

Actionwriter™ 1 Typewriter
Installation Instructions
Operator Guide

FCC Notice

This typewriter generates and uses radio frequency energy. If the typewriter is not installed and used in accordance with the operating instructions and the service manual, it may interfere with radio or television reception. The 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 Federal Communications Commission (FCC) rules, which are designed to provide reasonable protection against such radio 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 an authorized service representative. If anyone other than an authorized representative modifies the typewriter and it causes interference, the user is responsible for correcting the interference.

First Edition, March 1985

Publications are not stocked at the address below. For copies, contact an IBM product center or an authorized IBM dealer.

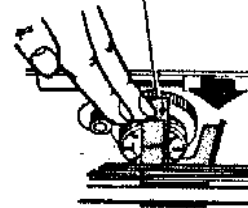
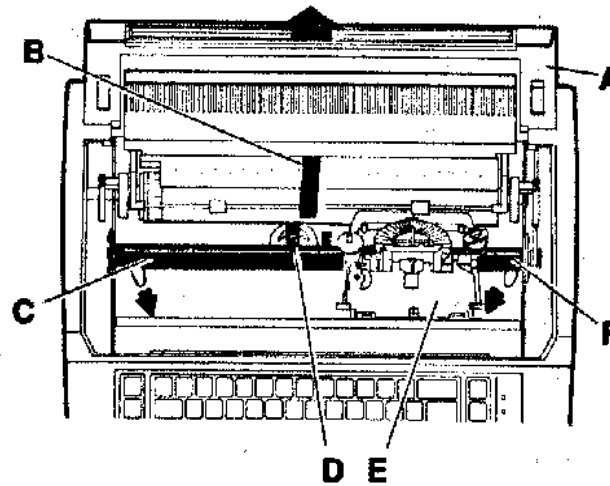
You can send comments or suggestions to: IBM Corporation, Dept. F96/862-3 740, New Circle Road N.W., Lexington, KY 40511. Information you supply may be used by IBM without obligation. Changes may be made in later editions of the manual.

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Installation Instructions

1. Raise the typewriter cover (A).
2. Pull off the adhesive tape (B).
3. Remove the yellow rubber tube (C) by pulling the loop in the direction of the arrow.
4. Press the yellow shipping bracket (D) down and remove it.
5. Move the carrier to the left by pushing the print assembly (E).
6. Remove the yellow rubber tube (F) by pulling the loop in the direction of the arrow.
7. Insert the ribbon cassette. (See "Changing the Ribbon Cassette" on page 35.)
8. Close the typewriter cover.
9. Continue with "Turning On the Typewriter" on page 3.

For assistance, call 1-800-IBM-2468.



Safety Information

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 (○) 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.

Care, Assistance, and Maintenance

Periodic attention is essential to keep your typewriter in reliable working order.

- **Care:**
 - Use only a damp cloth and mild detergent to clean the typewriter cover and keybuttons. Certain cleaning fluids may be harmful.
 - Use only recommended supplies.
- **Assistance:**
 - If you need help with installation, operation, or problem determination, contact: IBM Direct at 1-800-IBM-2468.
- **Maintenance:**
 - Maintenance and service should be done only by trained service personnel. Contact your point of purchase for maintenance and service.

Preface

Please read through the instructions in this book while learning to use the typewriter. This Operator Guide helps you use all features and functions that are built into this typewriter. The instructions in this book can also be used as a reference guide by using the index in the back of this book for specific subjects.

A *What Happened?* section in this book provides hints on what may be causing a problem and its possible resolution.

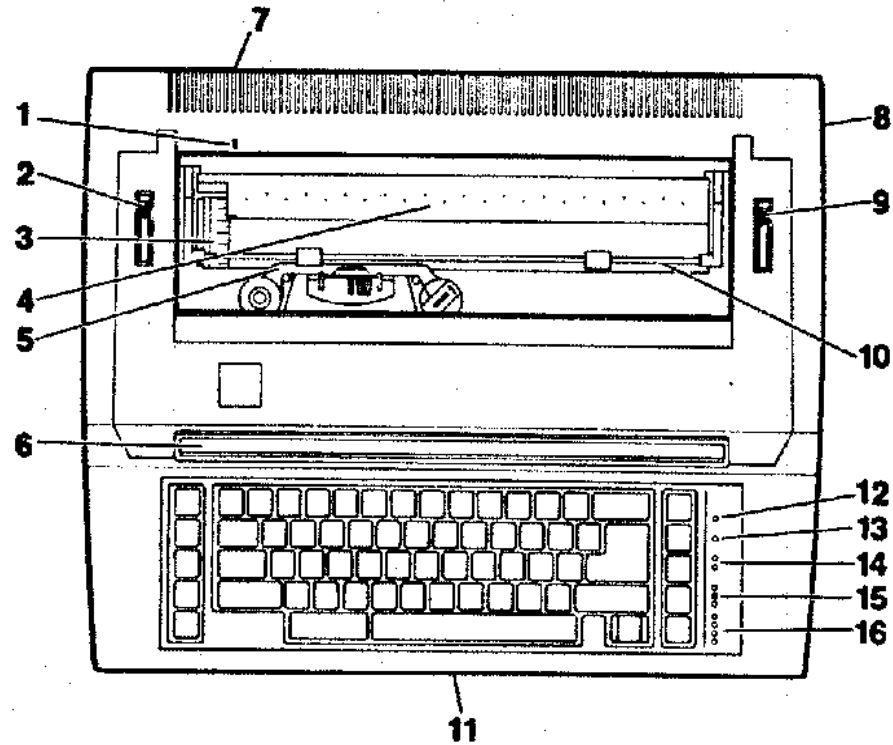
Following the recommendations for supplies, care, and maintenance will ensure best typewriter performance.

