



Wheelwriter® 50 Series II  
Typewriter 6788  
Operator's Guide

700

**First Edition (April 1988)**

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## **FCC Notice**

The IBM Wheelwriter® 50 Series II Typewriter 6788 generates and uses radio frequency energy. If the typewriter is not installed and used in accordance with the installation instructions, operating instructions, and service manual, it may interfere with radio or television reception. This typewriter has been tested and found to comply with the limits for a Class B computing device pursuant to Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when operated in a residential area.

If this typewriter interferes with radio or television reception, which can be determined by switching the typewriter off and on, the user is encouraged to try one or more of the following:

- Move the receiving antenna on the radio or television.
- Relocate the typewriter in relation to the radio or television.
- Plug the typewriter into a different electrical outlet from the radio or television.

If necessary, consult your authorized IBM Authorized Dealer. If anyone other than an IBM Authorized Dealer modifies the typewriter and it causes interference, the user is responsible for correcting the interference.

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## Safety Information – Display

The construction of this machine provides extra protection against the risk of electric shock by grounding appropriate metal parts. The extra protection may not function unless the power cord is connected to a properly grounded outlet. This machine has a grounding-type (3-wire) power cord because grounding is necessary. It is the responsibility of the customer or the person installing the machine to connect it to a properly grounded outlet. Seek professional assistance before using an adapter or extension cord; such a device could interrupt the grounding circuit.

**If this machine is connected to an outlet that has been incorrectly connected to the building wiring, serious electric shock could result.**

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

- Connect the machine only to a properly grounded outlet of the correct voltage. The voltage your machine will accept is indicated on the machine.
- Make sure the machine is turned off (O) before you connect or disconnect the power cord or other cables.
- If the machine has cables other than the power cord, you must connect them before you plug the power cord into an outlet. You must first unplug the power cord from the outlet when you remove the other cables.
- Do not use the machine in an area where it can become wet.
- Keep hair and personal articles away from moving parts in the machine to avoid the possibility of getting them caught.
- Refer service or repairs to qualified personnel.
- There may be some increased risks of electric shock and personal injury during disassembly and servicing of this machine. 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 machine has been written for the professional service person and is not intended to be used by others.

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## Safety Information

This machine has additional insulation which provides extra protection against the risk of electric shock and does not rely on grounding. This machine 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 machine only to an outlet of the correct voltage. The voltage your machine will accept is indicated on the machine.
- Make sure the machine is turned off (O) before you connect or disconnect the power cord or interconnecting cables.
- Do not use the machine in an area where it can become wet.
- Keep hair and personal articles away from moving parts in the machine 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 machine. 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 machine has been written for the professional service person and is not intended to be used by others.

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## About Your Typewriter

Congratulations! You are about to experience typing with your new *Wheelwriter® 50 Series II Typewriter 6788*.

This typewriter was designed with you in mind. Several new functions have been added that will give you excellent typing quality and make the tasks you have to perform more enjoyable.

This typewriter has an adjustable, full screen display that you can tilt and rotate to a comfortable viewing angle.

The paper and carrier movement keys, located to the right of your keyboard, allow you to move quickly and easily to any location on the paper and the display—up, down, left, or right.

Special functions such as Automatic Centering, Word Underlining, Word Erase, Justification, Bold Print, Menu, Directory, Find, Change, Block, and Spell Check II are all designed to make your typing jobs easier, faster, and more productive.

The *Full Screen Storage Mode* allows you to store jobs that you may want to use later. The typewriter has a storage capacity of approximately 60,000 bytes (approximately 20 to 25 pages). After you store a job, you can play it back and revise it without retyping the entire job. In addition, you no longer have to retype frequently used jobs, such as form letters, repetitive paragraphs, and statistical reports.

The *Typewriter Mode* displays the current line you are typing. It is used for short typing jobs. The *Forms/Special Storage Mode* is useful for certain jobs that require special layouts.

You can enhance the use of your *Wheelwriter® 50 Series II Typewriter 6788* by adding the following options:

- Diskette Option
- Display Arm Option
- Pinwheel Form Feeder
- Printer Option

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## About this Manual

The purpose of this manual is to aid you in performing your work efficiently through the use of your new typewriter. You should know how to type and have used basic typewriter functions prior to using this manual.

The manual is divided into the following chapters:

- **Overview** explains briefly the major functions of this typewriter.
- **Basic Operations** explains and illustrates the parts of this typewriter. It is designed to familiarize you quickly with the hardware and its operation. It provides instructions in using the basic functions and the standard keys on a typewriter.
- **Advanced Operations** helps you to use advanced functions of the typewriter such as correcting errors, underlining, centering, special characters, indenting, and decimal tabulation.
- **Full Screen Storage** explains how to store text, recall it, revise it, and play back a copy.
- **Menu Functions** enables you to use several special functions of your typewriter.
- **Forms/Special Storage** explains how to store text while printing. This is especially useful when using special layouts.
- **Advanced Storage** describes the special storage functions of your typewriter.
- **Spell Check II** explains how to use the Spelling function.
- **Alternate Keyboards** explains how to type in another language and use special applications keyboards.
- **Reference** describes your typewriter supplies, ordering and installation procedures, and application recommendations.
- **Problem Determination** helps in answering questions you may have while using your typewriter.

The Appendix describes the Diskette Option.





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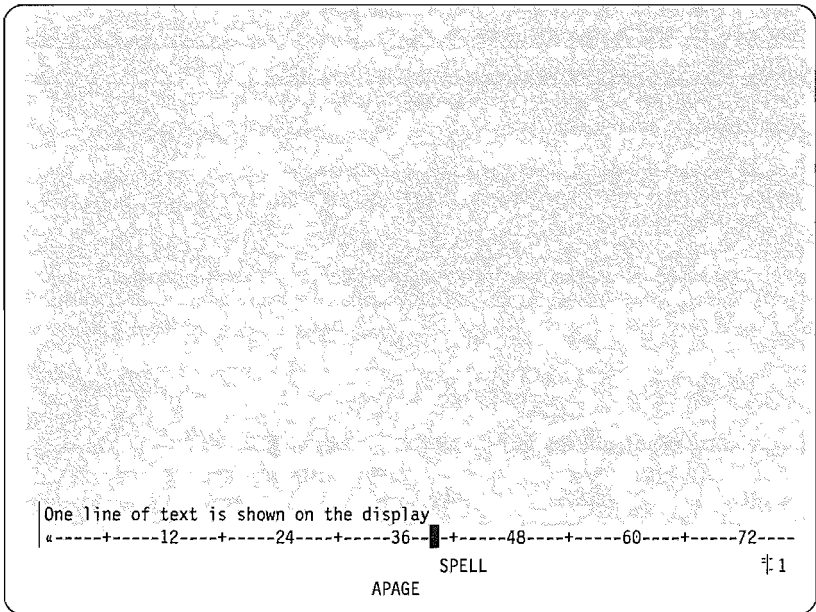
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## Overview

Your *Wheelwriter® 50 Series II Typewriter 6788* is a versatile, easy-to-use, electronic typewriter which has three major modes:

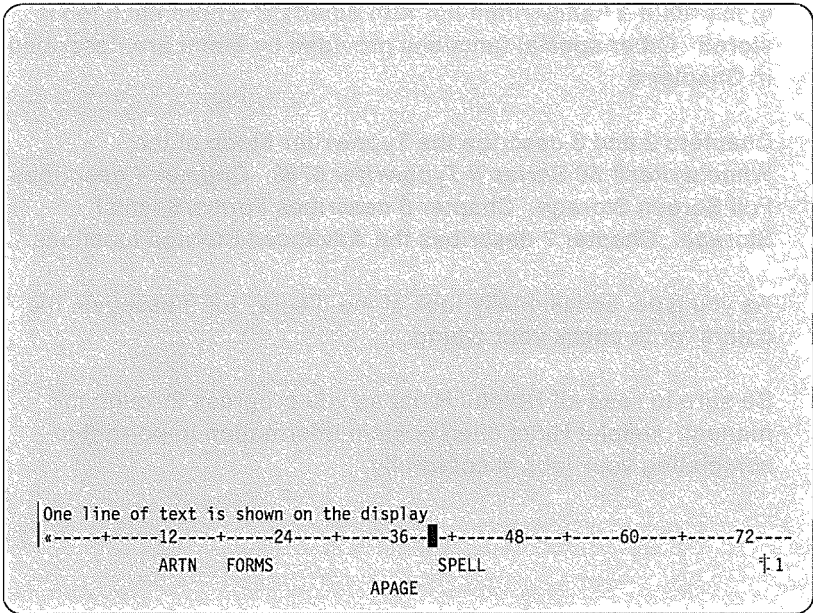
- **Typewriter Mode** — Your typewriter has all the functions of a basic electronic typewriter. The primary difference is that the current line you are typing also appears on a display. Use the Typewriter Mode for short typing jobs such as memos, envelopes, and labels.

The Typewriter Mode screen looks like this:





- **Forms/Special Storage Mode** — Use Forms/Special Storage Mode to type a job into storage while it prints on your paper. This mode is especially useful when you are using special layouts. The current line that you are typing shows on the display as it is entered into storage.



Forms/Special Storage combines many of the functions of the Typewriter and Full Screen Storage Modes.

Your *Wheelwriter® 50 Series II Typewriter 6788* also has a Menu function allowing you to use several special functions such as *Directory* and *List*. The *Directory* function keeps a list of all the jobs you have in storage. When you enter this function, jobs you have in storage are listed on the display. The *List* function prints the directory. These two functions keep you from having to maintain a handwritten list with details of where each job is stored. Other special functions provided by Menu are described in Chapter 5.

Chapters 2 and 3 describe the Typewriter Mode of the *Wheelwriter® 50 Series II Typewriter 6788*. Chapter 4 describes Full Screen Storage. Chapter 6 describes Forms/Special Storage. Chapter 7 describes the Advanced Storage functions.

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

Be sure to read all Helpful Hints as you progress through the manual. Helpful Hints often contain information important to completing your jobs successfully.

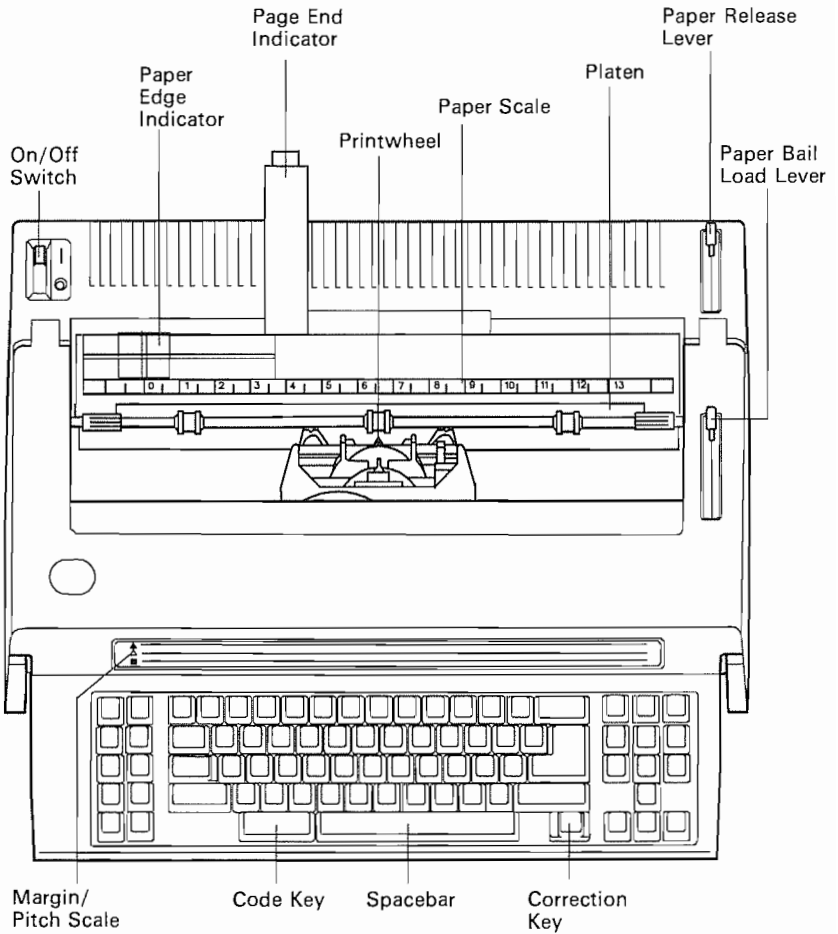


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# Basic Operations

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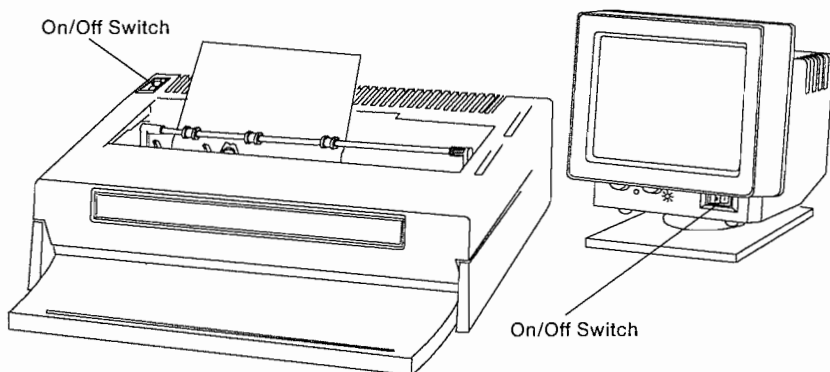
## Parts of the Typewriter



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## Turning the Typewriter and Display On and Off

There are two on/off switches, one on the typewriter and one on the display.



Push the on/off switch toward the back of the typewriter (next to the |) to turn the typewriter on. Pull the on/off switch toward you (next to the ○) to turn the typewriter off.

Push the on/off switch to the right (|) to turn the display on. Push to the left (○) to turn the display off.

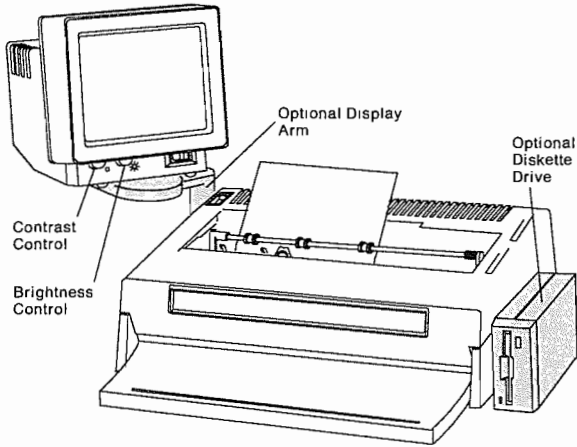
### Helpful Hints

- Do not turn the typewriter off while it is busy. The typewriter is busy when the **BUSY** indicator is displayed.
- Wait at least five seconds after turning the typewriter off before you turn it back on. This allows the typewriter to reset.
- Make sure the ribbon, printwheel, and batteries are installed. If you need information, see the "Reference" section beginning on page 10-1.

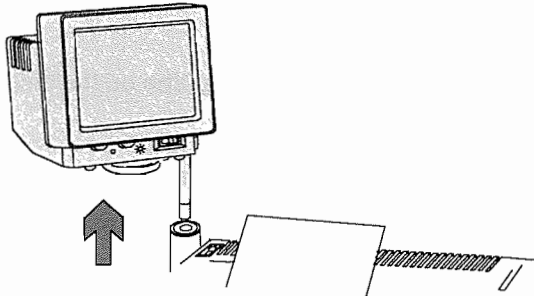
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## Adjusting the Display

Tilt and rotate your display to adjust it to the lighting conditions in the area. Adjust the brightness and contrast controls for viewing comfort.



In the illustration above, the optional Display Arm and the optional Diskette Drive are shown.

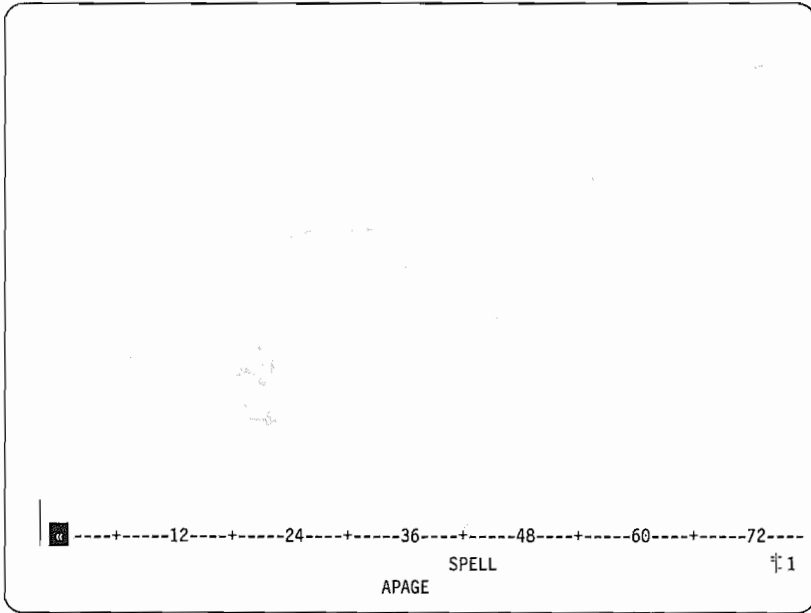


**Note:** If you need to move your typewriter and you have the optional Display Arm installed:

1. Disconnect all cables.
2. Remove the display.
3. Move the typewriter and display separately.

## Display Screen

When the typewriter is turned on the display shows a margin scale, cursor, and indicators to help you use the typewriter:



The *cursor* is the horizontal blinking line on the display showing the current typing position.

An *indicator* is a short word or an abbreviation showing that a typewriter function is active.

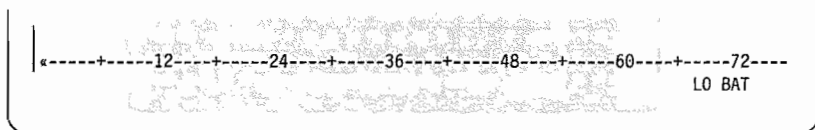
- APAGE will be explained later on page 5-14.
- SPELL indicates the Spelling function is turned on in the typewriter. You will hear two beeps when a word is typed that does not match the spelling of a word in the typewriter's dictionaries. See "Spell Check II" on page 8-1 for more information.
- The line space symbol ‡ 1 will be explained later on page 2-9.

There are over thirty indicators which can be shown on the bottom two lines of the screen. See "Display Indicators" on page 11-20. Each indicator will be explained as the function it represents is presented in this manual.

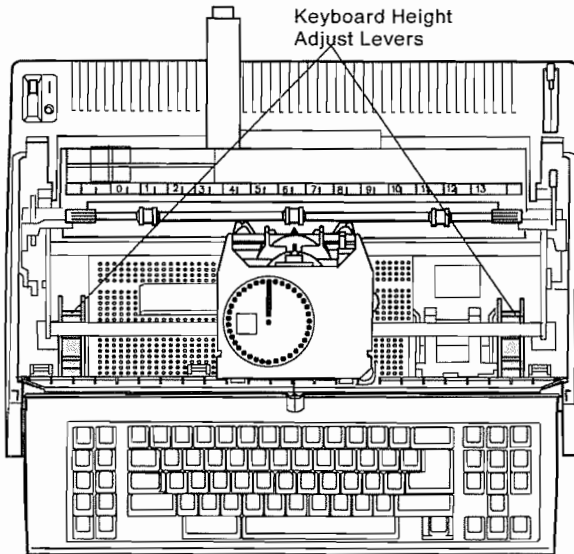
*Messages* are displayed to help you use typewriter functions and inform you of typewriter conditions. For example, STORAGE CLEARED lets you know Storage is empty.

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

If you turn the typewriter on and the following appears on the display, see "Checking the Batteries" on page 10-14.



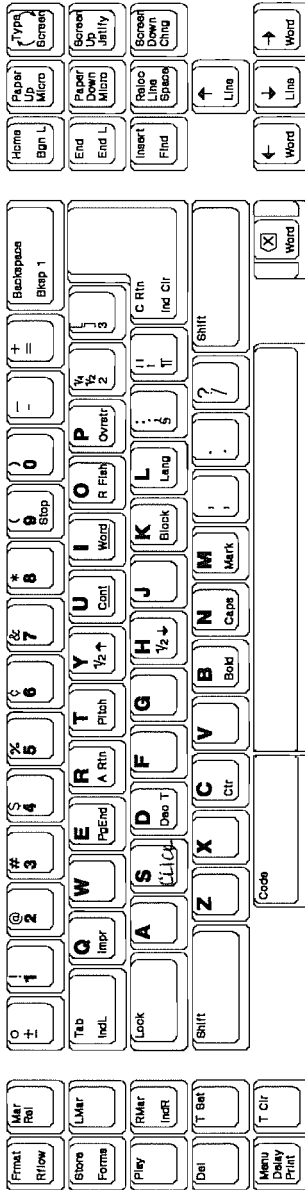
## Keyboard Height Adjust Levers



The keyboard can be raised or lowered to the most comfortable position by adjusting the Keyboard Height Adjust Levers. There are three positions: low, medium, and high.

1. Use the **Spacebar** to move the carrier to the center of the typewriter.
2. Turn the typewriter off.
3. Raise the top cover.
4. Locate the two blue keyboard height adjust levers. They are located on the inside of the typewriter on the right and left sides of the bottom panel.
5. Push down on the levers and slide them to the desired position until they lock into place.
  - When the levers are all the way forward, the keyboard is in the *high* position.
  - When the levers are in the middle, the keyboard is in the *medium* position.
  - When the levers are all the way back, the keyboard is in the *low* position.
6. Make sure both levers are locked into the same position.

# Keyboard Layout



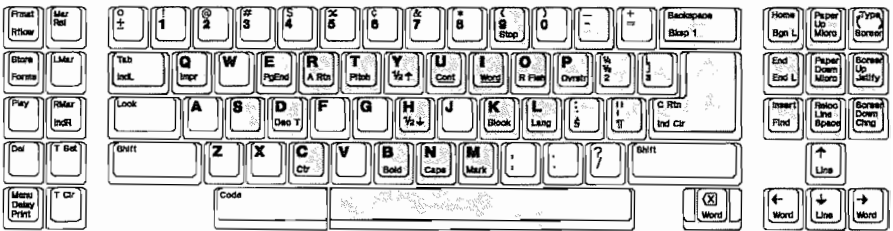
# Code Key

The **Code** key is used with other function keys. The **Code** key and the keys with green lettering can be used to print special characters and turn special functions on and off. The **Spacebar**, **Hyphen (-)**, **S**, and the **Paper Bail Load Lever** can also be used with the **Code** key.

When you use two keys at a time, hold down **Code** (the first key) while you press the function key.



The function keys that are used in combination with the **Code** key are shaded in the keyboard chart below.



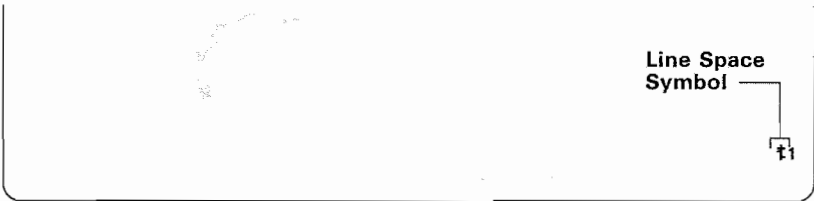
**Important:** If you accidentally gain access to a function using the **Code** key:

1. Check the display for an indicator.
2. Check the Index at the back of the manual for the indicator and follow the instructions for turning the function off.



## Line Space Key

When you turn the typewriter on, the display shows a line space symbol with a number on the right side. You can change the line spacing to 1, 1½, 2, or 3 (single, one-and-a-half, double, or triple spacing).

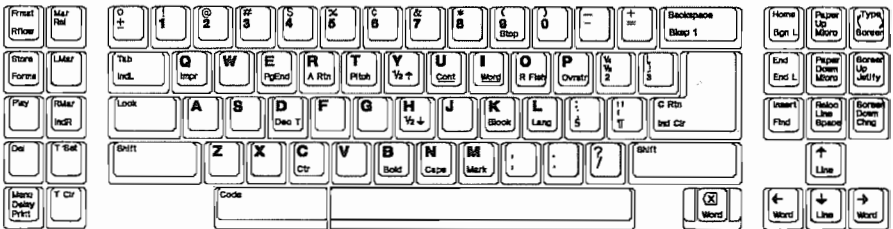


Hold down **Code** while you press **Reloc (Line Space)** until the desired line spacing is displayed.

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

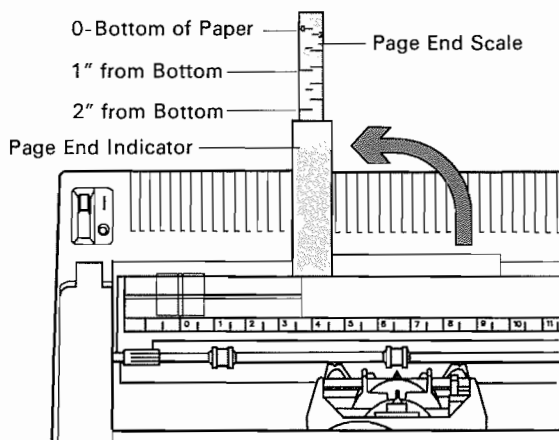
## Typematic (Repeat) Keys

Typematic keys have both a single and repeat action. Press the desired typematic key lightly for a single action or hold down for more than one-half second for repeat action. The typematic keys are shaded in the chart below.



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## Page End Indicator and Scale



1. Raise the page end indicator until it is straight up.
2. Pull the page end scale all the way out until it locks into place.
  - As you type, the top of the paper comes out of the typewriter and moves up to the lines on the scale.
  - The lines on the scale tell 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.

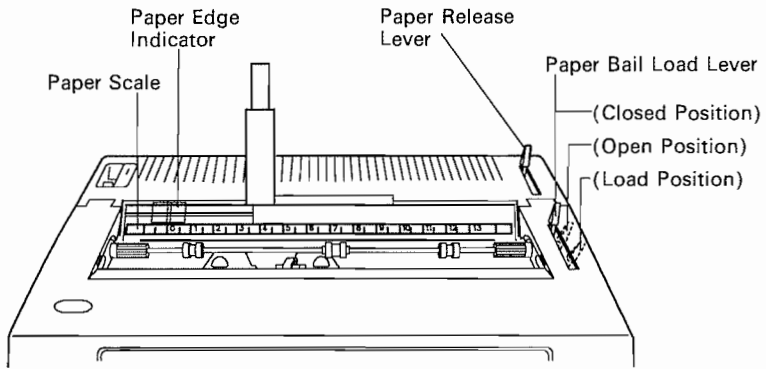
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## Keyboard Clicker

The keyboard has a clicker that you can turn on or off. Your typewriter is shipped with the clicker off. You can turn the clicker on if you want 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 Paper



The typewriter has a Paper Bail Load Lever to assist you in loading paper semiautomatically. The lever has three positions: closed, open, and load.

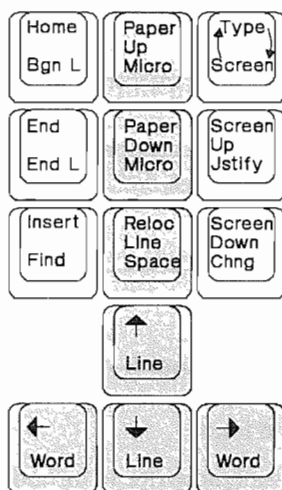
1. Make sure the typewriter is turned on.
2. Push the *Paper Release Lever* all the way to the back of the typewriter.
3. Align the vertical line in the center of the paper edge indicator with the vertical line to the left of zero (0) on the paper scale.
4. Align the left edge of the paper with the vertical line in the center of the paper edge indicator.
5. Pull the **Paper Bail Load Lever** *all the way forward* to the *load position*. When the paper begins to feed, let go of the **Paper Bail Load Lever**.
  - The paper feeds to the top margin position.
6. Push the **Paper Bail Load Lever** all the way back until it holds the paper against the platen.

**Note:** When inserting loose carbon copies (five maximum), pull the *Paper Release Lever* forward. Insert the copies, then push the lever all the way back.

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## Paper and Carrier Movement Keys

The paper and carrier movement keys allow your typewriter to move quickly across the paper. You now have the advantage of express movement both right and left as well as top to bottom on a page of text.



### Moving the Paper

Use the following keys to move the paper in your typewriter:

**Paper Up (Micro)**, **Paper Down (Micro)**, **↑ (Line)**, or **↓ (Line)**.

- Press **Paper Up** or **Paper Down** once to move the paper up or down one-half line.
- Hold down **Code** while you press **Paper Up (Micro)** or **Paper Down (Micro)** to move the paper up or down one micro-index (1/48") for precise alignment.
- Press **↑** or **↓** to move the paper down or up the number of lines determined by the line space setting.
- Hold down **Code** while you press **↑ (Line)** or **↓ (Line)** when you want to skip blank lines on a typed page and move directly to lines of text.

**Note:** Holding down **↑** or **↓** provides an express action to move quickly from line to line on a page.

## Moving the Carrier

Use the following keys to move the carrier: ←, →, or **Reloc.**

- Press ← to move the carrier backward on the current typing line. When you hold the key down, the carrier moves backward until it reaches the left margin.
- Hold down **Code** while you press ← (**Word**) to move the carrier backward to the previous word. Continue holding **Code** down while you press ← to move the carrier past several words.
- Press → to move the carrier forward on the current typing line.
- Hold down **Code** while you press → (**Word**) to move the carrier forward to the next word. Continue holding down **Code** while you press → to move the carrier past several words.
- **Reloc** (Relocate) returns the carrier to the last typing position after you move the cursor.

**Note:** Holding down ← or → provides an express action to move quickly from point to point on a line.

---

## Removing Paper

1. Pull the **Paper Bail Load Lever** toward you to the open position. (See the illustration on page 2-11).
2. Pull the *Paper Release Lever* toward you, then lift the paper out of the typewriter.
3. Push the *Paper Release Lever* and **Paper Bail Load Lever** all the way back to the closed position.

**Reminder:** Use the *Paper Release Lever* instead of the ↓ key to remove paper.

---

## Changing the Top Margin

You have already learned when you insert paper using the Paper Bail Load Lever, the paper feeds to the top margin position (first writing line). The top margin is initially set to one inch or six lines for 10- or 12- pitch, or eight lines for 15-pitch printwheels. For some applications, you may want to change the position of the top margin. For example, if you are typing a letter on letterhead stationery, you may want to reset the top margin.

1. Insert a sheet of paper using the **Paper Bail Load Lever**.  
For more information, see “Inserting Paper” on page 2-11.
  - Always use the **Paper Bail Load Lever** to insert paper when changing the top margin. An incorrect top margin position will result if it is not used.
2. Use **Paper Up**, **Paper Down**, ↓, or ↑ to position the paper at the point where you want to set the new first writing line.
3. Hold down **Code** while you pull the **Paper Bail Load Lever** forward. The printwheel spins when the new top margin is set.
4. Push the **Paper Bail Load Lever** back to the closed position and release the **Code** key. The new top margin is saved when the typewriter is turned off.

---

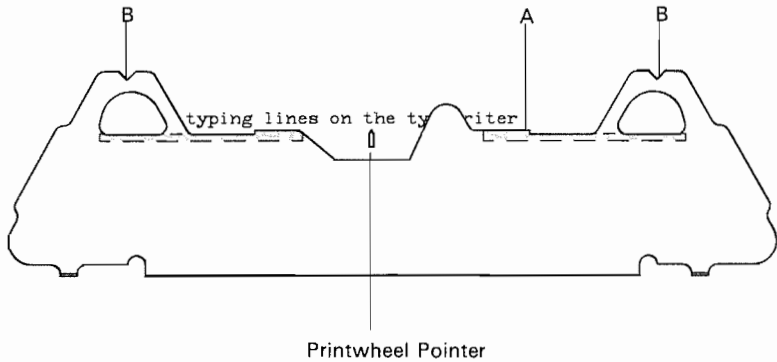
## Impression Control

The impression control can be set for three positions: light (1), normal (2), and heavy (3). When the typewriter is turned on, impression control is automatically set to **2** (normal). You can change the setting to suit your typing needs. For example, you may want to type with the impression set to **1** to achieve the highest quality corrections with the **Correction** key, or you may want to change the impression to **3** when typing several carbon copies.

- Hold down **Code** while you press **Q (Impr)** repeatedly to change the impression.
  - The IMPR indicator is displayed, followed by the impression control setting (1, 2, or 3). The IMPR indicator is displayed as long as **Code** is held down.

## Cardholder

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



The printwheel pointer shows the position where the next character will print.

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

You may use the notches (B) to draw vertical lines.

1. Move to the point where you want to start drawing a line.
  - Use **Paper Up (Micro)**, **Paper Down (Micro)** and **Backspace (Bksp1)** for precise alignment.
2. Hold a pencil or pen against one of the notches while pressing **Paper Up**, **Paper Down**,  $\uparrow$  or  $\downarrow$  to move the paper.



---

## Shift and Lock Keys

Using **Lock** allows you to type continuously in uppercase (all capitals) without pressing **Shift** for each capital letter.

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

**Note:** Turning the Caps function on cancels Lock and displays the CAPS indicator. See "Caps Function."

---

## Caps Function

If you need to type numbers and capital letters together, use the Caps function.

Caps is similar to Lock. When the Caps function is on, *only* the alphabetic letters (a through z) are capitalized. The Caps function eliminates shifting back and forth between uppercase and lowercase. All letters print in uppercase, and all numbers and punctuation marks print in lowercase.

### Example

```
THE CAPS FUNCTION LETS YOU TYPE NUMBERS MIXED  
WITH UPPERCASE LETTERS, AS IN JULY 6, 1988,  
PHONE 123-4567, OR EMPLOYEE NUMBER 543210.
```

Hold down **Code** while you press **N (Caps)** to turn Caps on or off.

