USER'S GUIDE



Thank you for choosing a Brother electronic typewriter! This product is designed to deliver years of reliable operation.

Your typewriter comes with the following items:

- cassette ribbon
- model number 1030
- cassette daisy wheel
- model number M411
- correction tape
- model number 3010

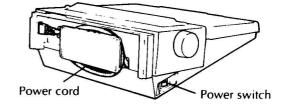
Please make sure that all of these are included with this machine.

Please write the model number and the serial number of this typewriter in the blank spaces below. These numbers can be found on the rear panel of the typewriter.

MODEL NO.:	SERIAL NO.:

Please keep these numbers for future reference.

The power cord compartment is in the rear of the typewriter. The power cord should be neatly fitted back in its compartment before transportation.



The power switch is located on the left side of the typewriter near the rear.

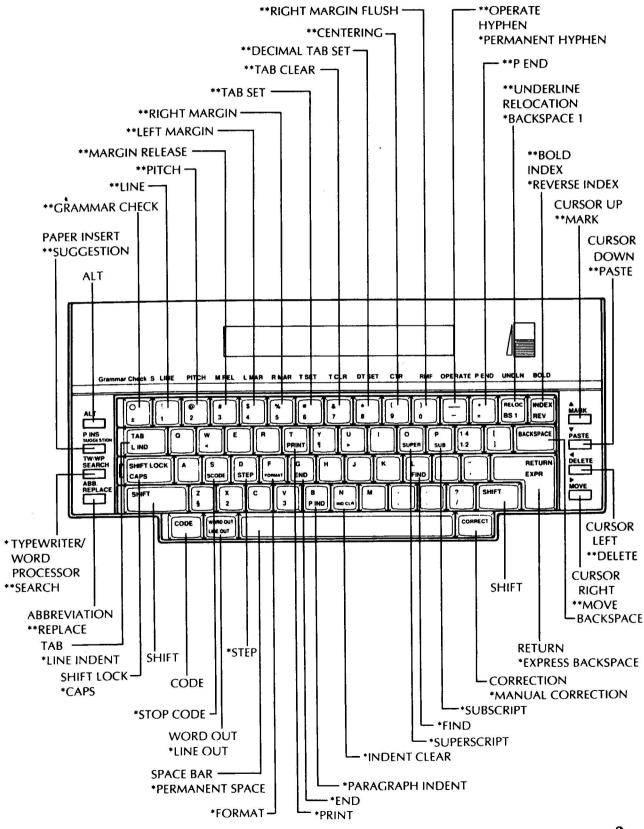
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed 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 harmful 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/television technician for help.

CONTENTS

Keyboard3	Boldface24
·	Line indent25
Description 5	Paragraph indent25
•	Setting decimal tabs26
Features6	Canceling the decimal tab mode 27
	Centering28
PART I TYPEWRITER MODE7	Cancelling the centering mode 30
	Right margin flush30
1. Printing mode7	Canceling the right margin flush
2. Display mode8	mode31
Basic Typing9	Display Mode 32
Page size9	Line-by-line processing32
Inserting paper10	Moving the cursor34
Index/reverse index10	Correction in display mode35
Selecting pitch10	Functions requiring a special
Selecting line spacing11	display37
Setting margins12	Functions triggering line printing 38
Setting tabs13	
Clearing tabs14	PART II WORD PROCESSOR
Repeat function14	MODE 39
Typing uppercase characters15	
Hot zone16	Starting a file40
Returning the carrier16	Editing a file40
Backspacing18	Printing a file40
	Deleting a file41
Memory Correction19	Text, phrase and format files41
Correcting one character19	
Relocation19	Creating a File43
Erasing one word19	Text file43
Erasing the entire line20	Format file44
	Using the format file45
Manual Correction21	Phrase file46
Manual correction21	Inserting a phrase file in
Correcting a justified or centered	a text file47
text21	Changing the format48
	Justification49
Layout Functions22	
Superimposing characters22	Editing50
Superscript/Subscript22	Cursor and display movement50
Special characters23	Selecting a file for editing51
Automatic underlining23	Searching for a word51

Replacing a word with another 53	Deleting a word from the usage aler
Block operation55	list85
Adding and printing text at the end	
of a file57	PART IV TECHNICAL INFORMA-
	TION86
Layout Functions58	
Return59	REPLACING THE RIBBON, ETC. 86
Tabs59	Replacing the cassette ribbon 86
Paragraph indent60	Replacing the correction tape87
Centering61	Replacing the correction tape87 Replacing the cassette daisy
Right margin flush62	wheel are casselle daisy
Decimal tab62	wheel88
Stop codes63	Troublocks att.
	Troubleshooting89
Printing a File64	Problem89
Bidirectional printing64	Displays indicating a problem90
Word wran	
Word wrap65 Page end65	Care of Unit & Specifications 91
Printing a file during CREAT N.	Care of unit91
Printing a file during CREAT-N or	Specifications92
EDIT65	Starter kit (SK-100)93
Editing During Printing66	Index94
Inserting text with the step	,
function66	Glossary96
Inserting text with stop codes 66	,
Skipping text67	Quick Guide100
Inserting phrases with stop codes 67	Non-letter keys of the standard
	keyboard100
Deleting Files68	Letter keys used as function
Deleting a single file68	keys103
Clearing the whole memory 68	Left column of small keys 104
,	Right column of small keys 104
PART III GRAMMAR CHECK 69	ingin column of small keys 104
	Compatible Accessories
The Grammar check S program 69	compandic Accessories
Overview of the grammar check.69	Accessory Order Form
Setting the grammar check71	. Tocobory Order Form
Using the ONE WORD mode 73	
Using the FIND mode81	
The user dictionary83	
,	



- (**) Hold down the **ALT** key and press the key to activate these functions.
- (*) Hold down the CODE key and press the key to activate these functions.
- "ALT + APPROPRIATE KEY" or "CODE + APPROPRIATE KEY" will be used in this manual when the ALT or CODE key must be held down while the APPROPRIATE KEY is pressed.
- The following functions and characters can be repeated by holding down the corresponding keys:

NORMAL CHARACTERS HYPHEN

SPACE BAR

BACKSPACE

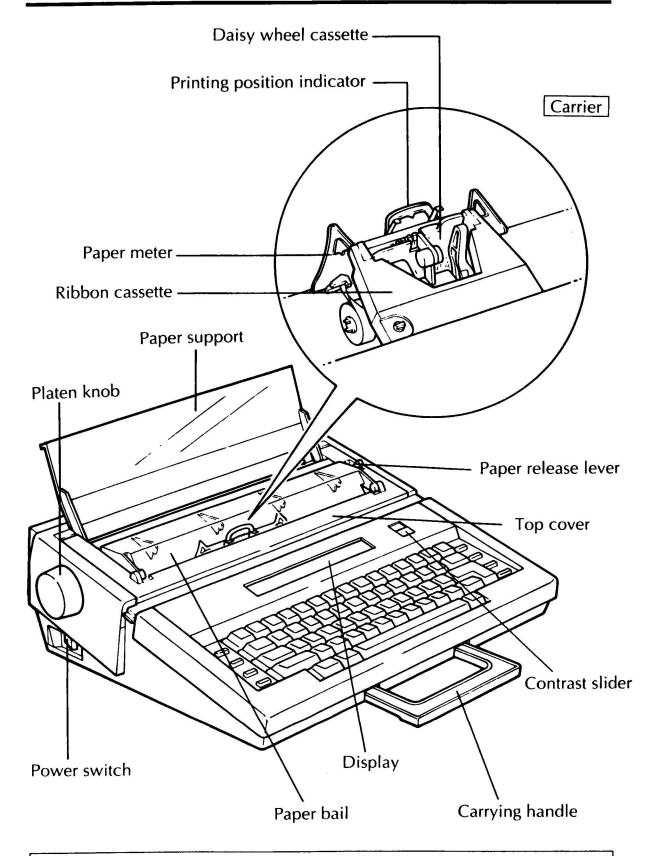
RETURN

TAB (carrier moves from one tab to the next)

CORRECTION

INDEX/REVERSE INDEX

DESCRIPTION

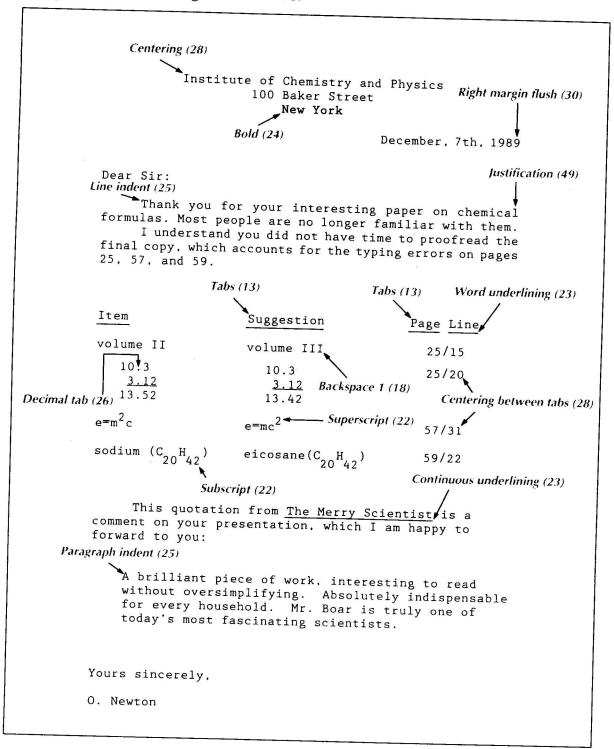


Paper release lever: Pushing this lever loosens tension on the paper so that it can be adjusted as necessary.

FEATURES

Your Brother electronic typewriter combines advanced performance with easy operation.

Some of the outstanding functions of this typewriter are illustrated in the letter below. The numbers in brackets refer to the page where you can find further information concerning each feature.



PART I: TYPEWRITER MODE

This machine can be operated in two different modes: the "typewriter mode" and the "word processor" mode. Operation in word processor mode is described in "PART II WORD PROCESSOR"

The information given here in PART1 deals with the typewriter mode. We recommend that you first get acquainted with the basic operation in typewriter mode before you try to use the word processor mode.

When you switch your machine on, you are in typewriter mode. In this mode your machine works much like a typewriter. However, because this typewriter is a very sophisticated one, you will find it easier to use and a lot more convenient than an ordinary typewriter. The two main differences between an ordinary typewriter and the typewriter mode of this machine are: 1) the LCD display, and 2) the line correction memory. Usually, the characters you type will be immediately printed on the paper and the display will only show the various settings of the machine. The line you are typing is actively stored in the line correction memory to allow for easy corrections of the text already printed. Sometimes, the machine will need to know the contents of the line you are typing in order to print it at the correct position. This happens, for instance, when you are centering your text. In such a case, the text is temporarily displayed on the LCD. We will call this feature the "display mode". Listed below is a short description of the printing and display modes.

1. Printing mode

The printing mode corresponds to the traditional way of using a typewriter: when a character is typed, it is printed immediately on the paper. The basic operations that allow you to start in this mode are described in the chapter "Basic Typing" (p.9).

When you use the printing mode, the characters you type do not appear on the display. The line correction memory actively records everything you are typing on the current line. With this memory, you can erase any letter, word, or even the whole line automatically. See "Memory Correction" (p.19) for more details.

While you are typing, the lower-right corner of the display indicates how many characters you may still type before reaching the right margin. The first line of the display (status line) shows the status of several functions: line spacing and pitch setting, whether the bold or underlining functions are activated, etc. The following illustration shows you how the display works.

LINE	PITCH	UNDLN	OPERATE	P END		
1	10		AUTO	W.SP		
					>	35

In this example, the line spacing is set to 1 (normal), the pitch is set to 10, the carrier auto return function and the word spell functions are activated. The lower-right corner of the display tells you that you still have room for thirty five (35) characters in the current line. Other indications will appear, according to the various settings this sophisticated machine allows. The exact meaning and the use of each indicator will be explained in detail in the following sections of this manual.

2. Display mode

In this mode, the characters you type are shown on the display before printing. They will only be printed after you complete the line. In this mode, corrections are very easy. Since the text is displayed before printing, you may freely insert or delete characters directly on the display.

This mode is automatically selected when you reach a decimal tab, or when you choose to print a line in centering or you choose the right margin flush feature. This is because the machine needs to know the entire contents of the line to be able to print it at the correct position on the paper. After the line is printed, the machine returns automatically to the printing mode.

You may also choose to work in display mode in order to enjoy the correction possibilities it affords. In that case, activate the line-by-line or justify function. The line-by-line function will display your text until you finish typing the whole line. The line is then printed, and you may type the next line. The justify function works in a similar way, but additional space is inserted between words so that the printed line is perfectly aligned with both margins.

BASIC TYPING

The first thing that you will need to do is to decide how you want your document to look when it is printed. To do this, go step-by-step through the following.

Page size



The page size function allows you to tell the machine the length of the paper you are going to use. This size is stored in the memory, and the machine warns you when you are about to reach the end of the paper.

Pressing **ALT** + the **PAGE END** key ("=" key) will change the indication under "P END" through the following cycle:

OFF (no indication) \rightarrow 11 \rightarrow 14 \rightarrow OFF

LINE	PITCH	UNDLN	OPERATE	P END	
				11	

Indication	Meaning	
11	for letter size paper (11 inches)	
14	for 14 inch paper	
OFF	the function is disabled	

When the page size is set to either 11 or 14, the unit remembers how long the paper is, and warns with you with two beeps when your typing reaches a distance of one inch from the bottom of the paper. (The message "PAGE END" will appear at the 10" point if you are using 11" paper, and the message will appear at the 13" point if you are using 14" paper.) If the page end is set to off, no message will be given. If you are using paper where the length is not a standard 11" or 14" long, simply turn the page end function off.

Note: The page end function will only work if you use the PAPER INSERT key for inserting the paper. It will not work correctly if you use the platen knob to move the paper.

Inserting paper



This machine is equipped with an automatic paper insertion function so that you do not need to use the platen knob to insert a sheet of paper.

- 1) Position a sheet of paper behind the platen and press the **PAPER INSERT** key. The paper will be automatically inserted and will advance one inch. The prompt "PRESS RETURN" appears on the display.
- 2) Press the **RETURN** key. The prompt disappears and the carrier returns to the left margin.
- 3) If you want to change the position of the paper, use the index/reverse index function described next.
- 4) Set the Page End function.

Index/reverse index

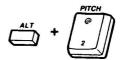


The index/reverse index function lets you move the paper up or down by 1/12 inch in either direction.

Press the **INDEX** key to raise the paper, or press **CODE** + the **REVERSE INDEX** key to lower the paper. To move the paper continuously in either direction, hold down the appropriate key(s).

The paper can also be moved manually with the platen knob. However, if you use the platen knob, the "PAGE END" warning message will not be given at the correct position of the paper.

Selecting pitch



The pitch determines the number of characters printed per inch, and should be selected to match the pitch indicated on the daisy wheel in use. Increasing the pitch results in more printed characters per line.

Pressing ALT + the PITCH key (Number "2" key) changes the indication below "PITCH" through the following cycle:

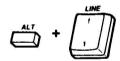
$$10 \rightarrow 12 \rightarrow 15 \rightarrow 10$$

	LINE	PITCH	UNDLN	OPERATE	P END	
Γ		10				

Indication	Meaning	
10	Pica pitch (10 characters per inch)	
12	Elite pitch (12 characters per inch)	
15	Micron pitch (15 characters per inch)	

Note: Be sure the selected pitch matches the pitch of the daisy wheel inserted in the unit.

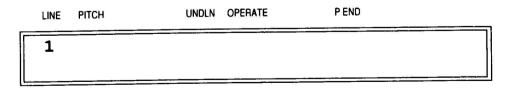
Selecting line spacing



The line spacing determines the vertical separation between the printed lines. Increasing the line spacing results in fewer printed lines per page.

Pressing **ALT** + the **LINE** key (Number "1" key) changes the indication under "LINE" through the following cycle:

$$1 \rightarrow 1 \ 1/2 \rightarrow 2 \rightarrow 1$$

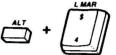


Indication	Meaning		
1	Standard line spacing		
1 1/2	1 1/2 line spacing		
2	Double line spacing		

Setting margins

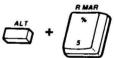
The carrier movement is limited by the left and right margins (unless you press ALT + the MARGIN RELEASE key as explained below). Setting the margins allows you to decide where your text will be positioned on the paper.

