

Wheelwriter 35 Series II
Typewriter 6787-2
Operator's Guide

Federal Communications Commission (FCC) Statement

Note: The IBM Wheelwriter 35 Series II Typewriter 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 your authorized dealer or service representative for additional suggestions.

Neither IBM nor the manufacturer is responsible for any radio or television interference caused by using other than recommended cables or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

Note: To comply with FCC regulations on electromagnetic interference for a Class B computing device, the printer cable must be shielded and properly grounded.

To assure compliance with FCC regulations for a Class B computing device, use a properly shielded and grounded IBM cable. Part number for the interface cable is 1047010 for parallel interface. Use of a substitute cable not properly shielded and grounded may result in violation of FCC regulations.

Canadian Department of Communications Compliance Statement

This equipment does not exceed Class B limits per radio noise emissions for digital apparatus, set out in the Radio Interference Regulation of the Canadian Department of Communications.

Avis de conformité aux normes du ministère des Communications du Canada

Cet équipement ne dépasse pas les limites de Classe B d'émission de bruits radioélectriques pour les appareils numériques, telles que prescrites par le Règlement sur le brouillage radioélectrique établi par le ministère des Communications du Canada.

The United Kingdom Telecommunications Act 1984

This apparatus is approved under the General Approval Number NS/G/1234/J/100003 for the indirect connections to the public telecommunications systems in the United Kingdom.

Safety Information

This typewriter has additional insulation which provides extra protection against the risk of electric shock and does not rely on grounding. This typewriter has a nongrounding-type (2-wire) power cord because grounding is not necessary.

For continued protection against the risk of electric shock and personal injury:

- Connect the typewriter only to an outlet of the correct voltage. The voltage your typewriter will accept is indicated on the typewriter.
- Make sure the typewriter is turned off (O) before you connect or disconnect the power cord or interconnecting cables.
- Do not use the typewriter in an area where it can become wet.
- Keep hair and personal articles away from moving parts in the typewriter to avoid the possibility of getting them caught.
- Refer service or repair to qualified service personnel.
- There may be some increased risks of electric shock and personal injury during disassembly and servicing of this typewriter. Professional service personnel should understand this and take necessary precautions.
- The safety features of some parts may not always be obvious. Therefore, replacement parts must have the identical or equivalent characteristics as the original parts.
- The maintenance information for this typewriter has been written for the professional service person and is not intended to be used by others.

About Your Typewriter

Congratulations! You are about to experience typing with your new IBM® Wheelwriter® 35 Series II Typewriter.

Designed with you in mind, this typewriter includes many functions such as:

- Column Layout
- Format Print
- Line/Box Draw
- Variable Right Margin Zone
- Auto Page Numbering
- American Simplified Keyboard
- Word Underline
- Word Erase
- Justification
- Bold Print
- Expand Line Space
- Expand Print
- Tab/Column Adjust
- Find
- Change
- Mark (forms)
- Spell Check II.

These functions give you excellent typing quality and make your work more enjoyable.

The typewriter has a one-line display with adjustable contrast that you can tilt to a comfortable viewing angle. Paper, carrier and cursor movement keys, located to the right of the keyboard, allow you to move quickly and easily—up, down, left, or right to any location on the paper or the display.

The storage function allows you to store jobs for later use. The typewriter has a storage capacity of approximately 60,000 bytes (about 20 to 30 pages). After you store a job, you can play it back and revise it without retyping the entire job. You no longer have to retype frequently used jobs, such as form letters, repetitive paragraphs, and statistical reports.

You can enhance your IBM Wheelwriter 35 Series II Typewriter by adding the following options:

- Diskette Option
- Printer Option
- Dust Cover
- Sound Hood
- Pinwheel Form Feeder Option
- Sheetfeed Option

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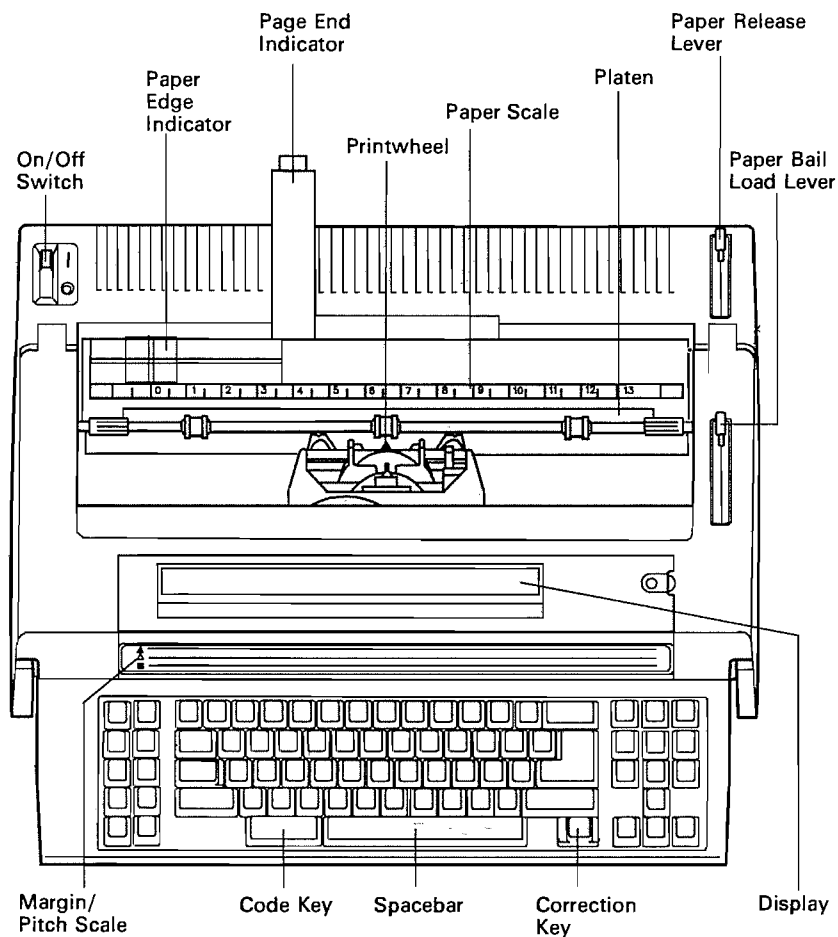
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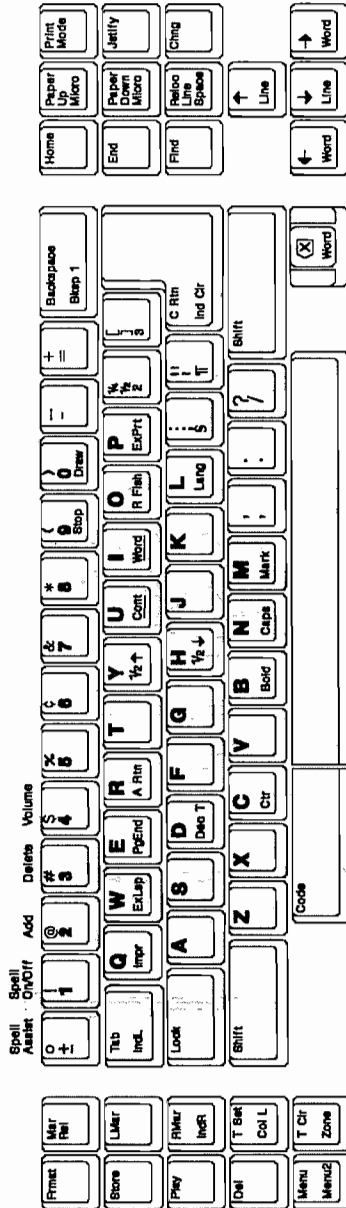
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Basic Operations

Parts of the Typewriter



Keyboard Layout



On/Off Switch

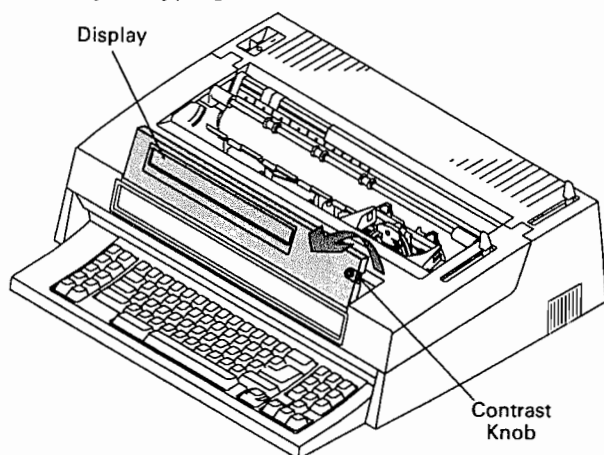
To turn the typewriter on or off, press the switch located on the left side of the typewriter. Pushing the switch toward the **I** turns the typewriter on while pushing the switch towards the **O** turns the typewriter off.

Helpful Hints

- Install a printwheel before you type. If you do not, the WHEEL indicator comes on. See “Changing the Printwheel” on page 7-7.
- Do not turn the typewriter off when the BUSY indicator is on.
- Wait five seconds after turning the typewriter off before you turn it back on. This allows the typewriter to reset.

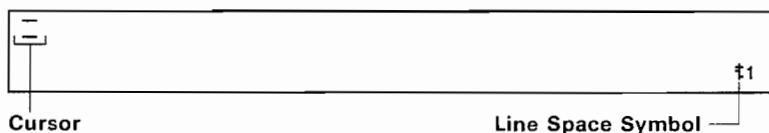
Display

As you type, occasionally look at the display for messages or indicators, or to check your typing.



1. Pull the display forward to raise it.
2. Tilt the display to a comfortable viewing angle to reduce glare.
3. Rotate the contrast knob on the right side of the display to adjust the contrast until the characters are clearly readable. The display temperature and room light can affect how characters appear on the display.

The display shows 71 characters. If you type more than 71 characters on a line, the text line clears and shows the last five characters you typed, then shows each additional character as you type it.



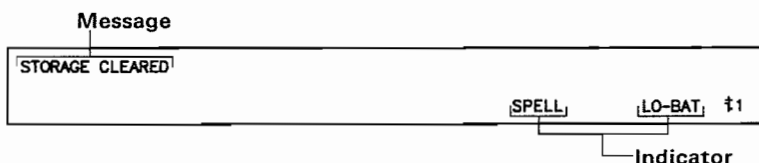
The *cursor* is the pair of horizontal blinking lines on the display. The cursor rests on the current typing position. The Line Space symbol and number on the right end of the display indicate the current line space setting (1 for single spacing, for example).

The display shows *messages* to help you use typewriter functions and inform you of typewriter conditions. For example, the STORAGE CLEARED message comes on if typewriter storage is empty.

An *indicator* is a word or abbreviation that shows you which typewriter function is active. For example, SPELL indicates that Spell Check II is on.












Each time you turn the typewriter on, wait for the typewriter to beep and the line space symbol to be displayed before you begin typing.










If the LO-BAT indicator comes on when you turn the typewriter on, see "Checking the Batteries" on page 7-10.



Display Symbols

The following symbols may appear during normal operation of the typewriter.

Symbol	Meaning
	Bold. This symbol is displayed above each character typed using Bold.
	Centering. This symbol is displayed at the beginning and end of centered text.
	Column Layout. This symbol is displayed between columns of text when using the column layout function.
	Decimal Tab (Begin). This symbol shows where the decimal tab text begins.
	Decimal Tab (End). This symbol shows where the decimal tab text ends.
	Expand Line Space. This symbol is displayed next to the current expand line space setting (1, 1½, 2, or 3).
	Indent Clear. This symbol is displayed when you hold down Code while you press CRtn to end indenting. The symbol is displayed <i>only</i> when revising a stored job.
	Indent Left. This symbol is displayed when you hold down Code while you press Tab to set a temporary left margin.
	Indent Right. This symbol is displayed when you hold down Code while you press RMar to set a temporary right margin.
	Line Space. This symbol is displayed next to the current line space setting (1, 1½, 2, or 3).
	Mark. These symbols are displayed when you hold down both Code and Shift while you press M to mark a form layout. These symbols are displayed <i>only</i> when revising a stored job.

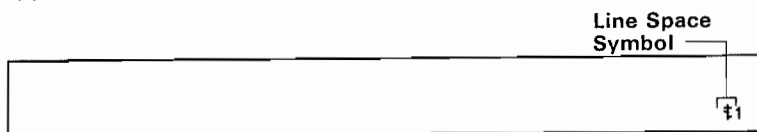
Symbol	Meaning
	Pitch Change. This symbol is displayed when you resume typing after changing pitch.
	Required Carrier Return. This symbol shows a carrier return that always plays back. For example, if you press CRtn before the right margin, the carrier return is required. The typewriter always plays back that carrier return at that point in the job. If several symbols are displayed together and/or a symbol is displayed at the beginning of a line, one blank line will play back for each symbol.
	Required Page End. This symbol is displayed when you hold down Code while you press E to end a page of a multipage job. This symbol is displayed <i>only</i> when revising a stored job.
	Right Flush. This symbol shows you where right flush text begins and ends.
	Subscript. This symbol is displayed when you hold down Code while you press H to type a subscript.
	Superscript. This symbol is displayed when you hold down Code while you press Y to type a superscript.
	Stop Code. This symbol is displayed before and after a stop code comment. If you did not type a stop code comment, two symbols appear to show the position of the stop code.
	Stop Code. During playback, these symbols are displayed when playback stops for a stop code and you have not typed a stop code comment. If you typed a stop code comment, it is displayed <i>between</i> the symbols.
	Tab. This symbol is displayed when you press Tab .

Display Indicators

Display	Description	Page
APAGE	Auto Page End on	4-10
APAGE#	Auto Page Numbering on	4-11
ARTN	Automatic Carrier Return on	2-1
BOLD	Bold Print on	2-11
BUSY	Typewriter Busy	1-3, 8-8
CAPS	Caps on	1-17
CENTER	Centering on	2-8
COL L	Column Layout	2-17
CONT	Continuous Underline on	2-5
DEC T	Decimal Tab on	2-15
DL PRT	Delay Print Mode on	2-20
EXPRTn	Expand Print (1,2,3,or 4)	2-12
HYPHEN	Hyphenation on	2-1, 5-2
IMPR n	Impression Level (1, 2, or 3)	1-15
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KYBD nnn	Keyboard (number)	2-24
1, 1½, 2, 3	Line Spacing	1-9
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NO PRT	No Print Mode on	2-20
PLAY	Play	3-4
RFLUSH	Right Flush on	2-9
SHIFT	Shift	1-17
SPELL	Spell Check II on	6-2
STORE	Storage open	3-1
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T ADJ	Tab/Column Adjust on	4-14
WHEEL nn	Install Wheel (pitch number)	2-22, 3-5

Line Space Key

When you turn the typewriter on, the line space symbol and a number appear on the display. You can set line spacing to 1, 1½, 2, or 3.



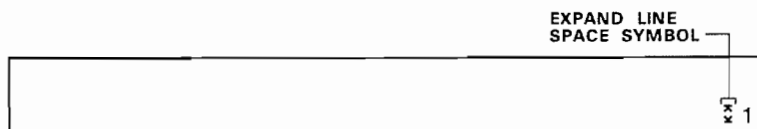
Hold down **Code** and press **Reloc (Line Space)** until you select desired line spacing.

- The number displayed next to the line space symbol changes to indicate the spacing selected.
- The line space setting is saved when you turn the typewriter off.

Expand Line Space

Expand Line Space increases the line spacing defined by the currently installed printwheel.

Hold down **Code** and press **W (ExLsp)** to activate Expand Line Space. The Expand Line Space symbol and a number appear on the display.



The printwheel spins and the line spacing increases based on the values in the table below.

	Lines Per Inch 10/12/PS Printwheels		Lines Per Inch 15-Pitch Printwheels	
Line Space Setting	Standard	Expanded	Standard	Expanded
1	6	5.33	8	7.38
1 ½	4	3.56	5.33	4.92
2	3	2.67	4	3.69
3	2	1.78	2.67	2.46

Hold down **Code** while you press **Reloc (Line Space)** repeatedly to step through the line space settings.

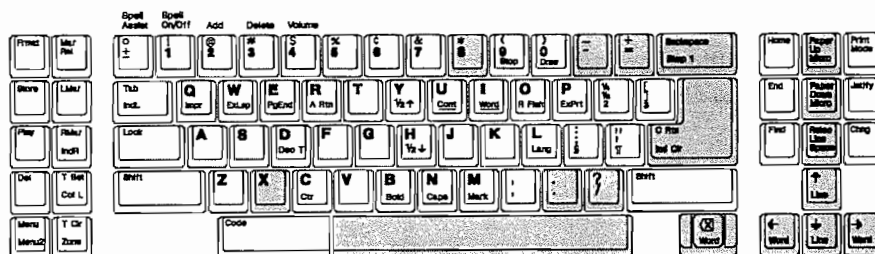
Hold down **Code** while you press **W (ExLsp)** to deactivate Expand Line Space. The printwheel spins.

Helpful Hints

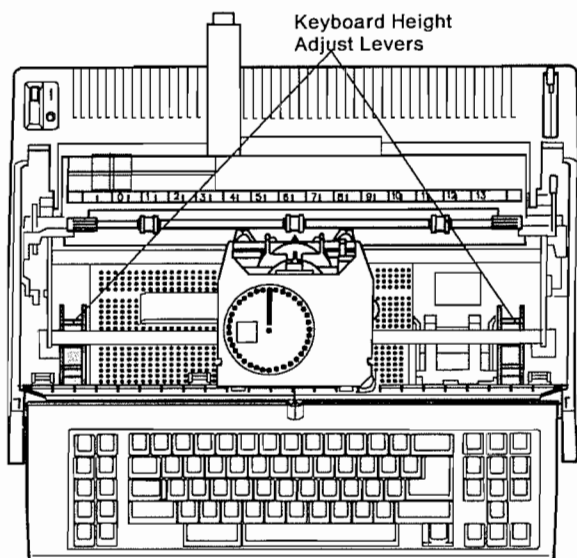
- Expand Line Space does not work on metric typewriters. A beep sounds if you attempt to activate Expand Line Space on a metric typewriter.
- The Expand Line Space setting is saved when you turn the typewriter off.

Typematic (Repeat) Keys

Typematic keys have both a single and *repeat* action. Press the desired typematic key once for a single action or hold the key down for repeat action. Typematic keys are shaded in the chart below.



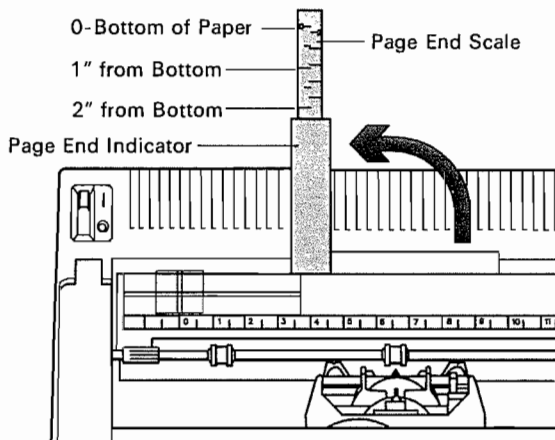
Keyboard Height Adjust Levers



Use the keyboard height adjust levers to raise or lower the keyboard to a comfortable position.

1. Use the **Spacebar** to move the carrier to the center of the typewriter.
2. Turn the typewriter off and raise the top cover.
3. Locate the two blue keyboard height adjust levers inside the typewriter on the right and left sides of the bottom panel.
4. Push the levers down and slide them to the desired position.
There are three positions: *low* (levers all the way back), *medium* (levers in the middle), and *high* (levers all the way forward).
5. Lock both levers into the same position.

Page End Indicator and Scale



Raise the page end indicator until it is straight up and pull the page end scale out until it locks into place.

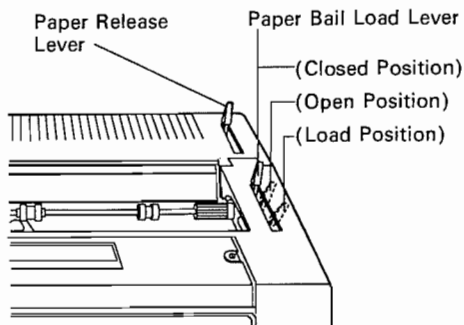
As you type, the top edge of the paper moves up to the lines on the scale. The scale tells you approximately how much space remains to the bottom of 27.9 cm (11 in) paper. The left side of the scale is marked in inches. The right side is marked in centimeters.

Keyboard Clicker

Turn the keyboard clicker on for more keyboard "feedback" while typing. You will hear the *click* each time you press a key.

Hold down **Code** while you press **S** to turn the clicker on or off.

Inserting and Removing Paper



Inserting Paper

Use the **Paper Ball Load Lever** to load paper semiautomatically. The lever has three positions: closed, open, and load.

1. Turn the typewriter on.
2. Push the *Paper Release Lever* all the way back.
3. Align the center of the paper edge indicator with the vertical line to the left of zero on the paper scale.
4. Align the left edge of the paper with the vertical line in the center of the paper edge indicator.
5. Pull the **Paper Ball Load Lever** to the load position. When the paper begins to feed, release the **Paper Ball Load Lever**. The paper feeds to the top margin position.
6. Push the **Paper Ball Load Lever** back until it holds the paper against the platen.

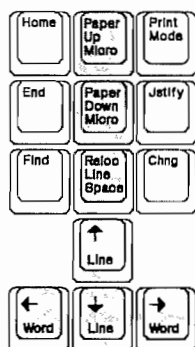
You can also use the **Paper Ball Load Lever** to change the top margin setting. See "Changing the Top Margin" on page 2-3.

Removing Paper

1. Pull the **Paper Ball Load Lever** to the open position.
2. Pull the *Paper Release Lever* toward you, then lift the paper out of the typewriter.
3. Push the *Paper Release Lever* and **Paper Ball Load Lever** back to the closed position.

Paper, Carrier and Cursor Movement Keys

The paper, carrier and cursor movement keys allow you to move rapidly from one point to another. You now have the advantage of express movement both right and left as well as up and down on a page.



To move the paper:

- Press **Paper Up** or **Paper Down** to move paper one-half line. Hold down **Paper Up** or **Paper Down** to move quickly up or down the page.
- Hold down **Code** while you press **Paper Up (Micro)** or **Paper Down (Micro)** to move paper one micro-index (1/48 in) for precise alignment.
- Press ↑ or ↓ to move paper the number of lines determined by the line space setting. Hold down ↑ or ↓ to move quickly from line to line on a page.
- Hold down **Code** while you press ↑ (**Line**) or ↓ (**Line**) to move from the current line, across blank space on the page, to the next line of existing text.

To move the carrier and cursor:

- Press ← or → to move across the current line. Hold down ← or → to move quickly across a line.
- Hold down **Code** while you press → (**Word**) to move to the next word.
- Hold down **Code** while you press ← (**Word**) to move to the previous word.

Relocating Last Position

If you have moved the carrier or cursor to previously typed text, press **Reloc** (Relocate) to return to the last typing position. You can now continue typing.

Impression Control

You can set the impression control to one of three settings to suit your typing needs: light (**1**), normal (**2**), and heavy (**3**). For example, type with the setting at **1** to achieve the highest quality corrections, or change the impression to **3** to type carbon copies. When you turn the typewriter on, the impression control automatically sets to **2** (normal).

To set the impression control, hold down **Code** while you press **Q** (**Impr**) repeatedly. The IMPR indicator and the impression control setting are displayed while you hold down **Code**.

IMPR 2

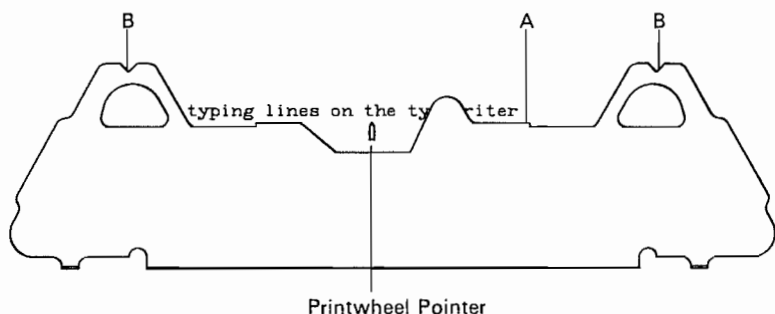
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Cardholder

The cardholder holds paper, cards, and envelopes against the platen.

The printwheel pointer shows where the next character will print.

The portion (A) at the top of the cardholder indicates the base of the typing line. As the typewriter prints, the bottom of each character rests just above the line.



Use the notches (B) to draw vertical lines. Move to the point where you want to draw a line, then hold a pencil against one of the notches while pressing **Paper Up**, **Paper Down**, \uparrow , or \downarrow to move the paper. Also see "Draw" on page 2-6.

Shift and Lock Keys

Use the **Shift** or **Lock** key to type all characters in uppercase. **Lock** allows you to type continuously in uppercase without pressing **Shift** for each capital letter.

1. Press **Lock** to type in uppercase. The SHIFT indicator comes on.
2. Press either **Shift** key to return to normal typing. The SHIFT indicator goes off.

Note: Turning on the Caps function cancels Lock and turns the CAPS indicator on.

Caps Key

When Caps is on, *only* alphabetic characters (a through z) are capitalized. All other characters print in lowercase.

Hold down **Code** while you press **N (Caps)** to turn Caps on or off. The CAPS indicator comes on when Caps is on.

