USER'S GUIDE

WORD PROCESSING TYPEWRITER with 16 Character Display and Memory

brother ®

AMERICAN

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 wheels model number M411 (standard) / M152 (international)
- 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.

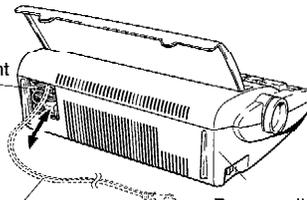| MODEL NO.:_____	SERIAL NO.:_____

Please keep these numbers for future reference.

The power cord is stored in a compartment on the back of the machine.

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

Power Compartment

Power cord

Power switch

FCC NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause 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/TV technician for help.

Changes or modifications not expressly approved by Brother Industries, Ltd. could void the user's authority to operate the equipment.

DOC NOTICE

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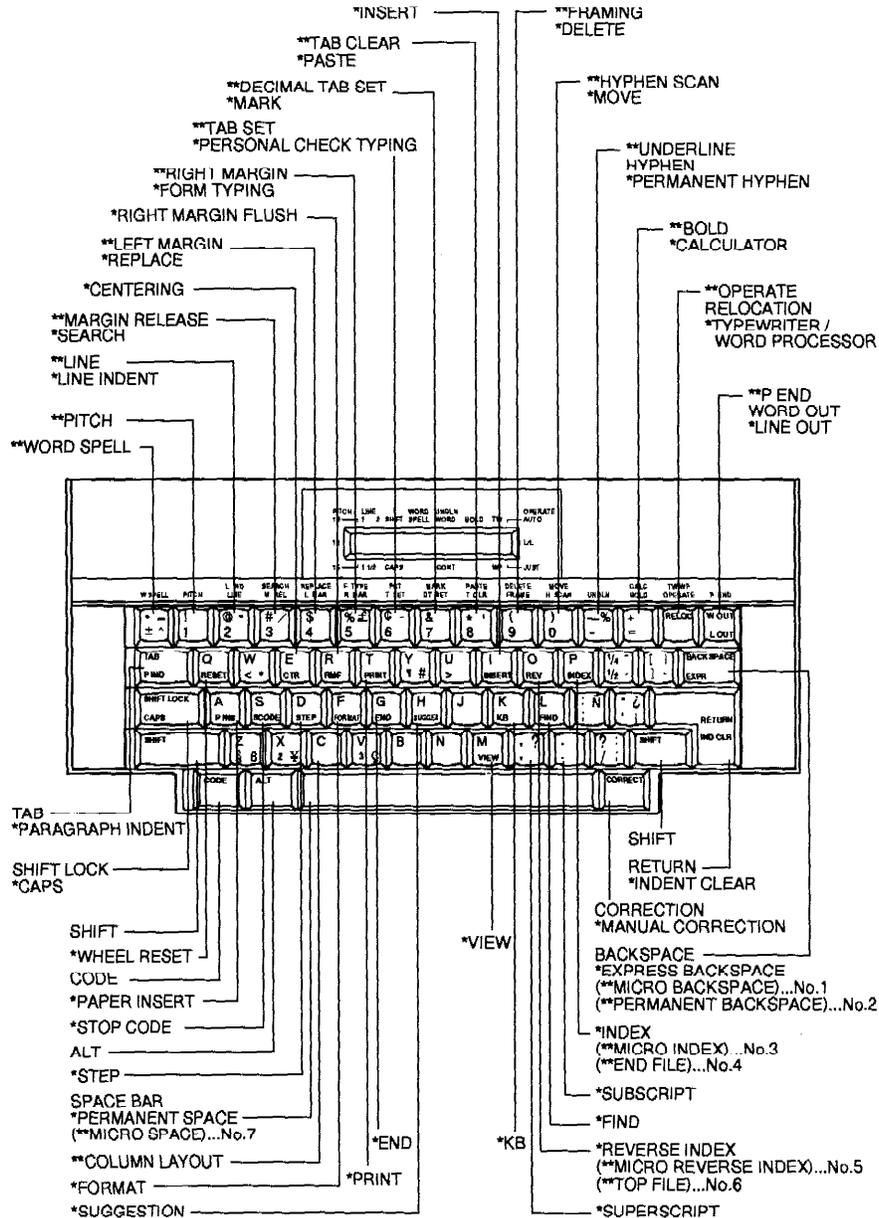
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CONTENTS

KEYBOARD

"INSERT

""FRAMING
*DELETE

""TAB CLEAR
*PASTE

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*MARK

""HYPHEN SCAN
*MOVE

""TAB SET
*PERSONAL CHECK TYPING

""UNDERLINE
HYPHEN
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""RIGHT MARGIN
*FORM TYPING

*RIGHT MARGIN FLUSH

""BOLD
*CALCULATOR

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*REPLACE

*CENTERING

""OPERATE
RELOCATION
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WORD PROCESSOR

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*FORMAT

*PRINT

*SUGGESTION

*SUPERSCRIPT

- (*)   Hold down **[CODE]** and press the key to activate these functions.
- (**) Hold down **[ALT]** 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]** 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

CURSOR LEFT/RIGHT/UP/DOWN
([ALT] + the corresponding keys)
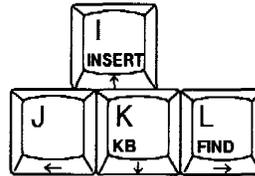
- The functions of following key combination differ according to the mode.

**MICRO BACKSPACE No.1
in TW (Printing Mode), Form Typing and Personal Check Typing Mode
**PERMANENT BACKSPACE No.2
in WP and TW Mode (Display Mode)
**MICRO INDEX No.3
in Form Typing and Personal Check Typing Mode
**END FILE No.4
in WP Mode
**MICRO REVERSE INDEX No.5
in Form Typing and Personal Check Typing Mode
**TOP FILE No.6
in WP Mode
**MICRO SPACE No.7
in Form Typing and Personal Check Typing Mode

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DESCRIPTION

Daisy Wheel Lock Lever
Cassette Daisy Wheel
Cassette Ribbon
Correction Tape
Top Cover
Carrier
Paper Supporter
Paper Release Lever
Platen Knob
Power Switch
Display
Keyboard
Carrying Handle
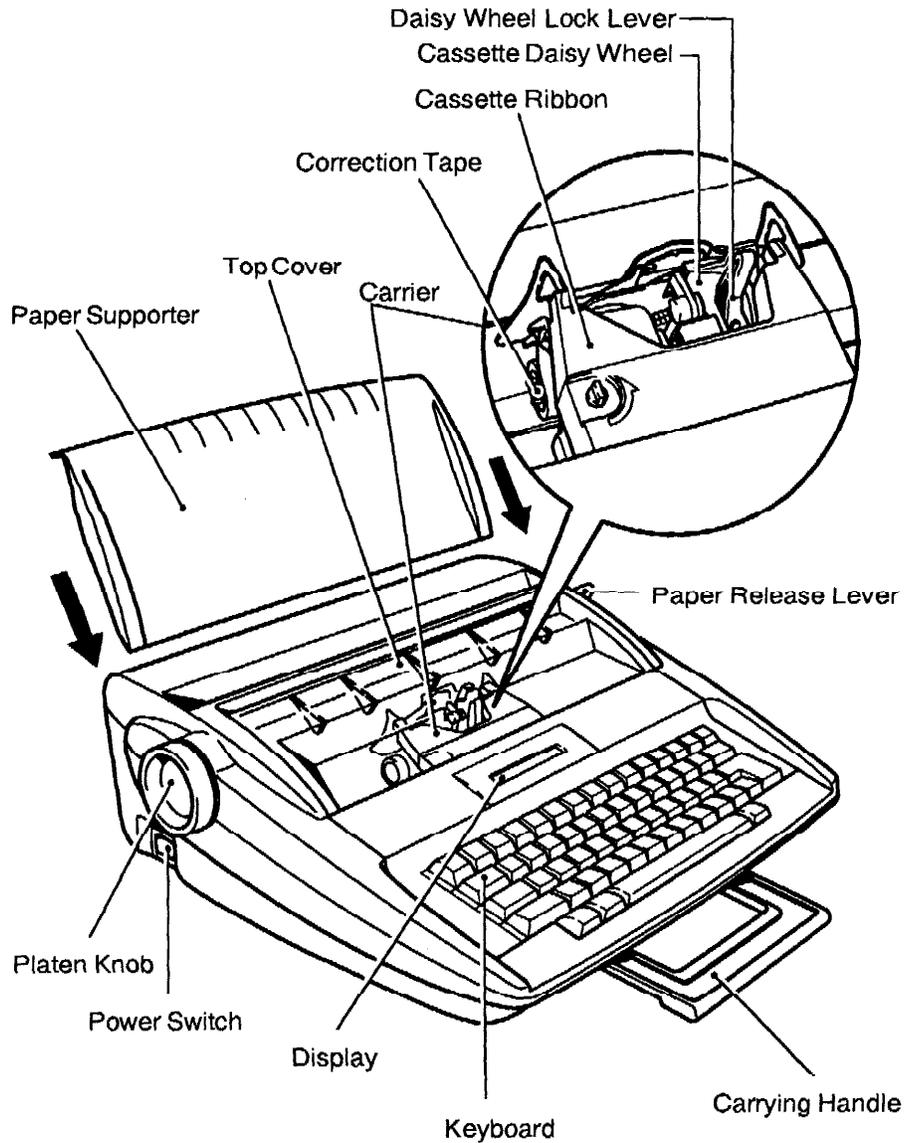
Paper release lever: Pushing this lever loosens tension on the paper so that it can be adjusted as necessary.

Paper Supporter: Keyboard Cover can be used as a paper supporter as illustrated above.

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.

Centering (29)

Institute of Chemistry and Physics
100 Baker Street   *Right margin flush (31)*
New York
Bold (27)
December, 7th, 1994

Justification (48)

Dear Sir:
Line indent (28)

    Thank you for your interesting paper on chemical formulas. Most people are no longer familiar with them.
    I understand you did not have time to proofread the final copy, which accounts for the typing errors on pages 25, 57, and 59.

Tabs (14)   *Tabs (14)*   *Word underlining (26)*

Item   Suggestion   Page Line

volume II   volume III   25/15

10.3   10.3   *Backspace 1 (20)*   25/20
3.12   3.12
13.52   13.42
Decimal tab (15)   *Centering between tabs (31)*

$e=m^2c$ $e=mc^2$ ← *Superscript (25)*   57/31
sodium ($C_{20}H_{42}$)   eicosane ($C_{20}H_{42}$)   59/22

Subscript (25)   *Continuous underlining (26)*

    This quotation from The Merry Scientist is a comment on your presentation, which I am happy to forward to you:

Paragraph indent (28)

    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 scientist.

Yours sincerely,

O. Newton

PART I TYPEWRITER MODE

This machine can be operated in two different modes: the "typewriter mode" and the "word processor" mode. The **[CODE] + [TW/WP]** key allows you to toggle between the two modes. Operation in word processor mode is described in "PART II WORD PROCESSOR MODE".

The information given here in PART 1 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.22) for more details.

The following illustration shows you how the status indicators work. In this example, the pitch is set to 10 and the line spacing is 1. The shift lock mode, the word spell function, the word underlining, the boldface function are on. The typewriter is in typewriter mode. The auto carrier return is on.
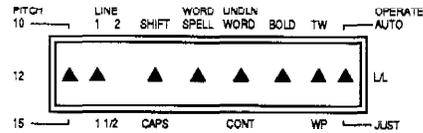
PITCH 10, 12, 15 = typing pitch	BOLD = boldface
LINE 1, 1 1/2, 2 = line spacing	TW = typewriter mode
SHIFT = shift mode	WP = word processing mode
CAPS = caps lock mode	AUTO = auto carrier return
WORD SPELL = word spell check	L/L = line by line (with auto return)
WORD = word underlining	JUST = justified alignment
CONT = continuous underlining	

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

P END

[ALT] + [W OUT / L OUT] and [CODE] + [A · / P INS]
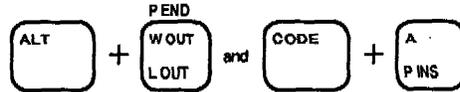
The page size function allows you to tell the machine the length of the paper you are going to use. This size is stored in the memory, and the machine warns you when you are about to reach the end of the paper.

Press **[ALT] + [P END]** to switch to the Page Size selection display.

```
P SIZE▶1:OFF
```

Type the number of the page size which you want to use or use **[ALT] + [CURSOR UP] (I), [ALT] + [CURSOR DOWN] (K), [ALT] + [CURSOR RIGHT] (L), [ALT] + [CURSOR LEFT] (J)** or **[SPACE BAR]** to select and press **[RETURN]** to set. The page size switches though the following "P SIZE" options:

1:OFF → 2:11INCH → 3:14INCH → 4:A4 → 5:A5 → 1:OFF

Indication	Meaning
OFF	the function is disabled
11INCH	for letter size paper (11 inches)
14INCH	for 14 inch paper
A4	for DIN A4 paper
A5	for DIN A5 paper

When the page size is set to either 11, 14, A4 or A5, 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. (For example, 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 [CODE] + [P INS] (A) for inserting the paper. It will not work correctly if you use the platen knob to move the paper.

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Inserting paper

[CODE] + [A / P INS]
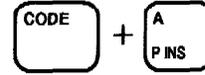
This machine is equipped with an automatic paper insertion function so that you do not need to use the platen knob to insert a sheet of paper.

1) Position a sheet of paper behind the platen and press **[CODE] + [P INS] (A)**. The paper will be automatically inserted and will advance one inch. The prompt "PRESS RTN" appears on the display.

2) Press **[RETURN]**. 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 size function, if you wish to use the page end feature.

Index/reverse index

[CODE] + [P INDEX]   [CODE] + [O REV]

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

Press **[CODE] + [INDEX] (P)** to raise the paper, or press **[CODE] + [REV] (O)** to lower the paper. To move the paper continuously in either direction, hold down the appropriate keys.

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.

View Mode

[CODE] + [M VIEW]
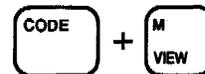
This function automatically moves the paper upward 1/12 inch (one half line) after typing so that you can easily see the typed characters.

Press **[CODE] + [VIEW] (M)** to turn the viewing mode on (you will hear two beeps) or off.

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Viewing Mode ON

During continuous typing, the paper remains constant with the print unit on the typing line. When typing stops for more than 1 second, the paper moves upward so that you can easily view what you have typed. When typing continuous, the paper automatically returns to the correct typing line.

Viewing Mode OFF

During continuous typing and during viewing, the paper remains at the typing position. If the machine is turned off, the setting of view mode is changed to "off".

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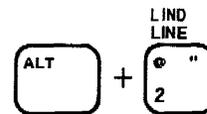
The line spacing determines the vertical separation between the printed lines. Increasing the line spacing results in fewer printed lines per page.