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The Parts of Your Typewriter

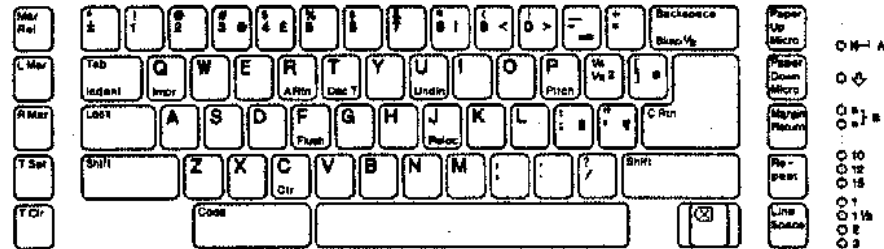
- 1 Paper Edge Indicator
 - 2 Paper Insert Lever
 - 3 Page-End Indicator
 - 4 Paper Scale
 - 5 Cardholder
 - 6 Margin/Pitch Scale
 - 7 Feature Connection (Rear left)
 - 8 On/Off Switch (Bottom right)
 - 9 Paper Release Lever
 - 10 Paper Bail
 - 11 Carrying Handle
- Indicator Lights:**
- 12 Automatic Carrier Return (ACR)
 - 13 Lock (Shift)
 - 14 Impression Control
 - 15 Pitch
 - 16 Line Spacing



Keyboard Layout

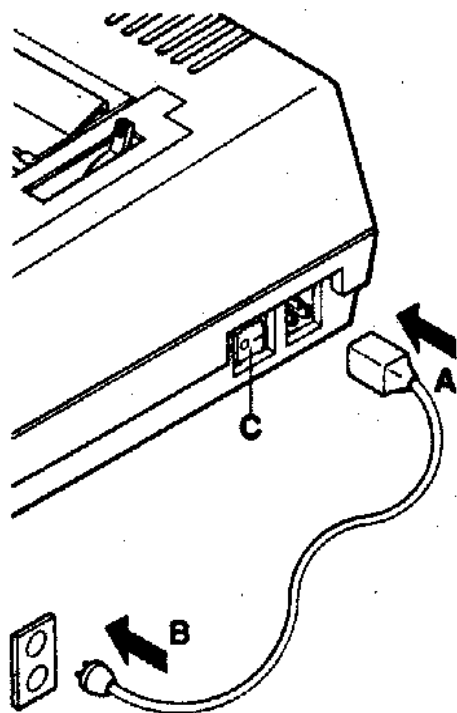
The keyboard has typing keys and control keys. All characters on the printwheel are accessed by:

- Typing in lowercase
- Typing in uppercase
- Typing special characters in connection with the **Code** key.



This typewriter may also be used with Symbol or Alternate Printwheels. For keyboard layouts which correspond to these printwheels, see "Symbol and Alternate Keyboards" on page 38.

Turning On the Typewriter

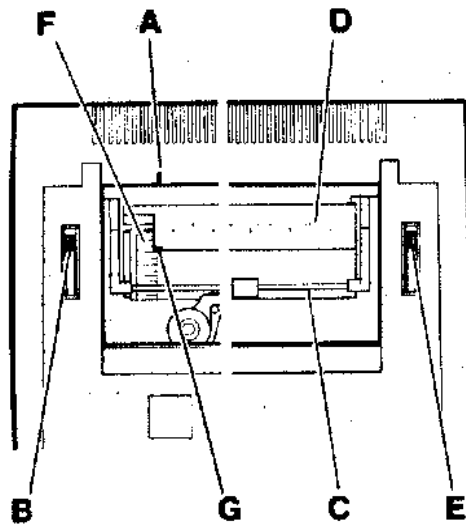


1. Connect the electrical cord to the typewriter (A). *Do not use a replacement cord which has a right-angle appliance connector.*
2. Plug the electrical cord into an outlet (B) which has the same voltage as shown on the voltage rating plate at the rear of the typewriter.
3. Push the On/Off switch (C) to the - position (on = -, off = O).
 - The carrier moves to the left margin (first typing position).
 - The printwheel moves to *home* position.
 - The indicator lights at the right of the keyboard come on for the initial settings. The initial settings are:

Pitch Selection = 10 (Pica)	Left/Right Margin = 10/75
Tab Positions = 15 and 25	Impression Control = Medium
Line Spacing = 1 (Single)	Auto. Carrier Return = Off

Note: When the typewriter is turned off or if the power falls, the correction memory is cleared. When the typewriter is turned on again, the initial settings are reactivated. (Change these settings as required.)

Inserting Paper



1. Align paper at the paper edge indicator (A) and insert paper behind the platen.
2. Pull the paper insert lever (B) toward you. The paper ball (C) moves forward.
3. Pull this lever (B) all the way toward you. The paper is automatically moved into the typewriter leaving a 1-inch top margin. (See note below.)
4. Push the paper insert lever (B) back to its normal position so that the paper bail rollers rest on the paper.
5. Position the paper bail rollers *evenly* across the paper to ensure smooth paper handling.

Note: To type within the top margin, press the **Paper Down** key to position the paper on the desired line. To prevent wrinkling of the paper the paper bail rollers should not rest on the paper. After typing, reposition the paper and move the paper bail rollers back against the paper.

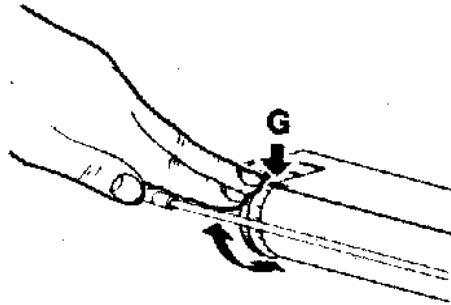
Paper Scale

This scale (D) is for horizontal positioning of paper in the typewriter.