- The CAPS indicator is displayed when Caps is on.

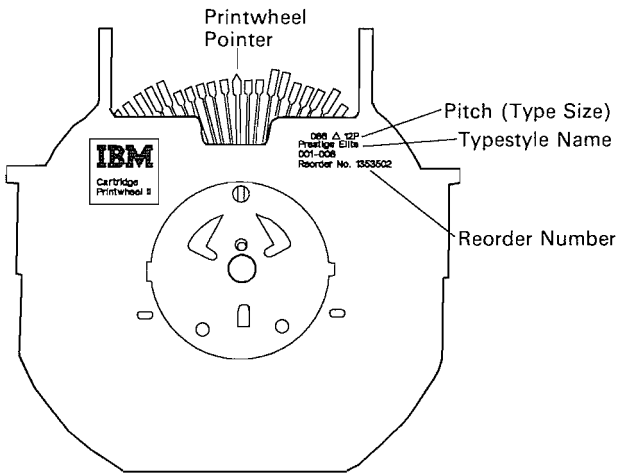
**Note:** Turning the Lock function on cancels Caps and displays the SHIFT indicator. See "Shift and Lock Keys" above. You cannot turn Caps off by pressing **Shift**.

---

## Printwheel Identification

Your typewriter uses an IBM Cartridge Printwheel II. Printwheels are available in many different typestyles and pitches. See "Typestyle Samples and Pitches" on page 10-2. You can choose from four different pitches as shown in the chart on page 2-19.

The illustration below shows where to find the typestyle, pitch, and reorder number on the printwheel.



---

## Choosing a Printwheel

A 10- or 12- pitch printwheel is recommended while you are learning to use your typewriter. All examples or practices in this manual are illustrated in 12-pitch type.

If you need to install or change your printwheel, refer to pages 10-6 and 10-7.

---

## Automatic Pitch Selection

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

The following table summarizes printwheel pitches with print examples of each pitch.

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

## Lines Per Vertical Inch

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

## Typewriter Margin/Pitch Scale

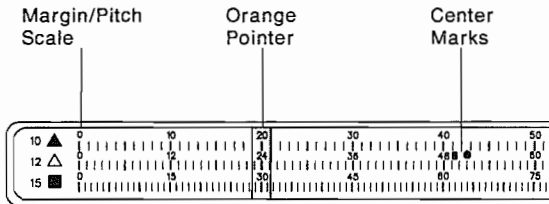
The margin/pitch scale has three lines: 10 ▲, 12 △, and 15 ■. When typing, use the scale line that matches the pitch symbol on your printwheel.

- For 10 ▲ pitch (pica) type, use the upper scale.
- For 12 △ and PS ● pitch (elite and proportional spacing) type, use the middle scale.
- For 15 ■ pitch (micro elite) type, use the lower scale.

An orange pointer moves along the scale on your typewriter to show the position of the next character to print.

The margin/pitch scale also contains centering marks. When the left paper edge lines up with zero on the margin/pitch scale:

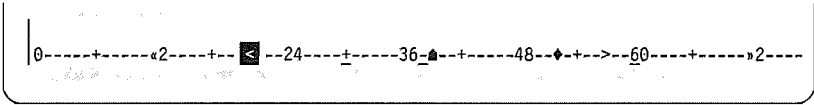
- marks the approximate center of paper 215.90 mm (8.50 in) wide.
- marks the approximate center of paper 210 mm (8.27 in) wide.



---

## Display Margin Scale

All examples or practices in this manual are illustrated in 12-pitch type. The following screen is an example of how the display margin scale looks after setting margins and tabs:



## Display Margin Scale Symbols

- « = Left Margin
- < = Indented (temporary) Left Margin
- » = Right Margin
- > = Indented (temporary) Right Margin
- ◆ = Right Margin Zone
- \_ = Tab Stop
- ▲ = Center Point Between Margins
- █ = Cursor Column Position

To help determine margin scale settings, the 2 in 24 represents the setting of 24. The 4 in 24 represents the setting of 25.

---

## Margins

1. Press **Spacebar**, **Backspace**, ←, or → to move the carrier to the desired position, then press **LMar** to set the left margin.
  - The old margin is automatically eliminated when a new margin is set.
  - The display margin scale shows the left margin symbol («).
2. Move the carrier to the desired position, then press **RMar** to set the right margin.
  - The old margin is automatically eliminated when a new margin is set.
  - The display margin scale shows the right margin symbol (»).

## Margin Release Key

1. Return the carrier to the left margin.
2. Press **MarRel** to release the left margin.
3. Press **Backspace** or ← to move to the left of the margin.

## Helpful Hints

- The carrier does not lock at the right margin. This allows you to type or space through the right margin.
- The typewriter will beep approximately five spaces before the right margin. See page 3-1 for more information.
- Look at the display margin scale when setting margins. To set a left margin at 24, place the cursor on the 2 in 24, and press **LMar**. To set a right margin at 120, place the cursor on the 1 in 120 and press **RMar**.
- Margins are saved when your typewriter is turned off.

---

## Tabs

### Setting a Tab

1. Press **Spacebar**, **Backspace**, **→**, or **←** to move the carrier to the desired tab position.
2. Press **TSet** to set a tab.
  - The display margin scale shows the tab symbol (␣).
  - Permanent tabs exist at the left and right margins. These tabs cannot be cleared and are not displayed.
  - You can set up to 26 tab positions at a time.
  - Tabs are saved when your typewriter is turned off.

### Clearing a Tab

1. Press **Tab** to move to the tab stop you want to clear.
2. Press **TClr** to clear the tab.

### Clearing All Tabs

1. Hold down **TClr** while you press **CRtn**.
2. Release the keys.
  - The carrier does not move when you release the keys.
  - The carrier can be at any position when you clear all tabs.

---

## Margin and Tab Formats

The term *format* means a set of margins and tabs. The margins and tabs determine the *format* of the typed job. For example, one format might be: left margin 20, right margin 80; tabs 30, 40.

Use the Format function to save margins and tabs (formats) to be recalled for use at another time. These formats can be used for jobs you type frequently, such as memos, reports, statistical charts, and envelopes. For example, you may want to save a format for typing envelopes: left margin 40, right margin 85, and no tabs.

There are 10 format areas (0 through 9). You can save margins and tabs in nine of the format areas (1 through 9).

- To display the current format area, hold down **Format**. The current format number for a job is shown:

FRMAT 1

- If no margins are set, the typewriter automatically sets a left and right margin at the carrier limits [0 (left margin) and 158 (right margin) for 12 pitch].
- When margins and tabs are set, your display shows the current format settings for a job, except when a message is displayed.



## Setting or Changing Formats

1. Hold down **Frm** while you press a **number** (1 through 9) to select the desired format area.
  - The printwheel spins.
  - While you hold down **Frm**, the FRMAT indicator shows the current format number.
  - If you type the incorrect format number, continue to hold down **Frm** and type the correct number. The incorrect number is automatically replaced.
2. Release the keys.
  - The carrier moves to the new left margin.
3. Hold down **Frm** again to check that you have selected the desired format area.
4. Set the desired margins and tabs.
  - The margins and tabs you set are automatically saved in the format area you selected in step 1. See "Display Margin Scale" on page 2-21, for a sample format display.
5. Repeat steps 1 through 4 for each different format area.

## Practice

Store the following margins and tabs in the format areas indicated below:

Format Area 1: **LMar 10 RMar 70 Tab 15**

Format Area 2: **LMar 24 RMar 65 No Tabs**

Format Area 3: **LMar 20 RMar 80 Tab 51**

To make changes to a Format area that you have set, make any desired changes using the steps just learned. The new settings replace the previous settings.

## Selecting a Format Area

1. Hold down **F<sub>r</sub>mat** while you type **the number** of the desired format area.
2. Release the keys.
  - The margins and tabs are automatically set.
  - This format becomes the current format.
3. Type the job.

## Helpful Hints

- When you press **F<sub>r</sub>mat**, the current format number is displayed.
- At any time a format area is selected, any margin or tab changes alter the format area.
- Format area 1 is automatically selected when you first turn on the typewriter.
- Format areas 0 and 9 have special uses in storage. See page 4-11 for more information.
- Formats are automatically saved when the typewriter is turned off and when another format area is selected.

---

## Erasing Automatically in 10, 12, and 15 Pitch

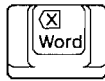
When you turn your typewriter on, it has a correction memory that remembers approximately the last 4,000 characters (approximately one page). This correction memory allows you to easily and automatically erase and correct characters before you remove the paper.

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

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

### Erasing a Character

1. Move the carrier to the incorrect character.
2. Press the **Correction** key one time and one character is automatically erased.



Correction  
Key

3. Hold down the **Correction** key to erase several characters.
4. Type the correct characters.
5. Press **Reloc** to return the carrier to the last typing position.

## Erasing a Word

1. Move the carrier to the incorrect word.
2. Hold down **Code** while you press the **Correction** key to erase the entire word.
  - The carrier may be positioned at any character in a word when you use Word Erase.



3. Type the correct word.
4. Press **Reloc** to return the carrier to the last typing position.

## Helpful Hint

- If the typewriter does not automatically erase a character when you press the **Correction** key, you may be out of the correction memory area. See “Erasing Manually in 10, 12, and 15 Pitch” on page 2-30.

---

## Relocate Key



Press **Reloc** (Relocate) to return the carrier to the last typing position after you have moved the carrier to make a correction.

### Practice

Type the following sentence.

Try the Reloc key to move to the last typing position.

1. Hold down **Code** while you press ← to move to the word *Try*.
2. Hold down **Code** while you press the **Correction** key to erase the word *Try*.
3. Type the word *Use*.
4. Press **Reloc** to return to the last typing position.

---

## Erasing Manually in 10, 12, and 15 Pitch

You may want to erase characters that are outside the correction memory. If the carrier is correctly positioned over the character when you press the **Correction** key, the printwheel spins *but does not erase the character*, and text on the paper is not shown on the display, the carrier is outside the correction memory. You must use manual erase.

1. Move the carrier to position the printwheel pointer at the incorrect character.
  - Make sure the carrier is correctly aligned on the line of type and not between the lines. Use **Code + Paper Up (Micro)** or **Paper Down (Micro)** for precise vertical alignment. Use **Code + Backspace (Bksp1)** to move the carrier one unit of space for precise horizontal alignment. See “Making Space for an Extra Character” on page 2-33 for information on the use of **Code + Backspace**.
  - If you are erasing the entire word or several characters in the word, position the printwheel pointer at the last incorrect character in the word.
2. Press the **Correction** key.
  - The printwheel spins, but the character is *not* erased.
3. Type the incorrect character exactly as it appears on your paper.
  - The incorrect character is erased.
4. Repeat steps 2 and 3 to manually erase each incorrect character.
  - You do not have to press **Backspace** when erasing from right to left. The carrier moves to the left when you type the next incorrect character.
5. Type the correct characters.

### Helpful Hints

- If you are using a proportional spacing printwheel and need to use manual erase, see “Erasing Manually in Proportional Spacing” on page 2-31.
- The Bold Print function must be on to manually erase bold text.
- The Continuous Underline function must be turned on to manually erase underlined text.

---

## Erasing in Proportional Spacing (PS)

Read this section only if you have a proportional spacing (PS) printwheel. You do not need to read this section if you are using a 10-, 12-, or 15-pitch printwheel.

In proportional spacing, the space allotted to each character depends on its width. The space is measured in units. For example, a lowercase *m* is seven units wide and a lowercase *i* is three units wide. In 10, 12, or 15 pitch, each character is allotted the same space, regardless of its width.

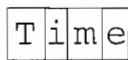
In proportional spacing, it is usually easier to erase the entire word containing an incorrect character, and then retype the word correctly. Using the **Correction** key, you *can* erase a single letter. Use word erase as described on page 2-28 to erase the entire word quickly.

## Erasing Manually in Proportional Spacing

You may need to erase characters that are outside the correction memory. You are typing outside the correction memory if your carrier is correctly positioned over the character when you press the **Correction** key and the printwheel spins but does not erase the character. You must use manual erase.

When erasing manually, position the printwheel pointer at the left edge of each incorrect character. See sample printwheel pointer on page 2-18.

### Example



Position the printwheel pointer here to erase the e.

1. Position the printwheel pointer at the left edge of the *last character* in the incorrect word.
2. Press the **Correction** key.
  - The printwheel spins.
3. Type the last character in the word exactly as you typed it the first time.
  - The character is erased.
  - If the incorrect character is not completely erased, 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.
  - The printwheel spins and the carrier does not move.
5. Type the previous character in the word.
  - The carrier backs up and erases the previous character.
6. Repeat steps 4 and 5 for each character until the entire word is erased.
7. Type the correct characters.

### Helpful Hints

- When using proportional spacing, always use the number 1. Do not use the lowercase letter L for the number 1.
- When erasing manually, always erase a word from right to left.
- When erasing manually, position the printwheel pointer at the left edge of the *last character in the word*. After you erase the last character, press the **Correction** key and type the previous character. This action moves the carrier and erases the previous character.



---

## Making Space for an Extra Character

When inserting an extra character in a word, use **Bksp1** to move the carrier back one *unit* of space. The carrier moves back one unit of space each time you hold down **Code** while you press **Backspace (Bksp1)**.

1. Move the carrier to the incorrect word.
2. Hold down **Code** while you press the **Correction** key to erase the word.
  - The incorrect word is erased on the paper and on the display.
3. Hold down **Code** while you press **Backspace (Bksp1)** two or three times to move the carrier back two or three units of space (approximately one half space).
4. Type the correct word.

### Practice

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

```
The letters shoud be
The letters      be
The letters should be
```



---

# Advanced Operations

---

## Automatic Carrier Return

With Automatic Carrier Return on, the carrier automatically returns when you type a character following a space or hyphen near the right margin. You do not have to press the **CRtn** (Carrier Return) key when the typewriter reaches the right margin.

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

**Note:** For some typing jobs, you will want to turn Automatic Carrier Return off. For example, *do not use* Automatic Carrier Return *when typing tables, columns, or forms* because the typewriter may automatically adjust the line endings.

## 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** again to turn Automatic Carrier Return and Hyphenation on.
  - The HYPHEN indicator comes on.
3. Hold down **Code** while you press **R** to turn Automatic Carrier Return and Hyphenation off.
  - The ARTN and HYPHEN indicators go off.

## Practice - Using Automatic Carrier Return

1. Insert a 12-pitch printwheel, then set the following margins:  
**LMar 24 RMar 65.**
2. Insert paper using the **Paper Bail Load Lever.**
3. Turn Automatic Carrier Return on.
4. Type the paragraph below.
  - Do not press **CRtn** at the end of the lines except where marked.

### Example

Just keep typing and you will see when your new typewriter automatically returns the carrier for you. You can continue typing while the carrier is returning to the left margin.

|  
**CRtn**

## Practice - Using Hyphenation

1. Set margins: **LMar 24 RMar 44.**
2. Look at the display margin scale to check the margin settings.
3. Insert paper using the **Paper Bail Load Lever.**
4. Turn the HYPHEN indicator on.
5. Retype the paragraph in the practice above. When the typewriter beeps, do one of the following:
  - Continue typing the word (the carrier will return automatically).
  - Hyphenate the word and press **CRtn.**
  - Type the word on the next line.

## Helpful Hints

- The carrier does not return automatically if you type only spaces with the **Spacebar**, or type characters without spacing.
- When you type a word near the right margin, the carrier will not automatically return until the you have started to type the next word. If you do not want a word to extend beyond the right margin, you must hyphenate the word.
- You can continue typing while the carrier returns to the left margin.
- If you need to end a line before the right margin, press **CRtn**. You may need short lines for: date, inside address, salutation, last line in a paragraph, closing, and short headings.
- While you are in the correction memory, the typewriter will not perform an automatic carrier return if text already exists on the following line, even though the ARTN indicator stays on.

---

## Required Space and Required Hyphen

Sometimes you may *not* want the carrier to return automatically in the middle of text while you are typing. For example, you may not want the carrier to return in the middle of names, dates, or certain numbers that must be kept on the same line.

If you type a required space or a required hyphen, the carrier will not return in the middle of text while you are typing with Automatic Carrier Return on.

- 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

Type the examples below with Automatic Carrier Return on. Insert a 12-pitch printwheel, then set the following margins: **LMar 12 RMar 44.**

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

You can automatically underline text continuously or one word at a time. The Continuous Underline function allows you to underline words and spaces as you type. You can also use the Word Underline function to underline one word at a time after you type it. The space after the word is not underlined.

### Continuous Underline

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

### Word Underline

1. Type the word to be underlined.
2. Hold down **Code** while you press **I (Word)**.
  - The carrier backs up to the first character in the word and underlines the word.
  - The carrier may be positioned at any character in a word when Word Underline is used.
3. Type the space following the word.
4. Continue typing and repeat the steps for each additional word you want to underline.

### Helpful Hints

- You can use **Backspace**, ←, or ↑ to return to words previously typed but still in the correction memory. Then, hold down **Code** while you press **I (Word)** to underline the words.
- Word Underline will underline punctuation after a word.

---

## Centering

Text can be centered automatically between the left and right margins or at any point on a line.

### Centering Between Margins

1. Make sure left and right margins are set.
2. Press **CRtn** to move the carrier to the left margin.
3. Hold down **Code** while you press **C (Ctr)**.
  - The carrier moves to the center point between the margins.
  - The Center symbol ( |·| ) is shown on the display.
  - The CENTER indicator comes on.
4. Type the text you want centered.
  - The carrier backs up without printing.
  - Text is shown centered on the display followed by the Center symbol.
  - Use the **Correction** key to correct errors.
5. Hold down **Code** while you press **C**.
  - The text is centered and printed.
  - The CENTER indicator goes off.
  - If you move the cursor through centered text using ↑, ↓, ←, or →, a symbol is displayed at the end of the centered text to show where centering ends.

#### Example

Centered Text |·|

- If you move the cursor through centered text using ↑, ↓, ←, or →, a symbol is displayed at the beginning of the centered text to show where centering begins.

#### Example

|·|entered Text



## Centering at Any Point on a Line

Use this function when you want to center text somewhere other than between the margins (for example, centering headings over columns).

1. Move the carrier to the desired center point.
2. Hold down **Code** while you press **C**.
3. Type the text you want to center.
4. Hold down **Code** while you press **C**.
  - The text prints.

## Helpful Hints

- Pressing **CRtn**, **Tab**, or **DecT** also causes text to print.
- To cancel centering before the text prints, press the **Correction** key until the CENTER indicator goes off.
- To erase centered text, you must erase all characters before you can erase the centering symbols from the display.
- You can center and underline text at the same time by using the Center and Underline functions together.
- The typewriter prevents you from typing over previously typed text and beeps each time you press a keybutton.
- The paper and carrier movement keys and **Backspace** do not work while Centering is on. The typewriter beeps when one of these keys is pressed.
- If you are trying to center between margins, and pressing **Code + C** does not cause the carrier to move, you may not be at the left margin.
- Text will not appear to be centered if you type a space after the last character.

---


## Right Flush

The Right Flush function allows you to type text with an even (flush) right margin. You can right align text to the right margin or to any point on a line.


### Example

XYZ Corporation  
740 Anytown Road  
Anytown, KY 00110

### Typing Right Flush Text to the Right Margin


1. Make sure you have left and right margins set.
2. Move the carrier to the left margin.
3. Hold down **Code** while you press **O (RFlsh)**.
  - The carrier moves to the right margin.
  - The Right Flush symbol is shown on the display.  

  - The RFLUSH indicator comes on.
4. Type the line of text.
  - As you type, the carrier backs up without printing.
  - The display shows text being entered followed by the right flush symbol.
  - Use the **Correction** key to correct errors.
5. Hold down **Code** while you press **O**.
  - The text aligns and prints one space left of the right margin. The RFLUSH indicator goes off.
  - If you move the cursor through right flush text using  $\uparrow$ ,  $\downarrow$ ,  $\leftarrow$ , or  $\rightarrow$ , a symbol is displayed at the end of the right flush text to show where right flush ends.

### Example

XYZ Corporation 

- If you move the cursor through right flush text using ↑, ↓, ←, or →, a symbol is displayed at the beginning of the right flush text, to show where right flush begins.

### Example

YZ Corporation

## Typing Right Flush Text to Any Point on a Line

1. Move the carrier to the point where you want the text to be aligned to the right.
2. Hold down **Code** while you press **O (RFlsh)**.
3. Type the line of text.
4. Hold down **Code** while you press **O**.
  - The text aligns and prints one space left of the point.

## Helpful Hints

- Pressing **CRtn**, **Tab**, or **DecT** also causes the text to print.
- If you are typing more than one line of right flush text, set a tab at the point you are aligning to.
- To cancel Right Flush before the characters print, press the **Correction** key until the RFLUSH indicator goes off.
- To erase right flush text, you must erase all characters before you can erase the right flush symbols from the display.
- You can type right flush text and underline at the same time by using the Right Flush and Underline functions together.
- The typewriter prevents you from typing over previously typed text and beeps each time you press a keybutton.
- The paper and cursor movement keys and **Backspace** do not work while Right Flush is on.
- If you are trying to type right flush text to the right margin, and pressing **Code + O** does not cause the carrier to move, you may not be at the left margin.
- The text will not appear to be right aligned if you type a space after the last character.

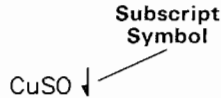
## Subscripts and Superscripts

Subscripts are characters typed *below* the typing line (for example,  $\text{CuSO}_4$ ). Superscripts are characters typed *above* the typing line (for example, *Happy Living*<sup>5</sup>).

### Typing Subscripts

1. Type the text:  $\text{CuSO}$
2. Hold down **Code** while you press **H (1/2↓)**.
  - The paper moves below the typing line.
  - A symbol is displayed where the subscript will print and is shown at the left end of the display margin scale.

#### Example



3. Type the subscript: 4.
  - The paper moves back to the typing line.
  - If you space or move to the subscript symbol, the subscript and symbol are shown at the left end of the margin scale.

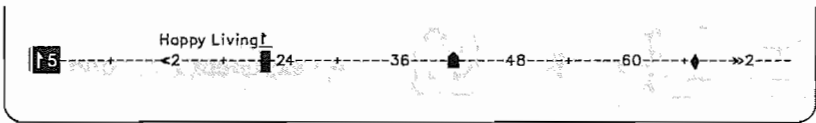


## Typing Superscripts

1. Type the text: *Happy Living*.
2. Hold down **Code** while you press **Y (1/2↑)**.
  - The paper moves above the typing line.
  - A symbol is displayed where the superscript will print and is shown at the left end of the display margin scale.

Happy Living↑  
Superscript Symbol

3. Type the superscript: 5
  - The paper moves back to the typing line.
  - If you space or move to the superscript symbol, the superscript and symbol are shown at the left end of the margin scale.



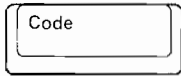
## Helpful Hints

- Do not use the paper movement keys to type subscripts or superscripts.
- Subscripts and superscripts cannot be underlined automatically. Underline them manually by holding down **Shift** while you press - (**Hyphen**).
- Automatic Carrier Return does not work on lines where the **Paper Up (Micro)** and **Paper Down (Micro)** keys are used to type a subscript.

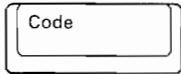
---

## Special Characters

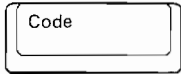
Your typewriter has four special characters that you can type using the **Code** key: §, ¶, <sup>2</sup>, and <sup>3</sup>. You can type these characters without changing the printwheel. These characters appear on the display when you press the desired key.



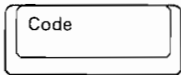
A section symbol ( § ) prints.



A paragraph symbol ( ¶ ) prints.



An exponent ( <sup>2</sup> ) prints.



An exponent ( <sup>3</sup> ) prints.

---

## Bold Print

Hold down **Code** while you press **B (Bold)** to turn Bold Print on or off.

- The BOLD indicator is displayed when Bold Print is on.
- Text is typed in bold until you turn Bold Print off.
- The display shows each letter typed in bold.

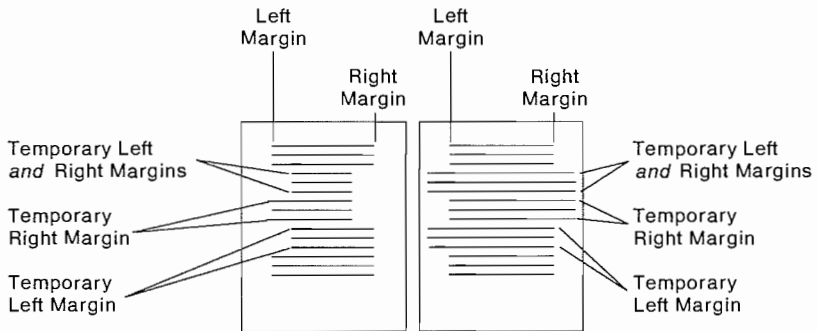
## Helpful Hints

- Bold Print may be used in centering, decimal tab, and right flush text.
- For recommended readability in Bold Print, see "Printwheel Application Recommendations" on page 10-4.

---

## Indenting (Temporary Margins)

The Indent function allows you to set temporary left and/or right margins inside or outside the current margins. The temporary margins are used until the Indent function is turned off.



1. Type until you reach the *first* line to be indented.
2. Move the carrier to the desired temporary left margin position.
3. Hold down **Code** while you press **Tab (IndL)** to set a temporary left margin.
  - The display margin scale shows the temporary left margin symbol (<).
4. To set a temporary right margin, use the → to move to the desired position.
5. Hold down **Code** while you press **RMar (IndR)** to set a temporary right margin.
  - The display margin scale shows the temporary right margin symbol (>).
6. Hold down ← to move to the left margin.
7. Type the indented lines.
  - The carrier returns to the temporary left margin.
8. When you finish typing the indented lines, hold down **Code** while you press **CRtn (IndClr)** to clear the temporary margins.
  - The carrier returns to the original left margin.
  - The original right margin is restored.

## Practice

1. Set margins: **LMar 12** **RMar 51**.
2. Turn Automatic Carrier Return on.
3. Follow the steps on the previous page to type the practice below.
4. When you reach the *first* line to be indented, set the temporary left margin to 17 and the temporary right margin to 41 as shown below.

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

**Temporary  
Left Margin**

**Temporary  
Right Margin**

|  
For example, centering,  
bold print, indenting  
and justification are  
done automatically on  
this new typewriter.

|  
**Code + CRtn**

Try using these new functions to help you with your work!

## Helpful Hints

- When Automatic Carrier Return is on the carrier automatically returns as you type near the temporary right margin.
- Setting the left margin clears the temporary left margin.
- Setting the right margin clears the temporary right margin.
- The Indenting function can also be used to set temporary margins *to the left or right* of the permanent margin settings.
- Temporary margins temporarily replace the original margins.
- Use **Reloc** to return to the last typing position before clearing temporary margins.
- Use **MarRel** to type words to the left of the temporary left margin.



---

## Decimal Tabulation

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

When using a proportional spacing (PS) printwheel to type numbers, always type the number 1 (on the numbers row). Never use the lowercase L for the number 1.

### Typing Numbers with Decimals

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

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

If you move the cursor through decimal tab text using ↑, ↓, ←, or →, a decimal tab (begin) symbol is displayed at the beginning of the text:

→|

A decimal tab (end) || symbol is shown at the decimal point.

## Typing Numbers without Decimals

Set Tab Here	Set Tab Here	Set Tab Here	Set Tab Here
26,745	87,453	873	5%
387	3,498	34	234-

1. Repeat step 1 through 4 above.
2. Type the number and any characters which follow.
  - The carrier moves backward but does not print.
3. Hold down **Code** while you press **D**. The text prints and the carrier moves to the next decimal tab position.

**Note:** 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. Decimal Tabulation is *off* at this point, and pressing **Code + D** moves the carrier to the *next* tab position for decimal tabulation.
4. Press **CRtn** after the last column at the end of each line.

## Helpful Hints

- To cancel decimal tab before the text prints, press the **Correction** key until the DEC T indicator goes off.
- To erase decimal tab text, you must erase all characters before you can erase the decimal tab symbols from the display.
- The typewriter prevents you from typing over previously typed text and beeps each time you press a keybutton.
- The paper and carrier movement keys and **Backspace** do not work while the Decimal Tabulation function is on.

## Underlining Numbers in a Column

You may want to underline columns of numbers. Follow the steps below before typing the *last line* of numbers in each column.

1. Hold down **Code** while you press **U (Cont)** to turn Continuous Underlining on.
2. Hold down **Code** while you press **D**.
  - The carrier moves 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** to move to the next column.
6. Continue typing each number by repeating steps 3 through 5.
7. Hold down **Code** while you press **U** 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:
  - a. Press **↑** once.
  - b. Hold down **Code** while you press **Paper Up** twice.
4. To underline each column:
  - a. Move the carrier to the position where Underlining begins.
  - b. Hold down **Shift** while you press **- (Hyphen)** repeatedly to underline the numbers. The display does not show the double underlining.
5. Repeat step 4 until all columns are underlined.
6. Hold down **Code** while you press **↑ (Line)** to realign the previous typing line.
7. Press **CRtn**.

**Note:** You can also double underline numbers using Keyboard 117. See page 4-25 for more information. You *must* use this method in Full Screen Storage.

---

## Delay Print

Delay Print (DL PRT) causes the typewriter to delay printing until you reach the end of a typing line (with ARTN on), or press **CRtn**. This lets you type and make corrections *before* you print the text on your paper. This function is very helpful when you are filling out forms or using carbon paper.

### Turning Delay Print On

1. Hold down **Code** while you press **Menu (Delay Print)** on the left side of your keyboard. This turns Delay Print on.
  - The DL PRT indicator comes on.
2. Type the desired text.
  - Text is shown on the display, but does not print.

Printing on paper occurs during: Automatic Carrier Return, pressing **CRtn**, or using  $\uparrow$  or  $\downarrow$ .

### Correcting in Delay Print

1. To make corrections:
  - Use the **Correction** key to correct errors on the current line you are typing.
  - To correct text already printed, finish typing the current line. Move the cursor to the incorrect characters and make the corrections.
2. Press **Reloc** to return to the last typing position and continue typing.

### Turning Delay Print Off

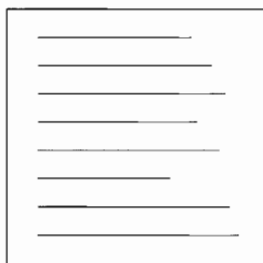
Hold down **Code** while you press **Menu** to turn Delay Print off.

---

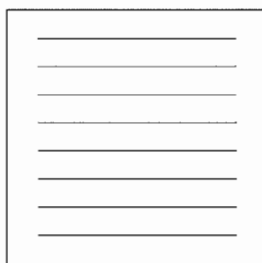
## Justification

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

1. Make sure left and right margins are set.
2. Hold down **Code** while you press **Screen Up (Jstify)**.
  - The JSTIFY and DL PRT indicators come on.
3. Type the text *without* using **CRtn**.
  - The carrier automatically returns to the left margin at the end of each line when Justification is on.
  - Text prints with a justified right margin when you reach the right margin because justify uses Delay Print.
  - You can continue to type while the text is printing.
  - Lines typed with a carrier return are not justified.
4. Press **CRtn** to print the last line of unprinted text.
  - When you print a document, each line except the last one in a paragraph ends exactly at the right margin.
5. Hold down **Code** while you press **Screen Up** to turn Justification off.



Ragged Right  
Margin



Justified  
Margin

## Helpful Hints

- Installing a printwheel to change the pitch or typestyle during justification may cause the left and right margins to be slightly uneven.
- Justification is not performed when text already exists on the line immediately below the current line.
- If you need to correct justified text, you must erase the incorrect text and then type the new text, adding spaces before and after words so that the text appears justified.
- DL PRT must be on to justify text. If you turn DL PRT off, the JSTIFY indicator is displayed **JSTIFY** and the text does not print justified.

---

## Changing Printwheels

**Note:** Do not use this section for Full Screen Storage. See "Changing Typestyles and Pitch within a Stored Job" on page 4-38.

You can use different printwheels while typing a job simply by changing the printwheel at the desired point. The steps below explain changing printwheels when you are using *Delay Print*, *Centering*, *Right Flush*, or *Decimal Tab*. When you type in Delay Print, text does not print until you reach the right margin or press **CRtn**. When you use the Centering, Right Flush, or Decimal Tab functions, text does not print until you press a key that ends the function.

If you change the printwheel while typing delay print, centered, right flush, or decimal tab text, enter a stop code before you change the printwheel. The stop code stops the typewriter so you can change the printwheel during printing.

## Using the Same Pitch with a Different Typestyle

### Example (Changing Printwheels in Centered Text)

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

1. Hold down **Code** while you press **C** to begin centering.
2. Type *IBM* and one space.
3. Hold down **Code** while you press **9** (**Stop**) to begin a stop code. The stop code comment message is displayed.

TYPE STOP CODE COMMENT: \_

Ignore the message at this time. You will learn more about the message when using storage (Chapter 4).

4. Hold down **Code** while you press **9** to complete the stop code, then change the printwheel. See pages 10-6 and 10-7 if you need help.
5. Type *"Wheelwriter"* and one space.

6. Hold down **Code** while you press **9** two times. Change the printwheel.
7. Type *Typewriter*.
8. Hold down **Code** while you press **C** to end centering.
9. When the typewriter prints and stops at the stop code, the following symbols are displayed.

--> <--

Insert the correct printwheel.

10. Press **End** to print to the next typestyle change.
11. Repeat step 9.
12. Press **End** to print the rest of the text.