Pressing **[ALT] + [LINE] (2)** changes the indication under "LINE" through the following cycle:

1 → 1 1/2 → 2 → 1
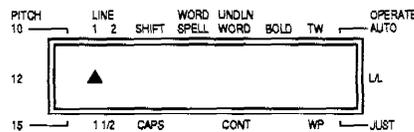
Indication	Meaning
1 (▲)	Standard line spacing
1 1/2 (▼)	1 1/2 line spacing
2 (▲)	Double line spacing

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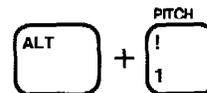
The pitch determines the number of characters printed per inch, and should be selected to match the pitch indicated on the daisy wheel in use. Increasing the pitch results in more printed characters per line.

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Pressing **[ALT] + [PITCH] (1)** changes the indication below "PITCH" through the following cycle:

10 → 12 → 15 →10
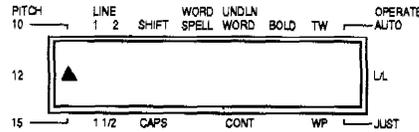
Indication	Meaning
10 (▲)	Pica pitch (10 characters per inch)
12 (◄)	Elite pitch (12 characters per inch)
15 (▼)	Micron pitch (15 characters per inch)

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

Selecting keyboards
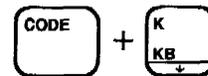
The keyboard switch is used to select the desired character set.   Pressing **[CODE] + [KB] (K)** to switch to the Keyboard Selection display.
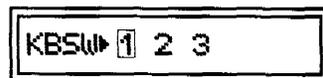
Type the number of the keyboard which you want to use or use **[ALT] + [CURSOR RIGHT] (L), [ALT] + [CURSOR LEFT] (J), [ALT] + [CURSOR UP] (I), [ALT] + [CURSOR DOWN] (K)** or **[SPACE BAR]** to select and press **[RETURN]** to set.

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Indication	Meaning
1	Standard
2	International
3	Symbols

*   Use the proper daisy wheel:

      KBSW2: International cassette daisy wheel
      KBSW3: Symbol cassette daisy wheel

*   Characters on the right side of the keys are printed when using the International keyboard.

*   See the International and Symbol keyboards section at the end of the manual for the Symbol keyboard layout.

Note: The symbols on the KBSW3 are not displayed on the screen in the display mode and word processor mode.

Setting margins

The carrier movement is limited by the left and right margins (unless you press **[ALT] + [M REL] (3)** as explained below). Setting the margins allows you to decide where your text will be positioned on the paper.

Left margin
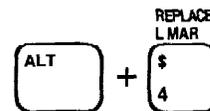
1) Move the carrier to the place you want to set the left margin by using **[SPACE BAR]** or **[BACKSPACE]**. If you need to move outside the current left margin, press **[ALT] + [M REL] (3)**.

2) Press **[ALT] + [L MAR] (4)**. The left margin is now set.

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FTYPE
RMAR
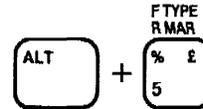
Right margin   ALT + % £ 5

1) Move the carrier to the place you want to set the right margin by using **[SPACE BAR]** or **[BACKSPACE]**. If you need to move outside the current right margin, press **[ALT] + [M REL] (3)**.

2) Press **[ALT] + [R MAR] (5)**. The right margin is now set.

SEARCH
MREL

Margin release   ALT + # / 3
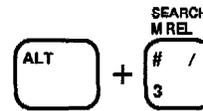
If you try to move the carrier past a margin, a beep is heard and the carrier does not move. After you have set your margins, you may sometimes find it necessary to type outside these margins. You may also need to move the carrier past a margin to reset the margin.

To move the carrier past a margin, press **[ALT] + [M REL] (3)**.

1) To move to the left of the left margin, backspace to the left margin, press **[ALT] + [M REL] (3)** and then continue to backspace.

2) To move past the right margin, hold **[SPACE BAR]** until the carrier reaches the right margin. Press **[ALT] + [M REL] (3)**, then continue spacing using **[SPACE BAR]**.

- You may not move past the right margin with **[SPACE BAR]** if the auto carrier return function is activated. To turn this function off, see "Returning the carrier" page 19.
- 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.)

PCT
TSET

Setting tabs   ALT + ¢ — 6
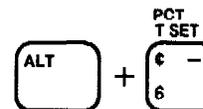
Tabs are very useful when you need to type your text in columns. Once the tabs are set, pressing **[TAB]** automatically moves the carrier to the next tab so that you can easily type your data in perfectly aligned columns.

1) Move the carrier to the place you want to set a tab by using **[SPACE BAR]** or **[BACKSPACE]** .

2) Press the **[ALT] + [T SET] (6)** 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 is considered a tab position.
- 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 **[CORRECT]** 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 15.

Clearing tabs

ALT + PASTE T CLR * 8
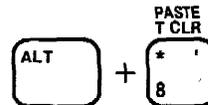
1) Using **[TAB]**, move the carrier to the tab stop you want to clear. This may be a regular tab or a decimal tab.

2) Press **[ALT] + [T CLR] (8)** to clear the tab.

CAUTION : If you press [ALT] + [T CLR] (8) 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 five years.

Setting decimal tabs

ALT + MARK DT SET & 7
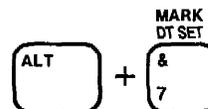
When you want to print columns of numbers with their decimal points lined up, use the decimal tab set key.

1) To set a decimal tab, move the carrier to the place desired by using **[BACKSPACE]** or **[SPACE BAR]**.

2) Press **[ALT] + [DT SET] (7)** to set the decimal tab.

> • Pressing **[ALT] + [DT SET] (7)** at a normal tab position replaces the normal tab with a decimal tab.

Using decimal tabs

1) Press **[TAB]** to go to the decimal tab position. This message will appear;

```
⊿ DECIMAL TAB
```

The message disappears when you start typing.

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.36.)

3) When the decimal point is entered, or when you press **[TAB]** or **[RETURN]**, 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.

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Cancelling the decimal tab mode

1) Before you have typed anything:

To cancel the decimal tab mode before you have typed anything, press **[CORRECT]** 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 **[CORRECT]** until the numbers or the characters on the display disappear, then press **[CORRECT]** one more time. 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:
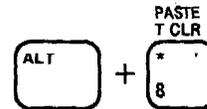
To cancel the decimal tab altogether, press **[ALT]** + **[T CLR]** (8) at the decimal tab position.

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

[SHIFT] or [SHIFT LOCK / CAPS]

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 [!] (1) are uppercase characters.

1) To type one or a few uppercase characters, press either the right or left **[SHIFT]**. Releasing this key returns the keyboard to the lowercase mode.

2) For continuous uppercase typing, press **[SHIFT LOCK]**. This will set the keyboard in shift lock mode. To return to lowercase typing, press either the right or left **[SHIFT]**.

Capital lock key

[CODE] + [SHIFT LOCK / CAPS]
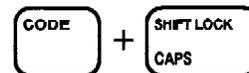
The capital lock mode is a shift lock mode restricted to the letter keys. In other words, when you are in capital mode, pressing a letter key will give the capital letter, but pressing a non-letter key will give the lowercase character.

1) Pressing **[CODE] + [CAPS]** once puts the system in capital lock mode. 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 **[SHIFT]**.

```
MODEL NO. G17P89SRP
```

2) To cancel this mode, simply press **[CODE] + [CAPS]** again.

3) When you are in capital lock mode and need a character like [!], simply press **[SHIFT]** while typing.

4) If you need to type a string of non-letter uppercase characters (ie. [!], [@] , etc.) while in capital lock mode, press **[SHIFT LOCK]** to set the keyboard temporarily in shift lock mode.

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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

TW/WP
OPERATE

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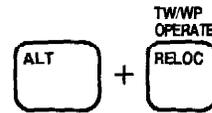
Returning the carrier to the left margin advances the paper by the number of lines set with the line space selector (1, 1 1/2, 2). This machine is provided with an automatic carrier return function which, when activated, will return the carrier automatically when you type a space or a hyphen in the hot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

Pressing **[ALT] + [OPERATE]** switches through the following "OPERATE" options:

OFF (not displayed)→ AUTO → L/L → JUST → OFF

PITCH	LINE		WORD	UNDLN			OPERATE
10	1 2	SHIFT	SPELL	WORD	BOLD	TW	AUTO
12						▲	UL
15	1 1/2	CAPS		CONT		WP	JUST
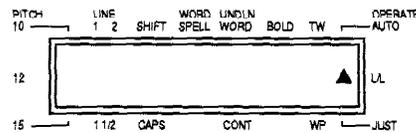
Indication	Meaning
OFF	Printing mode, manual return only (typist must press **[RETURN].**)
AUTO (▲)	Printing mode, auto carrier return function activated
L/L (▶)	Display mode (line-by-line), auto carrier return activated
JUST (▼)	Display mode (justify), auto carrier return function activated

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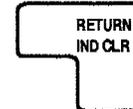
Regardless of the option selected with **[ALT] + [OPERATE]**, pressing **[RETURN]** will always return the carrier. When the auto carrier return function is off (first option above), pressing **[RETURN]** is the only way to return the carrier. Holding down this key will feed the paper repeatedly.

2) Returning the carrier automatically

When the "AUTO" option is selected, the carrier will return automatically every time, **[SPACE BAR]** or **[-]** (hyphen) 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 "DISPLAY MODE" page 33.

• Permanent space
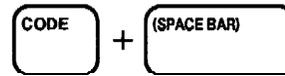
If you want to type a space in the hot zone without triggering a carrier return, press **[CODE] + [SPACE BAR]**. An example of when you would use **[CODE] + [SPACE BAR]** would be when you need to keep two words on the same line. For instance, April 9, 1995. In this example, you would press **[CODE] + [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] + [-]** (hyphen). For example, to type the telephone number 617-238-7098, you would press **[CODE] + [-]** (hyphen) 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 **[BACKSPACE]**. To move continuously to the left, hold this key down.

2) Express backspace

CODE + BACKSPACE / EXPR
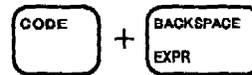
To move the carrier quickly to the beginning of the data you are typing, press **[CODE] + [EXPR]**.

3) Fractional backspace
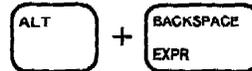
ALT + BACKSPACE / EXPR

Pressing **[ALT] + [BACKSPACE]** will move the carrier by a fixed amount of 1/60 inch to the left. Since the actual space occupied by a character depends on the selected pitch, this fixed amount of 1/60 inch is a variable fraction of a character as follows:

Pitch	Fraction
10 (Pica)	1/6 of character
12 (Elite)	1/5 of character
15 (Micron)	1/4 of character

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

volume II   volume III
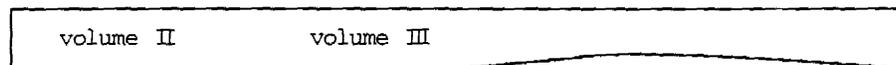
This function is also useful to correct justified text, or simply to smooth the spacing when something was inserted or deleted. (For further details, see the section "Manual Correction.") (p.24)

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

[CORRECT]

1) Use [BACKSPACE] or [SPACE BAR] to line up the carrier with the mistyped character.

2) Press [CORRECT]. This automatically erases the mistyped character and leaves a blank. Super/subscripts, underlined and bold 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 [CORRECT]. The carrier will backspace and correct continuously until you release the key.

Relocation

TW/WP
OPERATE
[RELOC]

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

Erasing one word

P END
[W OUT
L OUT]

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

1) Using [BACKSPACE] or [SPACE BAR], move the carrier to the space right after the word to be deleted. (The △ triangle in the following illustration indicates the location of the carrier.)

```
cal formulas. Most people feel △
```

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2) Press **[W OUT]**. 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 **[CORRECT]**.

Erasing the entire line

```
         P END
┌──────┐   ┌──────┐
│ CODE │ + │ W OUT│
│      │   │ L OUT│
└──────┘   └──────┘
```
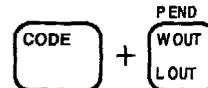
The line out function allows you to delete an entire line automatically. The line out function will delete the last line typed, as long as the carrier has not been moved to the next line.

1) Using **[BACKSPACE]** or **[SPACE BAR]**, move the carrier to the space right after the line to be erased.

```
I would like to suggest some minor changes △
```

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

```
△
```

- 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 **[CORRECT]**.

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
[CODE] + [CORRECT] and retype wrong character

1) Return the paper to the line of the character to be corrected using **[CODE] + [INDEX] (P)** or **[CODE] + [REV] (O)**.

2) Line up the carrier with the error using **[BACKSPACE]** or **[SPACE BAR]** .

3) Press **[CODE] + [CORRECT]**. The "M. CORRECTION" prompt will appear on the display.

4) Type the incorrect character to remove it. Use **[SHIFT]** 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
[ALT] + [BACKSPACE EXPR]
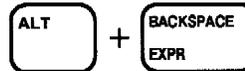
When you print a text justified (aligned) to both margins, the spaces between the words do not correspond to the chosen pitch anymore. In a similar way, a centered text is lined up with a central point, and not with the left margin.

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 **[ALT] + [BACKSPACE]** 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 (ø):

1) Type the letter "O".

2) Press **[BACKSPACE]**.

3) Type the symbol "/" to obtain the symbol.

- In the above example, "/" can be automatically erased by the method described under the title "Memory Correction" on page 22 but "O" will remain ("O" can only be erased using the manual method described on page 24).

Superscript/Subscript

CODE + ' ?

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

CODE + ·

To print a superscript, press **[CODE] + [,] (comma)** to raise the carrier by 1/12 inch, and then type the character that you want in superscript.

$e=mc^2$

To print a subscript, press **[CODE] + [.] (period)** to lower the carrier by 1/12 inch, and then type the character that you want in subscript.

$C_{20}H_{42}$

To restart normal typing: After typing a superscript, press **[CODE] + [.] (period)**. After typing a subscript, press **[CODE] + [,] (comma)**. This will move the paper back to normal position.

- 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] + [,]** / **[CODE] + [.]**.
- If you wish to move the carriage more than 1/12 inch, use **[CODE] + [INDEX] (P)** or **[CODE] + [REV] (O)**. However, in this case, the correction memory will be cleared.

Special characters

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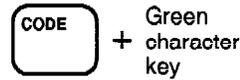
To type the special characters and symbols marked in green on the bottom of certain keys, hold down **[CODE]** and press the desired key.

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

Dead key

The character keys of the keyboard differ slightly from country to country in order to provide the accented letters that are frequently used. If an accentuated letter is not available on the keyboard, you can type it using the dead key. The dead key is usually positioned on the KBSW 2 or 3.

1) Press the dead key to type the accent. The carrier does not move.

2) Type the character under the accent.