Paper Release Lever

This lever (E), when pulled toward you, releases the paper for adjustment. After the paper is adjusted, push the lever back to its normal position.

Page-End Indicator



This indicator (F) determines the last typing line while leaving a 1-inch bottom margin. The scale is circular, calibrated to six lines per inch and shows paper size markings.

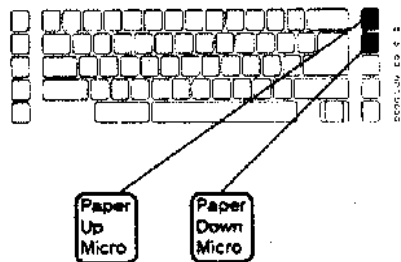
After inserting paper, turn the indicator to align the paper size mark, that matches your paper size (inch: 11", 12", 14" or metric: A4, A5), to the mark on the front edge of the paper scale (G).

As you approach the end of the paper, the number (next to the edge of the paper scale) on this indicator shows the exact number of typing lines remaining to leave the one-inch bottom margin.



Page End Indicator
unrolled

Paper Up/Paper Down



When either the **Paper Up** or the **Paper Down** key is pressed, the paper moves one-half of a line either up or down.

During automatic corrections, the operation of these keys depends upon the line spacing selection.

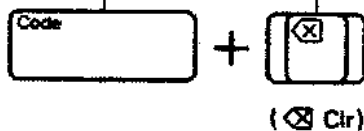
Micro Paper Up/Paper Down

When precise alignment of typing is required, use *micro* paper up/paper down. To use micro, hold down the **Code** key and press either the **Paper Up** or the **Paper Down** key. With micro, the paper moves 1/8 of a line either up or down. For corrections, use micro to reposition the paper.

Paper up/Paper down helps you to:

- Type formulas
- Fill in forms
- Eject paper (Press the **Paper Up** key and hold for repetition.)
- Position paper for corrections.

Code Key



The **Code** key is used in combination with other keys to:

- Print special characters;
- Turn on/off special functions;
- Clear correction memory.

To print special characters (shown in green on several typing keys), hold down the **Code** key and press the key showing the desired special character.

To turn on/off special functions (shown in green on several control or typing keys), hold down the **Code** key and press the key showing the desired special function.

To clear the correction memory, hold down the **Code** key and press the **Correction** key.

Pitch Selection

A pitch is defined as the number of characters that will print in one inch.
The typewriter has the following pitch selections:



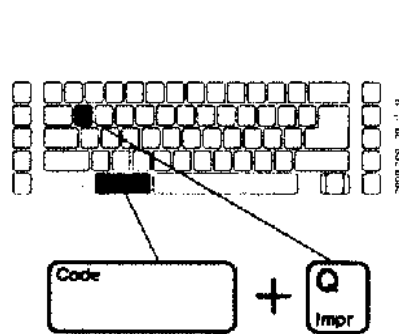
- 10 (Pica, initial setting)
- 12 (Elite)
- 15 (Micro) *

To change the pitch selection, hold down the **Code** key and press the **P** (**Pitch**) key until the light for the desired selection comes on. Each time you press **P** (**Pitch**), the pitch selection and the lights change. Make certain the printwheel and pitch selection correspond to each other. (See "Printwheels" on page 33.)

* When using a 15-pitch printwheel, set the impression control to light.

Impression Control

The typewriter has the following impression control selections:

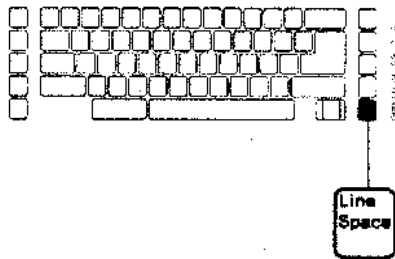


- a }
● a } Medium (initial setting)
- a }
● a } Heavy (Press the Impr key once starting from "Medium.")
- a }
○ a } Light (Press the Impr key twice starting from "Medium.")

To regulate the impact of the printwheel for the number of copies, or weight of the paper, hold down the **Code** key and press the **Q (Impr)** key until the light(s) for the desired Impression setting comes on. Each time you press **Q (Impr)**, the impression control setting and the lights change.

Line Spacing

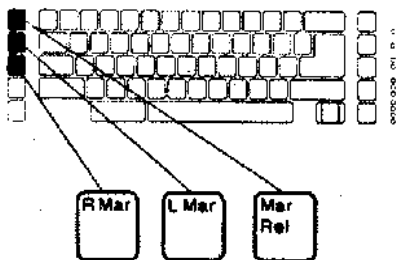
The typewriter has the following line spacing selections:



- 1 = single spacing (initial setting)
- 1½ = single and a half spacing
- 2 = double spacing
- 3 = triple spacing

Press the **Line Space** key to change the selection. The lights next to the key indicate the selected setting.

Margins



When the typewriter is turned on, margins are automatically set at positions 10 (left) and 75 (right).

To move the carrier through the left margin, press the **Mar Rel** key.

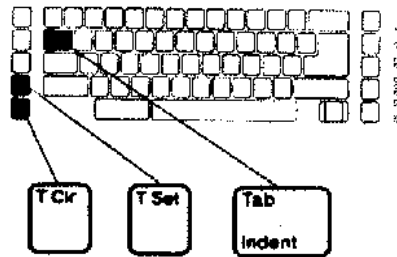
To set a new margin, move the carrier to the desired position and press the **L Mar** key for a left margin or the **R Mar** key for a right margin.

- A beep confirms that the new margin has been set.
- A beep occurs eight spaces before the right margin. You can continue typing through the right margin.

Returning to the Initial Margins

Press the **L Mar** and **R Mar** keys at the same time to set margins at positions 10 and 75.