## Using a Different Printwheel Pitch

Stop codes are automatically entered when you change to a printwheel in a different pitch. When delay print, centered, right flush, or decimal tab text prints, the typewriter stops for a pitch change and the new pitch is displayed. For example, if you are typing in 12 pitch, the following indicator tells you to change to a 10-pitch printwheel:

**PITCH 10**

The PITCH indicator blinks and then is highlighted.

When you see the PITCH indicator:

1. Insert the correct pitch printwheel.
2. Press **End** to continue printing.

## Helpful Hints

- *Pitch* is the type size based on the number of characters per horizontal inch. For example, 12 pitch means twelve characters per inch. See "Printwheel Identification" on page 2-18 and "Automatic Pitch Selection" on page 2-19.
- *Typestyle* is the name of a particular printwheel typeface. For example, Prestige Elite and Script are typestyle names. Typestyle samples are shown on pages 10-2 and 10-3.



---

## Full Screen Storage

Full Screen Storage allows you to create and revise single or multipage documents while using the display as your *paper*. As you type, text is shown on the display, but it does not print on your paper. This type of storage allows you to make corrections and revisions to the document before you actually print it. This is especially useful when you are typing a long document containing several pages.

You can store approximately 60,000 bytes (approximately 20 to 25 pages) in the typewriter's storage. The text you store is called a job, whether it is as short as one character or as long as several pages.

Storing jobs is similar to filing documents in a file cabinet. To use a filing cabinet, you open the cabinet, place the document in a file, then close the cabinet. To store a job, you open the storage area, type the job, then close the storage area. You can store many jobs in the typewriter's storage just as you can store many documents in a filing cabinet.

An advantage of using storage is that you can add or remove text without retyping the entire job.

When you are storing a job, you will find it helpful to pay attention to your display. The display shows what you have typed and presents messages and indicators to help you.

### Notes:

1. Some character storage is used for other typewriter actions such as spacing, carrier returns, and document control functions.
2. The Diskette Option adds virtually unlimited storage to the typewriter. Contact your IBM Authorized Dealer for details.

---

## Storing a Job

### Opening Storage

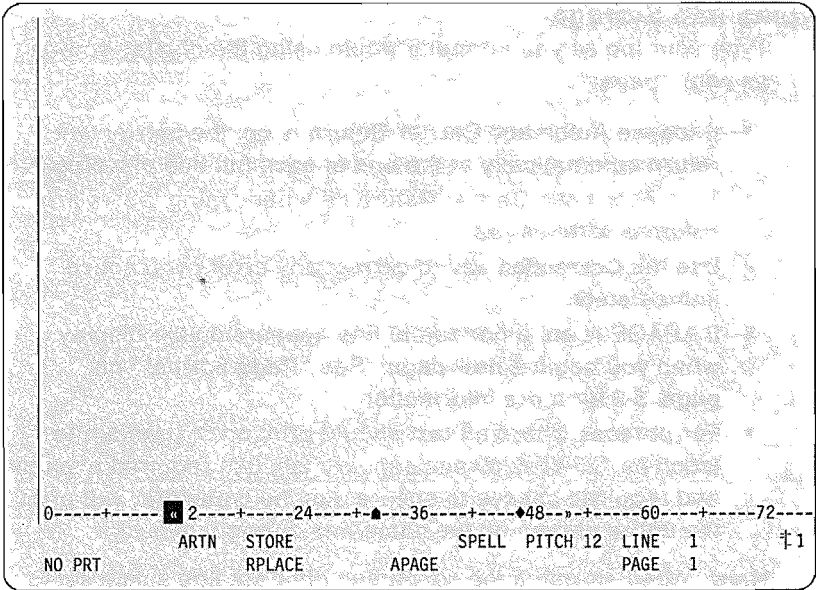
1. Always prepare the typewriter *before* you open storage: install the desired printwheel; select the desired format or set margins, tabs, and line spacing.
2. To open *Full Screen Storage*, hold down **Store** while you read the display message:

TYPE STORAGE NUMBER: \_

3. Continue to hold down **Store** while you type **a number (1 through 99)**. The number you type identifies the storage area you opened.
  - A vertical line shows on the left of the display, representing the left edge of the paper.
  - The carrier moves to the left margin.
  - The following indicators are automatically turned on:
    - STORE - Everything you type, including carrier returns and spaces, is stored.
    - ARTN - Automatic Carrier Return is on.
    - NO PRT - No Print means the text is shown on the display, but it does not print on your paper.
    - RPLACE - Replace causes existing text to be replaced by new text.
    - PITCH - Pitch tells you the pitch of the text being stored.
    - LINE - Indicates the line number of the cursor position in the job.
    - PAGE - Indicates the page number of the job you are viewing.

### Helpful Hint

To identify the current storage area, see page 5-1.



## Typing into Storage

Type your job as you normally would using the display screen as your “paper”:

- Because Automatic Carrier Return is on, the carrier will return automatically at the end of each full line of typing.
- Turn Automatic Carrier Return off when typing tables and columns within a job.
- Use the **Correction** key to correct any errors you notice immediately.
- If APAGE is on, a horizontal line appears on the display when you begin a new page. See “Page-Format” on page 5-9 for more information.
- For phrases where all text should print on the same line (such as *123-45-6789* and *January 22*), use required hyphens and required spaces to ensure that the typewriter will print the entire phrase on the same line during playback.

**Note:** When storing a job containing different line space settings, justified text, or tables, you *must* use *stop codes* so the job will play back correctly. For more information see “Stop Codes” on page 4-31.

## Closing Storage

Press **Store**.

- Tabs, margins, and temporary indented margins are automatically stored with the job.
- The STORE indicator goes off, indicating the storage area is closed.
- The ARTN indicator stays on.

## Helpful Hint

- *Do not store* footnotes, page headings, or page numbers with multipage jobs since revisions may cause page endings to change. These can be added during playback.

## Practice

Type the following job:

1. Install a 12-pitch printwheel. Set the following: **LMar** 12  
**RMar** 55.
2. Hold down **Store** while you press **1** to open storage area 1. If storage area 1 already has text in it, close the storage area and open another.
3. Type the following job.
  - Press **CRtn** only where indicated.
  - Correct only errors you notice immediately.

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.**CRtn**

4. Press **Store** to end the job and exit Full Screen Storage.

---

## Playing Back a Stored Job

### Beginning Playback

1. Insert paper. Install the same pitch printwheel and set the line space used when you stored the job.
2. Hold down **Play** while you type **the number** where you stored the job.
3. Release the keys. Playback begins immediately.
  - The PLAY indicator is displayed.
  - The job plays back using the margins stored with the job.
  - The first line of the job plays back from left to right, the second line of the job plays back from right to left, and so on.
  - If APAGE is on, playback stops at the end of a page. Insert a new sheet of paper using the **Paper Bail Load Lever** and press **End** to continue.
  - When playback is complete, the PLAY indicator goes off and Format area 0 remains active. See page 4-11 for more information.

### Stopping Playback

Press *any key* to stop playback.

- If you stop playback while the typewriter is printing *left to right*, the current line of text is displayed and the cursor rests on the *next character to be printed*.
- If you stop playback while the typewriter is printing *right to left*, the typewriter finishes printing the current line and the paper moves up one line. The next line of text is displayed. The cursor rests on the first character of the line.

### Continuing Playback

Press one of the following keys to continue playback:

- → plays back the next character.
- **Code** + → (**Word**) plays back the next word.
- ↓ plays to the end of the current line.
- **End** plays to the end of the job.

## Canceling Playback

1. Press *any key* to stop playback.
2. Press **Play** to cancel playback and the PLAY indicator goes off.
  - The last line of text played back remains on the display.

If you accidentally cancel playback and wish to continue:

1. Press **Play**. The PLAY indicator and any unprinted text from the current line are displayed.
2. Continue playback by pressing →, **Code** + →, ↓, or **End**.

## Practice

1. Install the same pitch printwheel and set the same line space you used when you stored the job.
2. Play back the job you stored on page 4-5. Practice starting, stopping, canceling, and playing back by line, by word, and by character.
  - You can play back the job as many times as you wish.

## Playing Back a Multipage Job

When the END OF PAGE REACHED message is displayed:

1. Remove the paper using only the *Paper Release Lever*.
  - If you use ↓ to remove paper, an additional line of text will print.
2. Insert paper using the **Paper Bail Load Lever**.
3. Press **End** to continue playback.

## Playing Back a Job with Different Margins

You can play back a job outside of storage with different margins than the margins stored with the job.

1. Insert paper. Install the same pitch printwheel and set the line space used when you stored the job.
2. Set margins as desired for playing back the job.
3. Make sure Automatic Carrier Return is on.
4. Move the carrier to point where you want playback to begin.
5. Hold down **Code** and **Play** while you press **the number** where you stored the job.
6. Release the keys.
  - The job plays back with new margins.

## Practice

1. Set margins: **LMar 24 RMar 48**.
2. Playback the job stored on page 4-5 using the margins just set.



## Playing Back Part of a Stored Job

You may want to play back only part of a stored job. For example, after playing back a job, you may notice an error on the last page. Instead of playing the entire job again after making the needed revisions, you can print only the last page of the job. By beginning playback while in Full Screen Storage, you can play back part or all of a job.

1. Insert paper.
2. Open the storage area of the job you want to play back.
3. Move the cursor to the point where you want playback to begin.
  - Use the example on page 4-5. Move the cursor to the letter *l* in the phrase *In those days*.
4. Hold down **Play**. The following message is displayed:

```
TYPE STORAGE NUMBER:   
OR PRESS End TO PRINT FROM CURSOR POSITION
```

5. Press **End**.
  - The storage area is closed; all revisions are saved.
  - The job starts playing back from the cursor position.
  - Playback begins at the left margin.
  - The job plays back using the margins stored with the job, (Format area 0).
  - Format area 0 remains active after playback is finished.

## Helpful Hints

- When ARTN is on while playing back to different margins, the lines are ended according to the present margin settings. If a word extended past the right margin when you originally typed it, it may print on the next line during playback.
- When ARTN is off while playing back to different margins, your jobs play back from the present left margin, line for line as you stored it.
- Make sure ARTN is turned off when playing back tables and columns, or the job may be printed with different line endings.
- Text is not displayed during playback.
- To play back a job with the HYPHEN or JSTIFY indicators on, see Chapter 7.

---

## Type/Screen Key

While you are entering a job into Full Screen Storage, you may be asked to type a short note, envelope, label, or some other quick typewriter application (such as, inserting paper before beginning playback).

The **Type/Screen** key allows you to interrupt typing a job into Full Screen Storage, perform any typewriter application, and quickly return to entering your original job into storage.

1. Open a Full Screen Storage area and begin typing the job.
2. Press **Type/Screen** to enter the Typewriter Mode.
  - The carrier returns to the left margin.
  - Format area 9 is automatically opened to allow you to set and retain new margins and tabs.
  - The original margin and tab settings in Full Screen Storage remain unchanged.
3. Insert paper, or type the envelope, label, short note, or other application.
4. Press **Type/Screen** to return to Full Screen Storage.
  - The cursor moves to the last typing position, but the carrier remains at the current position.
5. Continue typing your job into storage. You may continue to alternate between Full Screen Storage and Typewriter Mode by pressing **Type/Screen** to perform additional typewriter applications.
6. After typing, press **Store** to close storage and exit Full Screen Storage.

The **Type/Screen** key can only be used to switch between Full Screen Storage and Typewriter Mode. If the key is pressed while in any other mode, the following message is displayed:

TO ENTER FULL SCREEN STORAGE, HOLD DOWN Store AND PRESS A NUMBER (1 TO 99)

**Note:** You can perform all typewriter functions once you enter Typewriter Mode.

If you play or delete a document, or enter another storage area while in Typewriter Mode, the job you were working on is stored.

---

## Margin and Tab Formats in Storage

Setting margins and tabs in Storage is similar to setting margins and tabs in Typewriter Mode. The following guidelines will help you use format areas and change margins and tabs while typing in storage.

Format area 0 is reserved by the typewriter for use with storing and playing jobs.

### Selecting a Format Area

*Before* opening a new storage area, hold down **Frmat** while you press **a number** (1 through 9) to select the format area to be used for the job.

- When you open a new storage area, margin and tab settings of the format area are copied to the new storage area.
- The format area you select is not affected by changing margins and tabs in storage.
- You cannot select another format area while in storage.
- When you press **Type/Screen** to go to Typewriter Mode from Full Screen Storage Mode, format area 9 becomes active. Margins and tabs set while in format area 9 are saved.

**Note:** When you begin playback, the margins used when the job was stored are copied to format area 0.

- Format area 0 remains active after playback is complete.
- If you change the margins and tabs while format area 0 is active, the new settings are not saved.
- You can select any format area (1 through 9) while format area 0 is active.

### Changing Margins in Storage

- All tab settings and temporary margins are stored with the job.
- One left margin and one right margin is stored with the job.
- While storing a job, you can change margins for the entire job, set tabs, and set temporary margins.

- If you press **LMar** while in storage and your cursor is not on line 1 of the job, the following message is displayed:

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

Do one of the following:

- Hold down **Code** while you press **Tab (IndL)** to set a temporary left margin.
  - Press **LMar** to change the left margin for the *entire* job. Indented text remains indented.
  - Press the **Correction** key if you do not want to set new margins.
- If you press **RMar** while in storage and your cursor is not on line 1 of the job, the following message is displayed:

USE IndR OR PRESS RMar AGAIN TO RESET DOCUMENT MARGIN OR  TO CANCEL

Do one of the following:

- Hold down **Code** while you press **RMar (IndR)** to set a temporary right margin.
  - Press **RMar** to change the right margin for the *entire* job. Indented text remains indented.
  - Press the **Correction** key if you do not want to set new margins.
- If you change the margins of a stored job, you *must* use Manual Reflow to adjust the text to the current margin settings. See “Manual Reflow” on page 4-30.

## Changing Tabs in Storage

Tabs are set and cleared the same way as in “Tabs” on page 2-23. Tabs are stored with the job. See “Tab/Column Adjust” on page 5-16 to play back a job with tab settings different from the ones used when the job was stored.

**Note:** When you press **Tab**, a tab symbol is automatically placed at the tab stop.

→

---

## Indenting (Temporary Margins) in Full Screen Storage

Jobs entered in Full Screen Storage are stored with one left and one right margin. Temporary margins must be used when entering indented text.

When temporary margins are set, temporary margin symbols are automatically placed on the line where they were set. When you finish typing the indented text, the temporary margins *must* be cleared. An indent clear symbol will be shown at the end of the line where the temporary margins were cleared. All of these symbols are placed in the text to hold the text to the temporary margins. If the symbols are deleted, the text will no longer remain indented.

Any time the cursor is on a line of indented text, the temporary margins will be shown on the margin scale. This is true while entering the indented text, or during revision.

### Entering Indented Text

Indented text is entered in Full Screen Storage the same way as described in “Indenting (Temporary Margins)” on page 3-13. The following guidelines will help you use indented margins in Full Screen Storage:

- When setting a temporary left margin, a symbol ([->)] is automatically placed in the job at the point where the temporary left margin was set. This symbol is displayed only when the cursor is over it.
- When setting a temporary right margin, a symbol is automatically placed in the job on the line where the temporary right margin was set.

←-]

This symbol can be displayed by moving the cursor to the line where the temporary margin was set, and then pressing **Code + Home (BgnL)**.

- The carrier returns to the temporary left margin if **CRtn** is pressed, or when ARTN is being used.
- Use **MarRel** to move to the left of the temporary left margin just as you would move to the left of the permanent left margin.

- When you enter an indent clear:
  - The original left and right margins are restored.
  - The carrier returns to the original left margin.
  - An indent clear symbol is placed at the end of the line where the margins were cleared.



This symbol is displayed only when the cursor is over it.

## 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.

      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

```

## Changing or Adding Temporary Margins

For each temporary margin, move the cursor to the desired temporary margin position and do one of the following:

- Hold down **Code** while you press **Tab (IndL)** to set a new temporary left margin; or
- Hold down **Code** while you press **RMar (IndR)** to set a new temporary right margin.
  - The temporary margin is shown on the display margin scale.
  - The text automatically adjusts (reflows) to the new margin setting.

## Clearing Temporary Margins

1. Move the cursor to the first line of indented text which you no longer want indented.
2. Move the cursor to the left margin.
3. Hold down **Code** while you press **CRtn (IndClr)** to clear both the left *and* right temporary margins.
  - Text from the current line to the end of the indented text will be adjusted to the left and right margins.
  - If you do not want to have both temporary margins cleared, change the desired margin. See “Changing or Adding Temporary Margins.”

## Practice

Use the previous practice to change and clear temporary margins.

---

## Using Line Space for Storage and Playback

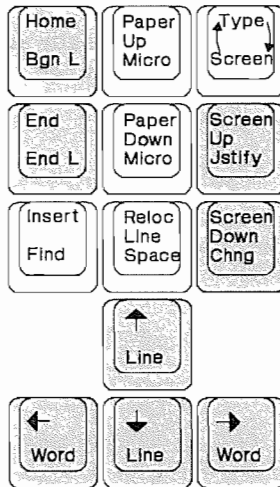
- You can change the line space setting the job is stored with.
  1. Select the desired line spacing.
  2. Use manual reflow to adjust the text to the current line spacing. See “Manual Reflow” on page 4-30.
    - The LINE and PAGE indicators reflect the new line spacing.
- The display shows the job in single space even though the line space may be set in 1½, 2 or 3. The LINE indicator shows the correct line number on the page.
- To change line space within text, see “Reminder to Change Line Spacing” on page 4-34.
- During playback the job plays to the current line space setting.
- Line space settings are not stored with the job.



---

## Using Revision Keys

When you revise a stored job, use the keys on the right side of the keyboard to move the cursor through storage. These keys are called revision keys and are shaded below:



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

- **Screen Down** - shifts the screen so the current line moves to the top of the screen.
  - If the current line is already at the top of the screen, the screen shifts down an additional 18 lines.
- **Screen Up** - shifts the screen so the current line moves to the bottom of the screen.
  - If the current line is already at the bottom of the screen, the screen shifts up 18 lines.

---

## Revising Jobs

After typing a job into Full Screen Storage, you may notice that you need to make some changes. Full Screen Storage allows you to add, replace, insert, or delete text without printing the job. Use your revision keys to move the cursor through the job to the desired point. Look at the display to see where the cursor is located and to view your revised job.

### Copying a Job for Revision

All revisions are stored with your job, so you may want to make a copy of your job before you begin revising it. This will allow you to have the original job for later use, if necessary. To copy a job quickly:

1. Set the same margins and tabs as the job you want to copy.
2. Hold down **Store** while you type the number of an *empty* storage area.
3. Turn ARTN off.
4. Hold down **Play** while you type the number of the job you want to revise.
  - The **BUSY** indicator is displayed while the job is being copied.
  - The storage area you just opened now contains a copy of the job you want to revise.
5. Press **Store** to close the storage area.

### Revising a Job

1. Hold down **Store** while you press **the number** of the stored job to be revised.
  - The STORE, NO PRT, ARTN, RPLACE, PITCH, LINE, and PAGE indicators come on.
2. Use the revision keys on page 4-17 to move the cursor to the desired revision point.
3. Make revisions using the **Correction** key or use Replace, Insert, Overstrike, and Delete as discussed in "Text Entry" on page 4-20.
4. When you finish, press **Store** to close Full Screen Storage.

## Helpful Hints

Follow these rules when revising a job:

- Select the line space setting used when the job was first stored.
- When revising justified text, the JSTIFY indicator *must* be on.
- When revising tables and columns, the ARTN indicator *must* be off.

---

## Text Entry

There are three text entry modes to use while entering and revising text in Full Screen Storage:

- **Replace** — Replace causes existing text to be replaced by new text. This mode becomes active when you open storage. Use Replace when entering a job.
- **Insert** — Insert causes words on the display to move to the right when typing in new text. Use Insert to add text in the middle of the job without replacing existing text.
- **Overstrike** — Overstrike causes new text to be typed on top of existing text. Use Overstrike to make special characters by typing one on top of the other.

Each of these text entry modes will be explained in the following practice exercises. Before continuing, open an unused storage area for the practices:

1. Hold down **Store** while you press **the number** of the storage area to be used for the practice.
  - The STORE, NO PRT, ARTN, RPLACE, PITCH, LINE, and PAGE indicators come on.
2. Press **Store** when you have completed all of the text entry mode practices.

---

## Replacing Text

Replace is active when you enter Full Screen Storage.

1. Type the following example:

When RPLACE is on you can correct words.

2. Use the revision keys to move the cursor to the point where you want to replace the existing text with new text.
  - Using the previous example, move the cursor to the first *c* in *correct*.
3. Type the word *replace*.

- Look at the display to see the existing text replaced by the new text. The revised example is shown:

When RPLACE is on you can replace words.

---

## Inserting Text

1. Type the following example:

INSERT causes words to move over.

2. Use the revision keys to move the cursor to the point where you want to insert new text.
  - Using the previous example, move the cursor to the *t* in *to*.
3. Turn the INSERT indicator on by pressing the **Insert** key.
  - The RPLACE indicator goes off.
4. Type: *on the display* then press **Spacebar** once.

- As you type the new text, look at the display as the old text moves over. The revised example is shown:

INSERT causes words on the display to move over.

5. Press **Insert** to turn the INSERT indicator off.
  - The RPLACE indicator comes back on.

## Inserting Blank Lines

To insert a blank line *below* the current line:

1. Turn on the INSERT indicator.
2. Hold down **Code** while you press **End (EndL)**.
  - The cursor moves to the end of the line.
  - You can also use → to move to the end of the line.
3. Press **CRtn**.
  - The cursor is shown on the newly inserted blank line with the carrier return symbol.  
↓
  - Press **CRtn** once for each blank line you wish to insert.
4. Turn INSERT off.

To insert a blank line *above* the current line:

1. Turn on the INSERT indicator.
2. Hold down **Code** while you press **Home (BgnL)**.
  - The cursor moves to the beginning of the line.
  - You can also use ← to move to the beginning of the line.
3. Press **CRtn**.
  - The current line moves down as one blank line is inserted above it.
  - Press **CRtn** once for each blank line you wish to insert.
4. Turn INSERT off.

## Helpful Hints

- If you want to insert text at the beginning or end of decimal tab, centered, or right flush text, you must be sure the cursor is between the symbols that begin and end these functions:
  1. Use ↑, ↓, ←, or → to display the symbols.
  2. When the symbol is displayed, press → or ← one time to display the character that the symbol rests on and begin inserting text. The symbols are shown under “Display Symbols” on page 11-18.
- When the ARTN and INSERT indicators are on as you type to the right margin, a new line is inserted as the cursor automatically returns to the left margin.
- When you move the cursor from the current line after inserting, the text automatically adjusts to the margin settings.
- When the INSERT indicator is on, the **Correction** key erases the character and the space it occupied.

## Overstriking Text

Overstrike is used anytime you want two or more characters to print at the same position, for example Ø.

1. Type the following example:

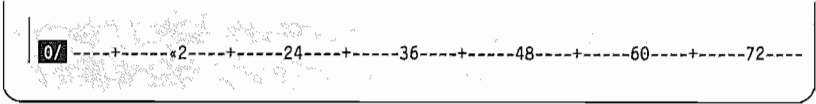
Overstrike is used to type numbers such as 100

2. Use the revision keys to move the cursor to the first "0" in 100.
3. Turn on the OVRSTR indicator by holding down **Code** while you press **P** (**Ovrstr**).
4. Type two slash marks: //

- As you type new text, look at the display to see the overstrike symbol. This symbol means that more than one character was typed in that position.

Overstrike is used to type numbers such as 100

- If you move the cursor to the overstrike symbol, the two characters typed at that position are shown at the left end of the display margin scale.



0/-----2-----24-----36-----48-----60-----72-----

- Later when you play back your text on paper, it will print as shown below:

Overstrike is used to type numbers such as 100

5. Hold down **Code** while you press **P** to turn Overstrike off.



---

## Double Underlining

In Full Screen Storage, you can double underline columns of numbers or text using Keyboard 117 and Overstrike. To double underline characters, select Keyboard 117 (Accounting keyboard), type the job, and then overstrike the last line of numbers or text using the double underline character. To store the job:

1. To select Keyboard 117 hold down **Code** while you press **L (Lang)**, release **L**, and continue to hold down **Code** while you type *117*.
  - Make sure you have a printwheel for Keyboard 117. Do not install the 117 printwheel at this time.
  - The KYBD 117 indicator comes on.
2. Open a storage area and type the job up to the point where you want to double underline.
3. Type the characters to be double underlined and then hold down **Code** while you press **P (Ovrstr)** to turn on Overstrike.
  - The OVRSTR indicator is displayed.
4. Move the cursor to the point where you want to begin double underlining.
5. Hold down **Code** while you press **] (Right Bracket)** once for each character or space to be underlined.
  - The overstrike symbol ( █ ) appears when you type over existing characters.
  - The double underscore symbol ( == ) is shown when you double underline a space.
6. Repeat steps 4 through 6 each time double underline is needed.
7. Close storage.
8. Install the printwheel for Keyboard 117. (See 9-1 for the location of the keyboard ID number). Play back the job.

**Note:** Omit step 3 to use this method in Typewriter and Forms/Special Storage Mode.

---

## Deleting Text

Deleting text in Full Screen Storage is similar to using the **Correction** key to erase text except as you delete characters, no space is left. The character and the space it occupied is removed from the display. You can delete a single character such as a letter, space or carrier return symbol, a word, a line, or several lines of text.

1. Move the cursor to the point to delete text.
2. Use one of the following methods to delete text from your stored job.

### Delete a Character or Space

- Hold down **Del** while you press  $\rightarrow$  to delete the character at the cursor and the space it occupied.
  - The cursor is positioned at the next character.
  - You can also use **Del** +  $\leftarrow$ . The cursor is positioned at the previous character.

### Delete a Word


- Hold down both **Del** and **Code** while you press  $\rightarrow$  (**Word**) to delete from the cursor to the end of word.
  - All punctuation and spaces that follow the word are also deleted.
  - The cursor is positioned at the next word.
  - You can also use **Del** + **Code** +  $\leftarrow$ . The cursor is positioned at the space that preceded the word.

### Delete a Line

- Hold down **Del** while you press  $\downarrow$  (**Line**) to delete from the cursor to the end of the line.
  - The cursor is positioned at the first character of the next line.
- To delete a blank line:
  - Use  $\rightarrow$  or  $\leftarrow$  to position the cursor under the carrier return symbol.
  - Hold down **Del** while you press  $\rightarrow$ . You can also use **Del** +  $\leftarrow$ .

### Delete to the End of the Job

- Hold down **Del** while you press **End** to delete from the cursor to the end of the job. The following message is displayed:

PRESS Del AGAIN TO DELETE OR PRESS  TO CANCEL

- Do one of the following:
  - Press **Del** to delete the text; or
  - Press the **Correction** key to cancel Delete.

### Delete Carrier Returns and Other Symbols

- Refer to “Display Symbols” on page 11-18.
- Hold down **Del** while you press → to delete one carrier return or symbol.

## Practice

1. Hold down **Store** while you type **the number** of the job you stored on page 4-5.
2. Move the cursor to the first *i* in the phrase *in history*.
3. Hold down **Del** while you press → to delete the letter *i*.
4. Repeat step 3 until you have deleted the word *in* and the space which follows it.
5. Make sure the cursor is at the beginning of the word *history*.
6. Hold down both **Del** and **Code** while you press → (**Word**) to delete from the cursor to the end of the word.
7. Move the cursor to the word *free*.
8. Delete the word *free* using one of the methods explained above.
9. Close storage.

## Helpful Hints

- You can also use *Block Delete* to quickly delete text. See “Block Delete” on page 7-18 for more information.
- You can also delete from the cursor *up to* but not including the carrier return. Hold down **Code** and **Del** while you press **End (EndL)**.
  - The cursor is positioned on the carrier return symbol.

---

## Deleting a Stored Job

1. Hold down **Del** while you press **the number** of the storage area to be deleted.

- A message similar to this is displayed:

PRESS **Del** AGAIN TO DELETE STORAGE **2** OR PRESS  TO CANCEL

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

2. Press **Del** to delete the storage area.

## Canceling Delete

When the message above is displayed, press the **Correction** key to cancel Delete.

---

## Deleting All Storage Areas

**Warning:** *This procedure clears all storage and format areas and returns all typewriter functions to their initial settings. The Spelling Supplemental Dictionary is also cleared; see "Supplemental Dictionary" on page 8-3.*

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

2. Press **Del** to delete all storage areas or press **Correction** to cancel.

- The STORAGE CLEARED message appears.
- All storage areas are cleared.

---

## Reflow

After you have inserted or deleted text in a stored job, you may find the text is too far inside or outside the current margins. When a revision to a stored job changes line endings, the Reflow function allows the text to “flow” to the current margin setting. Text is adjusted within the new margins.

There are two Reflow functions that allow you to keep text within the current margins.

### Automatic Reflow

When you have inserted or deleted text, the ↑ or ↓ keys cause the paragraph to automatically reflow.

- The ARTN or JSTIFY indicator must be turned on for Automatic Reflow to work.
- If you do not want to use Automatic Reflow, turn the ARTN indicator off.

## Manual Reflow

If you change the margins of a stored job, you *must* use Manual Reflow to adjust the text to the current margin setting. All text from the cursor to the end of the job will be adjusted within the new margins.

To reflow a stored job:

1. Make sure the ARTN or JSTIFY indicator is turned on.
2. Press **Home** to move to the top of the job to reflow the entire job, or move the cursor to the desired starting point.
3. Hold down **Code** while you press **Format (Rflow)** to start reflow.
  - Text is reflowed to the current margin setting.
  - If the job contains stop codes, reflow stops at the stop code. See page 4-31 for more information on using stop codes.
  - If you do not want to reflow a section of text, use the ↓ to move the cursor past the text.
  - Do not reflow tables or columns.
  - Hold down **Code** while you press **Format (Rflow)** to continue reflowing the job.
  - If the HYPHEN indicator is on, Reflow will stop at points where you might want to hyphenate a word.

## Helpful Hints

- If you do not want to use Automatic Reflow, turn ARTN off.
- Press any key to cancel Manual Reflow.
- Be sure to place stop codes before and after tables, charts, justified text, and any text you do not want reflowed. Move the cursor past the table, chart, or text you do not want reflowed before continuing reflow.

## Practice

1. Hold down **Store** while you type **the number** where you stored the job on page 4-27.
2. Change **RMar** to 45.
3. Press **Home**.
4. Hold down **Code** while you press **Format (Rflow)** to start reflow.
5. Close storage.

---


## Stop Codes

Sometimes you may want the typewriter to stop at a specific point during playback or reflow, to allow you to make changes. For example, you may want to enter a job title or stop playback to type variable information in a form letter, to change typesyles, or to change line spacing. See page 4-34 for stop code applications.

You *should always* type a stop code:

- Before and after tables and columns to remind you to turn ARTN off and on. If ARTN is not turned off, the typewriter may automatically adjust the line endings.
- Before and after justified text to remind you to turn JSTIFY on and off.

### Typing a Stop Code

1. Hold down **Store** while you press **the number** of the desired storage area.
2. Type text or move the cursor to the point where you want the typewriter to stop during playback.
3. Hold down **Code** while you press **9 (Stop)** to begin a stop code.
  - The following message appears:  

  - You may type a short comment (up to 50 characters) describing what to do when playback stops. The comment is displayed at the message line, but will not be printed when typed or played back.
4. Hold down **Code** while you press **9** to end the stop code.
5. Repeat steps 2 through 4 for each stop code.
6. When you finish, press **Store** to close storage.

## Helpful Hints

Use the ←, →, ↑, and ↓ to display the stop code symbol.



The stop code comment and symbols appear on the left end of the display margin scale.

The sales for the Big Wig Widget Company have increased steadily. The table below shows sales as of:

YEAR	NUMBER SOLD
1987	1,231,997
1986	1,000,123
1985	712,345

It is our prediction that Big Wig Widget Company will sell more Widgets than any other widget wonderland in the world.

Big Wig Sales Report 24 36 8 60 72 11  
NO PRT ARTN STORE SPELL PITCH 12 LINE 1  
RPLACE APAGE PAGE 1



## Playing Back a Job That Contains a Stop Code

1. Play back the job as instructed in “Playing Back a Stored Job” on page 4-6. When playback reaches the stop code:
  - Printing stops.
  - The stop code comment is displayed at the message line with symbols before and after it. The comment does not print.
2. Read the comment and respond.
3. Press **End** to continue playback.

## Erasing a Stop Code

1. Make sure storage is open.
2. Move the cursor to the line where the stop code appears.
3. Use ←, →, ↑, and ↓ to display the stop code symbol you want to erase.
4. Press the **Correction** key.
  - The stop code and stop code comment are erased.

## Changing the Stop Code Comment

To revise a stop code comment, you must:

1. Erase the stop code as explained above.
2. Enter the new stop code.

---

## Stop Code Applications

The following are some suggested uses for stop codes.

### **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 or on. For example, when you want to turn Automatic Carrier Return off for tables, columns, or forms, type a stop code at the point where Automatic Carrier Return should be turned off. 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. After entering the stop code, change the line space setting. For example, you may want to change from double spacing to single spacing for long quotes within a report. Type a second stop code at the point where you wish to return the line spacing to its original setting.

### **Job Titles**

Type a stop code at the beginning of every stored job with a brief description of the job in the stop code comment. When you play back the job, the comment appears first, allowing you to verify that this is the job you want to play back.

### **Form Letters**

Type a stop code at each point where variable information should be typed in a form letter. For example, you can type a stop code at the point where the date and inside address will appear. You can type stop code comments to remind you what information should be typed at each position.

### **Reminder to Turn Justification On or Off**

Type a stop code before any portion of a job that should be justified. In the comment, remind yourself to turn Justification on. Type another stop code at the point where you want to turn Justification off. See "Using Justification in Storage" on page 7-1 for more information.

### **Reminder to Change Printwheel**

When storing a job, you must type a stop code before a typestyle change so that the typewriter will stop during playback to allow you to change the printwheel. The typewriter automatically stores a stop code when you change to a different pitch. Refer to page "Changing Typestyles and Pitch within a Stored Job" on page 4-38 for pitch and typestyle information.

### **Keyboard Changes**

The typewriter automatically inserts stop codes at keyboard changes in your job. During playback, the **KYBD** indicator reminds you to install the appropriate printwheel. See "Using Alternate Keyboards" on page 9-2 for more information. Press **End** to continue playback.

## Practice - Job Title Stop Codes

You may want to put a title at the beginning of each stored job. Using stop codes, you can type a brief description of the job. This job title will be displayed before you play back the job and when you begin revising a job.

When you play back the job, the typewriter stops to verify this is the job you want to play back.

1. Hold down **Store** while you press **the number** of an unused storage area.
2. Hold down **Code** while you press **9 (Stop)** to begin the stop code.

- The following message is displayed:

TYPE STOP CODE COMMENT:

3. Type a stop code comment, for example:

Letter to Bob Meyer

4. Hold down **Code** while you press **9** to end the stop code.
  - The stop code comment is displayed on the left end of the display margin scale.

Stop Code Symbol                      Stop Code Symbol

┆    ┆

┆ Letter to Bob Meyer ┆

5. Type the job.

## Helpful Hints

- While entering the stop code comment, you cannot use revision keys or advanced functions, such as centering.

## Storing Form Letters with Stop Codes

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).

1. Hold down **Store** while you press **the number** where you want to store the letter.
2. Type the form letter placing stop codes wherever variable information is to appear.
3. Press **Store** to close storage.

In the example below, the variable information, such as name, address, salutation, and additional information in the body of the letter, is shaded (■). When you type the letter, type stop codes where the address, name, and other variable information appear. You can type the shaded information in stop code comments to remind you what information to type in the letter.

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

Store the following example:

**6 CRtns**

**Code + 9** (■ Inside Address) **Code + 9**

**2 CRtns**

Dear **Code + 9** (■ Name) **Code + 9**

**1 CRtn**

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.

**3 CRtns**

Cordially yours,

**3 CRtns**

Paul Boler

**Store**

## Playing Back a Form Letter

1. Insert paper and turn ARTN on.
2. Hold down **Play** while you press **the number** where the form letter is stored.
  - Play back the job you stored on page 4-37.
3. When playback stops at a stop code, type the variable information.
  - The information you type appears on your playback copy only. Use the **Correction** key if you need to correct errors while typing the variable information.
4. Press **End** to continue playback.
5. Repeat steps 1 through 4 for each additional letter.

---

## Changing Typestyles and Pitch within a Stored Job

You may wish to change printwheels while playing back a job. For example, you may want to emphasize certain words in a job by typing them in italics, or in smaller or larger characters. In Full Screen Storage, you can store a job with typestyle and pitch changes without changing the printwheel.

## Storing a Job with a Typestyle Change

*Without changing pitch*, follow the steps below to change typestyle.


1. Hold down **Store** while you press **a number** to open a storage area.
2. Type the job up to the point where you want to use a different typestyle.
3. Type a stop code. In the stop code comment, type the typestyle name of the printwheel you will install during playback. See page 4-31 if you need help typing a stop code. See page 2-18 for the location of the typestyle name.
4. Continue typing the job.
5. Repeat steps 3 and 4 for every typestyle change in your job.
6. Press **Store** to close the storage area.

## Playing Back a Job with a Typestyle Change

To play back a job with a typestyle change, play back the job as instructed in "Playing Back a Job That Contains a Stop Code" on page 4-33, changing printwheels when needed.

## Storing a Job with a Pitch Change

In Full Screen Storage, you can change pitches within a job without changing the printwheel.

1. Hold down **Store** while you press **a number** to open a storage area.
2. Type the job up to the point where you want to change pitch.
3. Hold down **Code** while you press **T (Pitch)** repeatedly to change the pitch.
  - The current pitch (10, 12, 15 or PS) is displayed with the PITCH indicator.
  - The pitch change symbol (  ) is displayed.
  - The display margin scale changes to the current pitch.
4. Continue typing.
  - Text typed in different pitches may not line up on the screen, but will print correctly on paper.
  - The display does not show the different size characters.
5. Repeat steps 3 and 4 for every pitch change.
6. Press **Store** to close the storage area when finished.

## Playing Back a Job with a Pitch Change

1. Hold down **Play** while you type **the number** of the job stored with a pitch change.
  - Playback begins immediately.
2. When the typewriter stops for the printwheel change, you can change the printwheel or go to step 3 to play back with the current pitch.
  - The PITCH indicator and pitch number blink and then are highlighted **PITCH 10** to let you know what pitch to change to.
  - See pages 10-6 and 10-7 if you need help changing the printwheel.
  - If you do not want to change pitch, press **End** to continue playback in the current pitch.
3. Press one of the following keys to continue playback:
  - Press **End** to play back to the end of the job.
  - Press ↓ to play back to the end of the current line.
  - Press → to play back the next character.
4. Repeat steps 2 and 3 until the job prints completely.

**Reminder:** You can play back a job using a different pitch than the one originally stored with the job.



## Revising a Job with a Pitch Change

When revising a job with pitch changes, the PITCH indicator and display margin scale change to the current pitch as you move the cursor through the job. If you insert or add text to a job, make sure the PITCH indicator is displaying the desired pitch.

## Inserting a Pitch Change

1. Move the cursor to the point where you want to change pitch.
2. Hold down **Code** while you press **T** until the desired pitch is displayed.
  - Two pitch change symbols will appear if text follows the pitch change.
3. Turn on **INSERT** and type the text.
4. Turn off **INSERT** when finished.

## Deleting a Pitch Change

1. Hold down **Del** while you press **→** or **↓** to delete any text that follows the unwanted pitch change symbol.
2. Change to the previous pitch by holding down **Code** while you press **T** until the desired pitch is displayed.
3. Retype any text that you may have deleted in step 1.

**Note:** To change the pitch of text already entered, delete all text in the incorrect pitch, change to the desired pitch (**Code** + **T**), then retype the text.

## Helpful Hints

- All characters are shown the same size on the display regardless of pitch. As you enter a job with pitch changes, the text will not line up on the display, but it will play back correctly.
- You cannot change pitch while the **OVRSTR** (overstrike) indicator is on.
- Where possible, change pitch at the end of the line before moving to the next line. This allows the first line typed in a different pitch to align properly with other lines typed in that pitch.

## Practice: 10, 12, and 15 Pitch

1. Insert a 10-pitch printwheel, then set the following margins and tab: **LMar 10 RMar 50 Tab 40**.
2. Store the text below in an unused storage area.
3. Turn off ARTN.

	<b>Tab</b>	
This is an example		
This is an example	10 pitch	<b>Code + T</b>
This is an example	12 pitch	<b>Code + T</b>
This is an example	15 pitch	

- As you change pitch within the job, notice how the display margin scale changes.
- Your display shows the following:

This is an example	10 pitch	▲ ■
This is an example	12 pitch	▲ ■
This is an example	15 pitch	▲ ■
—		

4. Close Storage.
5. Play back the job, changing printwheels when needed.
  - The printed job will show that the text lined up at the left margin and at the tab stop.

## Helpful Hints

- To be sure that all text will line up for tabs, centering, decimal tab, and right flush text, you should attempt to set margins and tabs on top of the numbers on the margin scale. For example, when you set a tab stop at 20 in 10 pitch, the tab stop will move to the 24 in 12 pitch and to the 30 in 15 pitch.
- When storing tables and columns of text with pitch changes, you may want to use Forms Storage Mode to immediately see how the text will look on paper. See Chapter 6 for more information.

---

## Storing a Job in Proportional Spacing

Characters typed in Proportional Spacing vary in width when printed on your paper. On your display, however, each character is the same width. Therefore, text typed in Proportional Spacing may not line up on the display as it does on paper. This is especially true for text that was entered with tabs.

### Practice: PS Pitch

1. Insert a PS-pitch printwheel, then set the following margins and tab: **LMar 12 RMar 60 Tab 48**.
2. Store the text below in an unused storage area.
3. Turn off ARTN.

	<b>Tab</b>
This is an example	PS pitch <b>CRtn</b>
Type iiii	1234 <b>CRtn</b>
Type wwww	1234 <b>CRtn</b>

- As you type, notice that the display margin scale adjusts for the varying character widths.
- Since the display only shows one size of character, the text on the display may not line up exactly when you are using tabs.

Your display shows the following:

This is an example	PS pitch
Type iiii	1234
Type wwww	1234

4. Move the cursor to the first character at each tab position.
  - Notice how the display margin scale adjusts to show you that each tab is at position 48.
5. Close Storage.
6. Play back the job.
  - When you play back the job, the text will align correctly.

## Helpful Hints

- As you type PS pitch text, the display margin scale continuously adjusts to show the correct column position for the character. Look at the cursor on the display margin scale to see in which column the character will print.
- When storing tables and columns of text with PS pitch, you may want to use Forms Storage Mode to immediately see how the text will look on paper. See Chapter 6 for more information.


---

## Required Page Ends

Multipage jobs can be stored in a single storage area. As you store a job, use the Required Page End function to end a page at a specific point. Use Required Page End where the information that follows must be on a new page; for example, at the end of short pages such as title pages, table of contents pages, and cover letters.

### Typing a Required Page End

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

- The Required Page End symbol is displayed:  

- A horizontal line appears to show that you are at the bottom of the page.
- The cursor moves to the the first line of the next 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.

Do the following:

1. Use the *Paper Release Lever* to remove paper.
2. Use the **Paper Bail Load Lever** to insert paper when the message appears.
3. Once paper is inserted, press **End** to continue playback.

---

## Storage Full

The storage capacity of your typewriter is approximately 60,000 bytes (approximately 20 to 25 pages). Each job you store subtracts from the available capacity.

**Note:** You may purchase a Diskette Option if you want virtually unlimited storage. Contact your IBM Authorized Dealer for details.

## Storage Full Warning

When storage is almost full:

- The typewriter beeps three times.
- The **Store** indicator blinks and then is displayed as shown below.

**STORE**

You have space for about 100 more characters.

1. Stop typing.
2. Decide whether to:
  - Delete a storage area you no longer need (see "Deleting a Job Using the Directory Function" on page 5-6); or
  - If you have a Diskette Option installed, store the job to diskette. See "Copying Jobs" on page A-18.

## Storage Full Message

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



---

# Menu Functions

## Introduction

The **Menu** key gives you access to several special functions on your typewriter, including:

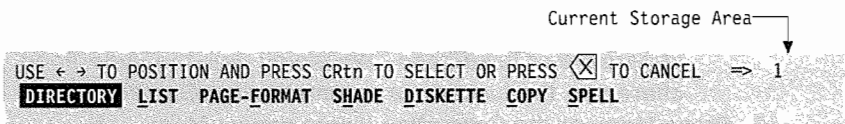
- A directory of all the jobs in storage. Jobs can be updated, played back, or deleted through the directory.
- A printed list of stored jobs.
- A Page Layout function to adjust the number of lines per page and for multipage jobs.
- A Tab Adjust function to allow you to change tab positions so columns and tables can be moved to new positions on the page.
- The ability to select between two display background shades.
- The ability to view and delete words from the Spell Check II supplemental dictionary. (Explained in Chapter 8.)
- If you have the Diskette Option, you can open diskette storage areas and copy jobs from one storage area to another using the **Menu** key.

---

## Identifying the Current Storage Area

While typing in storage, you may want to know which storage area is open.

1. Press **Menu**.
  - The menu is displayed. The number to the right of the message is the storage area that you are presently using.



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

---

## Using the Menu Functions

The **Menu** key can be used with the STORE or FORMS indicators on or off.

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

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS  TO CANCEL  
**DIRECTORY** LIST PAGE-FORMAT SHADE SPELL

- **DIRECTORY** displays the jobs stored in typewriter storage areas, the margins of each job, the amount of storage space for each job, and the remaining storage space. For more information, see “Directory” on page 5-3.
  - **LIST** prints a copy of the directory. For more information, see “List” on page 5-8.
  - **PAGE-FORMAT** changes the number of lines on each page of your job and adjusts the tab settings. For more information, see “Page-Layout” on page 5-10, “Auto Page End” on page 5-14, and “Tab/Column Adjust” on page 5-16.
  - **SHADE** changes the display from white characters on a black background to black characters on a white background. For more information, see “Shade” on page 5-22.
  - **SPELL** allows you to view and delete words from the Spell Check II supplemental dictionary. For more information, see “Viewing and Deleting Words from the Supplemental Dictionary” on page 8-4.
  - **DISKETTE** and **COPY** are shown if the Diskette Option is installed and will be explained in Appendix A.
2. Select a Menu function in one of two ways:
    - Move the cursor to the desired function, then press **CRtn** to select the function; 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. The text may be typed in uppercase or lowercase. When you type the underlined character, the function is automatically selected.
  3. Press **Menu** or the **Correction** key to cancel **Menu**.



## Directory

The Directory displays a list of the jobs in the typewriter storage areas, the margins the jobs were stored with, the amount of storage used by each job, and the amount of storage space remaining. The directory can also be used to store, play back, or delete jobs.

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

