Before operating this unit, please read these instructions completely.
GUARANTEE
CONDITIONS OF GUARANTEE

This guarantee is in addition to and does not in any way affect any statutory or other rights of consumer purchasers.

If within the applicable guarantee period (as shown in 9 below) the Typewriter proves to be defective by reason of faulty design, workmanship or materials, we undertake subject to the following conditions to have the defective Typewriter (or any part or parts thereof) repaired free of charge.

1. The Typewriter shall have been purchased and used solely within the EEC countries and used solely for domestic and normal purposes and in accordance with standard operating instructions and the technical and/or Safety Standards required in the country where this Typewriter is used.

2. The purchaser shall within 7 days of purchase complete the attached card and send it to us for registration. Failure to return such card could result in delay in providing the guarantee service.

3. For Typewriters used in the U.K., Channel Islands, Isle of Man and Republic of Ireland, the Typewriter should be returned together with this guarantee and proof of date of purchase promptly on being found defective at the purchaser's risk and expense to the authorised dealer from whom the Typewriter was purchased or to the nearest authorised dealer. All enquiries must be through such dealers. For Typewriters used in other EEC countries, see 10.

4. This guarantee shall not apply to damage caused through fire, accident, misuse, wear and tear, neglect, incorrect adjustment or repair, to damage caused through installation, adaptation, modification or use in an improper manner or inconsistent with the technical and/or Safety Standards required in the country where this Typewriter is used, or to damage occurring during transit to or from the purchaser, or to damage which is attributed to acts of God.

5. If at any time during the guarantee period any part or parts of the Typewriter are replaced with a part or parts not supplied or approved by us or of an objective quality safe and suitable for the Typewriter, or the Typewriter has been dismantled or repaired by any person not authorised by us (except as provided in 10), we shall have the right to terminate this guarantee in whole or in part immediately without further notice.

6. The purchaser's sole and exclusive remedy under this guarantee against us is for the repair of the Typewriter or any defective part or parts and no other remedy, including, but not limited to, incidental or consequential damage or loss of whatsoever nature shall be available to the purchaser.

7. This guarantee shall not apply to print ribbon, correction tape, daisy wheel, rubber parts, and any other items of limited natural life.

8. Our decision on all matters relating to complaints shall be final. Any defective part which has been replaced shall become our property.

9. The guarantee period applicable to this Typewriter shall be 12 months.

10. For Typewriters used in any country of the EEC other than the U.K., Channel Islands, Isle of Man and Republic of Ireland, the following conditions shall be applicable:

(A) When the purchaser finds the Typewriter to be defective, he should promptly contact the proper sales company or national distributor in the EEC country where this guarantee is claimed, as indicated in the "Product Service Guide" or the nearest authorised dealer together with this guarantee and proof of date of purchase.

The purchaser will then be informed whether:

(i) the sales company or national distributor will handle the repair service; or

(ii) the sales company or national distributor will arrange for trans-shipment of the Typewriter to the EEC country where the Typewriter was originally marketed; or

(iii) the purchaser may himself send the Typewriter to the sales company or national distributor in the EEC country where the Typewriter was originally marketed.

(B) If the Typewriter is a product model which is normally supplied by the sales company or national distributor in the country where it is used by the purchaser, then the Typewriter, together with this guarantee card and proof of date of purchase, should be returned at the purchaser's risk and expense to such sales company or distributor, which will handle the repair service. In some countries, the sales company or national distributor will designate dealers or certain service centres to execute the repairs involved.

(C) If the Typewriter is a product model which is not normally supplied in the country where used, or if the Typewriter's internal or external product characteristics are different from those of the equivalent model in the country where used, the sales company or national distributor may be able to have the guarantee repair service executed by obtaining spare parts from the country where the Typewriter was originally marketed, or it may be necessary to have the guarantee repair service executed by the sales company or national distributor in the country where the Typewriter was originally marketed.

In either case, the purchaser must furnish this guarantee card and proof of date of purchase. Any necessary transportation, both of the Typewriter and of any spare parts, will be at the purchaser's risk and expense, and there may be a consequent delay in the repair service.

