## Parts and Features Guide

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"This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient the receiving antenna  
- relocate the computer with respect to the receiver  
- move the computer away from the receiver  
- plug the computer into a different outlet so that computer and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve Radio—TV Interference Problems". This booklet is available from the US Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4."
Battery installation
1. Remove the battery lid cover (rear). — picture 1
2. Insert four “D” cell flashlight batteries, — either Alkaline or Manganese (Alkaline batteries will last more than 3 times longer than Manganese batteries) — with correct polarity as indicated inside. — picture 2
3. Replace the battery lid.
4. If the batteries become weak while in operation, the message “WEAK BATTERIES” will appear on the display when the return key is depressed. Replace all the batteries with new ones.
5. Remove the batteries to avoid damage caused by battery leakage or corrosion when the unit is not to be used for a long period of time, or if it is to be operated with AC adaptor for a long time.
AC power adaptor

Your printer comes equipped with an AC power adaptor. Use only the AC power adaptor that comes with this printer.

1. Polarity of the plug should be as in the picture below.
2. Connect the AC power adaptor to the printer's DC 6V jack and plug into a wall outlet. The batteries will be automatically disconnected when you are using the AC power adaptor.
Print/Cal mode setting

See picture 4.

1. **NP or NON PRINT.** In this position you can exercise and learn how to print without actual printing on paper resulting in saving ribbon and paper. Also, the calculating functions can be used without printing while in this mode.

2. **CP or CORRECTION PRINT.** At this position printing is made onto the paper automatically after going through the 16 characters display. Namely, first character is printed out after the 17th character is keyed-in (including space). Character correction can be made on display by using cursor keys, insert key and delete key, but correction is not possible after print out. You can print calculations on paper in this mode. This allows you to see what is about to be typed and correct it if necessary before actually putting it on paper. To correct on the display, please refer to "Display/Correction" on the following page.

3. **DP or DIRECT PRINT.**
   - A. At this setting, printing will be made immediately after a key is depressed.
   - B. You will also use the "DP" mode when setting your margins and tabs.

**Note:** When switching from "NP" to "DP", from "CP" to "DP" or from "CP" to "NP" characters on the display will be printed out automatically.
To correct an error on the display follow the steps relevant to the type of correction you wish to make.

A. To change one or more characters, without altering the spacing.
   Example: The word "BROTHER" is misspelled as "BROTHAR."
   1. Press the "cursor left" key until the cursor is under the incorrect character (in this case, the letter "A"). The incorrect character will be flashing. (See figure.)
      (Note: The cursor moves left one space each time you depress the cursor key, or it will repeat automatically, if you continue to hold it down.)
      BROTHAR
   2. Type in the correct character (in this case, the letter "E.").
   3. Press the "cursor right key" (not the space bar) until the cursor is moved as far to the right as possible. The flashing stops, and a "BEEP" sounds.
   4. You have completed the correction procedure, and the word will appear as below.
      BROTHER

B. To delete one or more characters
   Example: The word "BROTHER" is misspelled as "BROTHER."
   1. Press the cursor left key until you are under the character you wish to delete.
      BROTHER
   2. Press the delete key. The character will be removed, and the spacing will be adjusted accordingly.
      BROTHER
      (Note: If the "delete" key is kept depressed, it will repeat automatically.)
   3. Press the cursor right key until the cursor is all the way to the right of the display. The flashing stops, and a "BEEP" sounds.
   4. The correction procedure is completed.
C. To insert one or more characters

Example: The word “BROTHER” is misspelled as “BRTHER.”

1. Move the cursor left to the place where you want to insert a character.

   BRTHER

2. Press the "insert" key and a space will be provided for you to insert the character.

   BRTHER

3. Insert the desired character.

   BRTHER

4. Return the cursor to its normal position, by using the cursor right key.

   You are also able to insert, delete, or change entire words or phrases,
   providing they appear on the display, and therefore have not been printed
   on the page.

Example: You wish to type “The sky is blue.” However, you mistakenly put
   “The is blue.” onto the display.

   The is blue.

1. Press the cursor left key, and move the cursor to the spot where you want
   to insert characters.

   The is blue.

2. Press the insert key, and a space will be provided.

3. Type in “s” and press the insert key, and repeat the same way for “k” and
   “y” as well.

4. Now you will find the display as below.

   The sky is blue.

5. Press the space bar key once and move the cursor back all the way to the
   right with the cursor right key.

6. Your correction is complete. Continue to print.

Important Note:

Please be sure to use only the cursor left key, cursor right key, delete key, and
insert key, when making correction, and not the space bar or other keys. Also,
please be sure to return the cursor as far to the right as it can go before resuming
printing.