Automatic Pitch Selection

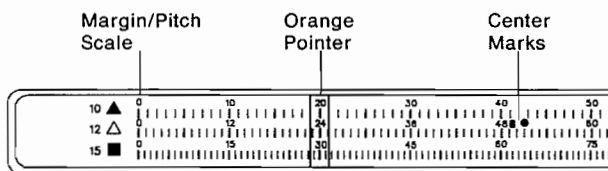
The typewriter automatically selects the correct pitch when you install a printwheel. Pitch determines the number of characters typed per horizontal inch.

Pitch (Type Size)	Characters Per Inch	Pitch Symbol	Print Example
10P (Pica)	10	▲	This is a sample.
12P (Elite)	12	△	This is a sample.
PS (Proportional Spacing)	Varies in Width	●	This is a sample.
15P (Micro Elite)	15	■	This is a sample.

A 10-, 12-, or PS-pitch printwheel prints six lines per vertical inch. A 15-pitch printwheel prints eight lines per vertical inch.

Margin/Pitch Scale

The typewriter has three margin scales: 10 ▲, 12 △, and 15 ■. Use the scale line that matches the pitch symbol on your printwheel. When using a PS ● printwheel, use the margin scale for 12 △ pitch.



An orange pointer moves along the margin/pitch scale to show where the next character will print. The margin/pitch scale also contains centering marks. When the left paper edge lines up with zero on the margin/pitch scale:

- marks the approximate center of paper 215.90 mm (8.50 in) wide.
- marks the approximate center of paper 210 mm (8.27 in) wide.

Margins

To set the left margin, move the carrier to the desired left margin position, then press **LMar**.

To set the right margin, move the carrier to the desired right margin position, then press **RMar**.

To release the left margin so you can move to the *left* of the margin, return the carrier to the left margin, then press **MarRel**.

Margins are saved when your typewriter is turned off.

Note: If the ARTN indicator is *not* on, or both the ARTN indicator *and* the HYPHEN indicator are on, the typewriter beeps approximately five spaces before the carrier reaches the right margin. See “Automatic Carrier Return” on page 2-1 and “Variable Right Margin Zone” on page 2-2.

Tabs

To set a tab, move the carrier to the desired tab position, then press **TSet**. You can set up to 26 tab positions. The display shows up to 15 tab positions at one time. Tabs are saved when your typewriter is turned off. Permanent tabs exist at the left and right margins. You cannot clear these tabs.

To clear a tab, press **Tab** to move to the tab stop you want to clear, then press **TClr**.

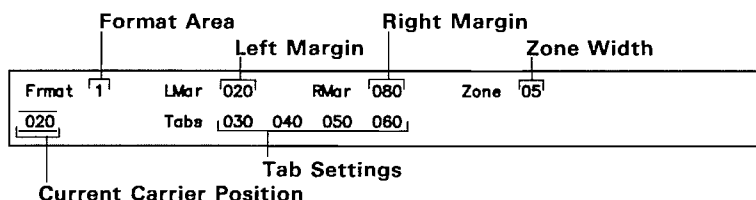
To clear *all* tabs, hold down **TClr** while you press **CRtn**, then release the keys.

Formats — Margins, Tabs and Zones

The term *format* means a set of margins and tabs. (For example: left margin 20; right margin 80; tabs 30, 40, 50 and 60; right margin zone 5). The Format function allows you to save margin and tab formats for different kinds of jobs in nine different format areas. Use these formats for jobs you type frequently, such as memos, reports, envelopes, and statistical charts.

Displaying Formats

Hold down the **Frmnt** key. The current carrier position, margins, tabs, zone and format area are displayed as long as you hold down **Frmnt**.



- The current carrier position represents the carrier position on the margin/pitch scale.
- If you set no margins, the typewriter automatically sets a left and right margin at the carrier limits (for 12 pitch, **LMar 0 RMar 158**).

Selecting Format Settings

- 1. Hold down **Frm** while you type the number (1 through 9) of the desired format area. If you type an incorrect number, press **Frm** again, then type the correct number.
- 2. Release the keys, then change the margins, tabs, or right margin zone to the desired settings. The settings are automatically saved in the format area you selected.

Selecting a Format Area

- 1. Hold down **Frm** while you type the number of the desired format area.
- 2. Release the keys.

Printing the Format

You may want to print a copy of your formats for reference. To print the formats:

- 1. Hold down **Frm** while you type 0.

When you release **Frm**, all nine formats are printed starting at the current left margin. The current format is printed in bold print. For example:

Margin Scale Pitch Reference									
Format Number (1-9)		Left Margin				Right Margin		Zone Width	
12 P									
Format 1	1	LMar	12	RM	62	Zone	5		
		Tabs	13 15 20	25	30				
Format 2	2	LMar	10	RM	60	Zone	5		
		Tabs	11 15 22	25	30 50	55	60		
.		.		.		.			
.		.		.		.			
.		.		.		.			
Format 9		LMar	0	RM	62	Zone	5		
		Tabs	1	6	16	25			

Formats you have not set print with the standard values:

- Left Margin at carrier left limit
- Right Margin at carrier right limit
- Variable Right Margin Zone at 5 or 6
- No Tabs.

2. Press any key to stop printing. The typewriter completes printing the current line, then the following message is displayed:

PRESS **End** TO CONTINUE OR PRESS  TO CANCEL

Press **End** to resume printing the formats, or press the **Correction** key to cancel printing.

Note: Printing formats clears the correction memory.

Helpful Hints

- Formats are saved when you turn the typewriter off.
- The current format remains active when you turn the typewriter off.
- Temporary left margins are not saved with formats and are cleared when a format is selected.
- Left and right margins act as permanent tab stops and cannot be cleared.
- Use the 12 pitch margin scale for proportional spacing.

Practice

Store the following formats as explained above. You will use these formats in practices later in this manual.

Format Area 1: **LMar** 12 **RMar** 62 **Tab** 15

Format Area 2: **LMar** 12 **RMar** 55 **No Tabs**

Format Area 3: **LMar** 12 **RMar** 44 **No Tabs**

Format Area 4: **LMar** 24 **RMar** 65 **Tab** 51

Erasing Automatically in 10, 12, and 15 Pitch

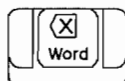
The typewriter has a correction memory that remembers approximately the last 4,000 characters (about one page). Correction memory allows you to easily and automatically erase and correct characters before you remove the paper.

After typing, proofread the page *before* you remove it from the typewriter. The correction memory is cleared if you:

- Turn the typewriter off.
- Use the **Paper Bail Load Lever**.
- Open storage.
- Use the Mark function.

Note: If you remove the paper from the typewriter, use the **Paper Bail Load Lever** to reinsert the paper for corrections. Do not attempt to align the text on the paper with the display. You must use manual erase as explained on page 1-23.

Erasing a Character



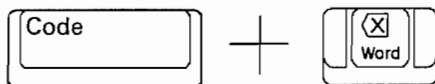
Correction
Key

- Press the **Correction** key once to erase one character.
- Hold down the **Correction** key to erase several characters.

If the typewriter does not automatically erase a character when you press the **Correction** key, you may be out of the correction memory. See "Erasing Manually in 10, 12, and 15 Pitch" on page 1-23.

Erasing a Word

Hold down **Code** while you press the **Correction (Word)** key to erase the entire word.



Erasing Manually in 10, 12, and 15 Pitch

To erase characters outside the correction memory:

1. Position the printwheel pointer at the last incorrect character in the word. Align the carrier on the line of type and not between the lines. Use **Code** + **Paper Up (Micro)** or **Code** + **Paper Down (Micro)** for precise vertical alignment. Use **Code** + **Backspace (Bksp1)** for precise horizontal alignment.

You may need to erase one or several characters.

|
Position Printwheel Pointer Here

2. Press the **Correction** key and the printwheel spins.
3. Type the incorrect character. The character is erased, and the carrier moves one space to the left.
4. Repeat steps 2 and 3 to erase each incorrect character. Do not press **Backspace** when erasing.
5. Type the correct characters.

Helpful Hints

- If you are using a proportional spacing printwheel, see page 1-24.
- Turn Bold Print on to manually erase bold text.
- Turn Continuous Underline on to manually erase underlined text.
- When manually erasing a word, always erase from right to left.

Inserting an Extra Character

1. Move the carrier to the incorrect word and erase it entirely.
2. Hold down **Code** while you press **Backspace (Bksp1)** two or three times to move the carrier back two or three micro units of space.
3. Type the correct word.

Practice

Type the first line of the example exactly as printed below. Follow the steps above to insert the / in the word *should*.

The letters shoud be
The letters be
The letters should be

Erasing in Proportional Spacing (PS)

Read this section *only* if you are typing with a proportional spacing (PS) printwheel.

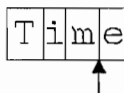
In 10, 12, or 15 pitch, all characters take up the same space; for example, an *i* takes up the same space as an *m*. In *proportional spacing*, the space allotted to each character depends on its width in units. For example, a lowercase *m* is seven units wide and a lowercase *i* is three units wide.

In proportional spacing, it is usually easier to erase the entire word containing an incorrect character, and then retype the word correctly. Use Word Erase (page 1-22) to erase an entire word quickly.

Erasing Manually in Proportional Spacing

1. Position the printwheel pointer at the left edge of the *last character* in the incorrect word. See the printwheel pointer on page 7-1.

Example



Position the printwheel pointer here to erase the e.

2. Press the **Correction** key and the printwheel spins.
3. Type the character exactly as you typed it the first time. If the character does not erase completely, hold down **Code** while you press **Backspace (Bksp1)** to reposition the printwheel pointer at the left edge of the *last* character in the word. Repeat steps 2 and 3.
4. Press the **Correction** key, then type the previous character in the word. The carrier backs up and erases the character.
5. Repeat step 4 for each character in the word, then type the correct characters.

Notes:

- When using proportional spacing, do not type a lowercase letter *L* for the number 1. Always use the number 1.
- When manually erasing a word, always erase from right to left.

Advanced Operations

Automatic Carrier Return

With Automatic Carrier Return on, the carrier automatically returns when you type a space followed by a character near the right margin. You do not have to press the **CRtn** (Carrier Return) key at the right margin.

Turn Automatic Carrier Return off when typing tables, columns, or forms.

If you use Automatic Carrier Return and want the typewriter to beep near the right margin, turn the HYPHEN indicator on. When the typewriter beeps, decide if you want to hyphenate the word you are typing.

Turning Automatic Carrier Return/Hyphen On and Off

1. Hold down **Code** while you press **R (ARtn)** to turn Automatic Carrier Return on. The ARTN indicator comes on.
2. Hold down **Code** while you press **R (ARtn)** again to turn hyphenation on. The HYPHEN indicator comes on.
3. Hold down **Code** while you press **R (ARtn)** to turn Automatic Carrier Return and hyphenation off. The ARTN and HYPHEN indicators go off.

Practice

Insert a 12-pitch printwheel, then choose format area 4 as saved on page 1-21 (**LMar 24 RMar 65**). Type the paragraph below with Automatic Carrier Return on.

Just keep typing and you will see when your new typewriter automatically returns the carrier for you.

Helpful Hints

- The carrier does not return automatically if you type only spaces with the **Spacebar**, or if you type characters without spacing.
- Press **CRtn** to end a line *before* the right margin.
- The carrier does not return automatically if text already exists on the following line, even though the ARTN indicator stays on.
- If you plan to revise later, turn Automatic Carrier Return on for all text *except* columns and tables. If Automatic Carrier Return is off when typing into storage, revised text will play back incorrectly.

Variable Right Margin Zone

The Variable Right Margin Zone function allows you to adjust the space before your carrier automatically returns with Automatic Carrier Return on. See "Automatic Carrier Return" on page 2-1. The standard right margin zone is 5 or 6 spaces. If you start an 8 letter word 6 spaces before the right margin your word will extend beyond the current right margin. By setting a new variable right zone, you can keep longer words from exceeding your right margin.

To change the Variable Right Margin Zone:

1. Hold down **Code** while you press **TCIr (Zone)**. The following message is displayed:



TYPE RIGHT MARGIN ZONE WIDTH: _
PRESS CRtn OR PRESS <X> TO CANCEL

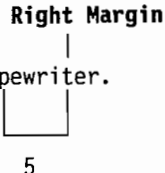
2. Type a number from 1 to 20. The number you type is the number of spaces in the variable right margin zone. A value of 0 (zero) will reset the variable right margin zone to the standard setting (5 or 6 spaces) for the selected keyboard.
3. Press **CRtn** to accept the change or the **Correction** key to cancel.

Practice

Insert a 12-pitch printwheel, then set **LMar** 0 and **RMar** 45. Type the following sentence:

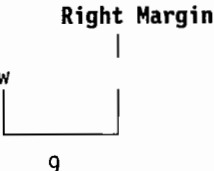
- With Automatic Carrier Return on (standard Right Margin Zone setting is 5 or 6 spaces):

Try using this function with your new typewriter.



- With Variable Right Margin Zone set to 9:

Try using this function with your new typewriter.



Note: The current variable right margin zone remains active when you turn the typewriter off.

Changing the Top Margin

When you insert paper, it feeds to the top margin position (first writing line). You can change the position of this top margin.

1. Use the **Paper Ball Load Lever** to insert a sheet of paper. An incorrect top margin position will result if you do not use the **Paper Ball Load Lever**.
2. Position the paper at the desired new first writing line.
3. Hold down **Code** while you pull the **Paper Ball Load Lever** forward. The printwheel spins as the top margin is set.
4. Push the **Paper Ball Load Lever** all the way back and release **Code**. The new top margin is saved when you turn the typewriter off.

Required Space and Required Hyphen

Use required spaces or required hyphens near the right margin if you do not want Automatic Carrier Return to break the text you are typing. For example, use required spaces or hyphens when typing names, dates, or certain numbers that must stay on the same line.

- Hold down **Code** while you press **Spacebar** to type a required space.
- Hold down **Code** while you press **-** (hyphen) to type a required hyphen.

Practice

Insert a 12-pitch printwheel, then choose format area 3 as saved on page 1-21 (**LMar 12 RMar 44**). Type the examples below with Automatic Carrier Return on.

Words typed *without* required spaces:

Victoria's birthday is January
22, 1988.

Words typed *with* required spaces:

	Code + Spacebar		Code + Spacebar
Victoria's birthday is January		22, 1988.	
		Right Margin	

Words typed *without* required hyphens:

Bob's employee number is 123-
456-789.

Words typed *with* required hyphens:

	Code + - (hyphen)		Code + - (hyphen)
Bob's employee number is 123-456-789.			
		Right Margin	

Underlining

Continuous Underline

1. Hold down **Code** while you press **U** (**Cont**) to begin underlining. The CONT indicator comes on.
2. Type the text you want underlined. All words and spaces are underlined as you type.
3. Hold down **Code** while you press **U** (**Cont**) to end underlining. The CONT indicator goes off.

Word Underline

1. Type the word you want underlined. Do not type the space following the word.
2. Hold down **Code** while you press **I** (**Word**). Word Underline goes off after underlining the word.
3. Type the space following the word and repeat the steps for each word you want underlined.

Note: To underline previously typed words that are still in the correction memory, use **Backspace**, **←**, or **↑** to return to the words, then hold down **Code** while you press **I** (**Word**) to underline the words.

Draw

Use the Draw function to draw a box, horizontal lines or vertical lines.

1. Move the carrier to the starting position of the box or line using any of the following keys:
 - cursor
 - carrier return
 - paper movement
 - backspace
 - unit backspace
 - spacebar.
2. At the point where you want to begin drawing, hold down **Code** while you press **0 (Draw)**. The printwheel spins, and the following message is displayed:

TYPE DRAW CHARACTERS; PRESS CRtn OR PRESS  TO CANCEL
HORIZONTAL CHARACTER: _ VERTICAL CHARACTER: !

3. The standard characters used to draw horizontal and vertical lines are displayed. Press **CRtn** to use the standard characters. To change the draw characters:
 - a. Type the desired horizontal character
 - b. Press →
 - c. Type the desired vertical character
 - d. Press **CRtn**.
4. After you have selected the draw characters, the following message is displayed:

MOVE CURSOR TO END OF LINE/BOX; THEN PRESS Draw OR PRESS  TO CANCEL

Move the carrier to the end position of the box or line and again hold down **Code** while you press **0 (Draw)**.

5. The typewriter draws the box or line.

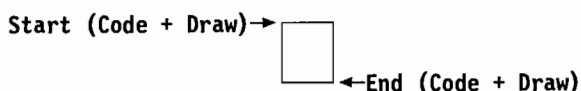
The typewriter determines what to draw from the indicated starting and ending positions:

- A horizontal line from the starting to ending position if both positions are on the same horizontal line

- A vertical line from the starting to ending position if both positions are on the same vertical line



- A box if there are differences in both the horizontal and vertical positions of the starting and ending points.



When you use the Draw function, standard characters are the underscore graphic (—) for horizontal lines and the exclamation point graphic (!) for vertical lines.

When the Draw (009) printwheel is installed (see “Using Alternate Keyboards” on page 2-24), you can print boxes with connected corners. The standard characters are the underscore (—) graphic for horizontal lines and the vertical bar (!) graphic for vertical lines.

Note: Lines and boxes created using the Draw function cannot be erased automatically, and Draw cannot be used when storage is open.

Canceling Draw

Draw can be cancelled at any time by pressing the **Correction** key.

Centering

Centering Between Margins

1. Set left and right margins, then press **Frmnt** to check the margins. If you do not set a right margin, text centers between the left margin and the right carrier limit.
2. Press **CRtn** to move the carrier to the left margin.
3. Hold down **Code** while you press **C (Ctr)**. The carrier centers between the margins and the CENTER indicator comes on.
4. Type the text. The carrier backs up but does not print.
5. Hold down **Code** while you press **C (Ctr)** to center and print the text. Symbols are shown on each side of centered text on the display.

|·| Centered Text|·|

Centering on Any Point on a Line

1. Move the carrier to the desired center point.
2. Hold down **Code** while you press **C (Ctr)**.
3. Type the text.
4. Hold down **Code** while you press **C (Ctr)**.

Helpful Hints

- Pressing **CRtn**, **Tab**, or **DecT** also causes text to print.
- Press the **Correction** key until the CENTER indicator goes off to cancel centering before the text prints.
- Use the Center and Underline functions together to center and underline text at the same time.
- The typewriter prevents you from typing over previously typed text, and beeps each time you press a keybutton.
- The **Paper Up**, **Paper Down**, **↑**, **↓**, and **Backspace** keys do not work while Centering is on.
- To erase centered text, you must erase all characters before erasing the centering symbols from the display.

Right Flush

Use Right Flush to type text with an even (flush) right margin.

Example

XYZ Corporation
740 Anytown Road
Anytown, KY 00110

Typing Text Flush to the Right Margin

1. Set left and right margins, then move the carrier to the left margin.
2. Hold down **Code** while you press **O (RFlsh)**.
3. Type the text. The carrier backs up but does not print.
4. Hold down **Code** while you press **O (RFlsh)**. The text aligns and prints to the right margin.

Typing Text Flush Right to Any Point on a Line

1. Move the carrier to the point where you want to align the text.
2. Hold down **Code** while you press **O (RFlsh)**.
3. Type the text.
4. Hold down **Code** while you press **O (RFlsh)**. The text aligns and prints to the selected point.

Helpful Hints

- The rightmost character prints *one space to the left* of the right margin or right flush point.
- Text does not appear right aligned if you type a space after the last character.
- Press the **Correction** key until the RFLUSH indicator goes off to cancel Right Flush before the characters print.
- Use the Right Flush and Underline functions together to type text aligned right flush and underlined at the same time.
- The typewriter prevents you from typing over previously typed text, and beeps each time you press a keybutton.
- The **Paper Up**, **Paper Down**, **↑**, **↓**, and **Backspace** keys do not work while Right Flush is on.

Subscripts and Superscripts

Subscripts print *below* the typing line (for example, CuSO_4). Superscripts print *above* the typing line (for example, *Happy Living*⁵).

Typing Subscripts

1. Hold down **Code** while you press **H** ($\frac{1}{2}$ ↓). An overstrike symbol is displayed where the subscript will print.

Subscript Symbol Symbol with Overstrike

CuSO ↓ $\text{CuSO}\downarrow$

2. Type the subscript character.

Typing Superscripts

1. Hold down **Code** while you press **Y** ($\frac{1}{2}$ ↑). A symbol is displayed where the superscript will print.

Superscript Symbol Symbol with Overstrike

Happy Living↑ Happy Living↑

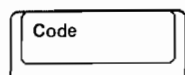
2. Type the superscript character.

Helpful Hints

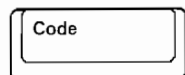
- Do not use the paper movement keys to type subscripts or superscripts. If you do, Automatic Carrier Return does not work on lines where the **Paper Up (Micro)** and **Paper Down (Micro)** keys are used.
- You cannot underline subscripts and superscripts automatically. You can underline them manually in Character or Delay Print using the **Underline/Hyphen** key.

Special Characters

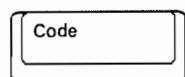
Using **Code** key combinations, you can type four special characters without changing the printwheel.



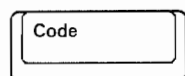
A section symbol (§) prints.



A paragraph symbol (¶) prints.



An exponent (²) prints.



An exponent (³) prints.

Bold Print

Hold down **Code** while you press **B (Bold)** to turn Bold Print on or off. The BOLD indicator comes on. A symbol is displayed above each character typed in bold.



Text prints in bold as you type.

Note: You can use Bold Print in centered, decimal tab, and right flush text. For recommended readability in Bold Print, see "Printwheel Application Recommendations" on page 7-5.

Expand Print

Expand Print allows you to increase the space occupied by each character by one to four 1/60-inch (.0167 in) increments.

Use the Expand feature to add emphasis to words, headings, or page titles. Expand print can be both lower and upper case.

Note: Spelling is not checked during Expand Print.

Example of expand print 1

Example of expand print 2

EXAMPLE OF EXPAND PRINT 3

EXAMPLE OF EXPAND PRINT 4

Hold down **Code** while you press **P (ExPrt)** and a **number** (1 through 4).

- The number you type determines the number of units to add to each character.
- The printwheel spins when you release **Code**.
- When the letters appear on the display after being typed the letters are spaced further apart than normal text.

NORMAL	TEXT	EXPANDED
	EXPT1	†1

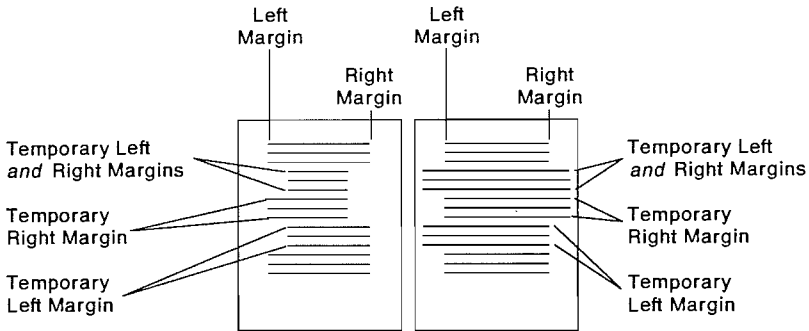
Hold down **Code** while you press **P (ExPrt)** to turn off Expand Print.

Helpful Hints

- You can use Expand Print while using Centering, Right Flush, Decimal Tabulation, or normal typing.
- The Expand Print setting is not saved when you turn the typewriter off.
- You cannot use Expand Print in Column Layout or with a PS printwheel installed.
- Overstrikes are not allowed in Expand Print.
- Printing slows during Expand Print.

Indenting

The Indent function allows you to set temporary left or right margins, either inside or outside the current margins. The temporary margins remain active until you clear the Indent function.



1. Type until you reach the *first* line you want indented.
2. To set a temporary left margin:
 - a. Move the carrier to the desired position.
 - b. Hold down **Code** while you press **Tab (IndL)**. A symbol is displayed to indicate that a temporary left margin exists.

⌘ For example, you can set
3. To set a temporary right margin:
 - a. Use the **Spacebar** to move to the desired position.
 - b. Hold down **Code** while you press **RMar (IndR)**. A symbol is displayed at the left margin to indicate that a temporary right margin exists.

⌘ For example, you can set
4. Hold down ← to move to the left margin.
5. Type the indented lines.
6. When you finish typing the indented lines, hold down **Code** while you press **CRtn (IndClr)** to clear the temporary margins.

Practice

Turn Automatic Carrier Return on and insert a 12-pitch printwheel, then choose format area 2 as saved on page 1-21 (**LMar 12 RMar 55**). Follow the steps on the previous page to type the practice below.

Your new typewriter is designed to make typing easier and much more enjoyable.

**Temporary
Left Margin**

**Temporary
Right Margin**

|
For example, you can set
temporary left and right
margins within a job
when you want to indent
lines of text.

|
Code + CRtn

Try using temporary left and right margins to indent text in your jobs.

|
CRtn

Helpful Hints

- To cancel a temporary margin press the **Correction** key until the indent symbol is removed from the display.
- After correcting errors in indented text, press **Reloc** to return to the last typing position. The carrier must be at the last typing position in order to clear the temporary left and right margins.
- When revising a stored job (see Chapter 3), a symbol is displayed to show where indented text ends.

lines of text. |

Decimal Tabulation

Use the Decimal Tab function to type numbers in vertical columns, aligning the numbers on decimal points or at the column's right edge.