(D) Where the consumer sends the Typewriter for repairs to the sales company or national distributor in the country of use of the Typewriter, the service will be provided on the local terms and conditions (including the period of guarantee coverage) as prevail for the same model Typewriter in the country of use, and not the country of origin. Where the consumer sends the Typewriter for repair to the sales company or national distributor in the EEC country where the Typewriter was originally marketed, the repair service will be provided on the local terms and conditions prevailing in the country of origin.

(E) Some product models require adjustment of adaptation for proper performance and safe use in different EEC countries, in accordance with local voltage requirements and safety or other technical standards imposed or recommended by applicable regulations. For certain product models, the cost of such adjustment or adaptation may be substantial and it may be difficult to satisfy local voltage requirements and safety or other technical standards. It is strongly recommended that the purchaser investigate these local technical and safety factors before using the Typewriter in another EEC country.

(F) This guarantee shall not cover the cost of any adjustments or adaptations to meet local voltage requirements and safety or other technical standards. The sales company or national distributor may be in a position to make the necessary adjustments or adaptations to certain product models at the cost of the purchaser. However, for technical reasons it is not possible to adjust or adapt all product models to comply with local voltage requirements and safety or other technical standards. Moreover, where adaptations or adjustments are carried out the performance of the Typewriter may be affected.

(G) If in the opinion of the sales company or national distributor in the country where the Typewriter is used the purchaser has the necessary adjustments or adaptations to local voltage requirements and technical or Safety Standards properly made, any subsequent guarantee repair service will be provided as above indicated, provided the purchaser discloses the nature of the adjustment or adaptation relevant to the repair. (It is recommended that the purchaser should not send adapted or adjusted equipment for repair to the sales company or national distributor in the country where the Typewriter was originally marketed if the repair relates in any way to the adaptation or adjustment.)

(H) This warranty shall not be valid in any territory or territories not belonging to the Customs Territory of the Community. Please keep this guarantee with your receipt.

Panasonic Industrial U.K. LTD.
Thank you for your purchase of the Panasonic Electronic Typewriter KX-R310.

IMPORTANT (FOR UNITED KINGDOM)
The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral
Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
• The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
• The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

• This equipment is produced to BS800: 1977.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR ANY TYPE OF MOISTURE.
The serial number of the unit may be found on the label at the right side of the unit when the Top Cover is opened. For your convenience, note this number below, and retain this book along with your receipt of purchase, to serve as a permanent record of your purchase or for future reference.

MODEL NO. KX-R310
SERIAL NO. 81 AUA 0006697
NAME OF DEALER
DATE OF PURCHASE 18/11/88
RECEIPT NO.

Precautions
(Be sure to read this section before operating this unit.)

To use the unit, first remove the Dust Cover as shown in the figure.

• After confirming that the POWER switch is turned to STANDBY, open the Top Cover and remove the carriage stopper installed on the carriage shaft. Be sure to keep this stopper so the unit can be transported safely, if the need arises.

Carriage Stopper

• When you transport or ship the typewriter, be sure to position the carriage at the far right of the unit, and insert the Carriage Stopper.

Accessories (included)
Make sure that the following parts have been included with the unit.

• Ribbon Cassette ........................................... 1
  (installed on the carriage)
• Correction Tape ........................................... 1
  (installed on the carriage)
• Daisy Wheel ............................................... 1
  (installed on the carriage)
• AC Power Cord .......................................... 1
• Operating Instruction Manual .......................... 1
• Dust Cover ............................................... 1

Any details given in these Operating Instructions are subject to change without notice.
The Operating Instructions for the KX-R310 are composed of the following four chapters.

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A Main Parts

Paper Support

Paper Guide
(Refer to page 15.)

Platen Knob (left)
This is used to manually feed the paper up or down.

Pushing the left platen knob inward makes the platen variable so that it can be
rotated freely to feed the paper.