Automatic underlining

[ALT] + **[UNDLN] (%)**

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

Pressing **[ALT] + [UNDLN] (-)** switches through the following "UNDLN" options:

OFF (not displayed) → CONT → WORD → OFF

```
PITCH      LINE        WORD UNDLN            OPERATE
10 ———┐    1  2  SHIFT SPELL WORD BOLD TW ┌——AUTO

12                              ▼                    U/L

15 ———┘   1 1/2  CAPS       CONT       WP └——JUST
```
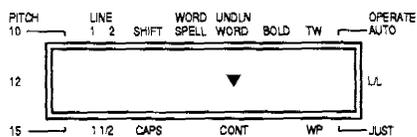
Indication	Meaning
OFF	No underlining
CONT (▼)	All words and spaces between them are under-lined.
WORD (▲)	Only words are underlined, and not the spaces between them

1) Press **[ALT] + [UNDLN]** (-) 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] + [UNDLN]** (-) 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 **[CODE]**, will be underlined.
- This function can be used together with the decimal tab, the automatic centering, boldface, justify, and the right margin flush functions (p. 15, 29, 27, 35, 31).

Boldface

```
      ┌─────┐   ┌─CALC─┐
      │ ALT │ + │ BOLD │
      │     │   │  +   │
      └─────┘   │  =   │
                └──────┘
```
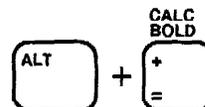
Using the boldface mode is another way to make a word or phrase stand out and catch the reader's eye.

Pressing **[ALT] + [BOLD]** (=) switches "BOLD" on or off:

OFF (not displayed) → BOLD → OFF
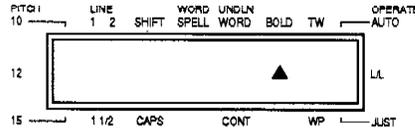
Indication	Meaning
OFF	Normal printing
BOLD (▲)	Boldface printing

1) Press **[ALT] + [BOLD] (=)** and then type your text.

> New York, N.Y.

2) Press **[ALT] + [BOLD] (=)** 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.15, 29, 26, 31).

Line indent
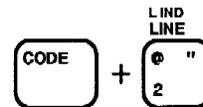
This function avoids having to press **[SPACE BAR]** five times to indent a line. Pressing **[CODE] + [L IND] (2)** moves the carrier five (5) characters to the right. To indent at the beginning of a line, press **[CODE] + [L IND] (2)**. The carrier moves five (5) spaces to the right of its current position.

> ┊----▶ 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] + [P IND]**. The carrier moves to the first tab and "PARA. INDENT" appears on the display.

- Press **[CODE] + [P IND]**, 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 **[BACKSPACE]** or **[CODE] + [EXPR]**) before pressing **[CODE] + [P IND]**.
- If you press **[CODE] + [P IND]** 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. ·
- Pressing **[CODE] + [P IND]** within the hot zone produces an error.

---

2) Start typing your text. Each time a carrier return is triggered (when you press **[RETURN]**, or type a space or a hyphen in auto return mode), the carrier returns to the paragraph indent position. "PARA. INDENT" appears.

3) To exit the paragraph indent mode, press **[CODE] + [IND CLR]**. 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

Centering

$$\boxed{\text{CODE}} + \boxed{\substack{\text{E}\\ \text{CTR}}}$$
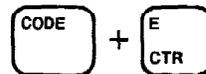
The centering function allows you to center a line of text between the left and right margins or between two tab positions.

Press **[CODE] + [CTR] (E)**. This message will appear:

```
╗ CENTERING
```

The message disappears when you start typing.

1) To center between the margins:

Move the carrier to the left margin and press **[CODE] + [CTR] (E)**. The "CENTERING" prompt will appear on the display, and the carrier will move to a point halfway between the margins.

To center between two tabs:

Move the carrier to the left tab and press **[CODE] + [CTR] (E)**. 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.33.) 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 **[TAB]** or **[RETURN]**. 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 **[CODE] + [CTR] (E)** 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

Leftt margin   Right margin

↓   ↓

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

Centering between tabs

Tab	Tab
↓	↓

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

Cancelling the centering mode

[CODE] + [E / CTR]
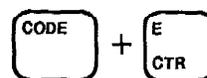
1) Before you have typed anything:

To cancel the centering mode before you have typed any text, press **[CODE] + [CTR] (E)**. The carrier then returns to its original position and the "CENTERING" prompt disappears.

2) After entering some characters:

If you have entered some characters, press **[CORRECT]** until the display is blank. Then either retype your text or press **[CODE] + [CTR] (E)** to escape from the mode.

Right margin flush

[CODE] + [R / RMF]
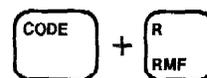
Your typewriter can automatically print text flush (or even) with the right margin. This is particularly useful for dates and other headings.

1) Press **[CODE] + [RMF] (R)**. The "R.M.FLUSH" prompt will appear on the display, and the carrier will go to the right margin.
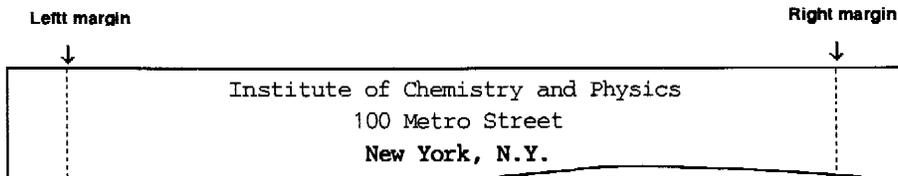
2) Type the text. The characters will not be printed immediately, but will first be displayed. At this point, you can still make corrections in display mode (for more information, see the next section, p.33.) The carrier will backspace once each time a character is entered.

• The beep will sound if you run out of room, and you will not be able to enter any more characters.
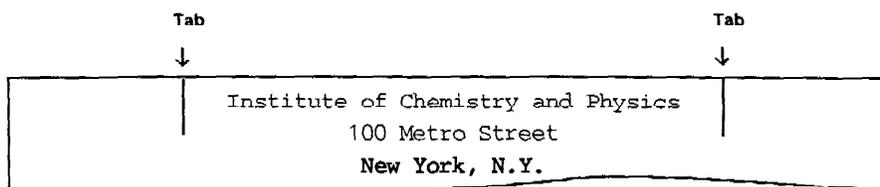
---

3) To print the text, press **[TAB]** or **[RETURN]** . 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, 1994

Cancelling the right margin flush mode

1) Before you have typed anything:

$\boxed{\text{CODE}} + \boxed{\begin{array}{l}\text{R}\\ \text{RMF}\end{array}}$
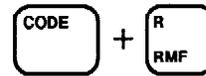
To cancel the right margin flush mode before typing any text, press **[CODE] + [RMF] (R)**. This returns the carrier to the last typing position if text has previously been entered on the line. Otherwise, the carrier returns to the left margin.

2) After entering some characters:

If you have entered some characters, press **[CORRECT]** until the display is blank. Either retype your text or press **[CODE] + [RMF] (R)** 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 + M REL	To move past a margin
ALT + L MAR	To set the left margin
ALT + R MAR	To set the right margin
ALT + T SET	To set a tab
ALT + T CLR	To clear a regular or decimal tab
ALT + DT SET	To set a decimal tab

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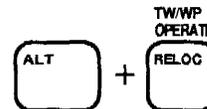
"Line-by-line processing" means that the contents of the line will always be displayed on the display before being printed on paper. You have two options: the line-by-line mode and the justify mode. The printing format in line-by-line mode has a ragged right margin. In justify mode, fractional spaces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

Pressing **[ALT] + [OPERATE]** switches through the following "OPERATE" options:

OFF (not displayed) → AUTO → L/L → JUST → OFF

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

PITCH	LINE		WORD	UNDLN				OPERATE
10 ⌐	1 2	SHIFT	SPELL	WORD	BOLD	1W	⌐	AUTO
12					▶			L/L
15	1 1/2	CAPS		CONT		WP	└	JUST
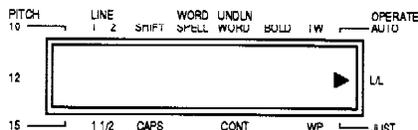
Indication	Meaning
OFF	Printing mode, manual return only
AUTO (▲)	Printing mode, auto carrier return function activated
L/L (▶)	Display mode (line-by-line), auto carrier return function activated
JUST (▼)	Display mode (justify), auto carrier function activated

1) Press **[ALT] + [OPERATE]** until "L/L" or "JUST" is selected.

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.36).

3) Pressing **[TAB]** or **[RETURN]** 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.
> • 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.

4) To cancel the line-by-line or justify mode, print the displayed text, then press **[ALT] + [OPERATE]** to delete the indicator under "OPERATE", or to select the "AUTO" mode. This turns the display off and recalls the printing mode.

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Line-by-line mode

```
A brilliant piece of work, interesting to read without over-
simplifying. Absolutely indispensable for every household.
Mr. Boar is truly one of today's most fascinating scien-
tists.
```

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.
```

Moving the cursor

The line display is 16 characters long. 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 [ALT] + [J ↙] or [ALT] + [L FIND ➡]
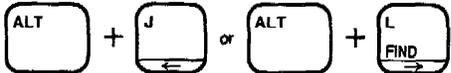
1) To move the cursor back toward the beginning of the line, press **[ALT] + [CURSOR LEFT] (J)**. The text will eventually move to the right and some words at the end of the line will be scrolled off the end of the display. To move faster, hold **[ALT] + [CURSOR LEFT] (J)** down.

> • Do not use **[BACKSPACE]** to move the cursor to the left, unless you want to delete characters (see p. 37).

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2) To move the cursor toward the end of the line, press **[ALT] + [CURSOR RIGHT] (L)**. 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 **[ALT] + [CURSOR RIGHT] (L)** down. The key will not allow you to move past the position immediately following the last typed character.

- Do not use **[SPACE BAR]** to move to the right, unless the cursor is at the right of the last character. **[SPACE BAR]** inserts a blank space when the machine is in the INSERT mode, and replaces an existing character with a space when the machine is in the OVERWRITE mode.

Moving the cursor to the beginning or the end of the line
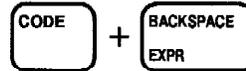
1) To go back quickly to the beginning of the line, press **[CODE] + [EXPR]**. This allows you to add text at the very beginning of the line.
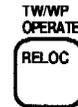
2) To move to the end of the line, press **[RELOC]**. This allows you to continue typing after making corrections in the middle of the line.

Correction in display mode

INSERT and OVERWRITE modes
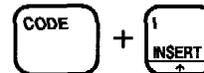
Use **[CODE] + [INSERT] (I)** to select the insert or overwrite mode. In the insert mode, the characters you type are inserted in the text. In the overwrite mode, they replace existing text. The shape of the cursor changes from ☐ (insert) to ■ (overwrite).

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Inserting characters in the text

1) Select the INSERT mode.

2) To insert something in your text, use [ALT] + [CURSOR LEFT] (J) / [ALT] + [CURSOR RIGHT] (L) to move the cursor to the position where the first character has to be inserted.

3) 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.

Deleting characters from the text

```
┌─────────┐    ┌─────────┐
│ CORRECT │    │ BACKSPACE│
│         │ or │          │
│         │    │ EXPR     │
└─────────┘    └─────────┘
```

1) To delete characters from your text, use [ALT] + [CURSOR LEFT] (J) / [ALT] + [CURSOR RIGHT] (L) to move the cursor to the position immediately after the rightmost character to be deleted.

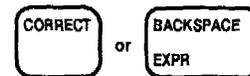2) Press [CORRECT] or [BACKSPACE]. This will move the cursor one position to the left and delete the character which was at the left of the cursor. The characters from the cursor position to the end of the line are "pulled" to the left.

3) You may also position the cursor on the character to be deleted and press [CODE] + [DELETE] (9).

Deleting one word from the text

```
      P END
┌─────────┐
│ W OUT   │
│ L OUT   │
└─────────┘
```

1) To delete a word or a part of a word from your text, use [ALT] + [CURSOR LEFT] (J) / [ALT] + [CURSOR RIGHT] (L) to move the cursor to the position immediately AFTER the last character to be deleted.

2) Press [W OUT]. 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

```
┌──────┐   ┌─────────┐ P END
│ CODE │ + │ W OUT   │
│      │   │ L OUT   │
└──────┘   └─────────┘
```
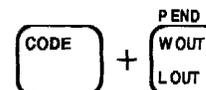
1) To delete the entire line or a part of it, use [ALT] + [CURSOR LEFT] (J) / [ALT] + [CURSOR RIGHT] (L) to move the cursor to the position immediately AFTER the last character to be deleted.

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2) Press **[CODE] + [L OUT]**. 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> = Page and _ _ _ _
Bold character	The character flashes, showing alternately the normal character and an upper line. Example: **Page** = Page and ‾ ‾ ‾ ‾
Superscript	The character in superscript alternates with the symbol (✦). The shape of the cursor change from ▯ or ▮ to ▯ or ▪ . Example: mc^2 = mc2 and mc ✦
Subscript	The character in subscript is alternately displayed with the symbol (✦). The shape of the cursor changes from ▯ or ▮ to ▯ or ▪ . Example: H_2O = H2O and H✦O
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)	The superimposed character alternates with the base character. Example: ø = o and /

> - 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 always alternates with 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 **[ALT] + [BACKSPACE]**. When printing the text, the character following the permanent backspace will be superimposed to the character preceding the permanent backspace ("o" and "/" on the display will give "ø" on the paper).

Functions triggering line printing

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

1) **[RETURN]** : The line is printed, the paper is fed and the carrier returns to the left margin.

2) **[TAB]** : The line is printed and the carrier moves to the next tab.

3) **[CODE] + [P IND]** : The line is printed, the carrier moves to the next tab stop and the machine switches to the paragraph indent mode.

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.

PART II   WORD PROCESSOR MODE

With its memory, your typewriter can store texts as well as one frequently used format. The backup battery will maintain the memory for approximately five years.

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

```
CREATE-P
```

This is the first of there "Mode Selection Displays" in which the various word processor modes can be selected. To view the other options, press **[SPACE BAR]** repeatedly.   You can also scroll through this menu with **[ALT]** + **[CURSOR DOWN] (K)** / **[ALT]** + **[CURSOR UP] (I)**.

```
CREATE-N
```

```
EDIT
```

```
P:PR D:DEL R:REN
```

Press **[RETURN]** to select a mode. If you chose the PR-DEL-REN sub-menu, select one of the options by pressing **[P], [D]** or **[R]**.

Indication	Meaning
CREATE-P	To create a new file and print the text simultaneously.
CREATE-N	To create a new file without printing the text simultaneously.
EDIT	To modify a file already stored in the memory.
PR	To print a file already stored in the memory.
DEL	To delete a file.
REN	To rename a file already stored in the memory.

- To return to the typewriter mode from the Mode Selection Displays, simply press **[CODE]** + **[TW/WP]**.

Creating a file

There are two ways to create a new file:

- **CREATE-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.

- **CREATE-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 PR. 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] + [STEP] (D)**. 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 that file.

Renaming a file

This is used to rename a file already stored in the memory. Select REN and type a new file name.

Text and format files

This machine can store two types of files: text and format files.

After you select the edit option from the Mode Selection Displays, 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, deleting or renaming.