Tabs



When the typewriter is turned on, tabs are automatically set at positions 15 and 25.

To move the carrier to tab positions on the typing line, press the **Tab** key.

To set a new tab, move the carrier to the desired position and press the **T Set** key.

- A beep confirms that a tab is now set at this position.

Repeat this step until all desired tabs are set (20 maximum).

Whenever the tab setting is changed, tabs no longer needed should be cleared before setting the new tabs. (See "Clearing Tabs" on page 13.)

Recommendation: Do not use the **Tab** key for positioning the carrier while correcting automatically (within the correction memory).

Clearing Tabs

Clearing tabs, one at a time:

1. Press the **Tab** key to move the carrier to the tab position to be cleared.
2. Press the **T Clr** key.
 - A beep confirms that this tab position is cleared.

Clearing All Tabs

Hold down the **T Clr** key and press the **Repeat** key.

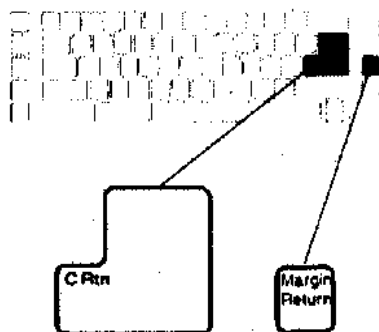
- Tabs are cleared for all pitches.
- A beep confirms that all tab positions are cleared.

Carrier Return

Press the **C Rtn** key to move the carrier to the next typing line. For repetition, press and hold the **C Rtn** key.

Margin Return

When you press the **Margin Return** key, the carrier moves to the left margin without moving the paper up one line.



Automatic Carrier Return (ACR)



O A ←



Hold down the **Code** key and press the **R (A Rtn)** key. At the right of your keyboard the top light comes on, indicating that ACR is now active. With ACR active, a space or hyphen (-) typed in the margin zone will automatically move the carrier to the next typing line. The margin zone begins eight characters to the left of the right margin.

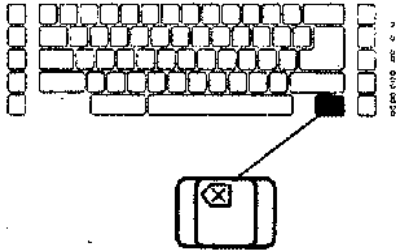
ACR helps you because you don't have to think about pressing **C Rtn** at the end of a line. You will need to use the **C Rtn** key for returning the carrier before the margin zone, as in the last line of a paragraph.

To turn ACR off, hold down the **Code** key and press the **R (A Rtn)** key again.

- The ACR light goes off.

When ACR is off, use the **C Rtn** key to move the carrier to the next typing line.

Correction Key



This typewriter has a correction memory that holds the last *two lines* typed (the line you are on and the previous line), with approximately 254 characters for each line.

Whenever you go to a new typing line, the text in the first of the two lines in memory is cleared and space for a new line is opened.

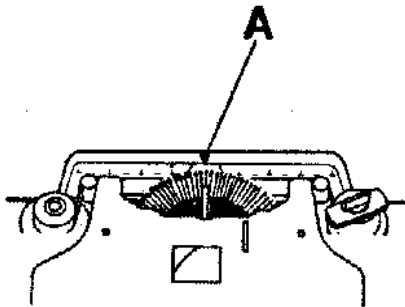
Using the correction key:

- Errors can be corrected automatically if they are in the correction memory (this is the line you are on or the preceding line).
- Errors outside the correction memory must be corrected manually. (See "Manual Corrections (outside the Correction Memory)" on page 18.)

Immediate Correction

1. If the last character typed is not correct, press the **Correction** key to erase the incorrect character.
2. Type the correct character.

Corrections Farther Back in Text (within the Correction Memory)

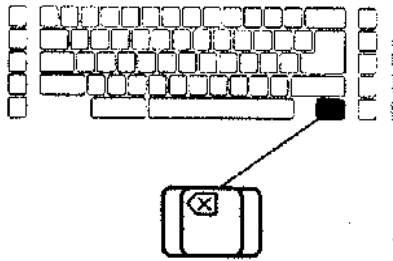


1. Position the pointer (A) on the cardholder over the character to be corrected in:
 - The current line by using the **Backspace** key, or
 - The previous line, by using the **Paper Down** key and the **Backspace** key or the **Spacebar**.

If you moved too far, use the **Paper Up** key, the **Backspace** key, and the **Spacebar**.

2. Press the **Correction** key.
 - The incorrect character is erased.
3. Type the correct character.
4. After completing the correction, hold down the **Code** key and press the **J (Reloc)** key to return the carrier to the last typing position. (See "Relocate" on page 20.)

Manual Corrections (outside the Correction Memory)



Make manual corrections if:

- You notice an error outside the correction memory, or
- You press the correction key and the typewriter beeps but the error is not corrected.

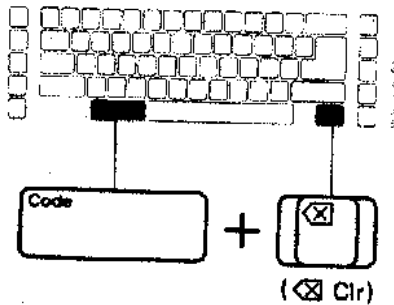
To correct manually:

1. Press the **Paper Down** key to move the carrier to the line with the error. If you moved too far, use the **Paper Up** key.
2. Use the **Backspace** key or **Spacebar** to position the red mark on the cardholder over the character to be corrected.
3. Press the **Correction** key.
 - A beep confirms that the typewriter is ready for a correction.
4. Type the incorrect character; the character will be erased. See the note on the next page.
5. Type the correct character.
6. Use the **Paper Up** key, the **Spacebar**, and the **Backspace** key to move the carrier to the place you were typing when you noticed the error.