Paper Ball Lever
Pulling this lever moves the Paper Ball
away from the Platen to make a paper
insertion easy.

Top Cover
The cover must be opened when you
change the daisy wheel, ribbon cassette
or correction tape. It activates the
Safety Interlock Switch so that the
carriage will move to the centre of the
machine and stop when it is opened.

Carriage
The ribbon cassette, correction
tape and daisy wheel are installed
on the carriage.
- **Paper Release Lever**
  This lever is used to release the paper.
  Pulling this lever toward you releases the paper so that you can adjust it freely.
  Be sure to move this lever back to lock the paper before typing.

- **Platen Knob (right)**

- **Paper Bail and Rollers**
  These are used to hold the paper down.
  Set the rollers according to the width of the paper being used.

- **Pitch Scale**
  Scales for three pitches of 10, 12 and 15 are shown.
  Use these scales for margin and tab setting.

- **Safety Interlock Switch**

- **LCD Display Contrast Adjuster**
  This is used to adjust the contrast of the LCD Display.

- **LCD Display**
  Your KX-R310 has a 14 character LCD Display which helps you to confirm the typed characters before printing.
  You are also allowed to show the information stored in Phrase or Text Memory on the Display to correct, delete, move or edit it before printing.

- **Ni-Cd Rechargeable Battery Compartment Cover**
  Refer to pages 12 and 13.

- **AC IN Socket**

- **Power Switch [POWER ON/STANDBY]**

- **Carrying Handle**
  Do not swing the unit excessively.
B Selectors

Typing Mode Selector (TPWR • L/L • JSTFY)

**Typewriter (TPWR) Mode**
The characters entered will be printed immediately. You can set the margins and tabs in this mode. You can select either NORM or AUTO for Carriage Return in this mode.

**Line by Line (L/L) Typing Mode**
When character keys are depressed, the respective characters appear on the Display and can be edited (inserted, deleted, corrected) on the Display before they are printed. You can select either NORM or AUTO for Carriage Return in this mode. To print a line which does not reach the right margin or "Hot Zone", depress the RETURN (↓) key.

**Justify (JSTFY) Printing Mode**
The typed characters will first appear on the Display at which time the characters can be edited before they are printed. When the characters exceed the right margin, the KX-R310 will start printing the line up to the last word within the right margin, aligning the last character of each line at the right margin and returning the carriage automatically. To print a line which does not reach the right margin, depress the RETURN (↓) key.

**Line Spacing Selector** (1 • 1½ • 2)
This selector is used for choosing the amount of paper that is fed each time the RETURN (↓) key is depressed.

1 ...... Paper is fed one line.

1½ .... Paper is fed one and a half lines.

2 ...... Paper is fed two lines.

*When the Platen Knob is rotated manually, one latch moves the platen one half line.

**Pitch Selector** (10 • 12 • 15)
This selector should correspond with the pitch of daisy wheel in the machine.

10 ...... 10 characters per inch (2.54 cm) or 100 characters per line can be printed.

12 ...... 12 characters per inch (2.54 cm) or 120 characters per line can be printed.

15 ...... 15 characters per inch (2.54 cm) or 150 characters per line can be printed.
**Keyboard Selector (KBI • KBII)**

This selector is used to differentiate between the characters and symbols contained in each key.

**KBI** .... The characters and symbols on the left side of the key can be typed.  
**KBII** .... The characters and symbols on the right side of the key can be typed.

---

**Carriage Return Selector (NORM • AUTO)**

This selector selects whether a carriage return is made automatically or manually in the Hot Zone.