```
NAME:□
```

1) Entering a file name

If you have selected CREATE-P or CREATE-N, the input areas at the right of "NAME" are empty. You may enter a name for the file you are going to create. A file name is made of a maximum of eight (8) characters. Press **[RETURN]** when the file name is typed.

2) **Selecting a file name**   [ALT] + [INSERT↑] or [ALT] + [K KB↓]

If you have selected EDIT, PR, DEL, or REN, the input area at the right of "NAME" will show the last text file created. To select another existing file name, use **[ALT] + [CURSOR UP] (I) / [ALT] + [CURSOR DOWN] (K)** or **[SPACE BAR]**. Press **[RETURN]** when the name of the file you want to edit, print, delete, or rename appears.

- If you realize that you selected the wrong option in the Mode Selection Displays (for instance, you wanted to edit a file, but you mistakenly pressed **[D]** for DEL), press **[CODE] + [END] (G)** to return to the Mode Selection Displays.


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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 FUNCTIONS". page 60.

Text file

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

1) Set up your margins and tabs before selecting the word processing mode.

2) Call the Mode Selection Displays by pressing **[CODE] + [TW/WP]**.

3) Press **[SPACE BAR]** or **[ALT] + [CURSOR UP]** (I) / **[ALT] + [CURSOR DOWN]** (K) to select either the "CREATE-P" or "CREATE-N" file creation mode. Press **[RETURN]**. The File Selection Display appears:
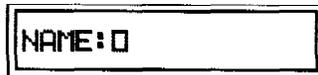
```
NAME:□
```

4) Type a new file name (8 characters maximum). You can use letter keys (capital or small letters). number keys. the hyphen key. and the period key. Other character keys will be refused and will produce a beep. If you make a mistake while typing the name, you can use **[CORRECT]**, **[BACK-SPACE]**, **[CODE] + [L OUT]** or **[W OUT]**.

5) Press **[RETURN]**. The display is cleared, and you may start entering your text. The cursor is next to the " ► " mark for a text file.

> • 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.

```
►□
```
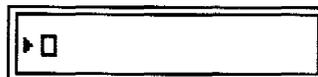
6) Type your text. If you go beyond the available memory space, the message "MEMORY FULL" appears and a beep sounds. You cannot enter anything else, but the text already entered is stored in the memory.

7) When the file is completed, press **[CODE] + [END]** (G) to return to the Mode Selection Displays, or press **[CODE] + [TW/WP]** 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 switch on the status indicators, press **[CODE] + [ALT]**.

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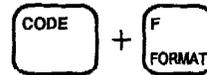
The format file (you may have only one format file in the memory, and its name can only be "FORMAT") is a special text file in which you can store a format that you plan to use more than once. The format functions are: pitch, line spacing, left and right margins, regular and decimal tab.

1) Set the pitch, line spacing, left and right margins, regular and decimal tabs in typewriter mode.

2) Press **[CODE] + [TW/WP]** to switch to the Mode Selection Displays.

3) Select the CREATE-P mode and press **[RETURN]**.

4) The name of the format file can only be "FORMAT" (uppercase). You may type this file name, or press **[CODE] + [FORMAT] (F)**. Press **[RETURN]** to clear the display.

5) To store the format file, press **[CODE] + [END] (G)**.

Using the format file

1) Press **[CODE] + [TW/WP]** to switch to the Mode Selection Displays.

```
┌──────────────────────┐
│ CREATE-P             │
│                      │
└──────────────────────┘
```

2) Press 3 times **[SPACE BAR]** or **[ALT] + [CURSOR DOWN] (K)** and select "PR".

3) Use **[SPACE BAR]** or **[ALT] + [CURSOR UP] (I)** / **[ALT] + [CURSOR DOWN] (K)** to display the file name "FORMAT".

```
┌──────────────────────┐
│ NAME:FORMAT          │
│                      │
└──────────────────────┘
```

4) Press **[RETURN]**. The format stored in the FORMAT file replaces the current format.

5) Select CREATE-P or CREATE-N to start entering text in the format of the FORMAT file. You may also switch to the typewriter mode by pressing **[CODE] + [TW/WP]** 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.

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CREATING A FILE

Changing the format

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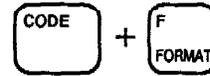
With the format function, you can change the format information of a text file (pitch, line spacing, left and right margins, regular and decimal tabs). The procedure is the same in CREATE-P, CREATE-N, and EDIT, except for the first step.

1) CREATE-P mode:

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

> • Remember to always press **[RETURN]** 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) CREATE-N and EDIT modes:

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

2) Press **[CODE] + [FORMAT] (F)**. The following message appears:

    ↵ 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] + [FORMAT] (F)**. The original display re-appears and a format symbol (▶) is inserted at the beginning of the line.

> • To cancel the new format, press **[CODE] + [END] (G)**   instead of **[CODE] + [FORMAT] (F)**.
> • It is impossible to reset the format when the system is in paragraph indent mode in CREATE-N or EDIT modes .

Justification

ALT + RELOC
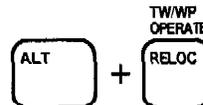
CREATE-P mode

Pressing **[ALT] + [OPERATE]** 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.

CREATE-N and EDIT modes

You cannot decide whether the text will be justified or not while in CREATE-N or EDIT mode. (You may select "L/L" or "JUST" with **[ALT] + [OPERATE]**, 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 describes some functions you can use to edit a text in CREATE-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 overwrite mode (the characters you type replace the old characters), press **[CODE] + [INSERT] (I)**. 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 **[CODE]** or **[ALT]**:

| Keys	Function
ALT + CURSOR LEFT (J)	Moves by one character to the left.
ALT + CURSOR RIGHT (L)	Moves by one character to the right.
ALT + CURSOR UP (I)	Moves to the beginning of the preceding line.
ALT + CURSOR DOWN(K)	Moves to the beginning of the next line.
CODE + EXPR	Moves to the beginning of the line.
RELOC	Moves to the end of the line.
ALT + O	Moves to the beginning of the file.
ALT + P	Moves to the end of the file.

Selecting a file for editing
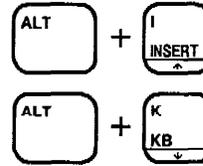
1) Call the selection display by pressing **[CODE]** + **[TW/WP]**.

2) Press twice **[ALT]** + **[CURSOR DOWN]** (K) or **[SPACE BAR]**.

```
EDIT
```

then **[RETURN]**. The following is displayed:

```
NAME:XXXX
```
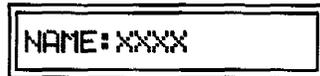
The name of the most recently used files is always displayed following the word NAME:.

3) If the file you want to edit is displayed, simply press **[RETURN]**. If it is not displayed, press **[ALT]** + **[CURSOR UP]** (I) / **[ALT]** + **[CURSOR DOWN]** (K) until the desired file name appears.

After **[RETURN]** is pressed, the cursor is next to the " ► " mark.

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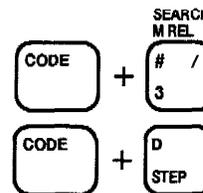
If you want to find a specific word without re-reading your whole text, use the search function. Your typewriter will do the job for you, by searching the text from the cursor position to the end of the file.

1) Position the cursor at the location from which you want to scan the file.

2) Call the search mode by pressing **[CODE]** + **[SEARCH]** (3). This displays the following:

```
SEARCH :□
```

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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 at "ABC" or "Abc". Enter the word exactly the way it appears in the text. You can enter superimposed characters and dead characters, but not stop codes and super/subscripts. Boldface and underlining are ignored.

```
SEARCH :carO
```

4) Press [CODE] + [STEP] (D) to begin the search.

5) The cursor moves to the first character 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.

```
he car?
```

6) If you want to find another occurrence of the same word, press [CODE] + [STEP] (D) 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. And the display returns to the edit mode by pressing any key.
- 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] + [END] (G) or [CODE] + [TW/WP] during the search cancels the function and calls either the edit mode or the typewriter mode (according to the key that was activated).

Replacing a word with another

**SEARCH
M REL**

`CODE` + `# /` `3`

**REPLACE
L MAR**

`CODE` + `$` `4`

`CODE` + `D` `STEP`
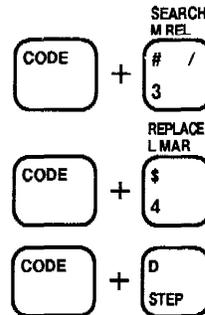
This function allows you to replace a specific word with another.

1) Position the cursor at the location from which you want to scan the file.

2) Call the replace mode by pressing **[CODE] + [REPLACE] (4)**. This displays the following:

```
SEARCH :□
```

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 at "ABC" or "Abc". Enter the word exactly the way it appears in the text. You can enter superimposed characters and dead characters, but not stop codes and super/subscripts. Boldface and underlining are ignored.

```
SEARCH :car□
```

4) Press **[RETURN]**. The following display appears:

```
REPLACE:□
```

5) Type the new word.

```
REPLACE:bike□
```

6) Press **[RETURN]**. This message will appear:

```
⊿ GLOBAL?
```

7) Press **[RETURN]** to replace all instances of "car" with "bike". The message "COMPLETED" will appear.

8) Press **[CODE] + [STEP] (D)**, if you want to be able to decide whether or not to replace each time the word "car" is found. The cursor moves to the first character of the searched word. (Hyphens that triggered a return in auto carrier return mode are ignored.)

```
he car?
```

9) If you want to replace this occurrence of the word, press **[CODE] + [REPLACE] (4)**. The replace word replaces the search word.

```
he bike?
```

10) If you do not want to replace this occurrence of the word, press **[CODE] + [STEP] (D)**. 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] + [END] (G)** or **[CODE] + [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.
- The replaced word(s) takes the attributes of the first character of the searched word(s).
- The SEARCH data is used in the same way in both SEARCH and REPLACE modes.

Hyphen scan (hyphenation scan)
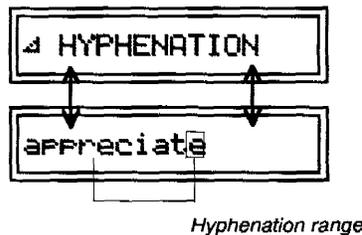
MOVE
H SCAN

[ALT] + [ ) / 0]
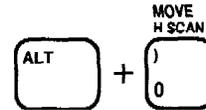
CREATE- N, EDIT modes

The automatic word wrap function always sends to the next line a word that cannot fit in before the right margin. When a long word is sent to the next line, it leaves a long blank space in the previous line. Such long blank spaces usually result in a very irregular appearance of the text.

The Hyphen scan function is provided to correct this situation. The function automatically detects a word that has produced a blank space longer than the hot zone and allows you to hyphenate that word. The portion of the word before the hyphen and the hyphen will now appear at the end of the previous line.

1) Press **[ALT] + [H SCAN] (0)** to activate the Hyphen scan function. The function starts searching for a long word that produced an unwanted blank space. During the search, the text does not scroll.

2) When a word is detected, the portion of the word is displayed on the screen, and the cursor is located on the last character of the word.

```
◢ HYPHENATION
```

```
appreciate
```

Hyphenation range

3) **To hyphenate the word:** Use **[ALT] + [CURSOR LEFT] (J)** and **[ALT] + [CURSOR RIGHT] (L)** to move the cursor to and acceptable hyphen position and press **[RETURN]**. A "ghost hyphen" is inserted, and the text is reformatted. The machine then starts searching for the next long word.

To skip the current long word: If you do not want to hyphenate the current word, press **[CODE] + [STEP] (D)**. The machine will start searching for the next long word.

To cancel the Hyphen scan function: Press **[CODE] + [END] (G)**. The cursor stays where it was when you pressed **[CODE] + [END] (G)**, and you may resume normal typing/editing.

4) The process repeats until you press **[CODE] + [END] (G)** or until the last long word has been found.


- The Hyphen scan function scans your text from the position where the cursor was when you pressed **[ALT] + [H SCAN]**, down to the end of the file.
- The hyphens that are inserted by this function are ghost hyphens, which means they will automatically disappear if you edit your text in such a way they are no longer needed.
- When a detected word is displayed, you will hear a beep if you try to move the cursor past the first or last character of the word. You will also hear a beep if you press **[RETURN]** to hyphenate the word outside the hyphenation range defined by the machine. In that case, try another position.

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.
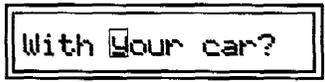

- Before starting an operation with a block, make sure the search/replace and format modes are off.
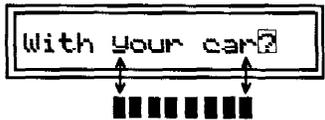

Marking a block

MARK
DT SET

[CODE] + [& / 7]
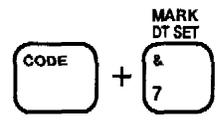
In order to paste, delete, or move a block of text, you must first mark that block of text.

1) Move the cursor to the beginning of the text block, and press [CODE] + [MARK] (7).

```
With Your car?
```

2) Move the cursor to the end of the text block and press [CODE] + [MARK] (7) again. The entire block is marked, and the marking will alternate with the characters.