Notes:

1. Correcting one character at a time requires clearing the memory after each correction. Clearing memory is not required if you erase all errors on a line before typing the correct characters.
2. If the correction is on a line where you have used **Tab**, **Half-Backspace**, or pitch selection, you must start at the left margin and use them again to ensure correct positioning of the pointer.
3. *Relocate cannot be used with manual corrections.*

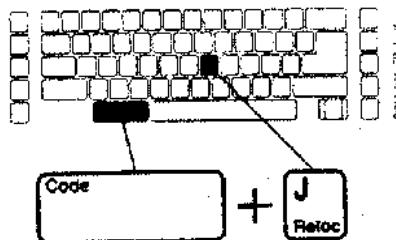
Clearing Memory



There may be times when you do not want the automatic paper and carrier movements associated with using correction memory. For example, you can choose to return to manual correction by clearing the memory. To clear the correction memory, hold down the **Code** key and press the **Correction** key.

The correction memory will also be cleared when: the paper insert lever is used to move the paper; the typewriter is switched off or a power interruption occurs; or the paper is moved more than two typing lines.

Relocate



Relocate automatically moves the carrier to the last typing position.

Hold down the **Code** key and press the **J (Reloc)** key after correcting or inserting text within the correction memory.

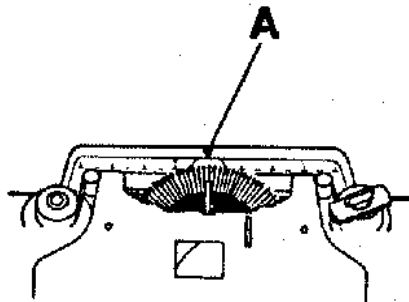
Backspace

Use the **Backspace** key to step the carrier to the left.

When controls are found while backspacing within the correction memory, the carrier may hesitate and the indicator lights may flash.

After backspacing within the correction memory, hold down the **Code** key and press the **J (Reloc)** key to return the carrier to the last typing position.

Half-Backspace



Characters mistakenly left out can be inserted without overcrowding a typing line. Half-backspace is used to add *one* character to a mistyped word. In the following example the word *trap* was typed *trp*.

1. Backspace the carrier until the cardholder pointer (A) is above the letter *p* in *trp*.
2. Use the **Correction** key to erase the *whole* word (*trp*).
 - First the letter *p*, then *r*, then *t*.
3. With the carrier at the position of the erased letter *t*, hold down the **Code** key and press the **Backspace (Bksp $\frac{1}{2}$)** key.
 - The carrier backspaces one half of a space.
4. Type the correct word *trap*.
5. Hold down the **Code** key and press the **J (Reloc)** key to return the carrier to the last typing position and turn off **Bksp $\frac{1}{2}$** .

Remember: Only *one* character can be inserted into a word. Relocate cannot be used with manual corrections.

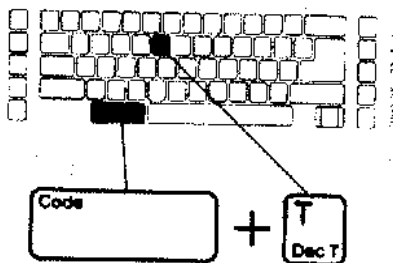
Example:

Step 1: ... this trp is ...

Step 2: ... this is ...

Step 4: ... this trap is ...

Decimal Tab



Use decimal tab to align columns of characters at the decimal point or tab.

- The decimal point always prints on the tab position.
- Whole numbers and words print flush right to the tab position.

Example: 12345678.90 2345 Flush
 123.45 10234 Word
 Word 27 Position

1. Set regular tabs at desired print positions. See page 12.
2. Hold down the **Code** key and press the **T (Dec T)** key.
 - The carrier moves to the next tab position.
3. Type the characters that are to the left of the decimal point or tab.
 - The carrier steps to the left, but the characters do not print.
4. Type the decimal point or any key combination listed on page 23.
 - The characters (and, if typed, the decimal point) print.
 - The carrier stops at the print position that follows the decimal point or the tab position.
 - Now further characters may be typed.
5. Repeat steps 2 through 4 for additional columns.

Notes:

1. Characters can also be printed by pressing one of the following key combinations. Choose the key or key combination convenient for continued typing:

Code and T (Dec T)	Code and Backspace
Code and J (Reloc)	Backspace
Code and F (Flush)	C Rtn
Code and C (Ctr)	Margin Return
Code and Tab	Tab

2. When typing word columns without decimals, hold down the **Code** key and press the **T (Dec T)** key to print the characters and move to the next column.
3. The keyboard locks when the left margin has been reached or the carrier is only one space away from a previously typed character.

Release the left margin or set a different tab farther to the right.

Correcting While Using Decimal Tab

If an error is typed while entering characters in decimal tab, press the **Correction** key to erase the complete input and move the carrier back to the tab stop. Retype the complete number; decimal tab is still active.

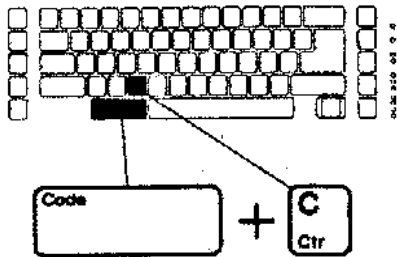
Recommendation: Do not use decimal tab while correcting automatically (within the correction memory).

Centering

Text can be centered automatically:

- Between the left and right margins.
- Between the left margin and the right margin zone (ACR on).
- On tab stops.
- Around any desired position on the typing line.

Centering between Margins



Example:

This is
a
description
of a
new typewriter.