**NORM** .............. Printing stops at the right margin.

**AUTO** .............. When a "Hyphen" or "Space" is entered within the "Hot Zone", the carriage automatically returns to the left margin or the paragraph indent position of the next line.
**Function Keys**

**Margin Release Key ( ↔ )**
Releases left and right margins.

**Tab Key ( → )**
Moves the carriage to the next tab position or to the right margin.

**Left Margin Key (L MAR)**
Sets the left margin.

**Right Margin Key (R MAR)**
Sets the right margin.

**Tab Set Key (TAB + )**
Sets TAB stops.

**Tab Clear Key (TAB )**
Clears TAB stops. Also clears margins and tabs when used with the CODE key.

**Shift Lock Key/Shift Indicator ( ↑ )**
Pressing down this key creates the shifted condition so that capital letters or symbols on the top part of keys can be printed successively. Depressing the Shift key terminates the shifted condition.
- **Shift Indicator**
  Illuminates during the shifted condition.

**Shift Key**
Pressing a character key while holding down this key causes the capital letter or the symbol on the top part of the key to be printed.

**Space Bar**
Moves the carriage by one space toward the right.

**Repeat Key (RPT)**
Makes most keys repetitive keys.

**Code Key (CODE)**
Command key for automated functions used in conjunction with other keys.

**Reverse Index Key ( ⌈ )**
Reverse Index moves the paper down 1/2 line.
- **Backspace Key (←)**
  Moves the carriage by one space toward the left or the information on the Display toward the right.

- **Forward Key (→)**
  Moves the information on the Display by one character toward the left.

- **Text Key (TEXT)**
  Allows you to enter/recall information into/from memory and visualize the text on the Display for modification.

- **Print Key (PRINT)**
  Instructs the typewriter to start/stop printing documents or phrases stored in memory.

- **Cancel Key (ㄨ)**
  Deletes characters from paper, Display and memory.

- **Express Key (EXP)**
  Moves the carriage to the beginning of the line without line spacing.

- **Relocate Key (RELOC)**
  Moves the carriage next to the last printed character.
  (When you press this key after correcting errors on any previous line, the carriage moves next to the last printed character on the end of the lines so that you can continue typing with no delay.)

- **Return Key (↓)**
  Moves the carriage to the left margin of the next line.

- **Index Key (↓)**
  Moves the paper up ½ line.

- **Shift Key**

- **Quick Erase Key (QUICK ERASE)**
  Allows you to erase one word at a time.
POWER SUPPLY

A Using Household AC Power

Connect the AC Power Cord to the AC IN Socket on the unit and the Household AC Outlet.

- The configuration of AC Power Cord differs according to area.
- When you will not be using the typewriter for a long period, unplug the POWER cord after turning the POWER switch to STANDBY. About 3 watts are consumed even while the POWER switch is in STANDBY position.

B Battery

The Panasonic KX-R40 Ni-Cd Battery Pack (optional) can be charged by inserting it into the Ni-Cd Rechargeable Battery Compartment and connecting the AC Power Cord (included).

- Before using the Ni-Cd Battery Pack for the first time, be sure to charge it.
- The time required to fully charge the Ni-Cd Battery Pack is about 12 hours.
- The POWER switch must be turned on to charge the Ni-Cd Battery Pack. The Battery Pack cannot be charged while printing.
- Do not charge the battery continuously for longer than one day.
- Overcharging will not only reduce performance of the Ni-Cd Battery Pack, but may shorten its life as well.
- If the Ni-Cd Battery Pack quickly runs down soon after it has been completely charged, it has reached the end of its life. In this case, replace the Ni-Cd Battery Pack with a new one.
- The Ni-Cd Battery Pack will discharge naturally even when it is not used.

To prevent deterioration of the batteries, it is recommended that you use the Ni-Cd Battery Pack at least once or twice every three months.

- Do not use Non-rechargeable Batteries with this unit.
- Do not store the Ni-Cd Battery Pack in areas prone to high-temperature or high-humidity.
- Charge the Ni-Cd Battery Pack within an ambient temperature range of 32°F (0°C) to 104°F (40°C). If you charge the Ni-Cd Battery Pack outside this range, the performance of the Ni-Cd Battery Pack may be reduced or, in extreme cases, it may be completely impossible to charge it.
- Do not under any circumstances use any Ni-Cd Battery Pack other than the specified type (KX-R40).
- Do not, under any circumstances, disassemble or modify the Ni-Cd Battery Pack.
- Do not short circuit the Ni-Cd Battery Pack.
- Do not apply shock to the Ni-Cd Battery Pack or drop it.
- Do not, under any circumstances, pull the connecting cord hard or splice the wires.
- If the Ni-Cd Battery Pack is damaged and electrolyte (dilute sulfuric acid) gets onto skin or clothing, wash it away immediately using a large quantity of water.