```
With your car▨
```

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

[ALT] + [CURSOR UP](I), [ALT] + [CURSOR DOWN](K), [ALT] + [CURSOR LEFT](J), [ALT] + [CURSOR RIGHT](L), [CODE] + [EXPR], [RELOC], [CODE] + [END](G) and [CODE] + [TW/WP].

Cancelling the block definition

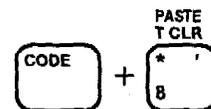There are four ways to cancel the block definition:

Moving the cursor to the beginning of the marked text and pressing **[CODE] + [MARK] (7)** will unmark the block.

Pressing **[CODE] + [END] (G)**.

Pressing **[CODE] + [TW/WP]**.

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

Pasting a block
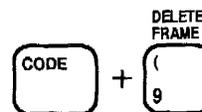

The paste function is used to quickly copy a marked block at another location.

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 **[CODE] + [PASTE] (8)**. 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

DELETE
FRAME

[CODE] + [(/ 9]

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

1) Mark the block as explained above.

2) Press **[CODE] + [DELETE] (9)** . 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

MOVE
H SCAN

[CODE] + [) / 0]
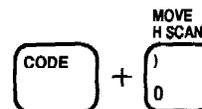
This function is used to remove a block from its current location and position it at another location.

1) Mark the block as explained above.

2) Move the cursor to the position where the block has to be relocated.

3) Press **[CODE] + [MOVE] (0)**. The block is transferred immediately to the cursor position.

- When 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 [ALT] + [A].

3) Enter your text. It will be processed as in CREATE-P. Printing will confirm to the original file's format.

- If there is no return mark at the end of the file text, the return mark is added automatically at the end of file when you enter the text.
- If the memory fills up during the process, the warning prompt "MEMORY FULL" is displayed.

Pressing [ALT] + [P] 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.33).

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	↲
TAB	→
LINE INDENT	⌐⌐⌐⌐⌐ (five permanent spaces)
PARAGRAPH INDENT	Pi
INDENT CLEAR	↲
CENTERING	C̄ T̄
RIGHT MARGIN FLUSH	R̄
DECIMAL TAB	D̩
STOP CODE	☰

> • In word processor mode, you have to move the cursor to the right of a layout symbol, then press **[W OUT]** in order to delete the layout symbol. The line-out function erases the whole line.
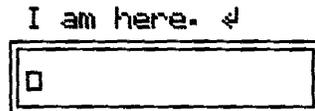
Return

```
┌──────────┐
│  RETURN  │
│  IND CLR │
└──┐       │
   │       │
   │       │
   └───────┘
```

CREATE-P mode

Pressing **[RETURN]** prints the displayed text and clears the display.

CREATE-N, EDIT mode

When you press **[RETURN]**, a return mark (↵) appears:

I am here. ↵

```
┌────────────────────┐
│ □                  │
└────────────────────┘
```

When you edit a text, it is possible to delete or insert a return mark. Pressing **[RETURN]** will insert the mark and split the text into different paragraphs. Deleting the return mark will join two different paragraphs. (You can delete the return mark the same way you would delete a character.)

Tabs

```
┌──────────┐
│ TAB      │
│          │
│ P IND    │
└──────────┘
```
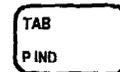
Pressing **[TAB]** inserts a normal tab mark (→) or a decimal tab mark (⊾) to the left of the cursor depending or the type of tab stop that is set at the right of the current cursor position. The tab mark will appear even in the overwrite mode. In the CREATE-P mode, the carrier moves to the next tab stop.

Paragraph indent

```
┌──────┐    ┌──────────┐
│ CODE │ +  │ TAB      │
│      │    │ P IND    │
└──────┘    └──────────┘
```

Pressing **[CODE] + [P IND]** inserts a paragraph indentation mark (Ρι) to the left of the cursor (even in overwrite mode).

In the CREATE-P mode, the carrier moves to the next tab stop.

Indent clear

CREATE-P mode

1) Pressing **[CODE] + [IND CLR]** prints the displayed data and clears the display. The carrier returns to the left margin of the next line.
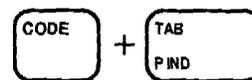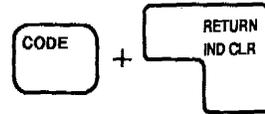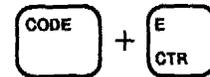
CREATE-N, EDIT mode

Pressing **[CODE] + [IND CLR]** inserts a paragraph indentation end mark (⅃) (even in overwrite mode).

Centering

Pressing **[CODE] + [CTR] (E)** inserts a centering between margin mark (Ĉ) or a centering between tab mark (T̄), depending on the current cursor position. The centering mark appears even in the overwrite mode. In the CREATE-P mode, the carrier moves to the center of the centering range.

If the text that is to be centered is too long to fit on one line, you will hear a beep, and the machine will refuse further input.

Right margin flush
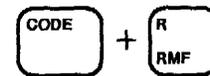
Pressing **[CODE] + [RMF] (R)** inserts the (R̄) mark to the left of the cursor (even in overwrite mode).

In the CREATE-P mode, the carrier moves to the right margin.

If the text is too long to fit on one line, you will hear a beep, and the machine will refuse further input.

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Decimal tab

CREATE-P mode

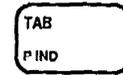Whenever you reach a decimal tab after pressing **[TAB]**, the carriage moves to the next decimal tab stop and the decimal tab mark (⅘) appears.

Type the integer part of the number, the decimal point, and the decimal part of the number.

CREATE-N, EDIT mode

Pressing **[TAB]** inserts a decimal tab mark (⅘).

Stop codes
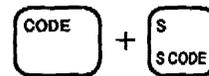
This function is very useful when you have to repeatedly type documents which are similar, except for minor parts. This function stops printing at a place where additions are necessary, allowing you to insert names, addresses, or other variable information in an otherwise identical text (see p.66).

CREATE-P, CREATE-N, EDIT mode

As soon as **[CODE]** + **[S CODE]** **(S)** is pressed, the stop code mark (⅀) is inserted at the left of the cursor (even in overwrite mode).

PRINTING A FILE

1) Use **[ALT] + [OPERATE]** to select "L/L" or "JUST". If you select "JUST", your text will be justified.

2) Call the Mode Selection Displays (press **[CODE] + [TW/WP]** if the system is in typewriter mode, or **[CODE] + [END] (G)** if the system is in word processor mode.)

```
CREATE-P
```

3) Press three times **[ALT] + [CURSOR DOWN](K)** or **[SPACE BAR]** to get the File Operation Selection Display.

```
P:PR D:DEL R:REN
```

4) Press **[P]**. The File Selection Display appears, showing the name of the most recently used file.

```
NAME:XXXX
```

5) Use **[SPACE BAR]** or **[ALT] + [CURSOR UP] (I) / [ALT] + [CURSOR DOWN] (K)** to select the file.

6) Press **[RETURN]** when the file you want to print is displayed. The following message appears:

```
◢ PRINTING
```

- Press **[CODE] + [END] (G)** to exit the PRINT mode or **[CODE] + [STEP] (D)** to interrupt printing line by line. Press **[CODE] + [PRINT] (T)** 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.

Page end

When a page end (set with the page size function described p. 9) is reached during printing, the "PAGE END" message appears on the display.

1) Eject the paper using **[CODE] + [INDEX] (P)**, insert a new paper, press **[CODE] + [P INS] (A)** and finally **[RETURN]**.

2) Press **[CODE] + [PRINT] (T)** 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] + [END] (G)** cancels printing and returns the system to the Mode Selection Displays.

Printing a file during CREATE-N or EDIT

CODE + T PRINT
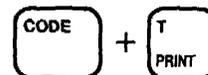
Printing is possible during CREATE-N and EDIT modes, but stop codes are ignored.

1) Press **[CODE] + [PRINT] (T)**. 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] + [END] (G)** 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]** **+ [STEP] (D)** 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
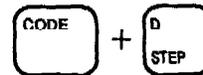
1) Press **[CODE]** **+ [STEP] (D)** during printing. The carrier stops at the left margin after printing the current line. A prompt tells you that you can insert text.
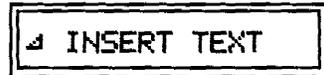
```
⏎  INSERT TEXT
```

2) Type any text that you would like to insert at this position on 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 "INSERT TEXT" as soon as the line is printed. You may start typing another line.

3) When you want to resume automatic printing, press **[CODE] + [PRINT] (T)**.

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] + [S CODE] (S)** 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 [CODE] + [STEP] (D). However, the "INSERT TEXT" prompt will be displayed after a return.

The editing 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 [CODE] + [STEP] (D) (one line will be printed).

Skipping text

```
CODE  +  D
            STEP
```
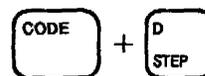
1) If there is a part of the text which should not be printed, press [CODE] + [STEP] (D) before the text portion prints. The following message is displayed.

```
◢ INSERT TEXT
```

2) Press [ALT] + [CURSOR LEFT](J) / [CURSOR RIGHT](L) in order to display the text. (Then the message disappears.) When the text you do not want to print is displayed, move the cursor to the position where printing should start again.

3) Press [CODE] + [PRINT] (T). Printing will start from the cursor location on, and the text that is before the cursor will be skipped.

DELETING FILES

Deleting a single file

1) Call the File Operation Selection Displays and press **[D]** to select the DEL mode.

2) Select a file and press **[RETURN]**. The following display asks for a confirmation.

```
◢ DELETE FILE?
```

3) If you really want to erase the file, press **[RETURN]**. 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] + [END] (G)** or **[CODE] + [TW/WP]** to cancel the operation.

Clearing the whole memory

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

RENAMING A FILE

1) Call the File Operation Selection Displays and press **[R]** to select the REN mode.

The File Selection Display will appear.

```
NAME: REPORT-1
```

The files shown are the most recently used.

2) Use **[ALT]** + **[CURSOR UP]** (I) and **[ALT]** + **[CURSOR DOWN]** (K) or **[SPACE BAR]** to select the desired file. Press **[RETURN]** to display the next screen:

```
RENAME: □
```

3) Type a new file name and press **[RETURN]** to rename the file. The system returns to the selection display when the file is renamed.

• If you enter a file name which already exists, you will hear a beep.

4) To exit the rename mode without renaming, press **[CODE]** + **[END]** **(G)** or **[CODE]** + **[TW/WP]** .

The "spelling checker" program described here provides simultaneous access to two powerful check functions: spell check and redundancy check. Although these are described as separate functions below, they normally work together in parallel . A menu allows you to specify you wish to use this function.

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.

Overview of the spelling checker

The ONE WORD mode and the FIND mode

The spelling checker can be used in two different modes: the ONE WORD CHECK mode, and the FIND mode. In the ONE WORD CHECK 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] + [FIND] (L) 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 CHECK mode when you are typing your text directly on the paper.   If you are typing on the display and do not want to be interrupted by the spell check, use the FIND mode. When your text is completed, you may use the FIND mode to check the entire file.

What can be checked?

The spelling checker can detect two kinds of errors: misspelled words and repeated words.

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Misspelled words : The machine has a built-in dictionary of approximately 95,000 standard English words, including their different grammatical forms. You may also add approximately 204 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.

Repeated words : For instance, the machine will warn you if you type "in in" instead of "is in". This is called "REDUNDANCY" check.
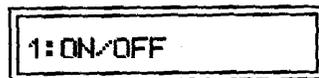
The user dictionary

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 functions related to the user dictionary are ADD (to add a word) and DEL (to delete a word from the user dictionary). It is possible to print a list of the words in the user dictionary. Set the machine into typewriter direct printing mode and press **[ALT] + [W SPELL]**. Pressing **[CODE] + [PRINT] (T)** will print out the contents of the user dictionary.

Setting the spelling checker

Press **[ALT] + [W SPELL]**. The following display appears:

```
1:ON/OFF
```
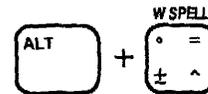
Other items may also appear if you press **[ALT] + [W SPELL]** after an error has been detected or when the last checked word belongs to the user dictionary (this will be explained later).

Pressing **[1]** turns on the ONE WORD CHECK mode if it was off, and off if it was on. When the ONE WORD CHECK mode is on, the status display shows an arrow under WORD SPELL. This setting is kept in the backup memory and you can view it anytime by pressing the **[CODE] + [ALT]** key.

Using the ONE WORD CHECK mode

Switch on the ONE WORD CHECK mode if it was off and start typing text. Pressing one of the following keys signals the end of a word and launches the spelling check:

[SPACE BAR] (and **[CODE] + [SPACE BAR]**), **[TAB], [RETURN]** (except when there is a hyphen at the end of the line), **[/],** more than two periods, **[CODE] + [IND CLR].** 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, **[CODE] + [INDEX] (P)** and **[CODE] + [REV] (O)** also mark the end of a word.

The spelling 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. 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 CHECK 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], [RELOC], [CODE] + [INDEX] (P)** or **[CODE] + [REV] (O).**

The spelling check 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 **[SPACE BAR].**

In **typewriter mode (printing mode),** the following is displayed:
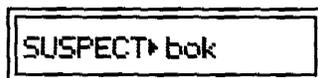
```
SUSPECT▶ bok
```

1) If you want to keep the word "bok", simply press **[RETURN],** or **[CODE] + [END] (G),** and resume typing.

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2) If you keep typing after a suspect word is detected, the text you type appears in the display without being printed. While still on the same line, press **[ALT] + [CURSOR UP]** (I) to redisplay the suspect word. To print out the text typed after the suspect word press **[RETURN]**.

3) If you want to modify the word manually, simply press **[CORRECT]** three times (or **[W OUT]**), then type the correct word.

4) The spell checker 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 **[CODE] + [SUGGES]** **(H)**. The word "bok" is automatically erased and the following is displayed:

```
┌─────────────────────────┐
│ ┌─────────────────────┐ │
│ │ SUGGEST▶ buck       │ │
│ └─────────────────────┘ │
└─────────────────────────┘
```

5) If the word "buck" is what you had in mind, simply press **[RETURN]**. The word "buck" will be automatically printed and you may resume typing.

6) A right arrow (▶) on the right side of the display indicates that the word is too long to be displayed completely. Press **[ALT] + [CURSOR RIGHT]** **(L)** to display the end of the word.

7) Press **[ALT] + [CURSOR DOWN]** **(K)** or **[ALT] + [CURSOR UP]** (I) to scroll through further suggestions.

```
┌─────────────────────────┐
│ ┌─────────────────────┐ │
│ │ SUGGEST▶ book       │ │
│ └─────────────────────┘ │
└─────────────────────────┘
```

```
┌─────────────────────────┐
│ ┌─────────────────────┐ │
│ │ SUGGEST▶ BORC       │ │
│ └─────────────────────┘ │
└─────────────────────────┘
```

8) If you get to the last suggestion and press **[ALT] + [CURSOR DOWN]** **(K)** again, the first one reappears.

9) To scroll back, press **[ALT] + [CURSOR UP]** (I).

10) When the word you want is displayed, press **[RETURN]**. If the word you need is not among the suggestions, exit the suggestion display by pressing **[CODE] + [END]** **(G)** and correct the word manually.

> • 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 and this message will alternate with the text you typed.

```
⊿ SPELL ERROR
```

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 **[CORRECT]**, then retype the correct word.

3) You may also press **[CODE] + [SUGGES] (H)**, and proceed as in the typewriter mode.

---

* In the display of the word processor mode, you place the cursor on the suspect word, and **[CODE] + [SUGGES] (H)** is available.
* 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, 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 "SUG.TOO LONG" will appears and automatic replacement will not take place.

Whenever the correct word is longer than the original and cannot be inserted in the line (in printing mode), the following alternating displays appear:

```
◢ TOO LONG!
```

```
◢ L-OUT AND RTN
```
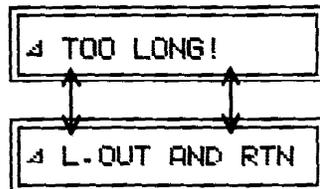
Erase the misspelled word and the rest of the line to the right of it, by pressing **[CODE] + [L OUT]**. To interrupt the line out, press **[CORRECT]**.

• Press **[CODE] + [END] (G)** to interrupt the spelling checker.
---

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 ₪▶ the
```
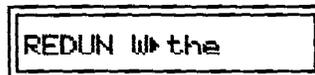
1) To erase the word, use **[CORRECT]** or **[W OUT]**, then resume typing.

2) If you want to keep the redundant word, press **[RETURN]** or **[CODE] + [END] (G)**.

In word processor mode or in typewriter mode (display mode), the following display appears and this message will alternate with the text you typed:

```
◢ REDUNDANCY ERR
```
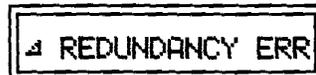
1) To delete the redundant word, **[BACKSPACE]** or use **[CORRECT]**.

2) If you want to keep the redundant word, simply resume typing.