With ACR *off* and the carrier at the left margin:

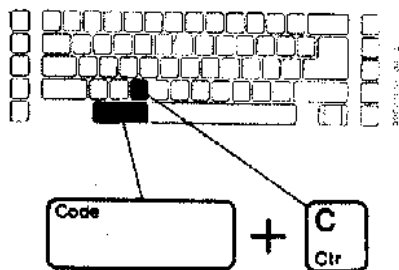
1. Hold down the **Code** key and press the **C (Ctr)** key.
 - The carrier moves to the center between the margins.
2. Type the text.
 - The carrier steps to the left, but the characters do not print.
3. Press the **C RIn** key (or any of the key combinations shown on page 23) to print the text.
4. Repeat steps 1, 2, and 3 until all lines to be centered are printed.

Centering between the Left Margin and the Right Margin Zone

With ACR *on* and the carrier at the left margin:

1. Hold down the **Code** key and press the **C (Ctr)** key.
 - The carrier moves to the center between the left margin and the right margin zone.
2. Type the text.
 - The carrier steps to the left, but the characters do not print.
3. Press the **C Rtn** key (or any of the key combinations shown on page 23) to print the text.

Centering on a Tab Position



1. Press the **Tab** key to move to the desired tab position.
2. Hold down the **Code** key and press the **C (Ctr)** key.
3. Type the text.
 - The carrier steps to the left, but the characters do not print.
4. Press the **C Rtn** key (or any of the key combinations shown on page 23) to print the text.

Note: While using centering, the typewriter prevents overprinting of text already typed. The keyboard locks when the carrier is only one space away from a previously typed character. Press the **Correction** key to delete the input. Then set a new tab farther to the right.

Centering at Any Desired Position

With the carrier at the desired position:

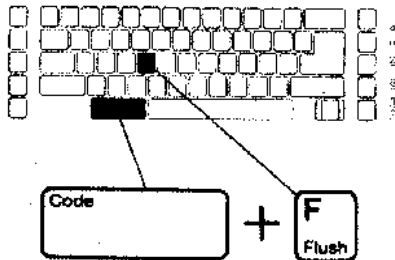
1. Hold down the **Code** key and press the **C (Ctr)** key.
2. Type the text.
 - The carrier steps to the left, but the characters do not print.
3. Press the **C Rtn** key (or any of the key combinations shown on page 23) to print the text.

Correcting Characters While Centering

If an error is typed while entering characters to be centered, press the **Correction** key to erase the complete input and move the carrier back to the starting position. Retype the input; centering is still active.

Recommendation: Do not use centering while correcting automatically (within the correction memory).

Flush Right



Example:

This is
a
description
of a new typewriter.

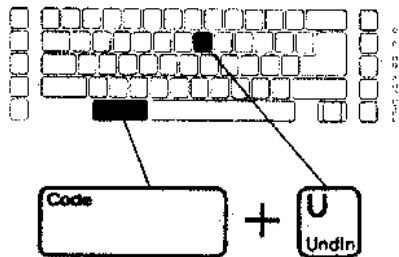
Use flush right to type text with an even (flush) right margin.

1. Hold down the **Code** key and press the **F (Flush)** key.
 - The carrier moves to the right margin.
2. Type the text.
 - The carrier steps to the left, but the characters do not print.
3. Press **C Rtn** (or any of the key combinations shown on page 23) to print the text. Flush right is turned off.
4. Repeat steps 1 through 3 until all the lines are typed.

Correcting While Using Flush Right

If an error is typed while entering characters in flush right, press the **Correction** key to erase the complete input and move the carrier back to the right margin. Retype the text; flush right is still active.

Automatic Underline



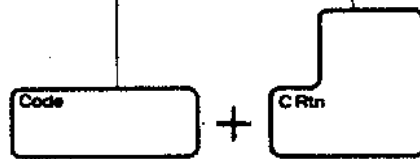
Example:

Three blind mice ...

Hold down the **Code** key and press the **U (Undln)** key – in the example, before *b* is typed. Now any text typed is underlined automatically.

To turn off automatic underlining, hold down the **Code** key and press the **U (Undln)** key again – in the example, after *d* was typed.

Paragraph Indent



(In Ctr)

Use paragraph indent to set a temporary left margin.

With the carrier at the desired indent position:

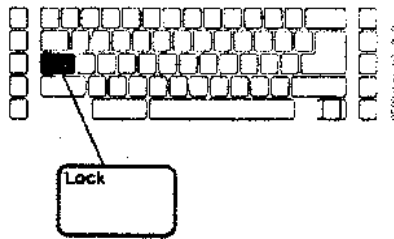
1. Hold down the **Code** key and press the **Tab (Indent)** key.
 - The temporary left margin is set.
2. Type the text.
 - With each carrier return, the carrier moves to this temporary left margin and text prints flush left at the indented position.

To cancel paragraph indent and to return to the original left margin, hold down the **Code** key and press the **C Rtn** key.

Shift Key

Uppercase characters are typed as long as either **Shift** key is held down.

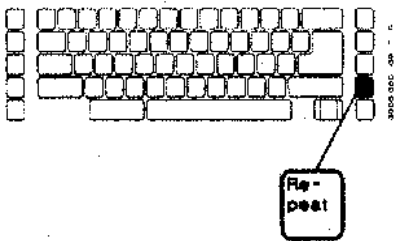
Lock Key (Shift)



When the **Lock** key is pressed, the **Shift** key is locked. The second light from the top at the right of the keyboard goes on.

To unlock the **Shift** key, press either of the two **Shift** keys.

Repeat Key



When the **Repeat** key is pressed, the last character typed is repeated as long as the **Repeat** key is held down.

Recommended Supplies

Printwheels

Standard Printwheels:

- No. 1361501, Prestige Elite 12/10*
- No. 1361502, Letter Gothic 12/10*
- No. 1361503, Script 12
- No. 1361505, Presentor 10
- No. 1361506, Micro 15
- No. 1361510, Courier 10

* May be used in 12 or 10 pitch.