Charging Method

1 Turn the POWER switch to STANDBY.

2 Open the Ni-Cd Rechargeable Battery Compartment Cover.
3. Insert the Ni-Cd Battery Pack.

4. Plug the connector of the Panasonic KX-R40 Ni-Cd Battery Pack to the terminals inside the Ni-Cd Rechargeable Battery Compartment of the main unit. Close the Ni-Cd Rechargeable Compartment Cover.

5. Connect the AC Power Cord (included) as shown in the figure.

6. Turn the POWER switch "ON" to start charging.

C. Weak Battery

The Display will start flashing to let you know the battery is almost dead. When this occurs, charge the battery using the AC Power Cord. When the POWER switch is turned on, if the battery is dead, the Display will show:

\[\text{WEAK BATTERY}\]

Even after the AC Power Cord is connected, the Display may keep flashing for a while.

D. Power Switch

When the POWER switch is set to "ON", the carriage will move to the left margin which was last set. The unit is now ready for typing.

E. Power Save

If no key entry is detected for ten minutes, the KX-R310 will display the following message and the Power Saving function will become in effect.

\[\text{POWER SAVE}\]

Depress the RETURN (↑) key to deactivate this function.

F. Memory Back-up Function

The following will be stored even after the POWER switch is turned to STANDBY:

- Stored Text
- Stored Phrase
- Margins

The built-in lithium battery that is used to retain these functions can be used for about 5 years.
1-3 CHANGING
THE RIBBON CASSETTE

1 When you lift the Top Cover, you will see the carriage, ribbon cassette and daisy wheel.

2 Hold the ribbon cassette on both sides and lift up the front portion (where the ribbon is exposed) to remove.

3 To insert a new cassette, place the back end of the cassette on the cassette holder on the carriage and snap the front portion of the cassette onto the carriage.

4 Advance the tension knob on the cassette anti-clockwise until the ribbon slack is tightened.

1-4 CHANGING
THE CORRECTION TAPE

1 To replace the correction tape, lift out the typing ribbon cassette (see "1-3 CHANGING THE RIBBON CASSETTE") and remove the two spools of the lift-off tape by pulling them outwards.

2 Place the empty spool of new tape on the left pin so that the tape winds anti-clockwise. Place the tape around the left guide and behind both metal guides. Pull the tape around the right guide and place the loaded spool on the right pin so that the tape unwinds anti-clockwise.

3 Manually turn the left-hand spool in the anti-clockwise direction, tightening the tape until resistance is felt.

4 Replace the typing ribbon cassette.

* After exchanging the correction tape, confirm that the correctable side of the tape faces toward the platen.
1-5 CHANGING THE DAISY WHEEL

To remove the daisy wheel, you do not have to remove the ribbon cassette. You will see a green lever on the right side of the carriage. Pull this lever toward you and lift out the plastic cartridge of the daisy wheel.

To insert the daisy wheel, place the plastic cartridge in the carriage with the characters facing toward the platen. Push the green lever back into position.

When the display shows "CHECK PRINTER!", this indicates that the ribbon cassette or the correction tape has run out or that the daisy wheel is not properly installed. Turn the POWER switch to STANDBY and make an inspection immediately.

1-6 INSERTING THE PAPER

1. Open the Paper Support and position the Paper Guide for the size of the paper you are using. (The Paper Guide is on the Paper Support and permits lateral sliding.)

2. Insert the paper straight under the back of the Platen.

3. Pull the Paper Bail Lever towards you. While keeping the left edge of the paper in line with the Paper Guide, turn the Platen Knob until the paper appears at the front of the Platen.