```
USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS [X] TO CANCEL
DIRECTORY LIST PAGE-FORMAT SHADE SPELL
```

2. Select **DIRECTORY**. Information similar to the following is displayed:

USE ↑ ↓ TO POSITION AND PRESS Store, Play, Del, OR Code+Store (Forms) 56916

1	This is storage area 1.	012 : :072	114
9	< This is a job title >	024 : :065	221
22	Dear Mr. Rogers, Welcome to the neighborhood! Can	012 : :072	362
74	Schedule of Events: Turn off ARTN#44 July 4 7:00 AM	010 : :060	539
90	The sales forecast for the year 1988 shows market i	012 : :072	1234

0-----+-----24-----+-----36-----+-----48-----+-----60-----+----->2-----

ARTN SPELL t 1

APAGE

- The number in the upper right corner of the display is the amount of storage space remaining in typewriter memory; for example, 56916.
- The number at the left on each of the lines is the storage area where the job is stored.
- If you typed a job title for your job using stop codes as described on page 4-36, it is displayed next. Otherwise, the first 50 characters including tabs, spaces, carrier returns, symbols, and letters are displayed.

- The two numbers separated by colons (012::072) indicate the left margin and right margin stored with the job.

Margin settings are automatically recalculated to match the pitch of the printwheel in the typewriter. Therefore, if you stored the job using a 12-pitch printwheel, but currently have a 10-pitch printwheel installed, the settings displayed are for the 10-pitch printwheel.

- The number at the right on each of the lines indicates the amount of storage space used for that job.
  - If = > is shown along the left side of the display, it indicates the storage area that is currently open.
  - The STORAGE EMPTY message is displayed if no jobs are stored.
  - Job numbers are displayed only for storage areas that contain text.
  - Up to twenty-one lines of the directory may be displayed at any time.
3. Use ↑ and ↓ to continue moving through the directory.
  4. Press **Home** to return to the beginning of the directory.
  5. Press **End** to move to the last job in the directory.
  6. Press **Menu** or the **Correction** key to cancel Directory.

### Selecting a Job Using the Directory Function

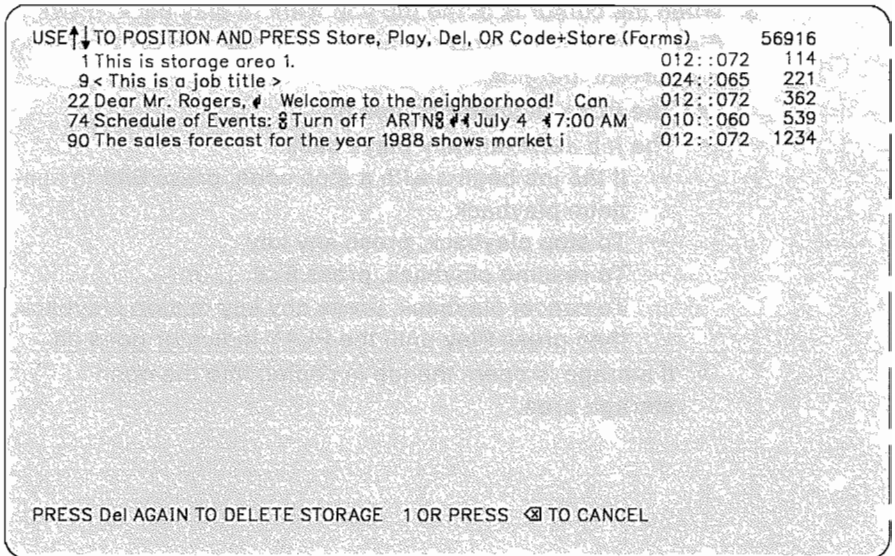
1. Follow the instructions on page 5-3 to view the directory.
2. Use ↑ and ↓ to move the cursor to the job you want to revise.
3. Press **Store** to select the job.
  - To select a job in Forms/Special Storage Mode, hold down **Code** while you press **Store (Forms)**.

## Playing Back a Job Using the Directory Function

1. Make sure your typewriter is set up: insert paper, install the correct printwheel.
2. View the directory and move to the job you want to play back.
3. When the cursor is at the job you want to play back, press **Play** to play to the stored margins or **Code** + **Play** to play to the current margins.
  - The PLAY indicator comes on.
  - The job automatically plays back.
    - If the job begins with a stop code, press **End** to continue playback.
    - To stop playback, press any key.
    - To resume playback, press **End**, ↓, or →.
    - To cancel playback, press any key to stop playback, then press **Play** until the PLAY indicator goes off.
  - If storage is open, the job is copied into the open storage area.

## Deleting a Job Using the Directory Function

1. View the directory and select the job you want to delete.
2. When the cursor is at the job you want to delete, press **Del**. Information similar to the following is displayed:



A message is displayed at the bottom of the Directory to confirm the deletion.

3. Press **Del** to delete the job.
  - Each time a job is deleted, the new directory is displayed.
  - If all jobs are deleted, the STORAGE EMPTY message is displayed.
  - To cancel delete, press the **Correction** key.
4. Repeat step 2 and 3 for each job you wish to delete.
5. Press **Menu** or the **Correction** key to cancel Directory.

## Locating Job Numbers in the Directory

You can use Find with Directory to move to a specific job. You will learn more about the Find function in Chapter 7.

1. Press **Menu**.
2. Select **DIRECTORY**. Information similar to the following is displayed:

USE↑↓ TO POSITION AND PRESS Store, Play, Del, OR Code+Store (Forms) 56916

1	This is storage area 1.	012::072	114
9	< This is a job title >	024::065	221
22	Dear Mr. Rogers, Welcome to the neighborhood! Can	012::072	362
74	Schedule of Events: Turn off ARTN# July 4 7:00 AM	010::060	539
90	The sales forecast for the year 1988 shows market i	012::072	1234

0-----<-----24-----36-----48-----60----->-----72-----t 1

ARTN SPELL APAGE

3. Hold down **Code** while you press **Insert (Find)** and then type **the number** of the job you want to locate.
  - If the selected job does not exist, the next highest number is highlighted.

---

## List

Use the List function 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. Make sure paper is in the typewriter.
2. Set the left margin approximately one inch from the left edge of the paper to ensure that the list does not print off the right edge of the page.
3. Press **Menu**. The following information is displayed:

```
USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS  TO CANCEL
DIRECTORY LIST PAGE-FORMAT SHADE SPELL
```

4. Select LIST to print the directory. If the listed directory 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  TO CANCEL
```
  - b. Use the *Paper Release Lever* to remove paper.
  - c. Use the **Paper Bail Load Lever** to insert a new sheet of paper.
  - d. Press **End** to resume printing the list.
    - Press the **Correction** key to cancel List.

The printed list should be similar to the example below:

```
56916
 1 This is storage area 1.                012 072 114
 9 (This is a job title)                 024 065 221
22 Dear Mr. Rogers, Welcome to the neighborhood! Can 012 072 362
74 Schedule of Events:      July 4      7:00AM 010 060 539
90 The sales forecast for the year 1988 shows market i 012 072 1234
```

The margin settings are automatically recalculated to match the pitch of the printwheel in the typewriter. Therefore, if you list the job with a 10-pitch printwheel installed one time and with a 12-pitch printwheel installed another time, the settings will be different.

## Helpful Hints

- The directory prints with the current line spacing.
- Auto Page End is inactive during printing of the directory. For more information, see "Auto Page End" on page 5-14. If the Directory is long, you may have to stop playback and change the paper.
- To help identify each stored document, you may want to put a title at the beginning of each job. See "Job Titles" on page 4-34.
- When LIST is selected, the correction memory is cleared.
- The directory prints using the current keyboard. Jobs typed using other keyboards are printed incorrectly. For more information, see "Alternate Keyboards" on page 9-1.

---

## Page-Format

Page-Format consists of three functions:

- **Page-Layout** allows you to describe the length of the paper you are using and the desired bottom margin.
- **Auto Page End** automatically separates pages of a multi-page job. The display shows a line to indicate the beginning of a new page when Auto Page End is on in Full Screen Storage. The typewriter stops printing at the end of each page.
- **Tab Adjust** allows you to change tab positions so columns and tables can be moved to new positions on the page.

To select Page-Format:

1. Press **Menu**.
2. Select PAGE-FORMAT.

---

## Page-Layout

Use Page-Layout to describe the paper you are using in the typewriter. The only time you need to change the Page-Layout settings is when you change the length of the paper you are using or change the bottom margin.

### Setting Page Length and Bottom Margin

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

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS  TO CANCEL  
**DIRECTORY** LIST PAGE-FORMAT SHADE SPELL

2. 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 TAB ADJUST: ON OFF

3. Select PAGE-LAYOUT. The following information is displayed:

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

- If the current page length and bottom margin are correct, press **CRtn** to select the numbers.
  - If the current settings are not correct, see “Calculating Page Length and Bottom Margin” on page 5-11 which explains how to calculate page length and bottom margin settings.
4. Type the desired number of single-spaced 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 the cursor to the bottom margin setting.

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

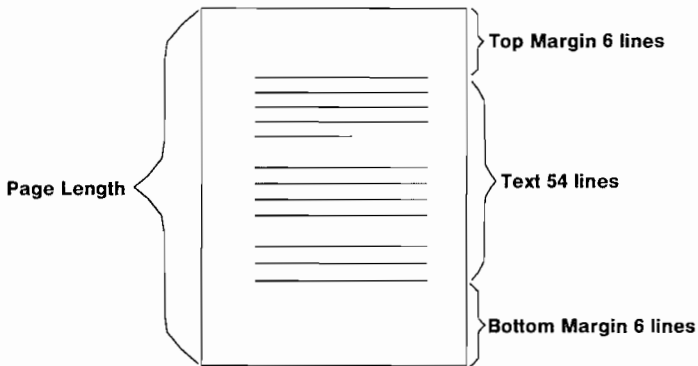
6. Type the desired number of lines for the bottom margin.
  - If you type an incorrect number, press the **Correction** key to erase it, then retype the number.
  - If the bottom margin setting is greater than the page length setting, the typewriter beeps.
7. Press **CRtn** to select the numbers you have typed.



## Calculating Page Length and Bottom Margin

If you have not previously set Page-Layout, the typewriter assumes you are using 11-inch paper with a one-inch bottom margin. Therefore, if you are using a 10-, 12-, or PS-pitch printwheel, the page length will be 66 lines and the bottom margin will be 6 lines. This will allow you to print 54 lines of text per page if you are using a one-inch top margin. For a 15-pitch printwheel, the settings will be 88 and 8. The typewriter automatically recalculates the Page-Layout settings when you change pitch.

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



*Page length* is the number of single-spaced lines on a page. Page length is determined by multiplying the length of the paper in inches by the number of lines per inch.

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

The *top margin* is set by the Paper Bail Load Lever. The top margin is set at approximately one inch unless you have programmed the Paper Bail Load Lever differently. See "Changing the Top Margin" on page 2-14. 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

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

### Common Page-Layout Settings for Bottom Margin

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

---

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

- Set the *top margin* (**Code + Paper Bail Load Lever**) where you want the first line of text to print; for example, two lines from the top of the page.
- Set the *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

The Auto Page End function automatically separates pages of a multipage job. The display shows where text on each page begins and ends. When Auto Page End is on, the typewriter uses the Page-Layout settings to determine page length and bottom margin.

When using Auto Page End, check the Page-Layout settings. See page 5-10 if you need help.

### Turning Auto Page End On

1. Press **Menu**.
2. Select PAGE-FORMAT.
3. Press → one time to move the cursor to ON.

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS  TO CANCEL  
PAGE-LAYOUT AUTO PAGE END: **ON** OFF TAB ADJUST: **ON** OFF

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

### Playing Back a Job with Auto Page End On

When Auto Page End stops playback at the bottom of the page the typewriter beeps three times and the following message is displayed:

END OF PAGE REACHED

1. Use the *Paper Release Lever* to remove paper. Do not use ↓ to remove paper or playback will continue.
2. Use the **Paper Bail Load Lever** to insert a new sheet of paper.
3. Press **End** to continue playback.

## Turning Auto Page End Off

1. Press **Menu**.
2. Select PAGE-FORMAT.
3. Press → two times to move the cursor to OFF.

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS  TO CANCEL  
PAGE-LAYOUT AUTO PAGE END: ON **OFF** TAB ADJUST: ON OFF

4. Press **CRtn**.
  - The APAGE indicator goes off and page-end lines are no longer displayed.
  - 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.

## Helpful Hints

- Use the **Paper Bail Load Lever** to insert paper.
- 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**) any time you want a new page started at a particular place in the job.
- If a job does not play back properly, check your Page-Layout settings. Also check the top margin set by the Paper Bail Load Lever.
- If the top and bottom margin settings overlap, the typewriter assumes a top margin of zero during playback.
- The line space setting does not affect the page length setting.
- You can change pitch without resetting Page-Layout.
- Auto Page End is temporarily turned off if a mark occurs which moves past the end of the page. For more information, see "Using the Mark Function for Preprinted Forms" on page 6-6.
- Auto Page End can be turned ON while in Full Screen Storage. You must do a Manual Reflow so the text can adjust to the new page layout setting. For more information, see "Manual Reflow" on page 4-30.

## Tab/Column Adjust

Use the Tab Adjust function to play back or reflow a job with tab settings different from the ones used when the job was stored. These tabs can be changed temporarily for playback or permanently in storage. This function is very useful when moving columns of numbers or text.

### Stored Job

	Tab	Tab
Lexington, KY	40505	606
Owensboro, KY	42301	502
Rockville, MD	20854	301

### Stored Job After Tab Adjust

	Tab	Tab
Lexington, KY	40505	606
Owensboro, KY	42301	502
Rockville, MD	20854	301

The tabs in a job are stored *relative to* the left margin. In the example above, if the job is played back with a different left margin then the tabs will play back the same distance from the left margin, so the job will have the same appearance as when it was stored. The tabs in the job have not changed; only the left margin changed.

With the Tab Adjust turned ON, the typewriter moves the tabs in the job from the stored settings to the current settings.

## Turning Tab Adjust On

1. Press **Menu**.
2. Select PAGE-FORMAT.
3. Press → three times to move the cursor to ON (Tab Adjust).

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS  TO CANCEL  
PAGE-LAYOUT AUTO PAGE END: ON OFF TAB ADJUST: **ON** OFF

4. Press **CRtn** to turn Tab Adjust on and the T ADJ indicator is displayed.

## Turning Tab Adjust Off

1. Press **Menu**.
2. Select PAGE-FORMAT.
3. Press → four times to move the cursor to OFF (Tab Adjust).

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS  TO CANCEL  
PAGE-LAYOUT AUTO PAGE END: ON OFF TAB ADJUST: ON **OFF**

4. Press **CRtn**.
  - Tab Adjust is turned off and the T ADJ indicator goes off.

## Using Tab Adjust in Full Screen Storage

Follow these steps to permanently change the tabs in your job.

1. Hold down **Store** while you press **the number** of the job to be stored with new tabs.
2. Turn Tab Adjust (T ADJ) on.
3. Change margins and tabs as desired using **TSet**, **TClr**, **LMar**, or **RMar**.
  - If you do not want to adjust tabs to the end of the job, place a stop code at the point where you want to stop adjusting tabs.
4. Move the cursor to the beginning of the text you want adjusted to the new tabs.
  - If you want to adjust tabs for the entire job, press **Home**.
5. Hold down **Code** while you press **Frmat (Rflow)**.
  - All text, from the next tab setting after the cursor to the end of the job or stop code, is adjusted to the new tab settings.
6. Turn Tab Adjust OFF.
  - The T ADJ indicator is displayed until Tab Adjust is turned off.
7. When you finish revising, press **Store**.
  - The job is stored with the new tab settings.

## Playing Back a Job Stored with Tab Adjust

1. Turn Tab Adjust OFF.
2. Hold down **Play** while you press **the number** of the job to be played back with the new tabs.

## Using Tab Adjust with Playback

Follow these steps to change tabs in playback. New tabs will not be stored with the job.

1. Make sure the STORE, FORMS, and PLAY indicators are off.
2. Turn Tab Adjust ON.
3. Change margins and tabs as desired using **TSet**, **TClr**, **LMar**, **RMar** or another format area.
4. Move the carrier to the point where you want playback to begin.
5. Hold down both **Code** and **Play** while you press **the number** of the job to be played back with new tabs.
  - The PLAY indicator comes on and the job plays back with new tabs and margins.
  - When playback is complete, the PLAY indicator goes off.
  - The T ADJ indicator is displayed until Tab Adjust is turned off.
6. Turn Tab Adjust OFF.

## Helpful Hints

- Be sure to turn Tab Adjust off after using it.
- Only tabs that are actually reflowed or played back with the STORE or FORMS indicator on will be adjusted in storage.
- Be sure you have entered a stop code before and after tables to remind you to turn ARTN off and on around columns.
- Only text that was typed after a tab will move. If spaces and backspaces were used to separate columns, the text will not be moved by Tab Adjust.
- If columns do not adjust as expected, use ↑, ↓, ←, or → to locate tab and decimal tab symbols. If the symbols do not appear at the beginning of the column, you must insert a tab or decimal tab, as needed. If extra tabs or decimal tabs appear, delete the symbols that are not needed.



## Practice

1. Insert a 12-pitch printwheel, then set the following margins and tabs: **LMar 12 RMar 65 Tabs 40, 50.**
2. Store the text below in an unused storage area.

Lexington, KY	40505	606
Owensboro, KY	42301	502
Rockville, MD	20854	301

3. To permanently change the tabs:
  - a. Turn Tab Adjust ON.
  - b. Clear all tabs.
  - c. Set new tabs to 30 and 40.
  - d. Press **Home**.
  - e. Hold down **Code** while you press **Format (Rflow)**.


The job now looks like this:

Lexington, KY	40505	606
Owensboro, KY	42301	502
Rockville, MD	20854	301

- f. Turn Tab Adjust OFF.
  - g. Press **Store** to close storage.
4. Play back the job.

## Inserting Tabs

Use Tab Adjust in Full Screen Storage to insert a tab in front of previously typed text.

1. Open the storage area used in the previous practice.
2. Clear all tabs and set new tabs 30, 42, and 54.
3. Turn Tab Adjust on.
4. Press **Insert** to display the INSERT indicator.
5. Use ↑, ↓, ←, or → to move the cursor to the space following the *Lexington, KY*.
  - Do not use the **CRtn** key to move the cursor. If you accidentally do, press  to erase the carrier return symbol.
6. Press **Tab** and type *USA*.
  - The cursor moves to the first tab stop (30).
  - The numbers *40505* move to the second tab stop (42).
7. Move the cursor to the space after *Owensboro, KY*, then press tab and type *USA*.
8. Move the cursor to the space after *Rockville, MD*, then press tab and type *USA*.
9. Turn off INSERT and T ADJ.
10. Close storage and play back the job.

Lexington, KY	USA	40505	606
Owensboro, KY	USA	42301	502
Rockville, MD	USA	20854	301

## Adding a Column

The Tab Adjust function also allows you to add a column to a table which was typed using tabs and decimal tabs. The method used is similar to "Inserting Tabs" on page 5-20.

1. Insert a 12-pitch printwheel, then set the following tabs and margins: **LMar** 12; **RMar** 84; **Tab** 24, 27, 36, 39.
2. Open a storage area and type the following columns, using tabs and decimal tabs where indicated:

	Tab   Simmins		Tab   Webster	
	Tab 	DecT 	Tab 	DecT 
January	70.45		63.89	
December	58.54		62.68	

3. Clear all tabs and set new **Tab**s 24, 27, 37, 41, 51, and 54.
  - Make sure you move the tab and the decimal tab for each column the same number of spaces. The original columns, including the headings, will now move over and align correctly.
4. Turn on T ADJ and INSERT.
5. Use ↓, ↑, ←, or → to move the cursor to the space following *Simmins*.
6. Press **Tab** and type *Thompson*.
7. Use ↓ and ← to move the cursor to the space following 70.45.
8. Press **Tab**, then hold down **Code** while you press **D (DecT)**.
9. Type 85.67.
10. Use ↓ and ← to move the cursor to the space following 58.54.
11. Press **Tab**, then hold down **Code** while you press **D (DecT)**.
12. Type 55.89.
13. Turn off T ADJ and INSERT.
14. Close storage and play back the job.

	Simmins	Thompson	Webster
January	70.45	85.67	63.89
December	58.54	55.89	62.68

## Deleting a Column

When deleting columns, you must be sure to delete the tab symbols with the text.

1. Turn on Tab Adjust.
2. Move the cursor to the first *character* (not the tab symbol) in the column to be deleted.
3. Hold down both **Del** and **Code** while you press → (**Word**).
  - The text and the *next* tab symbol is deleted.
  - The columns that follow adjust to the left.
4. Repeat steps 2 and 3 for each entry in the column to be deleted.
5. Turn off Tab Adjust.