Left margin



- 1) Move the carrier to the place you want to set the left margin by using the **SPACE BAR** or the **BACKSPACE** key. If you need to move outside the current left margin, press **ALT** + the **MARGIN RELEASE** key (Number "3" key).
- 2) Press **ALT** + the **LEFT MARGIN** key (Number "4" key). The left margin is now set.

Right margin



- 1) Move the carrier to the place you want to set the right margin by using the **SPACE BAR** or the **BACKSPACE** key. If you need to move outside the current right margin, press **ALT** + the **MARGIN RELEASE** key (Number "3" key).
- 2) Press **ALT** + the **RIGHT MARGIN** key (Number "5" key). The right margin is now set.

Margin release



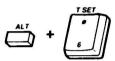
If you try to move the carrier past a margin, a beep is heard and the carrier does not move. After you have set your margins, you may sometimes find it necessary to type outside these margins. You may also need to move the carrier past a margin to reset the margin.

To move the carrier past a margin, press **ALT** + the **MARGIN RELEASE** key (Number "3" key).

1) To move to the left of the left margin, backspace to the left margin, press **ALT** + the **MARGIN RELEASE** key (Number "3" key) and then continue to backspace.

- 2) To move past the right margin, hold the **SPACE BAR** until the carrier reaches the right margin. Press **ALT** + the **MARGIN RELEASE** key (Number "3" key), then continue spacing using the **SPACE BAR**.
 - You may not move past the right margin with the **SPACE BAR** if the auto carrier return function is activated. To turn this function off, see "Returning the carrier automatically" page 16.
 - The shortest possible distance between the left and right margins is two inches (20 characters in Pica pitch, 24 characters in Elite pitch, and 30 characters in Micron pitch.)

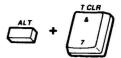
Setting tabs



Tabs are very useful when you need to type your text in columns. Once the tabs are set, pressing the **TAB** key automatically moves the carrier to the next tab so that you can easily type your data in perfectly aligned columns.

- 1) Move the carrier to the place you want to set a tab by using the **SPACE BAR** or the **BACKSPACE** key.
- 2) Press the **ALT** + the **TAB SET** key (Number "6" key) to set the tab. A maximum of 12 tabs can be set (decimal tabs included).
- 3) Repeat steps 1 and 2 to set each tab stop.
 - The right margin and the end of the typing line are considered tab positions.
 - To replace a decimal tab (a special tab used to align numbers) with a regular tab, first clear the decimal tab, then set a regular tab at the same position.
 - If you want to use a decimal tab as a regular tab temporarily, simply press the **CORRECTION** key when the message "DECIMAL TAB" appears. This does not change the decimal tab into a regular tab, but allows you to use that decimal tab just like a regular tab once.
 - For more details on Decimal Tabs, see page 26.

Clearing tabs



- 1) Using the **TAB** key, move the carrier to the tab stop you want to clear. This may be a regular tab or a decimal tab.
- 2) Press ALT + the TAB CLEAR key (Number "7" key) to clear the tab.

CAUTION: If you press ALT + the TAB CLEAR key (Number "7" key) for more than half a second, all tabs will be deleted. A beep will sound three times.

 Your typewriter is equipped with a backup battery to retain pitch, line spacing, margin, and tab settings for approximately a month after the typewriter has been switched off. In order for the battery backup to function, the typewriter has to be turned on for at least four (4) hours.

Repeat function

The repeat function allows you to type the same characters many times by just holding down the corresponding character key. This is useful, for example, when you want to separate two parts of the text with a line made of "-" (hyphens).

To type a character repeatedly, hold down the corresponding key. The character will be printed once, then the machine will wait a short time (half a second) and then print the same character repeatedly until you release the key. The short delay is provided to prevent accidental repetition of the same character when you want it to be printed only once.

Typing uppercase characters



Uppercase characters are the capital letters, and the characters indicated in the upper part of the non-letter keys. For example, "A" (capital "a") and "!" (Number "1" key) are uppercase characters.

- 1) To type one or a few uppercase characters, press either the right or left **SHIFT** key. Releasing this key returns the keyboard to the lowercase mode. The LED indicator located at the left of the **SHIFT LOCK** key will light while the **SHIFT** key is held down and will be turned off as soon as you release that key.
- 2) For continuous uppercase typing, press the **SHIFT LOCK** key. This will set the keyboard in shift lock mode. To return to lowercase typing, press either the right or left **SHIFT** key. The LED indicator will light while the keyboard is in shift lock mode and will be turned off as soon as you press the **SHIFT** key to return to the lowercase mode.

Capital lock key



The capital lock mode is a shift lock mode restricted to the letter keys. In other words, when you are in capital mode, pressing a letter key will give the capital letter, but pressing a non-letter key will give the lowercase character.

1) Pressing the **CODE** + **CAPS** keys once puts the system in capital lock mode, and flashes the LED indicator. This will enable you to type your text with capital letters while keeping the lowercase status for the other characters. For example, while in capital lock mode, you can type the following text without pressing the **SHIFT** key.

MODEL NO. G17P89SRP

- 2) To cancel this mode, simply press **CODE** + the **CAPS** key again. This will turn the LED indicator off.
- 3) When you are in capital lock mode and need a character like "!", simply press the **SHIFT** key while typing. The LED will stop flashing and will light continuously. It will restart flashing when you release the **SHIFT** key.
- 4) If you need to type a string of non-letter uppercase characters (ie. "!", "@", etc.) while in capital lock mode, press the **SHIFT LOCK** key to set the keyboard temporarily in shift lock mode. The LED indicator will light continuously, and will restart flashing as soon as you press the **SHIFT** key.

Hot zone

The hot zone is the area that starts six (6) spaces before the right margin and extends to the right margin. A warning beep will sound when the hot zone is reached. If you are typing a word that is too long to fit into the hot zone, you will have to either divide the word by using a hyphen, or shift the whole word to the next line.

Returning the carrier



Returning the carrier to the left margin advances the paper by the number of lines set with the line space selector (1, 1 1/2, 2). This machine is provided with an automatic carrier return function which, when activated, will return the carrier automatically when you type a space or a hyphen in the hot zone.

Pressing **ALT** + the **OPERATE** key ("-" key) repeatedly changes the indication under "OPERATE" through the following cycle:

OFF (not displayed) \rightarrow AUTO \rightarrow L/L \rightarrow JUST \rightarrow OFF

 LINE	PITCH	UNDLN	OPERATE	P END	
			AUTO		

Indication	Meaning
OFF	Printing mode, manual return only (typist must press Return key)
AUTO	Printing mode, auto carrier return function activated
L/L	Display mode (line-by-line), auto carrier return activated
JUST	Display mode (justify), auto carrier return function activated

1) Returning the carrier manually



Regardless of the option selected with **ALT** + the **OPERATE** key, pressing the **RETURN** key will always return the carrier. When the auto carrier return function is off (first option above), pressing the **RETURN** key is the only way to return the carrier. Holding down this key will feed the paper repeatedly.

2) Returning the carrier automatically



When the "AUTO" option is selected, the carrier will return automatically every time the **SPACE BAR**, or the **HYPHEN** key is pressed in the hot zone.

Note: When the "L/L" or "JUST" option is selected, the auto carrier return function is always activated. For details about these options, see "DIS-PLAY MODE" page 32.

• Permanent space



If you want to type a space in the hot zone without triggering a carrier return, press **CODE** + the **SPACE BAR**. An example of when you would use **CODE** + the **SPACE BAR** would be when you need to keep two words on the same line. For instance, July 9, 1991. In this example, you would press **CODE** + the **SPACE BAR** after the comma to prevent the year from moving to the next line.

Permanent hyphen



For a similar reason, if you want to type a hyphen while in the hot zone without activating the auto carrier return, press **CODE** + the **HYPHEN** key. For example, to type the telephone number 617-238-7098, you would press **CODE** + the **HYPHEN** key after 238 if this hyphen is in the hot zone.

Backspacing

You may need to move backward along the line you have just typed. This is called "backspacing".

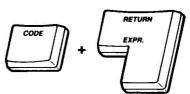
Your typewriter has three different backspace functions:

1) Simple backspace



To move back one space at a time, press the **BACKSPACE** key. To move continuously to the left, hold this key down.

2) Express backspace



To move the carrier quickly to the left margin, press **CODE** + the **EXPRESS BACKSPACE** key.

3) Fractional backspace



Pressing CODE + the BACKSPACE 1 key will move the carrier by a fixed amount of 1/120 inch to the left. Since the actual space occupied by a character depends on the selected pitch, this fixed amount of 1/120 inch is a variable fraction of a character as follows:

Pitch	Fraction	
10 (Pica)	1/12 of character	· · · · · · · · · · · · · · · · · · ·
12 (Elite)	1/10 of character	
15 (Micron)	1/8 of character	

One typical use is to type characters, such as Roman numerals.

volume II	volume	ш			1
			9	65/30	
	The second secon				

This function is also useful to correct justified text, or simply to smooth the spacing when something was inserted or deleted. (For further details, see the section "Manual Correction.") (p.21)

MEMORY CORRECTION

Your typewriter has a full-line correction memory that makes corrections easier. As long as you are on the current line, the machine will automatically erase for you. In addition, you may choose to erase automatically a single character, one word, or the entire line.

Correcting one character



- 1) Use the **BACKSPACE** key or the **SPACE BAR** to line up the carrier with the mistyped character.
- 2) Press the **CORRECTION** key. This automatically erases the mistyped character and leaves a blank. Super/subscripts, underlined, bold characters, and superimposed characters can be deleted with this function, as well as regular characters.
- 3) Type in the correct character.
 - To erase a series of characters, merely hold down the CORRECTION key. The carrier will backspace and correct continuously until you release the key.

Relocation



The **RELOCATION** key allows you to move to the end of your typing line rapidly. Press the **RELOCATION** key to return the carrier to the place where it was before the correction.

Erasing one word



The word out function allows you to erase one word at a time.

1) Using the **BACKSPACE** key or the **SPACE BAR**, move the carrier to the last character of the word to be deleted. (The △ triangle in the following illustration indicates the location of the carrier.)

cal formulas. Most people feel

2) Press the **WORD OUT** key. This will erase the word, but leave the carrier where the first letter of that word was positioned.

cal formulas. Most people

3) You can now continue with your text.

cal formulas. Most people are no longer familiar

- If the carrier is positioned in the middle of a word, only the letters from that position to the beginning of the word will be erased.
- This function erases super/subscripts, bold characters, and underlining if they are part of the word.
- To interrupt the word out function while a word is being erased, press the **CORRECTION** key.

Erasing the entire line



The line out function allows you to delete an entire line automatically. The line out function will delete the last line typed, as long as the carrier has not been moved to the next line.

1) Using the **BACKSPACE** key or the **SPACE BAR**, move the carrier to the last character of the line to be erased.

I would like to suggest some minor changes Δ

2) Press **CODE** + the **LINE OUT** key to delete the line automatically. The carrier will stop at the position previously occupied by the last character you deleted.

Λ

- If the carrier is in the middle of the line, correction will start from that position to the beginning of the line.
- Superscripts, subscripts, bold, and underlined characters will also be deleted.
- To interrupt the line out function, press the CORRECTION key.

MANUAL CORRECTION

If you have overlooked an error in a text and have already moved to a different line, you can still correct it by using the manual correction method.

Manual correction



- 1) Return the paper to the line of the character to be corrected using **INDEX** or **CODE** + **REVERSE INDEX**.
- 2) Line up the carrier with the error using the **BACKSPACE** key or the **SPACE BAR**.
- 3) Press **CODE** + the **CORRECTION** key. The "MANUAL CORRECTION" prompt will appear on the display.
- 4) Type the incorrect character to remove it. Use the **SHIFT** key for uppercase characters, and set the typewriter in underlining mode to correct an underlined character.
- 5) Type the correct character.

Correcting a justified or centered text



When you print a text justified (aligned) to both margins, the spaces between the words do not correspond to the choosen pitch anymore. In a similar way, a centered text is lined up with a central point, and not with the left margin.

As a result, you may find the text slightly shifted when you want to make corrections, starting from the left margin.

To be able to line up the carrier with the error, use the BACKSPACE 1 function.

LAYOUT FUNCTIONS

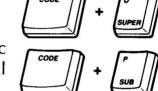
Superimposing characters



If there is a character you want that is not available on your keyboard, you may sometimes be able to create it yourself. For example, if you want the symbol for Japanese yen (¥):

- 1) Type the letter "Y".
- 2) Press the BACKSPACE key.
- 3) Type the symbol "=" to obtain the ¥ symbol.

Superscript/Subscript



Superscripts and subscripts are used mainly for scientific text composition (for instance, exponents, chemical symbols, or reference to footnotes).

To print a superscript, press **CODE** + the **SUPERSCRIPT** key (Letter "O" key) to raise the carrier by 1/12 inch, and then type the character that you want in superscript. The paper will return to the normal line position after you type the superscript character. If you want to type more than one superscript character, press **CODE** + the **SUPERSCRIPT** key again.

e=mc ²	n 4 9		· .		
	18	9.0		 	

To print a subscript, press **CODE** + the **SUBSCRIPT** key (Letter "P" key) to lower the carrier by 1/12 inch, and then type the character that you want in subscript. The paper will return to the normal line position after you type the subscript character. If you want to type more than one subscript character, press **CODE** + the **SUBSCRIPT** key again.

C ₂₀ H ₄₂					
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- In super/subscript mode, the carrier will always move by 1/12 inch, regardless of the current line spacing.
- Super/subscripts of more than 1/12 inch are not possible. The beep will sound if you press twice on **CODE** + the **SUB/SUPERSCRIPT** key without entering any character.
- Since the INDEX and CODE + REVERSE INDEX keys disable the memory correction function, do not use these keys to type subscripts or superscripts.

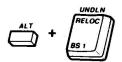
Special characters



To type the special characters and symbols marked in green on the bottom of certain keys, hold down **CODE** and press the desired key.

Character	Keys
<	CODE + W
P	CODE + Y
>	CODE + U
§	CODE + Z
2	CODE + X
3	CODE + V

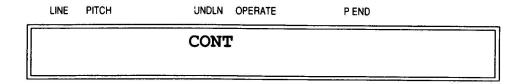
Automatic underlining



You can use this function when you want to underline a word or group of words.

Pressing **ALT** + the **UNDERLINE** key (RELOCATION key) changes the indication under "UNDLN" through the following cycle:

OFF (not displayed) \rightarrow CONT \rightarrow WORD \rightarrow OFF



Indication	Meaning
OFF	No underlining
CONT	All words and spaces between them are underlined.
WORD	Only words are underlined, and not the spaces between them

- 1) Press **ALT** + the **UNDERLINE** key once to turn on the "CONT" option, or press the same keys twice to turn on the "WORD" option.
- 2) Type your text. The characters are underlined according to the option you selected.

Suggestion

- 3) To cancel the automatic underlining mode, press **ALT** + the **UNDERLINE** key again, until nothing is displayed under "UNDLN".
 - The spaces that triggered a carrier return in the automatic carrier return mode are never underlined. "Permanent spaces", i.e. spaces typed while holding down the CODE key, will be underlined when you use the "CONT" option.
 - This function can be used together with the decimal tab, the automatic centering, boldface, justify, and the right margin flush functions (p.26, 28, 24, 32, 30).

Boldface



Using the boldface mode is another way to make a word or phrase stand out and catch the reader's eye.

Pressing **ALT** + the **BOLD** key (INDEX key) changes the indication between the "PITCH" and "UNDLN" indicators through the following cycle:

OFF (not displayed) → BOLD → OFF

LINE	PITCH	UNDLN	OPERATE	P END	
	BOLD				

Indication	Meaning	
OFF	Normal printing	
BOLD	Boldface printing	

1) Press **ALT** + the **BOLD** key to display the "BOLD" indicator, and then type your text.

- 2) Press ALT + the BOLD key once again to cancel this mode.
 - This function can be used together with the decimal tab, the automatic centering, underline, and the right margin flush functions (p.26, 28, 23, 30).

Line indent



This function avoids having to press the SPACE BAR five times to indent a line.

Pressing **CODE** + the **LINE INDENT** key moves the carrier five (5) characters to the right.