4. Feed the paper underneath the Paper Bail, pull the Paper Release Lever, and adjust the paper.

5. Return the Paper Release and the Paper Bail Levers to their original positions and then position the Paper Bail Rollers to hold down the paper.

Proper printing and correction will not be possible if there is any slack in the paper. Hold the paper by the top edges and pull up to remove any slack.
2-1 USING THE TYPEWRITER

This section introduces you to the fundamental operations of the Panasonic KX-R310. Read through it and do the exercises to familiarise yourself with each operation.

A Procedure for Typing

1 Open the Top Cover and confirm that the ribbon cassette, correction tape and daisy wheel are properly installed on the carriage.
   • Confirm that the Pitch Selector is set to the pitch of the daisy wheel you use.

2 You have a choice to use either the AC Power Cord (included) or the Ni-Cd Battery Pack (optional) as a power source.

Refer to pages 12 and 13.

3 Turn ON the POWER switch.
   The KX-R310 remembers the last margin format you used and moves the carriage to the left margin.
   The Display shows the indicator arrow and the number of characters available on the writing line.

4 Insert the paper behind the platen and rotate the platen knob to feed the paper to the desired position.

Now you can begin typing.

5 Type the following characters.

   Typewriter
   - When the Typing Mode Selector is on the “TPWR” position, the characters will be printed on the paper immediately.
   - When the Typing Mode Selector is on the “L/L” or “JSTFY” position, the characters will appear on the Display. Depress the RETURN (↓) key to print them.
   - The characters will be printed on the paper as follows.

   ![Typewriter diagram]

   You will now learn how to use the typewriter to perform simple operations. Read the following descriptions thoroughly in order to make the most use of the splendid functions of the KX-R310.

B Margin Formats

When you turn ON the POWER switch, the margin format (margins and tabs) you used last will be automatically set.

![Margin Formats diagram]

If you want to change this margin format, simply do the following:
To Clear Margins and Tabs

1 Depress the RETURN (↓) key.
The carriage must be at the left margin to begin making changes to the margin format.

2 Depress the CODE+TAB — keys.
The carriage moves to the far left and clears the entire line (both margins and all tabs).

- Should you not require changing the entire margin format, you may change the left and right margins using the MAR REL (↔) and the BACKSPACE (←) keys or the SPACE BAR.
- Should you want to change a TAB stop, depress the TAB (→) key to move the carriage to the tab position to be cleared, and depress the TAB — key to clear the tab set. To set a TAB, depress the TAB + key at the desired position.

To Set Margins and Tabs

1 2 3 4 5 6 7
CODE + TAB SPACE BAR L MAR

4 5 6 Repeat steps 4 and 5 for each tab.

Example: Set the margins and tabs as follows:
1 Set the left margin at 15
2 Set the first TAB at 30
3 Set the second TAB at 45
4 Set the third TAB at 60
5 Set the right margin at 75

8 9
R MAR

1 Clear the current margin format.
Refer to “To Clear Margins and Tabs”.

2 Depress the SPACE BAR, BACKSPACE (←) or MAR REL (↔) key until you reach the desired left margin position.

3 Depress the L MAR key to set the left margin.

4 Depress the SPACE BAR until you reach the first required TAB stop.

5 Depress the TAB + key to set the first TAB stop.

6 Repeat steps 4 and 5 for each required TAB stop. Remember that the maximum number of tab stops is 13.

7 Depress the SPACE BAR, BACKSPACE (←) or MAR REL (↔) key to move the carriage to the desired right margin.

8 Depress the R MAR key.

9 Depress the RETURN (↓) key to move the carriage to the left margin on the next line.
To Store Margin Formats in Memory

Two different margin formats (margins, tabs and hot zones) may be stored in the memory of the KX-R310 for repetitive use. You may name these formats Y or Z.

In the previous exercise you had set up a margin format. Now you are going to store this format in memory.

1  CODE + F  2  Y  or  Z

1 Depress the CODE+F keys. The Display will show:

MARGIN Y,Z?