Using the FIND mode

The find function allows you to check the current line in typewriter mode or CREATE-P mode, and the entire file in CREATE-N or EDIT mode. This mode is completely independent from the ONE WORD CHECK mode, and can be used whether or not the ONE WORD CHECK mode is on.

Checking in FIND mode
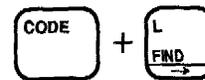
The FIND mode is activated when you press **[CODE]** + **[FIND]** (**L**).

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 (misspelling or redundancy). The correction is carried out in the same way as you would do in the ONE WORD CHECK mode. The FIND mode is automatically deactivated after one error detection. If you want to check the rest of the line, press **[CODE]** + **[FIND]** (**L**) again.

In **typewriter mode (display mode)** or in **CREATE-P mode,** pressing **[CODE]** + **[FIND]** (**L**) 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 typewriter printing 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]** + **[FIND]** (**L**) again.

In **CREATE-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 CHECK mode. After correcting an error, you must press **[CODE]** + **[FIND]** (**L**) again to search for the next error.

> • Pressing **[CODE]** + **[FIND]** (**L**) 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.

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Storing a word in the user dictionary

1) As we have seen, when the word spell function detect the spell error, 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] + [W SPELL]**.

The following appears:

```
1:ON/OFF 2:ADD
```

3) Press **[2]** to store the word (the message "WORD ADDED" will appear), or press **[CODE] + [END] (G)** if you change your mind.

Deleting a word from the user dictionary

1) 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] + [W SPELL]**. The following display appears:

```
1:ON/OFF 2:DEL
```

2) Press **[2]** to delete the word (the message "WORD DELETED" will appear), or press **[CODE] + [END] (G)** if you change your mind.

- Pressing **[CODE] + [SHIFT] + [CORRECT]** will delete all entries of the user dictionary and display the message " USER DIC. CLRD".
- Important:ONE WORD mode has to be activated.

Printing the user dictionary

1) Set your machine in direct printing mode and press **[ALT] + [W SPELL]**, then **[CODE] + [PRINT] (T)**.

2) 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] + [STEP] (D)**.

Printing is stopped after the current line is printed. " PRINT STOP" is displayed. To restart, use **[CODE] + [PRINT] (T)**. To cancel press **[CODE] + [END] (G)**.

PART IV ADVANCED FUNCTIONS

COLUMN LAYOUT

The column layout function is used in TW mode for easy creation of tables. Three spaces will automatically separate the columns, and the entire table will be centered between the margins.

You use the column layout mode to set the number and the width of the columns while typing the first row of the table. You then exit the column layout function. The tab or decimal tab stops that you have entered are kept in the memory (and will replace any previous tab settings). To type the remaining rows of the table, simply use [TAB] to position the carrier at the beginning of each column.

> • Before using the column layout function. make sure to delete any normal or decimal tab.

Setting the first row
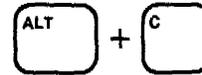
[ALT] + [C]

1) To start the column layout function, position the carrier on the left margin and press [ALT] + [C]. The carrier will move to the center between the left and right margins and this display will appear:

```
◢ COLUMN LAYOUT
```
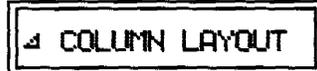
2) Type the text for the first column. The text is not printed directly. Instead, the text appears on the display, and the carrier moves a half space to the left for each character. (The carrier does not move when you press a DEAD key.)

3) Since the text typed in the first row determines where each tab is set, it is important to leave enough room for the longest entry in each column. Add enough space using the [SPACE BAR] to make room for the longest entry in the first column. (For example, if the text for the first column in the first row is Mary, and the longest entry in that column is Elizabeth, press the [SPACE BAR] 5 times after typing Mary.)

4) Press [ALT] + [T SET] (6). This will automatically create three blank spaces between the first and second column. The carrier moves one and a half spaces to the left. The display will look like this:

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```
┌──────────────────────┐
│ ABCDE→□              │
└──────────────────────┘
```

If you need a decimal point alignment in a column, press **[ALT] + [DT SET] (7)** instead of **[ALT] + [T SET] (6)**.

5) Repeat steps (2), (3), and (4) to enter the next columns of the first row. Be sure to add enough space to accommodate the longest entry in the column. After typing the last character of the first row, press **[ALT] + [C]** to confirm the tab stop position and exit the column layout function.

The machine calculates the total width of the table and automatically adds a paragraph indent at the left border of the table in order to center it. This display appears:

```
┌──────────────────────┐
│ ⏴ PARA. INDENT       │
└──────────────────────┘
```

This means that you are now in paragraph indent mode. The carrier is located at the left border of the table (under the first character of the first row).

• To exit the column layout function, press **[CODE] + [TW/WP]**. The Mode Selection Display of word processor mode will appear.


Typing the table

1) Type the text of the first column in the first row and press **[TAB]** to move the carrier to the next column.

2) Repeat this step to type all the columns in the row.

3) Press **[RETURN]** after typing the last character of the last column. The carrier will move to the left border of the table.

4) After typing all the rows of your table, press **[CODE] + [IND CLR]**. The carrier moves to the left margin and you may resume normal typing.

FORM TYPING

The form typing mode is used for easy typing on standard pre-printed forms. This mode allows you to record the position and text of the different items on the form. You may also save this information in a file. When you recall the file, the carrier will automatically move to the correct positions on the form.

Creating a new form file

```
[ CODE ]  +  [ % £
              6 ]
```
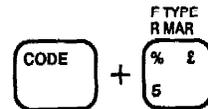
Only one form file can be stored in the memory.

1) In the TW mode, press **[CODE] + [F TYPE] (5)**. The form menu appears:

```
┌─────────────────┐
│ 1:F. IN 2:SET UP│
└─────────────────┘
```

┌──┐
│ • When the above screen is displayed, you can press **[CODE] +** │
│   **[F TYPE] (5)** or **[CODE] + [END] (G)** to return to the TW mode. You can │
│   also press **[CODE] + [TW/WP]** to switch to the WP mode. │
└──┘

2) Press **[2]** to create the form file.

3) Start recording the position of the items. This message will appear:

```
┌─────────────────┐
│ ◁ PRESS P INS   │
└─────────────────┘
```

4) Insert the form and press **[CODE] + [P INS] (A)**. The paper feeds automatically and this message appears:

```
┌─────────────────┐
│ ◁ PRESS RTN     │
└─────────────────┘
```

5) Press **[RETURN]**.The carrier moves to the left end. The position setting screen for the first item appears:

```
┌─────────────────┐
│ 1/( X, Y)       │
└─────────────────┘
```

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The numbers in brackets indicate the horizontal position and the vertical position.

6) Move the carrier to the position of the first item on the form using the following keys:

Key	Movement of the carrier
SPACE BAR	1 space to the right
ALT + SPACE BAR (MICRO SPACE)	1/60 inch to the right
BACKSPACE	1 space to the left
ALT + BACKSPACE (MICRO BACKSPACE)	1/60 inch to the left
CODE + INDEX (P)	1/12 inch down
ALT + P (MICRO INDEX)	1/48 inch down
CODE + REV (O)	1/12 inch up
ALT + O (MICRO REVERSE INDEX)	1/48 inch up
CODE + EXPR	To the left end
RETURN	Left end of the next line

7) Press one of the following keys to set the format of the item.

Key	How the item will be printed
ALT + T SET (6)	Left alignment with current position
ALT + DT SET (7)	Decimal tab at current position
CODE + CTR (E)	Centering around the current position
CODE + RMF (R)	Right alignment at current position

8) The position setting screen for the second item appears:

```
2/ (   X,    Y)
```

9) Proceed as for the first item. Continue to set the position for each time. After setting the position of each item, press **[CODE] + [END] (G)** to return to the form menu and eject the paper.

```
1:F. IN 2:SET UP
```

10) Press **[1]** to start entering the items at the preset positions. This message will appear:

```
↵ PRESS P INS
```

11) Position the form and press **[CODE] + [P INS] (A)**. The paper feeds automatically and this message appears:

```
↵ PRESS RTN
```

12) Press **[RETURN]**. The carrier automatically moves to the first item position and this message appears:

```
↵ POSITION OK?
```

- This message appears only before typing the first item. It gives you a chance to make a fine adjustment of the position (to compensate for the small position difference that may occur each time you insert a new sheet of paper in the machine). If necessary, move the carrier using the same keys as in step (6), and press **[RETURN]**. The machine allows you to move the carrier two inches to left or right, and one inch up or down. The item input screen for the first item will appear :

```
1/□
```

13) Type the item. If you need more than one line, press **[RETURN]** to print the current line and feed one line, then type the rest of the text. When the text is typed, press **[TAB]** to print and move to the next position, or **[CODE] + [TAB]** to move to the next position without printing.

> • Before you start typing the text, you may set the line spacing and the pitch . You may set the line spacing and the pitch for the current item while the cursor is at the beginning of the first line of the item text. The line spacing and pitch settings will be recorded along with the text.

14) When the form is filled, press **[CODE] + [END] (G)** to eject the paper and return to the form menu screen. The data (positions and item text) is saved.
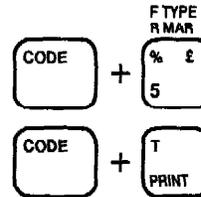
15) To exit the form typing mode, press **[CODE] + [F TYPE] (5)**.

> • While the data you are typing is displayed, you may use the following keys to edit:

Key	Effect
Normal characters	To type the text
SPACE BAR	To create a blank space
CODE + SPACE BAR	To create an unbreakable space
- (hyphen)	To create a hyphen
CODE + - (hyphen)	To create an unbreakable hyphen
ALT + BOLD (=)	To create bold face text
ALT + UNDLN(-)	To create underlined text
CODE + EXPR/RELOC	To jump to the beginning or end of the current line
ALT + CURSOR LEFT(J)/RIGHT(L)	Moves the cursor on the screen
W OUT	To delete the word located to the left of the cursor
CODE + L OUT	To delete from the left of the cursor to the beginning of the line If cursor is positioned at the beginning of the line, the all data will be erased.
BACKSPACE	To delete one character to the left of the cursor
CORRECT	To delete one character to the left of the cursor
CODE + INSERT (I)	To switch between insert and overwrite modes
CODE + DELETE (9)	To delete the character the cursor is on

Printing forms

```
┌──────┐   ┌──────┐
│ CODE │ + │ % £  │  F TYPE
│      │   │      │  R MAR
│      │   │ 5    │
└──────┘   └──────┘

┌──────┐   ┌──────┐
│ CODE │ + │ T    │
│      │   │      │
│      │   │ PRINT│
└──────┘   └──────┘
```

---

* Pressing **[CODE] + [PRINT] (T)** in F. IN mode will start printing from the line on which the cursor is located.

---

1) In the TW mode, press **[CODE] + [F TYPE] (5)** to activate the form typing mode.

2) Press **[1]** to display this message.

```
┌──────────────────────┐
│ ┌──────────────────┐ │
│ │ ◢ PRESS P INS    │ │
│ └──────────────────┘ │
└──────────────────────┘
```

3) Position the form and press **[CODE] + [P INS] (A)**. The paper feeds automatically and this message appears:

```
┌──────────────────────┐
│ ┌──────────────────┐ │
│ │ ◢ PRESS RTN      │ │
│ └──────────────────┘ │
└──────────────────────┘
```

4) Press **[RETURN]**. The carrier automatically moves to the first item position and this message appears:

```
┌──────────────────────┐
│ ┌──────────────────┐ │
│ │ ◢ POSITION OK?   │ │
│ └──────────────────┘ │
└──────────────────────┘
```

This message appears only before typing the first item. It gives you a chance to make a fine adjustment of the position (to compensate for the small position difference that may occur each time you insert a new sheet of paper in the machine). If necessary, move the carrier to a more accurate position.

5) Press **[RETURN]** when the position is correct. The text that you entered while using this file the last time appears. For example:

```
┌──────────────────────┐
│ ┌──────────────────┐ │
│ │ 1/John           │ │
│ └──────────────────┘ │
└──────────────────────┘
```

6) If necessary, edit the item.

7) Press **[TAB]** to print and move to the next item, or **[CODE] + [TAB]** to move to the next item without printing.

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8) Proceed the same way until your form is filled, then press **[CODE] + [END]** **(G)** to eject the paper and return to the form menu screen. From there, you can:
   - Press **[1]** to start filling another form.
   - Press **[2]** to edit the settings.
   - Press **[CODE] + [F TYPE] (5)** to exit the form typing mode.
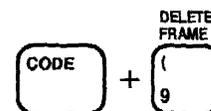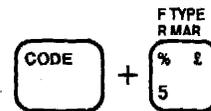
Editing a form file

F TYPE
R MAR

```
┌────────┐      ┌──────────┐
│ CODE   │  +   │ %    £   │
│        │      │          │
│        │      │ 5        │
└────────┘      └──────────┘
```
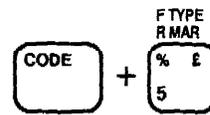
1) Press **[CODE] + [F TYPE] (5)** in the TW mode. The Form Type Menu screen appears:

```
┌─────────────────────┐
│ 1:F. IN 2:SET UP    │
└─────────────────────┘
```

2) Press **[1]** to edit the contents or **[2]** to edit the set up format.

3) To edit the file, follow steps (1) through (15) on pages 80 ~ 83.

```
┌──────────────────────────────────────────────────────────┐
│  • Press [ALT] + [T] to edit the data without carriage     │
│    movement. This function is used to edit the multiple    │
│    line data. Press [ALT] + [T] again to return to         │
│    normal mode.                                            │
└──────────────────────────────────────────────────────────┘
```

Deleting a form file

F TYPE
R MAR

```
┌────────┐      ┌──────────┐
│ CODE   │  +   │ %    £   │
│        │      │          │
│        │      │ 5        │
└────────┘      └──────────┘
```

DELETE
FRAME

```
┌────────┐      ┌──────────┐
│ CODE   │  +   │ (        │
│        │      │          │
│        │      │ 9        │
└────────┘      └──────────┘
```

1) Press **[CODE] + [F TYPE] (5)** in the TW mode. The Form Menu Screen appears:

```
┌─────────────────────┐
│ 1:F. IN 2:SET UP    │
└─────────────────────┘
```

2) Press **[CODE] + [DELETE] (9)**.

```
┌─────────────────────┐
│ ⊿ DELETE FORM?      │
└─────────────────────┘
```

3) Press **[RETURN]** to delete the contents of file, or press **[CODE] + [END] (G)** to exit without deleting.

PERSONAL CHECK TYPING

The personal check typing mode allows for easy typing of checks. The printing positions can be set and are saved to the memory. The amount typed in digits is automatically spelled out in words and printed at the correct position on the check.

Note: When you use the Personal Check Typing function, please change the keyboard setting to KB1 (Standard keyboard) before inputting the data.

Setting the check format
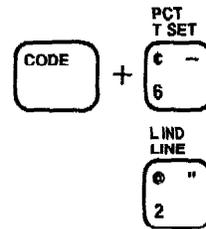
| • Even if you are in Personal Check Typing mode, you can change the pitch and line space in the Check Menu Screen only. |

1) In the TW mode, press **[CODE] + [PCT] (6)** to display the Check Menu Screen:

```
1:DATA 2:FORMAT
```

2) Your machine comes with a default format setting.