To indent at the beginning of a line, press **CODE** + the **LINE INDENT** key. The carrier moves five (5) spaces to the right of its current position and the "LINE INDENT" prompt appears on the display. This prompt disappears when you begin typing.

---*Thank you for your interesting paper on

Paragraph indent



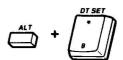
The paragraph indent function of this machine allows you to position the left margin at a tab position temporarily. This is useful when you want to indent a part of your text.

- 1) Press **CODE** + the **PARAGRAPH INDENT** key (Letter "B" key). The carrier moves to the first tab and "PARAGRAPH INDENT" appears on the display.
 - If you press the TAB key to position the carrier on a tab, then press the CODE + PARAGRAPH INDENT key, the carrier will jump to the next tab. To prevent this, always be sure to position the carrier to the left of the indenting position (use the BACKSPACE or CODE + EXPRESS BACKSPACE keys) before pressing CODE + PARAGRAPH INDENT.
 - If you press **CODE** + **PARAGRAPH INDENT** more than once, the carrier moves to the next tab in order (decimal tabs are skipped). This feature allows you to set the paragraph indenting position to any tab.
- 2) Start typing your text. Each time a carrier return is triggered (when you press the **RETURN** key, or type a space or a hyphen in auto return mode), the carrier returns to the paragraph indent position. "PARAGRAPH INDENT" appears.
- 3) To exit the paragraph indent mode, press **CODE** + the **INDENT CLEAR** key (Letter "N" key). The carrier moves to the left margin (next line) and you may resume normal typing.

----A brilliant piece of work, interesting to read without oversimplifying. Absolutely indispensable for every household.

Paragraph indent

Setting decimal tabs



When you want to print columns of numbers with their decimal points lined up, use the decimal tab set key.

- 1) To set a decimal tab, move the carrier to the place desired by using the **SPACE BAR** or the **BACKSPACE** key.
- 2) Press **ALT** + the **DECIMAL TAB SET** key (Number "8" key) to set the decimal tab.
 - Pressing ALT + the DECIMAL TAB SET key at a normal tab position replaces the normal tab with a decimal tab.

Using decimal tabs

- 1) Press the **TAB** key to go to the decimal tab position. When you reach it, the prompt "DECIMAL TAB" appears on the display.
- 2) Type in the numbers. They are not printed right away but appear on the display. The carrier moves backward for each number typed. (This lets you correct wrong entries on the display. For more details concerning correction in display mode, refer to the next section, p.35.)
- 3) When the decimal point is entered, or when you press the **TAB** key or the **RETURN** key, the displayed numbers (and the decimal point if you used it) are printed.
- 4) Type whatever comes after the decimal point.
 - Although the decimal tab function is mostly used to align numbers, it
 will also work in the same way as explained above if you type letters
 instead of numeral. This will align your words right flush with the
 decimal tab.

Cancelling the decimal tab mode

1) Before you have typed anything:



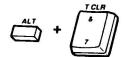
To cancel the decimal tab mode before you have typed anything, press the **CORRECTION** key when the prompt "DECIMAL TAB" is still displayed. The "DECIMAL TAB" prompt disappears. The carrier does not move. You can now enter any character and it will print directly on the paper.

2) After entering some characters:



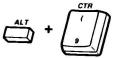
Press the **CORRECTION** key until the numbers or the characters on the display disappear, then press the **CORRECTION** key one more time. The "D TAB" indicator disappears. You may now start typing your text and it will print on the paper. The first character will be printed at the tab position (same as decimal point position).

3) Clearing the decimal tab:



To cancel the decimal tab altogether, press **ALT** + the **TAB CLEAR** key (Number "7" key) at the decimal tab position.

Centering



The centering function allows you to center a line of text between the left and right margins or between two tab positions.

Pressing **ALT** + the **CENTERING** key (Number "9" key) changes the indication between "OPERATE" and "P END" indicators through the following cycle:

OFF (not displayed) \rightarrow CTR \rightarrow OFF

	LINE	PITCH	υ	JNDLN	OPERATE		P END		
CTR						CTR			

Indication	Meaning
OFF	Normal printing
CTR	Centered printing

1) To center between the margins:

Move the carrier to the left margin and press **ALT** + the **CENTERING** key (Number "9" key). The "CTR" indicator will appear on the display, and the carrier will move to a point halfway between the margins.

To center between two tab:

Move the carrier to the left tab and press **ALT** + the **CENTERING** key (Number "9" key). The carrier will move to a point halfway between the left and right tabs.

- 2) Type the text. The characters are not printed immediately, but will appear on the display. At this point, you can still make corrections in display mode (for more information, see the next section, p.32.)
 - The carrier will backspace one half-space for each character typed.
 - If the entered characters extend beyond the space between the margins or tabs, a beep sounds, and you will not be able to enter any more characters.
- 3) To print the text, press the **TAB** key or the **RETURN** key. When printing is finished, the carrier will go to the next tab, or return to the left margin on the next line.
 - The centering function cannot be activated if the carrier is not positioned on the left margin or on a tab.
 - Centering cannot be activated on a decimal tab.
 - Since the machine assumes that you want to center between margins if
 you press ALT + the CENTERING key while the carrier is on the left
 margin, it is NOT possible to center a text between the left margin and
 the first tab. This problem can be solved by setting an additional tab one
 position to the right of the left margin and centering from that position.
 - To center between the last tab and the right margin, simply activate the centering function while the carrier is on the last tab.

Centering between margins

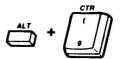
Institute of Chemistry and Physics
100 Metro Street
New York, N.Y.

Centering between tabs

| Institute of Chemistry and Physics | 100 Metro Street | New York, N.Y.

Cancelling the centering mode

1) Before you have typed anything:

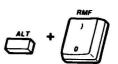


To cancel the centering mode before you have typed any text, press **ALT** + the **CENTERING** key (Number "9" key). The carrier then returns to its original position and the "CTR" indicator disappears.

2) After entering some characters:

If you have entered some characters, press the **CORRECTION** key until the display is blank. Then either retype your text or press **ALT** + the **CENTERING** key (Number "9" key) to escape from the mode.

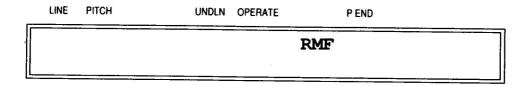
Right margin flush



Your typewriter can automatically print text flush (or even) with the right margin. This is particularly useful for dates and other headings.

Pressing **ALT** + the **RIGHT MARGIN FLUSH** key (Number "0" key) changes the indication between "OPERATE" and "P END" indicators through the following cycle:

OFF (not displayed) \rightarrow RMF \rightarrow OFF



Indication	Meaning	
OFF	Normal printing	
RMF	Right margin flush printing	

- 1) Press ALT + the RIGHT MARGIN FLUSH key (Number "0" key). The "RMF" indicator will appear on the display, and the carrier will go to the right margin.
- 2) Type the text. The characters will not be printed immediately, but will first be displayed. At this point, you can still make corrections in display mode (for more information, see the next section, p.32.)

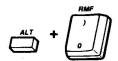
 The carrier will backspace once each time a character is entered.
 - The beep will sound if you run out of room, and you will not be able to enter any more characters.
- 3) To print the text, press the **TAB** key or the **RETURN** key. When printing is finished, the carrier will go to the right margin, or return to the left margin on the next line.

 Right margin

December, 7th, 1991

Canceling the right margin flush mode

1) Before you have typed anything:



To cancel the right margin flush mode before typing any text, press **ALT** + the **RIGHT MARGIN FLUSH** key (Number "0" key). This returns the carrier to the last typing position if text has previously been entered on the line. Otherwise, the carrier returns to the left margin.

2) After entering some characters:

If you have entered some characters, press the **CORRECTION** key until the display is blank. Either retype your text or press **ALT** + the **RIGHT MARGIN FLUSH** key (Number "0" key) to return to the last typing position.

DISPLAY MODE

In this mode, characters are displayed before being printed. This permits you to correct the text on the screen, which is quicker and easier than making corrections on paper in the printing mode.

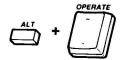
The display mode is automatically selected when using the decimal tab, centering, and right margin flush functions. For each of these functions the line is typed and displayed before being printed.

You may also take advantage of this mode without using one of the above layout functions by using the line-by-line or justify functions.

 The following keys cannot be used in display mode. You will have to switch back to the printing mode if you want to use them.

Keys	Function
ALT + MARGIN RELEASE	To move past a margin
ALT + LEFT MARGIN	To set the left margin
ALT + RIGHT MARGIN	To set the right margin
ALT + TAB SET	To set a tab
ALT + TAB CLEAR	To clear a regular or decimal tab
ALT + DT SET	To set a decimal tab
CODE + BACKSPACE 1	To move back 1/120"

Line-by-line processing



"Line-by-line processing" means that the contents of the line will always be displayed on the display before being printed on paper. You have two options: the line-by-line mode and the justify mode. The printing format in line-by-line mode has a ragged right margin. In justify mode, fractional spaces are added between words so that the end of each line coincides with the right margin. In either mode, the carrier auto return function is always activated.

Pressing **ALT** + the **OPERATE** key ("-" key) repeatedly changes the indication under "OPERATE" through the following cycle:

OFF (not displayed) \rightarrow AUTO \rightarrow L/L \rightarrow JUST \rightarrow OFF

• It is impossible to select the line-by-line or justify mode if the carrier is not between the margins.

LINE	PITCH	UNDLN	OPERATE	P END	
			L/L		

Indication	Meaning
OFF	Printing mode, manual return only
AUTO	Printing mode, auto carrier return function activated
L/L	Display mode (line-by-line), auto carrier return activated
JUST	Display mode (justify), auto carrier function activated

- 1) Press ALT + the OPERATE ("-" key) until "L/L" or "JUST" is displayed.
- 2) Type your text. The carrier moves for each character entered. Input characters are not printed right away, which means that entries can be corrected before being printed. See "Correction in display mode" (p.35).
- 3) Pressing the **TAB** key or the **RETURN** key prints the text and moves the carrier to the next tab or to the next line. The "PRINTING" prompt appears on the display.
 - In line by line and justify modes, the automatic carrier return function is always activated. Entering a space in the hot zone achieves the same result as the **RETURN** key.
 - Pressing the hyphen key in the hot zone displays a "ghost hyphen" (3-dot hyphen). This hyphen does not trigger a carrier return immediately as in printing mode. However, if you type anything after this hyphen, printing and carrier return will be triggered. The hyphen will be printed at the end of the line, and the character you typed after it will appear at the first position of the display. This hyphen is not a permanent hyphen.
- 4) To cancel the line-by-line or justify mode, print the displayed text, then press **ALT** + the **OPERATE** key ("-" key) to delete the indicator under "OPERATE", or to select the "AUTO" mode. This turns the display off and recalls the printing mode.

 33

Line-by-line mode

A brilliant piece of work, interesting to read without oversimplifying. Absolutely indispensable for every household. Mr. Boar is truly one of today's most fascinating scientists.

Justify mode

A brilliant piece of work, interesting to read without oversimplifying. Absolutely indispensable for every household. Mr. Boar is truly one of today's most fascinating scientists.

In L/L and JUST modes, phrase files can be inserted by using the ABB key. See "Inserting a phrase file in a text file" (page 47).

Moving the cursor

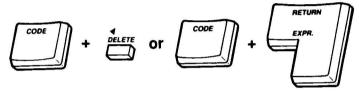
The line display is 40 characters long (minus the spaces needed at the right end to indicate the room that is still free). The "cursor" (blinking square box) indicates where the next character you type will appear. As you type your text, the cursor moves to the right until the line display is almost full. At that time, the text is automatically shifted to the left, and the first words of the line become "invisible". We are now going to see how to move the cursor to any position in the line.

Moving the cursor by one character

- 1) To move the cursor back toward the beginning of the line, press the CURSOR LEFT key. The text will eventually move to the right and some words at the end of the line will be scrolled off the end of the display. To move faster, hold the CURSOR LEFT key down. You may also use CODE + the BACKSPACE key, but this will allow you to move to the left only up to the beginning of the current word.
 - Do not use the BACKSPACE key to move the cursor to the left, unless you want to delete characters (see p. 36)

- 2) To move the cursor toward the end of the line, press the CURSOR RIGHT key. The text will eventually move to the left and some words at the beginning of the line will be scrolled off the beginning of the display. To move faster, hold the CURSOR RIGHT key down. The CURSOR RIGHT key will not allow you to move past the position immediately following the last typed character.
 - Do not use the SPACE BAR to move to the right, unless the cursor is at the right of the last character. The SPACE BAR will insert blank spaces at the cursor position.

Moving the cursor to the beginning or the end of the line



1) To go back quickly to the beginning of the line, press **CODE** + the **EXPRESS BACKSPACE** key or **CODE** + the **CURSOR LEFT** key. This allows you to add text at the very beginning of the line.

2) To move to the end of the line, press the **RELOCATION** key or **CODE** + the **CURSOR RIGHT** key. This allows you to continue typing after making corrections in the middle of the line.

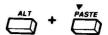
Correction in display mode

Inserting characters in the text

Just type

- 1) To insert something in your text, use the **CURSOR LEFT/RIGHT** keys to move the cursor to the position where the first character has to be inserted.
- 2) Type your text. Each character you type will be inserted at the cursor position, and the character which was at the cursor position, as well as all subsequent characters will be pushed to the right.

Insertion and write-over modes



If you want the characters you type to replace the old characters instead of being inserted, press **ALT** + the **PASTE** key. You are now in write-over mode. The same keys allow you to return to the insertion mode described above. In insertion mode, the cursor is a flashing box with underline; in write-over mode, the cursor is a flashing underline only.

Deleting characters from the text



- To delete characters from your text, use the CURSOR LEFT/RIGHT keys to move the cursor to the position immediately after the rightmost character to be deleted.
- 2) Press the **CORRECTION** key or the **BACKSPACE** key. This will move the cursor one position to the left and delete the character which was at the left of the cursor. The characters from the cursor position to the end of the line are "pulled" to the left.

You may also position the cursor on the character to be deleted and press **ALT** + **DELETE**.

Deleting one word from the text



- 1) To delete a word or a part of a word from your text, use the **CURSOR LEFT/RIGHT** keys to move the cursor to the position immediately AFTER the last character to be deleted (remember that in the printing mode, you had to position the carrier ON the last character to be erased).
- 2) Press the **WORD OUT** key. This will delete all the characters from the left of the cursor to the beginning of the word and move the cursor to the beginning of the deleted word, "pulling" the rest of the line to the left.

Deleting the entire line



- To delete the entire line or a part of it, use the CURSOR LEFT/RIGHT keys to move the cursor to the position immediately AFTER the last character to be deleted (remember that in the printing mode, you had to position the carrier ON the last character to be erased).
- 2) Press **CODE** + the **LINE OUT** key. This will delete all the characters from the left of the cursor to the beginning of the line and move the cursor to the beginning of the line, "pulling" the rest of the line to the left.

Functions requiring a special display

The bold, underlining, and super/subscript functions work in the same way as in printing mode, but have a special display. The following table shows how these functions are displayed.

Function	Display
Underlined character '	The character flashes, showing alternately the normal character and the underlining.
	Example: <u>Page</u> = <u>Page</u>
Bold character	The character flashes, showing alternately the normal character and an upper line.
	Example: Page = Page
Superscript	The character in superscript is preceded with the symbol (‡).
	Example: $mc^2 = mc^2$
Subscript	The character in subscript is preceded with the symbol $(\frac{1}{3})$.
	Example: $H_2O = H_{\downarrow}^{\downarrow}2O$
Permanent hyphen	Displayed with the symbol (⊢).
Ghost hyphen (hyphen typed in the hot zone)	Displayed as three dots (···).

Permanent space	Displayed with the symbol ().	
Permanent backspace (see below)	Displayed with the symbol (◀).	

- The super- or subscript mark appears on the display when the character is entered and disappears if the character is deleted. The mark does not appear alone — it is always followed by the character or symbol you have typed.
- To turn underlined or bolded characters back to normal, delete them and retype them after turning the underline or bold function off.
- A permanent backspace is obtained by pressing CODE + the BACKSPACE key. When printing the text, the character following the permanent backspace will be superimposed to the character preceding the permanent backspace ("Y◄=" on the display will give "¥" on the paper).