---

## Shade

Use the Shade function to choose between two background shades:

- White characters on a black background; or
  - Black characters on a white background.
1. Press **Menu**.
  2. Select SHADE. The display changes to reverse lettering.
  3. You may continue to alternate between the two shade choices by pressing **H**.
  4. After selecting the shade you prefer, press **Menu**. This current shade will remain on the display until you change it.

---

## Diskette and Copy

If you have the Diskette Option installed, DISKETTE and COPY are shown on the display when you press **Menu**.

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS  TO CANCEL  
**DIR**ECTORY LIST PAGE-FORMAT SHADE DISKETTE COPY SPELL

DISKETTE and COPY are explained later in "Appendix A. Diskette Option".

---

## Spell

Select Spell to view and delete words from your supplemental dictionary. It is suggested that you read the Spelling Chapter later. Creating a supplemental dictionary is explained in "Supplemental Dictionary" on page 8-3. For details on how to delete words from your personal dictionary, see "Viewing and Deleting Words from the Supplemental Dictionary" on page 8-4.



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## Forms/Special Storage Mode

Forms/Special Storage Mode is a special form of storage which combines all the functions of Typewriter Mode with the ability to store as in Full Screen Storage. While you type a job, the text is stored as it prints on your paper. As in Typewriter Mode, the display shows only the current line that you are typing. Use Forms Storage Mode to store these types of special jobs:

- Tables which require the use of PS pitch
- Tables which require several pitch changes
- Jobs that require the use of **Paper Up (Micro)**, **Paper Down (Micro)**, and **Backspace (Bksp1)** for precise alignment.
- Preprinted Forms

In Forms Storage Mode, you have access to the same storage areas (1 through 99) and format areas (1 through 9) as in Full Screen Storage. You can use all of the Typewriter Mode functions as discussed in Chapters 2 and 3, most of the Full Screen Storage Mode functions as discussed in Chapter 4, all of the Menu functions as discussed in Chapter 5, and most of the Advanced Storage functions as discussed in Chapter 7. This chapter will concentrate on those features that are unique to Forms Storage Mode.





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## Playing Back a Job in Forms Storage Mode

A job stored in Forms Storage can be played back with or without storage open. See page 4-6 for information on playing back a job.

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## Revising a Job in Forms Storage Mode


Jobs stored in Forms Storage are revised with storage open. Revisions made in Forms Storage are also printed on paper.

When revising in Forms Storage, print the job to the point to be revised. Make corrections or add to the text at that point, and then resume playback. Changes are automatically stored as they print on the paper.



## Beginning Playback to Revise a Job in Forms Storage Mode

1. Install the same pitch printwheel used when you stored the job.
2. Hold down *both* **Code** and **Store (Forms)** while you press **the number** of the job to be revised.
  - The ARTN, FORMS, and PLAY indicators are displayed.
  - The display margin scale shows the margins and tabs the job was stored with.
3. Press **End** to begin playback.
4. Press *any key* to stop playback before the revision point.
5. Revise the job using either of the following methods:

## Adding Text to the Job

1. Press →, **Code** + →, or ↓ to continue playback up to where you want to add text. See “Continuing Playback” on page 4-6, if you need help.
  - If you play back past the point where you want to add text, use  to erase to the correction point.
2. Type the text you want to add with a space after it.
  - On the display, text that follows added text moves to the right.
  - In Delay Print, the new text does not print immediately. The carrier moves forward and the new text is displayed. The new text will print in the correct position when you continue playback.
3. Type any text you might have erased in step 1.
4. Press **End** to continue playback.

## Erasing Text from the Job

1. Stop playback near the correction point. Hold down **Code** while you press → to continue playing back one word at a time until the text you want to erase has printed.
2. Use either of the following keys to erase text from the paper and the display.
  - Press  to erase one character at a time.
  - Hold down **Code** while you press  to erase one word at a time, including punctuation and spaces.
  - The corrections will be stored with the job.
3. Press **End** to continue playing back the job.

## Helpful Hints

- Full Screen Storage and Forms Storage use the same storage areas.
- All jobs are shown in the Directory, whether they were stored in Full Screen Storage or Forms Storage.
- Any text stored in Full Screen Storage can be revised in Forms Storage.
- Any text stored in Forms Storage can be displayed and revised in Full Screen Storage. However, it is not recommended that jobs containing marks be revised in Full Screen Storage.

## Practice

1. Insert a 10-pitch printwheel, then set the following margins and tab: **LMar 10 RMar 50 Tab 40**.
2. Hold down **Code** and **Store (Forms)** while you type **the number** of an unused storage area.
3. Turn off ARTN and type the following example.
  - As you enter the job, notice how the columns line up on the paper.
  - Change the printwheel at the end of each line where a pitch change is required for the following line.
  - The last three lines should all be typed using a PS printwheel.

	<b>Tab</b>
This is an example	 10 pitch
This is an example	12 pitch
This is an example	15 pitch
This is an example	PS pitch
Type iiii	1234
Type www	1234 <b>CRtn</b>

4. Close storage.
5. Press **Menu** and select Directory.
  - Notice that the jobs entered in Full Screen Storage and Forms Storage are both displayed.
6. Using Full Screen Storage, view the job you just stored. (Move the cursor to the job, then press **Store**).
  - The columns are not aligned on the screen.
  - The Forms Storage job can now be revised in Full Screen Storage.

---

## Using the Mark Function for Preprinted Forms

The Mark function helps you to quickly and easily fill in frequently used preprinted forms. If you have used a typewriter to fill in a preprinted form (like a purchase order, insurance form, or tax form), you may remember how you had to align the typewriter to print in each box. You repeated the process of aligning the typewriter to print in each box each time you needed to type a new form. If the same form had to be used many times, this typing job could become time-consuming.

By following a two-step process, you can easily and automatically fill in preprinted forms. First, using the Mark function with Forms Storage open and an extra form, you store the form layout. *You are not actually filling in the form now, you are just placing marks to tell the typewriter where to move and entering text for later use.* Second, you play back the job using a blank form and fill in the form.

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 for you to type variable information. *Variable information is text that changes for each form.*
- Each *MC* shows where to type a mark and constant information. *Constant information* is text that is the same for each form. 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	M.I. M	Last Name M	Contribution Amt. M
Address M			Date of Contribution M
City M	State M	Zip M	ID Number M
Telephone No. M			

Distribute to: Accounting  
Publishing  
Direct Mail

MC Bob Jones  
Route Manager

MC Daily News  
Newspaper

## Storing a Form Layout

When storing the form layout, you *mark* the form at each point where something needs to be typed. A Mark (**Code** + **Shift** + **M**) identifies a point on the form to which the carrier will move. After entering the mark, type either:

- Text that always prints at the mark point (Constant Text); or
- A stop code comment.

To store the form layout:

1. Insert a blank form using the **Paper Bail Load Lever**.
2. *Do not use the Paper Up, Paper Down, or CRtn* keys to move the form before completing step 5.
3. Set the *left margin* at the *left edge* of the paper.
4. Hold down both **Code** and **Store (Forms)** while you type the **number** of the storage area you want to open.
  - The FORMS indicator is displayed.
5. Turn the ARTN indicator off.
6. Type the form layout as follows:
  - a. Move the carrier to the first point on the form where variable or constant information needs to print. Use any of the following keys:
    - Use only **Paper Up, Paper Down, Code + Paper Up,** and **Code + Paper Down.**
    - **CRtn.**
    - **Spacebar, Tab, Backspace,** or **Code + Backspace.**
  - b. Type a mark by doing one of the following:
    - At each point where *variable information* is to appear, hold down both **Code** and **Shift** while you press **M**.
      - A mark symbol and a stop code symbol is displayed at the mark point.



The symbols do not print on your paper.

- You may want to add a stop code comment at the mark point to remind you what to type when you play back the form. For example, if the label for the box appears below the typing line, you may want to add this type of comment: “enter employee name.” To add a stop code comment:
      - 1) Hold down **Code** while you press **9**.
      - 2) Type the stop code comment when the message appears.
      - 3) Hold down **Code** while you press **9** again.
  - At each point where *constant information* is to appear, hold down both **Code** and **Shift** while you press **M**. Then press the **Correction** key and type the constant information.
    - When you press the **Correction** key, the stop code symbol is erased.
    - During playback, the typewriter will print the constant information without stopping.
7. Repeat step 6 for each mark point until you finish the form layout. If you are storing a multipage form layout, see “Page Ends for Multipage Forms” on page 6-11.
  8. Press **Store** to close storage when you finish typing the form layout.

## Helpful Hints

- Mark symbols do not print on your paper.
- Marks cannot be used when the DEC T, CENTER, or RFLUSH indicators are displayed.
- If you forget to type a mark while typing a form layout:
  - Erase back to where the mark should be and type it; or
  - Use paper movement keys to move to the point where the mark should be and enter it. The marks will play back in the order they were entered; or
  - Complete the form, then revise it. See “Revising the Form Layout” for more information.
- If you type a mark by mistake, press the **Correction** key until the mark symbol is no longer displayed.


## Playing Back the Form Layout

**Note:** Playback a form using the *same* pitch printwheel you used to store the form layout.

1. Insert the preprinted form using *only* the **Paper Bail Load Lever**.
2. Align the carrier to the *left edge* of the paper and set the *left margin*.
3. Be sure ARTN is off.
4. Hold down **Code** and **Play** while you press **the number** of the storage area where you stored the layout.
  - The typewriter begins to play back the layout.
5. When the typewriter stops, press **End** to continue playback or type in the text and press **End**.
  - You can also use ↓ or → to continue playback.
  - If you make a mistake, use the **Correction** key to correct it.
  - Because you are playing back the form with storage *closed*, the text is *not* being stored with the form's layout.
  - You can automatically correct only the text that appears with the current mark. Press → to play back one character at a time. Press the **Correction** key to erase any unwanted text.
6. Repeat step 5 until you finish the form.



## Revising the Form Layout

1. Insert the form using *only* the **Paper Bail Load Lever**.
2. Hold down **Code** and **Store (Forms)** while you press **the number** of the storage area where you stored the layout.
3. Use → to play past the mark and stop code symbol after which you want to add a mark or delete an existing mark.
4. Do one of the following:
  - Add a mark.
    - a. Press **Spacebar** to move the cursor to the new mark point.
    - b. Enter a mark using step 6 on page 6-8.
  - Delete a mark.
    - a. If constant text or a stop code symbol appears with the mark, press → to play the stop code and all constant text.
    - b. Press  to erase the text and the stop code symbol. (*Do not* erase the mark symbol.)
5. Repeat steps 3 and 4 for each mark you want to add or delete.
6. When you finish, press **Store** to close the storage area.

## Page Ends for Multipage Forms

When storing multipage form layouts, you need to create a page end mark at the end of each page. Use steps 1-6 under “Storing a Form Layout” on page 6-8, then:

1. Hold down **Code** while you press **E (PgEnd)** at the end of the first page.
2. Use the *Paper Release Lever* to remove the form.
3. Use *only* the **Paper Bail Load Lever** to load the next page of the form.
4. Continue storing your form layout and add a page end at the end of each page.
5. After completing all pages of your form layout, press **Store** to close storage.



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# Advanced Storage

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## Using Justification in Storage

Jobs can be entered and played back with the JSTIFY indicator on to produce an even right margin. You can justify a job while entering it into storage, when revising the job, or when playing it back if it was stored using JSTIFY or ARTN.

### Storing a Job Using Justify

1. Open a storage area.
2. Type until you get to the part of the job you want justified. You can justify part of a job or all of it.
3. Enter a Stop Code with a comment reminding you to turn Justify on when you play back the job.
4. Hold down **Code** while you press **Screen Up (Jstify)** to turn Justify on.
  - The JSTIFY indicator is turned on.
5. Type the justified text.
  - In Full Screen Storage the text is not justified on the display, but the correct line endings and page endings are shown.
6. When you finish typing the justified text, enter a Stop Code and comment to remind you to turn Justify off during play-back.
7. Turn off JSTIFY.
8. Press Store when the job is complete.

## Playing Back a Job Using Justify

Jobs that were stored using ARTN or JSTIFY may be played back justified. If you want to justify an entire job during playback, turn on the JSTIFY indicator before beginning playback. If you entered a stop code, you will be prompted to turn on justify during playback.

1. Hold down **Play** while you type **the number** of the job you want to play back.
  - Playback begins immediately.
  - If playback stops at a stop code, follow the stop code comment instructions and then press **End** to continue.
2. Turn off JSTIFY when Justification is completed.

## Revising a Job Using Justify in Full Screen Storage

1. Open the storage area where the job is stored.
2. Make your revisions.
3. Move the cursor to the point where you want Justification to begin.
4. Turn on the JSTIFY indicator.
5. Hold down **Code** while you press **Frmat (R!low)**.
  - The job is reflowed and justified from the cursor position to the end of the job.
  - In Full Screen Storage the text is not justified on the display, but the correct line endings and page endings are shown.
6. Turn off JSTIFY.
7. Press **Store** when you have finished revising the job.

## Helpful Hints

- Only text stored using ARTN or JSTIFY can be justified during playback or reflow.
- Automatic Carrier Return and Justification should be turned off for portions of jobs containing tables and columns.
- Changing pitch while storing justified text may cause the left and right margins to be slightly uneven.
- If you make corrections to justified text in Full Screen Storage, you must reflow the job with JSTIFY on to correct the line endings.
- If you notice an error in text that has already played back, continue typing until you reach the end of the paragraph, then go back and make corrections.
  - The corrected line may not be justified.
  - Press **Reloc** to return to the original typing position.
- The DL PRT indicator must be on to print justified text in Typewriter or Forms Store Modes. If you turn DL PRT off, the JSTIFY indicator is displayed **JSTIFY** and text is not justified.
- Text typed using Indent is justified to the temporary margins.

---

## Using Hyphenation in Storage

You can hyphenate words while storing, playing back, or revising, so your job will be displayed and printed with a more even right margin. When the HYPHEN indicator is on, the typewriter beeps as you type or play near the right margin. This beep lets you know that the word may print past the right margin. You now decide to do one of the following:

- Hyphenate the word.
- Keep the word on the current line.

### Syllable Hyphens

If you are storing a job and want to hyphenate a long word at the right margin, insert a *syllable hyphen* as in this example:

Type - (Hyphen)  
          |  
          | Press CRtn  
          |

Our department has considered your applica-  
tion for review.

A syllable hyphen must be entered *at or to the right* of the right margin zone symbol (◆). (Look at the display margin scale to see the right margin zone symbol). Remember, you must press **CRtn** after typing the syllable hyphen.

If the job is played back later with different margins and Automatic Carrier Return on, the hyphen will be automatically dropped if it is not needed.

## Practice

1. Insert a 12-pitch printwheel. Set **LMar 12, RMar 55**.
2. Open an empty storage area.
3. Turn on HYPHEN.
4. Type the sentence in the previous example until you hear a beep. Continue typing up to the hyphen after *applica*.
5. Type the hyphen (-).
6. Press **CRtn**.
  - Notice the hyphen is now shorter, indicating a syllable hyphen.
7. Type the rest of the example.
8. Turn off HYPHEN.
9. Close storage.
10. Play back the job to see if it matches the example.
11. Set **LMar 12, RMar 44**.
12. Turn ARTN on and use **Code + Play** to play back the job with the different margins. Your copy should resemble the following:

Our department has considered  
your application for review.

- Notice the hyphen has been dropped.

## Helpful Hint

After typing the hyphen, if you continue typing the word and let the carrier return automatically, the hyphen will *not* be dropped if the word occurs in the middle of the line during playback. Your copy will resemble the following:

Our department has considered  
your applica-tion for review.

## Permanent Hyphens

There are two ways to type hyphens to ensure that they will always play back with the text. The hyphenated word can be kept on one line or allowed to automatically separate if the text is played back later using different margins.

### Keeping a Hyphenated Word on One Line

Hold down **Code** while you type a hyphen in words or numbers you always want kept together on one line. This is also known as a required hyphen.

**Code + - (Hyphen)**

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

### Allowing Hyphenated Words to Separate at a Line Ending

Make sure that Automatic Carrier Return is on. Type a hyphenated word *without* pressing **CRtn** and *without* pressing **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.

**Note:** All hyphens typed to the left of the right margin zone symbol will be permanent.



## Practice

1. Insert a 12-pitch printwheel. Set **LMar** 12, **RMar** 62.
2. Open an empty storage area.
3. Type the examples below.

**Code + - (Hyphen)**

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

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

Notice the permanent hyphens do not get shorter on the display.

4. Close storage.
5. Make sure Automatic Carrier Return is on and play back the job to see if it matches the example.
6. Set **LMar** 12, **RMar** 44.
7. Press **CRtn**.
8. Use **Code + Play** to play back the job with different margins. 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.

---

## Playing Back a Job Using Hyphen

All jobs that were stored using Automatic Carrier Return or Justification can be hyphenated during playback so your job prints with a more even right margin.

Hyphenations made during playback are not stored with the job. When you play back the job with the same margins and the HYPHEN indicator on, the words you hyphenated play back hyphenated. If the margins have been changed and a previously hyphenated word prints in the middle of a line, the hyphen is dropped.

To play back a job using hyphen:

1. Turn on the HYPHEN indicator.
2. Hold down **Play** while you type **the number** of the job you want to play back.
  - Playback begins immediately.
  - Playback stops for a hyphenation decision on the first character of the word.
  - HYPHEN blinks and then shows **HYPHEN**.
3. Do one of the following:
  - Hyphenate the word.
    - a. Continue pressing → until you play to the desired hyphenation point. If you play past the hyphenation point, use the **Correction** key to erase back to the hyphenation point.
    - b. Type the hyphen.
    - c. Press **CRtn**.
    - d. Retype any characters that you may have erased in step a.
  - Keep the word on the current line.
  - Move the word to the next line.
    - a. Press **CRtn**
4. Press **End** to continue playback.

## Practice

1. Insert a 12-pitch printwheel. Set the following margins:  
**LMar 12, RMar 55.**
2. Store the text in the sample printout at the bottom of this page without typing the hyphens. Be sure ARTN is on.
3. Close storage.
4. Set **LMar 12, RMar 62.**
5. Turn on HYPHEN.
6. Press **CRtn.**
7. Hold down **Code** and **Play** while you type **the number** of the job just stored.
8. When the typewriter stops for a hyphenation decision, do one of the following: hyphenate the word, keep the word on the same line, or move the word to the next line. Refer to the previous page if you need help.
9. 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.

## Using Reflow to Hyphenate in Full Screen Storage

1. Open the storage area where the job is stored.
2. Turn on the HYPHEN indicator.
3. Hold down **Code** while you press **Format (Rflow)**.
  - The job begins reflowing from the cursor position to the end of the job.
  - Reflow stops for a hyphenation decision: the typewriter beeps; the HYPHEN indicator blinks and then is highlighted; and the INSERT indicator comes on.
4. Do one of the following:
  - Hyphenate the word.
    - a. Press → until you get to the desired hyphenation point.
    - b. Type the hyphen.
    - c. Press **CRtn**.
  - Keep the word on the current line.
    - a. Hold down **Code** while you press **Format (Rflow)** to continue reflowing the job.
5. Hold down **Code** while you press **Format (Rflow)** to continue reflowing the job.
6. Press **Store** when you are finished revising.
  - Hyphenations will be stored with the job.

## Helpful Hints


- Automatic Reflow will not stop for hyphenation decisions.
- If you want a syllable hyphen, the hyphen must be entered at or to the right of the right margin zone symbol. You must press the **CRtn** after typing the hyphen. This hyphen will be automatically dropped if it is not needed. All other hyphens are permanent and they always play back.

---

## Find Function

Use the Find function to move the cursor directly to a specific character, word, or phrase in a stored job. Once the cursor is at the Find point, you can add, delete, or replace text.

### Finding Text

1. Hold down **Store** while you press **the number** of the desired storage area.
2. Hold down **Code** while you press **Insert (Find)**.
  - The following message is displayed:  

3. Type the text you want to find (up to 24 characters) *exactly* as it appears in your stored job.
  - Use spaces, punctuation, or capitalization to find specific text. (When searching for the word *the*, the search will also find the words *then*, *these*, *lathe*, and so on if you did not type a space before and after the word *the*.)
  - Use the **Correction** key to correct any typing errors.
4. Press one of the following keys to find the text:
  - Press ↓ to search from the current position to the *end* of the job.
  - Press ↑ to search from the current position to the *beginning* of the job.

The cursor moves to the nearest occurrence of the text in the direction you indicated.

## Repeating Find

1. Hold down **Code** while you press **Insert (Find)**. The last text you specified is displayed. You can either:
  - Repeat the Find using the same text; or
  - Enter new text to find. The existing text is removed from the display when you type the first character of the new text.
2. Press one of the following keys:
  - Press ↓ to search from the current position to the *end* of the job.
  - Press ↑ to search from the current position to the *beginning* of the job.

The cursor moves to the nearest occurrence of the specified text in the direction you indicated.

## Using Find to Delete Text

You can combine Find with Delete to delete text up to a particular point.

1. Move the cursor to the point where you want to *begin* deleting text.
2. Hold down **Del** and **Code** while you press **Insert (Find)**.
  - The following message is displayed:

TYPE TEXT TO FIND: \_

3. Type the text you want to delete up to.
4. Press ↓. The following message appears:

PRESS **Del** AGAIN TO DELETE OR PRESS  TO CANCEL

- Press **Del** to delete up to the specified text; or
- Press the **Correction** key to cancel delete.

## Helpful Hints

- The TEXT NOT FOUND message is displayed if the text cannot be found. Press any key to remove the message.
  - Make sure you typed the text *exactly* as it appears in the stored job.
  - Make sure you have searched the entire job by pressing **Find** and ↓ or ↑ repeatedly.
- If you specify more than 24 characters to find, the typewriter beeps and ignores each additional character you type.
- If you have overstrikes in your job, you can type either character as part of the Find text.
- Press the **Correction** key twice to exit Find while the TYPE TEXT TO FIND message is displayed.
- Find can be used with the Directory function. See “Locating Job Numbers in the Directory” on page 5-7 for more information.
- If the typewriter stops for any reason (such as hyphenation decision, printwheel change, or stop code) while you are using Find, the Find function is canceled. Find is also canceled if you press any key during a Find operation.
- Find can also be used in Forms Storage. However, it will play up to the Find point.

---

## Change Function

Change is a Full Screen Storage function that is similar to the Find function. You can specify text to search for within a job, as well as new text to replace the text searched for. For example, you can change the word *dog* to *cat*, or change the phrase *dogs chase cats* to *cats chase dogs*. This ability to find and change text in a single operation can save considerable time in making revisions.

### Changing Text

1. Hold down **Store** while you press **the number** of the storage area you want to open.
2. Hold down **Code** while you press **Screen Down (Chng)**.
  - The following message is displayed:

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

3. Type the text you want to find and change (up to 24 characters) *exactly* as it appears in your stored job.
  - Use spaces, punctuation, or capitalization to find specific text. (When searching for the word *the*, the search will also find the words *then*, *these*, *lathe*, and so on if you did not type spaces before and after the word *the*).
  - Use the **Correction** key to correct any typing errors.
4. Press → to move the cursor to the next message:

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

5. Type the new text (up to 24 characters).
  - Type the text *exactly* as it should appear in your job.
  - Use the **Correction** key to correct typing errors.
6. Do one of the following:



- **Change One Occurrence**

- a. Hold down **Code** while you press **Screen Down (Chng)** or ↓ to search for the first occurrence of the text to the end of the job.
  - You can also press ↑ to search from the current cursor 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. Hold down **Code** while you press **Screen Down (Chng)** to change the text or press **Correction** to cancel Change.

- **Change All Occurrences**

You can change every occurrence of specific text with new text.

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

PRESS End AGAIN TO CHANGE ALL OCCURRENCES OR PRESS  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 cursor to the end of the job are changed automatically.


## Repeating Change


Repeat steps 2 through 6 of Changing Text to change the next occurrence of the same text or type new text in one or both fields.

- Each time you hold down **Code** while you press **Screen Down (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.

## Helpful Hints

- After changing text, you *must* use Manual Reflow to adjust all of the text to the current margin setting. See “Manual Reflow” on page 4-30.
- The TEXT NOT FOUND message is displayed if the text cannot be found.
  - Make sure you typed the text *exactly* as it appears in the stored job.
- The TEXT NOT FOUND message is removed from the display when you press any key.
- If you specify more than 24 characters to find and change, the typewriter beeps and ignores each additional character you type.
- You can only use Change in Full Screen Storage.
- If extra spaces are in the old text, one of the following messages is displayed:

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

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

These messages are also displayed if carrier returns are within the text to be changed.

---

## Block Functions

In Full Screen Storage, the Block function allows you to define a section of text that you want to delete, copy, or move to another location within the job. A section or block of text can be as small as a single character or as large as the entire document.

Open a Full Screen Storage area and type the following example; **LMar 12, RMar 54.**

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.**CRtn**

### Define a Block

1. Position the cursor at the beginning of the block you want to define.
  - Using the example above, place the cursor under the letter *a* in the phrase *a period*.
2. Hold down **Code** while you press **K (Block)**. The following message is displayed:

MOVE CURSOR TO END OF BLOCK; THEN PRESS Block OR PRESS  TO CANCEL

- The *a* is highlighted **a**.
3. Use any revision key to highlight the block of text you want to define. See "Using Revision Keys" on page 4-17, if you need help.
    - Press ↓ three times to get to the *e* in *contests*. Notice that the text and carrier return symbols are highlighted as you move the cursor to each line.
    - Use ← to move the cursor to the space after *technologies*. Notice that the text is no longer highlighted as you move the cursor through highlighted text.
  4. Hold down **Code** while you press **K (Block)**. The display now shows the highlighted text and the following Block Menu:

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.

#### BLOCK MENU

USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS  TO CANCEL  
**COPY** **MOVE** **DELETE**

## Block Delete

After defining the block, press **D** or move the cursor to **DELETE** and press **CRtn**.

- The following message is displayed:

PRESS Del TO DELETE OR PRESS  TO CANCEL

In the example above, after you have pressed **Del** to confirm the delete, the paragraph should look like this:

In the late nineteenth century, 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.

If Automatic Carrier Return is on, the paragraph is automatically reflowed when you move the cursor to a different line.

## Block Move

1. Move the cursor to the beginning of the block you want to move.
  - Move the cursor to the *e* in *enthusiastic* in the previous example.
2. Hold down **Code** while you press **K (Block)**.
3. Move the cursor to the end of the block you want moved.
  - Move the cursor to the space after the word *enthusiastic*.
4. Hold down **Code** while you press **K (Block)**. The Block Menu is displayed.
5. Select MOVE. The following message is displayed:  
`MOVE CURSOR TO NEW POSITION; THEN PRESS Block OR PRESS  TO CANCEL`
6. Move the cursor to the point to where you would like the text to be moved.
  - Move the cursor to the first *t* in *typewriter*.
7. Hold down **Code** while you press **K (Block)**.
  - The word *enthusiastic* is deleted from line 2 and moved to line three.

If Automatic Carrier Return is on, when you move the cursor to a different line, the paragraph is automatically reflowed.

## Block Copy

1. Move the cursor to the beginning of the block you want to copy.
  - Move the cursor to a comma in the previous example.
2. Hold down **Code** while you press **K (Block)**.
3. Move the cursor to the end of the block you want to copy.
  - Keep the cursor on the comma.
4. Hold down **Code** while you press **K (Block)**. The Block Menu is displayed.
5. Select COPY. The following message is displayed:

MOVE CURSOR TO NEW POSITION; THEN PRESS Block OR PRESS  TO CANCEL

6. Move the cursor to the point to where you would like the text to be copied.
  - Move the cursor to the space after *struggling*.
7. Hold down **Code** while you press **K (Block)**.
  - The comma is copied.

The document should look similar to this:

In the late nineteenth century, typing contests drew spectators and provided free advertising for a struggling, enthusiastic typewriter industry. In those days, typing speeds of 40 to 45 words per minute were considered astonishing.

## Reflow Block Revisions

After all revisions have been made, you should use Manual Reflow to adjust the text to the current margin settings.

1. Press **Home**.
2. Hold down **Code** while you press **Fmat (Rflow)**.
  - The text is reflowed to the current margin settings.

The finished job should look similar to this:

In the late nineteenth century, typing contests drew spectators and provided free advertising for a struggling, enthusiastic typewriter industry. In those days, typing speeds of 40 to 45 words per minute were considered astonishing.

—

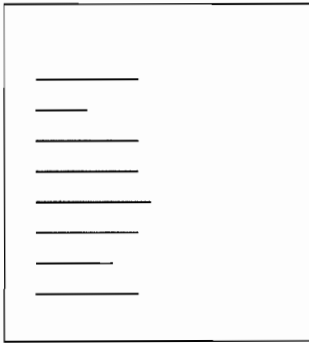
## Helpful Hints

- Do not attempt to move columns using the Block function. See "Tab/Column Adjust" on page 5-16.
- Press the **Correction** key at any time to cancel the Block function.
- All symbols such as stop codes, center, right flush and tab in the defined area are copied, moved, or deleted.
- If you attempt to define a block which begins in the middle of centered, right flush, or decimal tab text, the typewriter will beep and the text will not be marked. You must include the symbols that begin and end each function in the block.
- When moving or copying centered, right flush, or decimal tab text, you must move or copy the *entire* line. Attempting to move or copy part of the line may not place the text as desired.
- The CANNOT INSERT TEXT WITHIN BLOCK; MOVE CURSOR message is displayed when you move the cursor to a new position within the defined block. Move the cursor to a new position.

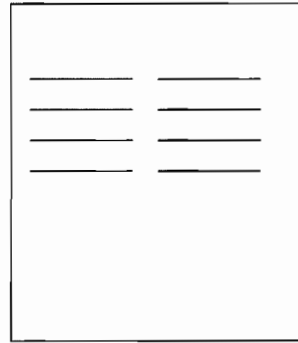
## Typing Columnar Text

You can use the Mark function during playback to print a job in columns (as in a newspaper).

You store the job as one long column, as in the illustration below, then play back the job using the margins you want for the first column. When the END OF PAGE REACHED message is displayed, check the column for errors and make any corrections needed. Move the cursor to the first line of the second column, enter a Mark, and select a format area for the second column. Continue playback and you will see that your typewriter has printed the job in two columns, with justified margins as in a newspaper.



Stored Job



Printed Job

## Storing Columnar Text

To store and play the following example, use a 12-pitch printwheel.

1. Hold down **Fmat** while you press **a number** (7 for example) to select a format area for the first column.
2. Set margins (**LMar** 15 **RMAR** 48 for example).
3. Hold down **Fmat** while you press **a number** (8 for example) to select a format area for the second column.
4. Set margins (**LMar** 54 **RMAR** 87).
5. Select the format area for column 1 (7).
6. Open a storage area.
7. Turn on the JSTIFY indicator.
8. Type the job. (For practice, type the first two paragraphs on this page.)



- For this short practice, adjust the page length so each column will have a similar number of lines.
    - Make sure you have a one-inch top margin.
    - Make sure APAGE is on.
    - Use the Menu function to select PAGE-LAYOUT.
    - Set page length to 23.
    - Set bottom margin to 6.
    - Press **CRtn**.
9. Close storage.

## Playing Back Columnar Text

1. Insert paper using the **Paper Bail Load Lever**.
  - Make sure the JSTIFY indicator is on.
2. Select the format area for the first column (7).
3. Hold down **Code** while you press **Play** and type the number of the stored job.
4. When the END OF PAGE REACHED message is displayed, make any corrections needed in the first column.
5. Using ↑, move the cursor to the first line of the column.
6. Hold down **Code** and **Shift** while you press **M** to enter a Mark.
  - The correction memory is cleared.
  - The next line to be played is shown on the display.
7. Select the format area for the second column (8).
8. Press **End** to continue playback.

The printed job will look similar to this:

You can use the Mark function during playback to print a job in columns (as in a newspaper).

You store the job as one long column, as in the illustration below, then play back the job using the margins you want for the first column. When the END OF PAGE REACHED message is displayed, check the column for

errors and make any corrections needed. Move the cursor to the first line of the second column, enter a Mark, and select a format area for the second column. Continue playback and you will see that your typewriter has printed the job in two columns, with justified margins as in a newspaper.

## Playing Back a Multipage Job With Columnar Text

When the END OF PAGE REACHED message is displayed after the first page is complete:

1. Make any corrections needed for the last column of the first page.
2. Remove the paper using the *Paper Release Lever*.
3. Insert a new sheet of paper using the **Paper Bail Load Lever**.
4. Select the format area for the first column.
5. Press **End** to continue playback.
6. Continue playing back, using the directions in steps 3 through 6 of "Playing Back Columnar Text."

## Helpful Hints

- If you plan to play back only part of your job with columns, place stop codes before and after each column as you store the job. When playback stops, repeat the instructions in "Playing Back Columnar Text."
- Be sure to enter a Mark before printing each column.
- You cannot automatically correct text that played back before the Mark.
- If you must make corrections to a column after entering a Mark, use manual erase. See "Erasing Manually" in Chapter 2.
- You can also type a job in columns while in Typewriter or Forms/Special Storage Mode.
  1. Select the format area for the first column.
  2. Type the first column.
  3. When you get to the end of the column, use ↑ to move to the first line of the column.
  4. Hold down **Code** and **Shift** while you press **M (Mark)**.
  5. Select the format area for the next column.
  6. Continue typing the job.

---

## Document Assembly

Document Assembly is the process of combining jobs to reuse text that has already been stored. Combining jobs is a quick way to insert recurring text such as closing paragraphs, addresses, and phrases into the current job.