2 Depress the Y key. The Display will show the number of characters available on the writing line in the character counter to the right of the arrow.

In the future, this margin format may be recalled at any time, eliminating the need to reset margin and tab settings as you did before.

REMEMBER, the CODE+F is only used when STORING margin formats.

To Recall Margin Formats from Memory

- To recall a margin format, you must do the following:
  Depress the CODE+Y keys. The first margin format has been recalled and is ready to be used. If you had depressed the CODE+Z keys the second format would have been brought to the writing line.

- When you want to change any of the stored margin formats, you can do it simply:  
  Set new margins and tabs. Depress the CODE+F keys. Depress the Y key or the Z (your choice). Now the new margin format has been set.

Remember, you NEVER use the CODE+F to recall margin formats from memory (only to store them).

C Hot Zone

The "Hot Zone" represents the number of spaces between the bell and the last character at the right margin. When the carriage enters the "Hot Zone", you will hear the bell which indicates that the right margin is approaching.

(It is pre-programmed in the machine at 8 spaces from the right margin. Refer to page 16.)
Using the Display

The KX-R310 has a 14 character Display which acts as an operator prompt, allowing you to correct, edit, move or delete information.

When typing, most errors are "felt" by the operator. Through the use of the Display, you can check if there are errors and correct them before they are printed.

In order to activate the Display, your Typing Mode Selector must be in the "LIL" or "JSTFY" position.

Display Messages

The Display will give you certain messages to guide you through your projects. As you proceed through the exercises in this manual, these messages will become second nature to you.

(On p. 52 you will find a listing of all the display prompts on the KX-R310.)

Display Symbols

As you begin the exercises, you will see various symbols on the Display. These symbols indicate certain functions and are listed below to help you understand what you are seeing.

You are not expected to memorize these symbols. As you proceed through this book, you will become familiar with them and understand how they relate to the various functions you are asking your KX-R310 to perform.
E  INDEX (\downarrow) and REVERSE INDEX (\uparrow)

1 Type.  2 \uparrow  Type.  3 \downarrow  4 Continue typing.

The INDEX (\downarrow) key allows you to move the paper 1/2 line toward the bottom of the page. The REVERSE INDEX (\uparrow) key allows you to move the paper 1/2 line toward the top of the page.

These keys are used for the typing of superscripts (e.g. 10\(^{th}\)) and subscripts (e.g. log\(_{10}\)000). You will also use them later in this manual for searching through the correction memory.

The 4\(^{th}\) of July is Independence Day.

1 To type this sentence, you would first enter “The
4\(^{th}\)” and then:

2 Depress the REVERSE INDEX (\uparrow) key and type
“th”.

3 Depress the INDEX (\downarrow) key to reposition the
carriage on the actual typing line.

4 Continue typing.

F  Correction

To Correct Errors on the Paper

1 \x 2 Type the correct
characters.  3 RELOC

The Panasonic KX-R310 has a one line correction memory so you can delete the characters on the current line automatically with one simple operation.

1 To erase the last printed character on the line:
Depress the CANCEL (\cancel) key to “lift” the
incorrect character off the paper. If you depress
the CANCEL (\cancel) key again or the RPT key the
next character will be erased.

- To erase characters towards the beginning of
the line, depress the EXPRESS (EXP) key, the
SPACE BAR or the BACKSPACE (\leftarrow) key and
position the carriage so that the print hammer
is on the character to be erased, or the left
vertical line on the top of the Card (Plastic)
Scale is in line with the character. Depress the
CANCEL (\cancel) key.

2 Type the correct characters.

3 Depress the RELOC key after making the correction to move the carriage back to the end of the line.
To Make Manual Corrections on a Previous Line

1. Depress the CODE+CANCEL (√) keys. This instructs the KX-R310 to enter the Manual Correction Mode. The carriage will automatically move to the left margin to allow you to begin making corrections.
   - The Display will show the symbol "M".