Set Tab Here	Set Tab Here	Set Tab Here	Set Tab Here
234.56	456.79	1.32	1.50
2.87	20.13	.5	45.67
26,745	87,453	873	5%
387	3,498	34	234-

Typing Numbers with Decimals

1. Turn Automatic Carrier Return off.
2. Set a tab for each column, then move to the left margin.
3. Hold down **Code** while you press **D (DecT)** to move to the first tab stop.
4. Type the numbers *up to* the decimal point. The carrier moves backward but does not print.
5. Type the decimal point. The numbers and the decimal point print, and the DEC T indicator goes off.
6. Type any numbers or characters that follow the decimal point.
7. Hold down **Code** while you press **D (DecT)** to move to the next column.
8. Repeat steps 4 through 7 for each column. Press **CRtn** after the last column at the end of each line.

Typing Numbers without Decimals

1. Repeat steps 1 through 3 above.
2. Type the number and any characters which follow it. The carrier moves backward but does not print.
3. Hold down **Code** while you press **D (DecT)**. The text prints and the carrier moves to the next decimal tab position.

Pressing **CRtn** or **Tab** also causes text to print. If you press **CRtn**, the text prints and the carrier returns to the left margin. If you press **Tab**, the text prints and the carrier moves to the next tab position. Hold down **Code** while you press **D (DecT)** to move the carrier to the *next* tab position for decimal tabulation.

4. Repeat steps 2 and 3 for each column. Press **CRtn** after the last column at the end of each line.

Helpful Hints

- The **Paper Up (Micro)**, **Paper Down (Micro)**, **↑**, **↓**, and **Backspace** keys do not work while Decimal Tab is on. The typewriter beeps when you press one of these keys.
- Use Character Print (see page 2-20) to type text in columns and tables.
- Use tabs instead of spaces to separate columns in a job. This enables you to move columns to the right or left easily with the *Tab/Column Adjust* function. See page 4-13.

Underlining Numbers in a Column

1. Before typing the *last line* of the columns, hold down **Code** while you press **U (Cont)** to turn Continuous Underlining on.
2. Hold down **Code** while you press **D (DecT)** to move to the first tab stop.
3. Press **Spacebar** to type any underlined spaces in front of the number.
4. Type the number.
5. Hold down **Code** while you press **D (DecT)** to move to the next column.
6. Repeat steps 3 through 5 for each column.
7. Hold down **Code** while you press **U (Cont)** to turn Continuous Underlining off.

Double Underlining Numbers in a Column

1. Repeat steps 1 through 7 above for the first underline.
2. Press **CRtn** after the last number.
3. To position the paper, press **↑** *once*, then hold down **Code** while you press **Paper Up (Micro)** *twice*.
4. Move the carrier to the position where Underlining begins, then hold down **Shift** while you press **—** (underscore) repeatedly to underline the numbers.
5. Repeat step 4 for each column.
6. Hold down **Code** while you press **↑ (Line)** to realign to the previous typing line.
7. Press **CRtn**.

Double Underlining Using Keyboard 117

Install the Accounting printwheel for Keyboard 117.

1. Hold down **Code** while you press **L (Lang)**, release **L**, and continue to hold down **Code** while you type **117**. The KYBD 117 indicator comes on.
2. Type the text to be double underlined.
3. Move the carrier to the position where Underlining begins.
4. Hold down **Code** while you press **]** (right bracket) once for each character or space to be underlined. The double underscore symbol () is displayed when you double underline a space.
5. Repeat steps 3 and 4 each time double underline is needed.
6. Hold down **Code** while you press **L (Lang)** to return to your primary keyboard.

Column Layout

Use the Column Layout function to type information in multiple columns without counting characters or measuring the space between columns. The first column starts at the left margin, and the last column ends at the right margin. Existing tabs are cleared and new tabs are set with equal spacing between the columns.

Hold down **Code** while you press **TSet (Col L)** to begin Column Layout. The COL L indicator comes on. A symbol is displayed separating each column typed in column layout. An underscore is displayed under the first character of the Tab columns and the last character of the Decimal Tab columns. The column text is displayed but not printed.

longest ♦ item ♦ 12345

COL L

Using Column Layout for Text

1. Set left and right margins at the appropriate locations to define the width of the column layout.
2. Move the carrier to the left margin, then hold down **Code** while you press **TSet (Col L)**. The printwheel spins.
3. To set the maximum width of the column, type the longest item in the column. The carrier moves but does not print.

4. Press **Tab** to mark the end of the column and to indicate that the text will be left-aligned. The printwheel spins.
5. Repeat steps 3 and 4 for each column.
6. When you have set the widths of all columns, hold down **Code** while you press **TSet (Col L)** to exit Column Layout mode.
7. Type the columns, pressing **Tab** to move the carrier to the next column.

Practice 1 (Text)

Insert a 12-pitch printwheel, then set **LMar 12** and **RMar 60**. Do the following:

1. Press **Code** + **TSet (Col L)**.
2. Type San Francisco, CA, then press **Tab**.
3. Type Stock Exchange, then press **Tab**.
4. Type money, then press **Tab**.
5. Press **Code** + **TSet (Col L)**.
6. Type the text below. Tab between entries and press **CRtn** at the end of each line.

The first column starts at the left margin. Tabs are set as shown below:

LMar 12	Tab	Tab
New York, NY	Stock Exchange	money
San Francisco, CA	Haight-Ashbury	art
New Orleans, LA	Bourbon Street	food

Using Column Layout for Numbers

1. Set left and right margins at the appropriate locations to define the width of the column layout.
2. Move the carrier to the left margin, then hold down **Code** while you press **TSet (Col L)**. The printwheel spins.
3. To set the maximum width of the column, type
 - a. The longest number left of the decimal point
 - b. The decimal point
 - c. The longest number right of the decimal point.
4. Hold down **Code** while you press **D (DecT)** to mark the end of the column and to indicate that the entry will be right-aligned. The printwheel spins.

Note: If there is a decimal in the number, the machine will correctly place the tab at the decimal point.

5. Repeat steps 3 and 4 for each column.
6. When you have set the widths of all columns, hold down **Code** while you press **TSet (Col L)** to exit Column Layout mode.
7. For each column of numbers, press **Code + D (DecT)** and type the numbers.

Practice 2 (Numbers)

Insert a 12-pitch printwheel, then set **LMar** 12 and **RMar** 60. Do the following:

1. Press **Code + TSet (Col L)**.
2. Type 5432.136, then press **Code + D (DecT)**.
3. Type 7630, then press **Code + D (DecT)**.
4. Type 3109.273, then press **Code + D (DecT)**.
5. Press **Code + TSet (Col L)**.
6. Press **Code + D (DecT)** for each column of numbers and type the numbers. Press **CRtn** at the end of each line.

The last column ends at the right margin. Decimal tabs are set as shown below:

DecT	DecT	DecT Right Margin
386.02	145	14.103
29.1	7630	202.54
5432.136	21	3109.273

Helpful Hints

- The following keys are valid in Column Layout:
 - letters
 - numbers
 - **Spacebar**
 - **Correction**
 - **Code + Correction (Word)**
 - **Tab**
 - **CRtn**
 - **Code + D (DecT)**
 - **Code + TSet (Col L)**.

All other keys are invalid.

- A beep sounds if your columns exceed the width of the margins. To decrease the width of the last column, press the **Correction** key. To increase the width of the margins, hold down **Code** while you press **TSet (Col L)** to exit Column Layout mode, reset the margins, and begin again.
- Use **Code + Correction (Word)** to erase an entire column entry.
- To cancel Column Layout without changing previous format settings, erase the entries in all columns.
- You can use the Indent function (page 2-13) to set a temporary margin.

Choosing a Print Mode

Your typewriter has three print modes: Character Print, Delay Print, and No Print. You have used Character Print so far.

In *Character Print*, the typewriter prints each character as you type it.

Note: Use Character Print to type text in columns and tables.

In *Delay Print*, the typewriter delays printing until you reach the end of a typing line, allowing you to type and make corrections *before* the text prints. If text or display symbols (such as stop codes) already exist to the right of your current typing position, Delay Print is temporarily interrupted, even though the DL PRT indicator stays on.

You can only use *No Print* when you are working in storage. Chapter 3 explains No Print and working in storage.

Each time you press the **Print Mode** key, the DL PRT (Delay Print) indicator or a blank (Character Print) comes on. In storage, the NO PRT (No Print) indicator also comes on (see Chapter 3). Keep pressing **Print Mode** until you enter the desired mode.



Justification

Your typewriter can justify lines of text *evenly* at the right margin as you type.

1. Set left and right margins.
2. Press the **Jstify** key to turn justification on.
3. Type the text.
 - The text prints when you reach the right margin.
 - You can continue to type while the text prints.
 - When justification is on, the carrier automatically returns at the right margin. If you press **CRtn** on a line before the right margin beep sounds, that line will not be justified. Press **CRtn** at the end of the last line of a paragraph.
4. Press the **Jstify** key to turn justification off and return to the print mode you had chosen before you turned justification on.

The sample below was typed using format area 1 as saved on page 1-21 (**LMar** 12 **RMar** 62).

Justified copy gives the appearance of a printed manuscript. Extra space is added automatically between words so that the right margin is even. Do not press the carrier return key while typing lines to be justified. If the last line of the job is a short line and should not be justified, press carrier return to end that line.

Helpful Hints

- Installing a printwheel to change the pitch or typestyle during justification can result in slightly uneven left and right margins.
- The current line will not justify if text already exists on the next line.
- To correct justified text, erase the incorrect text and then type the new text, adding spaces before and after words so that they appear justified.

Changing Printwheels While Typing

You can use different printwheels while typing a job. The steps below explain how to change printwheels when you are using *Delay Print*, *Centering*, *Right Flush*, or *Decimal Tab*.

Using the Same Pitch with a Different Typestyle

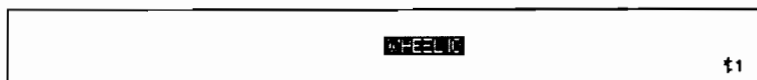
Example (Changing Printwheels in Centered Text)

Code + C Code + 9 Code + 9 Code + C
| | | |
IBM "Wheelwriter" Typewriter

1. Hold down **Code** while you press **C (Ctrl)** to begin centering.
2. Type *IBM* and one space.
3. Hold down **Code** while you press **9 (Stop)** to begin a stop code. Ignore the TYPE STOP CODE COMMENT message displayed. The message is further explained in Chapter 3.
4. Hold down **Code** while you press **9 (Stop)** to complete the stop code, then change the printwheel.
5. Type *"Wheelwriter"* and one space.
6. Hold down **Code** while you press **9 (Stop)** twice. Change the printwheel.
7. Type *Typewriter*, then hold down **Code** while you press **C (Ctrl)** to end centering.
8. When the typewriter prints it will stop at the stop code and display the following symbols. Insert the correct printwheel.
--> <--
9. Press **End** to print to the next stop code, then repeat step 8.
10. Press **End** to print the rest of the text.

Using a Different Printwheel Pitch

Stop codes are automatically supplied when you change to a printwheel in a different pitch. When text prints, the typewriter stops for a pitch change and the WHEEL indicator and new pitch is displayed. Insert the correct pitch printwheel and press **End** to continue printing.



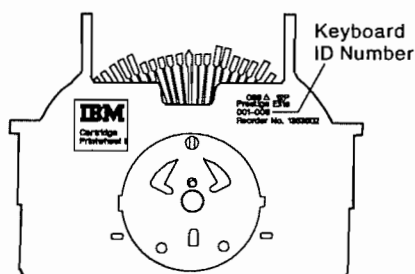
Alternate Keyboards

Your typewriter has primary and alternate keyboards. You have already been using your primary keyboard. The primary keyboard allows you to type in your own language. The typewriter automatically sets your primary keyboard to match the keybuttons on your typewriter.

With alternate keyboards and the appropriate printwheels, you can type in other languages or use special application keyboards such as ASCII (PC) and Latin Supplemental ISO.

Matching Printwheels and Keyboards

Printwheels for alternate keyboards contain characters not printed on the typewriter keybuttons. A keyboard ID is printed on each printwheel; for example, the keyboard ID for the United States is 001. When more than one set of numbers is shown, the first number is the keyboard ID.



Using Alternate Keyboards

1. Select a keyboard for a country or special application from the charts on pages 2-25 through 2-31.
2. Insert the country or special application printwheel. Match the keyboard ID number from the chart to the number on the printwheel.
3. Hold down **Code** while you press **L (Lang)**, release **L (Lang)** and continue to hold down **Code** while you type the keyboard ID number. The KYBD indicator comes on and the alternate keyboard is selected.
4. Use the keyboard chart that matches your keyboard ID to locate the characters you want to type.
5. Type the job. When you finish typing in the alternate keyboard, hold down **Code** while you press **L (Lang)**. The KYBD indicator goes off and the primary keyboard is selected.
6. Remove the country or special application printwheel and install your primary printwheel.

Note: If you hold down **Code** while you press **L (Lang)** and do not type a keyboard ID number, Latin Supplemental ISO is selected.

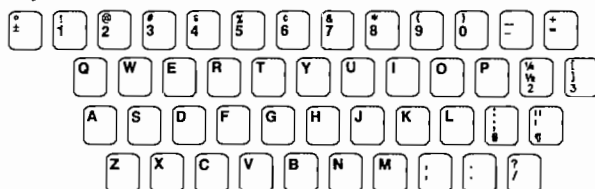
Helpful Hints

- The alternate keyboard charts show some keybuttons with special characters. See "Special Characters" on page 2-11.
- The typewriter stops automatically for keyboard changes during playback.
- Many alternate keyboards contain accent marks (dead keys) that print without advancing the carrier to the next space. To type accent marks over alphabetic characters:
 1. Type the accent mark. The carrier does not move.
 2. Type the alphabetic character.

Keyboard Charts

The following charts show the keyboard ID numbers and character locations for each alternate keyboard. The charts are arranged numerically.

Keyboard ID 001 — Australia, New Zealand, United States



Keyboard ID 002 — American Simplified



Keyboard ID 009 — Draw



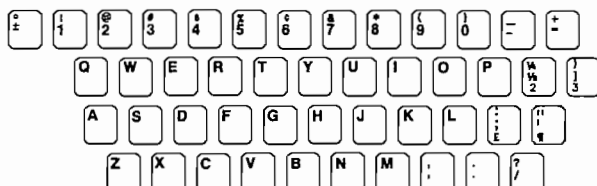
Keyboard ID 025 — Latin America



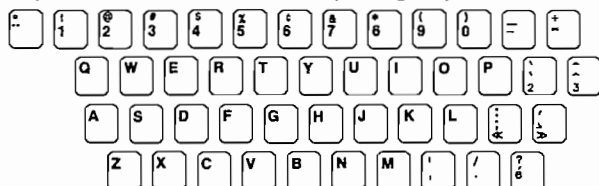
Keyboard ID 029 — Austria, Germany



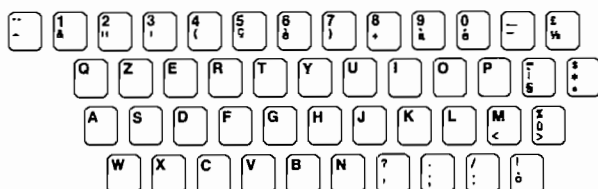
Keyboard ID 037 — Canada (English)



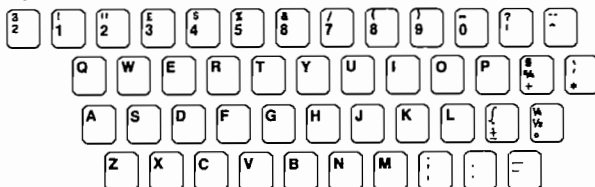
Keyboard ID 039 — Canada (Bilingual)



Keyboard ID 041 — Italy



Keyboard ID 043 — Netherlands



Keyboard ID 049 — Switzerland (French)



Keyboard ID 051 — Switzerland (German)



Keyboard ID 053 — Finland, Sweden



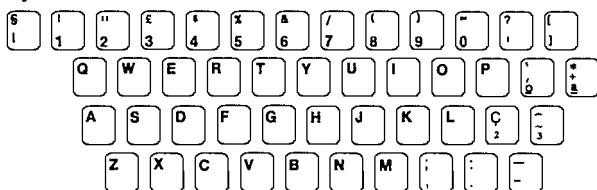
Keyboard ID 055 — Norway



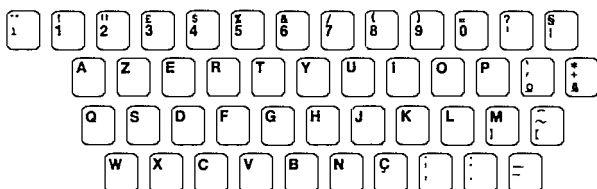
Keyboard ID 059 — Denmark



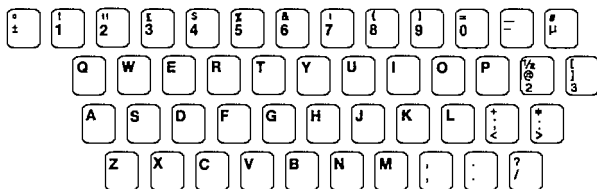
Keyboard ID 061 — Brazil



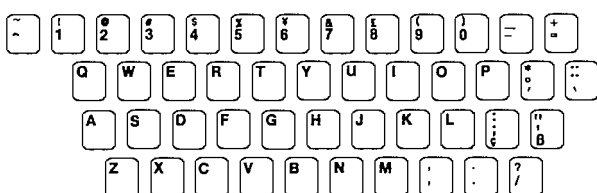
Keyboard ID 063 — Portugal



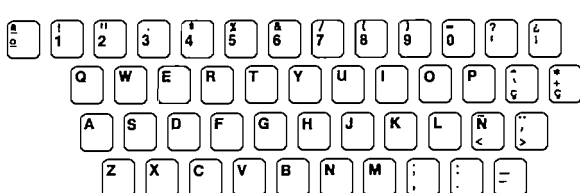
Keyboard ID 067 — United Kingdom



Keyboard ID 069 — Japan (English)



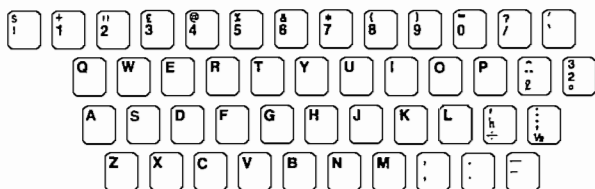
Keyboard ID 070 — Spain



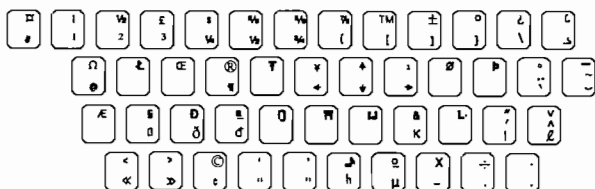
Keyboard ID 079 — Turkey



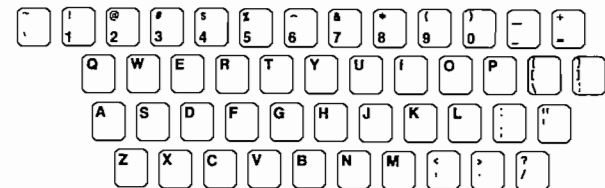
Keyboard ID 081 — South Africa



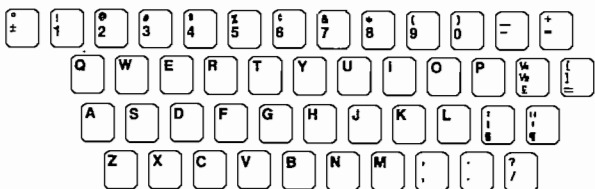
Keyboard ID 099 — Latin Supplemental ISO



Keyboard ID 103 — ASCII (PC)



Keyboard ID 117 — Accounting



Keyboard ID 119 — Hong Kong



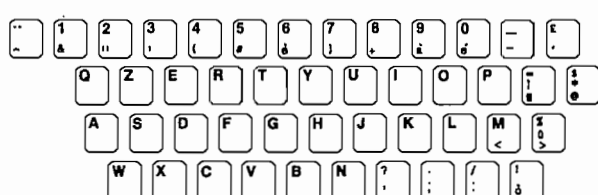
Keyboard ID 207 — Greece (Latin)



Keyboard ID 219 — Greece (Greek)



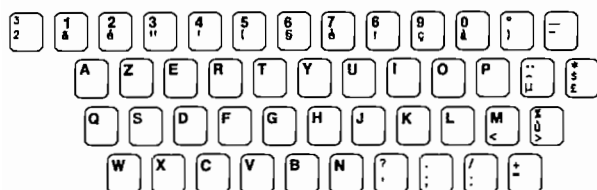
Keyboard ID 247 — Italy (PC)



Keyboard ID 249 — Germany (PC)



Keyboard ID 251 — Belgium, France



Keyboard ID 252 — United Kingdom (PC)



Basic Storage

You can store approximately 60,000 bytes (about 20 to 30 pages) in typewriter storage. The Diskette Option adds virtually unlimited storage to the typewriter. Contact an authorized dealer for details.

Note: Some character storage is used for other typewriter actions such as spacing, carrier returns, and document control functions.

Storage allows you to add, delete, or revise text later without retyping the entire job. When you open storage, the STORE indicator comes on and anything you type is stored. When you close storage, the STORE indicator goes off.

Storing a Job

1. Always prepare the typewriter *before* you open storage: install the desired printwheel; insert paper; select the desired format (or set margins and tabs); and select line spacing.
2. Hold down **Store** while you type a number (**1** through **99**) to open a storage area. The number you type identifies the storage area you opened.
 - The STORE and ARTN indicators come on.
 - If the PLAY indicator comes on, the storage area already contains text.
3. Type the job.
 - Leave Automatic Carrier Return on unless you are working with columns or tables. Use stop codes (see page 3-19) to remind you when to turn ARTN off or on within a job.
 - For jobs requiring margin changes, see "Margin and Tab Formats in Stored Jobs" on page 3-6.
 - Use the **Correction** key to correct errors you notice immediately, then press **Reloc** to return to the last typing position.
4. Press **Store** to close storage. Tabs, margins, and temporary margins are automatically stored with the job.

Note: If you use Automatic Carrier Return when storing and playing back a job, the line endings are adjusted when you make revisions. Use required hyphens and required spaces to keep phrases together on one line regardless of their position in the job; for example, *brother-in-law* and *January 22*.

Practice

1. Insert a 12-pitch printwheel, then choose format area 2 as saved on page 1-21 (**LMar 12 RMar 55**).
2. Store the paragraph below in an unused storage area. Press **CRtn** only at the end of the last line.

In the late nineteenth century, a period in history marked by the beginnings of the industrial revolution and the development of new technologies, typing contests drew enthusiastic spectators and provided free advertising for a struggling typewriter industry. In those days, typing speeds of 40 to 45 words per minute were considered astonishing.

3. Press **Store** to close storage at the end of the paragraph.
4. Hold down **Play** while you type the number of the storage area to play back the job.

Helpful Hints

- When you close storage, the carrier moves to the left margin. If you did not press **CRtn** at the end of your job, the paper moves up one line when you press **Store**. This carrier return is not stored with the job.
- When you open storage, the typewriter uses the currently active print mode.
- Line space changes are not stored with the job.
- You can store multipage jobs in a single storage area. Use the Auto Page End function to separate pages of a job during play-back. See "Auto Page End" on page 4-10.
- Use the **Paper Bail Load Lever** and the *Paper Release Lever* instead of ↑ and ↓ to insert and remove paper. This will prevent you from inserting unwanted blank lines in your stored job.
- In No Print, use the cursor movement keys to move through storage. Do not use the **CRtn** or **Spacebar** keys unless you want to insert blank lines or spaces in your job.
- Use Character Print to type text in columns and tables.

Playback

With the **Play** key, you can print, revise, copy, or combine stored jobs. You can use playback with storage open or closed. When you play back a job with storage closed, the job prints bidirectionally (the first line prints left to right, the second line prints right to left, and so forth). You can stop playback and then type, make corrections, resume playback, cancel playback, or play back another job. Corrections made with storage closed are not stored with the job.

When playing back multipage jobs, set the page length so playback stops automatically at a preset point. See "Page-Layout" on page 4-6, "Auto Page End" on page 4-10, and "Auto Page Numbering" on page 4-11.

You can also move tab settings (columns) during playback. See "Tab/Column Adjust" on page 4-13.

When storage is *open* during playback, the margins and tabs stored with the job are used. See "Revising a Stored Job Using Character or Delay Print" on page 3-11 for information on playing back with storage open.

When storage is *closed* and ARTN is on during playback, the current margin settings are used. To use the margins stored with the job, reset the margins. Playing back a job with storage closed is explained below.

Beginning Playback

1. Install the correct printwheel.
 - Jobs play back from storage using the *current margin settings*.
 - To set the original margins for playback, use the Directory function (see page 4-3) to view the margin settings stored with the job, then set the margins.
2. Move the carrier to the point where you want playback to begin.
3. Set Automatic Carrier Return on or off.
 - When Automatic Carrier Return is *on* during playback, lines end according to the current margin settings.
 - When Automatic Carrier Return is *off* during playback, the job plays back line for line as you stored it.
4. Set line spacing.
5. Hold down **Play** while you type the number where you stored the job.
6. Release the keys. Playback begins immediately.

