the margins, hot zone, and tab settings.
SCROLL	When all data cannot fit on the screen, changes the displayed data such that as old data disappears at one edge, new data appears at the opposite edge.
SELECT	To display and print data in a spreadsheet or address book that meet certain criteria.
SEARCH & REPLACE	The search and replace function automatically scans the document and stops at each occurrence of a specified word. It allows for easy replacement of a word.
SHORT-CUT KEYS	Keys that are used to activate a function quickly, without displaying the function menu.
SOFT HYPHEN	A hyphen typed to divide a word in the hot zone that disappears if subsequent revision or reformatting moves the word out of the hot zone.

SORT	To reorganize spreadsheet or Addressbook data in either alphabetic or numeric order (or reverse order).
SPREADSHEET	The Spreadsheet application allows you to create files containing numbers to be calculated. Calculation is performed automatically. This application is ideal to create files like financial reports, balance sheets, check books, playlists, etc.
SPELL CHECKER	A sophisticated package of functions including a spell checker program with a user dictionary. The spell checker function automatically checks your text and warns you when a mistake is detected (misspelled or double word).
STATUS LINE	The area at the top of the screen showing the name of the file you are working on, the current page, line, and column number of the cursor, number of characters remaining on the line, and the current settings such as Keyboard, Pitch, and Line Spacing.
STOP SYMBOL	Stop symbols can be inserted in your file in order to interrupt printing automatically. When printing is interrupted, you are free to type additional text on the paper. That text will not be stored in the memory.
SUBMENU	A menu that “drops down” from a function menu to display a list of additional options related to your function menu choice.
SUBSCRIPT	A character that must be printed at a position slightly lower than normal characters. Used to type mathematical expressions or chemical formulas.
SUPERIMPOSED	A character like “¥” is not directly available CHARACTERS on the keyboard, but can be obtained by superimposing “Y” and “=”.
SUPERSCRIPIT	A character that must be printed at a position slightly higher than normal characters. Used to type mathematical expressions (exponents).
SYMBOL KEYBOARD	The Keyboard setting that offers mathematical symbols and Greek characters.

TEMPLATE	A skeleton spreadsheet that you can start with rather than creating a spreadsheet from scratch. The template includes the standard labels and formulas for a specific purpose.
TOP COVER	The clear plastic cover that protects the inside of the word processor and decreases printer noise.
TYPE MODE	An option of the Typewriter application in which the characters you type are printed immediately rather than being displayed on the screen.
UNDERLINE	With this word processor, characters can be printed automatically with an underline.
USER DICTIONARY	A list of words that are not in the Spell Checker standard dictionary, which the Spell Checker consults when checking spelling in your document.
WORD OUT	The WORD OUT function allows you to quickly erase the word the carrier or cursor is on, from the current position to the beginning of the word.
WORD WRAP	When displaying or printing a file, a word that cannot fit on a line is automatically moved to the next line.
WRITE PROTECTION	Protecting a diskette from accidental erasure by setting the write-protection switch in "Read Only" position.

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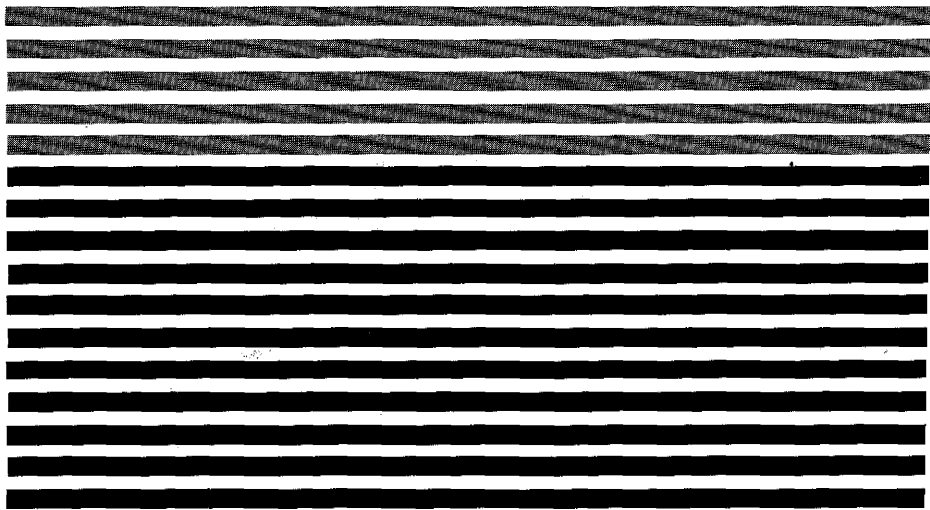
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