Documents can be assembled on the display (using Full Screen Storage Mode) or on paper (using the Typewriter Mode). In Full Screen Storage, the *entire* storage area is copied into the 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 Del TO DELETE STORAGE AREAS
```

If you want to continue document assembly you must delete enough typewriter storage areas to allow the assembly to finish *before* attempting to continue Document Assembly.

If you have a Diskette Option installed, store the job to diskette. See "Copying Jobs" on page A-18.

## Assembling Documents in Full Screen Storage

Use Full Screen Storage to copy an *entire* storage area quickly into an open storage area.

1. Hold down **Store** while you press **the number** of the document storage area to which you want to copy the job.
2. Move the cursor to the point where you want to copy the second job.
3. Hold down **Play** while you press **the number** of the stored job that you want to copy. Release the keys.
  - You can also use the directory function to select the job you want to copy.
    - a. Press **Menu**
    - b. Select DIRECTORY.
    - c. Move the cursor to the job you want to copy.
    - d. Press **Play**.
  - **BUSY** is displayed while the job is being copied.
4. Use Manual Reflow to adjust the text to the current margin settings.

**Note:** You may not want all of the text that you copied into the new storage area. Use Delete or Block Delete to remove words or sentences that are not wanted.

## Assembling Documents in Typewriter Mode

Parts of jobs can be combined using Typewriter Mode. To assemble jobs, play back the first job up to the point where the second job should start. Begin playing the second job. If you stop playback before the end of the second job, the SUSPND indicator is displayed to remind you that the playback of two jobs has been stopped (suspended). At this point, you have four options:

- Type or correct text.
- Resume playback.
- Cancel playback of the second job.
- Begin playing back a third job.

Follow the steps below to assemble documents in Typewriter Mode:

1. Hold down **Play** while you type **the number** of the first job you want to play back.
2. Press *any key* to stop playback of the first job near the point where you want to copy the other job, then press → to play to that point.
3. Hold down **Code** and **Play** while you press **the number** of the second job.
  - The job plays back to the current margin settings.
  - The job plays back from the beginning.
4. 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 → to play to that point.
  - The SUSPND indicator comes on to remind you that the first and second jobs are suspended.

5. Do one of the following:
  - Type or correct text.
  - Press **End** to continue playing back the second job. When the end of the second job is reached, playback stops and the SUSPND indicator is turned off.
  - Press **Play** to cancel playback of the unprinted portion of the second job.
    - The SUSPND indicator is turned off.
  - Hold down **Code** and **Play** while you type **the number** of a third job.
    - The third job plays back from the beginning.
    - The unplayed text of the second job is not included in the document you are assembling.
    - The SUSPND indicator is turned off. Canceling playback of the third job allows you to resume playing back the first job.
6. Press **End** to continue playing back the first job or press **Play** to cancel playback.

## Helpful Hints

- When storing various parts of a job in separate areas, you may want to 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.
- If the STORAGE FULL message appears, use the Directory to delete a job to clear space in typewriter storage for the job being copied.
- 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 into itself.
  - 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, the printed text can be corrected. If you move the carrier away from the point where you stopped playback, the typewriter will “relocate” to that point before continuing playback.

## Practice

1. Insert a 12-pitch printwheel.
2. Set margins: **LMar 12 RMar 55**. 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. Close storage.
4. Set margins: **LMar 18 RMar 46**. 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.

5. Close storage.
6. Set margins: **LMar 10 RMar 60**. 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.

7. Close storage.
8. Complete the exercises on page 7-30.

### Exercise 1: Assembling Documents in Full Screen Storage

1. Set margins: **LMar** 10 **RMar** 60. Open an unused storage area.
2. Hold down **Play** while you type **80**.
3. Move the cursor to the blank line following paragraph 1.
4. Hold down **Play** while you type **81**.
5. Move the cursor to the beginning word of the next paragraph.
6. Hold down **Play** while you type **82**.
7. Reflow the entire job.
8. Close the storage area.

### Exercise 2: Assembling Documents in Typewriter Mode

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



---

## Spell Check II

Spell Check II allows you to check the spelling of words as you type. In addition, you can choose an alternate word for one you have typed. After you type a word, the 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* before it can be checked. The end of a word is recognized, and the word is checked when you type a space or other word ending after the word.

When you type a word that does not match a word in either dictionary, you will hear a beep. This beep, called the spelling beep, has a different tone from the normal typewriter beep. Only words of 23 characters or fewer are checked. The Spelling function beeps to indicate an error when a word with more than 23 characters is typed. Some correctly spelled words may cause a spelling beep because they are not in either dictionary; for example, proper names, abbreviations, and technical terms. You will learn how to create a supplemental dictionary so that these words are not treated as spelling errors.

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

Spell Check II allows you to ask for *assistance* with a word. Both the main and supplemental dictionaries are searched for similarly spelled words. A line of up to six words is 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 functions of Spell Check II. The words labeled above the keys are printed in green to show that these keys are used 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 the Spelling function on or off. The Spelling function setting is saved when you turn the typewriter off as long as the typewriter batteries are good. In other words, if the function is off when you turn the typewriter off, it will be off when you turn the typewriter back on.

To turn the Spelling function on, hold down **Code** while you press **1**. The spelling beep sounds and the SPELL indicator is displayed.

To turn the Spelling function off, hold down **Code** while you press **1**. 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.
- Decide that the word is not misspelled and should be added to the supplemental dictionary. (You will learn about this choice in “Adding a Word to the Supplemental Dictionary” on page 8-3.)
- Ask for assistance with the word. See “Spell Assist” on page 8-6.

---

## Supplemental Dictionary

The supplemental dictionary is a dictionary you create for your own needs. It contains special words that you use often which are not found in the main dictionary; for example, proper names or technical terms. The contents of the supplemental dictionary are saved when the typewriter is turned off as long as you have good batteries installed in the typewriter.

Unlike the main dictionary, the supplemental dictionary can only check a word *exactly* as you typed it. The word is not checked for plurals, prefixes, or suffixes. For example, if you add the word *frog* to the supplemental dictionary, *frogs* will still cause the spelling beep to sound as if it were a misspelled word.

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. All other words move back one place. Therefore, the words that are used most often are in the front of the dictionary. The Spell Check II supplemental dictionary can hold up to 300 words or 3,000 characters, whichever is less. When the 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 your supplemental dictionary. Remember, you must end the word with a space or punctuation (or move over the word ending) before adding it to the supplemental dictionary.

If you are moving through a job, the last word checked can be added to the supplemental dictionary if the spelling beep sounded after the word. The cursor will be to the right of and not on that word.

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

## Deleting Words from the Supplemental Dictionary

If you accidentally add a misspelled word to the supplemental dictionary, you can delete it. You must end the word with a space, punctuation, or other word ending before you can delete it.

Hold down **Code** while you press **3** 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

In Spell Check II, you can view the words in the supplemental dictionary on the display and then delete them. The words are displayed in the order they are stored in the dictionary.

1. Press the **Menu** key. A list of functions is displayed.
2. Select SPELL. The following message is displayed along with the first word(s) in the supplemental dictionary.

### SUPPLEMENTAL DICTIONARY

USE ←↑↔ TO POSITION, Code+3 TO DELETE WORD FROM SUPPLEMENTAL DICTIONARY

3. Use the ←, ↑, ↓, and → keys to view the words in the supplemental dictionary.
  - Five asterisks (\*\*\*\*\*) indicate the end of the list of words in the supplemental dictionary.
4. To delete a word, move the cursor to the word to be deleted. Hold down **Code** while you press **3**. The printwheel spins when the word is deleted.
5. Press the **Correction** key to resume normal typing.

**Note:** You can 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 SPELL is selected.

---

## Checking All Words in a Job

In addition to checking the spelling of words as you type, you can check the spelling of a job that is already stored. This is called batch spell check.

1. Hold down **Store** while you press **the number** where the job is stored.
2. Hold down **Code** and **Frmat (Rflow)** while you press **1** to activate batch spell check.
  - The **BUSY** indicator comes on while the job is being checked.
3. If a misspelled word occurs, the spelling beep sounds. You can do one of the following:
  - Ignore the misspelled word.
  - Correct the misspelled word by using the **Correction** key.
  - Hold down **Code** while you press **2** to add the word to the supplemental dictionary.
  - Ask for assistance with the word. (See “Spell Assist” on page 8-6.)
4. Repeat steps 2 and 3 until the job is checked.

### Helpful Hint

- Batch spell check begins at the current cursor position.

---

## Spell Assist

Spell Check II allows you to ask for *assistance* when you type a word that 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 an alternate spelling (not a synonym) for a word, you can use Spell Assist. When you ask for assistance, both the main and supplemental dictionaries are searched for words similar to the one you typed. If there are similar words in either dictionary, they are displayed.

### Notes:

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

## Using 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  $\pm$ .
  - The **BUSY** indicator is displayed to let you know that the dictionaries are being searched for alternate words. Then *one* of the following is displayed:
    - The **NO WORD AVAILABLE** message indicates that there is not an alternate word available. Press any key to continue.
    - The **WORD SPELLED CORRECTLY** message indicates that the word matches one already in the main or supplemental dictionary. Press any key to continue.
    - A list of alternate words, similar to the one you typed, from both the main and supplemental dictionaries is displayed if the word is spelled incorrectly 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 █

**daily** dials diary dimly delay dairy

- 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. Make a note of the word so you can correct it later. Press any key to continue.

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

---

## Changing the Sound of the Spelling Beep

You may want to 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 level of noise in your work area.

Hold down **Code** while you press and release **4** until the spelling beep has the sound you desire. There are several choices. The tone you selected is saved when you turn the typewriter off as long as the typewriter batteries are good.





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## Alternate Keyboards

Read this chapter *only* if you have a printwheel for special symbols or other languages.

Your typewriter has primary and alternate keyboards. You have already been using your primary keyboard.

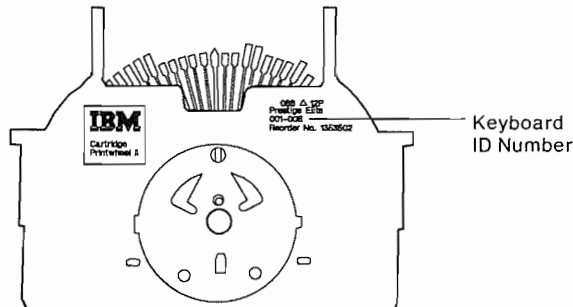
- The primary keyboard allows you to type in your own language. Your typewriter automatically sets your primary keyboard to match the keybuttons on your typewriter.
- Alternate keyboards, when used with the appropriate printwheels, allow you to type in other languages such as French and Spanish, or ASCII (PC) and Latin Supplemental ISO.

### Matching Printwheels and Keyboards

Each printwheel for alternate keyboards contains characters other than those printed on your typewriter keybuttons. You can gain access to characters of an alternate keyboard by typing a keyboard change called a keyboard identification (ID) number.

The keyboard ID is printed on all printwheels. When more than one set of numbers is shown, the first number is the keyboard ID; for example: 001-008. The keyboard ID for the United States is 001 or 1. Look at the example below.

See the list on page 9-3 for alternate keyboard ID numbers.



---

## Using Alternate Keyboards

1. Select a keyboard and keyboard ID number for a country or special application from the charts on pages 9-5 through 9-12.
2. Insert the country or special application printwheel.
  - The ID number on the keyboard list should match the number on the printwheel.
3. Hold down **Code** while you press **L (Lang)** and type the keyboard ID; for example: **Code + L + 251**.
  - The KYBD indicator comes on, followed by the keyboard ID you have chosen: KYBD 251
  - The keyboard is changed to the alternate keyboard.
4. Find the keyboard chart that matches your keyboard ID and use it to locate the character you want to type. The 251 keyboard is on page 9-11.
5. When you finish typing in the alternate keyboard, hold down **Code** while you press **L (Lang)**.
  - The KYBD indicator goes off.
  - The keyboard returns to the primary keyboard.
6. Remove the country or special application printwheel and install the 001 primary printwheel.

**Note:** Hold down **Code** while you press **L** to gain access to your secondary keyboard (Latin Supplemental ISO).

### Helpful Hints

- Many alternate keyboards contain accent marks that are dead keys that print without advancing the carrier to the next space. To type accent marks over alphabetic characters:
  1. Type the accent mark first.
    - The carrier will not advance to the next space.
  2. Type the alphabetic character.
- The alternate keyboard charts show some keybuttons with special characters. See “Special Characters” on page 3-12.
- The alternate keyboard is saved when you turn the typewriter off.
- The typewriter stops automatically for keyboard changes during playback. Refer to “Keyboard Changes” on page 4-35 when playing back a job with a keyboard change.

---

## Keyboard Alphabetic Cross-Reference

Keyboard Name	ID Number	Page
Accounting <sup>1</sup>	117	9-10
ASCII (PC) <sup>2</sup>	103	9-10
Australia	1	9-5
Austria	29	9-5
Belgium	251	9-11
Brazil	61	9-8
Canada (Bilingual)	39	9-6
Canada (English)	1	9-5
Denmark	59	9-7
Finland	53	9-7
France	251	9-11
Germany (PC) <sup>2</sup>	249	9-11
Germany (West)	29	9-5
Greece (Greek)	219	9-11
Greece (Latin)	207	9-10
Hong Kong	119	9-10
Italy	41	9-6
Italy (PC) <sup>2</sup>	247	9-11
Japan (English)	69	9-8
Latin America	25	9-5
Latin Supplemental ISO <sup>1</sup>	99	9-9
Netherlands	43	9-6
New Zealand	1	9-5
Norway	55	9-7
Portugal	63	9-8

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<sup>1</sup> Special application keyboard chart.

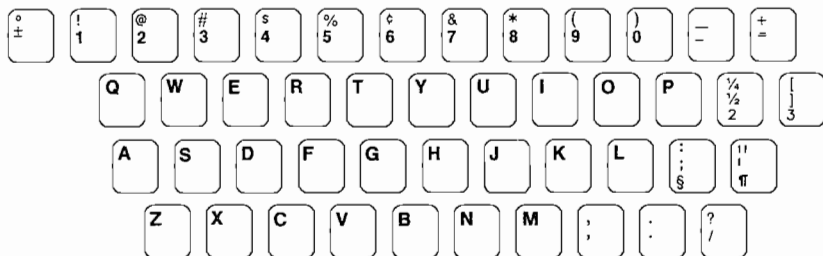
<sup>2</sup> Personal computer keyboards charts.

<b>Keyboard Name</b>	<b>ID Number</b>	<b>Page</b>
South Africa	81	9-9
Spain	70	9-9
Sweden	53	9-7
Switzerland (French)	49	9-6
Switzerland (German)	51	9-7
Turkey	79	9-9
United Kingdom	67	9-8
United Kingdom (PC) <sup>2</sup>	252	9-12
United States	1	9-5

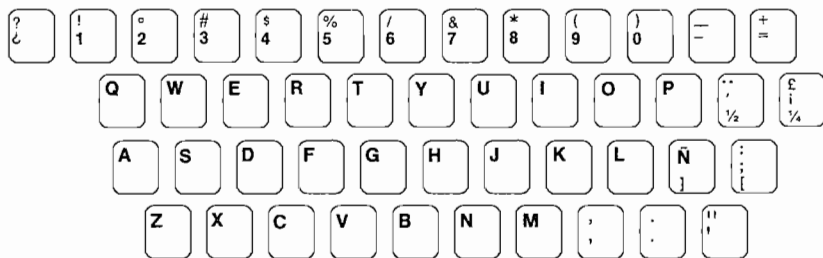
## Keyboard Charts

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

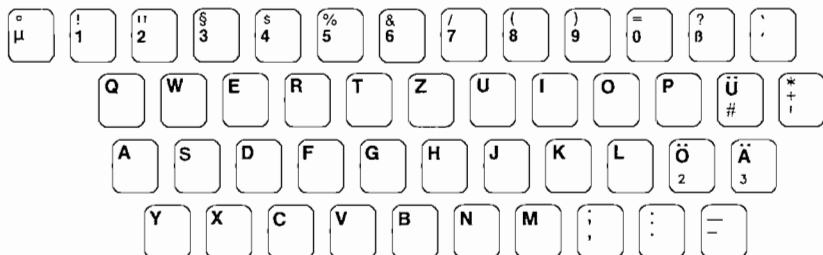
### Keyboard ID 1 — Australia, Canada (English), New Zealand, United States



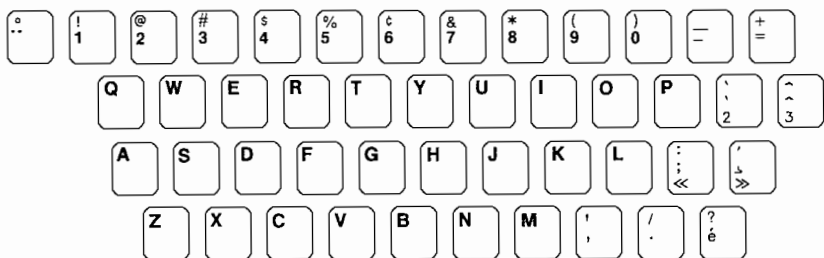
### Keyboard ID 25 — Latin America



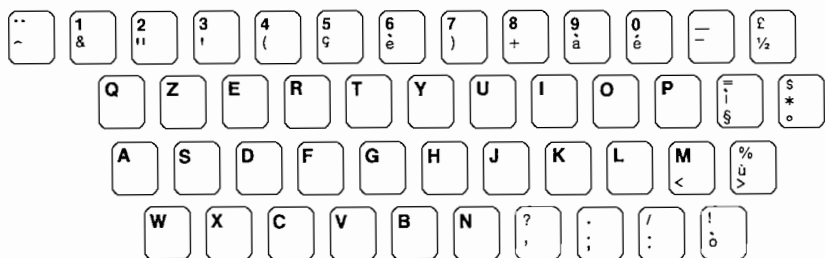
### Keyboard ID 29 — Austria, Germany (West)



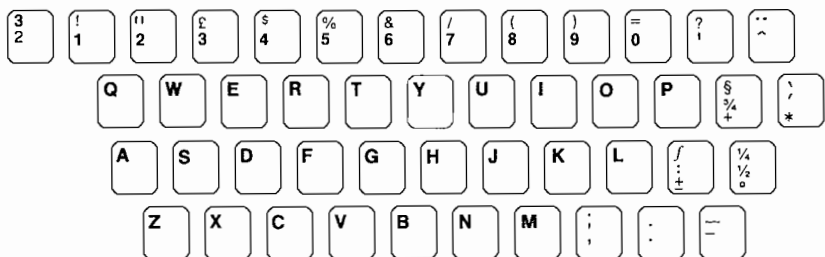
Keyboard ID 39 — Canada (Bilingual)



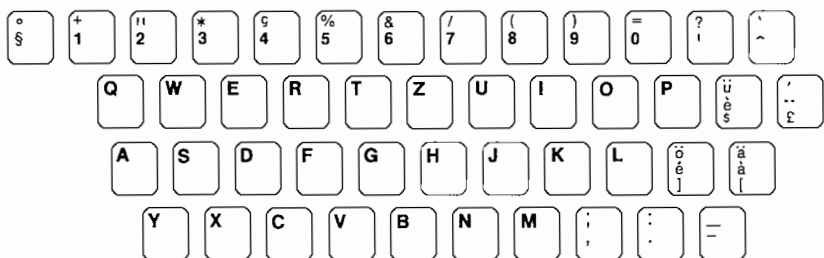
Keyboard ID 41 — Italy



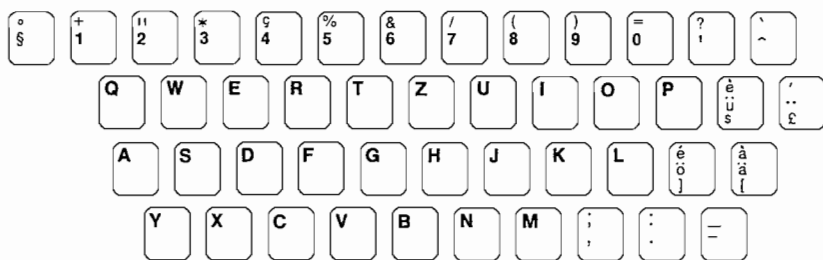
Keyboard ID 43 — Netherlands



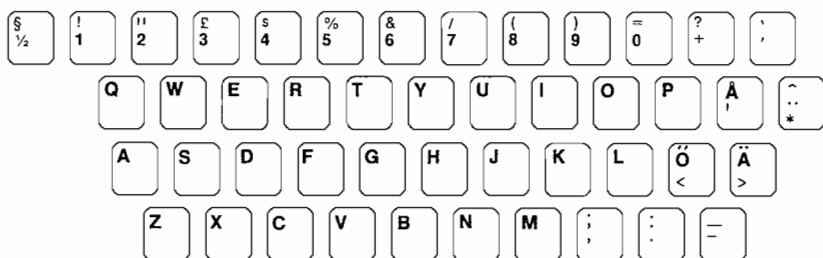
Keyboard ID 49 — Switzerland (French)



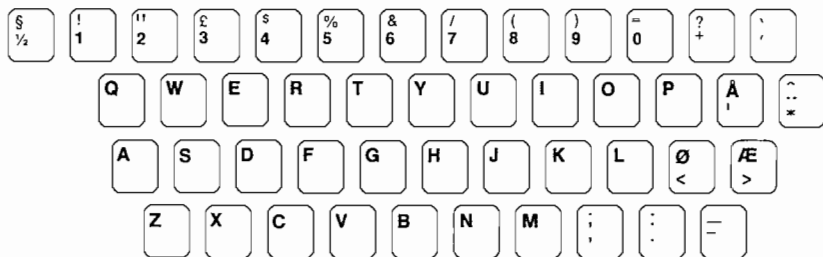
### Keyboard ID 51 — Switzerland (German)



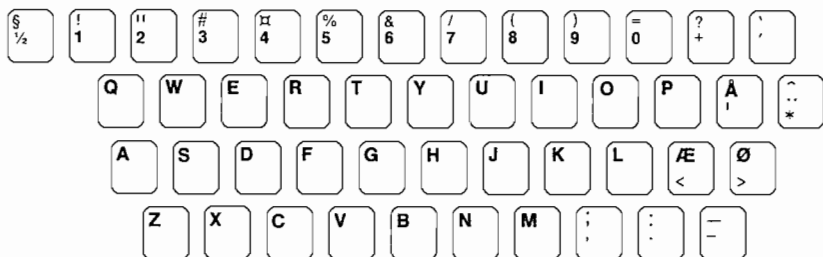
### Keyboard ID 53 —Finland, Sweden



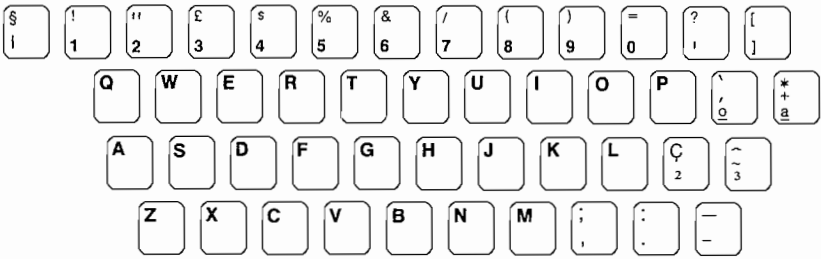
### Keyboard ID 55 — Norway



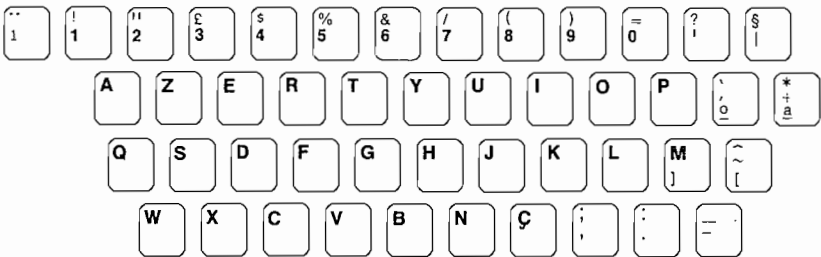
### Keyboard ID 59 — Denmark



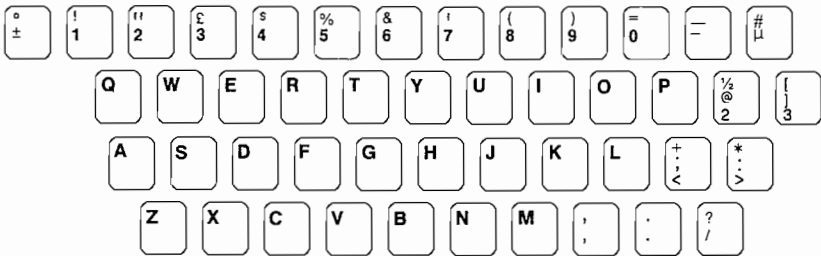
**Keyboard ID 61 — Brazil**



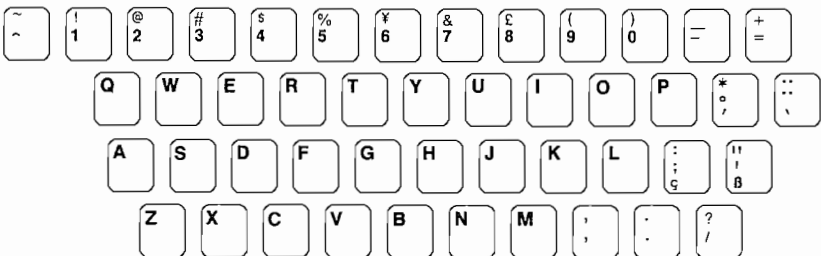
**Keyboard ID 63 — Portugal**



**Keyboard ID 67 — United Kingdom**

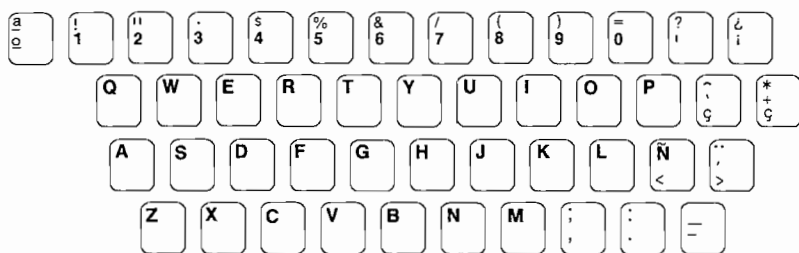


**Keyboard ID 69 — Japan (English)**

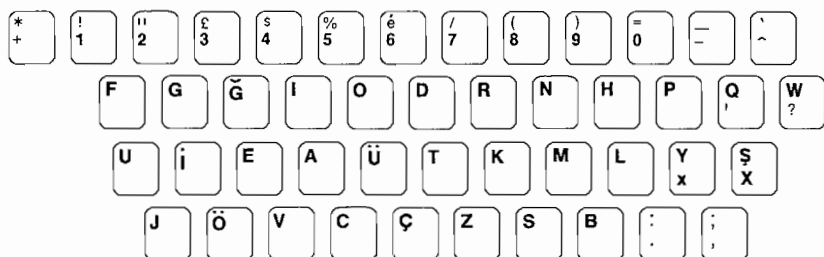




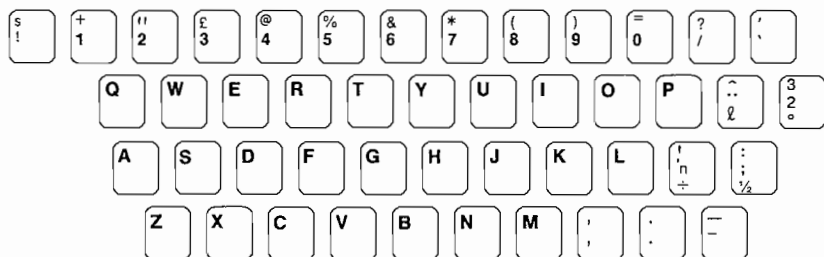
### Keyboard ID 70 — Spain



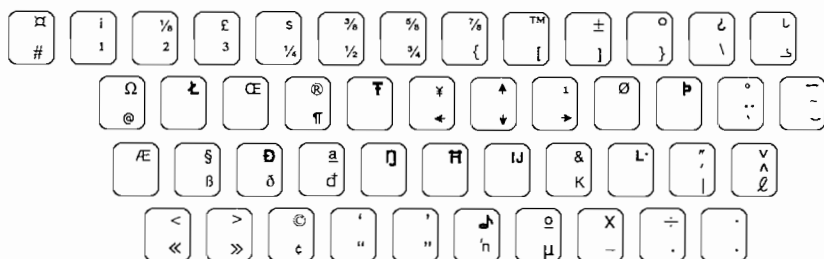
### Keyboard ID 79 — Turkey



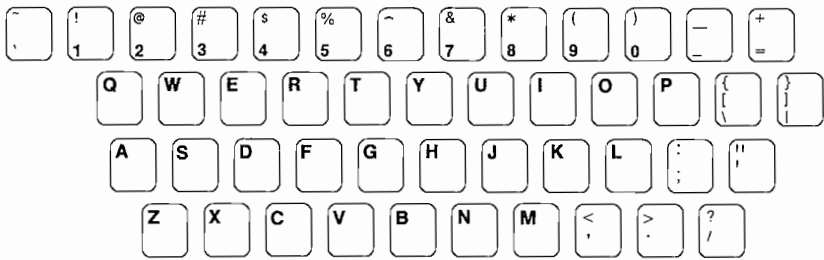
### Keyboard ID 81 — South Africa



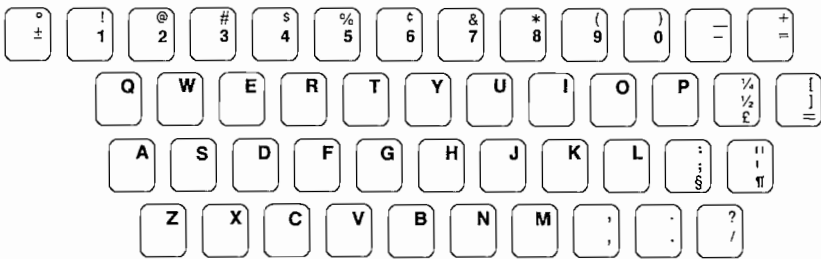
### Keyboard ID 99 — Latin Supplemental ISO



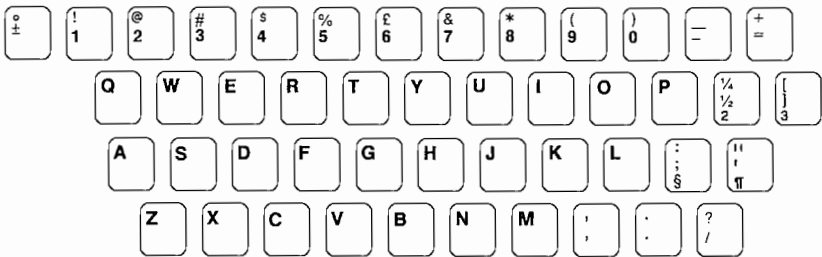
Keyboard ID 103 — ASCII (PC)



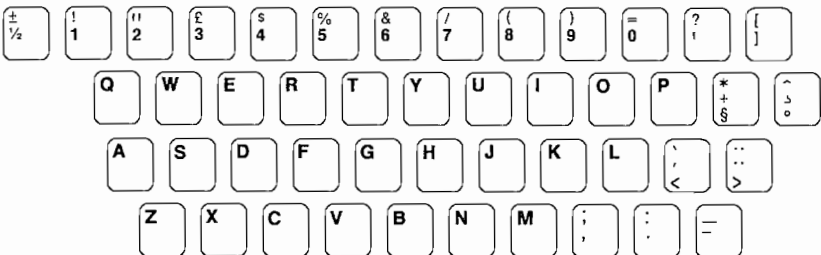
Keyboard ID 117 — Accounting



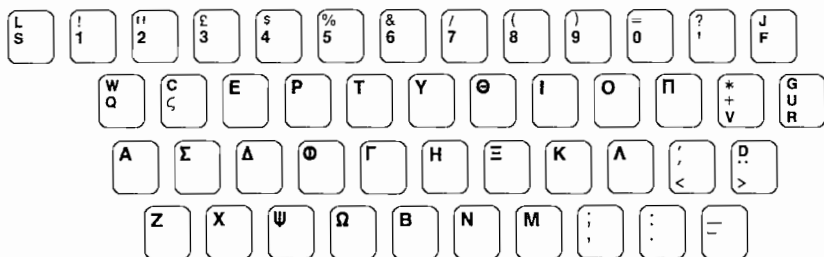
Keyboard ID 119 — Hong Kong



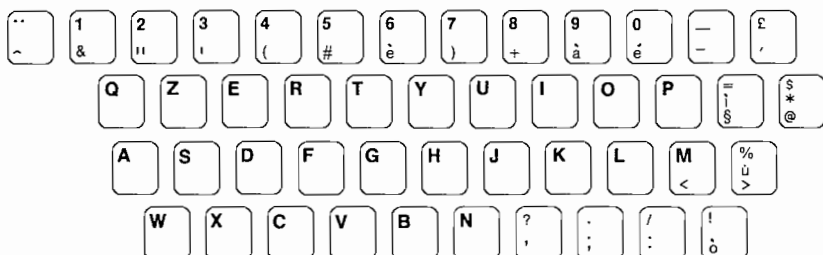
Keyboard ID 207 — Greece (Latin)



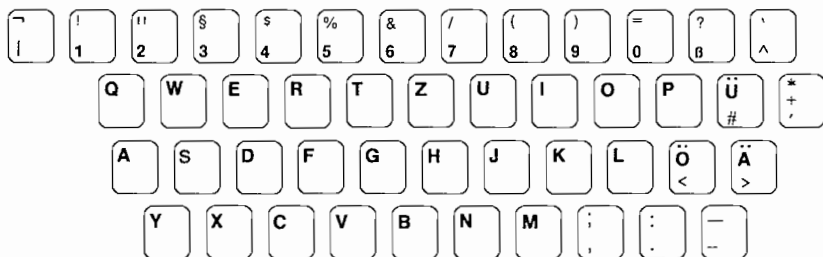
### Keyboard ID 219 — Greece (Greek)



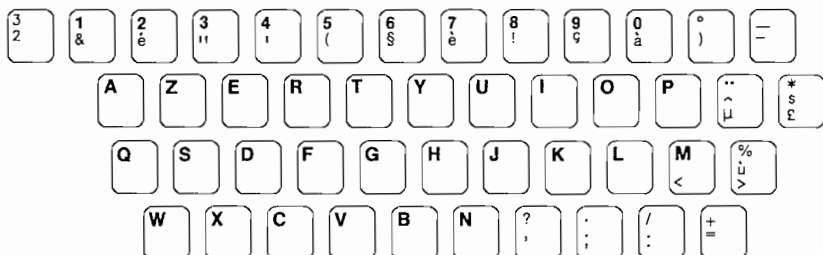
### Keyboard ID 247 — Italy (PC)



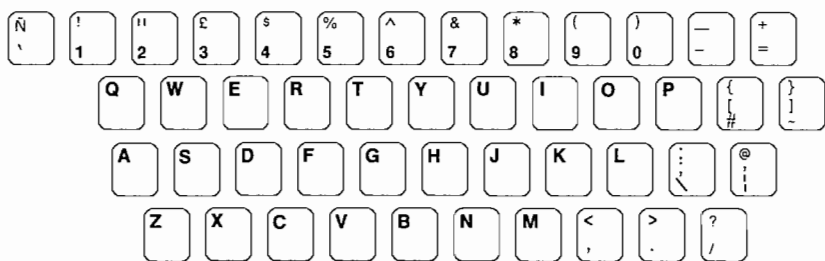
### Keyboard ID 249 — Germany (PC)



### Keyboard ID 251 — Belgium, France



Keyboard ID 252 — United Kingdom (PC)



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## Reference

Use this chapter to learn how to:

- Order IBM supplies for the typewriter.
- Remove and install the ribbon and printwheel in the typewriter.
- Change batteries.
- Take care of your typewriter.

This chapter also contains recommendations for ribbons and printwheels for various applications.

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### Ordering Procedures for IBM Supplies

To order IBM supplies, contact an IBM Authorized Dealer or call IBM Direct at 1-800-IBM-2468. In Canada, call IBM Direct at 1-800-465-1234.

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### Typestyle Samples and Pitches

The IBM Cartridge Printwheel II is designed for use with IBM Wheelwriter® Typewriters and IBM Wheelprinters. The protective cartridge makes installation easy and protects the printwheel from damage. The wide variety of typestyles and sizes allows you to select one for readability, emphasis, or space requirements to make your work look the way you want.

The order number which follows each typestyle name is for the American Standard Character Set. Personal computer, foreign language, and symbol character sets are also available.

▲ = 10 pitch

■ = 15 pitch

△ = 12 pitch

● = proportional spacing

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

## 10 Pitch

▲ Advocate 1353845	IBM's variety of attractive type
▲ Artisan 10 1353520	IBM's variety of attractive type
▲ Bookface Academic 1353844	IBM's variety of attractive type
▲ Courier 10 1353511	IBM's variety of attractive type
▲ Delegate 1353843	IBM's variety of attractive type
▲ Manifold 1353846	IBM'S VARIETY OF ATTRACTIVE TYPE
▲ OCR-A 1353246	IBM's variety of attractive type
▲ OCR-B 1353247	IBM's variety of attractive type
▲ Pica 1353829	IBM's variety of attractive type
▲ Presenter 1353015	IBM's variety of attractive type
▲ Prestige Pica 1353503	IBM's variety of attractive type
▲ P&P #3 OCR 1353054	IBM's variety of attractive type
▲ Rhetoric 1353736	IBM'S VARIETY OF ATTRACTIVE TYPE
▲ 1403 OCR 1353075	IBM'S VARIETY OF ATTRACTIVE TYPE

## 12 Pitch

△ Adjutant 1353047	IBM's variety of attractive tpestyles suit
△ Artisan 12 1353050	IBM's variety of attractive tpestyles suit
△ Auto Elite 1353080	IBM's variety of attractive tpestyles suit
△ Courier 12 1353523	IBM's variety of attractive tpestyles suit
△ Courier 12 Italic 1353890	<i>IBM's variety of attractive tpestyles suit</i>
△ Dual Gothic 1353055	IBM's variety of attractive tpestyles suit

## 12 Pitch (continued)

△ Elite 1353861	IBM's variety of attractive typestyles suit
△ Large Elite 1353017	IBM's variety of attractive typestyles suit
△ Letter Gothic 1353514	IBM's variety of attractive typestyles suit
△ Light Italic 1353764	<i>IBM's variety of attractive typestyles suit</i>
△ Olde World 1353875	IBM's variety of attractive typestyles suit
△ Prestige Elite 1353502	IBM's variety of attractive typestyles suit
△ Scribe 1353982	IBM's variety of attractive typestyles suit
△ Script 1353778	<i>IBM's variety of attractive typestyles suit</i>

## 15 Pitch

■ Courier 15 1353796	IBM's variety of attractive typestyles suit many
■ Gothic 15 1353719	IBM's variety of attractive typestyles suit many
■ Prestige 15 1353655	IBM's variety of attractive typestyles suit many

## Proportional Spacing

● Boldface * 1353504	IBM's variety of attractive typestyles suit
● Boldface Italic * 1353059	<i>IBM's variety of attractive typestyles suit</i>
● Essay * 1353526	IBM's variety of attractive typestyles suit
● Essay Italic * 1353130	<i>IBM's variety of attractive typestyles suit</i>
● Modern * 1353517	IBM's variety of attractive typestyles suit
● Thesis * 1353953	IBM's variety of attractive typestyles suit
● Title * 1353952	IBM's variety of attractive typestyles suit

\* For use on typewriters and printers with proportional spacing.

## Printwheel Application Recommendations

Typestyle	1 – 3 Carbon Copies	3 – 5 Carbon Copies	Stencils	Bold Print
<b>10 Pitch:</b>				
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 Presentor	B	C	B	A
Symbol 10	B	C	C	B
<b>12 Pitch:</b>				
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
Script	B	C	C	A
Symbol 12	C	C	C	B

### Ratings:

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



## Printwheel Application Recommendations (Cont'd)

Typestyle	1 – 3 Carbon Copies	3 – 5 Carbon Copies	Stencils	Bold Print
<b>15 Pitch:</b>				
Courier 15	A	B	B	A
Gothic 15	B	C	B	A
Prestige 15	A	B	A	C
Symbol 15	C	C	C	B
<b>PS Pitch:</b>				
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:

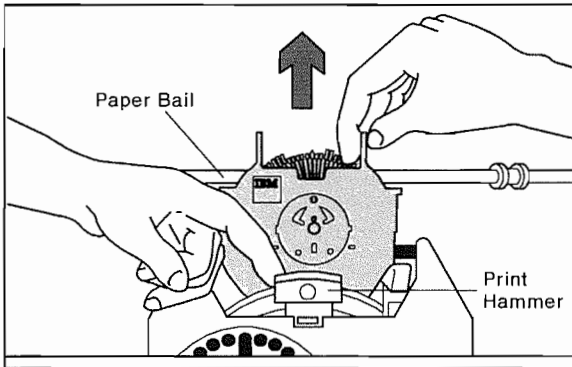
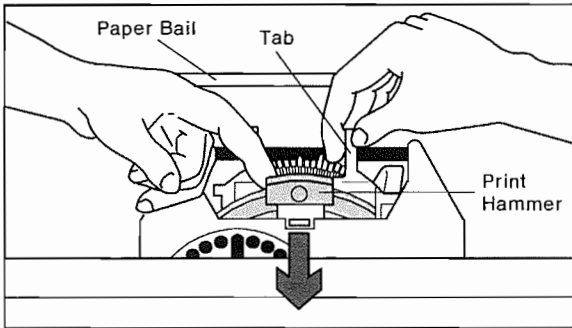
A – Good; B – Fair; C – Marginal (Based on proper selection of ribbon, carbon paper, and stencils)

## Removing the Printwheel

**CAUTION:**

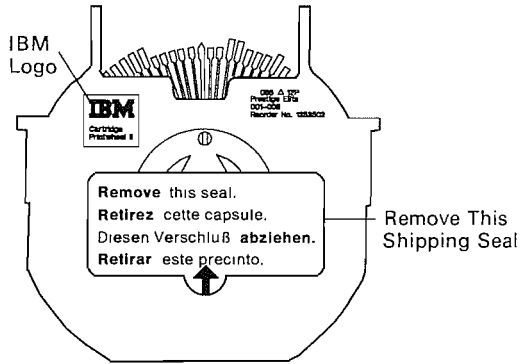
To prevent unwanted carrier motion, make sure the paper bail is against the platen.

1. Pull the print hammer all the way toward you and hold it.
2. While you are holding the print hammer, grasp the printwheel tab.
3. Lift the printwheel straight up and out of the slot. Be careful not to scratch the ribbon.
4. Release the print hammer.



## Installing the Printwheel

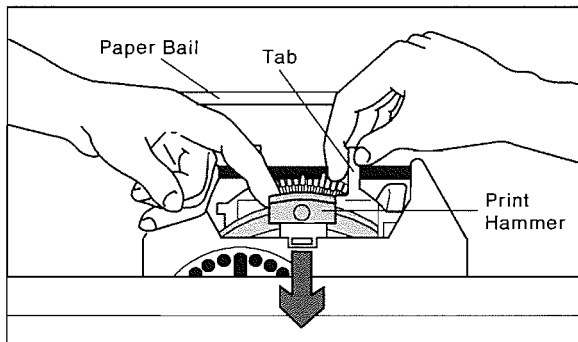
**Important:** Remove the yellow shipping seal from the center of a new printwheel before you install it.



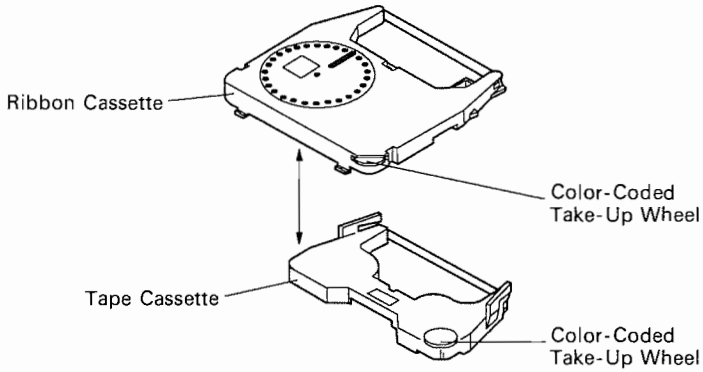
### CAUTION:

To prevent unwanted carrier motion, make sure the paper bail is against the platen.

1. Hold the printwheel so the letters IBM are in the upper left corner.
2. Pull the print hammer all the way toward you and hold it.
3. While you are holding the print hammer, lower the printwheel into the slot. Be careful not to scratch the ribbon.
4. After the printwheel touches the bottom of the slot, release the print hammer.
5. Press the **Code** key:
  - The printwheel spins.



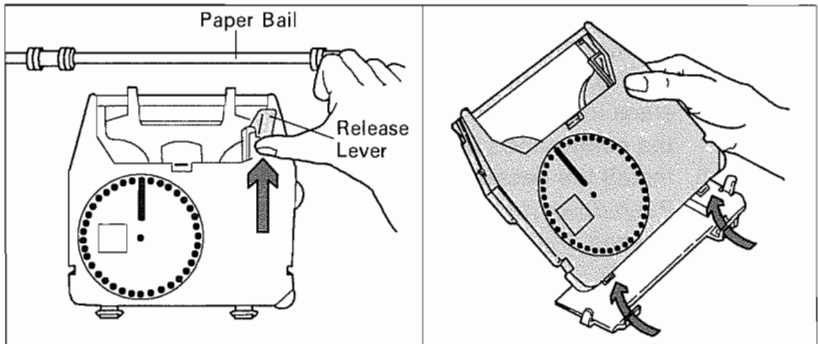
## Ribbon Cassette System



The ribbon and tape cassettes fasten together. Each type of ribbon and tape cassette has a color-coded take-up wheel. In most cases the wheel color helps you match the ribbon to the correction tape. (See “Ribbon Cassette Reorder Numbers” on page 10-12.) The color also tells you which type of ribbon you are using.

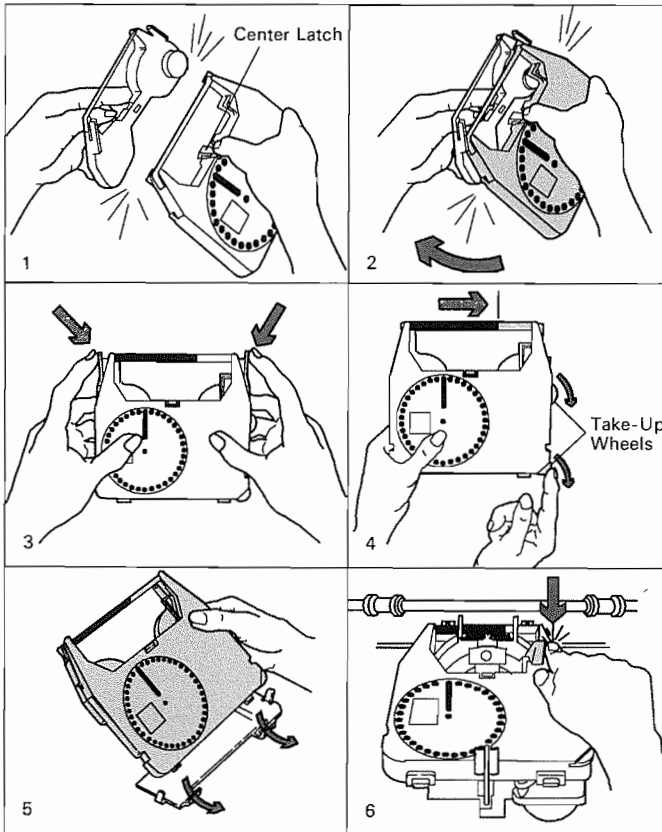
## Removing the Cassettes

1. With a printwheel installed, move to the center of your typewriter.
2. Raise the typewriter cover.
3. Make sure the paper bail is against the platen.
4. Push the release lever until the cassettes release.
5. Lift the cassettes up and out of the typewriter.



## Installing the Cassettes

1. After you remove the cassettes from your typewriter, press on the top of the center latch, slide the cassettes apart, and throw away the used cassette.
2. Slide the ribbon cassette onto the tape cassette.
  - Be sure the center latch latches onto the correction tape.
3. Press the gray tabs (on both ends of the correction tape) to be sure the tape and ribbon cassettes are latched together.
4. *Before* installing the ribbon in the typewriter, tighten any slack in the ribbon by turning the take-up wheels to move the color-coded leaders past the center.
5. Install the cassettes in your typewriter.
6. Push down on the upper right corner of the ribbon cassette to snap it into place.



## Ribbon Application Recommendations

Typing Applications	Multi-purpose Ribbon Cassette	High Yield Correctable Ribbon Cassette	Fabric Ribbon Cassette	Superior Write Correctable Ribbon Cassette
Legal Correspondence	•	•	NR	•
Executive Correspondence	•	•	NR	•
General Correspondence	•	•	•	•
Hard-to-Image Originals <sup>1</sup>	•	NR	•	•
OCR	•	NR	NR	NR
Speech Writing <sup>2</sup>	•	NR	•	•
Negotiable Instruments – (checks, stocks, and so on)	•	NR	•	NR
Erasable Bond <sup>1</sup>	•	NR	NR	•
<b>Quality of Original</b>				
1 - 3 Carbons	Good	Good	Good	Good
3 - 5 Carbons	Fair	Marginal	Fair	Fair

• = Recommended

NR = Not Recommended

<sup>1</sup> The receptivity of the surface of these materials varies widely, and care must be used in the selection of a specific material to be typed on, typestyle, impression control, and ribbon to produce the best result. The IBM Easystrike® Superior Write Correctable Ribbon is recommended for most hard-to-image applications. However, there are some specially coated or treated surfaces where the multipurpose ribbon must be used. When in doubt, prepare samples first.

<sup>2</sup> Best results with Rhetoric and other large typestyle printwheels are obtained by using the IBM Easystrike® Multipurpose Ribbon.

## Ribbon Cassette Reorder Numbers

Use the table below to find the reorder number for the matching cassettes you need.

Ribbon	Wheel Color	Correction Tape	Wheel Color
IBM Easystrike® High Yield Correctable Ribbon Cassette <sup>3</sup> <i>Reorder Number:</i> 1299845 (black only)	Orange	IBM Easystrike® Lift-Off Tape Cassette <i>Reorder Number:</i> 1337765	Orange
IBM Easystrike® Correctable Ribbon Cassette <i>Reorder Numbers:</i> 1337761 (black) 1337762 (brown) 1337763 (blue)	Orange	IBM Easystrike® Lift-Off Tape Cassette <i>Reorder Number:</i> 1337765	Orange
IBM Easystrike® Superior Write Correctable Ribbon Cassette <sup>4</sup> <i>Reorder Number:</i> 1380999 (black only)	Purple	IBM Easystrike® Lift-Off Tape Cassette <i>Reorder Number:</i> 1337765	Orange
IBM Easystrike® Multi-purpose Ribbon Cassette <i>Reorder Number:</i> 1337764 (black only)	Blue	IBM Easystrike® Cover-Up Tape Cassette <i>Reorder Number:</i> 1337766	Blue
IBM Easystrike® Fabric Ribbon Cassette <i>Reorder Number:</i> 1356000 (black only)	Red	None	None

- 
- <sup>3</sup> Long-life correctable film ribbon; recommended for general correspondence.
- <sup>4</sup> Recommended for bold and dark print, especially on difficult-to-image papers.



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## Batteries

**Important:** Do not turn the typewriter off while replacing batteries. If you do, margins and stored jobs will be lost.

Your typewriter uses three size AA alkaline batteries. These batteries are used to save stored jobs, margins, tabs, and other settings when the typewriter is turned off. They must be installed correctly and changed at least once every year (before they run down).

The following settings are saved when you turn the typewriter off if you have properly charged batteries installed:

- Top Margin
- Active Format Area
- Line Space Setting
- Automatic Carrier Return On or Off
- Hyphenation On or Off
- Justification On or Off
- Active Keyboard
- Active Print Mode
- Auto Page End On or Off
- Tab Adjust On or Off
- Keyboard Clicker On or Off
- Page-Layout Settings

When changing the batteries, use only size AA alkaline batteries (for example, Duracell<sup>5</sup> type MN 1500, Eveready<sup>6</sup> type E91, Ray-O-Vac<sup>7</sup> type 815, or equivalent). *Do not use rechargeable batteries.*

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<sup>5</sup> Trademark of Duracell, Inc.

<sup>6</sup> Trademark of the Union Carbide Corp.

<sup>7</sup> Trademark of the Ray-O-Vac Corp.

## Checking the Batteries

If the beeper signals three times and the LO BAT indicator is displayed when you turn the typewriter on, check the following while the *typewriter is on*:

1. Look at the batteries for correct installation. If the batteries are installed correctly, the batteries may be weak or dead.
2. Replace all three weak or dead batteries. Do not turn the typewriter off while replacing the old batteries. If you turn the typewriter off without batteries installed, margins and stored jobs will be lost. (See pages 10-15 and 10-16 for correct replacement procedures.)

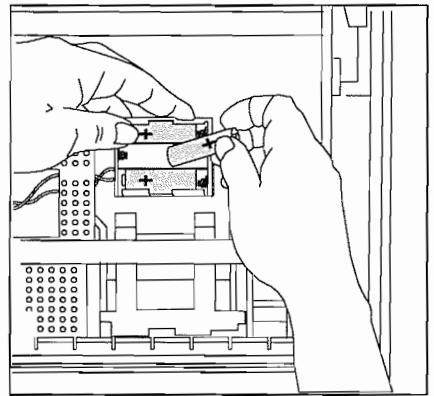
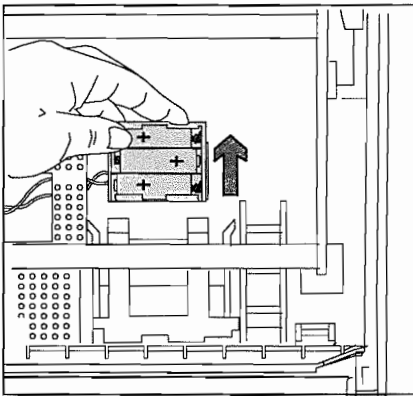
### Notes:

1. If the LO BAT indicator is displayed and you turn the typewriter off, you may lose all your internal storage and stored settings.
2. If STORAGE CLEARED is displayed when you turn on the typewriter, your internal storage and stored settings have been lost.

## Removing Batteries

**Warning:** Do not turn the typewriter off while replacing the old batteries. If you turn the typewriter off without batteries installed, margins and stored jobs will be lost.

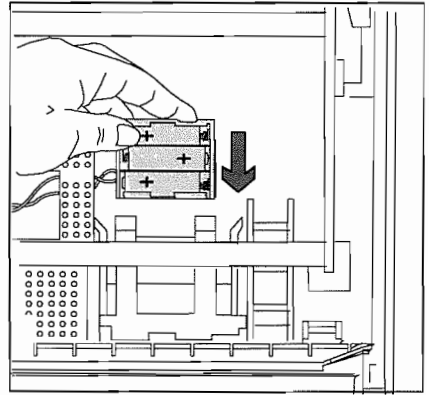
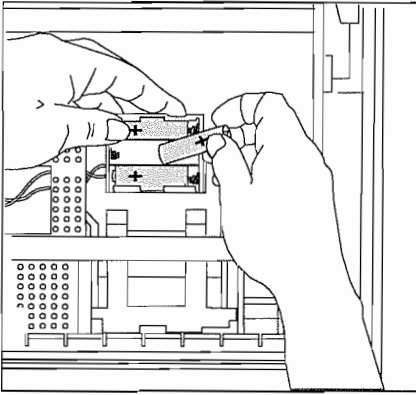
1. Make sure the typewriter is turned on.
2. Raise the typewriter cover.
3. Locate the black plastic battery holder on the right front side of the typewriter.
4. Remove the holder by putting your finger under it and pulling up. Then carefully pull the holder out as far as it can go.
5. Push the batteries against the spring ends of the holder and pop them out.



## Installing Batteries

1. Install three (3) new batteries in the holder by placing the flat ends of the batteries against the springs.
  - Make sure the plus (+) signs on the batteries match the plus signs inside the holder.
2. Place the battery holder back into the typewriter.

**Note:** The batteries will *not* save margins, stored jobs, and other settings unless the plus sign on each battery matches the plus sign inside the holder.



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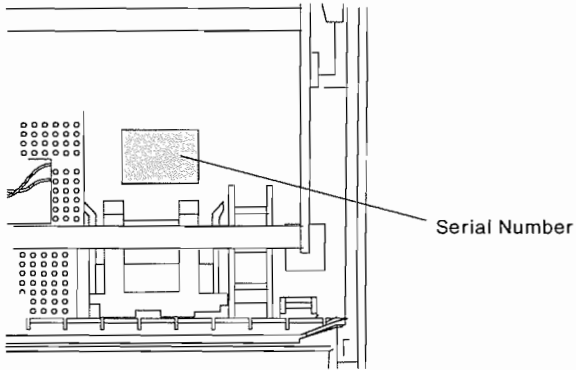