Stopping Playback

Press *any key* to stop playback.

- If the job is printing *left to right*, the typewriter stops immediately. The current line of text is displayed. The cursor rests on the *next character to print*.
- If the job is printing *right to left*, the typewriter finishes printing the current line and performs a carrier return. The next line of text is displayed.

Continuing Playback

Press one of the following keys to continue playback:

- Press **→** to play back the next character.
- Hold down **Code** while you press **→** (**Word**) to play back the next word.
- Press **↓** to play to the end of the current line.
- Press **End** to play to the end of the job.

If the carrier is at the right carrier limit, press **CRtn**, then press **End** to continue playback.

Canceling Playback

Press any key to stop playback, then press **Play** to cancel playback and turn the PLAY indicator off.

If you accidentally cancel playback, press **Play**. The PLAY indicator comes on, and the current line of text is displayed. The cursor rests on the next character to print and you may continue playback.

Practice

Install the same pitch printwheel and set the same line space you used to store the job on page 3-2, then play back the job. Practice starting, stopping, canceling, and playing back by line, word, and character. Play back the job as many times as you want.

Helpful Hints

- If you press **CRtn** while storing a job, the carrier returns at that point during playback.
- Text is not displayed during playback.
- If the WHEEL indicator comes on during playback, the number indicates the pitch used to store the job. For example, if WHEEL 12 comes on when you are using a 10-pitch printwheel, you have three choices:
 - Install a 12-pitch printwheel to play back the job exactly as you stored it.
 - Use the 10-pitch printwheel and play back the job with storage *closed*. The job remains stored as a 12-pitch job.
 - Use the 10-pitch printwheel and play back the job with storage *open*. The job is stored as a 10-pitch job.
- Jobs stored in proportional spacing and then played back in 10, 12, or 15 pitch may not play back exactly as you typed them.
- When you play back a job using an *alternate keyboard*, printing stops at the keyboard change and the KYBD indicator comes on. The WHEEL indicator comes on to prompt you to install the correct printwheel for the alternate keyboard. Install the printwheel, then press **End** to continue printing. The typewriter automatically selects the new keyboard. See page 2-23.
- You can play back a draft copy of a job with double spacing and the final copy with single spacing because the line space setting is not stored with the job.

Margin and Tab Formats in Stored Jobs

Use the Format function (see page 1-19) to set margins and tabs for your jobs. The following guidelines will help you use format areas within stored jobs.

Before Opening Storage — Select a format area *before* opening an empty storage area. You cannot select another format area while in storage. Changing margins and tabs in storage does not affect the format area you select.

After Opening Storage — When you open an empty storage area, the format you selected is automatically copied to format area 0. When you press **Fmat** in storage, format area 0 is displayed with the current margin and tab settings. If you change the margin and tab settings while in storage, the new settings are displayed when you press **Fmat**. The job is stored with the *new* margins and tabs, but the *format area* you selected is not changed. Format area 0 acts as a *working* format area to keep you from accidentally altering a *saved* format area. One left margin and one right margin is stored with the job. All tab settings and temporary margins are stored with the job.

When you open a storage area that already contains text, press the **Fmat** key to display the stored margins and tabs.

Changing Margins and Tabs After Opening Storage

1. Press **Play** to turn the PLAY indicator off. Unprinted text is temporarily removed from the display.
2. Set margins and tabs.
 - If you press **LMar** in storage, the following message is displayed:

USE IndL OR PRESS LMar AGAIN TO RESET DOCUMENT MARGIN OR  TO CANCEL

- Use **IndL** to set a temporary left margin.
- Use **LMar** to change the left margin for the *entire* job. That is, the left margin for the text already typed will also change to the new left margin.
- Press the **Correction** key if you do not want to set new margins. Indented text remains indented.

- If you press **RMar** in storage, the following message is displayed:

USE IndR OR PRESS RMar AGAIN TO RESET DOCUMENT MARGIN OR $\langle \mathbf{X} \rangle$ TO CANCEL

- Use **IndR** to set a temporary right margin.
 - Use **RMar** to change the right margin for the *entire* job. That is, the right margin for the text already typed will also change to the new right margin.
 - Press the **Correction** key if you do not want to set new margins. Indented text remains indented.
3. Hold down \leftarrow to return to the left margin.
 4. Press **Play** to turn the PLAY indicator back on. The current line of text is displayed.

Practice

Store the following example, setting margins and temporary margins as indicated.

LMar 12		RMar 62									
	The Indenting function allows you to change your margins within a job. Margins may be moved outside or inside their original settings.										
	<table border="0" style="margin: auto;"> <tr> <td style="width: 40%;">IndL 22</td> <td style="width: 20%;"></td> <td style="width: 40%; text-align: right;">IndR 52</td> </tr> <tr> <td style="vertical-align: top;"> </td> <td></td> <td style="vertical-align: top;"> </td> </tr> <tr> <td colspan="3" style="text-align: center;"> "If you wish to change either the left or right or both margins after you have started a job, always use the Indent function to make the change." </td> </tr> </table>	IndL 22		IndR 52				"If you wish to change either the left or right or both margins after you have started a job, always use the Indent function to make the change."			
IndL 22		IndR 52									
"If you wish to change either the left or right or both margins after you have started a job, always use the Indent function to make the change."											
IndL 16	Code + CRtn										
1. Always use the Indent function to make margin changes to your job.											
IndL 7	Code + CRtn	IndR 67									
	Changing the margins with the STORE indicator off will not change the stored job. Changing the margins with the STORE indicator on will change the margins for the entire job.										
		Code + CRtn									

Required and Permanent Hyphens

There are two ways to type hyphens so they will always play back with the text.

Keeping a Hyphenated Word on One Line

Keeping a hyphenated word on one line is called a *required hyphen*. Hold down **Code** while you type a hyphen in text you always want kept together on one line.

Code + - (hyphen)

| | |

The number to call for assistance is 1-800-555-1212.

Allowing Hyphenated Words to Separate at a Line Ending

Permanent hyphens allow words to separate at a line ending regardless of line breaks. Turn ARTN on. Type a hyphenated word without pressing **CRtn** or **Code**. The following example contains hyphens that may break automatically at the right margin.

A special visitor to our country is our mother-in-law.

Practice

1. Insert a 12-pitch printwheel, then choose format area 1 as saved on page 1-21 (**LMar** 12 **RMar** 62).
2. Open an empty storage area and type the examples above.
3. Close storage.
4. Turn ARTN on and play back the job. Your copy should resemble the examples above.
5. Choose format area 3 as saved on page 1-21 (**LMar** 12 **RMar** 44).
6. Play back the job. Your copy should resemble the following:

The number to call for assistance
is 1-800-555-1212.

A special visitor to our country
is our mother-in-law.

Revising a Stored Job

Revisions are made to jobs with storage open. You can revise on paper using Character Print or Delay Print, or on the display using No Print.

When revising in Character Print or Delay Print, print the job up to the revision point; then add, delete, or make corrections to the text and resume playback. Revisions are stored just as they appear on the paper. Use Character Print to revise tables and columns.

In No Print, you can move quickly to a revision point without printing the job. The text and symbols that indicate typewriter functions are displayed. In No Print, you can insert or delete text anywhere in the job without printing it. The **Del** key works in combination with the paper, carrier and cursor movement keys to delete text.

If you type or print text in Character or Delay Print and then change to No Print, the carrier moves to the left margin. This indicates that the display no longer matches the text on paper. If you return to Character Print to revise the text on the paper, replay the text before revising.

Copying a Job for Revision

All revisions are stored with your job. Make a copy of your job before beginning revisions if you need the original job for later use. To copy a job quickly:

1. Hold down **Store** while you type the number of an *empty* storage area.
2. Select No Print.
3. Hold down **Play** while you type the number of the job to copy.
4. Press **Store** to close the storage area.

Revising a Stored Job Using Character or Delay Print

Playing to the Revision Point

1. Before revising, copy the job as explained in “Copying a Job for Revision” on page 3-10.
2. Install the same pitch printwheel and set the same line space used to store the job.
3. Hold down **Store** while you type the number of the job to revise. The ARTN, STORE, and PLAY indicators come on.
4. Turn Character Print or Delay Print on.
5. Press **End** to begin playback.
6. Press *any key* to stop playback before the revision point.

Adding Text to the Job in Character or Delay Print

As you add text to a stored job, the words on the display automatically move to the right.

Note: Turn ARTN off just before revising tables or columns. Turn ARTN on again after revising the table or columns. See page 3-19.

1. Play to the revision point.
2. Make sure the PLAY and STORE indicators are on. Press **→**, **Code** + **→** (**Word**), or **↓** to continue playback up to where you want to add text.
 - If you play past the point where you want to add text, use the **Correction** key to erase back to the correction point.
 - If you turn the PLAY indicator off, the **→** and **↓** keys no longer cause text to print. The **→** and **↓** keys provide express movement to add spaces and lines to your job. Turn the PLAY indicator on again to resume playback with the **→** and **↓** keys.
3. Type the text you want to add. If you add a word, type a space after it.
4. Type any text you erased.
5. Use **→**, **Code** + **→** (**Word**), **↓**, or **End** to continue playback.

Deleting Text from the Job in Character or Delay Print

When you delete information, the typewriter automatically closes up the space. You can delete a character, a word, a line, or from some point to the end of the job. Use the **Del** key in combination with a function key to delete text.

Note: Turn ARTN off just before revising tables or columns. Turn ARTN on again after revising the table or columns. See page 3-19.

1. Stop playback before the correction point. Play back one word at a time up to the text you want to delete.
2. Use one of the following combinations of keys to delete text before it prints:
 - Hold down **Del** while you press **→** to delete the character at the cursor. The cursor moves to the next character.
 - Hold down both **Del** and **Code** while you press **→ (Word)** to delete to the end of the word, including any punctuation and spaces that follow the word. The cursor moves to the next word.
 - Hold down **Del** while you press **↓** to delete to the end of the line, including the carrier return. Since the display does not always show a full line of text, make sure you are not deleting too much before you press **Del + ↓**. The cursor moves to the next line.
 - Hold down **Del** while you press **End** to delete to the end of the job. The following message is displayed:

PRESS Del AGAIN TO DELETE OR PRESS ↵ TO CANCEL
--

†1

- Press **Del** to delete the text.
 - Press the **Correction** key to cancel Delete and return to the text display.
3. Use Character or Word Erase (see page 1-22) to delete text from the paper and the display.
 4. Use **→, Code + → (Word), ↓, or End** to continue playback.

Practice

1. Before revising, copy the job as explained on page 3-10.
2. Install the same pitch printwheel and set the same line space you used to store the job on page 3-2.
3. Hold down **Store** while you type the number of the job you stored on page 3-2.
4. Select Character or Delay Print.
5. Play back one line at a time until three lines have printed. Do not play back the fourth line yet.
6. Hold down **Code** while you press → (**Word**) to play back one word at a time up to the word *contests*.
7. Type the word *speed*, followed by a space.
8. Continue playback until the seventh line has printed. Do not play back the eighth line yet.
9. Hold down **Code** while you press → (**Word**) to play back one word at a time up to the word *to*.
10. Hold down both **Del** and **Code** while you press → (**Word**) twice to delete the number 45 and the word *to* from the job and the display.
11. Play back to the end of the job, then close storage. Your paper should resemble the following:

In the late nineteenth century, a period in history marked by the beginnings of the industrial revolution and the development of new technologies, typing speed contests drew enthusiastic spectators and provided free advertising for a struggling typewriter industry. In those days, typing speeds of 40 words per minute were considered astonishing.

Helpful Hints

- Use the cursor movement keys to move through storage. Do not use **CRtn** or **Spacebar** unless you want to insert blank lines or spaces in your job.
- Use stop codes to give titles to your jobs and to indicate where changes such as justification, Automatic Carrier Return, line spacing, and typestyle or ribbon changes occur.
- Play back the job with storage open to adjust the line endings after revising.
- Use Character Print to revise columns and tables.

Correcting Errors with Storage Closed

Corrections made during playback with storage closed are not stored with the job. Correct errors with storage closed in the same way you revised a stored job using Character or Delay Print (see page 3-11).

Beginning Playback

1. Hold down **Play** while you type the number where you stored the job. The job plays back bidirectionally.
2. Press *any key* to stop playback before the correction point.

Adding Text to the Job

1. Play up to the point where you want to add text.
2. Type the text.
3. Continue playback.

Deleting Text from the Job

1. Play up to the text you want to delete.
2. Use the **Del** key in combination with the **→**, **↓**, or **End** keys to delete the text from the display.
3. Use the **Correction** key or **Code** + the **Correction (Word)** key to erase text from the paper and the display.
4. Continue playback.

Revising a Stored Job Using No Print

In No Print, you can revise a job on the display and in storage without printing it, then play back a final copy. No Print allows you to move to the revision point quickly.

Opening Storage

1. Hold down **Store** while you type the number where you stored the job. The ARTN, STORE, and PLAY indicators come on.
2. Press **Print Mode** until the NO PRT indicator comes on. The PLAY indicator goes off.

Moving through Storage

Do not use **CRtn** or **Spacebar** to move through storage unless you want to insert blank lines and spaces. Use any of the following keys to move the *cursor* through storage:

- **→** moves one character to the right.
- **←** moves one character to the left.
- **Code + → (Word)** moves one word to the right.
- **Code + ← (Word)** moves one word to the left.
- **↓** moves to the beginning of the next line.
- **↑** moves to the beginning of the previous line.
- **Code + ↓ (Line)** moves to the next line with text.
- **Code + ↑ (Line)** moves to the previous line with text.
- **End** moves to the *end* of the job.
- **Home** moves to the *beginning* of the job.

Adding Text in No Print Mode

Note: Use Character Print to revise tables and columns.

1. Move the cursor to the point where you want to add text. For example, to add a word between *typing* and *contests*, move the cursor so that it rests on the letter *c* in *contests*.
2. Type the text you want to add.
 - Use the **Correction** key to correct errors.
 - Type all necessary spaces and punctuation when adding text.

Deleting Text in No Print Mode

Note: Use Character Print to revise tables and columns.

1. Move the cursor to the point where you want to delete text.
2. Delete text using one of the following combinations of keys:
 - **Del** + **→** deletes the character at the cursor. The cursor moves to the next character.
 - **Del** + **←** deletes the character at the cursor. The cursor moves to the previous character.
 - **Del** + **Code** while you press **→** (**Word**) deletes to the end of the word, including any punctuation and spaces that follow the word. The cursor moves to the next word.
 - **Del** + **Code** while you press **←** (**Word**) deletes to the beginning of the word. This *does not* delete the space preceding the word. The cursor moves to the space that preceded the deleted word.
 - **Del** + **↓** deletes to the end of the line, including the carrier return. Since the display does not always show a full line of text, make sure you are not deleting too much before you press **Del** + **↓**. The cursor moves to the next line.
 - **Del** + **End** deletes to the end of the job.
 - Press **Del** to delete the text.
 - Press the **Correction** key to cancel Delete and return to the text display.

Deleting Extra Carrier Returns

You can delete extra carrier returns in a job—which appear as blank lines—just as you delete any other character. Each carrier return is displayed as a symbol.

Dear Ms. Jones: ¶ ¶ ¶ ¶

To delete the carrier returns:

1. Move or play to the point where extra carrier returns appear.
2. Hold down **Del** while you press → to delete each extra carrier return.
3. When you finish revising the job, close storage.

Practice

1. Insert a 12-pitch printwheel, then choose format area 2 as saved on page 1-21 (**LMar 12 RMar 55**).
2. Install the same pitch printwheel and set the same line space you used to store the job on page 3-13.
3. Open the storage area where you stored the job on page 3-13.
4. Select No Print.
5. Move the cursor to the fourth line of the job and delete the word *speed*.
6. Move the cursor to the eighth line of the job and add the phrase to 45 after the number 40.
7. Close storage and play back the job. Your final copy should resemble the following:

In the late nineteenth century, a period in history marked by the beginnings of the industrial revolution and the development of new technologies, typing contests drew enthusiastic spectators and provided free advertising for a struggling typewriter industry. In those days, typing speeds of 40 to 45 words per minute were considered astonishing.

Helpful Hints

- If you type or print text in Character or Delay Print and then change to No Print, the carrier moves to the left margin. This indicates that the display no longer matches the text on paper. If you return to Character Print to revise the text on the paper, replay the text before making revisions.
- In No Print, when revising centered or right flush text typed at the left margin, do not insert spaces or characters before the text.
- If you have difficulty finding text on the display, use **Code** + ↓ (**Line**) or **Code** + ↑ (**Line**) to move to the next line of text.
- Do not use **CRtn** or **Spacebar** to move through storage or you will insert blank lines and spaces into the job.

Deleting a Stored Job

1. Hold down **Del** while you type the number where the job is stored. A message similar to this is displayed:

PRESS Del AGAIN TO DELETE STORAGE 2 OR PRESS ⌫ TO CANCEL
†1

In the example above, 2 is the number of the storage area you are about to delete.

2. Press **Del** to delete the storage area, or press the **Correction** key to cancel delete.

Deleting All Storage Areas

Warning: *This procedure clears the supplemental dictionary and all storage and format areas, and turns off all typewriter functions.*

1. Hold down both **Code** and **Shift** while you press **Del**. The following message is displayed.

PRESS Del AGAIN TO DELETE ALL STORAGE AREAS OR PRESS ⌫ TO CANCEL
†1

2. Press **Del** to delete all storage areas.
 - The STORAGE CLEARED message is displayed.
 - All storage and format areas are cleared.

Stop Codes in Storage

Type a stop code at any point in a job where you want playback to stop automatically.

Stop Code Applications

Reminder to Turn Automatic Carrier Return Off and On

Type a stop code at any point in a job where you want to turn Automatic Carrier Return off (for example, for tables, columns of numbers, or forms). Type another stop code at the point where you want to turn Automatic Carrier Return on again.

Reminder to Change Line Spacing

Type a stop code at any point in a job where you want to change line spacing. Type a second stop code at the point where you want to return the line spacing to its original setting.

Form Letters

Type a stop code at each point where variable information should print in a form letter (for example, where the date and inside address will appear). Type stop code comments to remind you what information to type at each position.

Job Titles

Type a stop code at the beginning of every stored job. Include a brief description of the job in the stop code comment. When you play back the job with storage closed, the comment appears first to verify that you are printing the correct job. When you play back the job with storage open, the typewriter ignores the stop code at the beginning of the job.

Reminder to Turn Justification On or Off

Type a stop code before any portion of a job that you want to justify. In the comment, remind yourself to turn justification on. Type another stop code at the point where you want to turn justification off.

Reminder to Change Printwheel

When storing a job, you must type a stop code before a typestyle change so that the typewriter will stop to allow you to change the printwheel. The typewriter automatically stores a stop code when you change to a different pitch. See page 2-22.

Keyboard Changes

The typewriter automatically inserts stop codes at keyboard changes in your job. During playback, the **KYBD** indicator comes on to indicate a new keyboard selection.

Typing a Stop Code

1. At the point where you want the typewriter to stop during playback, hold down **Code** while you press **9 (Stop)** to begin a stop code. The following message is displayed:

TYPE STOP CODE COMMENT: <input type="text"/>	t1
--	----

2. Type a short comment (up to 50 characters) describing what to do at this point during playback. The comment is displayed but not printed.
3. Hold down **Code** while you press **9 (Stop)** to end the stop code. The stop codes and comments are displayed:

Stop Code Symbol	Stop Code Symbol
⌘	⌘
Change Line Spacing to 2	

4. Continue typing the job.

Playing Back a Job That Contains a Stop Code

1. Play back the job as instructed on page 3-3. Printing stops at the stop code and the stop code comment is displayed:

Stop Code Symbol	Stop Code Symbol
-->Change Line Spacing to 2<--	

2. Respond to the comment, then press **End** to continue playback.

Deleting a Stop Code

1. Open storage.
2. Select No Print.
3. Move the cursor to the first stop code symbol.
4. Press the **Correction** key. The stop code and the stop code comment are deleted.

Storage Full

Storage Full Warning

When storage is almost full, the typewriter beeps three times and the STORE indicator blinks, then changes to **STORE**. You have space for about 100 more characters.

1. Stop typing.
2. Do one of the following:
 - *Without closing storage*, delete unneeded storage areas (see "Deleting a Job through the Directory" on page 4-4); or
 - Press **Store** to close the storage area and continue typing. The rest of your job is not stored.

Storage Full Message

If the typewriter beeps on every keystroke and the STORAGE FULL message is displayed, storage is full. Follow the instructions in "Storage Full Warning."

Menu Functions

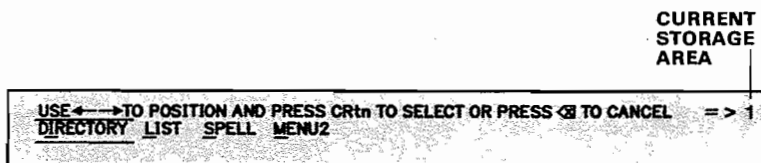
The **Menu** and **Code + Menu (Menu2)** keys give you access to several special typewriter functions, including:

- Directory of stored jobs. You can play back, revise, or delete jobs through the directory.
- Printed list of stored jobs.
- Spell Check II function that allows you to view and delete words from the supplemental dictionary.
- Page Layout function to adjust the page length for printing multi-page jobs.
- Auto Page End and Page Numbering functions to automatically separate and number pages of a multipage job.
- Tab/Column Adjust function to move tab positions so columns and tables print in a new position on the page.

If you have a Diskette Option, you can also open diskette storage areas with the Menu function.

To use the Main Menu functions:

1. Press the **Menu** key to display the main menu. The number at the right end of the display identifies the current storage area of the job being typed.



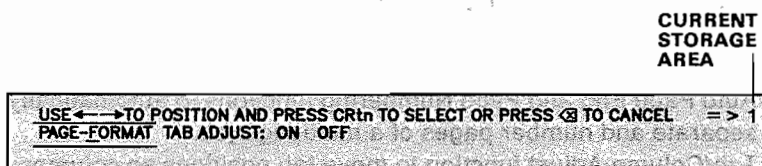
- DIRECTORY lists the jobs in typewriter storage, their size, their margin settings, and the remaining storage space.
 - LIST prints a copy of the directory.
 - SPELL allows you to view and delete words from the supplemental dictionary. See page 6-3.
 - MENU2 allows you to display the secondary menu.
2. Select a menu function in one of two ways:
 - Move the cursor to the desired function, then press **CRtn**; or

- Type the underlined character in the desired function. For example, type **I** to view DIRECTORY or **L** to print a LIST of directory contents.

3. Press **Menu** or the **Correction** key to cancel Menu.

To use the Secondary Menu functions:

1. Press the **Code + Menu (Menu2)** key to display the secondary menu. The number at the right end of the display identifies the current storage area of the job being typed.



- PAGE-FORMAT allows you to set the page length and automatically number pages for a stored job.
 - TAB ADJUST allows you to adjust the tab settings for a stored job.
2. Select a menu function in one of two ways:
 - Move the cursor to the desired function, then press **CRtn**; or
 - Type the underlined character in the desired function. For example, type **F** to use the PAGE-FORMAT functions.
 3. Press **Menu** or the **Correction** key to cancel Menu2.

Directory

Directory displays a list of stored jobs. The amount of storage each job uses, the left and right margins for each job, and the amount of storage remaining are also displayed. You can select jobs from the directory to store, play back, or delete text.

1. Press **Menu**. The following information is displayed:

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS <X> TO CANCEL
DIRECTORY LIST SPELL MENU2

2. Select **DIRECTORY**. Information resembling the following is displayed:

		Storage Remaining
USE ↑ ↓ TO POSITION AND PRESS Store, Play OR Del KEY		30174
T<Letter to Bob Meyer>	012:090	109
Job Number	Job Title	Left and Right Margin Storage Used

- Job numbers are displayed only for storage areas that contain text.
 - If STORAGE EMPTY is displayed, you have no jobs stored.
 - The typewriter automatically recalculates the displayed margin settings to match the pitch of the current printwheel.
3. Use the ↑ and ↓ keys to move through the directory. Only two lines of the directory are displayed at a time.
 4. Press **Home** to return to the beginning of the directory.
 5. Press **End** to view the last two lines of the directory.
 6. Press **Menu** or the **Correction** key to cancel Directory.

Revising a Job through the Directory

1. Follow the instructions on page 4-3 to view the directory.
2. Move to the job you want to revise, then press **Store**.
3. Revise the job as instructed on page 3-11.

Playing Back a Job through the Directory

1. View the directory and move to the job you want to play back.
2. Press **Play**. The job automatically plays back. See page 3-4 to stop, resume, or cancel playback.

Deleting a Job through the Directory

1. View the directory and move to the job you want to delete.
2. Press **Del**. Information similar to the following is displayed:

PRESS Del AGAIN TO DELETE STORAGE 1 OR PRESS <X> TO CANCEL
I <Letter to Bob Meyer> 012::090 109

3. Press **Del** to delete the job, or press the **Correction** key to cancel delete. STORAGE CLEARED is displayed if you delete all jobs.
4. Press **Menu** or the **Correction** key to cancel Directory.

Locating Job Numbers in the Directory

Use the Find function with the Directory to move to a specific job. You will learn more about the Find function in Chapter 5.

1. Press **Menu**.
2. Select DIRECTORY.
3. Hold down **Find** while you type the number of the job to locate. If the job does not exist, the next highest number is selected.