Alternate Printwheels:

- No. 1361504, Courier 10
- No. 1361532, Prestige Elite 12/10*
- No. 1361533, Micro 15

Symbol Printwheel:

- No. 1361500, Symbol 10

When using a 15-pitch printwheel, set the impression control to light.

Ribbons and Tapes

- No. 1361190, 190 Correctable Ribbon Cassette
- No. 1361195, Lift-Off Tape Spool

- No. 1361194, 194 Fabric Ribbon

Do not use IBM Lift-Off Tape No. 1136433 on this typewriter.

Miscellaneous

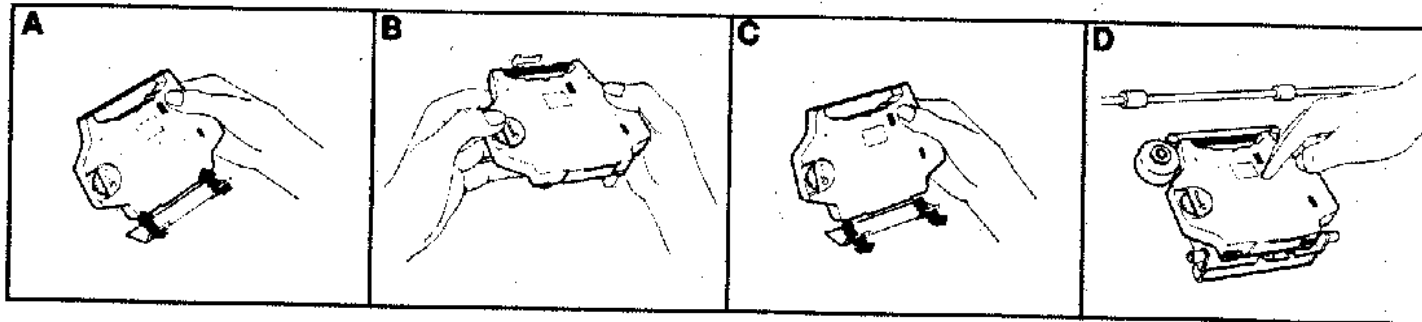
- No. 1222377, Dust Cover

Changing the Ribbon Cassette

1. Raise the typewriter cover.
 - When this cover is raised, the typewriter is deactivated.
2. Remove the ribbon cassette by lifting it upward (Figure A).
3. Before inserting the new cassette, tighten the ribbon by turning the drive gear in the direction of the arrow (Figure B).

Important: Be careful not to crease the ribbon while rolling it into the cassette.

4. While inserting the cassette, hold it tilted toward the keyboard, inserting the two guides on the ribbon cassette into the mounting slots (Figure C).
5. Press the cassette down (Figure D).
6. Close the cover.

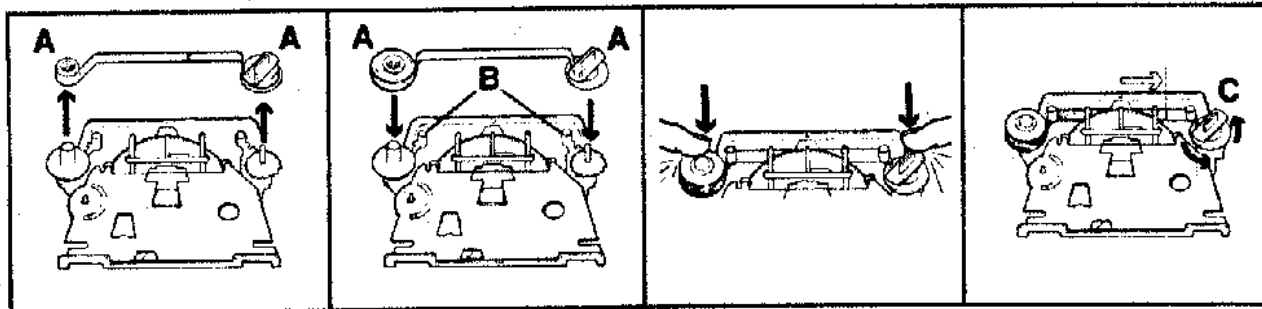


Changing the Correction Tape

For easier handling, center the carrier and remove the ribbon cassette (see Figure A in "Changing the Ribbon Cassette").

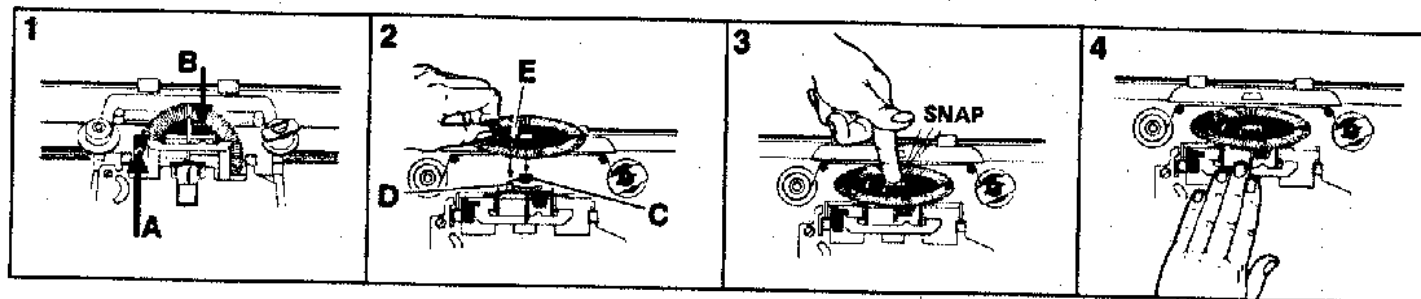
1. Remove the right and left correction tape spools (A).
2. Install the new correction tape around the two guide rollers (B) and mount both spools (A).
 - Push both spools all the way down and make sure the tape is between the plastic cardholder and metal tape guide.
3. Turn the right spool in the direction of the arrow until the correction tape tightens (C).
4. Insert the ribbon cassette.
5. Close the cover.