```
                                                    1170
                                                    55-2/212

                                  Date _____ 19 __
Pay To
The Order Of  _____ , $ [        ]

              _____


              _____
```

If you want to change these settings, press [2]. This message will appear:

```
⊿ PRESS P INS
```

3) Align the left edge of the check with the left end of the line (0 position of the scale on the acoustic cover) and press [CODE] + [P INS] (A). This message appears:

```
⊿ PRESS RTN
```

4) Press [RETURN] to display the Data Position Screen:

```
DATE :< X, Y>
```

The numbers in brackets show the horizontal position in 1/60 inch, and the vertical position in 1/48 inch.

5) The carrier moves to the position for the date. If you want to change the position, use the following keys.

Key	Movement of the carrier
SPACE BAR	1 space to the right
ALT + SPACE BAR (MICRO SPACE)	1/60 inch to the right
BACKSPACE	1 space to the left
ALT + BACKSPACE (MICRO BACKSPACE)	1/60 inch to the left
CODE + INDEX (P)	1/12 inch down
ALT + P (MICRO INDEX)	1/48 inch down
CODE + REV (O)	1/12 inch up
ALT + O (MICRO REVERSE INDEX)	1/48 inch up
CODE + EXPR	Moves to the left end
RETURN	Moves to left end of the next line
TAB	Moves to the next position

6) Press **[ALT] + [T SET] (6)** to set the date position. Press **[TAB]** to move to the "pay to" position setting screen:

```
PAY TO: (  X,  Y)
```

7) Move the carrier to the position on the check where you have to type the name of the person to whom the check is due, and press **[ALT] + [T SET] (6)**. Press **[TAB]** to move to the amount 1 position screen:

```
AMT1  : (  X,  Y)
```

8) Move the carrier to the position on the check where you have to type the amount in digits and press **[ALT] + [T SET] (6)** and **[TAB]**. The amount 2 position screen appears:

```
AMT2  : (  X,  Y)
```

9) Move the carrier to the position on the check where you have to type the amount in letters and press **[ALT] + [T SET] (6)** and **[TAB]** to confirm the position and eject the check. Your setting is complete, and the Check Menu Screen appears:

```
1:DATA  2:FORMAT
```

Filling in a check

CODE + [¢ — / 6] (PCT / T SET)

[! / 1] (PITCH)
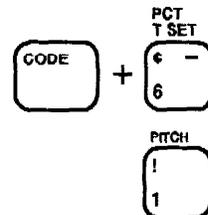
• Before trying to fill in a check, be sure that you have already set up the positions (see previous section).

• When printing the data onto a check, we recommend that you use a multi-strike ribbon. This will prevent the data from being easily altered.

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1) During the TW mode, press **[CODE] + [PCT] (6)** to display the Check Menu Screen:

```
1:DATA 2:FORMAT
```

You may press [ALT] + [T] at this step to prevent unnecessary movement of the carrier.

2) Press **[1]**. This message will appear:

```
◢ PRESS P INS
```

3) Align the left edge of the check with the left end of the line (0 position of the scale on the acoustic cover) and press **[CODE] + [P INS] (A)**. The check is fed and this message appears:

```
◢ PRESS RTN
```

4) Press **[RETURN]** to move the carrier to the date typing position. The machine asks you to confirm the position:

```
◢ POSITION OK?
```

This message appears only before typing the date. It gives you a chance to make a fine adjustment of the position (to compensate for the small position difference that may occur each time you insert a new check in the machine). If necessary, move the carrier using the same keys as in the previous section, "Setting the check format", step (5), and press **[RETURN]**. The machine allows you to move the carrier two inches to left or right, and one inch up or down. The date input screen appears:

```
DATE:□
```

Key	Effect
Normal characters	To type the text. When entering amounts, you are restricted to these characters: numerals, a comma, period, $.
SPACE BAR	To create a blank space
- (hyphen)	To create a hyphen
ALT + BOLD (=)	To create bold face text (if you type "AMT 1" in bold, "AMT 2" will also be printed in bold)
ALT + UNDLN (-)	To create underlined text (if you underline "AMT 1", "AMT 2" will also be underlined)
CODE + EXPR/RELOC	To jump to the beginning or end of the current line
ALT + CURSOR LEFT (J) /RIGHT (L)	Moves the cursor on the screen
W OUT	To delete the word located to the left of the cursor
CODE + L OUT	To delete from the left of the cursor to the beginning of the line If cursor is positioned at the beginning of data, pressing [CODE] + [L OUT] erases the all data on the current line.
BACKSPACE	To delete one character to the left of the cursor
CORRECT	To delete one character to the left of the cursor
CODE + INSERT (I)	To switch between insert and overwrite modes
CODE + DELETE (9)	To delete the data at the cursor position

5) Type the date and press [RETURN] or [TAB] to print and move to the next position, or [CODE] + [TAB] to move to the next position without printing. The carrier moves to the "pay to" typing position and the "pay to" input screen appears:

```
PAY TO:□
```

6) Type the name. Press **[RETURN]** or **[TAB]** to print and move to the next position, or **[CODE] + [TAB]** to move to the next position without printing. The carrier moves to the amount typing position (digits) and the AMT 1 input screen appears:

```
AMT1:0
```

7) Type the amount in digits (you can also use the symbols $, a comma, and a period) and press **[RETURN]** or **[TAB]** to print the amount in digits. The amount will automatically be spelled out. Press **[CODE] + [TAB]** if you don't want to print at this point. Example:

AMT 1 ⇒ 3,333.33

AMT 2 ⇒ THREE THOUSAND THREE HUNDRED THIRTY-THREE AND 33/100 -

---

- Be sure to enter the "AMT 1" data correctly. If you make a mistake, "ERROR" will be displayed when you press **[RETURN]**, **[TAB]**, or **[CODE] + [TAB]**. To enter the "AMT 1" data correctly, please observe the following rules:

1 If you type the "$" mark, type it at the beginning of the data. If you omit the "$" mark, the machine assumes that the amount is in dollars.
2 If you type a comma to separate the thousands, be sure to type it at the correct positions (before the three last digits of the integer part).
3 Do not type more than two digits after the decimal point.
4 Do not type more than four digits for the integer part.
5 Do not type "0" (zero) at the beginning of the integer part.

To exit the mode, press **[CODE] + [TW/WP]**, **[CODE] + [END] (G)** or **[CODE] + [PCT] (6)**.

Deleting existing format

DELETE
FRAME

$$\boxed{\text{CODE}} + \boxed{\substack{(\\ 9}}$$
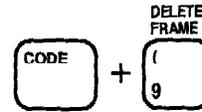
1) To delete the format, press **[CODE]** + **[DELETE]** **(9)** while editing the positions.

   A confirmation message will appear:

   ┌─────────────────────┐
   │ ◢ DELETE? Y∕N   │
   └─────────────────────┘

2) Press **[Y]** to delete or **[N]** to exit without deleting. When you delete the format, all positions are reset to their default values. If you press **[Y]**, the Check Menu Screen appears. If you press **[N]**, the screen that was displayed before you pressed **[CODE]** + **[DELETE]** **(9)** reappears.

FRAMING
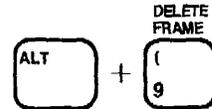
The framing function allows you to automatically print vertical and horizontal lines.

The lines are input in a special "frame" mode. When the input of the frame data is completed, you may print the frame, then type text inside the frame using the typewriter mode. The frame data is automatically stored in the memory for later use. You may enter the frame mode from the typewriter mode (normal or AUTO).

There are three different characters are used to print a frame:

Character	Use
_	For horizontal lines
=	For double horizontal lines.
|	For vertical lines.

Note: If the framing characters are not available on KB 1, please select KB 2 or 3 and insert the corresponding daisy wheel before you try to use the framing function. The period will be used for vertical lines if the vertical bar is not available on KB 1.

Defining and printing a simple frame

1) Use [RETURN], [CODE] + [INDEX] (P), [CODE] + [REV] (O), [SPACE BAR], [TAB], [BACKSPACE] to move the carrier to the position of the paper where you want the upper-left corner of the frame to be (point "A" in the illustration).

2) Press [ALT] + [FRAME] (9).

3) Use [RETURN], [CODE] + [INDEX] (P), [CODE] + [REV] (O), [SPACE BAR], [TAB], [BACKSPACE] to move the carrier to the position of the paper where you want the lower-right corner of the frame to be (point "B" in the illustration).

4) Press [ALT] + [FRAME] (9). The frame is stored in the memory and the machine asks you if you want to print.

5) The message " RTN TO PRINT" appears. Press **[RETURN]** to print the frame, or press **[CODE] + [END] (G)** to cancel. The printout will look as follows:

```
A→  ┌─────────────────────┐
    │                     │
    │                     │
    │                     │
    │                     │
    │                     │
    └─────────────────────┘  ←─B
```
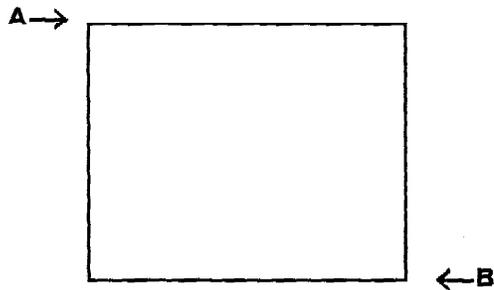
> • You may always cancel the frame mode by pressing **[CODE] + [TW/WP]** or **[CODE] + [END] (G)**.

Typing in a frame

1) If necessary, reset the keyboard and insert the proper daisy wheel.

2) After a frame is printed, the carrier automatically returns to the left margin position of the upper-left corner of the frame. Before you start typing, be sure to move the carrier to the desired position inside the frame.

Printing an old frame

1) Press **[ALT] + [FRAME]**.

2) Press **[CODE] + [PRINT] (T)**. If there is no frame in memory, you will hear a beep. If there is a frame in memory, the message " RTN TO PRINT" appears. Press **[RETURN]** to print the frame, or press **[CODE] + [END] (G)** to cancel.

> • When printing a frame, the machine ignores the current margins and the page end function.

Complex frames

To define the frame shown in the next illustration, proceed as follows:
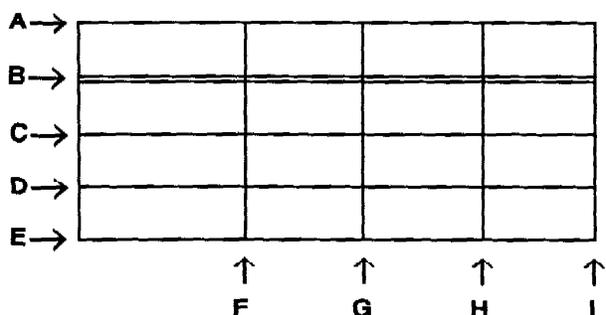
1) Move the carrier to "A" and press **[ALT] + [FRAME] (9)**.

2) Move the carrier to "B" and press **[═]**.

3) Move the carrier to "C" and press **[─]**.

4) Move the carrier to "D" and press **[_]**.

5) Move the carrier to "F" and press **[|]**.

6) Move the carrier to "G" and press **[|]**.

7) Move the carrier to "H" and press **[|]**.

8) Move the carrier to "I" and press **[ALT] + [FRAME] (9)**.

- A maximum of 12 vertical lines and 72 horizontal lines can be set. A beep sounds if you try to move above or to the left of the upper-left corner. Vertical lines entered past the lower-right corner or horizontal lines entered below that corner will be ignored.
- The default for the top and bottom lines is single line. This can be changed to double line by pressing " ═ " when the carrier is on the upper line. If you want the bottom line to be different from the top line, press the corresponding " ─ " or " ═ " key when the carrier is on the lower line (otherwise, the bottom line will use the same type as the top line).
- If you select the wrong type for a horizontal line (for instance, you press " ═ " instead of " ─ ", press the correct key before moving the carrier. The last selected type overrides the previous one.

- To delete a line inside the frame, move the carrier to that line and press **[CORRECT]**. If the carrier is located at the intersection of a vertical and horizontal line, both will be deleted.
- The vertical and horizontal lines defined in a frame always extend to the entire range of the frame. It is, therefore, impossible to define and print the frames shown below in one operation.
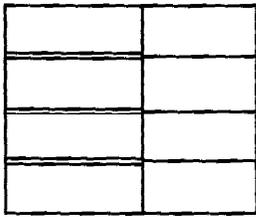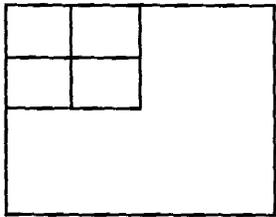
You may, however, define and print these frames in two operations:

CALCULATOR

```
                    CALC
                    BOLD
         ┌──────┐  ┌──────┐
         │CODE  │  │ +    │
         │      │ +│      │
         └──────┘  │ ═    │
                   └──────┘
```
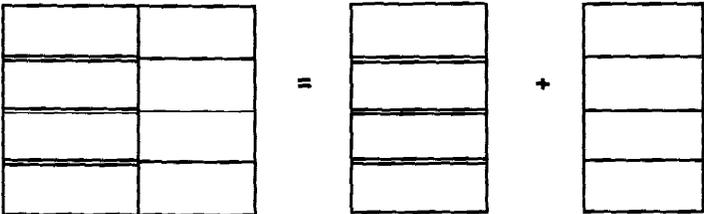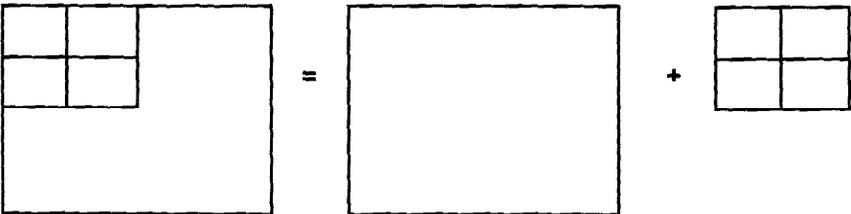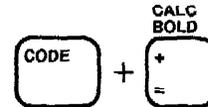
The Calculator allows you to conveniently perform calculations similar to those you would perform on an 8 digits pocket calculator. You can display the calculator screen on the Typewriter mode, Word Processing mode, FormType mode and Personal Check mode. If you wish, you can transfer calculation results back to your word processing document or data input area of the Form Type mode/Personal Check Typing mode.

1) Press **[CODE]** + **[CALC]** (≈).