List

Use List to print a copy of the directory. All job numbers, titles, margins, the amount of storage used by each job, and the amount of remaining storage is printed.

1. Set the left margin at one inch so the list does not print off the right edge of the paper.
2. Press **Menu**.
3. Select LIST to print the directory.
 - The display clears while the directory prints.
 - The printed list should be similar to the following, although it will include all stored jobs.

30518

1 (Letter to Bob Meyer)	012	090	109
2 In the late nineteenth centur	020	070	210

- The typewriter automatically recalculates margin settings and changes the numbers shown to match the pitch of the current printwheel.
- If the list is more than one page:
 - a. Press any key to stop playback at the end of the current line. The following message is displayed:

PRESS End TO CONTINUE OR PRESS <X> TO CANCEL

- b. Insert a new sheet of paper.
- c. Press **End** to resume printing the list.

Press the **Correction** key to cancel the printing of the list.

Helpful Hints

- Using the List function clears the correction memory.
- The directory prints using the current keyboard. Jobs typed using other keyboards print incorrectly. See "Alternate Keyboards" on page 2-23.
- Auto Page End is inactive while the list prints. See "Auto Page End" on page 4-10.

Page-Format

Page-Format allows you to select Page-Layout and to turn Auto Page End and Auto Page Numbering on or off. To select PAGE-FORMAT:

1. Press **Code** + **Menu (Menu2)**.
2. Select PAGE-FORMAT. The following information is displayed:

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS <X> TO CANCEL
PAGE-LAYOUT AUTO PAGE END: ON OFF AUTO PAGE NUMBER: ON OFF

Page-Layout

Page-Layout describes the paper you are using to the typewriter. You only need to change the Page-Layout settings when you change the bottom margin or the length of the paper you are using.

Setting Page Length and Bottom Margin

1. Press **Code** + **Menu (Menu2)**.
2. Select PAGE-FORMAT.
3. Select PAGE-LAYOUT. The following information is displayed:

PAGE LENGTH: 66 BOTTOM MARGIN: 6
PRESS CRtn TO SELECT OR PRESS <X> TO CANCEL

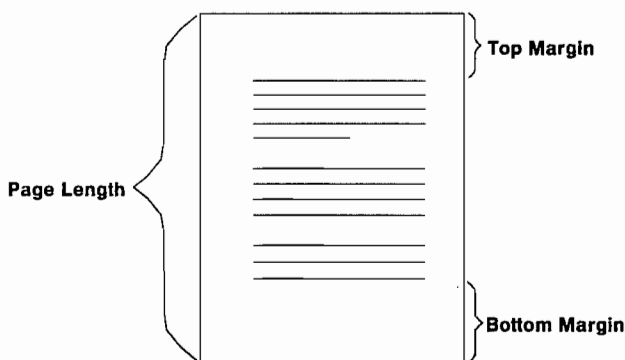
If the current page length and bottom margin are correct, press **CRtn** to select the numbers. "Calculating Page Length and Bottom Margin" on page 4-7 explains how to calculate page length and bottom margin settings.

4. Type the desired number of lines for page length. If you type an incorrect number, press the **Correction** key to erase it, then retype the number.
5. Press → to move to the bottom margin setting. If you do not want to change the bottom margin setting, press **CRtn** to select the numbers displayed.
6. Type the desired number of lines for the bottom margin. If the bottom margin setting is greater than the page length setting, the typewriter beeps.
7. Press **CRtn** to select the settings.

Calculating Page Length and Bottom Margin

If you do not set Page-Layout, the typewriter assumes you are using 11-inch paper with a one-inch bottom margin. Therefore, for a 10-, 12-, or PS-pitch printwheel, the page length is 66 lines and the bottom margin is 6 lines. For a 15-pitch printwheel, the settings are 88 lines and 8 lines per inch. The typewriter automatically recalculates the settings when you change pitch by changing printwheels.

Printwheel pitch determines the number of lines per inch. For example, 10-, 12-, and PS-pitch printwheels print 6 lines of text per vertical inch, while 15-pitch printwheels print 8 lines of text per vertical inch.



Page length is the number of single-spaced lines on a page. Multiply the length of the paper (in inches) by the number of lines per inch to determine page length.

The *bottom margin* is the distance in lines from the last line of text to the end of the page.

The *top margin* is approximately one inch. To change the top margin see page 2-3. If the top margin setting overlaps the bottom margin setting, the typewriter assumes a top margin of zero during playback.

Page-Layout settings are saved when you turn the typewriter off.

Common Page-Layout Settings for Paper Length

Paper Length (Inches)	Page Length (Lines) 10, 12, PS Pitch	Page Length (Lines) 15 Pitch
8½	51	68
11	66	88
14	84	112

Common Page-Layout Settings for Bottom Margin

Bottom Margin (Inches)	Bottom Margin (Lines) 10, 12, PS Pitch	Bottom Margin (Lines) 15 Pitch
½	3	4
1	6	8
1½	9	12
2	12	16

Helpful Hints

- If a job plays back improperly, check the Page-Layout settings and the top margin.
- The line space setting does not affect the page length setting.
- You can change pitch, without resetting Page-Layout, by changing the printwheel.

Page-Layout Settings for Pinwheel Form Feeder

Important: Read this section *only* if you have the Pinwheel Form Feeder Option installed on your typewriter.

When you use the typewriter as a printer for a computer, the computer controls the page length settings. However, when you use the machine as a typewriter with a *Pinwheel Form Feeder*, you must set the Page-Layout settings as follows:

- Set *top margin* (**Code** + **Paper Ball Load Lever**) where you want the first line of text to print, for example, two lines from the top of the page.
- Set *page length* to the number of single-spaced lines per page, (for example, 66).
- Add the amount you allowed for the top margin (two lines) to the amount you want for the bottom margin (six lines, for example) and enter the *total* as your *bottom margin* (eight lines).

Auto Page End

Auto Page End automatically separates pages of a multipage job during playback.

Turning Auto Page End On or Off

Check the Page-Layout settings before turning Auto Page End on. See page 4-6.

1. Press **Code** + **Menu (Menu2)**, then select PAGE-FORMAT.
2. Press **→** once to move the cursor to ON.

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS  TO CANCEL PAGE-LAYOUT AUTO PAGE END: <u>ON</u> OFF AUTO PAGE NUMBER: ON OFF
--

3. Press **CRtn**. The APAGE indicator comes on.

To turn Auto Page End off, repeat the steps above, but in step 2, press **→** twice and then press **CRtn**.

When Auto Page End is off, the typewriter does not stop at the end of a page unless a required page end or stop code occurs.

Playing Back a Job with Auto Page End On

1. Play back the job. When playback stops at the bottom of the page, the typewriter beeps three times and the END OF PAGE REACHED message is displayed.
2. Insert a new sheet of paper, then press **End** to continue playback.

Helpful Hints

- Auto Page End does not allow the first line of a paragraph to be the last line on a page. It also continues playback for one line past the bottom margin to finish a paragraph.
- When storing a job, use a Required Page End (**Code** + **E**) after short pages of text to force a new page.
- Auto Page End is temporarily turned off if a Mark occurs which moves past the end of the page. See "Using Mark for Preprinted Forms" on page 5-16.

Auto Page Numbering

Auto Page Numbering allows automatic page number insertion during p layout. The page numbers are not stored with the document. Various placements for the numbers on the pages may be selected as described in the following table.

Option	Function
Bottom	The page number will be centered between the last typing line (determined by page length) and the bottom edge of the paper.
Top	The page number will be centered between the top edge of the paper and the first typing line.
Centered	The page number will be centered between the left and right margins.
Right	The page number will be printed at the right margin.
Book-Style	The page number will print at the right margin on odd-numbered pages and at the left margin on even-numbered pages.
First Page Numbered	The first page will be numbered if this option is selected, otherwise page numbering will begin with number 2 on the second page.

Turning Auto Page Numbering On and Selecting Options

1. Press **Code** + **Menu (Menu2)**, then select PAGE-FORMAT.

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS <X> TO CANCEL
PAGE-LAYOUT AUTO PAGE END: ON OFF AUTO PAGE NUMBER: ON OFF

2. Press → three times to move the cursor to ON, then press **CRtn**.
The first Auto Page Numbering menu will be displayed.

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS <X> TO CANCEL
POSITION ON PAGE: BOTTOM TOP

3. Select BOTTOM or TOP to determine the number's vertical position on the page. The second Auto Page Numbering menu will be displayed.

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS ⌫ TO CANCEL
POSITION ON PAGE: CENTER RIGHT BOOK-STYLE

4. Select CENTER, RIGHT, or BOOK-STYLE to determine the number's horizontal position on the page. The third Auto Page Numbering menu will be displayed.

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS ⌫ TO CANCEL
FIRST PAGE NUMBERED: ON OFF

5. Select ON or OFF to determine whether the first page of the document will be numbered. The APAGE# indicator comes on.

Press the **Correction** key on any of the Auto Page Numbering menus to turn Auto Page Numbering on and exit the menus. The current selections for the options will be used.

Turning Auto Page Numbering Off

1. Press **Code** + **Menu (Menu2)**, then select PAGE-FORMAT. The following information is displayed:

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS ⌫ TO CANCEL
PAGE-LAYOUT AUTO PAGE END: ON OFF AUTO PAGE NUMBER: ON OFF

2. Press → four times to move the cursor to OFF, then press **CRtn**. The APAGE# indicator is turned off.

Auto Page Numbering with Document Assembly

When document assembly is performed with storage closed, the assembled document will be numbered continuously as one document. See "Assembling in Character or Delay Print with Storage Closed" on page 5-13.

Note: Because page numbers are not stored with the document, Auto Page Numbering will not function with storage open. You should close storage, set the desired margins or select a format area, and play the document with Auto Page Numbering on.

Tab/Column Adjust

Tab Adjust allows you to move columns and tables on the page. You can reset and store new tab positions with the job, or change them for the current playback only. For example:

Stored Job

	Tab	Tab
Lexington, KY	40505	606
Owensboro, KY	42301	502

Job After Tab/Column Adjust

	Tab	Tab
Lexington, KY	40505	606
Owensboro, KY	42301	502

When Tab Adjust is *on*, the typewriter moves the tabs in the job from the stored settings to the current settings.

When Tab Adjust is *off*, the tab settings in the current format area do not affect the tab settings of a stored job. For example, if you store a job with a left margin of 10 and tabs at 20 and 35, and you play back the job with the left margin at 10, the tabs will always be at 20 and 35. Even if the tabs in the current format area are at 40 and 50, the stored job still plays back with tabs of 20 and 35.

Tabs are stored relative to the left margin. In the example above, if you change the left margin at playback to 15, the tabs play back at 25 and 40. The tabs are still the same number of spaces from the left margin as when you stored the job. The tabs have not changed; only the left margin changed.

Turning Tab/Column Adjust On or Off

1. Press **Code** + **Menu** (Menu2).

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS <X> TO CANCEL
PAGE-FORMAT TAB ADJUST: ON OFF

2. Press → one time to move the cursor to ON, then press **CRtn**. The T ADJ indicator comes on.

To turn Tab Adjust off, repeat the steps, but in step 2, press → two times and then press **CRtn**.

Moving Tabs during Playback

Follow these steps to play back a job with new tab settings. These new settings are not permanently stored.

1. Make sure the STORE and ARTN indicators are off.
2. Turn Tab Adjust on.
3. Press **Frmat** to check the stored margins and tabs. Set the desired new tabs.
4. Hold down **Play** while you type the number of the job to play back with new tabs.

Storing New Tabs throughout a Job

Follow these steps to store your job with new tab settings.

1. Before adjusting tabs, copy the job as explained on page 3-10.
2. Make sure the STORE and PLAY indicators are off.
3. Turn Tab Adjust on.
4. Hold down **Store** while you type the number of the job you want stored with new tabs. The STORE and PLAY indicators come on.
5. Select Character or Delay Print.
6. Press **Frmat** to check the format area. Set the desired tabs.
7. Hold down ← to return to the left margin.
8. Press **End**, →, or ↓ to begin playback.
9. Press **Store** when playback is complete.
 - The STORE and PLAY indicators go off.
 - The job is stored with new tab settings.
10. Turn Tab Adjust off.

Practice

1. Insert a 12-pitch printwheel, then set the following margins and tabs in format area 5: **LMar 12 RMar 72 Tabs 48, 60**.
2. Store the text below in an unused storage area.

	Tab	Tab
Lexington, KY	40505	606
Owensboro, KY	42301	502

3. Close storage, then play back the job.
4. Clear all tabs, then play back the job. Your printed copy is identical to the first copy you printed.
5. Set tabs at 24, 36, 48, and 60, then play back the job. Your printed copy is identical to the first copy you printed.
6. Clear all tabs, then set tabs at 36 and 48, and play back the job. Your printed copy is identical to the first copy you printed.
7. Turn Tab Adjust on, then play back the job. The columns on your printed copy move to the new positions.

Storing New Tabs in a Portion of a Job

To change the tab settings for a portion of the job turn Tab Adjust on and off during playback.

1. Make sure the STORE and PLAY indicators are off.
2. Press **Frmnt** to check the margins, then set the same margins you used to store the job and set tabs at the desired *new* positions.
3. Select Character Print.
4. Play the job through the tabs that should remain unchanged.
5. Turn Tab Adjust on.
6. Play those lines containing tabs that should move.
7. Turn Tab Adjust off.
8. Continue playback.

Practice

1. Insert a 12-pitch printwheel, then set the following margins and tabs in format area 6: **LMar 12 RMar 84 Tabs 36, 60.**
2. Store the text below in an unused storage area.

Store	Directory	Find
Playback	List	Change
Revise	Page-Format	Mark
Hyphenate	Page-Layout	Document Assembly
Stop Codes	Auto Page End	Justification
Deleting Jobs	Tab/Column Adjust	

3. Close storage.
4. Clear all tabs. Set new tabs at 30 and 48.
5. Play through the third line (Revise, Page-Format, Mark) of the job you stored in step 2.
6. Turn Tab Adjust on.
7. Play the rest of the job, then turn Tab Adjust off.

Helpful Hints

- Only tabs that actually play back will move in storage.
- Only text typed *after a tab* moves when the tab is adjusted. If you use spaces, or tabs and backspaces, to separate columns, Tab Adjust does not move the text.

Advanced Storage

Justification during Playback

Play back jobs with JSTIFY on for an even right margin (as in a newspaper). You must set left and right margins before justifying during playback.

Sample Printout

Justified copy gives the appearance of a printed manuscript. Extra space is added automatically between words so that the right margin is even. Do not press the carrier return key while typing lines to be justified. If the last line of the job is a short line and should not be justified, press carrier return to end that line.

Practice

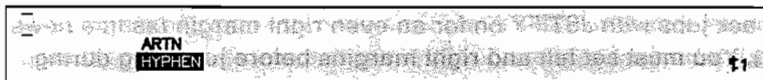
1. Insert a 12-pitch printwheel, then choose format area 1 as saved on page 1-21 (**LMar 12 RMar 62**).
2. Open an empty storage area and type the sample printout above.
 - Space only once between words.
 - Press **CRtn** only at the end of the last line of text.
3. Close storage.
4. Press the **Jstify** key. The JSTIFY and DL PRT indicators come on.
5. Hold down **Play** while you type the number where the job is stored. Playback begins immediately. Lines ended by pressing **CRtn** do not justify.
6. When playback is complete, press **Jstify** to turn JSTIFY off.

Helpful Hints

- Turn JSTIFY off for portions of jobs containing tables and columns.
- Do not store footnotes, page headings, or page numbers with the job since revisions may cause page endings to change. See "Auto Page Numbering" on page 4-11.

Hyphenation during Playback

When the HYPHEN indicator is on during playback, printing stops where a word will print beyond the right margin. The typewriter beeps and the HYPHEN indicator blinks several times, then changes to reverse lettering.



The cursor rests on the word to hyphenate. At this point you can hyphenate the word, keep the word on the same line, or move the word to the next line. Hyphenations made with storage closed are not stored with the job. Hyphenations made with storage open are stored with the job.

Turning Hyphenation On and Off

To turn hyphenation on, hold down **Code** while you press **R (ARtn)** until the HYPHEN indicator comes on. Hold down **Code** while you press **R (ARtn)** again to turn hyphenation off.

Hyphenating the Word

1. When playback stops, press **→** to play back characters until you hear a beep. This beep indicates the right margin.
2. Continue pressing **→** until you reach the desired hyphenation point. If you play past the hyphenation point, use the **⌫** key to erase back to the point.
3. Type the hyphen, then press **CRtn**. Retype any text, including spaces that you erased.
4. Press **End** to continue playback.

Keeping the Word on the Same Line

When playback stops, press **End** to continue playback. The word stays on the same line and prints beyond the right margin.

Moving the Word to the Next Line

When playback stops, press **CRtn**. The word moves to the next line. Press **End** to continue playback.

Practice

1. Insert a 12-pitch printwheel, then choose format area 1 as saved on page 1-21 (**LMar** 12 **RMAR** 62).
2. Turn the HYPHEN indicator on.
3. Hold down **Play** while you type the number of the job you stored on page 3-17. Playback begins immediately.
4. When playback stops, make a hyphenation decision.
5. Repeat this practice until you are comfortable with hyphenation. The hyphens are not stored because storage is closed.

Sample Printout

In the late nineteenth century, a period in history marked by the beginnings of the industrial revolution and the development of new technologies, typing contests drew enthusiastic spectators and provided free advertising for a struggling typewriter industry. In those days, typing speeds of 40 to 45 words per minute were considered astonishing.

Helpful Hints

- If you divide a word with a syllable hyphen, always press **CRtn**, then press **End** to continue playback. When the job plays back, the hyphen is dropped if the word occurs in the middle of a line. If you do not press **CRtn** before pressing **End**, the hyphen becomes a permanent hyphen. The next time you play the job, the hyphen prints in the middle of the word regardless of where the word prints on the line.
- If you want to divide a word containing a permanent hyphen at the end of a line, play back the word until the desired hyphen has printed, then press **End** to continue playback.

Find

Using the Find function, you can move directly to a specific word or line to change, replace, delete, or add text to a job. You can also use Find to advance, play, or delete to a specific point.

Note: The Find function goes off if you press any key, or if the typewriter stops for a hyphenation decision, printwheel change, or stop code while you are using Find.

Advancing To a Find Point

1. Hold down **Store** while you type the number of the storage area you want to open. The ARTN, STORE, and PLAY indicators come on.
2. Select No Print.
3. Press **Find**. The following message is displayed:

TYPE TEXT TO FIND: <input type="text"/>	†1
---	----

4. Type the text that you want to find (up to 24 characters) *exactly* as it appears in your stored job.
 - When searching for the word *the*, your typewriter also finds occurrences of the words *then*, *these*, *lathe*, and so on. Use punctuation, capitalization, or spaces before and after the word to make specified text unique.
 - Use the ☐ key to correct errors in specified text.
5. Press **End** to search to the *end* of the job. Press **Home** to search to the beginning of the job. The typewriter finds the next occurrence of the specified text in the direction indicated.
6. Revise the text as instructed in Chapter 3.

Repeating Find

1. Press **Find**. The last text you specified is displayed.
2. Do one of the following:
 - Type new text that you want to find.
 - To repeat Find without specifying new text to search for, continue with the next step.
3. Press **End** to search to the *end* of the job. Press **Home** to search to the beginning of the job.

Practice

1. Insert a 12-pitch printwheel, then choose format area 2 as saved on page 1-21 (**LMar 12 RMar 55**).
2. Hold down **Store** while you type the number of the job you stored on page 3-17.
3. Select No Print, then press **Find**.
4. Type the word *typewriter*, then press **End**.
5. Delete the word *typewriter* and add the phrase *office equipment*.
6. Press **Find**.
7. Type the word *beginnings*.
8. Press **Home**.
9. Delete the word *beginnings* and add the phrase *first years*.
10. Close storage when you finish revising the job.
11. Play back the job. Your copy should resemble the following:

In the late nineteenth century, a period in history marked by the first years of the industrial revolution and the development of new technologies, typing contests drew enthusiastic spectators and provided free advertising for a struggling office equipment industry. In those days, typing speeds of 40 to 45 words per minute were considered astonishing.

Helpful Hints

- If the TEXT NOT FOUND message is displayed:
 - Type the specified text *exactly* as it appears in the stored job.
 - Make sure the cursor is not already resting on the text you want to find.
 - Repeat Find and press **End**, then repeat Find and press **Home** to make sure you have searched the entire job.
 - Press *any key* to clear TEXT NOT FOUND from the display.
- If you specify more than 24 characters to find, the typewriter beeps and ignores each additional character you type.
- Many alternate keyboards contain accent marks (dead keys) that print without advancing the carrier to the next space. To find text containing accent marks, type the character but not the accent mark. For example, to find *resumé*, type *resume*.


Playing to a Find Point

Combine Find with Play to play to a particular point in a stored job.

1. Hold down **Store** while you type the number of the job you want to play back.
2. Press **Find**, then type the text that you want to play to.
3. Press **End**. The job plays to the text you specified.

Deleting to a Find Point

Combine Find with Delete to delete to a particular point in a stored job.

1. Hold down **Store** while you type the number of the job you want to play back.
2. Play or move to the point where you want to *begin* deleting text.
3. Hold down **Del** while you press **Find**.
4. Type the text that you want to delete to, then press **End**.
5. Press **Del** to delete up to the specified text, or press the  key to cancel delete.
6. Close storage when you finish revising the job.

Practice

1. Hold down **Store** while you type the number of the job you stored on page 5-5.
2. Press **Find**, then type the phrase *and provided*.
3. Press **End**.
4. Hold down **Del** while you press **Find**, then type the phrase *In those days*.
5. Press **End**. When the message is displayed, press **Del** to delete text up to the phrase.
6. Press **←** once, type a period (.), and press the **Spacebar** once.
7. Press **End** to finish playing back the job, then close storage. Your copy should resemble the following:

In the late nineteenth century, a period in history marked by the first years of the industrial revolution and the development of new technologies, typing contests drew enthusiastic spectators. In those days, typing speeds of 40 to 45 words per minute were considered astonishing.

Change

With Change, you can specify text to search for within a job, and new text to replace it. Change works only in No Print mode.

Changing Text

1. Hold down **Store** while you type the number of the storage area you want to open.
2. Select No Print mode. The NO PRT indicator comes on.
3. Press the **Chng** key. The following message is displayed:

TYPE OLD TEXT: _	TYPE NEW TEXT:
PRESS Chng TO CHANGE OR PRESS End TO CHANGE ALL	

4. Type the text that you want to find and change (up to 24 characters).
 - Type the text *exactly* as it appears in your stored job.
 - When searching for the word *the*, your typewriter will also find and change occurrences of the words *then*, *these*, *lathe*, and so on. Use punctuation, capitalization, or spaces before and after the word to find the exact text.
 - Use the **Correction** key to correct errors.
5. Press → to move the cursor to the "TYPE NEW TEXT:" position.
6. Type the new text (up to 24 characters).
 - Type the text *exactly* as it should appear in your stored job.
 - Use the **Correction** key to correct errors.
7. Do one of the following:

- **To Change One Occurrence**

- a. Press the **Chng** key or ↓ to search for the first occurrence of the text from the current position to the *end* of the job.

You can also press **Home** or ↑ to search from the current position to the *beginning* of the job.

When the text is found it is displayed along with the following message:

PRESS Chng TO CHANGE OR PRESS ⌫ TO CANCEL

- b. Press **Chng** to change the text or press the **Correction** key to cancel Change.

- **To Change All Occurrences**

- a. Press **End** to change all occurrences of the text. The following message is displayed:

PRESS End AGAIN TO CHANGE ALL OCCURRENCES OR PRESS <X> TO CANCEL

- b. Press **End** again to verify that you want to *change all occurrences* or press the **Correction** key to cancel the change. All occurrences from the current position to the *end* of the job are changed automatically.

Repeating Change

Repeat steps 3 through 7 of Changing Text to change the next occurrence of the same text or type new text in one or both fields.

Each time you press **Chng**, the previously used text is shown on the display. You can use the same text again or type in different text to find and change.


Practice

1. Insert a 12-pitch printwheel, then choose format area 2 as saved on page 1-21 (**LMar 12 RMar 55**).
2. Open the job you stored on page 3-17.
3. Select No Print, then press **Chng**.
4. Type the word *typing* then press →.
5. Type the phrase *typing speed*.
6. Press **Chng**. When the message is displayed, press **Chng** again.
7. Press **Chng**, then press →.
8. Type the phrase *touch typing*.
9. Press ↓. When the message is displayed, press **Chng**.
10. Press **Chng**.
11. Type the word *new*, then press →. Type the word *advanced*.
12. Press ↑. When the message is displayed, press **Chng**.
13. Close storage, then play back the job. Your copy should resemble the following:

In the late nineteenth century, a period in history marked by the first years of the industrial revolution and the development of advanced technologies, typing speed contests drew enthusiastic spectators. In those days, touch typing speeds of 40 to 45 words per minute were considered astonishing.