Functions triggering line printing

The following keys will trigger line printing and clear the display:

- 1) **RETURN** key: The line is printed, the paper is fed and the carrier returns to the left margin.
- 2) **TAB** key: The line is printed and the carrier moves to the next tab.
- 3) CODE + LINE INDENT: Pressing CODE + the LINE INDENT key in the middle of a line begins printing, clears the display, and moves the carrier to a position five (5) spaces to the right of where the carrier was when you pressed CODE + the LINE INDENT key. If no characters were entered on the line, pressing CODE + the LINE INDENT key simply moves the carrier five (5) spaces to the right.
 - The INDEX functions can be used whenever necessary. They do not affect the current line contents, but merely feed the paper in the chosen direction.

PART II WORD PROCESSOR MODE

With its 23K memory (one K — or kilobyte — is approximately equivalent to one page of text), your typewriter can store texts as well as one frequently used format. The backup battery will maintain the memory for approximately one month. To recharge the battery, the typewriter must be switched on at least four (4) hours.

To switch from the typewriter to the word processor mode, press the **TW/WP** key. The following display will appear:

△ USE 1 TO 5 FOR SELECTION
1:CREAT-P 2:CREAT-N 3:EDIT 4:PRINT 5:DEL

Let's call the above display the "mode selection display" since this is where the various word processor modes can be selected. To select an option from this display, simply press a number key from 1 to 5. For example, press the number "1" key for "CREAT-P", the number "2" key for "CREAT-N", etc.

Indication	Meaning
1:CREAT-P	To create a new file and print the text simultaneously.
2:CREAT-N	To create a new file without printing the text simultaneously.
3:EDIT	To modify a file already stored in the memory.
4:PRINT	To print a file already stored in the memory.
5:DEL	To delete a file.

• To return to the typewriter mode from the mode selection display, simply press the **TW/WP** key.

Starting a file



There are two ways to create a new file:

CREAT-P:

You create and print ("P" stands for "Printing") the file simultaneously in a way similar to the line-by-line mode. The big difference is that your text is now stored in the memory.

CREAT-N:

You type the whole text on the display, without printing it ("N" stands for "No printout"). This allows you to make changes in the text more easily. This mode is very similar to the EDIT mode described below, except that it is used to start a new file from scratch.

Editing a file



When a file is stored, you may find it necessary to modify it to fit your present purpose. What you need is the EDIT mode. In this mode, you can add, delete, move, and copy whole sections of the text. You can also change the format, search the file for all the occurrences of a word, and have that word automatically replaced with another. You may also add text anywhere in the file, and the new text will be formatted according to the format functions that apply at the insertion location.

Printing a file



To print a file that is already stored, select the option PRINT. During printing, you may temporarily stop the machine and change a word, add some new text, or skip parts of the text that have been stored. When the file contains "stop codes", printing is automatically interrupted at each stop code position to allow you to manually insert text. Even if you have not inserted stop codes in the file, you may interrupt the machine by pressing **CODE** + the **STEP** key (Letter "D" key). All the insertions you make while printing will appear on the paper, but will not be stored.

Deleting a file



When you have no room in the memory for a new file, or you no longer need a particular file, select the DEL option and delete it.

Text, phrase and format files

This machine can store three different types of files: text, phrase, and format files.

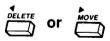
After you select the edit option of the 5 options from the mode selection display, the display shown below appears. We will call this display the "file selection display", since this is where you will give a name to a new file, or select an old file for editing, printing, or deleting.

△ CURSOR	FOR	SELECT,	RETURN	TO	EDIT
TEXT:	PHRASE:		▶ 22842		

Indication	Indication Meaning	
TEXT	Text or format file	
PHRASE	Phrase file	

• The number at the lower-right corner of this display indicates the amount of free space in memory. The number represents approximately the number of keystrokes that can still be stored. As you fill the memory with files, this number will decrease.

1) Selecting text or phrase

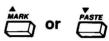


To move the cursor from "TEXT" to "PHRASE", press the **CURSOR RIGHT** key; to move the cursor from "PHRASE" to "TEXT", press the **CURSOR LEFT** key.

2) Entering a file name

If you have selected CREAT-P or CREAT-N, the input areas at the right of "TEXT" and "PHRASE" are empty. You may enter a name for the file you are going to create in the "TEXT" (for a new text or format file), or in the "PHRASE" area (for a new phrase file). A file name is made of a maximum of eight (8) characters. Press the **RETURN** key when the file name is typed.

3) Selecting a file name



If you have selected EDIT, PRINT, or DELETE, the input area at the right of "TEXT" will show the last text file created, and the input area at the right of "PHRASE" will show the last phrase file created. To select another existing file name, use the **CURSOR UP/DOWN** keys. Press the **RETURN** key when the name of the file you want to edit, print, or delete appears.

4) Changing a file name

When you select EDIT from the mode selection display, then select a file name using the **CURSOR UP/DOWN** keys, you are given a chance to rename the file to be edited. The display shown below appears first when you enter in edit mode. Press the **CORRECTION** key or the **BACKSPACE** key to delete the current name. Type in a new name. This text can then be edited, and will be stored with the new file name.

RENAME FILE: File1 , RETURN TO EDIT

- If you change your mind after typing or selecting the name of a text or phrase file (for instance, you typed the name of a text file, then realize that what you want to create is a phrase file). You need to delete the file name you already selected.
- If you realize that you selected the wrong option in the mode selection display (for instance, you wanted to edit a file, but you mistakenly pressed the number "5" key for DELETE), press **CODE** + the **END** key (Letter "G" key) to return to the mode selection display.

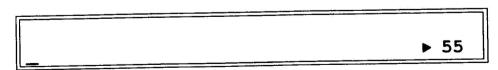
CREATING A FILE

The information given in this section explains the general procedure that you have to follow in order to create a new file. More details concerning the contents of the files will be given in the "LAYOUT FUNCTION", page 58.

Text file

This type of file is used for entering text with format and layout information.

- 1) Call the mode selection display by pressing the TW/WP key.
- 2) Press the number "1" or "2" key to select one of the file creation modes. The file selection display appears:
- ☐ CURSOR FOR SELECT, NAME TEXT OR PHRASE TEXT: PHRASE: ▶22842
- 3) Type a new file name (8 characters maximum). You can use letter keys (capital or small letters), number keys, and the hyphen key. Other character keys will be refused and will produce a beep. If you make a mistake while typing the name, you can use the CORRECTION, BACKSPACE, or WORD OUT keys.
- 4) Press the **RETURN** key. The display is cleared, and you may start entering your text. The cursor in on the left side of the display. In CREAT-P mode, the counter on the right side of the display indicates the free space between the current cursor position and the right margin.
 - If the file name you just typed is not new (a file has already been stored using the same file name), a beep is produced and the display is not cleared.



- 5) Type your text. If you go beyond the available memory space, the message "MEMORY FULL" appears and a beep sounds. You cannot enter anything else, but the text already entered is stored in the memory.
- 6) When the file is completed, press **CODE** + the **END** key (Letter "G" key) to return to the mode selection display, or press the TW/WP key to return to the typewriter mode.

- Any function can be registered in a text file, including the pitch, line spacing, left and right margins, regular and decimal tabs.
- To display the status indicators temporarily, press ALT.

Format file



The format file (you may have only one format file in the memory, and its name can only be "FORMAT") is a special text file in which you can store a format that you plan to use more than once. The format functions are: pitch, line spacing, left and right margins, regular and decimal tab.

- 1) Set the pitch, line spacing, left and right margins, regular and decimal tabs in typewriter mode.
- 2) Press the **TW/WP** key to switch to the mode selection display.
- 3) Press the number "1" key to select the CREAT-P mode.
- 4) The name of the format file can only be "FORMAT" (uppercase). You may type this file name, or press **CODE** + the **FORMAT** key (Letter "F") key. Press the **RETURN** key to clear the display.
- 5) To store the format file, press **CODE** + the **END** key (Letter "G" key).
 - If you already had a format file, the new settings replace the old ones.

Using the format file



1) Press the TW/WP key to switch to the mode selection display.

```
△ USE 1 to 5 FOR SELECTION
1:CREAT-P 2:CREAT-N 3:EDIT 4:PRINT 5:DEL
```

- 2) Press the number "4" key to select "PRINT".
- 3) Use the **CURSOR LEFT/RIGHT** keys to select "TEXT", then use the **CURSOR UP/DOWN** keys to display the file name "FORMAT".

```
△ CURSOR FOR SELECT, RETURN TO PRINT
TEXT: FORMAT PHRASE: ▶23091
```

- 4) Press the **RETURN** key. The format stored in the FORMAT file replaces the current format.
- 5) Press the number "1" or "2" key to start entering text in the format of the FORMAT file. You may also switch to the typewriter mode by pressing the **TW/WP** key and start typing text in the format of the FORMAT file.
 - If you print a text file, the format of that text file will be valid.

Phrase file

The phrase files are particularly helpful to avoid retyping frequently used expressions, addresses, or other groups of words. Suppose for instance that the group of words "United States of America" has to appear frequently in your documents. If you do not want to retype this long group of words many times. It is easy to register a long phrase to be substituted by an abbreviation. Follow these steps to use the **ABB** key:

- 1) Press the **TW/WP** key to switch to the mode selection display.
- 2) Press the number "1" or "2" key to select one of the file creation modes. The file selection display appears:
- △ CURSOR FOR SELECT, NAME TEXT OR PHRASE TEXT: PHRASE: ▶22842
- 3) Press the CURSOR RIGHT key to move the cursor to the "PHRASE" input area,
- △ CURSOR FOR SELECT, NAME TEXT OR PHRASE TEXT: PHRASE: ▶22842
- 4) Enter a file name in the same way as you would do for a text file, and press the **RETURN** key to clear the display.
 - It is important that you chose a file name in such a way that it helps you to remember what the contents of the file is. In our example, we are going to enter the phrase "United States of America". A good file name for this would be "USA".
- 5) Type your text ("United States of America" in our example). If you go beyond the available memory space, the message "MEMORY FULL" appears and a beep sounds. You cannot enter anything else, but the text already entered is stored in the memory.
- 6) When the file is completed, press **CODE** + the **END** key (Letter "G" key) to return to the mode selection display, or press the **TW/WP** key to return to the typewriter mode.

- The only functions that can be stored in a phrase file are underlining, bold, stop codes (more about the stop codes later), centering between margins, and right margin flush.
- The format functions (pitch, line spacing, left and right margins, regular and decimal tabs) cannot be stored in a phrase file. Printing will take place according to the current format.

Inserting a phrase file in a text file



Phrase files are used to have a phrase automatically inserted in a text file. This insertion can be carried out in the display mode (L/L or JUST), and CREAT-P, CREAT-N, or EDIT modes. Assuming that you have created a phrase file called "USA" and containing the words "United States of America", let's see how this can be inserted in a text file.

The name you give a phrase file is called an abbreviation. In the example, "USA" is the abbreviation for "United States of America". You will be using the **ABB** key (Abbreviation key) to insert phrases into text files.

L/L or JUST mode/CREAT-P mode

1) When you reach the place where you want to insert a phrase file, type the file name ("USA" in our example).

The laws of the USA

2) Press the **ABBREVIATION** key. The text entered up to the cursor position as well as the contents of the phrase file is printed and the display is cleared. The contents of the phrase file is stored at the position where you entered the file name.

The laws of the United States of America

3) You may now type the rest of your text from the left side of the display.

CREAT-N, EDIT modes

1) Move the cursor to the place where you want to insert the phrase file, and type the name of the phrase file.

The laws of the USA

2) Press the **ABBREVIATION** key. The contents of the phrase file are displayed at the place where you entered the file name.

f the United States of America

 The phrase file is inserted in carrier auto return mode. However, when a word reaches the right margin, word wrap (see page 64) is performed.

Changing the format



With the format function, you can change the format information of a text file (pitch, line spacing, left and right margins, regular and decimal tabs). The procedure is the same in CREAT-P, CREAT-N, and EDIT, except for the first step.

1) CREAT-P mode:

Press the **RETURN** key. This will print the displayed line and move the carrier to the left margin.

 Remember to always press the RETURN key before activating this function. If the carrier is on the left margin only because it has been automatically returned, the format function cannot be activated.

1) CREAT-N and EDIT modes:

Move the cursor to the left end of the display, after a return mark (\hookleftarrow). The next steps are identical in CREAT-P, CREAT-N, and EDIT mode. 48

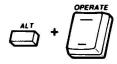
2) Press **CODE** + the **FORMAT** key (Letter "F" key). The following message appears:

△ NEW TAB MARGIN SET

- 3) Set the format as in the typewriter mode (the carrier will move just as in the typewriter mode).
- 4) When the new format is completed, press **CODE** + the **FORMAT** key (Letter "F" key). The original display re-appears and a format symbol (▶) is inserted at the beginning of the line.
 - To cancel the new format, press **CODE** + the **END** key (Letter "G" key) instead of **CODE** + **FORMAT**.
 - It is impossible to reset the format when the system is in paragraph indent mode in CREAT-P mode.
 - If you press the **TAB** key when the format function is activated, the carrier will move to the next tab and the display will indicate when the tab is a decimal tab ("DECIMAL TAB").

Justification

CREAT-P mode



Pressing **ALT** + the **OPERATE** key allows you to select the "L/L" mode or the "JUST" mode. When the "JUST" mode is selected, the printed lines are justified: blanks between words are automatically adjusted so that the line is aligned with both margins.

CREAT-N and EDIT modes

You cannot decide whether the text will be justified or not while in CREAT-N or EDIT mode. (You may select "L/L" or "JUST" with **ALT** + the **OPERATE** key, but this information will not be stored in the memory. The text will be justified or not according to the option selected when you print the file. See "PRINTING A FILE" p. 64.

EDITING

This section discusses some functions you can use to edit a text in CREAT-N or in EDIT mode.

Cursor and display movement

The cursor moves in very much the same way as in display mode. At first, the cursor is in insertion mode (the characters you type in the middle of the text are inserted). If you want the write-over mode (the characters you type replace the old characters), press **ALT** + the **PASTE** key. The same keys allow you to return to the insertion mode. The cursor shape changes as it does in display mode.

All cursor keys may now be used alone or in combination with the CODE key:

Keys	Function
CURSOR LEFT	Moves by one character to the left.
CURSOR RIGHT	Moves by one character to the right.
CURSOR UP	Moves up by one line.
CURSOR DOWN	Moves down by one line.
CODE + CURSOR LEFT	Moves to the beginning of the line.
CODE + CURSOR RIGHT	Moves to the end of the line.
CODE + CURSOR UP or CODE + EXPRESS BACKSPACE	Moves to the beginning of the file.
CODE + CURSOR DOWN or RELOCATION	Moves to the end of the file.

Selecting a file for editing



- 1) Call the selection display by pressing **TW/WP** key.
- 2) Press the number "3" key. The following is displayed:

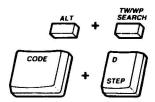
△ CURSOR FOR SELECT, RETURN TO EDIT
TEXT:File 1 PHRASE:USA ▶20000

A text file name is displayed in front of TEXT and a phrase file name is displayed in front of PHRASE, and the counter gives the remaining amount of memory. The most recently used files are always displayed at this step. (The actual file names and counter indication will of course depend on the files that are already stored in the memory).

- 3) Use the **CURSOR LEFT/RIGHT** keys to select the type of the file you want: TEXT or PHRASE.
- 4) If the file you want to edit is displayed, simply press the **RETURN** key. If it is not displayed, press the **CURSOR UP/DOWN** key until the desired file name appears.

After the **RETURN** key is pressed, the cursor is on the left, under the " ▶ " mark for a text file, and under the first character for a phrase file.

Searching for a word



If you want to find a specific word without re-reading your whole text, use the search function. Your typewriter will do the job for you, by searching the text from the cursor position to the end of the file.

- 1) Position the cursor at the location from which you want to scan the file.
- 2) Call the search mode by pressing **ALT** + the **SEARCH** key. This displays the following:

SEA	RCI	I:	d 10	-	 2.00	
Can	I	take	your	car?		

3) Enter the word (not more than 32 characters) you are looking for at the cursor location. Capital and small letters are seen as different characters, so if you enter "abc", the typewriter will not stop a "ABC" or "Abc". Enter the word exactly the way it appears in the text. You can enter a stop code, but no super/ subscripts or superimposed characters. Boldface and underlining are ignored.