```
┌────────────────────────────┐
│ CALC▸                    0 │
└────────────────────────────┘
```
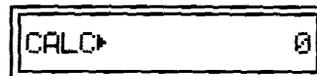
If you want to transfer the calculation results back to your document in the Word Processing mode or data input area of Form Type mode or Personal Check Typing mode, position the cursor where you want the results to appear before you use the calculator function.

Pressing **[CODE]** + **[PASTE]** (8) transfers the calculation results.

2) Use the number keys 1 to 0 to type numbers. The number appears on the screen. Each number can be up to 8 digits long including up to 7 decimal places. To correct the last digit, press **[BACKSPACE]**, **[CODE]** + **[DELETE]** (9) or **[CORRECT]** and retype.

3) Type and operator key ([+], [-], [*], or [/])

4) To get the result, press [≈] or **[RETURN]**.

The following table lists the calculator functions you can select.

Keys	Explanation
1 - 0	Types numbers
. (period)	Decimal point
+ (SHIFT + =)	Addition
-	Subtraction
* (SHIFT+ 8)	Multiplication
/ (slash)	Division

Keys	Explanation
=	Displays the result
±	Change the sign
RETURN	Displays the result
C	Clears the last entry
A **W OUT** **CODE + L OUT**	Clears the all entries
BACKSPACE **CORRECT** **CODE + DELETE (9)**	Deletes the last digit
CODE + PASTE (8)	Transfers the calculation result

You can also repeatedly perform the same operation on one or more numbers. For example, to add 2 repeatedly, enter 2++. "K" appears on the screen. If you then enter 4 and press **[RETURN]** or **[=]**, 6 appears as the result (4 + 2). If you enter 8 and press **[RETURN]** or **[=]**, 10 appears, and so on. You can perform repeated addition, subtraction, multiplication or division operations. To return to the normal calculation mode, enter the operator (+, -, *, or /) again.

When an error occurs during calculation, the numbers in the calculation field disappear and an "E" appears. To clear the error, type **[A]** or **[C]**.
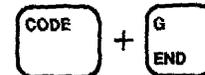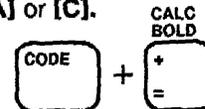
5) To exit from the Calculator, press **[CODE] + [CALC] (=)** or **[CODE] + [END] (G)**.

REPLACING THE RIBBON, ETC.

Replacing the cassette ribbon

Three types of ribbons are available:

Ribbon Type	Brother Model
Correctable film ribbon	1030 or 1230
Multi strike ribbon	1031
Nylon ribbon	1032

To replace the cassette ribbon:

1) Use [SPACE BAR] or [BACKSPACE] to move the carrier to the center of the platen.

2) Open the top cover.

3) Holding the cassette with both hands, lift the front of the cassette up and out.

4) Move the cassette towards the platen to remove it.

5) Turn the feed knob (on the left side of the cassette) counter-clockwise to tighten the ribbon in the new cassette.

6) Align the arrow on the cassette with the arrow on the cassette holder. Use both hands to ease the cassette into the holder, back first.

7) Gently press down on the front of the cassette until it clicks into place.

8) Again turn the feed knob counter-clockwise to take up any slack.

9) Close the top cover.

10) Press [CODE] + [RESET] (Q) to move the carrier to the previous position.

---
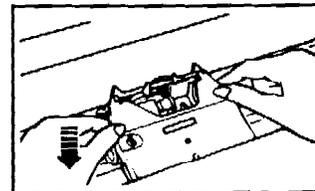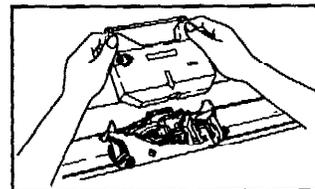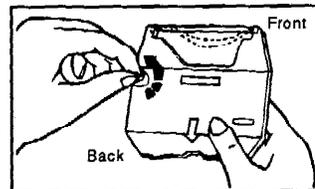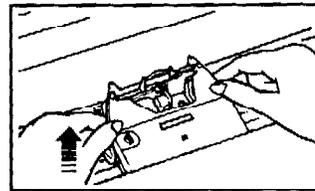
* The amount of tape remaining can be checked through the viewing hole on the right side of the cassette.

* Make sure to use only Brother-authorized cassette ribbons, correction tapes and cassette daisy wheels. Brother cannot be held responsible for difficulties caused by the use of unauthorized supplies.

Note: Please do not touch the keyboard during replacing the daisy wheel, cassette ribbon or correction tape in order to avoid carrier movement.

Replacing the correction tape

Two types of correction tape are available:

- Lift-off correction tape, to be used with correctable film ribbon.
- Cover-up correction tape, to be used with nylon and multi strike ribbons.

To replace the correction tape:

1) Use **[SPACE BAR]** or **[BACKSPACE]** to 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 it 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 top cover.

10) Press **[CODE] + [RESET] (Q)** to move the carrier to the previous position.
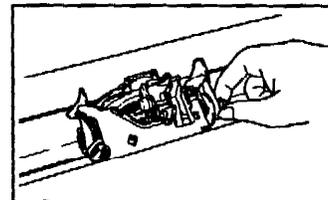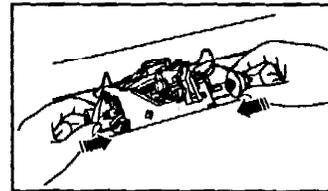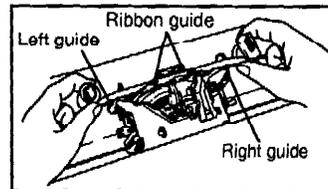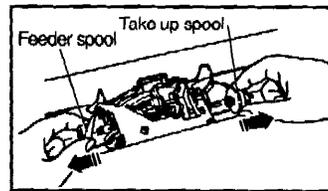
Replacing the cassette daisy wheel

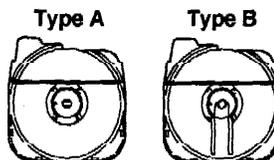The daisy wheel is housed in a clear plastic cassette for easy, damage-free handling and quick typeface changes.

To replace the cassette daisy wheel:

1) Open the top cover.

2) Pull the lever towards you to release the daisy wheel lock.

3) Remove the cassette daisy wheel by pulling it out of the machine by the protruding "ear" on the top right.

4) Insert the desired cassette daisy wheel 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.

6) Close the top cover.

7) Press [CODE] + [RESET] (Q) to move the carrier to the previous position.
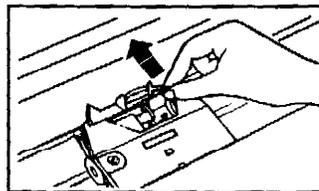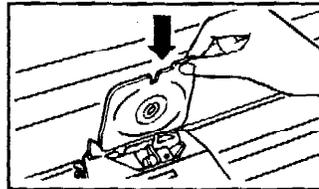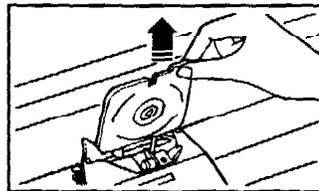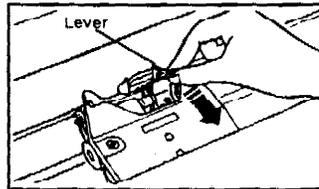
- Make sure the cassette daisy wheel is not inserted backwards. The "ear" should always be on the upper right.

- Improper insertion of the cassette daisy wheel may cause malfunction and incorrect printing.

- It is not necessary to remove the cassette ribbon when replacing the daisy wheel.

NOTE Please check the shape of your daisy wheel cassette before replacing the daisy wheel. The daisy wheel cassette type B cannot be used with this machine.

Type A   Type B

TROUBLESHOOTING

Problem

Problem	Solution
Nothing happens when power switch is turned on	1. Is the power cord plugged in?
Poor printing performance or printout is impossible	1. Is the daisy wheel properly installed? (Has the lever been pressed firmly?) 2. Have you run out of ribbon? 3. Try to press [CODE] + [RESET] (Q) to detect the home position of the carrier.
Poor correction performance	1. Has the correction tape been properly installed? 2. Have you run out of correction tape? 3. Are you using the proper correction tape? 4. Try to press [CODE] + [RESET] (Q) to detect the home position of the carrier.
The data in the memory is lost	1. Consult your dealers to replace the lithium battery in the machine. The backup battery maintains the memory for approximately five years.

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.

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)	12.87" (326.90mm)
Typing capacity	9.0" (228.6mm)
Typing speed	13 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	22,000 characters 20,000 characters for texts 2,000 characters for user words
Keyboard memory	48 characters
Correction memory	1 line (175 characters)
Maximum number of tabs	12 (including decimal tabs)
Display	LCD, 1 line x 16 characters
Carbon copies	Original + 4 copies
Ribbons	Correctable film - MODEL 1230 or 1030 Nylon - MODEL 1032 Multi Strike - MODEL 1031
Correction tapes	Lift-off - MODEL 3010 for use with correctable film ribbon & cover-up - MODEL 4010 for use with nylon ribbon and multi strike ribbon
Dimensions (W x D x H)	16.4" x 15.1" x 5.3" (417 x 383 x 134 mm)
Weight	10 lb

Changes or modifications not be expressly approved by Brother Industries, Ltd. could void the users authority to operate the equipment.

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

KEYBOARDS

You can set three different keyboard positions depending on the type of document you wish to type. There are also many different daisy wheel typefaces (available optionally) to match the keyboard you have selected.

International keyboard

The characters you can type are those in the top right-hand corner of the keys shown below. Please make sure to use the optionally available International cassette daisy wheel, otherwise you may find that different characters have been typed.

Examples:	@ 2	"	[ ]	| `	: ;	Ñ	Y ¶	#
KB Selector	1	2	1	2	1	2	1	2
Shift	@	"	[	|	:	Ñ	Y	Y
Non Shift	2	2	]	`	;	ñ	y	y
With Code Key							¶	#

Green

The illustration shows American English keys.

The characters in green do not change when you use **[SHIFT]**. If you wish to type any of these characters, simply hold down **[CODE]** and type the desired character, according to the keyboard you have selected.

Symbol keyboard layout

When using the symbol keyboard, affix the included symbols labels to the appropriate keys as shown in the layout below.

□ indicates dead keys

Hold down the **CODE** key and press the appropriate key to print symbols in these rows.

Dead keys on the Symbol keyboard are used for both accents and to create special symbols, For example, Σ is a combination of ∠ and ⊤ .

INDEX

Compatible Accessories

Starter kit

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

Cassette Ribbons/Correction Tapes

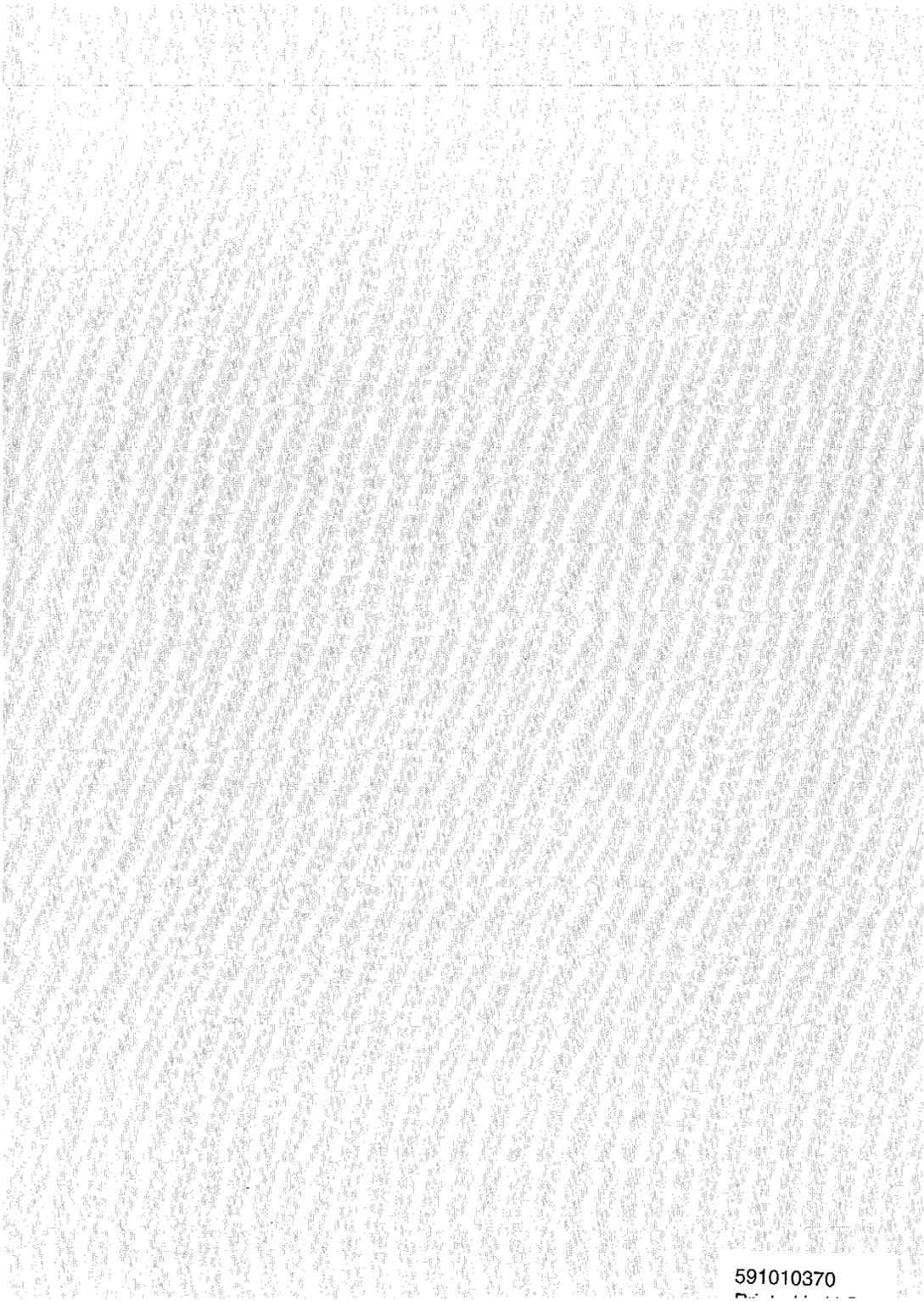| Item No.	Description
1030	Correctable film ribbon
1230	Correctable film ribbon (2 packs)
1031	Multi strike ribbon
1032	Nylon ribbon
3010	Lift-off Correction tapes (2 pcs.) (to be used with 1030, 1230 ribbons)
4010	Cover-up Correction tapes (2 pcs.) (to be used with 1031, 1032 ribbons)

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
M410	Quadro 15	15
M411	Brougham 10	10
M412	Brougham 12	12
M413	Brougham 15	15
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 10	10
M422	Super Grande II 10	10

Keep this page intact for future reference.
For additional accessories, please consult the accessory order form included in this manual.

For technical or operational assistance you may call our customer service representatives at (901) 373-6256 (8:30 am to 4:15 pm CST).

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

To order Brother accessories by Visa or MasterCard, you may call (800) 284-4357 or complete the order form in this user's guide and fax both sides of it to (800) 947-1445.

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