Helpful Hints

- If the TEXT NOT FOUND message is displayed:
 - Type the specified text *exactly* as it appears in the stored job.
 - Make sure the cursor is not already on the text you want to change.
 - Repeat Change and press **Chng**, then repeat Change and press **Home** to make sure you have searched the entire job.
 - Press *any key* to clear the TEXT NOT FOUND display message.
- When text you specify closely resembles text in the job, it is displayed along with one of the following messages:

CLOSE MATCH FOUND; PRESS Chng TO CHANGE OR PRESS  TO CANCEL

CLOSE MATCH FOUND; PRESS End TO CONTINUE CHANGING ALL OR PRESS  TO CANCEL

For example, the CLOSE MATCH FOUND message occurs when the number of spaces typed between words in specified text differs from that in the job.

- If you specify more than 24 characters on the Change menu, the typewriter beeps and ignores each additional character you type.
- Many alternate keyboards contain accent marks (dead keys) that print without advancing the carrier to the next space. To change text containing accent marks, type the character but not the accent mark. For example, to find *resumé*, type *resume*.

Form Letters

A form (repetitive) letter is the same letter sent to several different people. When typing a form letter, store the repetitive information (the body of the letter), then play back the letter and type variable information (name, inside address, and so on).

To store a form letter:

1. Open a storage area.
2. Type the form letter. Place stop codes wherever variable information is to appear.
3. Close storage.

Store the following letter, using stop codes where variable information appears in shading (). Type the shaded information in stop code comments to remind you what to type in the letter.

Note: Because stop codes and stop code comments do not print on the paper, your copy may not match the example below when you first type it.

6 CRtns

Code + 9 Inside Address Code + 9

2 CRtns

Dear Code + 9 Name Code + 9

2 CRtns

Thank you for ordering an IBM Typewriter.
On Code + 9 date Code + 9 we will deliver
your new typewriter. Please call me if
you have any questions.

2 CRtns

Cordially yours,

3 CRtns

Paul Boler
Sales Manager

Store

Playing Back a Form Letter

1. Close storage before beginning playback. (If storage is open, variable text is stored with the form letter.)
2. Hold down **Play** while you type the number where the form letter is stored.
3. When playback stops at a stop code, type the variable information. The information you type prints on your playback copy only. Use the **Correction** key to correct errors.
4. Press **End** to continue playback.
5. Repeat steps 3 through 4 for each stop code.

Document Assembly

Document Assembly allows you to combine separate storage areas which contain parts of a document—to assemble a complete document. You can assemble documents on paper (in Character or Delay Print) or only on the display (in No Print). In Character or Delay Print, you can copy parts of a job into an open storage area. In No Print, the entire job is copied into an open storage area. Copying always starts at the beginning of the job.

If the assembly requires more storage space than is available, the following message is displayed:

INSUFFICIENT TYPEWRITER STORAGE; USE D=I TO DELETE STORAGE AREAS

Important: This typewriter was designed so that, even if you stored your jobs with *different* margins, they all play back with the *same* margins during document assembly.

If you stored your jobs with different margins and want them assembled with their stored margins intact, use the Indent function as described in “Changing Margins and Tabs After Opening Storage” on page 3-6 to set temporary margins during document assembly.

If you stored the job you are copying with indented margins, make sure the assembled document plays back correctly.

Assembling Documents in No Print

Use No Print to copy an entire storage area quickly into an existing storage area. You can also use No Print to duplicate a storage area before extensively revising it.

1. Hold down **Store** while you type the number of the storage area where you want to copy the job. If the storage area already contains text, the PLAY indicator comes on.
2. Select No Print.
3. Move to the point where you want to insert the other job.
4. Hold down **Play** while you type the number of the stored job that you are copying. Release the keys.
5. Close storage.

Assembling in Character or Delay Print with Storage Open

You can also combine parts of jobs using Character or Delay Print. Follow the steps below to save an assembled document.

1. Before beginning document assembly, copy your job as explained on page 3-10.
2. Hold down **Store** while you type the number of the first job that you want to play back.
3. Select Delay Print or Character Print.
4. Press **End**, **↓**, or **→** to start playback.
5. Press *any key* to stop playback of the first job near the point where you want to copy the other job, then press **→** or **Code + → (Word)** to play to that point.
6. Hold down **Play** while you type the number of the second job. The second job plays back from the beginning.
7. Press *any key* to stop playback of the second job near the point where you want to copy another job or continue playback of the first job, then press **→** or **Code + → (Word)** to play to that point. The SUSPND indicator comes on as a reminder that the first and second jobs are suspended.
8. Do one of the following:
 - Press **Play** to cancel playback of the second job. The SUSPND indicator goes off.
 - Press **End**, **→**, or **↓** to continue playing back the second job. At the end of the second job, playback stops and the SUSPND indicator goes off.
 - Hold down **Play** while you type the number of a third job.
 - The third job plays back from the beginning.
 - The rest of the second job is not included in the assembled document.
 - The SUSPND indicator goes off.
9. Press **End**, **→**, or **↓** to continue playing back the first job.
10. Close storage.

Assembling in Character or Delay Print with Storage Closed

Hold down **Play** while you type the number of the first job to play back, then continue with step 5 above. Do not press **Store** to open a storage area. The assembled document is not stored.

Practice

1. Insert a 12-pitch printwheel, then choose format area 2 as saved on page 1-21 (**LMar** 12 **RMAR** 55).
2. Store the paragraphs below in storage area **80**. If storage area 80 already contains text, close the storage area and open another.

This is storage area 80, paragraph 1. After a job is stored, you can combine it with other jobs.

This is storage area 80, paragraph 2. To combine jobs, simply use **PLAY**. When storage is open, the result of the combination will be saved.

3. Store the paragraphs below in storage area **81**. If storage area 81 already contains text, close the storage area and open another.

This is storage area 81, paragraph 1. When the playback of two jobs has been stopped, the **SUSPND** indicator is displayed.

This is storage area 81, paragraph 2. Pressing any key stops playback. When playback is stopped, press **END** to resume playback. Press **PLAY** to cancel playback.

4. Store the paragraphs below in storage area **82**. If storage area 82 already contains text, close the storage area and open another.

This is storage area 82, paragraph 1. When you stop playback of a job, you can type or correct text, resume playback, cancel playback, or begin playing a third job.

This is storage area 82, paragraph 2. Press **PLAY** plus a number to begin playing a third job.

5. Complete the exercises on pages 5-14 and 5-15.

Exercise 1: Combining Jobs with Storage Closed

1. Hold down **Play** while you type **80**.
2. Press *any key* to stop playback as soon as printing begins.
3. Use ↓ to play paragraph 1 and the blank line following it. Do not play the first line of paragraph 2.
4. Hold down **Play** while you type **81**.
5. Press *any key* to stop playback as soon as printing begins. The SUSPND indicator comes on.
6. Use ↓ to play paragraph 1 and the blank line following it. Do not play the first line of paragraph 2.
7. Hold down **Play** while you type **82**.
8. Press *any key* to stop playback as soon as printing begins.
9. Use ↓ to play paragraph 1 and the blank line following it. Do not play the first line of paragraph 2.
10. Press **Play** to cancel further playback of storage area 82. The SUSPND indicator goes off.
11. Press **End** to resume playback of storage area 80.

Exercise 2: Combining Jobs into a New Storage Area

1. Open storage area **85**. If storage area 85 already contains text, close the storage area and open another.
2. Copy storage area 80 into storage area 85 as follows:
 - a. Select No Print.
 - b. Hold down **Play** while you type **80**.
3. Press **Home** to move to the beginning of storage area 85.
4. Select Character Print.
5. Use ↓ to play paragraph 1 and the blank line following it. Do not play the first line of paragraph 2.
6. Follow steps 4 through 10 of Exercise 1 to play back the first paragraph from storage areas 81 and 82.
7. Press **End** to resume playback of storage area 85.
8. Close storage.

Exercise 3: Combining Jobs into an Existing Storage Area

1. Before doing the exercise, copy storage area 80 as explained on page 3-10.
2. Open storage area **80**.
3. Use ↓ to play paragraph 1 and the blank line following it. Do not play the first line of paragraph 2.
4. Follow steps 4 through 10 of Exercise 1 to play back the first paragraph from storage areas 81 and 82.
5. Press **End** to resume playback of storage area 80.
6. Close storage.

Helpful Hints

- When storing parts of a job in separate areas, press **CRtn** twice at the end of each job. This allows one blank line between paragraphs stored separately when they are played back in document assembly.
- You cannot copy a job into itself.
- If the STORAGE FULL message appears, delete a job to clear space in storage for the job you are copying.
- If the typewriter beeps when you try to copy the job:
 - You may be trying to copy an empty storage area.
 - You may be trying to copy a job during Centering, Right Flush, or Decimal Tabulation. Turn these functions off when assembling jobs.
- When jobs are suspended, you can correct the printed text. If you move the carrier away from the point where playback stopped, the typewriter *relocates* to that point before continuing playback.
- Storage must be closed for Auto Page Numbering to work with Document Assembly. See "Auto Page Numbering" on page 4-11.

Using Mark for Preprinted Forms

Typing preprinted forms is a two-step process: first, use the Mark function to store a layout of the form; second, play back the form and fill in the blanks.

When storing the form layout, *mark* the form at each point where you will insert or print text. A mark (**Code** + **Shift** + **M**) identifies a point on the form to which the carrier should move.

See the sample form on the next page.

- Each *M* shows where to type a mark (the *M* does not actually print). A mark automatically supplies a stop code. During playback the carrier moves to the mark and stops so you can type variable information. *Variable information is text that changes for each form* and is not stored with the job.
- Each *MC* shows where to type a mark. Press the **Correction** key once to erase the supplied stop code, then type constant information. *Constant information* is text that is the same for each form and is stored with the job. The typewriter prints the constant information at these locations () as you type and when you play back the form.

Sample Preprinted Form

Newspaper Subscription Service

Contributors List

First Name	M.I.	Last Name	Contribution Amt
Address			Date of Contribut
City	State	Zip	ID Number
Telephone No.			

Distribute to: Accounting
Publishing
Direct Mail

Bob Jones

Route Manager

Daily News

Newspaper

Storing a Form Layout

1. Insert a blank form using the **Paper Bail Load Lever**.
2. Set the *left margin* at the *left edge* of the paper.
3. Hold down **Store** while you type the number of the storage area you want to open.
4. Select Character Print. Character Print allows you to move the carrier to the exact typing location on the form.
5. Turn ARTN off.
6. Type the form layout as follows:
 - a. Move the carrier to the point on the form where variable or constant information should print.
 - b. At each point where variable information is to appear, hold down both **Code** and **Shift** while you press **M (Mark)**.
 - The following symbols are displayed at the mark point. The symbols do not print on your paper.
 - c. At each point where constant information is to appear, hold down both **Code** and **Shift** while you press **M (Mark)**. Then press the **Correction** key once—which erases the stop code—and type the constant information. During playback, the typewriter prints this constant information without stopping.
7. Repeat step 6 for each mark point until you finish the form.
8. Close storage when you finish typing the form layout.



Helpful Hints

- You can insert marks in any order. However, marks play back in the order you entered them.
- You cannot use marks when the DEC T, CENTER, or RFLUSH indicators are on.
- If you forget to type a mark while typing a form layout do one of the following:
 - Erase back to where the mark should be and type it.
 - Move to the point where the mark should be and enter it.

- Complete the form, then revise it. See “Correcting the Form Layout.”
- If you type a mark by mistake, press **Correction** *twice* to erase it.

Playing Back the Form Layout

1. Insert a blank form using the **Paper Bail Load Lever**.
2. Set your left margin at the left edge of the paper.
3. Turn the ARTN and STORE indicators off.
4. Hold down **Play** while you type the number of the storage area where you stored the layout. The layout begins playing back.
5. When the typewriter stops, type variable text to fill in the form.
6. Press **End** to continue playback.
7. Repeat steps 5 and 6 until you finish playing back the form.

Notes:

- Because you are playing back the format with storage *closed*, the variable information is *not* stored with the form layout.
- Typing or playing a mark clears the correction memory.

Correcting the Form Layout

1. Hold down **Store** while you type the number of the storage area where you stored the layout. The STORE and PLAY indicators come on and the following symbols are displayed at each mark:



2. Play to the point where you want to add or delete a mark.
 - Hold down both **Code** and **Shift** while you press **M (Mark)** to add a mark.
 - Press the **Correction** key once to delete only the stop code.
 - Press the **Correction** key twice to delete the stop code *and* the mark.
3. Close storage.

Practice

Make a copy of the sample form on page 5-17, or use a form from your business or home. Follow the steps on pages 5-18 through 5-19 to practice storing and playing back the layout.

Required Page Ends

You can store multipage jobs in a single storage area. As you store the job, use the Required Page End function after short pages or between the pages of multipage forms.

Typing a Required Page End

Hold down **Code** while you press **E (PgEnd)** at the end of each page.

Playing Back a Job that Contains a Required Page End

During playback, the typewriter stops at the required page end and the END OF PAGE REACHED message is displayed. Insert a new sheet of paper, then press **End** to continue playback.

Using Auto Page End and Required Page End

When you play back a job with Auto Page End turned on, pages will end at a required page end. If no required page end exists, pages will end according to the Page-Layout settings. See "Page-Layout" on page 4-6.

Spell Check II

Spell Check II allows the typewriter to check spelling as you type. In addition, you can choose a similarly spelled word for one you have typed. After you type a word, spelling is checked against a main dictionary and a supplemental dictionary. The main dictionary contains approximately 120,000 words. The supplemental dictionary can contain up to 300 words.

You must *end the word*—using a space or certain punctuation marks—before it can be checked.

When you type a word that is not found in either dictionary, the spelling beep sounds. The spelling beep has a different tone from the normal typewriter beep. Some correctly spelled words—such as proper names, abbreviations, and technical terms—may cause a spelling beep because they are not in either dictionary. You can create a supplemental dictionary that does not treat these words as spelling errors.

Spell Check II checks capitalization in both the main and supplemental dictionaries. If the word *Ingerman* is in the dictionary, typing the word *ingerman* causes the spelling beep to sound. Compound words, such as *mother-in-law*, are checked as one word.

Spell Assist allows you to ask for *assistance* with a word. Both dictionaries are searched for similarly spelled words. Up to six words are displayed so that you may choose one to replace the word you typed.

Use the **±**, **1**, **2**, **3**, and **4** keys with the **Code** key to activate the various Spelling functions. The words labeled in green above the keys identify how the keys function with the **Code** key.

Spell Assist	Spell On/Off	Add	Delete	Volume
o ±	1	2	3	4

Using Spell Check II

You can use your typewriter with Spell Check II on or off. The Spell function setting is saved when you turn the typewriter off as long as the typewriter batteries are good. To turn Spell Check II on, hold down **Code** while you press **1 (Spell)**. The spelling beep sounds and the **SPELL** indicator comes on.

To turn Spell Check II off, hold down **Code** while you press **1 (Spell)** again. The printwheel spins and the **SPELL** indicator goes off.

If you type a word not found in either the main or supplemental dictionary, the spelling beep sounds. You can:

- Ignore the beep and continue typing.
- Correct the misspelled word.
- Add the word to the supplemental dictionary.
- Ask for assistance with the word. See "Spell Assist" on page 6-4.

Supplemental Dictionary

You create the supplemental dictionary for words that you use often that are not in the main dictionary, such as proper names or technical terms. The supplemental dictionary is saved when you turn the typewriter off as long as good batteries are installed.

Unlike the main dictionary, the supplemental dictionary can only check a word *exactly* as you type it. Words are not checked for plurals, prefixes, or suffixes. For example, if you add the word *frog* to the supplemental dictionary, *frogs* causes the spelling beep to sound as if it were misspelled.

Each time you add a word to the supplemental dictionary or type a word already in the supplemental dictionary, that word becomes the first word in the dictionary. Therefore, the most recently used words are in the front of the dictionary. The supplemental dictionary can hold up to 300 words or 3,000 characters, whichever is less. When the supplemental dictionary is full and you add a word, the last word in the dictionary is deleted.

Adding a Word to the Supplemental Dictionary

If the last word you typed or moved over caused the spelling beep to sound and it is 23 characters or fewer, you can add it to the supplemental dictionary. You must end the word with a space or punctuation (or move over the word ending) before adding it to the dictionary. The cursor must rest to the right of, and not on, the selected word.

Hold down **Code** while you press **2 (Add)** to add the last word you typed or moved over to the supplemental dictionary. The printwheel spins when the word is added.

Deleting a Word from the Supplemental Dictionary

You can delete a word from the supplemental dictionary. You must end the word with a space or other word ending before you can delete it.

Hold down **Code** while you press **3 (Delete)** to delete the last word you typed or moved over from the supplemental dictionary. The printwheel spins when the word is deleted.

Viewing and Deleting Words from the Supplemental Dictionary

You can view and delete the words in the supplemental dictionary. The words are displayed in the order they appear in the dictionary.

1. Press the **Menu** key, then select SPELL. The following message is displayed, along with the first word(s) in the supplemental dictionary.

USE ←↑↓→ TO POSITION, CODE+3 TO DELETE WORD FROM SUPPLEMENTAL DICTIONARY

2. Use the cursor movement keys to view the supplemental dictionary. Five asterisks (*****) indicate the end of the word list.
3. Move the cursor to the word you want to delete, then hold down **Code** while you press **3 (Delete)**.
4. Press the **Correction** key to resume normal typing.

Note: Press the **Home** key to view the first words in the supplemental dictionary or press **End** to view the last words. The SUPPLEMENTAL DICTIONARY EMPTY message is displayed if there are no words in the supplemental dictionary when you select SPELL.

Checking All Words in a Job

You can also check spelling in a previously stored job. This is called *batch spell check*.

1. Make sure the SPELL indicator is on.
2. Hold down **Store** while you type the number where you stored the job. The STORE indicator comes on.
3. Select No Print.
4. Press **Play** to turn the PLAY indicator on.
5. Press **End**. The display goes blank and the BUSY indicator blinks as the job is checked.
6. If a misspelled word occurs, the spelling beep sounds and the word is displayed. Do one of the following and then press **End** to continue:
 - Ignore the misspelled word.
 - Correct the misspelled word using the **Correction** key.
 - Add the word to the supplemental dictionary.
 - Ask for assistance with the word. (See "Spell Assist.")
7. Repeat steps 5 and 6 until the entire job is checked.

Spell Assist

You can ask for *assistance* when a word causes the spelling beep to sound. However, the spelling beep does not have to sound before you can ask for assistance with a word. Any time you want to choose a similarly spelled word (not a synonym), you can use Spell Assist. When you ask for assistance, both dictionaries are searched for words similar to the one you typed. Similar words from both dictionaries are displayed.

Notes:

1. Spell Check II does not have to be on to use Spell Assist.
2. Press the **Correction** key to cancel Spell Assist at any time.

To use Spell Assist:

1. Move the cursor to the word or immediately to the right of the word with which you want assistance.
2. Hold down **Code** while you press \pm (**Spell Assist**). The BUSY indicator comes on while the dictionaries are searched for alternate words. Then one of the following is displayed:
 - The NO WORD AVAILABLE message indicates that no alternate word is available. Press any key to continue.
 - The WORD SPELLED CORRECTLY message indicates that the word matches one in the main or supplemental dictionary. Press any key to continue.
 - A list of words similar to the one you typed is displayed if the word is misspelled or is not in one of the dictionaries.
3. To choose one of the alternate words, move the cursor to the word and press **CRtn**.

Julie brushes her cat dialy
<u>daily</u> diala diary dimly delay dairry

t1

- If the incorrect word can be automatically replaced, it is erased on the paper and on the display. The new word appears on the display as it is typed on the paper.
- If the OPERATOR ACTION REQUIRED message is displayed, followed by the word you chose, you will have to correct the word yourself. Press any key to continue.

If you do not choose one of the alternate words, press the **Correction** key to cancel Spell Assist.

Changing the Sound of the Spelling Beep

You can change the sound of the spelling beep to a tone that is different from that of the typewriter next to you, or to a volume that is more suitable to the noise level in your work area.

Hold down **Code** while you press **4 (Volume)** until the spelling beep has the desired sound. The tone you select is saved when you turn the typewriter off.

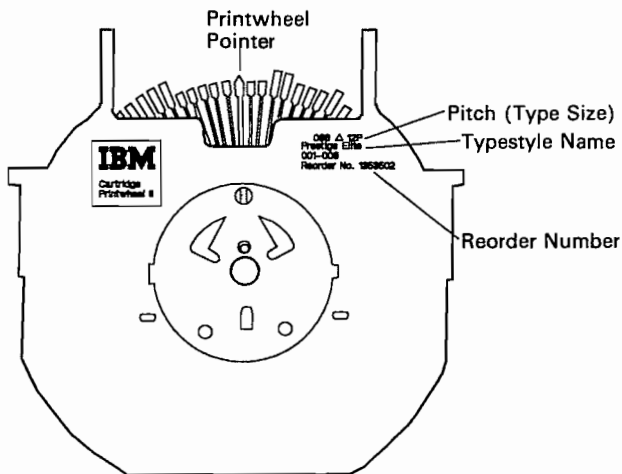
Reference

Ordering IBM Supplies

To order IBM supplies, contact an authorized dealer or call 1-800-426-2468. In Canada, please call an authorized dealer or call toll free 1-800-663-7662.

Typestyle Samples

Your typewriter uses an IBM Cartridge Printwheel II, available in a variety of different typestyles and pitches. When ordering printwheels, see the location of the reorder number below. Personal computer, foreign language, and symbol character printwheels are also available.



Note: Because of the differences between printed and typewritten impressions, use the typestyle samples on the following pages only as a guide.

Typestyle Samples and Pitches

10 Pitch

▲ Advocate 1353845	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz	12345 67890
▲ Artisan 10 1353520	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz	12345 67890
▲ Bookface Academic 1353844	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz	12345 67890
▲ Courier10 1353511	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz	12345 67890
▲ Delegate 1353843	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz	12345 67890
▲ Manifold 1353846	ABCDEFGHIJKLMNOPQRSTUVWXYZ ABCDEFGHIJKLMNOPQRSTUVWXYZ	12345 67890
▲ OCR-A 1353246	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz	12345 67890
▲ OCR-B 1353247	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz	12345 67890
▲ Pica 1353829	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz	12345 67890
▲ Presentor 1353015	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz	12345 67890
▲ Prestige Pica 1353503	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz	12345 67890
▲ P&P #3 OCR 1353054	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz	12345 67890
▲ Rhetoric 1353736	ABCDEFGHIJKLMNOPQRSTUVWXYZ ABCDEFGHIJKLMNOPQRSTUVWXYZ	12345 67890
▲ 1403 OCR 1353075	ABCDEFGHIJKLMNOPQRSTUVWXYZ ABCDEFGHIJKLMNOPQRSTUVWXYZ	12345 67890

12 Pitch

▲ Adjutant 1353047	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz	12345 67890
▲ Artisan 1353050	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz	12345 67890

12 Pitch (continued)

▲ Auto Elite 1353080	ABCDEFGHIJKLMNOPQRSTUVWXYZ 12345 abcdefghijklmnopqrstuvwxyz 67890
▲ Courier 12 1353523	ABCDEFGHIJKLMNOPQRSTUVWXYZ 12345 abcdefghijklmnopqrstuvwxyz 67890
▲ Courier 12 Italic 1353890	<i>ABCDEFGHIJKLMNOPQRSTUVWXYZ 12345</i> <i>abcdefghijklmnopqrstuvwxyz 67890</i>
▲ Dual Gothic 1353055	ABCDEFGHIJKLMNOPQRSTUVWXYZ 12345 abcdefghijklmnopqrstuvwxyz 67890
▲ Elite 1353861	ABCDEFGHIJKLMNOPQRSTUVWXYZ 12345 abcdefghijklmnopqrstuvwxyz 67890
▲ Large Elite 1353017	ABCDEFGHIJKLMNOPQRSTUVWXYZ 12345 abcdefghijklmnopqrstuvwxyz 67890
▲ Letter Gothic 1353514	ABCDEFGHIJKLMNOPQRSTUVWXYZ 12345 abcdefghijklmnopqrstuvwxyz 67890
▲ Light Italic 1353764	<i>ABCDEFGHIJKLMNOPQRSTUVWXYZ 12345</i> <i>abcdefghijklmnopqrstuvwxyz 67890</i>
▲ Olde World 1353875	<i>ABCDEFGHIJKLMNOPQRSTUVWXYZ 12345</i> <i>abcdefghijklmnopqrstuvwxyz 67890</i>
▲ Prestige Elite 1353502	ABCDEFGHIJKLMNOPQRSTUVWXYZ 12345 abcdefghijklmnopqrstuvwxyz 67890
▲ Scribe 1353982	ABCDEFGHIJKLMNOPQRSTUVWXYZ 12345 abcdefghijklmnopqrstuvwxyz 67890
▲ Script 1353778	<i>ABCDEFGHIJKLMNOPQRSTUVWXYZ 12345</i> <i>abcdefghijklmnopqrstuvwxyz 67890</i>

15 Pitch

■ Courier 15 1353796	ABCDEFGHIJKLMNOPQRSTUVWXYZ 12345 abcdefghijklmnopqrstuvwxyz 67890
■ Gothic 15 1353719	ABCDEFGHIJKLMNOPQRSTUVWXYZ 12345 abcdefghijklmnopqrstuvwxyz 67890
■ Prestige 15 1353655	ABCDEFGHIJKLMNOPQRSTUVWXYZ 12345 abcdefghijklmnopqrstuvwxyz 67890

Proportional Spacing

● Boldface 1353504	ABCDEFGHIJKLMNOPQRSTUVWXYZ 12 abcdefghijklmnopqrstuvwxyz 34567890
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Proportional Spacing (continued)

● Boldface Italic * 1353059	ABCDEFGHIJKLMNOPQRSTUVWXYZ 1234567890 abcdefghijklmnopqrstuvwxyz 6789
● Essay * 1353526	ABCDEFGHIJKLMNOPQRSTUVWXYZ 1234567890 abcdefghijklmnopqrstuvwxyz 34567890
● Essay Italic * 1353750	ABCDEFGHIJKLMNOPQRSTUVWXYZ 1234567890 abcdefghijklmnopqrstuvwxyz 34567890
● Modern * 1353517	ABCDEFGHIJKLMNOPQRSTUVWXYZ 1234567890 abcdefghijklmnopqrstuvwxyz 34567890
● Thesis * 1353953	ABCDEFGHIJKLMNOPQRSTUVWXYZ 1234567890 abcdefghijklmnopqrstuvwxyz 67
● Title * 1353952	ABCDEFGHIJKLMNOPQRSTUVWXYZ 1234567890 abcdefghijklmnopqrstuvwxyz 34567890

Draw

▲ Courier 10 Draw 1353264	ABCDEFGHIJKLMNOPQRSTUVWXYZ 1234567890 abcdefghijklmnopqrstuvwxyz 678
△ Prestige Elite Draw 1353265	ABCDEFGHIJKLMNOPQRSTUVWXYZ 1234567890 abcdefghijklmnopqrstuvwxyz 67890
■ Courier 15 Draw 1353266	ABCDEFGHIJKLMNOPQRSTUVWXYZ 1234567890 abcdefghijklmnopqrstuvwxyz 67890

* For use on typewriters and printers with proportional spacing.