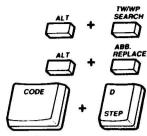
SEARCH:car_ Can I take your car?

- 3) Press CODE + the STEP key (Letter "D" key) to begin the search.
- 4) The cursor moves to the position immediately to the right of the searched word. (Hyphens that triggered a return in auto carrier return mode are ignored.) The search mode is cancelled and the display returns to the edit mode.

Can I take your car?

- 5) If you want to find another occurrence of the same word, press **CODE** + the **STEP** key (Letter "D" key) again.
 - When the search word does not exist in the portion of the file starting from the cursor position to the end of the text, the message "NOT FOUND" appears. The display returns to the edit mode.
 - The word to be searched remains in memory until the power is turned off. If you activate the search function again, the same word will be displayed at the right of "SEARCH:".
 - Pressing CODE + the END key (Letter "G" key) or the TW/WP during the search cancels the function and calls either the edit mode selection display or the typewriter mode (according to the key that was activated).

Replacing a word with another



This function allows you to replace a specific word with another.

- 1) Position the cursor at the location from which you want to scan the file.
- 2) Call the search mode by pressing **ALT** + the **SEARCH** key. This displays the following:

SEARCH:_
Can I take your car?

3) Enter the word (not more than 32 characters) you are looking for at the cursor location. Capital and small letters are seen as different characters, so if you enter "abc", the typewriter will not stop a "ABC" or "Abc". Enter the word exactly the way it appears in the text. You can enter a stop code, but no super/ subscripts or superimposed characters. Boldface and underlining are ignored.

SEARCH:car_ Can I take your car?

4) Press the **RETURN** key. The following display appears:

REPLACE:__
Can I take your car?

5) Enter the new word.

REPLACE:bike_ Can I take your car? 6) Press **CODE** + the **STEP** key (Letter "D" key). The cursor moves to the position immediately to the right of the searched word. (Hyphens that triggered a return in auto carrier return mode are ignored.)

Can I take your car?

7) If you want to replace this occurrence of the word, press **ALT + REPLACE** key. The replace word is inserted at the location of the search word, and the replace mode is cancelled.

Can I take your bike?

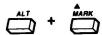
- 8) If you do not want to replace this occurrence of the word, press **CODE** + the **STEP** key (Letter "D" key). The cursor will move to the next occurrence of the search word and allow you to replace or skip as explained above.
 - When the search word does not exist in the portion of the file starting from the cursor position to the end of the text, the message "NOT FOUND" appears. To return to the edit display, press any key.
 - The search word and the replace word remain in memory until the power is turned off. If you activate the replace function again, the same words will be displayed at the right of "SEARCH:" and "REPLACE:".
 - Pressing **CODE** + the **END** key (Letter "G" key) or the **TW/WP** during the search cancels the function and calls either the edit display or the typewriter mode (according to the key that was activated).
 - If the memory fills up (because you replaced a short word with a longer word), the replace mode is cancelled and the message "MEMORY FULL" is displayed. Press any key to return to the edit mode.
 - If the first character of an old word is bold or underlined, the new word will be bold or underlined.

Block operation

This machine is equipped with powerful functions that allow you to paste (copy), delete and move a whole section of text in one operation.

 Before starting an operation with a block, make sure the search/replace and format modes are off.

Marking a block



In order to paste, delete, or move a block of text, you must first mark the beginning and the end of the block.

1) Move the cursor to the beginning of the text block, and press **ALT** + the **MARK** key. This inserts the first definition mark (▼) at the cursor location.

Can I ▼take your car?

2) Move the cursor to the end of the text block and press **ALT** + the **MARK** key again. The second definition mark is then entered.

Can I ▼take your car▼?

The block is now defined. Only the following keys can be used at this stage:

CURSOR keys (which may be combined with the CODE key), CODE + EXPRESS BACKSPACE, RELOCATION, CODE + END, and TW/WP.

Cancelling the block definition

There are four ways to cancel the block definition:

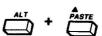
Moving the cursor just past each block mark and pressing **ALT** + the **MARK** key will erase each one.

Pressing CODE + the END key (Letter "G" key).

Pressing the TW/WP key.

Carrying out one of the block operations: paste, delete, or move.

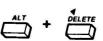
Pasting a block



The paste function is used to quickly copy a marked block at another location.

- 1) Mark the block as explained above.
- 2) Move the cursor to the location where a copy of the block has to be inserted.
- 3) Press **ALT** + the **PASTE** key. A copy of the marked block is inserted at the cursor position; the marked block is now unmarked, but still at its original position.

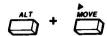
Deleting a block



This function is used to delete a whole block of text.

- 1) Mark the block as explained above.
- 2) Press **ALT** + the **DELETE** key. The marked block is deleted together with the block marks.
 - If a return symbol (←) is deleted together with the block, the line following the block will be combined with the line preceding the block.
 - All the layout symbols belonging to the deleted block are deleted.

Moving a block



This function is used to remove a block from its current location and position it at another location.

- 1) Mark the block as explained above.
- 2) Move the cursor to the position where the block has to be relocated.
- 3) Press ALT + the MOVE key. The block is transferred immediately to the cursor position.
 - When no format symbol (▶) is included in the transferred block, the format of the new location will be adopted.

Adding and printing text at the end of a file

It is possible to add text to an existing file using the file's format. This will be performed in line by line mode with auto carrier return.

- 1) Select the editing mode on the selection display, and then call the file you want.
- 2) Press CODE + RELOCATION.
- 3) Enter your text. It will be processed as in CREATE-P. Printing will conform to the original file's format.
 - If there is no return mark at the end of the file text, the added text will be considered a direct continuation of the file text.
 - If the memory fills up during the process, the warning prompt "MEM-ORY FULL" is displayed and further entries will be printed, but will not be stored.

Pressing **RELOCATION** or **CODE** + down cursor key is another way to display the end of the file. However, since the carrier does not move, it is almost impossible to know when you reach layout guides such as tab stops.

LAYOUT FUNCTIONS

Some layout functions can be used both in word processor mode and in typewriter mode, but in a different way. This section will provide a quick review of the differences, and will describe the display changes involved.

The following functions work in exactly the same way in display mode and in word processor mode:

Automatic underlining	Index	
Boldface	Reverse index	
Superscript	Word out	
Subscript	Line out	

If you have any questions about these functions, please refer to the display mode section (p.32).

Whenever a text is stored, its layout functions are shown on the display, to make it possible to edit them. The following functions will be marked by a symbol:

Function	Symbol
RETURN	\leftarrow
TAB	+
LINE INDENT	Li
PARAGRAPH INDENT	Pi
INDENT CLEAR	+-1
CENTERING	C
RIGHT MARGIN FLUSH	R
DECIMAL TAB	<u>D</u> +
SUPERSCRIPT	†
SUBSCRIPT	‡

• In word processor mode, the word-out function does not erase any layout symbol. The line-out function erases the whole line.

Return



When you press the **RETURN** key, a return mark (\leftarrow) appears:

I am going downtown. ←

When you edit a text, it is possible to delete or insert a return mark. Pressing the **RETURN** key (even in write-over mode) will insert the mark and split the text into different paragraphs. Deleting the return mark will join two different paragraphs. (You may delete a return mark by moving your cursor to the return mark and pressing **ALT** + the **DELETE** keys.)

Tabs



CREAT-P mode

1) Pressing the **TAB** key prints all previous entries and moves the carrier to the next tab.

The display is cleared and the cursor moves to the left edge of the display.

- If you move to a decimal tab, "DECIMAL TAB" appears on the display.
- 2) Enter your text. ("DECIMAL TAB" will clear as soon as the first character is entered.)

CREAT-N, EDIT mode

Pressing the **TAB** key inserts a tab mark (\longrightarrow) to the left of the cursor (even in write-over mode).

Paragraph indent

CREAT-P mode



1) Press **CODE** + the **PARAGRAPH INDENT** key (Letter "B" key). The text is printed, the carrier moves to the next tab, and the following message appears:

⊿	PARAGRAPH	INDENT

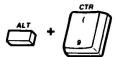
- 2) Type your text. The message makes way for the normal display. A line of text is printed each time a carrier return is triggered. The cursor moves to the left edge, and the carrier returns to the indenting position.
- 3) To exit the paragraph indent mode, press **CODE** + the **INDENT CLEAR** key (Letter "N" key). The carrier moves to the left margin (next line) and you may resume normal typing.

CREAT-N, EDIT mode

- Pressing CODE + the PARAGRAPH INDENT key (Letter "B" key) inserts a paragraph indentation mark (Pi) to the left of the cursor (even in write-over mode).

Centering

CREAT-P mode



- 1) Press **ALT** + the **CENTERING** key (Number "9" key) to move the carrier halfway within the centering range. The "CTR" indicator appears while holding down the **ALT** key.
- 2) Type your text. Pressing the **TAB** key or the **RETURN** key will print the text centered.

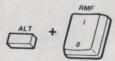
CREAT-N, EDIT mode

Pressing **ALT** + the **CENTERING** key (Number "9" key) inserts a (\overline{C}) mark to the left of the cursor (even in write-over mode).

If the text that is to be centered is too long to fit on one line, an automatic carrier return will be activated.

Right margin flush

CREAT-P mode



- 1) Press **ALT** + the **RIGHT MARGIN FLUSH** key (Number "0" key) to move the carrier to the right margin. The "RMF" indicator appears, while holding down the **ALT** key.
- 2) Type your text. Pressing the **TAB** or **RETURN** key will print the text aligned with the right margin.

CREAT-N, EDIT mode

Pressing **ALT** + the **RIGHT MARGIN FLUSH** key (Number "0" key) inserts the (\overline{R}) mark to the left of the cursor (even in write-over mode).

If the text that is to be printed flush with the right margin is too long to be printed on the same line as other text (for instance, an address on the left and the date on the right), a return is carried out.

Decimal tab

CREAT-P mode



Whenever you reach a decimal tab after pressing the **TAB** key, the following message appears. You will see the $(\frac{D}{-}+)$ mark when you recall the file in EDIT mode.

△ DECIMAL TAB

- 1) Enter the first numbers. The prompt disappears. When the decimal point is typed, the numbers and the point are printed.
- 2) Enter the numbers that follow the decimal point.

CREAT-N, EDIT mode

Pressing the **TAB** key inserts a normal tab mark (—+). In this case, there will be no distinction between TAB and DECIMAL TAB on the display.

Stop codes



This function is very useful when you have to repeatedly type documents which are similar, except for minor parts. This function stops printing at a place where additions are necessary, allowing you to insert names, addresses, or other variable information in an otherwise identical text (see p.65).

CREAT-P mode

1) Press **CODE** + the **STOP CODE** key (Letter "S" key). All entered data is printed, and the message is displayed:



2) Type the next part of your text. It will not be printed until a return is carried out.

CREAT-N, EDIT mode

As soon as **CODE** + the **STOP CODE** key (Letter "S" key) is pressed, the stop code mark (\overline{S}) is inserted at the left of the cursor (even in write-over mode).

PRINTING A FILE

- 1) Use **ALT** + the **OPERATE** key to select "L/L" or "JUST". If you select "JUST", your text will be justified.
- 2) Call the mode selection display (press **TW/WP** key if the system is in typewriter mode, or **CODE** + the **END** key (Letter "G" key) if the system is in word processor mode.)

```
△ USE 1 TO 5 FOR SELECTION
1:CREAT-P 2:CREAT-N 3:EDIT 4:PRINT 5:DEL
```

3) Press the number "4" key to select the PRINT mode. The file selection display appears.

```
△ CURSOR FOR SELECT, RETURN TO PRINT TEXT:File1 PHRASE:USA ▶20000
```

- 5) Use the **CURSOR LEFT/RIGHT** keys to select a text or phrase file. Use the **CURSOR UP/DOWN** keys to select the file.
- 6) Press the **RETURN** key when the file you want to print is displayed. The following message appears:

```
△ PRINTING
```

- Press CODE + the END key (Letter "G" key) to exit the PRINT mode or CODE + the STEP key (Letter "D" key) to interrupt printing line by line.
 Press CODE + the PRINT key to resume printing.
- Printing will also be interrupted if a stop code is encountered. For more details, see the section "Editing during Printing" (p. 66).

Bidirectional printing

Printing is carried out in both directions, from left to right and then from right to left, to shorten carrier operation. However, the contents of the next line are checked: a line containing a stop code is printed from left to right, as are lines featuring tab, decimal tab, line and paragraph indentation, centering, or right margin flush marks.

Word wrap

In printing mode, when the printing reaches the right margin, the carrier automatically returns to the next line and printing continues. Only words that cannot fit on a line are automatically "wrapped" to the next line.

Page end

When a page end (set with the page end function described p. 9) is reached during printing, the "PAGE END" message appears on the upper row of the display, while the first line of the next page is displayed on the lower row.

- 1) Eject the paper using the **INDEX** key, insert a new page, press the **PAPER INSERT** key and finally the **RETURN** key.
- 2) Press **CODE** + the **PRINT** key (Letter "T" key) to resume printing.
 - It is possible to insert some text between the pages of the file (taking advantage of the page end stop). The text is processed line by line, and the carrier returns automatically. The text inserted that way is not stored.
 - Pressing **CODE** + the **END** key (Letter "G" key) cancels printing and returns the system to the mode selection display.

Printing a file during CREAT-N or EDIT



Printing is possible during CREAT-N and EDIT modes, but stop codes are ignored.

- 1) Press **CODE** + the **PRINT** key (Letter "T" key). The message "PRINTING" appears, and printing starts from the beginning of the line the cursor is on. Printing stops at the end of the file, and the cursor is located at the end of the file when the text reappears on the display.
- 2) Press **CODE** + the **END** key (Letter "G" key) if you want to interrupt printing. The text reappears on the display, and the cursor is located where printing was interrupted.

EDITING DURING PRINTING

There are two ways to interrupt printing to edit a file: either by pressing **CODE** + the **STEP** key (Letter "D" key) during printing, or by inserting stop codes in the text during file creation or editing. When the printing is interrupted, you are allowed to type text. This text will be printed line by line, but will not be stored in the memory.

Inserting text with the step function



1) Press **CODE** + the **STEP** key (Letter "D" key) during printing. The carrier stops at the left margin after printing the current line. A prompt tells you that you can insert text.

△ PLEASE INSERT TEXT OR CHANGE PAPER

- 2) Type any text that you would like to insert at this position of the paper. The prompt disappears immediately. The system is in line-by-line or justify mode. You may, therefore, correct the line before printing. When printing is triggered, the message "PRINTING" appears. This message is replaced by "PLEASE INSERT TEXT OR CHANGE PAPER" as soon as the line is printed. You may start typing another line.
- 3) When you want to resume automatic printing, press **CODE** + the **PRINT** key (Letter "T" key).

Inserting text with stop codes

When you know beforehand where the changes will have to be made, you can insert stop codes. The printing will automatically stop at the desired location. A stop code is used when you wish printing to stop at a particular point in your text so that you may insert information. You insert a stop code symbol during file creation or file editing. When creating or editing, you would press **CODE** + the **STOP CODE** key (Letter "S" key) at the point in the text where you wish printing to stop.

This feature is most often used when you are going to be printing several documents that are almost exactly the same except for minor changes, such as names or addresses, or an amount. When printing, all of the standard text will print but each time a stop code is reached, printing will stop for you to insert the variable information (name, address, amount, etc.)

When printing is interrupted by a stop code, the following is displayed:

```
△ STOP CODE
```

This message signals that the interruption is caused by a stop code rather than by the **CODE** + **STEP** key. However, the "PLEASE INSERT TEXT OR CHANGE PAPER" prompt will be displayed after a return.

For the rest, the edition possibilities offered by the stop codes are the same as those offered by the step function, and work in the same way. To continue printing the document after the insertion, simply press the **CODE** + **STEP** keys.

Skipping text



- 1) If there is a part of the text which should not be printed, press **CODE** + the **STEP** key (Letter "D" key) before the text portion prints.
- 2) When the text you do not want to print is displayed, move the cursor to the position where printing should start again.
- Press CODE + the PRINT key . Printing will start from the cursor location on, and the text that is before the cursor will be skipped.

Inserting phrases with stop codes

When printing is interrupted by a stop code, you may also insert phrases stored in the phrase memory. For example, if you have a phrase file called "USA", type "USA" and press the **ABBREVIATION** key to print the contents of the phrase file.