Do not use IBM Lift-Off Tape No. 1136433 on this typewriter.



Changing the Printwheel

1. Remove the ribbon cassette. (See Figure A in "Changing the Ribbon Cassette.")
2. Press the red lever (Figure 1-A). The printwheel tilts away from the platen.
3. Press the red lever (Figure 1-B). The printwheel is released.
4. Remove the printwheel.
5. Install the desired printwheel on the printwheel shaft (Figure 2-C) so that the writing on the front side of the printwheel faces the platen (the unmarked side then faces the carrier). Make sure that the locating pin (Figure 2-D) is inserted into the locating hole (Figure 2-E).
6. Press the printwheel onto the carrier shaft until it "SNAPS" into place (Figure 3).
7. Return the printwheel to the operating position by pushing the metal bar toward the platen (Figure 4).
8. Insert the ribbon cassette.
9. Close the cover.



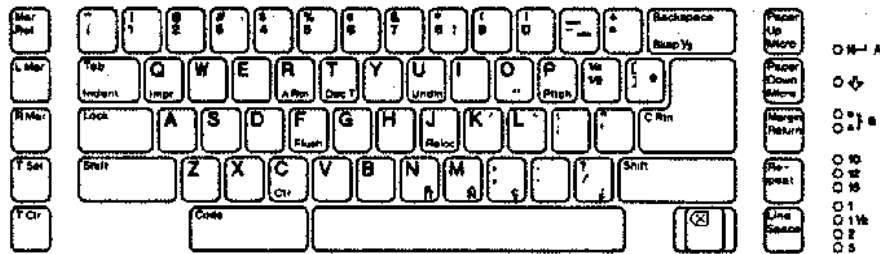
Symbol and Alternate Keyboards

To access characters on the symbol printwheel, use the symbol keyboard layout as shown below.

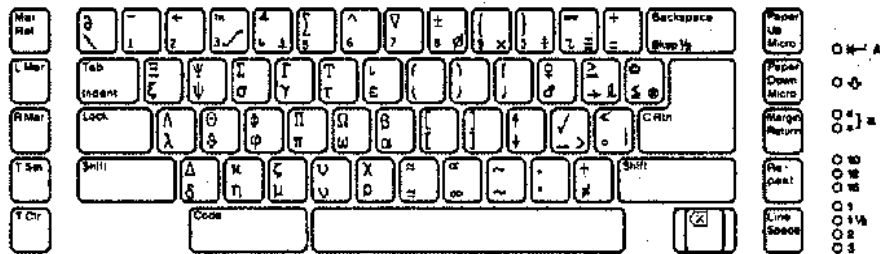
Use the alternate keyboard layout as shown below to access characters on the alternate printwheels. To activate (or deactivate) the alternate keyboard, hold down the **Code** key and press the **X** key.

For printwheels, see "Recommended Supplies" on page 33.

Alternate Keyboard



Symbol Keyboard



Optional Features

- A connector for optional features is provided at the rear of the typewriter.

Do not connect anything to this plug except IBM recommended or approved equipment.

- A cloth carrying case is available to protect the typewriter. (Contact your point of purchase.)

What Happened?

Before you call for service, review this chapter.

- **Beeper signals (Beeps)**
 - A short signal means the input was accepted.
 - A long signal means the requested function was not performed properly or is not permitted. See the appropriate function in chapter 2, "How to Operate." If this does not help, turn the typewriter off, then on again and retry the function.
 - A continuous signal means the printwheel or carrier may be jammed, disconnected, and so on.

- **Typewriter Problems**

Typewriter dead:

1. Make sure the top cover is snapped down tightly.
2. Turn the typewriter off, then on again.
3. Make sure the electrical cord is plugged into the typewriter and into the wall outlet properly.
4. Be sure the wall outlet has power by checking if other equipment operates when plugged into the same wall outlet.
5. If you are using an extension cord, try plugging the typewriter directly into the wall outlet.

Typewriter too noisy:

1. Move any objects touching the typewriter.
2. Look for loose objects in the typewriter.
3. Check the typing table or desk (metal tables can make the typewriter sound noisy).

• Typing Problems

Characters do not print, wrong characters print, wrong spacing:

1. Turn the typewriter off, then on again (try typing again).
2. Make sure the ribbon cassette is installed properly.
3. Make sure the printwheel is installed properly.
4. Make sure the pitch setting matches the pitch of the printwheel.
5. Check the printwheel for broken parts.
6. Try a new printwheel.

Characters print too lightly:

1. Make sure the ribbon cassette is installed properly.
2. Look for folds in the ribbon and in the paper.
3. Try a higher setting of the impression control.
4. Try a new ribbon.
5. Try a new printwheel.
6. Try plain bond paper.

- Paper feed problems:
 1. Look for labels or paper stuck in the paper feed area.
 2. Make sure the paper release lever is pushed all the way back.
 3. Check the number of carbon copies (three maximum).

- Correction Problems

Correction does not erase all of the character or leaves shadow:

1. Make sure the correction tape is installed properly.
 2. Try a new correction tape.
 3. Look for folds in the paper.
 4. Try plain bond paper.
- Unexpected Results: Note that this is an electronic typewriter (not a mechanical one).
 - Actions may be different from those you expect.
 - If you get unexpected results, clear the correction memory and try again.
 - If this does not help, turn the typewriter off, then on and try again.

If you need assistance, call IBM Direct at 1-800-IBM-2468.

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