Display adjuster — picture 6

This knob adjusts the angle and density of the display. Turn the knob clockwise for
strong and dark character appearance or counterclockwise for light character
appearance to suit your eyes.
Clear Key — picture 7

This key is used to clear the display.

1. When the machine is set on the "NP" mode, the display will be cleared.
2. When the machine is set on the "CP" mode, characters on the display will automatically be printed out, and the display will be cleared.
3. When the machine is set on the "DP" mode, the clear key does not function.
Preparation for printing

1. Push the power switch to the ON position. —picture 8
2. Paper insert
   a) Pull the paper release lever toward you. —picture 9
   b) Insert paper in space behind the platen. Use only one sheet of paper as no carbon copy is attainable. —picture 10
c) Return the paper release lever to its original position.
d) Lift up the transparent paper bail cover with your thumbs. — picture 11
e) Depress the index key and hold it down until the paper appears. — picture 12
f) Place top edge of paper under paper bail cover. — picture 13
g) Close paper bail cover.
h) Should the paper fail to be positioned properly, pull the paper release lever again and adjust as desired.
i) To retract the paper, use the reverse index key. —picture 14
j) IMPORTANT: Do not pull out the paper from the printer by hand but use only index or reverse index key.

Note: Typing paper selection
Any type of SMOOTH FINISH TYPING PAPER is acceptable for use with your printer. The type of paper that works best with your machine is copy machine paper, duplicator paper, offset paper, or regular bond typing paper up to and including the 20 lb. weight. Rough type paper such as expensive "rag-content" paper is not recommended for use with your printer. If you use thermal typing paper, you can type without using the cassette ribbon.

3. Margin setting
   a) Set the mode selector at the DP position.
   b) Left margin set
      Use return key or backspace key to move the ribbon cassette carrier to the left and until arrow on the left side of the printing head (—picture 15) is at the desired position. Press the left margin key.
   c) Right margin set
      Move the ribbon to the desired right margin position by using space bar. Press the right margin key.
   d) If you set the margin a second time, the previously set margin is automatically cancelled.
4. **Line space setting.** — picture 16

Use the line space selector to set the desired space between lines. There are three settings:

1 : for single-spacing between lines
1-1/2 : for 1-1/2 space between lines
2 : for double-spacing between lines

5. **Tab set and clear** — picture 17

a) Set the mode selector at DP position.
b) To set a tab stop, space to the desired point and press the tab set key.
(Maximum 16 tab stops)
c) To clear one tab stop, space to the tab stop involved and press the tab clear key. To clear all tab stops, press the tab clear key and then the repeat key.
All tab stops are thus cleared, no matter where the carrier happens to be.

**Note:** Tab and margin settings are cleared if the power is switched off or a power failure occurs, while using the AC adaptor.
1. Print as you normally would on a standard typewriter. Press keys sharply and release quickly. The printer receives one key-in at a time, as does a standard typewriter.

2. The bottom part of each character lies on the red horizontal line. —picture 18

3. Shift key —picture 19

Use shift key for capital letters. To type capitals consecutively, depress shift lock (LED lamp will light <See picture>) when you use shift or shift lock keys to indicate that you are using upper case.) Release shift lock by depressing the shift key once more.
4. Second shift key — picture 20

The second shift key is used to access all of the symbols of the secondary keyboard which are printed above the appropriate keys. Second shift key must be depressed simultaneously with touching of symbols. Typing of accent marks will not move print cassette to allow the accent marks to appear above the desired character.

Note: Accents, which are used with various foreign languages, operate only with certain letters as follows:

- Accent works only with AEIOU aeiou
- AON aon

When using the above accents and letters together, be sure to key in the accent before the letter.

5. Margin release — picture 21

Use margin release key to extend typing line beyond the set margin. Extension may be to the right or left. The warning beep sounds six spaces before the end of the right margin.

6. Space bar — picture 22

Depress once for one space or hold down for repeat spacing (release to stop).
7. Repeat key — picture 23
Use the repeat key to repeat the last character or function (space bar, backspace, etc.) you print.
Example: You would like to print a line of the letter "X". First type in the letter "X", release it, then hold the repeat key down. Remember, the repeat key will always repeat the last character or function you typed. Also, the following keys will repeat themselves if kept depressed:
Space bar, Backspace key, Index key, Reverse index key, Cursor left key, Cursor right key, Delete key, Tab key, Return key

8. Return key (Power resumption key) — picture 24
Press the return key to return the carrier to left-hand margin and advance paper one line. At CP mode if there are letters on display, the carrier will return after printing them out. The return key also works as power resumption key when the printer is under the state of auto power off (See 9).
9. Auto power off
The printer has a built-in power off function. If the printer is not used for about 10 minutes after the last key-in with power switch at the ON position, the power will be automatically shut off to save battery consumption. You can resume the power by depressing the return key (Carrier will not move). Margin and tab settings or letters on display will not be cleared by auto power off function and are still alive when the power is resumed.