DELETING FILES

Deleting a single file

- 1) Call the mode selection display and press the "5" key to select the DEL mode.
- 2) Select a file and press **RETURN**. The following display asks for a confirmation.

```
DELETE FILE:File1_ ?
```

- 3) If you really want to erase the file, press the **RETURN** key. The system goes back to the selection display when the file is deleted.
- 4) If you do not want to erase a file, press **CODE** + the **END** key (Letter "G" key) or the **TW/WP** key to cancel the mode.

Clearing the whole memory

Your typewriter can be completely cleared by turning the power on while holding down the **CODE**, **SHIFT** and **PAPER INSERT** keys. This operation clears the entire contents of the text memory, the format memory, and the backup memory. The prompt "BACKUP MEMORY CLEARED" is displayed to tell you that your typewriter has been cleared of all memory and settings.

PART III GRAMMAR CHECK

The Grammar check S program

The "Grammar check S" program described here provides simultaneous access to powerful check functions: spell check, redundancy check and usage check. Although these are described as separate functions below, they normally work together in parallel. A menu allows you to specify which combinations of functions you wish to use.

Important notice: 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 syntactic or semantic context. If you type "teh" instead of "the", the program alerts you because "teh" is not a valid English word, but if you type "one" instead of "on", it does not consider it a mistake.

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Overview of the grammar check

The ONE WORD mode and the FIND mode

The grammar check can be used in two different modes: the ONE WORD mode, and the FIND mode. In the ONE WORD mode, the program checks your work as you type and a beep is automatically produced when an error is detected. This mode can be turned on or off. The FIND mode is activated only when you press **CODE** + the **FIND** key (Letter "L" key) and will carry out a complete check of all of the typed words in your file. Since it is better to correct an error on paper as soon as it is detected, we recommend that you use the ONE WORD mode when you are typing your text in typewriter mode or in CREAT-P mode. On the other hand, the ONE WORD mode can be deactivated when you are working in CREAT-N or EDIT mode. That way, you will not be disturbed by frequent triggering of the grammar check. When your text is completed, you may use the FIND mode to check the entire file.

What can be checked?

The grammar check can detect two kinds of errors: misspelled words, usage errors. You may decide which ones of those functions are activated.

Misspelled words (WORD SPELL function): The machine has a built-in dictionary of approximately 70,000 standard English words, including their different grammatical forms. You may also add approximately 255 non-standard words in the "User Dictionary" (see below). When the word spell function is on, the program checks whether or not a particular word is in either dictionary. If the word cannot be found in the built-in dictionary or in the user dictionary, it is considered a misspelled word. The word spell function also checks for repeated words. For instance, the word spell function will warn you if you type "in in" instead of "is in". This is called "REDUNDANCY" check.

Usage errors (USAGE ALERT function): When this function finds a word like "to" for which other words ("two", "too") having the same pronunciation but a different spelling exist, the meaning of the word is displayed so that you can confirm the spelling. For instance, the word "to" will display "toward", while the word "two" would display "number". When such a display appears, it does not necessarily means that the word you entered is wrong. It just gives you a chance to confirm the word.

This function looks for words that are spelled correctly, but may be inappropriate for the current context because they are homophones or otherwise easily confused. It is similar in purpose to the sections labeled "Usage Notes" and "Frequently Confused Words" at the back of most dictionaries. This function is, however, more efficient. When the function is activated, it automatically detects such problem words, alerts you, and provides guidance at the bottom of the screen.

These are the types of words its checks:

```
Homophones — words that sound alike (their/there/they're)
```

Abbreviations — (e.g./i.e.)

Capitalization — (BASIC/basic)

Typographic errors which produce valid words — (form/from)

Two-part words — (some place/someplace)

Other commonly confused words — (amount/number)

The user dictionary

If you are frequently using non-standard English words (people's or company's names, foreign language words, etc.) in your documents, you will find it convenient to store these words in the user dictionary. That way, the word spell function will recognize those words and will not beep. The user dictionary can contain approximately 255 seven-letter words. The functions related to the user dictionary are ADD (to add a word), DEL (to delete a word from the user dictionary), and PR USER D (to print a list of the words you stored in the user dictionary).

Setting the grammar check



Press **ALT** + the **GRAMMAR CHECK** key. The next display depends on the mode (typewriter or word processor) you are using. (Items other than those shown in the two illustrations below will also appear if you press **ALT** + the **GRMMAR** key after an error has been detected or when the last checked word belongs to the user dictionary — this will be explained later.)

From the typewriter mode (Printing mode)

1:ONE ON/OFF 2:MENU 3:PR USER D

From the word processor mode or display mode

1:ONE ON/OFF 2:MENU

Indication	Meaning
ONE ON/OFF	Used to turn the ONE WORD mode on or off.
MENU	Used to change the setting of the ONE WORD or FIND mode.
PR USER D	Used to print the list of the user dictionary. (Printing mode only.)

1) ONE ON/OFF



- Pressing the number "1" key turns the ONE WORD mode on if it was off, and off if it was on. When the ONE WORD mode is on, the indicator "W.SP" appears on the first line of the display. Each time a mistake is detected, the machine will warn you. This setting is kept in the backup memory.
- If usage alert is ON, "USAGE" will also be displayed.
- Even when the ONE WORD mode is turned off, the grammar check can be activated at any time using **CODE** + the **FIND** key (Letter "L" key).

2) MENU



 Pressing the number "2" key allows you to decide which functions of the grammar check will be activated in each mode (ONE WORD or FIND). The following display appears first:

▼ MENU ▶

1:ONE WORD CHECK 2:FIND

Indication	Meaning
ONE WORD CHECK	Used to set the ONE WORD mode functions.
FIND	Used to set the FIND mode functions.

 Press the number "1" key to set the functions of the ONE WORD mode, or the number "2" key to set the functions of the FIND mode. The following options are available:

ONE WORD:

△ PRESS SPACE TO CHANGE, RETURN TO SET ONE > SPELL: ON USAGE ALERT: OFF

FIND:

△PRESS SPACE TO CHANGE, RETURN TO SET FIND > SP:ON USAGE:ON

Indication	Meaning
SPELL or SP	To turn the word spell and redundancy functions on/off.
USAGE ALERT or USAGE	To turn the usage function on/off.

- Use the CURSOR LEFT/RIGHT keys to select the function you want to set. Pressing the SPACE BAR turns the selected function alternately ON or OFF. When the setting is completed, press the RETURN key. (CODE + END if you change your mind)
- The machine will not allow you to change all settings in a group to OFF.
 The assumption is that you will want to check at least one category. If you try to turn all settings off, the message "AT LEAST ONE SELECT MUST BE ON" will appear.

Using the ONE WORD mode

1) If the ONE WORD mode is off, press **ALT** + the **GRAMMAR CHECK** key. If the ONE WORD mode is on, proceed from step (3) below. You know that the ONE WORD mode is off when the "W.SP" (or "USAGE") indicator is not displayed. (In word processor mode, you may always press the **ALT** key alone to temporarily display the indicators.)

1:ONE ON/OFF 2:MENU 3:PR USER D

2) Press the number "1" key to turn the ONE WORD mode on.

3) Press ALT + the GRAMMAR CHECK key again. You obtain the same display as in the above step (1), but now you should press the number "2" key, "MENU".

4) Press the number "1" key to select "ONE WORD CHECK".

△ PRESS SPACE TO CHANGE, RETURN TO SET ONE > SPELL: ON USAGE ALERT: OFF

- 5) Use the **CURSOR LEFT/RIGHT** key to select "SPELL" or "USAGE ALERT". Use the SPACE BAR to set the functions ON/OFF. Press the **RETURN** key when the setting is completed. The "USAGE" indicator appears if the "USAGE ALERT" function is on.
- 6) Type the text. Pressing one of the following keys signals the end of a word and launches the grammar check: SPACE BAR (and CODE + SPACE BAR), TAB, RETURN (except when there is a hyphen at the end of the line), ALT + RIGHT MARGIN FLUSH, SLASH, TW/WP, CODE + LINE INDENT, CODE + PARAGRAPH INDENT, RELOCATION, MORE THAN ONE PERIOD. When you type a word like "built-in", which contains a hyphen, the program checks the first part of the word at the time you type the first letter of the second part. In printing mode, INDEX and CODE + REVERSE INDEX also mark the end of a word.
- 7) What happens next depends on the settings of the ONE WORD mode.

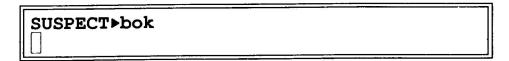
If the word spell function is on:

The word spell function will detect misspelled words as well as redundant words.

MISSPELLED WORDS

A beep sounds if the word you have just typed cannot be found in the built-in dictionary or in the user dictionary. This is what is called a misspell error. Suppose you have typed "A bok", then pressed the **SPACE BAR**.

In typewriter mode (printing mode), the following is displayed:



- 1) If you want to keep the word "bok", simply press the **RETURN** key, or **CODE** + the **END** key (Letter "G" key), and resume typing.
- 2) If you want to modify the word manually, simply press the **CORRECTION** key three times (or the **WORD OUT** key), then type the correct word.
- 3) The grammar check provides you with a powerful help to automatically correct a word. It can suggest a correct word which has a spelling similar to that of the mistaken word. Press **ALT** + the **SUGGESTION** key. The word "bok" is automatically erased and the following is displayed:

SUGGEST buck SUSPECT bok

- 4) If the word "buck" is what you had in mind, simply press the **RETURN** key. The word "buck" will be automatically printed and you may resume typing.
- 5) If you want other suggestions, press the **CURSOR RIGHT** key. The message "SCANNING" will appear for a while, then the following will be displayed:

SUGGEST>book buck SUSPECT>bok

6) Pressing the **CURSOR RIGHT** key again will display successive suggestions. If you press the same key repeatedly, you can display the complete list of suggestions.

SUGGEST bark botch beck back book buck SUSPECT bok

7) The above display shows the complete list of suggestions for the word "bok". If you press the **CURSOR RIGHT** key again, no additional suggestions will be given. Instead, the first one reappears in the leftmost position.

SUGGEST buck bark botch beck back book SUSPECT bok

- 8) You may also use the **CURSOR LEFT** key to shift the suggested words to the left.
- 9) When the word you want is displayed just after "SUGGEST▶", press the **RETURN** key. For instance, if the word you need is "book", press the **RETURN** key when the following is displayed:

SUGGEST>book buck bark botch beck back SUSPECT>bok

You may also decide to store the word "bok" in the user dictionary. This
operation will be explained later.

In word processor mode or in typewriter mode (display mode), the following display appears:

△ SPELL ERROR
A bok []

- 1) If you want to keep the word "bok", simply continue typing.
- 2) If you want to modify the word manually, simply backspace or press the **CORRECTION** key, then retype the correct word.
- 3) You may also press **ALT** + the **SUGGESTION** key, and proceed as in the typewriter mode.

- In the display of the word processor mode, you place the cursor on the suspect word, and ALT + SUGGESTION is available.
- You may also decide to store the word "bok" in the user dictionary. This operation will be explained later.
- The word spell function also checks common first names. For instance, if you write "diana" instead of "Diana", the beep will sound, and the suggestion given will be "Diana".
- Common abbreviations are also checked. As a result, the only possibilities accepted for "Mister" are "Mr." or "MR."; "mr./Mr/MR" will be refused.
- Hyphens are considered word delimiters (the word before and after the hyphen are checked as two different words). However, a hyphen followed with a carrier return is not considered a word delimiter. An error will be detected if the word made of the parts before and after the hyphen is misspelled, or if the hyphen is at an incorrect position in the word. Example: "beauti-<RETURN>ful" is correct because "beautiful" is correctly spelled and correctly hyphenated, but "beautifu-<RETURN>l" is incorrect since the hyphen cannot be inserted at that position.
- In typewriter mode and CREAT-P mode, if you select a suggested word that is longer than the misspelled word, it may happen that the line becomes too long to fit between the margins. In that case, the message "SUGGESTION IS TOO LONG" will appears and automatic replacement will not take place. When the memory is almost full, a suggested word that is longer than the misspelled word can also be refused in CREAT-N or EDIT mode. In that case, the message "MEMORY FULL" will appear.
- Whenever the correct word is longer than the original and cannot be inserted in the line (in printing mode), the following is displayed:

△ TOO LONG! PRESS L.OUT THEN RETURN KEY SUSPECT book

Erase the misspelled word and the rest of the line to the right of it, by pressing CODE + LINE OUT. To interrupt the line out, press CORRECTION.

• Press **CODE** + the **END** key (Letter "G" key) to interrupt the Word Scan program.

REDUNDANT WORDS

A beep is also produced by the word spell function when you type the same word twice. This is called a redundancy error. Suppose you have typed the word "the" twice.

In typewriter mode (printing mode), the following display appears:

REDUN W⊳the

- To erase the word, use the CORRECTION key or the WORD OUT key, then resume typing.
- If you want to keep the redundant word, press the RETURN key or CODE + the END key.

In word processor mode or in typewriter mode (display mode), the following display appears:

△ REDUNDANCY ERROR the the

- 1) To delete the redundant word, backspace or use the CORRECTION key.
- 2) If you want to keep the redundant word, simply resume typing.

If the usage alert function is on:

The usage function does not really detect an error, but rather warns you that there exists one or more words having the same pronunciation as the checked word. Suppose that you have typed "I am going to". Since "two" and "too" have the same pronunciation as "to", the usage function will give you a chance to confirm the choice of the word "to".

In typewriter mode (printing mode), the following display appears:

ALERT W⊳to ; toward

- 1) If the word is correct, press the **RETURN** key and resume typing.
- 2) If you want to change the word manually, use the **CORRECTION** key or the **WORD OUT** key to erase the mistaken word, and type the correct word.
- 3) The usage function can also show a list of the words having the same pronunciation. Press **ALT** + the **SUGGESTION** key. The word "to" is erased, and the following is displayed:

```
SUGGES1▶too ; also
ALERT W▶to ; toward
```

4) When the machine can suggest only one word, "SUGGEST" is displayed instead of "SUGGES1". The usage function can suggest at most three words. Using the CURSOR UP/DOWN allows you to display the complete list of suggestions.

```
SUGGES2>two ; number
ALERT W>to ; toward
```

5) Sometimes, the same suggested word has more than one definition. When this happens, the definition is followed with a "▶" symbol. Pressing the CURSOR RIGHT key scrolls the definitions to the left. If a part of the definitions is scrolled off the display, a "◄" symbol appears at the left of the definition. Use the CURSOR LEFT key to move the definitions to the right. For instance, when the alert word is "some place", the following suggestion display appears:

Pressing **CODE** + the **CURSOR RIGHT/LEFT** keys sends the cursor to the beginning of the defined piece of text.

```
SUGGEST►someplace ; (adverb-'some w► ALERT W►some place ; (noun phrase) a►
```

6) When the word you want is displayed, press the **RETURN** key. The displayed word is automatically printed, and you may resume typing.

In word processor mode or in typewriter mode (display mode), the following display appears:

Δ	USAGE ALERT	
I	am going to	

- 1) If you want to keep the word "to", simply resume typing.
- 2) If you want the function to provide suggestions, press **ALT** + the **SUGGES-TION** key. The suggestion display shown above appears. You may select one of the suggestions and press the **RETURN** key to have the word "to" automatically replaced, or press **CODE** + the **END** key (Letter "G" key) to keep the word "to".

IMPORTANT NOTE: The above explanations describe the use of the ONE WORD mode while you are typing your text. We have seen that the grammar check is triggered when you press a key that is regarded as a word delimiter (SPACE BAR, etc. — see above for a complete list of word delimiters). The grammar check is also triggered when you are moving the cursor across an already typed text when this text is displayed. This happens in display mode of the typewriter mode, as well as in word processor mode. For example, if the text "I am going to New-York." is displayed, and you move the cursor from left to right, the usage function will be triggered, when you reach the space after "to". The same applies for the word spell function. If you have intentionally kept a misspelled word in the displayed text, the word spell function will be triggered when you move the cursor from left to right and reach the space after the misspelled word. In printing mode, if you activate the ONE WORD mode after typing some words, backspace to the beginning of the line, and then move the carrier to the right, each word that is passed over will be rechecked.