Printwheel Application Recommendations

Typestyle	1 – 3 Carbon Copies	3 – 5 Carbon Copies	Stencils	Bold Print
10 Pitch:				
Advocate	A	A	A	C
Artisan 10	A	A	A	A
Bookface Academic	B	C	B	A
Courier 10	A	A	B	A
Delegate	A	A	B	B
Manifold	A	A	B	A
Pica	A	A	A	C
Prestige Pica	A	B	B	A
Rhetoric	B	C	B	A
Rhetoric Presenter	B	C	B	A
Symbol 10	B	C	C	B
12 Pitch:				
Adjutant	A	A	B	B
Artisan 12	A	A	B	A
Auto Elite	A	A	A	A
Courier 12	A	A	B	A
Courier 12 Italic	A	A	B	A
Dual Gothic	A	B	B	C
Elite	A	A	A	C
Large Elite	A	A	A	C
Letter Gothic	A	A	B	A
Light Italic	A	A	A	B
Olde World	A	C	NR	A
Prestige Elite	A	B	A	A
Scribe	A	A	A	B

Typestyle	1 – 3 Carbon Copies	3 – 5 Carbon Copies	Stencils	Bold Print
Script	B	C	C	A
Symbol 12	C	C	C	B
15 Pitch:				
Courier 15	A	B	B	A
Gothic 15	B	C	B	A
Prestige 15	A	B	A	C
Symbol 15	C	C	C	B
PS Pitch:				
Boldface	B	C	B	A
Boldface Italic	B	C	B	A
Essay	A	B	B	A
Essay Italic	A	B	B	A
Modern	A	B	B	A
Thesis	A	B	B	A
Title	A	B	B	A

Ratings:

A – Good; B – Fair; C – Marginal; NR – Not Recommended
(Based on proper selection of ribbon, carbon paper, and stencils)

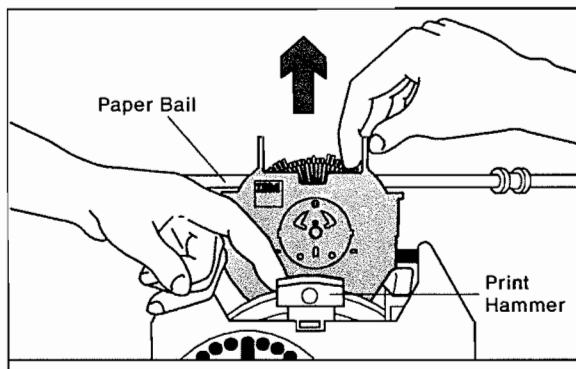
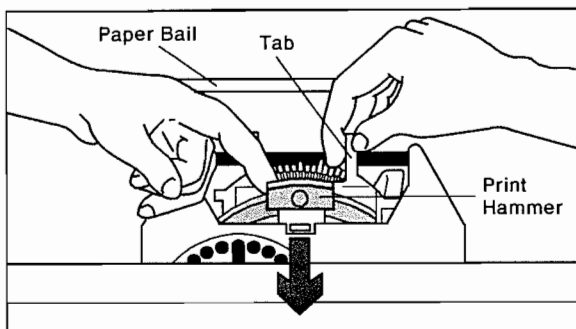
Note: There are three symbol printwheels: Symbol 10, Symbol 12, and Symbol 15. For best results, use a symbol printwheel that matches the pitch of your regular printwheel.

Changing the Printwheel

CAUTION:

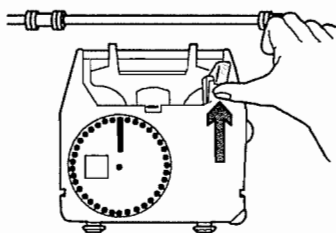
To prevent unwanted carrier motion, make sure the **Paper Bail Load Lever** is in the closed position.

1. Pull the print hammer all the way forward and hold it.
2. Grasp the printwheel tab and lift the printwheel straight up and out of the slot. Do not scratch the ribbon.

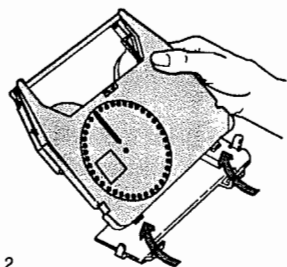


3. Release the print hammer.
4. If the replacement printwheel is new, remove the yellow shipping seal from its center.
5. Hold the printwheel so the letters IBM are in the upper left corner.
6. Pull the print hammer all the way forward and hold it.
7. Lower the printwheel into the slot. Do not scratch the ribbon.
8. Release the print hammer.
9. Press the **Code** key. The printwheel spins.

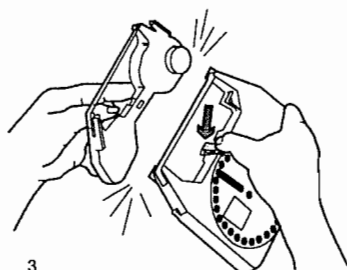
Ribbon Removal and Installation



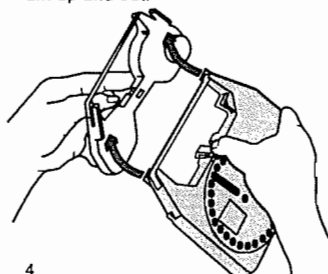
1
Push blue lever.



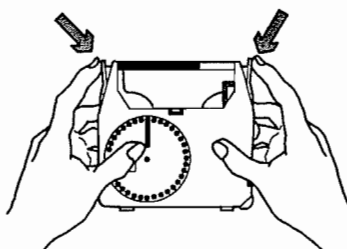
2
Lift up and out.



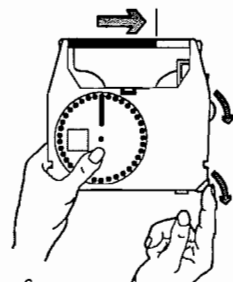
3
Separate 2 cassettes.



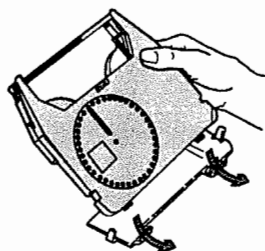
4
Slide cassettes together.



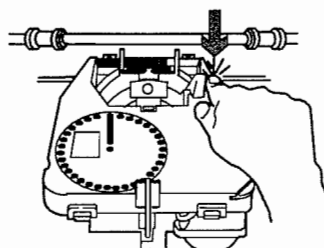
5
Press gray tabs.



6
Advance tape.



7
Slide into typewriter.



8
Press down firmly.

IBM Easystrike® Ribbons

Applications	Multi-purpose	High ¹ Yield Correctable	Fabric	Superior ² Write Correctable
Correspondence				
Legal	•	•	NR	•
Executive	•	•	NR	•
General	•	•	•	•
Hard-to-Image Originals ³	•	NR	•	•
OCR	•	NR	NR	NR
Speech Writing ⁴	•	NR	•	•
Negotiable Instruments (checks and stocks)	•	NR	•	NR
Erasable Bond ³	•	NR	NR	•
Quality of Original				
1 - 3 Carbons	Good	Good	Good	Good
3 - 5 Carbons	Fair	Marginal	Fair	Fair
Reorder Number	1337764	1299845	1356000	1380999
Correction Tape				
Lift-Off Tape—1337765		•	None	•
Cover-Up Tape—1337766	•		None	

• = Recommended NR = Not Recommended

The IBM Easystrike Correctable Ribbon Cassette is available in brown (1337762) and blue (1337763).

- 1 Long-life correctable film ribbon; recommended for general correspondence.
- 2 Recommended for bold and dark print, especially on difficult-to-image papers.
- 3 The receptivity of the surface of these materials varies widely; therefore, for best results, use care in selecting a specific material to be typed on, and in selecting typestyle, impression control, and ribbon. The IBM Easystrike Superior Write Correctable Ribbon is recommended for most hard-to-image applications. However, there are some special coated or treated surfaces where the multipurpose ribbon must be used. When in doubt, prepare samples first.
- 4 Best results with Rhetoric and other large typestyle printwheels are obtained by using the IBM Easystrike Multipurpose Ribbon.

Batteries

The typewriter uses two size AA alkaline batteries to save stored jobs, margins, tabs, and other settings when you turn the typewriter off. Change the batteries at least once every year (before they run down). *Do not turn the typewriter off while replacing batteries.* If you do, stored information and settings will be lost.

The following settings are saved when you turn the typewriter off if good batteries are installed:

- Top Margin
- Active Format Area
- Line Space Setting
- Hyphenation On or Off
- Justification On or Off
- Automatic Carrier Return On or Off
- Variable Right Margin Zone
- Active Keyboard
- Active Print Mode
- Auto Page End On or Off
- Auto Page Numbering Settings
- Tab/Column Adjust On or Off
- Keyboard Clicker On or Off
- Page-Layout Settings
- Spell Check Supplemental Dictionary

Use only size AA alkaline batteries (for example, Duracell⁵ type MN 1500, Eveready⁶ type E91, Ray-O-Vac⁷ type 815, or equivalent). *Do not use rechargeable batteries.*

Checking the Batteries

If the beep sounds three times and the LO-BAT indicator comes on when you turn the typewriter on, check the following while the *typewriter is on*.

1. Check the batteries for correct installation. If correctly installed, the batteries may be weak or dead.
2. Replace both batteries. *Do not turn the typewriter off while replacing batteries.* If you do, stored information and settings will be lost.

⁵ Trademark of Duracell, Inc.

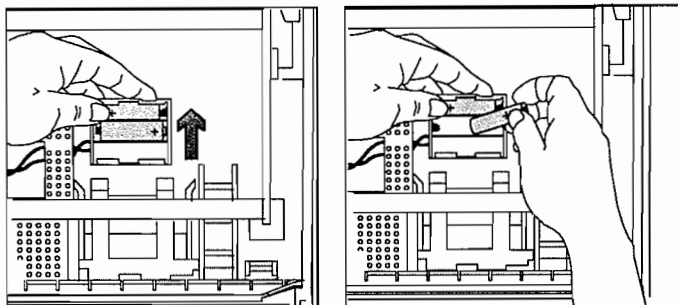
⁶ Trademark of the Union Carbide Corp.

⁷ Trademark of the Ray-O-Vac Corp.

Replacing Batteries

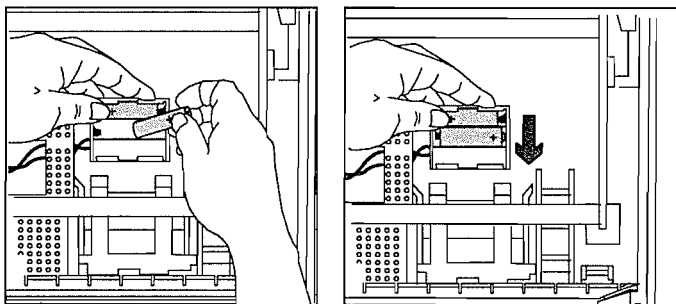
Warning: Do not turn the typewriter off while replacing batteries. If you do, stored information and settings will be lost.

1. Turn the typewriter on and raise the cover.
2. Locate the black plastic battery holder at the right front of the typewriter.
3. Remove the holder by putting your finger under it and pulling up. Carefully pull the holder out as far as it can go.
4. Push the batteries against the spring ends of the holder and pop them out.



5. Install two new batteries in the holder. Match the plus (+) signs on the batteries to the plus signs inside the holder.
6. If the **LO-BAT** indicator remains on after you have replaced the batteries, then the replacement batteries are not good or inserted incorrectly. Do not turn the typewriter off. Check battery insertion. If the insertion is correct, then obtain a new set of good batteries and go to step 3.

7. Fold any excess wire into the empty slot of the battery holder.
Place the battery holder back in the typewriter.



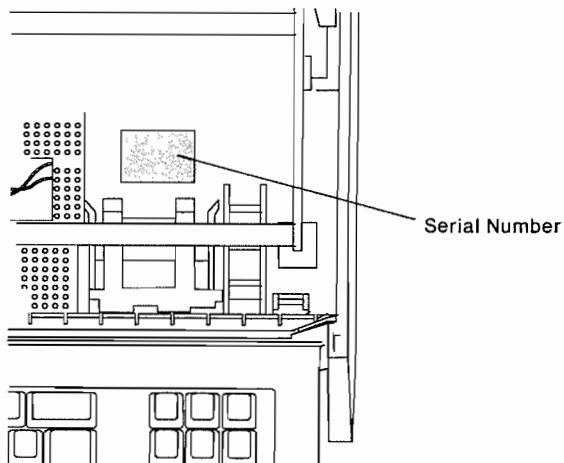
Notes:

1. The batteries will *not* save margins, stored jobs, and other settings unless each battery is properly installed.
2. The battery holder contains three openings. Be sure to place the batteries in **only** the two holder positions containing springs.

Cleaning the Typewriter Cover

Important: Use only a damp cloth and mild detergent to clean the typewriter cover and keybuttons. Certain cleaning fluids may be harmful. *Do not use IBM cleaning fluid.*

Serial Number



To locate the serial number on your typewriter, look on the right side of the inside bottom cover. The serial number is on the voltage label behind the batteries. Machine type and model number are also on this label.

Problem Determination

This chapter describes problems or questions you may have while using your typewriter. Use this chapter to correct problems yourself, saving service costs and avoiding unnecessary downtime.

1. Find the problem in the index and turn to the page referenced.
2. Complete as many steps as needed to correct the problem.
3. For assistance, call an authorized dealer. You will need serial number, machine type, and model number when you call. See "Serial Number" on page 7-13 for location of this information.

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Typewriter Problems

Display Problems

1. Tilt the display to adjust it to the lighting conditions in the room.
2. Turn the contrast knob on the side of the display.
3. Make sure the display connections are secure.
4. If the display is attached correctly, turn the typewriter off. Wait 30 seconds, then turn the typewriter on again.

Erase Problems

Correction Key Does Not Completely Erase Character

1. Make sure the ribbon and correction tape cassettes are fastened together correctly.
2. Make sure the correction tape matches the ribbon. Make sure the ribbon and correction tape cassettes are correctly installed.
3. Try a lighter impression setting. See page 1-15.
4. Try a new correction tape and type any character to reset the correction system.
5. Try plain bond paper.
6. Look for folds in the paper.
7. Make sure the typewriter is on a level surface.
8. Use the same printwheel for both typing and erasing.
9. Turn the Bold function on if erasing bold characters.

Printwheel Spins Instead of Erasing

The character is outside the correction memory and you must erase it manually.

Keyboard Problems

Keyboard Locked, Display Blank

Turn the typewriter off. Wait at least 30 seconds, then turn the typewriter back on.

No Clicking Sound

The keyboard clicker may be off. Hold down **Code** while you press **S**, then try typing and listen for the clicker.

Paper Problems

If the paper does not load properly, push the *Paper Release Lever* all the way back. Make sure a printwheel is installed.

Print Problems

Characters Do Not Print

1. Make sure you are using the correct pitch or language.
2. Make sure the printwheel and ribbon are installed correctly.
3. Make sure the printwheel and ribbon are not damaged.
4. Make sure the platen is latched down at both ends.
 - Pull the *Paper Release Lever* all the way toward you.
 - Push down firmly on each end of the platen. Then push the *Paper Release Lever* all the way back.
5. Try a new ribbon or printwheel.

Characters Print Too Lightly

1. Make sure the ribbon is installed correctly.
2. Look for folds in the ribbon and paper.
3. Change the impression control. See page 1-15.
4. Try plain bond paper.
5. Try a new ribbon or printwheel.

Characters Do Not Print Clearly

1. If excess ink particles from the ribbon appear on the paper, try a lower impression control setting. See page 1-15.
2. Try a new ribbon or printwheel.

Typing Problems

Typewriter Operates Hot

1. Make sure nothing is blocking the typewriter vents.
2. Place the typewriter at least 75 mm (3 in) from the wall on all sides.
3. Make sure the typewriter is not near a heater.

Typewriter Operates Too Noisily

1. Make sure the cover and soundhood (if you have a soundhood) are closed tightly.
2. Move any objects touching the typewriter cover.
3. Look for objects in the typewriter.
4. Remove any material placed under the typewriter.
5. Check the typing table or desk. Metal tables can make the typewriter sound noisy.

Line Spacing Aligns Incorrectly

1. Look for objects inside the typewriter.
2. Look at the number of carbon copies used (five maximum).
3. Push the *Paper Release Lever* all the way back.

Paper Feeds Incorrectly

1. Check the number of carbon copies used (five maximum).
2. Make sure carbon copies are correctly inserted.
3. Look for labels or paper caught under the platen.
4. Push the *Paper Release Lever* all the way back.
5. Make sure the platen is latched down at both ends.
6. If you change the top margin setting at any time, check it before feeding paper. See page 2-3.

Wrong Characters Print or Space Incorrectly

1. Turn the typewriter off, wait 30 seconds, then turn the typewriter on again and try typing.
2. Turn the KYBD indicator off if it is on.
3. Try a new printwheel.
4. Look for objects in the path of the carrier.
5. If there is a language change, change the printwheel.
6. If you are playing back, use the same pitch printwheel used to store the job.

Carrier Stops Before Reaching Left Margin

The carrier probably caught on something when returning to the left margin.

1. Turn the typewriter off.
2. Look for objects in the path of the carrier.
3. Remove the object from the typewriter.
4. Turn the typewriter back on.

Spell Check II Problems

If Spell Check II does not work, one of the following might cause the problem:

- Spell Check II is turned off.
- Another typewriter function is active which prevents Spell Check II from operating (for example, the Printer Option).
- You did not end the word with a word ending.
- You are trying to add a word that is already in a dictionary.
- You are trying to delete a word from the *main* dictionary.

Diskette Option Problems

If the Diskette Option does not work:

1. Turn the typewriter off, wait 30 seconds, then turn the typewriter on again.
2. Try the diskette operation again.
3. If errors continue, make sure the diskette was prepared.
4. Try a different prepared diskette.

Messages and Error Codes with Beep Signals



If the typewriter fails to operate properly, it may beep several times and display an error code or message. The table below lists error codes and messages and tells you what to do when they appear.




Error Code	Condition	Action
END OF RIBBON, 3 beeps	End of ribbon	(Sensor-equipped machines only.) <ol style="list-style-type: none">1. Replace the ribbon. See Chapter 7.2. Resume typing or playback.3. If the message recurs, check that the ribbon is good and that it is properly installed.4. Resume typing or playback.5. If the message recurs, call an authorized dealer.
LO BAT, 3 beeps	Low batteries	<ol style="list-style-type: none">1. Leave the typewriter on and make sure the batteries are not corroded.2. Make sure the batteries are correctly installed.3. Replace the batteries. See Chapter 7. <p>Note: Replace batteries as quickly as possible. If the batteries run down and you turn the typewriter off, all storage is erased.</p>
STORAGE CLEARED, LO-BAT, 3 beeps	Storage cleared; bad batteries	<ol style="list-style-type: none">1. Replace the batteries.2. Turn the typewriter off. Wait 30 seconds, then turn the typewriter on again.3. If the errors recur, call an authorized dealer.
OUT OF PAPER, 3 beeps	Out of paper	(Sensor-equipped machines only.) Insert a new sheet of paper, then continue typing.
011, 3 beeps	Storage altered	<ol style="list-style-type: none">1. Press any key. The STORAGE CLEARED message is displayed.2. Type one line of text into a storage area.3. Turn the typewriter off. Wait 30 seconds, then turn the typewriter on again.4. If the error recurs, or stored text was cleared, call an authorized dealer.
3 spelling beeps when you turned the typewriter on	Supplemental dictionary error	The supplemental dictionary has been erased. If you selected a spelling beep tone, it has been reset to the default value and you must select it again.




Error Code	Condition	Action
101, 6 beeps	Program error	Contact an authorized dealer.
121, 6 beeps	Unsupported keyboard	<p>The typewriter does not support the keyboard you are attempting to use, or the keyboard is defective.</p> <ol style="list-style-type: none"> 1. Make sure you are using the primary keyboard. 2. Turn the typewriter off. Wait 30 seconds, then turn the typewriter on again. 3. If the error recurs, call an authorized dealer.
140, 5 beeps	Spelling function error	Contact an authorized dealer.
160, 6 beeps	Diskette option error	Contact an authorized dealer.
161, Diskette error 6 beeps	Diskette drive improperly connected to typewriter or Diskette Option error	<ol style="list-style-type: none"> 1. Check the connection between the diskette drive and the typewriter. Make sure the cable is securely attached. 2. Turn the typewriter off. Wait 30 seconds, then turn the typewriter on again. 3. If the error recurs, contact an authorized dealer.
162, 6 beeps	Diskette Option error	Contact an authorized dealer.
215, 6 beeps	Printwheel not properly installed	<ol style="list-style-type: none"> 1. Turn the typewriter off. 2. Make sure the printwheel was correctly installed. 3. Turn the typewriter back on. 4. If the error recurs, contact an authorized dealer.
All other codes, 6 beeps	Various	<ol style="list-style-type: none"> 1. Turn the typewriter off. Wait 30 seconds, then turn the typewriter on. 2. If the error recurs, call an authorized dealer.

Messages and Indicators without Beep Signals

Indicators may blink or appear with other symptoms to signal a particular condition. Indicators in reverse lettering (white letters on black background) mean the typewriter may require your action.

Message	Condition	Action
BUSY	The typewriter is processing an instruction.	<ul style="list-style-type: none">Do not type while BUSY is on.Do not turn the typewriter off while BUSY is on.
DISKETTE BUSY	A diskette operation is in progress. The message goes off when the operation is complete.	<ul style="list-style-type: none">Do not remove the diskette from the drive while DISKETTE BUSY is displayed.Do not turn the typewriter off while DISKETTE BUSY is displayed.
DISKETTE ERROR; REQUESTED FUNCTION NOT PERFORMED	An error occurred while using the diskette. The diskette was not prepared, the diskette was damaged, or the selected job contains invalid data.	Try the same operation again, or insert a different diskette and repeat the operation.
DISKETTE NOT USABLE; INSERT NEW DISKETTE AND PRESS CRtn OR PRESS  TO CANCEL	This message appears only during the PREPARE operation. Required information was not placed on the diskette, or you removed the diskette before PREPARE was completed. The diskette must be a 3.5 inch 1MB diskette. Using the wrong type of diskette causes this error.	<ul style="list-style-type: none">If you did not remove the diskette before PREPARE was completed, try a new diskette.If you removed the diskette before PREPARE was completed, put it back in the diskette drive and repeat the PREPARE operation.
DISKETTE PREPARA- TION COMPLETE	Diskette preparation was properly completed.	Press any key to clear the message from the display.
DISKETTE TEXT WILL BE LOST; PRESS CRtn TO CONTINUE OR PRESS  TO CANCEL	You have attempted to prepare a used diskette. The diskette may have jobs stored on it.	<p>To check the contents of the diskette:</p> <ol style="list-style-type: none">Press the Correction key.Press the Menu key.Select DISKETTE.Select DIRECTORY. <p>Press CRtn to prepare the diskette anyway. Any jobs stored on the diskette are erased as the diskette is prepared.</p>
























Message	Condition	Action
DISKETTE WAS EXCHANGED PRESS CRtn TO CONTINUE OR PRESS  TO CANCEL	You placed a different diskette in the diskette drive after diskette revision or playback began.	<p>If you are playing back the job, place the correct diskette in the drive and press CRtn to continue or press the Correction key to cancel playback.</p> <p>If you are storing the job on the diskette, press CRtn to proceed. Press the Correction key to return to revision.</p> <p>If you turn the typewriter off with a diskette job open, it is stored on the diskette when you turn the typewriter on again.</p>
DISKETTE WRITE-PROTECTED; REQUESTED FUNCTION NOT PERFORMED	The diskette write-protect tab is open.	<ol style="list-style-type: none"> Do one of the following: <ul style="list-style-type: none"> Close the write-protect window. Insert an unprotected diskette. Try the operation again. <p>Note: To quit the job without storing revisions on diskette, see page A-8.</p>
"FROM" STORAGE DOES NOT EXIST; USE ANOTHER STORAGE NUMBER OR PRESS  TO CANCEL	This message is displayed only during the COPY function. The specified "FROM" number cannot be found.	<p>Do one of the following:</p> <ul style="list-style-type: none"> Specify an existing document. Press the Correction key to cancel the COPY function.
HYPHEN	You are playing back a job with HYPHEN on. Playback is stopped and awaits your hyphenation decision.	See "Hyphenation during Playback" on page 5-2.
INSERT DISKETTE AND PRESS CRtn TO CONTINUE OR PRESS  TO CANCEL	You have selected a diskette function with no diskette in the drive.	Insert the proper diskette and press CRtn to perform the operation, or press the Correction key to cancel the operation.