## Care and Maintenance

### 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.*

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## Serial Number



To locate the serial number on your typewriter, look on the right side of the inside bottom cover. The serial number (S/N) is shown on the voltage label behind the batteries.



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# Problem Determination

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## How to Use This Chapter

This chapter describes problems or questions you may have while using your typewriter. If a problem occurs while using the typewriter, refer to this chapter for help. You may be able to correct the problem yourself, saving service costs and avoiding unnecessary downtime.

Before you call for service:

1. Find the problem in the following index.
2. Turn to the page referenced.
3. Complete as many steps as needed to correct the problem. Do not attempt any disassembly beyond the instructions given. For assistance, call your IBM Authorized Dealer.

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# Typewriter Problems

## Display Problems

### Display is Blank

1. Make sure the display is plugged into a good electrical outlet and turned on.
2. Adjust the contrast and brightness on the display.
3. Make sure the display is connected properly to the typewriter.
4. Turn off the typewriter and display. Wait 30 seconds, then turn on the typewriter and display.

### Text Disappears or Cannot Move Cursor to Text in Full Screen Storage

1. Move margin and tab settings to the left.
2. Delete extra spaces appearing before text.
3. Reflow the entire job.

### Text Disappears in Forms/Special Storage or Typewriter Mode

Hold down **Code** while you press ↑ or ↓ to move to a line of text. If the text still cannot be displayed, the text may be outside the correction memory.

### Wrong Characters Appear on the Display

1. Make sure the KYBD indicator is off.
2. Turn the typewriter off, wait 30 seconds, then turn the typewriter on again.

## **Erase Problems**

### **Correction Key Does Not Erase All of the Character**

1. Make sure the ribbon and correction tape cassettes are fastened together correctly.
  - Make sure the center latch is latched securely. (See "Installing the Cassettes" on page 10-10.)
  - Make sure the gray tabs are pressed in.
2. Make sure the correction tape matches the ribbon. Make sure the ribbon and correction tape cassettes are installed in the typewriter correctly.
3. Try a lighter impression setting.
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. Make sure you are using the same printwheel for both typing and erasing.
9. Make sure the Bold function is on to erase bold characters.

### **Printwheel Spins Instead of Erasing or Text is Not Shown on the Display**

The character is outside the correction memory and must be erased manually. See "Erasing Manually in 10, 12, and 15 Pitch" on page 2-30.

## Keyboard Problems

### Keyboard Locked

1. Turn the typewriter off.
2. Check the typewriter and display power cord connections.
3. Wait at least 30 seconds, then turn the typewriter back on.

### No Clicking Sound

The keyboard clicker may be turned off.

1. Hold down **Code** while you press **S**.
2. Try typing and listen for the clicker.

## Paper Problems

1. Push the *Paper Release Lever* all the way back.
2. Make sure a printwheel is installed.

## Print Quality Problems

### Characters Do Not Print

1. Make sure you are using the correct pitch or language.
2. Make sure the ribbon is installed correctly.
3. Make sure the printwheel is installed correctly.
  - Look at the printwheel for broken parts.
4. Try a new ribbon.
5. 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.
6. Try a new printwheel.

### **Characters Print Too Lightly**

1. Make sure the ribbon is installed correctly.
2. Look for folds in the ribbon.
3. Change the impression control. See “Impression Control” on page 2-15 for more information.
4. Look for folds in the paper.
5. Try a new ribbon.
6. Try plain bond paper.
7. Try a new printwheel.

### **Characters Print Unclearly**

1. If excess ink particles from the ribbon appear on the paper, try a lower impression control setting.
2. Try a new printwheel.
3. Try a new ribbon.

## **Typing Problems**

### **Typewriter Operates Hot**

1. Make sure nothing is blocking the top, rear, or bottom typewriter vents.
2. Make sure the typewriter is 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 being used (five maximum).
3. Make sure the *Paper Release Lever* is pushed all the way back.

### **Paper Feeds Incorrectly**

1. Check the number of carbon copies being used (five maximum).
2. When inserting loose carbon copies, pull the *Paper Release Lever* forward; insert the copies; then push the lever all the way back.
3. Look for labels or paper caught under the platen.
4. Make sure the *Paper Release Lever* is pushed all the way back.
5. 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.
6. If you change the **Paper Bail Load Lever** setting at any time, make sure it is checked before feeding paper. See "Changing the Top Margin" on page 2-14.

### **Wrong Characters Print or Characters Space Incorrectly**

1. Make sure the KYBD indicator is off.
2. Try a new printwheel.
3. Look for objects in the path of the carrier.
4. Make sure the printwheel is changed when there is a language change.
5. If you are playing back, make sure you use the same pitch printwheel you used when you typed the text.
6. Turn the typewriter off, wait 30 seconds, then turn the typewriter on again.

### **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.

## **Document Plays Back with Incorrect Line Endings**

1. Turn off ARTN or JUSTIFY.
2. Play the document again.

## **Spelling Function Problems**

### **Spelling Function Does Not Work**

If the Spelling function does not work, it might be caused by one of the following:

- The function is off.
- Another function is active on the typewriter which prevents the Spelling function from being used (for example, the Printer Option).
- You did not end the word with a word ending (space, punctuation, and so on).
- You are trying to add a word that is already in one of the dictionaries.
- You are trying to delete a word from the *main* dictionary.

## **Diskette Option Problems**

### **Diskette Functions Do 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, turn the typewriter off and check the diskette drive connector on the typewriter.
4. Turn the typewriter on.
5. If errors continue, make sure the diskette has been prepared.
6. Try a different diskette that has been prepared.

## Messages and Error Codes with Beep Signals

If your typewriter fails to operate properly, an error code or message may be displayed. The typewriter beeps several times when an error code appears. The following table 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"><li>1. Remove the ribbon and install a new one. (See Chapter 10 for help.)</li><li>2. Turn the typewriter off.</li><li>3. Wait at least 30 seconds, then turn the typewriter on.</li><li>4. Make sure Delay Print is turned off.</li><li>5. Type a few characters.<ul style="list-style-type: none"><li>• If the error recurs, call your authorized service representative.</li></ul></li></ol>
LO BAT, 3 beeps	Low batteries	<ol style="list-style-type: none"><li>1. Make sure the batteries are not corroded.</li><li>2. Make sure the batteries are installed correctly.</li><li>3. Replace the batteries. For instructions, see Chapter 10.</li></ol> <p><b>Note:</b> You should replace batteries as quickly as possible. If the batteries run down and you turn the typewriter off, everything stored is erased.</p>
STORAGE CLEARED, LO BAT, 3 beeps	Storage cleared; bad batteries	<ol style="list-style-type: none"><li>1. Replace the batteries.</li><li>2. Turn the typewriter off.</li><li>3. Wait 30 seconds, then turn the typewriter on again.</li><li>4. If the errors recur, call your authorized service representative.</li></ol>
OUT OF PAPER, 3 beeps	Out of paper	(Sensor-equipped machines only.) Insert a new sheet of paper, then continue.


<b>Error Code</b>	<b>Condition</b>	<b>Action</b>
011, 6 beeps	Storage altered	Jobs stored may have been altered. <ol style="list-style-type: none"> <li>Press any key.               <ul style="list-style-type: none"> <li>The STORAGE CLEARED message is displayed.</li> </ul> </li> <li>Type one line of text into a storage area.</li> <li>Turn the typewriter off.</li> <li>Wait 30 seconds, then turn the typewriter on again.</li> <li>If the error recurs, or stored text was cleared, call your authorized service representative.</li> </ol>
Spelling beep sounded three times when you turned the typewriter on	Supplemental dictionary error	The supplemental dictionary has been erased from memory. If you selected a spelling beep tone, it has been reset to the default value and must be selected again.
101 6 beeps	Program error	Contact your authorized service representative.
121, 6 beeps	Unsupported keyboard	The keyboard that you are using is not supported by your typewriter, or the keyboard is defective. <ol style="list-style-type: none"> <li>Make sure you are using the primary keyboard.</li> <li>Turn the typewriter off.</li> <li>Wait 30 seconds, then turn the typewriter on.               <ul style="list-style-type: none"> <li>If the error recurs, call your authorized service representative.</li> <li>If the error does not recur, continue to use your typewriter in the normal way.</li> </ul> </li> </ol>
140, 5 beeps	Spelling function error	Contact your authorized service representative.
160 6 beeps	Diskette option error	Contact your authorized service representative.



<b>Error Code</b>	<b>Condition</b>	<b>Action</b>
161 6 beeps	Diskette drive improperly connected to typewriter	<ol style="list-style-type: none"> <li>1. Check the connection between the diskette drive and the typewriter. Make sure the cable is securely attached.</li> <li>2. Turn the typewriter off. Wait 30 seconds, then turn the typewriter on again.</li> <li>3. If the error recurs, contact your authorized service representative.</li> </ol>
162 6 beeps	Diskette option error	Contact your authorized service representative.
215 6 beeps	Printwheel not installed properly	<ol style="list-style-type: none"> <li>1. Turn the typewriter off.</li> <li>2. Make sure the printwheel was installed correctly.</li> <li>3. Turn the typewriter on.</li> <li>4. Press any key.</li> <li>5. If the error recurs, contact your authorized service representative.</li> </ol>
All other codes, 6 beeps	Various	<ol style="list-style-type: none"> <li>1. Turn your typewriter off. Wait 30 seconds, then turn your typewriter on.</li> <li>2. If the error recurs, call your authorized service representative.</li> </ol>



## Messages and Indicators without Beep Signals

Indicators may blink or appear with other symptoms to signal a particular condition.

Message	Condition	Action
<b>BUSY</b>	The typewriter is processing an instruction you gave it. For example, BUSY appears while the typewriter finds text.	<ul style="list-style-type: none"><li>• Do not type while BUSY is on.</li><li>• Do not turn the typewriter off while BUSY is on.</li></ul>
DISKETTE BUSY	A diskette operation is in progress. For example, DISKETTE BUSY appears while a job is copied to typewriter storage from the diskette. The message goes off when the operation is complete.	<ul style="list-style-type: none"><li>• Do not remove the diskette from the drive while the DISKETTE BUSY message is displayed.</li><li>• Do not turn the typewriter off while the DISKETTE BUSY message is displayed.</li></ul>
DISKETTE ERROR; REQUESTED FUNCTION NOT PERFORMED	An error occurred while reading from or storing on the diskette. The diskette may not have been prepared, the diskette may have been damaged, or the selected job may contain invalid data.	<ul style="list-style-type: none"><li>• Try the same operation again; or</li><li>• Insert a different diskette and repeat the operation.</li></ul>
DISKETTE NOT USABLE; INSERT NEW DISKETTE AND PRESS CRtn OR PRESS  TO CANCEL	This message appears only during the PREPARE operation. Required information could not be placed on the diskette, or the diskette was removed before PREPARE was completed. The diskette must be a 3.5 inch 1MB diskette. Using the wrong type of diskette will cause this error.	<ul style="list-style-type: none"><li>• If the diskette was not removed, try a new diskette.</li><li>• If the diskette was removed, put it back in the diskette drive and repeat the PREPARE operation.</li></ul>
DISKETTE PREPARA- TION COMPLETE	Diskette preparation was properly completed.	Press any key to clear the message from the display.

Message	Condition	Action
<p>DISKETTE TEXT WILL BE LOST; PRESS CRtn TO CONTINUE OR PRESS <input checked="" type="checkbox"/> TO CANCEL</p>	<p>You have attempted to prepare a used diskette. The diskette may have jobs stored on it or may only have been prepared.</p>	<p>To check the contents of the diskette:</p> <ol style="list-style-type: none"> <li>1. Press the <b>Correction</b> key.</li> <li>2. Press the <b>Menu</b> key.</li> <li>3. Select DISKETTE.</li> <li>4. Select DIRECTORY to view the diskette directory and see what jobs are stored on the diskette.</li> </ol> <p>If you want to prepare the diskette anyway, press <b>CRtn</b> to continue. Any jobs stored on the diskette are erased as the diskette is prepared.</p>
<p>DISKETTE WAS EXCHANGED; PRESS CRtn TO CONTINUE OR PRESS <input checked="" type="checkbox"/> TO CANCEL</p>	<p>A different diskette was placed in the diskette drive since diskette revision or playback was started.</p>	<p>If the message relates to playback, place the correct diskette in the diskette drive and press <b>CRtn</b> to continue or press the <b>Correction</b> key to cancel playback.</p> <p>If the job is being stored on the diskette, press <b>CRtn</b> to proceed with storing the job. Press the <b>Correction</b> key to return to revision.</p> <p><b>Note:</b> If the typewriter is turned off with a diskette job open for revision, it is stored on the diskette when the typewriter is turned on again.</p>
<p>DISKETTE WRITE-PROTECTED; REQUESTED FUNCTION NOT PERFORMED</p>	<p>The write-protect tab on the diskette is open.</p>	<ol style="list-style-type: none"> <li>1. Do one of the following: <ul style="list-style-type: none"> <li>• Close the write-protect window; or</li> <li>• Insert an unprotected diskette.</li> </ul> </li> <li>2. Try the operation again.</li> </ol> <p><b>Note:</b> To quit the job without storing revisions on diskette, see page A-14.</p>

Message	Condition	Action
<b>ERROR</b>	The typewriter has detected an error.	<ol style="list-style-type: none"> <li>1. Turn the typewriter off. Wait 30 seconds, then turn the typewriter on again.</li> <li>2. If the error recurs, contact your authorized service representative.</li> </ol>
“FROM” STORAGE DOES NOT EXIST; USE ANOTHER STORAGE NUMBER OR PRESS <X> 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"> <li>• Specify an existing document; or</li> <li>• Press the <b>Correction</b> key to cancel the COPY function.</li> </ul>
<b>HYPHEN</b>	You are playing back or reflowing with HYPHEN on. The typewriter stopped and is waiting for you to make a hyphenation decision.	See the information on pages 7-8 through 7-10.
INSERT DISKETTE AND PRESS CRtn TO CONTINUE OR PRESS <X> TO CANCEL	You have selected a diskette function and no diskette is in the drive.	Insert the proper diskette and press <b>CRtn</b> to perform the operation, or press the <b>Correction</b> key to cancel the operation.
INSERT DISKETTE AND PRESS CRtn TO CONTINUE, <X> TO CANCEL OR Del TO DELETE	You are trying to store a job on diskette and no diskette is in the drive.	<p>Do one of the following:</p> <ul style="list-style-type: none"> <li>• Insert the proper diskette and press <b>CRtn</b> to store the job on the diskette.</li> <li>• Press the <b>Correction</b> key to return to revision.</li> <li>• Press <b>Del</b> twice to end the job without storing revisions.</li> </ul> <p><b>Note:</b> If the typewriter is turned off with a diskette job open, it is stored on the diskette when the typewriter is turned on again.</p>















Message	Condition	Action
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 <b>CRtn</b> . If you do not want to prepare the diskette, press the <b>Correction</b> key.
INSERT SCRATCH DISKETTE AND PRESS CRtn TO CONTINUE OR PRESS  TO CANCEL	You have selected a function intended for the use of service personnel.	Press the <b>Correction</b> key to cancel the operation. Do not press <b>CRtn</b> ; this may result in the loss of 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"> <li>• Use another diskette; <i>or</i></li> <li>• Use the delete function to make additional room on the diskette.</li> </ul>
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.  <b>Note:</b> You can copy the typewriter storage areas to a diskette before you delete them from typewriter storage.
<b>JUSTIFY</b>	Delay Print has been turned off during Justification.	Hold down <b>Code</b> while you press <b>Menu (Delay Print)</b> .
<b>KYBD</b>	The next text to be printed is in an alternate language or is a special symbol requiring a printwheel change.	<ol style="list-style-type: none"> <li>1. Insert the appropriate printwheel.</li> <li>2. Press <b>End</b> to continue printing.</li> </ol>
<b>PITCH</b>	The next text to be printed requires a different pitch printwheel.	<ol style="list-style-type: none"> <li>1. Install the correct pitch printwheel as indicated.</li> <li>2. Press <b>End</b> to continue printing.</li> </ol>

Message	Condition	Action
<b>SPELL</b>	<p>The Spelling function dictionary does not support an alternate language keyboard;</p> <p>Or</p> <p>The Spelling function is on, but is not checking for misspelled words. You are using another typewriter function that makes the Spelling function inactive temporarily. For example, you may be printing a stored job.</p>	<p>Hold down <b>Code</b> while you press <b>L (Lang)</b>.</p> <p>Turn off the second function, and the Spelling function will again be active.</p>
<b>STORE</b>	Storage is almost full.	See "Storage Full Warning" on page 4-45.
"TO" STORAGE ALREADY EXISTS; USE ANOTHER STORAGE NUMBER OR PRESS <b>⌘</b> 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"> <li>• Use a new "TO" number that does not already exist; or</li> <li>• Delete the "TO" number and try the Copy function again; or</li> <li>• Press the <b>Correction</b> key to cancel the Copy function.</li> </ul>
USE IndL OR PRESS LMar AGAIN TO RESET DOCUMENT MARGIN OR <b>⌘</b> TO CANCEL	This message is displayed when you press <b>LMar</b> while storage is open.	<p>Do one of the following:</p> <ul style="list-style-type: none"> <li>• Set a temporary left margin as instructed on page 3-13; or</li> <li>• Press <b>LMar</b> to change the left margin for the <i>entire</i> job.</li> <li>• Press the <b>Correction</b> key to cancel the message.</li> </ul>



Message	Condition	Action
USE IndR OR PRESS RMar AGAIN TO RESET DOCUMENT MARGIN OR ⏏ TO CANCEL	This message is displayed when you press <b>RMar</b> while storage is open.	Do one of the following: <ul style="list-style-type: none"> <li>• Set a temporary right margin as instructed on page 3-13; or</li> <li>• Press <b>RMar</b> to change the right margin for the <i>entire</i> job.</li> <li>• Press the <b>Correction</b> key to cancel the message.</li> </ul>
=?? ????????	Information from different equipment is stored on the diskette.	In order to gain access to the information, you must use the diskette with the equipment on which it was entered.

# Display Symbols

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

Symbol	Meaning	Page
	Carrier Return. This symbol is shown only when the cursor is at the point where a carrier return has been typed or inserted by the typewriter.	4-22
	Centering. This symbol is displayed at the beginning and end of centered text.	3-6
	Decimal Tab (Begin). This symbol shows where the decimal tab text begins.	3-15
	Decimal Tab (End). This symbol shows where the decimal tab text ends.	3-15
	Indent Clear. This symbol shows where an indent clear ( <b>Code + CRtn</b> ) has been typed.	4-14
	Indent Left. This symbol shows where an indent left ( <b>Code + Tab</b> ) has been typed to set a temporary left margin.	4-13
	Indent Right. This symbol shows where an indent right ( <b>Code + RMar</b> ) has been typed to set a temporary right margin.	4-13
	Line Space. This symbol is displayed next to the current line space setting (1, 1½, 2, or 3) at the bottom of the display.	2-9
	Mark. This symbol shows where a mark ( <b>Code + Shift + M</b> ) has been typed in Forms/Special Storage.	6-8
	Pitch Change. This symbol is displayed in Full Screen Storage after a pitch change.	4-39
	Required Page End. This symbol shows where a required page end ( <b>Code + E</b> ) has been typed to end a page of a multipage job.	4-44
	Right Flush. This symbol is displayed at the beginning and end of right flush text.	3-8
	Stop Code. This symbol shows where a stop code ( <b>Code + 9</b> ) has been typed. A stop code is also displayed when a mark ( <b>Code + Shift + M</b> ) is typed.	4-32
	Subscript. This symbol indicates that a subscript character has been typed. The symbol is shown next to the character at the lower left corner of the display margin scale.	3-10



Symbol	Meaning	Page
	Superscript. This symbol indicates that a superscript character has been typed. The symbol is shown next to the character at the lower left corner of the display margin scale.	3-11
	Tab. This symbol shows where a tab has been typed.	4-12

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


## Display Indicators

Display	Description	Page
APAGE	Auto Page End on	5-14
ARTN	Automatic Carrier Return on	3-1
BOLD	Bold Print on	3-12
BUSY	Typewriter Busy	2-2
CAPS	Caps on	2-17
CENTER	Centering on	3-6
CONT	Continuous Underline on	3-5
DEC T	Decimal Tab on	3-15
DL PRT	Delay Print on	3-18
FORMS	Forms/Special Storage Mode on	6-2
FRMAT n	Current Format Area (number)	2-24
HYPHEN	Hyphenation on	3-1, 7-4
IMPR n	Impression Level (1, 2, or 3)	2-15
INSERT	Insert on	4-21
JSTIFY	Justification on	3-19, 7-1
KYBD nnn	Keyboard (number)	9-2
LINE nnnn	Current Line (number)	4-2
1, 1 ½, 2, 3	Line Spacing	2-9
LO BAT	Low Battery	10-14
NO PRT	Full Screen Storage active	4-2
OVRSTR	Overstrike on	4-24
PAGE nnn	Current Page (number)	4-2
PITCH nn	Pitch (number)	4-2
PLAY	Play	4-6
RFLUSH	Right Flush on	3-8
RPLACE	Replace on	4-2, 4-21
SHIFT	Shift	2-17

Display	Description	Page
SPELL	Spelling function on	8-2
STORE	Full Screen Storage on	4-2
SUSPND	Suspended Playback	7-27
T ADJ	Tab Adjust on	5-16

## Typewriter Messages

Message	Page
BLOCK MENU USE ← → TO POSITION AND PRESS CRtn TO SELECT OR PRESS <input type="checkbox"/> TO CANCEL COPY MOVE DELETE	7-18
CANNOT INSERT TEXT WITHIN BLOCK; MOVE CURSOR	7-21
CLOSE MATCH FOUND; PRESS Chng TO CHANGE OR PRESS <input type="checkbox"/> TO CANCEL	7-16
CLOSE MATCH FOUND; PRESS End TO CONTINUE CHANGING ALL OR PRESS <input type="checkbox"/> TO CANCEL	7-16
END OF PAGE REACHED	5-14
END OF RIBBON (sensor-equipped machines only)	11-9
INSUFFICIENT TYPEWRITER STORAGE; USE Del TO DELETE STORAGE AREAS	7-25
MOVE CURSOR TO END OF BLOCK; THEN PRESS Block OR PRESS <input type="checkbox"/> TO CANCEL	7-17
MOVE CURSOR TO NEW POSITION; THEN PRESS Block OR PRESS <input type="checkbox"/> TO CANCEL	7-19
OUT OF PAPER (sensor-equipped machines only)	11-9
PAGE LENGTH: nn BOTTOM MARGIN: nn PRESS CRtn TO SELECT OR PRESS <input type="checkbox"/> TO CANCEL	5-10
PRESS Chng TO CHANGE OR PRESS <input type="checkbox"/> TO CANCEL	7-15
PRESS Del AGAIN TO DELETE ALL STORAGE AREAS OR PRESS <input type="checkbox"/> TO CANCEL	4-28
PRESS Del AGAIN TO DELETE OR PRESS <input type="checkbox"/> TO CANCEL	4-27
PRESS Del AGAIN TO DELETE STORAGE nn OR PRESS <input type="checkbox"/> TO CANCEL	4-28
PRESS Del TO DELETE OR PRESS <input type="checkbox"/> TO CANCEL	7-18
PRESS End AGAIN TO CHANGE ALL OCCURRENCES OR PRESS <input type="checkbox"/> TO CANCEL	7-15
PRESS End TO CONTINUE OR PRESS <input type="checkbox"/> TO CANCEL	5-8
STORAGE CLEARED	2-5 4-28
STORAGE EMPTY	5-6
STORAGE FULL	4-45

Message	Page
TEXT NOT FOUND	7-13 7-16
TO ENTER FULL SCREEN STORAGE, HOLD DOWN Store AND PRESS a number (1 TO 99)	4-10
TYPE OLD TEXT:                   TYPE NEW TEXT: PRESS Chng TO CHANGE OR PRESS End TO CHANGE ALL	7-14
TYPE STOP CODE COMMENT:	4-31
TYPE STORAGE NUMBER:	4-2
TYPE STORAGE NUMBER: OR PRESS End TO PRINT FROM CURSOR POSITION	4-9
TYPE TEXT TO FIND:	7-11
USE IndL OR PRESS LMar AGAIN TO RESET DOCUMENT MARGIN OR  TO CANCEL	4-12
USE IndR OR PRESS RMar AGAIN TO RESET DOCUMENT MARGIN OR  TO CANCEL	4-12
USE ← → TO POSITION AND PRESS Crtn TO SELECT OR PRESS  TO CANCEL PAGE-LAYOUT AUTO PAGE END: ON OFF TAB ADJUST: ON OFF	5-10 5-16
USE ← → TO POSITION AND PRESS Crtn TO SELECT OR PRESS  TO CANCEL DIRECTORY LIST PAGE-FORMAT SHADE SPELL	5-2
USE ↑ ↓ TO POSITION AND PRESS Store, Play, Del, OR Code + Store (Forms)	5-3

## Spelling Function Messages

Message	Page
NO WORD AVAILABLE	8-6
OPERATOR ACTION REQUIRED	8-7
SUPPLEMENTAL DICTIONARY EMPTY	8-4
USE ← ↑ ↓ → TO POSITION, Code + 3 TO DELETE WORD FROM SUPPLEMENTAL DICTIONARY	8-4
WORD SPELLED CORRECTLY	8-6

## Diskette Option Messages

Message	Page
COPY "FROM" STORAGE NUMBER: "TO" STORAGE NUMBER:	A-18
DISKETTE BUSY	11-12
DISKETTE ERROR; REQUESTED FUNCTION NOT PERFORMED	11-12
DISKETTE NOT USABLE; INSERT NEW DISKETTE AND PRESS CRtn OR PRESS <input type="checkbox"/> TO CANCEL	11-12
DISKETTE PREPARATION COMPLETE	11-12
DISKETTE TEXT WILL BE LOST; PRESS CRtn TO CONTINUE OR PRESS <input type="checkbox"/> TO CANCEL	11-13
DISKETTE WAS EXCHANGED; PRESS CRtn TO CONTINUE OR PRESS <input type="checkbox"/> TO CANCEL	11-13
DISKETTE WRITE-PROTECTED; REQUESTED FUNCTION NOT PERFORMED	11-13
"FROM" STORAGE DOES NOT EXIST, USE ANOTHER STORAGE NUMBER OR PRESS <input type="checkbox"/> TO CANCEL	11-14
INSERT DISKETTE AND PRESS CRtn TO CONTINUE, <input type="checkbox"/> TO CANCEL, OR Del TO DELETE	A-14
INSERT DISKETTE AND PRESS CRtn TO CONTINUE OR PRESS <input type="checkbox"/> TO CANCEL	11-14
INSERT DISKETTE AND PRESS CRtn TO PREPARE OR PRESS <input type="checkbox"/> TO CANCEL	11-15
INSERT SCRATCH DISKETTE AND PRESS CRtn TO CONTINUE OR PRESS <input type="checkbox"/> TO CANCEL	11-15
INSUFFICIENT DISKETTE STORAGE; USE Del TO DELETE STORAGE AREAS	11-15
"TO" STORAGE AREA ALREADY EXISTS; USE ANOTHER STORAGE NUMBER OR PRESS <input type="checkbox"/> TO CANCEL	11-16
TYPE DISKETTE TITLE:	A-9
USE ← → TO POSITION AND PRESS Crtn TO SELECT OR PRESS <input type="checkbox"/> TO CANCEL DIRECTORY LIST TITLE PREPARE	A-8
=?? ????????	A-15



---

## **Appendix A. Diskette Option**

The Diskette Option gives the typewriter virtually unlimited storage space. Each diskette will hold approximately 720,000 bytes (about 200 to 300 pages) in up to 99 storage areas. Since diskettes are removable, storage capacity is limited only by the number of diskettes you have. You can use a diskette to hold several large jobs, to store confidential information, or to group jobs by their type (such as Mr. Smith's letters, wills, or forms). Use a diskette to store jobs that must be kept for a long period of time so that typewriter storage is available for current jobs. Jobs on a diskette are saved even when batteries run down. Contact your IBM Authorized Dealer to purchase a Diskette Option for your typewriter.

---

### **Using the Diskette Option**

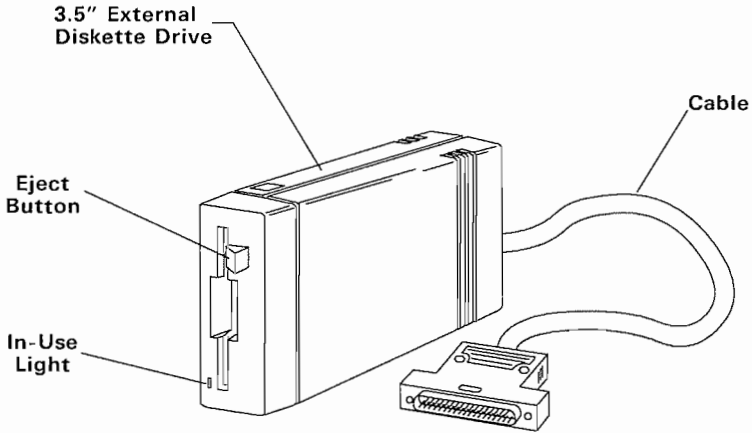
All of the functions of the typewriter are available when using the Diskette Option. When a diskette job is being entered or revised, typewriter storage is used. When the job is completed, it is copied onto the diskette, and typewriter storage is freed for use by the next job. For this reason, store most jobs on diskette to ensure that typewriter storage is available for revising large diskette jobs. Revisions to diskette jobs are saved on the diskette after you close diskette storage. There is even a way to disregard the latest changes when you do not want to save them.

## Diskette Functions

Choosing DISKETTE from the Menu enables you to select from several diskette functions. You can 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 they are needed. You can copy any diskette job to another 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, read the first five chapters of this book. Review the sections explaining typewriter storage, playing back and revising stored jobs, and using the Menu function.





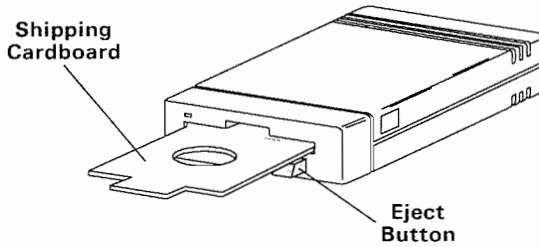
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## Setup Procedures

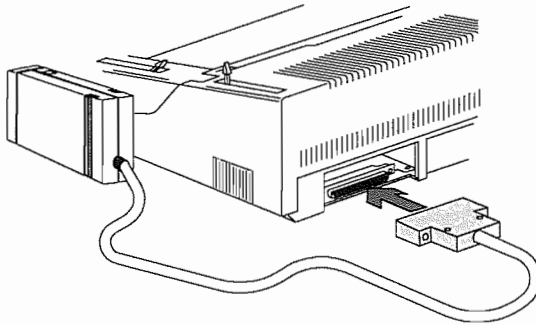
Before you use the diskette drive for the first time, make sure that the shipping cardboard has been removed from the drive.

### Removing the Shipping Cardboard

Press the eject button to remove the shipping cardboard.



### Attaching the Diskette Option



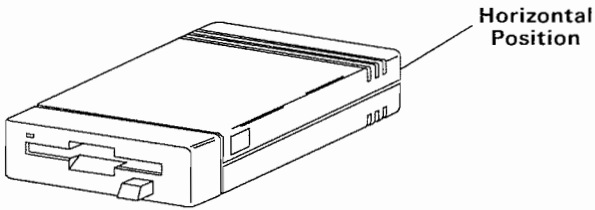
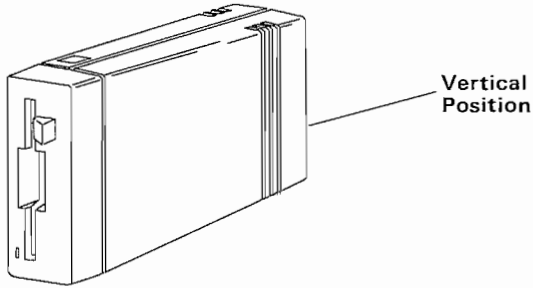
1. Make sure the typewriter is turned off.
2. Push the Diskette Option cable plug into the socket located in the rear of the typewriter. Use the shape of the plug as a guide for attaching it properly.
3. Tighten the screws.
4. Turn the typewriter on.

**Note:** If an error code is displayed when you turn the typewriter on, see Chapter 11 for help.

## Placement of the Diskette Drive

Place the diskette drive on a *flat surface*, such as a desk top. Do not place the diskette drive on top of books or papers.

The diskette drive may be placed in either a vertical or horizontal position.



## Definition of Terms

Read the definitions of the following terms to become familiar with them.

- *Diskette*. A diskette is a magnetic storage medium (3.5 inch) on which jobs are stored. It may also be referred to as a disk, floppy disk, or minidisk. The term diskette is used in this manual.
- *Diskette Drive*. A diskette drive is a device used to gain access to the jobs stored on a diskette.
- *Job*. A job is anything you type and store on your typewriter. A job can consist of a word, line, sentence, paragraph, page, or several pages.
- *Write-Protected*. Write-protected means the write-protect tab is locked so that you cannot delete or store over jobs already stored on the diskette.

---

## Using and Handling Diskettes

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

Handle your diskettes with care at all times to keep from damaging the diskettes or losing jobs stored on them. The following precautions will help you take care of your diskettes.

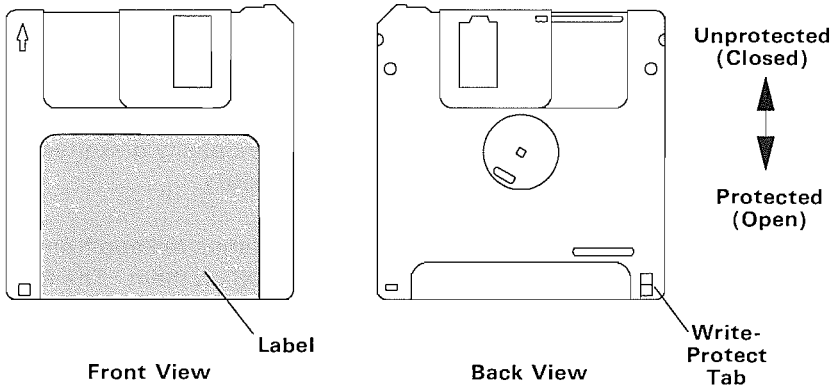
- Do not place diskettes near food, drink, or ashtrays.
- Do not place diskettes near materials that might be magnetized. All of the jobs stored on the diskette will be lost.
- Keep the diskettes away from heat greater than 125 degrees Fahrenheit (51.5 degrees Celsius) or direct sunlight.

---

## Write-Protecting Diskettes

You can write-protect a diskette so that jobs cannot be stored on or erased from the diskette. Follow these steps to check whether a diskette is write-protected:

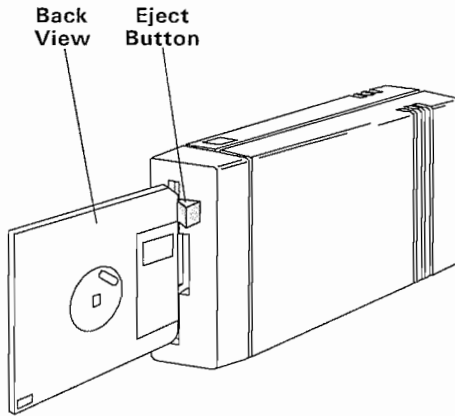
1. Hold the diskette in your hand so the label is away from you.
2. Notice the write-protect tab and the small opening in the corner of the diskette, as shown below. If you can see through this opening, the diskette is write-protected.
  - *To permit storing on the diskette:* slide the write-protect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

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



Insert the diskette into the drive so that the printed label on the diskette faces away from the blue eject button on the diskette drive.

- Make sure the diskette clicks into place.
- When you turn the typewriter on, the Diskette Option automatically comes on.

---

## Removing a Diskette

**Important:** *Do not* remove a diskette or turn the power off while the In-Use light is on, or when the DISKETTE BUSY indicator is displayed. If you do, stored jobs will be lost. See page A-2 for the location of the In-Use light.

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 the diskette. A diskette only needs to be prepared once. Preparing a diskette again deletes all jobs on the diskette. You start the PREPARE function through the menu.

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