Pressing one of the following keys will also recheck the word the carrier is on: RETURN, INDEX, CODE + REVERSE INDEX, or RELOCATION.

Using the FIND mode

The find function allows you to check the current line in typewriter mode or CREAT-P mode, and the entire file in CREAT-N or EDIT mode. This mode is completely independent from the ONE WORD mode, and can be used whether or not the ONE WORD mode is on. First, you have to decide which function of the FIND mode is on. This can be done in the same way as with the ONE WORD mode.

1) Press **ALT** + the **GRAMMAR CHECK** key. You obtain the first display of the grammar check.

1:ONE ON/OFF 2:MENU

2) Press the number "2" key, "MENU".

3) Press the number "2" key again to select "FIND".

△ PRESS SPACE TO CHANGE, RETURN TO SET FIND SP:ON USAGE:ON

4) Use the **CURSOR LEFT/RIGHT** key to select "SP" or "USAGE". Use the SPACE BAR to set the functions ON/OFF. Press the **RETURN** key when the setting is completed.

Checking in FIND mode



The FIND mode is activated when you press **CODE** + the **FIND** key (Letter "L" key).

In **typewriter mode** (**printing mode**), the carrier will move back to the first error in the printed line, and the display will indicate the mistake (misspell, redundancy, or usage). The correction is carried out in the same way as you would do in the ONE WORD mode. The FIND mode is automatically deactivated after one error detection. If you want to check the rest of the line, press **CODE** + the **FIND** key again.

In **typewriter mode** (**display mode**) or in **CREAT-P mode**, pressing **CODE** + the **FIND** key (Letter "L" key) will move the cursor back to the first error in the line, and the display will indicate the mistake. You proceed exactly in the same way as in the type mode, except that the correction is carried out on the display rather than on the paper. The find mode is deactivated after the first error detection. If you want to check the rest of the line, press **CODE** + the **FIND** key again.

In **CREAT-N mode** and **EDIT mode**, the FIND mode allows you to check the entire file. The correction is carried out in the same way as you would do in the ONE WORD mode. After correcting an error, you must press **CODE + FIND** again to search for the next error.

 Pressing CODE + FIND at the end of the file will start checking the file from the beginning.

The user dictionary

The user dictionary is used to store non-standard English words that you are frequently using. When such a word is stored in the user dictionary, it will not trigger the word spell function any more.

Storing a word in the user dictionary

- 1) As we have seen, when the word spell function cannot find a word, the message "SPELL ERROR" appears. This message indicates that the word cannot be found in the built-in or the user dictionary.
- 2) To store the word in the user dictionary, press **ALT** + the **GRAMMAR CHECK** key. The following appears:

In Typewriter mode (printing mode):

```
1:ONE ON/OFF 2:MENU 3:ADD 4:PR USER D
```

In word processor mode or typewriter mode (display mode):

```
1:ONE ON/OFF 2:MENU 3:ADD
```

3) Press the number "3" key to store the word (the message "WORD ADDED" will appear), or press **CODE** + the **END** key (Letter "G" key) if you change your mind.

Deleting a word from the user dictionary

 If you want to delete a word from the user dictionary, first retype the word and check that it's stored in the user dictionary, then press ALT + the GRAMMAR CHECK key. The following display appears:

In typewriter mode (printing mode):

1:ONE ON/OFF 2:MENU 3:DEL 4:PR USER D

In word processor mode or typewriter mode (display mode):

1:ONE ON/OFF 2:MENU 3:DEL

- 2) Press the number "3" key to delete the word (the message "WORD DELETED" will appear), or press **CODE** + the **END** key (Letter "G" key) if you change your mind.
 - When W.SP or USAGE is displayed on the Status Line, pressing CODE
 + SHIFT + the CORRECTION key will delete all entries of the user dictionary and display the message "USER DICTIONARY CLEARED".
 - Important:ONE WORD mode has to be activated.

Printing the user dictionary

 Set your machine in printing mode and press ALT + the GRAMMAR CHECK key. The following display appears:

1:ONE ON/OFF 2:MENU 3:PR USER D

2) Press the number "3" key to print the user dictionary, or press **CODE** + the **END** key (Letter "G" key) if you change your mind. The first line of the printout indicates the number of entries. The entries come next, in alphabetic order.

3) To interrupt the print out process, press **CODE** + the **STEP** keys. Printing is stopped after the current line is printed. "PRINT STOP" is displayed. To restart, use **CODE** + the **PRINT** keys. To cancel press **CODE** + the **END** keys.

Deleting a word from the usage alert list

1) When the message "ALERT W" appears, you know that the USAGE function has been triggered. If you do not want the function to be triggered by this word any more, press ALT + the GRAMMAR CHECK key. The following message appears:

In typewriter mode (printing mode):

1:ONE ON/OFF 2:MENU 3:ERASE

In word processor mode or typewriter mode (display mode):

1:ONE ON/OFF 2:MENU 3:ERASE

2) Press the number "3" key to remove the word from the usage alert list, or press **CODE** + the **END** key (Letter "G" key) if you change your mind. If you press the number "3" key, the following message appears:

△ WORD ERASED FROM USAGE ALERT WORD LIST

 All the words you have erased will be re-inserted if you press CODE + SHIFT + the GRAMMAR CHECK key. W.SP or USAGE must be displayed on the status line. The message "USAGE ALERT WORD LIST INI-TIALIZED" will appear.

PART IV TECHNICAL INFORMATION

REPLACING THE RIBBON, ETC.

Opening the top cover automatically shuts off the power and the prompt "COVER OPEN" is indicated on the display. The carrier stays where it is. As soon as you close the cover, the carrier moves to the extreme left, and then returns to the position it was in when the cover was lifted. If you were printing a document, printing resumes.

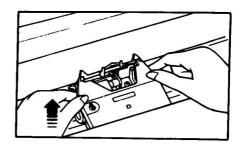
Replacing the cassette ribbon

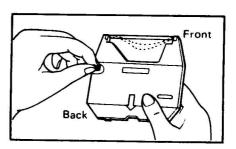
Two types of ribbons are available: correctable film ribbon (Brother model No. 1230 or 1030), and nylon ribbon (Brother model No. 1032).

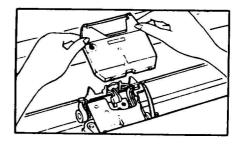
To replace the cassette ribbon

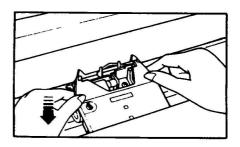
- 1) Open the top cover.
- 2) Holding the cassette with both hands, lift the front of the cassette up and out.
- 3) On the new cassette, turn the feed knob (on the left side of the cassette) counter-clockwise to tighten the ribbon.
- 4) Lining up the arrow on the cassette with the arrow on the cassette holder, use both hands to ease the cassette into the holder, back first.
- 5) Gently press down on the front of the cassette until it clicks into place.
- 6) Again turn the feed knob counter-clockwise to take up any slack.
- 7) Close the cover.
 - The amount of tape remaining can be checked through the viewing hole on the right side of the cassette.
 - Use only Brother-authorized cassette ribbons, correction tapes and cassette daisy wheels.

Brother cannot be held responsible for difficulties arising from the use of unauthorized supplies.









Replacing the correction tape

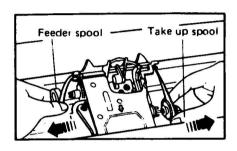
Two types of correction tape are available:

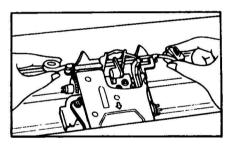
Lift-off correction tape (Brother model No. 3010), to be used with correctable film ribbon.

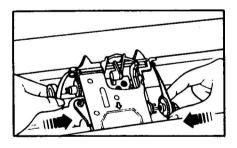
Cover-up correction tape (Brother model No. 4010), to be used with nylon ribbon.

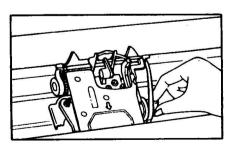
To replace the correction tape:

- 1) Move the carrier to the center of the platen.
- 2) Open the top cover.
- 3) Remove the cassette ribbon, if installed.
- 4) Pull off both spools, pressing against the correction tape with your thumbs. Bring the tape back to a position parallel with the platen, and lift it up and out.
- 5) Pass the new tape through the left guide, behind the ribbon guide, and out through the right guide. The rough (sticky) side of the tape should face the platen.
- 6) Attach the feeder spool to the pin on the left.
- 7) Attach the take-up spool to the pin on the right.
- 8) Turn the take-up spool counter-clockwise until a small amount of white tape has wound around it.
- 9) Replace the cassette ribbon and close the cover.









Replacing the cassette daisy wheel

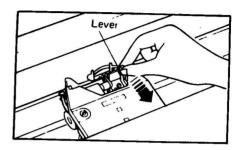
The daisy wheel is housed in a clear plastic cassette for easy, damage-free handling and quick typeface changes.

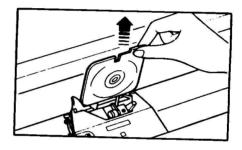
To replace the cassette daisy wheel:

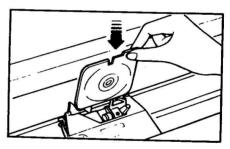
- 1) Open the top cover.
- 2) Pull the lever toward you to release the daisy wheel lock.
- 3) Remove the cassette daisy wheel by lifting it out of the machine holding the protruding "ear" on the top right.
- 4) Insert the cassette daisy wheel you want into the slot and press down gently.
- 5) Slide the lever back to its original position to lock the cassette daisy wheel in place.

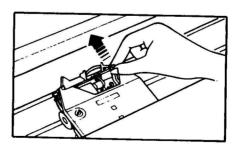
Make sure to press the lever firmly until a clicking sound is heard.

- 6) Close the cover.
 - Make sure the cassette daisy wheel is not inserted backwards. The "ear" should always be on the upper right.
 - If the cassette daisy wheel is not inserted properly, characters will not be printed correctly and the wheel could be damaged.
 - It is not necessary to remove the cassette ribbon when replacing the daisy wheel.









TROUBLESHOOTING

Problem

Problem	Solution
Nothing happens when power switch is turned on	1. Is the power cord plugged in?
	2. Is the top cover closed?
Poor printing performance	 Is the daisy wheel properly installed? (Has the lever been pressed firmly?)
	2. Have you run out of ribbon?
Poor correction performance	Has the correction tape been properly installed?
	2. Have you run out of correction tape?
	3. Are you using the proper correction tape?

89

Displays indicating a problem

CHECK PRINTER

The printer of the typewriter has malfunctioned.

Try turning off and on again.

RAM DOWN

The unit has experienced a memory problem. Switch off the typewriter and try again. If the message reappears, consult your Brother dealer.

ROM DOWN

The unit has experienced a memory problem.

If one of the above prompts is displayed when you turn the power on, you should consult with your nearest Brother dealer.

COVER OPEN

The cover has been opened. Press down firmly to close.

BACKUP MEMORY CLEARED

- 1. You pressed **CODE** + **SHIFT** + **PAPER INSERT** while turning the power on to initialize the system.
- 2. The contents of the backup memory have been cleared because of a memory problem. If the typewriter has not been used for more than four hours within a month the memory will be deleted. In this case, the "BACKUP MEMORY CLEARED" message will not appear.

CARE OF UNIT & SPECIFICATIONS

Care of unit

Beware of tiny objects

Be careful not to let anything slip into the typewriter or between the keys. Be especially careful of metal objects such as paper clips and staples.

Cleaning

Never use volatile liquids such as thinner or benzine to clean the exterior surface of the typewriter. Use only a soft cloth dampened with a mild detergent solution.

Location

Do not expose your typewriter to direct sunlight, heat or intense vibration. Be sure to replace the keyboard cover when the typewriter is not in use.

Ventilation

Do not block the ventilation slots provided at the back of the unit to prevent overheating.

Specifications

Paper capacity (width) 12.0" (304.8mm)

Typing capacity 9.0" (228.6mm)

Typing speed 12 characters per second

Typing pitches 10 (max. 90 characters/line)

12 (max. 108 characters/line) 15 (max. 135 characters/line)

Number of character keys 46 (96 characters)

Line spacing 1, 1 1/2, 2

Total memory 23K

Keyboard memory 48 characters

Correction memory 1 line (383 keystrokes)

Maximum number of tabs 12 (including decimal tabs)

Display LCD, 2 lines x 40 characters

Carbon copies Original + 4 copies

Ribbons Correctable film - MODEL 1230 or 1030 &

Nylon - MODEL 1032

Correction tapes Lift-off - MODEL 3010 for use with cor-

rectable film ribbon & cover-up - MODEL

4010 for use with nylon ribbon

Dimensions (W x D x H) 16.2" x 14.4" x 5.3" (411 x 366 x 134 mm)

Weight 9.9 lb (4.5 kg)

Starter kit (SK-100)

This starter kit provides you with a good supply of ribbons, a script daisy wheel and an extra correction tape at a great savings.

This includes:

- 3 correctable film ribbons
- 1 script 1012 daisy wheel
- 1 lift-off correction tape



INDEX

Α Deleting a word, user dictionary, 84 Deletion in display mode, 36, 37 Adding Words, 83 Dictionary, 70, 83 Accessories, 86 Display mode, 32 ALT key, 4 Display movement, 50 Auto carrier return, 16 Automatic justification, 49 E Automatic underlining, 23 Edit mode, 50 В Editing, 50, 66 Elite, 10 Backspace, 18 Erasing a word, usage list, 85 Backspace, express, 18 Express backspace, 18 Backspace, half, fractional, 18 Backup battery, 39 F Backup cleared, 90 File creation, 43 Backup memory, 39, 90 Basic typing, 9-18 Files, 40 Boldface, 24 Find function, 82 Built-in dictionary, 70 Foreign words, 83 Format file, 44 C Format functions, 44, 45 Capital lock key, 15 G Care of unit, 91 Cassette daisy wheel, 88 Ghost Hyphen, 33 Cassette ribbon, 86 Grammar Check, 69 Centering, 28, 61 Check printer, 90 H Checking your file, 82 Hot Zone, 16 Cleaning, 91 Hyphen, 17, 33 Clearing the user dictionary, 84 Hyphenation, 17, 33 Clearing the memory, 68 Correction, 19, 21 Correction in display mode, 35 Index, 10 Correction tape, 87 Insert mode, 36 Cover open, 90 Inserting paper, 10 Create, 43 Inserting text, 66 Create mode, 43 Insertions, 47, 66 Cursor keys, 34, 50 D Justification, 21, 32, 49 Daisy wheel, 88 Daisy wheel lock, 88 Decimal tab, 26, 62

Layout functions, 22-31, 58-63

LED, 15

Decimal tab Set, 26, 62

Deleting a file 41, 68

Line indent, 25, 60 Line memory, 19 Line spacing, 11 Line-out, 20 Location, 91 L/L mode, 32

M

Manual correction, 21 Margin release key, 12 Margins, setting, 12 Margin, left, 12 Margin, right, 12 Memory correction, 19 Memory space, 39

Operate, 16, 32, 49

P

Page size, 9
Paragraph indent, 25, 60
Permanent hyphen, 17, 33
Permanent space, 17
Phrase File, 46
Pica, 10
Pitch, 10
Printing a file, 64
Printing mode, 7
Print stop, 66
Printing the user dictionary, 84

R

RAM DOWN, 90
Recalling format, 45
Repeat, 4, 14
Replace function, 53
Replacing the correction tape, 87
Replacing the daisy wheel, 88
Replacing the ribbon, 86
Return, 16, 59
Returning the carrier, 16
Reverse index, 10
Right margin flush, 30, 62
ROM DOWN, 90

S

Search function, 51
Selecting a file, 51
Setting tabs, 13
Shift lock, 15
Special characters, 23
Specifications, 92
Starter kit, 93
Status indicators, 8
Stop codes, 66
Storing format, 44
Storing text, 43
Subscript, 22
Superimposing characters, 38
Superscript, 22

T

Tab, 13
Tab clear, 14
Technical information, 86
Text editing, 50
Text file, 43
Troubleshooting, 89

U

Underlining, 23 Usage alert, 74, 85

V

Ventilation, 91

W

Word processor mode, 39 Word wrap, 65 Word-out, 25 Word spell, 69 Write-over mode, 36

GLOSSARY

ALT (Alternate) A special key used in combination with the upper row of the

standard keyboard and with the small keys on both sides of the keyboard in order to activate several functions. Can also

be used alone to display the current settings.