10. Back space key — picture 25
Depress the backspace key so that carrier moves back one space for each depression. By holding down the key, it will continue to repeat backspacing until released. At NP and CP modes, letters will be removed from the display one by one from the right with each depression of the key.
11. Tabulator — picture 26
Set the tab stops first (See 5). Press tab key. The carrier will move to the right to the next tab stop. If the key is kept depressed the carrier will move to the next tab stop points continuously. If there is no tab set the carrier moves to the right margin stop. At CP mode if there are letters on display, the carrier will move to the next tab stop after printing them out.
Calculation function

1. Set the mode selector at NP for non printing calculation or at CP for printing calculation.
2. Maximum digits for calculation including calculated results are 12.
3. Decimal point is full floating system.
4. Keys for calculations are:
   The numerals 0—9, and the decimal point from the regular keyboard. But use only the separate arithmetical keys (picture 27) for calculating.

Note:
1) Be sure that you are not in upper case when calculating.
2) Be sure to use the equal key as shown in picture 27 for computing, and not the equal key on the printer keyboard.

C clear key ............. At NP mode, the display is cleared, but at CP mode, numbers on display will be automatically printed out and clear the display. So, when you have depressed a wrong number, make sure to correct it using cursors, insert or delete keys.
5. Calculation example

Make sure to depress the clear key before you start calculation.

(Addition & Subtraction)

\[-1 + 5 - 2 = 2\]

(Multiplication & Division)

\[12.3 \times 456 \times (-7.89) \div 5.4 = -8195.08\]

(Mixed Calculation)

\[2 \times (3 + 4) = 14\]

This printer always calculates from the beginning, and disregards parenthesis or other letters and symbols from the calculation.

\[2 \times 3 = 6\] then \[6 + 4 = 10\].

Therefore, to get the correct result, calculation should be made in this manner:

\[(3 + 4) \times 2 = 14\]

(Special use)

You can print and calculate as follows by correcting the calculated result on display before printing.

1. \[\text{@$\$100 \times 50\text{ pcs } = \$5000}\]

\[\text{Corrected by using cursors and insert key}\]

2. \[4.56 \times 1.23 = 3.70731707317\]

\[\text{Corrected by using cursors and delete key}\]

Note: If calculated result overflows past the right margin stop, overflow numbers will start "blinking". In this case, depress the margin release key to extend the line, but if still blinking, erase all numbers and equal sign on the display by using cursor and delete key first, then press the return key and press the equal key so that calculated result will be resumed on display. Press the clear key for print out.
6. Error sign "E"
The display indicates "E" (error) sign when the calculated result exceeds its limits or when the operation is not correct mathematically.
1. When more than 12 digits are keyed-in.
2. When the integer part of calculated result exceeds 12 digits.
3. When dividing by 0 in division calculation.
7. If the calculated result exceeds more than 12 digits, which includes the decimal point, the result will be a rough estimation.
Cassette ribbon change

When a new cassette ribbon is required, simply replace it with an authorized cassette ribbon as follows:
1. Lift up the transparent bail cover using your thumbs.
2. Pull the paper release lever toward you.
4. Insert a new cassette and push the center of the cassette down with forefinger. Make sure to hook the printing head with ribbon. — figure 29.
5. Turn the knob counterclockwise to take the slack off of the ribbon. — picture 30.
6. Return the paper release lever to its original position.
7. Spare cassette ribbons along with a supply of typing paper can be stored inside of the lid cover. — picture 31.
Caring for your new printer

Just a little care will insure the long life and top performance of your new electronic printer. Observe carefully the following precautions.

1. Do not let paper clips or other metal items fall into the printer. They can cause major problems.
2. Do not use the machine or leave the cassette ribbon in a place exposed to direct sunlight, heat, excessive dust, moisture, rain, or mechanical shock.
3. Do not clean the printer and keys with alcohol, thinner or other organic agents. They can cause corrosion. Simply wipe off the dust from time to time with a soft dry cloth.
4. Disconnect the AC power adaptor from the wall outlet when the printer is not in use for an extended period of time.
UNPACKING INSTRUCTION
INSTRUCTIONS DE DEBALLAGE

1. Open the package.
2. Remove the keyboard from the box.
3. Unpack the keyboard components.
4. Assemble the keyboard.
5. Connect the power supply.
6. Test the keyboard.
7. Enjoy your new keyboard.