Message	Condition	Action
INSERT DISKETTE AND PRESS CRtn TO CONTINUE,  TO CANCEL OR Del TO DELETE	You are trying to store a job on diskette with no diskette in the drive.	Do one of the following: <ul style="list-style-type: none"> • Insert the proper diskette and press CRtn to store the job. • Press the Correction key to return to revision. • Press Del twice to end the job without storing revisions. <p>If you turn the typewriter off with a diskette job open, it is stored on the diskette when you turn the typewriter on again.</p>
INSERT DISKETTE AND PRESS CRtn TO PREPARE OR PRESS  TO CANCEL	You have selected the diskette prepare function.	Insert the diskette you want to prepare in the diskette drive and press CRtn . If you do not want to prepare the diskette, press the Correction key.
INSERT SCRATCH DISKETTE AND PRESS CRtn TO CONTINUE OR PRESS  TO CANCEL	You have selected a function intended for service personnel.	Press the Correction key to cancel the operation. Do not press CRtn , or you may lose jobs stored on the diskette.
INSUFFICIENT DISKETTE STORAGE; USE Del TO DELETE STORAGE AREAS	There is not enough storage space on the diskette to hold the job you are trying to store.	Do one of the following: <ul style="list-style-type: none"> • Use another diskette. • Use the delete function to make additional room on the diskette.
INSUFFICIENT TYPEWRITER STORAGE; USE Del TO DELETE STORAGE AREAS	There is not enough storage space in the typewriter to hold the job you are trying to revise.	Delete typewriter storage areas to free enough storage space to revise the job. <p>Note: You can copy the typewriter storage areas to a diskette before you delete them from typewriter storage.</p>
JUSTIFY	Delay Print has been turned off during justification.	Press the Print Mode key to reenables Delay Print .

Message	Condition	Action
SPELL	<p>The Spell Check II dictionary does not support an alternate language keyboard;</p> <p>Or</p> <p>Spell Check II is on, but is not checking spelling. You are using a function that makes Spell Check II inactive.</p>	<p>Hold down Code while you press L (Lang).</p> <p>Turn off the second function, and the Spelling function will again be active.</p>
STORE	Storage is almost full.	See "Storage Full Warning" on page 3-21.
"TO" STORAGE ALREADY EXISTS; USE ANOTHER STORAGE NUMBER OR PRESS ⏏ TO CANCEL	This message is displayed only during the Copy function. The specified "TO" number already exists.	<p>Do one of the following:</p> <ul style="list-style-type: none"> • Use a new "TO" number that does not already exist. • Delete the "TO" number and try the Copy function again. • Press the Correction key to cancel the Copy function.
USE IndL OR PRESS LMar AGAIN TO RESET DOCUMENT MARGIN OR ⏏ TO CANCEL	This message is displayed when you press LMar while storage is open.	<p>Do one of the following:</p> <ul style="list-style-type: none"> • Set a temporary left margin (see page 2-13). • Press LMar to change the left margin for the <i>entire</i> job. • Press the Correction key to cancel the message.
USE IndR OR PRESS RMar AGAIN TO RESET DOCUMENT MARGIN OR ⏏ TO CANCEL	This message is displayed when you press RMar while storage is open.	<p>Do one of the following:</p> <ul style="list-style-type: none"> • Set a temporary right margin (see page 2-13). • Press RMar to change the right margin for the <i>entire</i> job. • Press the Correction key to cancel the message.
WHEEL	<ul style="list-style-type: none"> • You are trying to type with no printwheel; or • The incorrect pitch printwheel is currently installed; or • An alternate keyboard is going to be selected. 	<ol style="list-style-type: none"> 1. Install the printwheel pitch indicated by the WHEEL indicator. 2. Resume typing or playback. <p>Or</p> <ol style="list-style-type: none"> 1. Install the proper printwheel to print a character from an alternate keyboard. 2. Press End.
= ?? ????????	Information from different equipment is stored on the diskette.	To gain access to the information, use the diskette with the equipment on which it was entered.

Typewriter Messages

Message	Page
CLOSE MATCH FOUND; PRESS Chng TO CHANGE OR PRESS \boxtimes TO CANCEL	5-9
CLOSE MATCH FOUND; PRESS End TO CONTINUE CHANGING ALL OR PRESS \boxtimes TO CANCEL	5-9
END OF PAGE REACHED	4-10
END OF RIBBON (sensor-equipped machines only)	8-6
INSUFFICIENT TYPEWRITER STORAGE; USE Del TO DELETE STORAGE AREAS	5-11
MOVE CURSOR TO END OF LINE/BOX; THEN PRESS Draw OR PRESS \boxtimes TO CANCEL	2-6
OUT OF PAPER (sensor-equipped machines only)	8-6
PAGE LENGTH: nn BOTTOM MARGIN: nn PRESS CRtn TO SELECT OR PRESS \boxtimes TO CANCEL	4-6
PRESS Chng TO CHANGE OR PRESS \boxtimes TO CANCEL	5-9
PRESS Del AGAIN TO DELETE ALL STORAGE AREAS OR PRESS \boxtimes TO CANCEL	3-18
PRESS Del AGAIN TO DELETE OR PRESS \boxtimes TO CANCEL	3-12
PRESS Del AGAIN TO DELETE STORAGE nn OR PRESS \boxtimes TO CANCEL	3-18
PRESS End AGAIN TO CHANGE ALL OCCURRENCES OR PRESS \boxtimes TO CANCEL	5-8
PRESS End TO CONTINUE OR PRESS \boxtimes TO CANCEL	4-5 1-21
STORAGE CLEARED	1-4 3-18
STORAGE EMPTY	4-3
STORAGE FULL	3-21
TEXT NOT FOUND	5-5 5-9
TYPE DRAW CHARACTERS; PRESS CRtn OR PRESS \boxtimes TO CANCEL HORIZONTAL CHARACTER: VERTICAL CHARACTER:	2-6
TYPE OLD TEXT: TYPE NEW TEXT: PRESS Chng TO CHANGE OR PRESS End TO CHANGE ALL	5-9
TYPE STOP CODE COMMENT:	3-20
TYPE STORAGE NUMBER:	3-1

Message	Page
TYPE TEXT TO FIND:	5-4
TYPE RIGHT MARGIN ZONE WIDTH: nn PRESS CRtn OR PRESS  TO CANCEL	2-2
USE IndL OR PRESS LMar AGAIN TO RESET DOCUMENT MARGIN OR  TO CANCEL	3-6
USE IndR OR PRESS RMar AGAIN TO RESET DOCUMENT MARGIN OR  TO CANCEL	3-6
USE   TO POSITION AND PRESS CRtn TO SELECT OR PRESS  TO CANCEL DIRECTORY LIST SPELL MENU2	4-1
USE   TO POSITION AND PRESS CRtn TO SELECT OR PRESS  TO CANCEL FIRST PAGE NUMBERED: ON OFF	4-12
USE   TO POSITION AND PRESS CRtn TO SELECT OR PRESS  TO CANCEL PAGE-FORMAT TAB ADJUST: ON OFF	4-2
USE   TO POSITION AND PRESS CRtn TO SELECT OR PRESS  TO CANCEL PAGE-LAYOUT AUTO PAGE END: ON OFF AUTO PAGE NUMBER: ON OFF	4-10
USE   TO POSITION AND PRESS CRtn TO SELECT OR PRESS  TO CANCEL POSITION ON PAGE: BOTTOM TOP	4-11
USE   TO POSITION AND PRESS CRtn TO SELECT OR PRESS  TO CANCEL POSITION ON PAGE: CENTER RIGHT BOOK-STYLE	4-12
USE   TO POSITION AND PRESS Store, Play, OR Del KEY	4-3

Spell Check II Messages

Message	Page
NO WORD AVAILABLE	6-5
OPERATOR ACTION REQUIRED	6-5
SUPPLEMENTAL DICTIONARY EMPTY	6-3
USE ← ↑ ↓ → TO POSITION, CODE + 3 TO DELETE WORD FROM SUPPLEMENTAL DICTIONARY	6-3
WORD SPELLED CORRECTLY	6-5

Diskette Option Messages

Message	Page
COPY "FROM" STORAGE NUMBER: "TO" STORAGE NUMBER:	A-11
DISKETTE BUSY	8-8
DISKETTE ERROR; REQUESTED FUNCTION NOT PERFORMED	8-8
DISKETTE NOT USABLE; INSERT NEW DISKETTE AND PRESS CRtn OR PRESS <X> TO CANCEL	8-8
DISKETTE PREPARATION COMPLETE	8-8
DISKETTE TEXT WILL BE LOST; PRESS CRtn TO CONTINUE OR PRESS <X> TO CANCEL	8-8
DISKETTE WAS EXCHANGED; PRESS CRtn TO CONTINUE OR PRESS <X> TO CANCEL	8-9
DISKETTE WRITE-PROTECTED; REQUESTED FUNCTION NOT PERFORMED	8-9
"FROM" STORAGE DOES NOT EXIST; USE ANOTHER STORAGE NUMBER OR PRESS <X> TO CANCEL	8-9
INSERT DISKETTE AND PRESS CRtn TO CONTINUE, <X> TO CANCEL, OR Del TO DELETE	A-8
INSERT DISKETTE AND PRESS CRtn TO CONTINUE OR PRESS <X> TO CANCEL	8-9
INSERT DISKETTE AND PRESS CRtn TO PREPARE OR PRESS <X> TO CANCEL	8-10
INSERT SCRATCH DISKETTE AND PRESS CRtn TO CONTINUE OR PRESS <X> TO CANCEL	8-10
INSUFFICIENT DISKETTE STORAGE; USE Del TO DELETE STORAGE AREAS	8-10
"TO" STORAGE AREA ALREADY EXISTS; USE ANOTHER STORAGE NUMBER OR PRESS <X> TO CANCEL	8-11
TYPE DISKETTE TITLE:	A-6
USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS <X> TO CANCEL DIRECTORY LIST TITLE PREPARE	A-5
= ?? ????????	8-11, A-9

Appendix A. Diskette Option

The Diskette Option gives the typewriter virtually unlimited storage space. Each diskette holds approximately 720,000 bytes (about 240 to 360 pages) in up to 99 storage areas. Use diskettes for long-term storage so that typewriter storage is available for current jobs. Jobs on diskette are saved even when batteries run down. Contact an authorized dealer to purchase a Diskette Option.

Definition of Terms

Become familiar with the following terms and definitions.

- *Diskette*. The magnetic storage medium (3.5 inch) on which jobs are stored. Although also referred to as a disk, floppy disk, or minidisk, the term diskette is used in this manual.
- *Diskette Drive*. The device used to gain access to jobs stored on a diskette.
- *Job*. Anything you type and store on the typewriter.
- *Write-Protected*. The diskette capability to prevent erasing or storing over existing jobs.
- *Preparing a Diskette*. Format a diskette for use with the typewriter Diskette Option. This must be performed before using a new diskette for storing information.

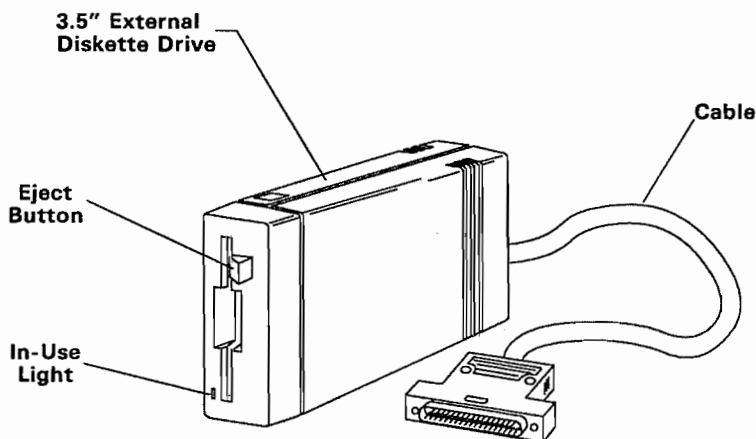
Diskette Functions

All typewriter functions are available with the Diskette Option. When revising a diskette job, the entire job is copied into typewriter storage. For this reason, store most jobs on diskette so typewriter storage is available for revising large diskette jobs. Revisions to diskette jobs are saved on the diskette when you close diskette storage. You can disregard the latest changes if you do not want to save them.

Choosing DISKETTE from the Menu enables you to view or list the diskette directory, view or change the diskette title, or prepare a new diskette for use.

The Copy function allows you to copy jobs wherever you need them. You can copy any diskette job to diskette or to typewriter storage, or you can copy a job from typewriter storage to another storage area or to a diskette.

Before you use this section, review the previous sections explaining typewriter storage, playing back and revising stored jobs, and using the Menu function.



Using and Handling Diskettes

Use only 3.5 inch double-sided, double-density diskettes, such as IBM 1MB capacity diskette (PN6404107).

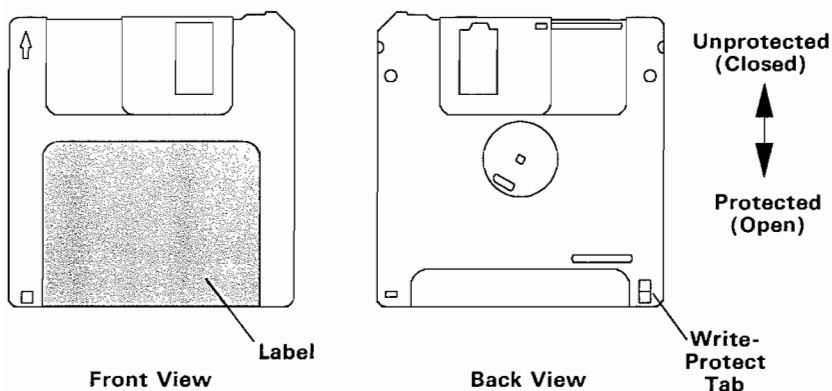
Follow these precautions to keep from damaging your diskettes:

- Do not place diskettes near food, drink, or ashtrays.
- Do not place diskettes near materials that might be magnetized.
- Keep the diskettes away from direct sunlight or heat greater than 125 degrees Fahrenheit (51.5 degrees Celsius).

Write-Protecting Diskettes

You can write-protect a diskette so that jobs cannot be stored on or erased from the diskette. To see if a diskette is write-protected:

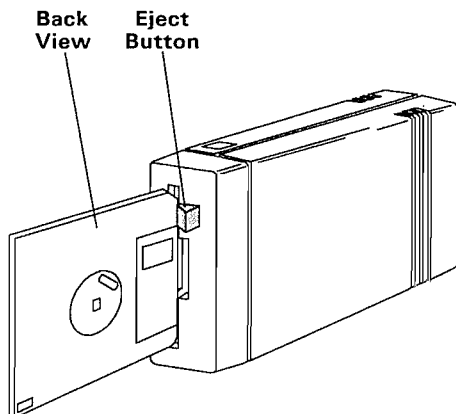
1. Hold the diskette in your hand so the label is away from you.
2. Notice the write-protect tab and the small opening in the corner of the diskette, as shown below. If you can see through this opening, the diskette is write-protected.
 - *To permit storing on the diskette:* slide the write-protect tab to the closed (unprotected) position.
 - *To write-protect the diskette:* slide the tab to the open (protected) position. *You can see through the tab opening.*



Inserting and Removing a Diskette

Important: Never insert or remove a diskette while the In-Use light or the DISKETTE BUSY indicator is on. If you do, stored jobs will be lost. See page A-2 for the location of the In-Use light.

Inserting a Diskette



1. Insert the diskette into the drive so that the printed diskette label faces away from the blue eject button on the diskette drive. Make sure the diskette *clicks* into place.
2. Turn the typewriter on. The diskette drive automatically comes on when you turn the typewriter on.

Removing a Diskette

Press the blue eject button on the front of the diskette drive to remove the diskette. The diskette ejects from the drive.

Preparing a Diskette

Before you can use a diskette for the *first* time, you must prepare it. Preparing the diskette allows you to store jobs on it. You only need to prepare a diskette once. Preparing a diskette more than once deletes all jobs on the diskette.

1. Press the **Menu** key. The following information is displayed:

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS <X> TO CANCEL
DIRECTORY LIST DISKETTE COPY SPELL MENU2

2. Select DISKETTE. The following information is displayed:

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS <X> TO CANCEL
DIRECTORY LIST ITITLE PREPARE

3. Select PREPARE. The following information is displayed:

INSERT DISKETTE AND PRESS CRtn TO PREPARE OR PRESS <X> TO CANCEL

4. Insert a diskette, then press **CRtn** to prepare the diskette.

If the diskette was previously prepared, the following message is displayed:

DISKETTE TEXT WILL BE LOST; PRESS CRtn TO CONTINUE OR PRESS <X> TO CANCEL

Note: Pressing **CRtn** will erase all jobs previously stored on the diskette. If you do not want to prepare the diskette, press the <X> key to cancel.

The DISKETTE BUSY indicator comes on during preparation.

If a diskette problem occurs during diskette preparation, the following message is displayed:

DISKETTE NOT USABLE; INSERT NEW DISKETTE AND PRESS CRtn OR PRESS <X> TO CANCEL

- a. Press the <X> key to cancel; or
- b. Insert a different diskette, then press **CRtn** to continue.

5. When the following message is displayed, type the diskette title. A title may have 1 to 50 characters.

TYPE DISKETTE TITLE:

6. Press **CRtn**. The DISKETTE PREPARATION COMPLETE message is displayed.
7. Press any key to clear the message from the display.

Diskette Storage

Important: Do not turn the typewriter off or remove a diskette while the In-Use light or the DISKETTE BUSY indicator is on. If you do, stored jobs will be lost.

When you revise a diskette job, the job is temporarily kept in typewriter storage. Therefore, the amount of unused typewriter storage determines the amount of space available for revising a diskette job. The following message is displayed if the diskette job is too large:

INSUFFICIENT TYPEWRITER STORAGE: USE D@I TO DELETE STORAGE AREAS

Storing all jobs on diskette frees the most space in typewriter storage for revising diskette jobs. You can copy jobs stored in typewriter storage to diskette, then delete them from typewriter storage. See "Copying Jobs" on page A-11.

Identifying the Current Diskette Storage Area

To identify a diskette storage area while typing or revising a job on the diskette, use the Menu function as you did to identify a typewriter storage area. The only difference in the display message is that an equal sign (=) appears with the diskette storage area. For example: =5. See page 4-1.

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS ☒ TO CANCEL → =5
 DIRECTORY LIST DISKETTE COPY SPELL MENU2

**Diskette
Storage
Area**

Storing a Job on a Diskette

1. Hold down **Store** while you type = (equal sign) and a number (1 through 99) where you want to store the job. Release the = key before typing the job number.
2. Type the job.
3. Press **Store** to close diskette storage.

Note: See pages 3-1 to 3-2 for more information on storage.

Playing Back a Job Stored on a Diskette

1. Press **Format** to check margins and tabs before playing back the job.
2. Press **Play** + = (equal sign) + the number (1 through 99) where you stored the job.
3. Release the keys. Playback begins immediately.


Note: See pages 3-3 to 3-5 for more information on playback.

Revising a Job Stored on a Diskette

1. Press **Store** + = (equal sign) + the number where you stored the job.
2. Release all keys.
3. Revise the job.
4. Press **Store** to close diskette storage.

Note: See pages 3-10 to 3-18 for more information on revising jobs.

Deleting a Job Stored on a Diskette

1. Press **Del** + = (equal sign) + the number of the diskette storage area you want to delete.
2. Press **Del** again to delete the diskette storage area, or press the  key to cancel the delete function.

Note: See page 3-18, for more information about deleting jobs.

Deleting All Diskette Storage Areas

Use the PREPARE function to delete *all information* on a diskette. See "Preparing a Diskette" on page A-5.

Quit Revision without Storing

Follow the steps below to quit the job you have been revising *without* storing any revisions on the diskette.

1. Remove the diskette from the diskette drive.
2. Press **Store** to close storage. The following message is displayed:

INSERT DISKETTE AND PRESS CRtn TO CONTINUE, $\langle \text{X} \rangle$ TO CANCEL, OR Del TO DELETE

3. Press **Del**.
4. Press **Del** again.

Using More than One Diskette

When you revise a diskette job, the typewriter remembers the diskette where the job was stored. If you place a different diskette containing a job with the same number in the drive and press **Store** to close storage, the following message is displayed:

DISKETTE WAS EXCHANGED; PRESS CRtn TO CONTINUE OR PRESS $\langle \text{X} \rangle$ TO CANCEL

Do one of the following:

- To store your revisions on the original diskette, insert the correct diskette in the drive and press **CRtn**.
- Press **CRtn** without changing the diskette. Your revised job replaces the existing job on that diskette.
- Press the $\langle \text{X} \rangle$ key to return to revision without storing the job.

The typewriter also remembers the diskette from which a job is played. When diskette playback stops, some of the displayed text is read from the diskette. If a different diskette is in the drive when the typewriter updates the display, the message above is displayed. To continue, you must insert the correct diskette in the drive and press **CRtn**. Pressing the $\langle \text{X} \rangle$ key cancels playback.

Diskette Directory and List

Diskette Directory and Diskette List work in much the same way as the Directory and List functions discussed in Chapter 4. Diskette Directory and Diskette List may look slightly different from the actual contents of your diskette job. For example, text typed using Bold, Underline, Superscript, and Subscript is displayed as normal text.

Note: Information from other equipment, such as an IBM Personal Typing System™ or an IBM Personal System/2®, can be stored on the diskette, but is not accessible by the Diskette Option. The following text is displayed just before the diskette title to indicate the presence of this information:

=?? ????????

You must use the appropriate equipment to gain access to this information.

Diskette Directory

The Diskette Directory function displays a list of the contents of the diskette currently in the diskette drive. The directory also displays the amount of remaining diskette storage space and the amount used for each job. All typewriter Directory functions are available with the diskette directory.

To view the diskette directory:

1. Press the **Menu** key.
2. Select DISKETTE.
3. Select DIRECTORY.
4. Follow the instructions that appear on the display.

Note: The diskette title is displayed as the last item of the Diskette Directory. Press **End** to view the diskette title.

Diskette List

Use the Diskette List function to print a copy of the diskette directory. The printout is the same as the List function printout, with two exceptions:

- An equal sign (=) appears with the number of each diskette storage area.
- The diskette title (if any) prints at the top of the list.

To print a list:

1. Make sure paper is in the typewriter.
2. Press the **Menu** key.
3. Select DISKETTE.
4. Select LIST.

Changing or Checking the Title of the Diskette

To change or check a diskette title without erasing the jobs on the diskette:

1. Press the **Menu** key.
2. Select DISKETTE.
3. Select TITLE. The TYPE DISKETTE TITLE message is displayed, followed by the current diskette title.
4. Press the ☐ key to keep the current title and cancel the title function.
5. To change the diskette title, type the new title. If you decide not to change the title after typing part of a new title, press the ☐ key until the title is blank. Press the ☐ key again to cancel the Title function.
6. Press **CRtn** to store the new title on the diskette.

Copying Jobs

With the Diskette Option, you can copy jobs in many different ways:

- From diskette to typewriter storage
- From typewriter storage to diskette
- From one diskette storage area to another diskette storage area on the same diskette
- From one typewriter storage area to another typewriter storage area

When copying to diskette, make sure the diskette you are copying to has been properly prepared. See page A-5.

To copy a job:

1. Press the **Menu** key.
2. Select COPY.
3. When the copy message appears, type the number of the storage area to copy "FROM". When using diskette storage, remember to use = (equal sign) before the number.
4. Press → to move the cursor to the next position.
5. Type the number of the typewriter or diskette storage area you want to copy "TO". When using diskette storage, remember to use = (equal sign) before the number.
6. Press **CRtn**.

Copying from One Diskette to Another Diskette

1. Open the diskette storage area where the job you want to copy is stored.
2. Remove the first diskette from the diskette drive.
3. Insert the second diskette into the diskette drive.
4. Copy the diskette storage area onto the second diskette. The copy "FROM" storage number and the copy "TO" storage number must be different.
5. Remove the second diskette from the diskette drive.
6. Press **Store** to close storage.
7. When the INSERT DISKETTE message is displayed, press **Del** two times.

Note: If you have an IBM Personal Typing System or an IBM Personal System/2, you can copy an entire diskette at one time. For details, see the manual that came with your system.

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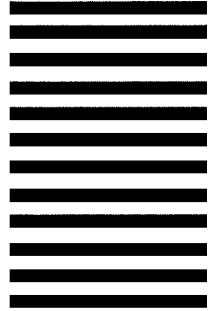
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