BACKUP The backup memory is where the files, settings, and user

dictionary are stored. The backup battery supplies power to the backup memory for approximately one month, and should be recharged at least once a month by turning the

power on for no less than four hours.

BOLDFACE Boldface characters are thicker than normal characters.

When printing a boldface character, the machine strikes the paper three times instead of only once for normal characters. At each strike, the carrier moves a small fraction of an

inch, resulting in a thick character.

CENTERING A layout function that allows you to automatically center a

line between margins or tabs with a precision of 1/120 inch.

CODE A special key used in combination with keys having a green

indication on their top in order to activate several functions

or print special characters. Cannot be used alone.

CORRECTION A special memory used by the machine to temporarily store the text of the current line in typowritor mode. Since the

the text of the current line in typewriter mode. Since the machine knows the contents of the current line as well as their position on the paper, corrections can be carried out without retyping. The correction memory is cleared as soon

as the RETURN key is pressed.

COUNTER This machine displays two kinds of counters: a memory

counter which indicates the amount of memory still available, and a line counter that indicates the number of characters that can still fit in the current line. The memory counter appears in the TEXT/PHRASE file selection display; the line counter appears in typouriter and CREAT Breads.

the line counter appears in typewriter and CREAT-P mode.

DECIMAL TAB A special tab used to neatly align a column of numbers the

same way you align them when carrying out a sum manu-

ally.

DISPLAY The LCD display shows the setting indicators when you are

working in typing mode. In display mode and in word processor mode, the text you type appears on the display. Pressing the ALT key will display the setting indicators in

word processor mode. With many functions, special indications like a selection menu also appear on the display.

EDITING

Editing a text simply means modifying it. With this machine, you may edit a line in display mode and in CREAT-P mode. The CREAT-N and EDIT modes allow you to edit an entire file.

ELITE

One of the available pitches on this machine. Elite pitch corresponds to 12 characters per inch. When you select this pitch, make sure that the daisy wheel in use bears the indication "ELITE", "12", or "1012".

FORMAT

The format functions of this machine include pitch, line spacing, left and right margin position, regular and decimal tab position.

HOT ZONE

The range of six (6) characters just before the right margin. A beep sounds when the carrier enters the hot zone. In auto carrier return mode, a space or a hyphen typed in the hot zone trigger a carrier return.

HYPHEN

...Y

This machine distinguishes between two different kinds of hyphens: permanent hyphen and ghost hyphen. A permanent hyphen is obtained with the hyphen (-) key outside the hot zone, and with **CODE** + the **hyphen** key in the hot zone. A ghost hyphen is obtained with the **hyphen** key alone in the hot zone. A permanent hyphen is considered a word delimiter by the grammar check, while a ghost hyphen is not.

IUSTIFICATION

When a line is printed in justify mode, the machine 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 $(\pm 1/120 \, \text{inch})$ between words. The first character of the line is aligned with the left margin, and the last one with the right margin.

LINE-BY-LINE

One of the options of the typewriter mode. 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 (5) blank spaces. This feature can be used to neatly mark the beginning on a new paragraph.

97

LINE OUT

The LINE OUT function allows you to quickly erase the current line, from the carrier position to the beginning of the line.

MEMORY

A special part of the machine 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.

MICRON

One of the available pitches on this machine. Micron pitch corresponds to 15 characters per inch. When you select this pitch, make sure that the daisy wheel in use bears the indication "MICRON" or "15".

PARAGRAPH INDENT A function that allows you to temporarily reset the left margin at a tab position.

PICA

One of the available pitches on this machine. Pica pitch corresponds to 10 characters per inch. When you select this pitch, make sure that the daisy wheel in use bears the indication "PICA", "10", "1012".

PLATEN

The rubber roller driving the paper up and down. The movement of the platen can be controlled with the keyboard. The platen knob can also be turned manually, but this may interfere with the precision of the PAGE END SETTING. We recommend that you never type anything without inserting paper to prevent the platen from becoming dirty.

RAM (RAM DOWN)

Random Access Memory — a memory you can store in or recall from. All the information you input from the keyboard is stored in this type of memory. Since this kind of memory needs to be powered to keep the information, failure to recharge the battery may result in a loss of data. If the message "RAM DOWN" appears on the display, consult with your dealer.

RELOCATION

The relocation function automatically moves the carrier to the end of the current line after corrections have been carried out in the middle of the line (printing mode). In display mode and in CREAT-P mode, the function moves the cursor to the end of the line. In CREAT-N or EDIT mode, the function moves the cursor to the end of the file.

RIGHT MARGIN **FLUSH**

Layout function that allows you to automatically align the text of a line with the right margin. This is useful, for instance, when you type the date on a letter.

ROM

(ROM DOWN)

Read Only Memory. This kind of memory is where the manufacturer stored the software of this machine. If the message "ROM DOWN" appears on the display, consult with your dealer.

STEP

The step function is used with the search and replace functions of this machine to move the cursor to the next occurrence of the search word.

Available to interrupt printout line by line.

STOP CODE

A stop code is a special symbol that you insert in your file in order to automatically interrupt printing. When printing is interrupted, you are free to type additional text on the paper. That text will not be stored in the memory.

SUBSCRIPT

A character that must be printed at a position slightly lower than normal characters. Used to type mathematical expressions or chemical formulas.

SUPERIMPOSED CHARACTERS

A character like "¥" is not directly available on the key board, but can be obtained by superimposing "Y" and "=".

SUPERSCRIPT

A character that must be printed at a position slightly higher than normal characters. Used to type mathematical expressions (exponents).

UNDERLINE

With this machine, characters can be automatically printed with an underline. The machine will print the character, backspace, and "superimpose" the character ".".

WORD OUT

The WORD OUT function allows you to guickly erase the word the carrier is on, from the carrier position to the beginning of the word.

WORD SPELL

The word spell function automatically checks your text and warns you when a mistake is detected.

WORD WRAP

When printing a file, a word that cannot fit in a line is automatically "wrapped" to the next line.

QUICK GUIDE

Here is a complete list of the function keys. The order is as follows: non-letter keys of the standard keyboard, letter keys used as function keys, left column of small keys, right column of small keys. When a function key can be used in combination with ALT and/or CODE, the order is **ALT** + key, **CODE** + key, key alone.

Non-letter keys of the standard keyboard

Grammar Check S ALT +	Access the display of the grammar check.	Page 71
ALT +	Sets the line spacing.	11
ALT + PITCH	Sets the pitch.	10
ALT + J	Allows the carrier to move outside the margins.	12
ALT + S	Sets the left margin.	12
ALT + S	Sets the right margin.	12
ALT +	Sets a tab.	13
ALT + TOLK	Clears a tab.	14, 28
ALT + BT SET	Sets a decimal tab.	26
ALT + CTR	Enters the centering mode.	28, 30, 61

and the second s	Q0	ICK GOIDL
ALT +	Enters the right margin flush mode.	Page 30, 31, 62
ALT + OPERATE	Selects manual/auto return and line- by-line/justify modes.	16, 32, 49
CODE + OPERATE	Inserts a permanent hyphen in the hot zone.	17
OPERATE	Inserts a ghost hyphen or triggers a carrier return in the hot zone.	17
ALT +	Sets the length of the paper.	9
+ RELOC	Switches the underline mode on/off.	23
+ RELOC BS 1	Moves the carrier 1/120 inch to the left.	18, 21
UNDL N RELOC BS 1	Moves the carrier to the end of the line or the cursor to the end of the file.	19, 35
ALT + REV	Switches the bold mode on/off.	24
CODE + INDEX	Moves the paper down 1/12 inch.	10
BOLD	Moves the paper up by 1/12 inch.	10
+ TAB	Inserts five (5) blank spaces. (Line Indent)	25, 60

		Page
L IND	Moves the carrier to the next (decimal) tab.	59, 62
+ SHIFT LOCK CAPS	Shifts the keyboard to a parmanent capital mode.	15
CAPS	Shifts and locks the keyboard to uppercase mode.	15
SHIFT	Shifts the keyboard temporarily to uppercase.	15
+ WORD OUT	Erases the current line.	20, 37
WORD OUT	Erases a word.	19, 36
+ SPACE BAR	Inserts a permanent space.	17
SPACE BAR	Moves the carrier to the right, inserts a blank space in a displayed text, and triggers a carrier return in the hot zone.	17
CODE + CORRECT	Erases a character (manual correction).	21
CORRECT	Erases one character (memory cor- rection)	19, 27, 36
+ BACK SPACE	Displays a " ◀ " on the screen. The next character typed will be superimposed to the character preceding " ◀ " while printing.	38

	QL QL	ICK GUIDE
BACKSPACE	Moves one space to the left (destructive when the text is displayed).	Page 18, 22, 36
CODE + EXPR.	Moves the carrier to the beginning of the current line, or the cursor to the beginning of the file.	18, 35
EXPR.	Triggers a carrier return.	17, 59
Letter keys used as	function keys	
+ T	Prints a file.	65
+ SUPER	Superscript.	22
+ SUB	Subscript.	22
+ SCODE	Inserts a STOP CODE in a file.	63
+ STEP	Resumes printing line by line, or resumes search operation.	51,53,66, 67
+ FORMAT	Stores or recalls the format file; prepares a format change in a file.	44, 45, 48
CODE + GEND	Cancels several operations.	42 ~ 83

+ L	Activates the find mode of the spell check.	Page 82
+ B	Enters the paragraph indent mode.	25, 60
+ INDCLE	Exits the paragraph indent mode.	26, 60

Left column of small keys

A.T	Displays the settings.	44
+ PINS SUGGESTION	Suggests a correct word.	76
P INS SUGGESTION	Inserts the paper.	9, 10
+ TW/WP SEARCH	Searches for a word.	51, 53
TW/WP SEARCH	Selects typewriter or word processor mode.	39
ALT + REPLACE	Replaces a word with another.	53
ABB. REPLACE	Inserts a phrase file into a text file.	47

Right column of small keys

Marks the beginning or the end of a 55 block.

			Page
CODE +	MARK	Moves the cursor to the beginning of the file.	50
	MARK	Moves the cursor one line up.	42, 51
ALT +	PASTE	Copies a marked block, or selects the insertion/write-over modes.	36, 56
CODE +	PASTE	Moves the cursor to the end of the file.	50
	PASTE	Moves the cursor one line down.	42, 51
△ +	DELETE	Deletes a marked block, or deletes a character.	56
(COOE +	DELETE	Moves the cursor to the beginning of the line.	35
	DELETE	Moves the cursor one character to the left or used to select a menu item.	34, 41, 51
△ +	MOVE	Moves a marked block.	57
CODE	MOVE	Moves the cursor to the end of the line.	35
	MOVE	Moves the cursor one character to the right, or selects a menu item.	34, 41, 51

ACCESSORY ORDER FORM

Dear Customer,

Please use this order form when ordering accessories for your typewriter. Please add \$3.00 for shipping and handling charges. For orders to be shipped outside of the Continental U.S., please add \$10.00 for shipping and handling.

Starter kit

Item No.		Price	Quantity	Total
	3 Correctable Film Ribbons			
SK-100	1 Script 1012 Daisy Wheel	\$41.95		
	1 Lift-off Correction Tape			

Cassette ribbons/correction tapes

Item No.		Price	Quantity	Total
1030	Correctable Film Ribbon	\$6.50		
1230	Correctable Film Ribbon (2 pack)	\$11.50		
1032	Nylon Ribbon	\$7.50		
3010	Lift-Off Correction Tape (2 pcs.) to be used with 1030, 1230 Ribbon	\$6.50		
4010	Cover-up Correction Tape (2 pcs.) to be used with 1032 Ribbon	\$10.50		

Cassette daisy wheels

Item No.		Type Pitch	Price	Quantity	Total
M401	Pica 10 (Standard Pica)	10	\$26.50		
M402	Prestige 1012	10, 12	\$26.50		
M403	Elite 12 (Standard Elite)	12	\$26.50		
M405	Script 1012	10, 12	\$26.50		
M408	Grande 10	10	\$26.50	er er	
M409	Quadro 1012	10,12	\$26.50		
M411	Brougham 10	10	\$26.50		
M412	Brougham 12	12	\$26.50		
M414	Prestige Italic 1012	10, 12	\$26.50		
M415	OCR-B 10	10	\$26.50		
M416	OCR-A 10	10	\$26.50		*****
M417	Letter Gothic 12	12	\$26.50		

^{*} Above pricing subject to change without notice. For further information on these accessory items, call 901-373-6256.

SHIPPING LABEL					
Brother International Corporation					
Typewriter Division					
P.O. Box 1332					
Bartlett, TN 38184-1332					
NAME					
ADDRESS					
CITY, STATE, ZIP					

Sub Total
CA, GA, IL, NJ, NY, LA, SC, VA, TX,
TN, NC, NM and MA residents add
applicable sales tax
Total
Add \$3.00 for shipping and handling
Method of payment (check one)
[] Check or Money Order enclosed
Please charge my [] Master card [] Visa.
Account Number
Expiration Date
Signature

ACCESSORY ORDER FORM

Dear Customer,

Please use this order form when ordering accessories for your typewriter. Please add \$3.00 for shipping and handling charges. For orders to be shipped outside of the Continental U.S., please add \$10.00 for shipping and handling.

Starter kit

Item No.		Price	Quantity	Total
	3 Correctable Film Ribbons			-
SK-100	1 Script 1012 Daisy Wheel	\$41.95		
	1 Lift-off Correction Tape	More it is you by Julion to		

Cassette ribbons/correction tapes

Item No.		Price	Quantity	Total
1030	Correctable Film Ribbon	\$6.50		
1230	Correctable Film Ribbon (2 pack)	\$11.50		
1032	Nylon Ribbon	\$7.50		
3010	Lift-Off Correction Tape (2 pcs.) to be used with 1030, 1230 Ribbon	\$6.50		
4010	Cover-up Correction Tape (2 pcs.) to be used with 1032 Ribbon	\$10.50		

Cassette daisy wheels

Item No.		Type Pitch	Price	Quantity	Total
M401	Pica 10 (Standard Pica)	10	\$26.50		
M402	Prestige 1012	10, 12	\$26.50		
M403	Elite 12 (Standard Elite)	12	\$26.50		
M405	Script 1012	10, 12	\$26.50		
M408	Grande 10	10	\$26.50		
M409	Quadro 1012	10,12	\$26.50		
M411	Brougham 10	10	\$26.50		
M412	Brougham 12	12	\$26.50	.50	
M414	Prestige Italic 1012	10, 12	\$26.50		
M415	OCR-B 10	10	\$26.50		
M416	OCR-A 10	10	\$26.50		
M417	Letter Gothic 12	12	\$26.50		

Signature

SHIPPING LABEL
Brother International Corporation
Typewriter Division
P.O. Box 1332
Bartlett, TN 38184-1332
NAME
ADDRESS
CITY, STATE, ZIP

^{*} Above pricing subject to change without notice. For further information on these accessory items, call 901-373-6256.

COMPATIBLE ACCESSORIES

Starter kit

Item No.	
	3 Correctable Film Ribbons
SK-100	1 Script 1012 Daisy Wheel
	1 Lift-off Correction Tape

Cassette ribbons/correction tapes

Item No.	
1030	Correctable Film Ribbon
1230	Correctable Film Ribbon (2 pack)
1032	Nylon Ribbon
3010	Lift-Off Correction Tape (2 pcs.)
	to be used with 1030, 1230 Ribbon
4010	Cover-up Correction Tape (2 pcs.)
	to be used with 1032 Ribbon

Cassette daisy wheels

Item No.		Type Pitch
M401	Pica 10 (Standard Pica)	10
M402	Prestige 1012	10, 12
M403	Elite 12 (Standard Elite)	12
M405	Script 1012	10, 12
M408	Grande 10	10
M409	Quadro 1012	10,12
M411	Brougham 10	10
M412	Brougham 12	12
M414	Prestige Italic 1012	10, 12
M415	OCR-B 10	10
M416	OCR-A 10	10
M417	Letter Gothic 12	12
M419	Super Grande 10	10
M421	Legal Prestige 1012	10, 12
M422	Super Grande II	10

Keep this page intact for future reference.

For additional accessories, please consult the accessory order form included in this manual.

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