```
USE ← → TO POSITION AND PRESS Crtn TO SELECT OR PRESS [X] TO CANCEL
DIRECTORY LIST PAGE-FORMAT SHADE DISKETTE COPY SPELL
```

2. Select DISKETTE.

```
USE ← → TO POSITION AND PRESS Crtn TO SELECT OR PRESS [X] TO CANCEL
DIRECTORY LIST TITLE PREPARE
```

3. Select PREPARE.

- To prepare the diskette follow the message instructions below:

```
INSERT DISKETTE AND PRESS CRtn TO PREPARE OR PRESS [X] TO CANCEL
```

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 **Correction** key to cancel.

The DISKETTE BUSY indicator is displayed 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  TO CANCEL

- a. Press the **Correction** key to cancel; or
  - b. Insert a different diskette, then press **CRtn** to continue.
4. When the following message is displayed, type the title of the diskette.

TYPE DISKETTE TITLE: \_

- A diskette title is not required, but naming helps you identify the diskette.
  - A title may have 1 to 50 characters; for example, the title could be a letter of the alphabet, a number, a day of the week, a specific job name (Wills, Lease Agreements, Form Letters, The Welman Report, or a mailing list).
5. Press **CRtn**. The DISKETTE PREPARATION COMPLETE message is displayed.
6. Press any key to clear the message from the display, then remove the diskette. You may label the diskette using any writing instrument.

---

## Diskette Storage

Before you begin this section, you should be familiar with using storage on your typewriter as discussed in Chapters 4 and 5, and with the use of the **Menu** key. For details on storage and the **Menu** key, see pages 4-1 through 5-23.

This section explains how to use the Diskette Option for storing jobs.

**Important:** *Do not* turn the typewriter off, insert a diskette, or remove a diskette while the In-Use light is on, or when the DISKETTE BUSY indicator is displayed. If you do, stored jobs will be lost. See page A-2 for the location of the In-Use light.

When you revise a job on the diskette, the diskette job is temporarily kept in typewriter storage. Therefore, the amount of space available for revising a diskette job is determined by the amount of unused typewriter storage. One of the following messages is displayed if the diskette job is too large:

INSUFFICIENT TYPEWRITER STORAGE; USE Del TO DELETE STORAGE AREAS  
STORAGE FULL

Storing all jobs on diskette provides the most space in typewriter storage for revising diskette jobs. If you already have several jobs stored in typewriter storage, you may want to copy them to diskette before deleting them from typewriter storage. See "Copying Jobs" on page A-18 for more information.

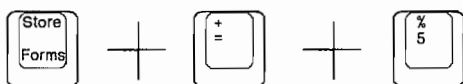


Diskette storage is similar to typewriter storage. All operations described for typewriter storage work in diskette storage. You may find it useful to think of diskette storage as an extension of typewriter storage. For example, you can store a job in storage area 1 on the typewriter. You can also store a job in storage area 1 on the diskette.

You learned to open a storage area on your typewriter by holding down **Store** while you type **a number (1 through 99)**. For example, to use storage area 5 on the *typewriter*, press:



To store on a diskette, hold down **Store** while you press = (**equal**) and **a number (1 through 99)**. For example, to use storage area 5 on a *diskette*, press:



**Note:** You do not need to keep the = (equal) key held down while typing the job number.

---

## Storing a Job on a Diskette

1. Hold down **Store** while you press = (**equal**) and a **number** (1 through **99**) where you want to store the job.
2. Release all keys.
3. Type the job.
4. Press **Store** to close diskette storage.

**Note:** See pages 4-1 to 4-5 for more information on storing jobs.

---

## Playing Back a Job Stored on a Diskette

1. Make sure paper is inserted before playing back your job.
2. Hold down **Play** while you press = (**equal**), then type the **number** (1 through **99**) where you stored the job.
3. Release the keys.
  - Playback begins immediately.


**Note:** See pages 4-6 to 4-9 for more information on playback.

---

## Identifying the Current Diskette Storage Area

As you store or revise a job on the diskette, you may want to know which storage area is open. To identify a diskette storage area, 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. If you need help, see page 5-1.

Diskette  
Storage  
Area



USE ← → TO POSITION AND PRESS Crtn TO SELECT OR PRESS  TO CANCEL => =5  
**DIRECTORY** LIST PAGE-FORMAT SHADE **DISKETTE** COPY SPELL

---

## Revising a Job Stored on a Diskette

1. Hold down **Store** while you press = and **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 4-17 to 4-28 for more details.

---

## Deleting a Job Stored on a Diskette

1. Hold down **Del** while you press = and **the number** of the diskette storage area you want to delete. The following message is displayed:

PRESS Del AGAIN TO DELETE STORAGE =2 OR PRESS  TO CANCEL

2. Press **Del** again to delete the diskette storage area.

**Note:** For more information about deleting a stored job, see page 4-28.

## Canceling Delete

Press the **Correction** key to cancel delete when the message is displayed.

## Deleting All Diskette Storage Areas


Use the PREPARE function to delete *all information* on a diskette. See "Preparing a Diskette" on page A-8 for more information.

---

## 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,  TO CANCEL, OR De1 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  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 to store your revisions in place of the job on that diskette.
- Press the **Correction** key to return to revision without storing the job.

The typewriter also remembers the diskette from which a job is played. When diskette playback is stopped, 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 **Correction** 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 5.

Diskette Directory and Diskette List may look slightly different from the actual contents of your diskette job. For example, text which has been typed using the Bold, Underline, Superscript, and Subscript functions will be 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. The following text is displayed just before the diskette title to indicate the presence of this information:

=?? ????????

You must use the diskette with the appropriate equipment to gain access to the 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 storage space remaining on the diskette and the amount used for each job. All typewriter Directory functions are available with the diskette directory.

Viewing the diskette directory is similar to viewing the typewriter directory:

1. Press **Menu**
2. Select DISKETTE.
3. Select DIRECTORY.
4. Read and follow the instructions that appear on the display.  
If you need help, refer to steps 2 through 6 beginning on page 5-3.

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

## Diskette List

The Diskette List function is used 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) is printed at the top of the list.

## Printing a List of the Diskette Directory

1. Make sure paper is inserted.
2. Press **Menu**.
3. Select DISKETTE.
4. Select LIST.

- The printed list should be similar to this example:

```
672768 TITLE: The Welman Report
= 1 (Proposal)                012::055 20000
= 2 (Budget Request)         020::090 10000
= 3 In the late nineteenth century 020::090 15640
= 5 This final draft of the confid 012::072 1126
= 66 The daily summary of events le 012::072 870
```

**Note:** For more information about listing jobs, see page 5-8.

---

## Changing or Checking the Title of the Diskette

You have already learned that you give a diskette a title when you are preparing the diskette. You may want to change or check a diskette title without erasing the jobs on the diskette. To check or change a diskette title:

1. Press **Menu**.
2. Select DISKETTE.
3. Select TITLE. After a few seconds, the following message is displayed, followed by the current diskette title.

TYPE DISKETTE TITLE:

4. To keep the current title and cancel the title function, press the **Correction** key.
5. To change the diskette title, type the new title. When you begin typing the new title, the old title is automatically erased from the display.
  - If you decide not to change the title after you have typed part of a new title, press the **Correction** key until the title is blank. Then press the **Correction** key once more to cancel the Title function.
6. Press **CRtn** to store the new title on the diskette.

---

## Copying Jobs

With the Diskette Option installed, you can copy jobs in many different ways; for example:

- 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-8 for more information.

To copy a job:

1. Press **Menu**.
2. Select **COPY**.
3. When the copy message appears, type the number of the storage area to copy "FROM."
4. Press → to move the cursor to the next position.
5. Type the number of the storage area you want to copy "TO."
6. Press **CRtn**.

For example, to copy from typewriter storage area 1 to diskette storage area 9:

```
COPY "FROM" STORAGE NUMBER: 1 "TO" STORAGE NUMBER: 9
```



---

## 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 as explained on the previous page. 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.

### Helpful Hints

- 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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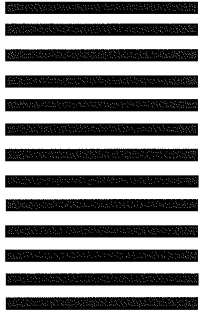
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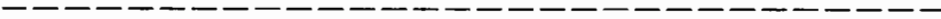
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