2. Depress the REVERSE INDEX (↑) key to position the carriage on the line with the error.

3. Depress the SPACE BAR, TAB (→), CODE+H or BACKSPACE (←) key to position the carriage over the error.

4. Depress the CODE+CANCEL (√) keys.

5. Retype the incorrect character. This will lift the character off the paper.

6. Type the correct character.
   - Repeat steps 2–6 to correct errors on other line.
   - Repeat steps 3–6 to correct the next character to the left.

7. Depress the RELOC key. This will position the carriage to the end of the last line.
   - The symbol "M" will disappear from the Display.

To erase characters on previous lines:

5. Retype the incorrect character.
   - The Display will show the symbol "M".
No Print When Making Manual Corrections

1 Depress the CODE+CANCEL (-cancel) keys. The carriage will automatically return to the left margin.
   • The Display will show the symbol "M".

2 Depress the REVERSE INDEX (↑) key to position the carriage at the beginning of the line on which the correction is to be made.

3 Depress the SPACE BAR, TAB (→), CODE+H or BACKSPACE (←) key to position the carriage on the error.

4 Depress the PRINT key. The Display will show:

   M P  ▼  60

5 Retype the error.

This information has now been entered back into memory but has not reprinted on the paper.

6 Depress the PRINT key.

7 Depress the CANCEL (cancel) key to delete the entered characters.

8 Type the correct character.
   • Repeat steps 2–8 for each error to be corrected.

9 Depress the RELOC key.

This will position the carriage to the right of the character printed last before correction.
   • The symbol "M" will disappear from the Display.

In the Justify Printing Mode:
   • Perform the steps 1–2.
   • Depress the PRINT key.
   • Retype the entire line with the error, and continue typing the line until the carriage reaches the right margin. It is necessary to type beyond the error line so that the typewriter can perform its justification.
   • Depress the BACKSPACE (←) or SPACEBAR to position the carriage on the error.
   • Depress the CANCEL (cancel) key to delete the error.
   • Type the correct characters.
   • Depress the RELOC key.
To Make Corrections on the Display

1  

2  

3 Enter the correct characters.

4  

5

Move the Typing Mode selector to "L/L" or "1STFY". This will activate the Display. As you type, the descending line counter will count down for each character key depression, letting you know how many more characters may be entered on the current line.

Enter the following information including the errors. Do not depress the RETURN (↓) key at the end of the line.

"Errors are corrected before they are printed on paper."
The Display will show:

1 Depress the BACKSPACE (←) key to position the error to the left of the indicator (●).

2 Depress the CANCEL (☒) key to delete the incorrect characters.

3 Enter the correct characters.

4 Depress the FORWARD (→) key to move toward the next error or to the end of the line.

5 Depress the RETURN (↓) key to print the information you have typed.

- If the error is located toward the beginning of the line, you may use the EXP key instead of the BACKSPACE (←) key. To reposition the carriage at the end of the line, use the RELOC key instead of the FORWARD (→) key.

To Erase one Word at a Time

1  

2  

3 Type the correct word.

The QUICK ERASE key may be used to speed up correction by correcting one word at a time.

1 Depress the BACKSPACE (←) key or the FORWARD (→) key to locate the desired position.

2 Depress the QUICK ERASE key.

3 Type the correct word.
G Bold Print

1 Depress the CODE+B keys.
The Display will show:

   BOLD 4 60

2 As you type the characters, they will be printed in bold face.

3 Depress the CODE+B keys again to deactivate the command.

   - When the Typing Mode Selector is on the "JSTFY" or "L/L" position, the symbol " ▲ " is displayed in front of and the symbol " ▼ " is displayed behind the characters to be bold.

H Underlining

1 Depress the CODE+U keys.
The Display will show:

   UNDERLINE 4 60

2 Enter the information. All characters and spaces will be underlined.

3 Depress the CODE+U keys again to deactivate the command.

   - When the Typing Mode Selector is set to "JSTFY" or "L/L", the symbol " ▲ " is displayed in front of and the symbol " ▼ " is displayed behind the information to be underlined.

   - When the Bold Print command is set together with Underlining, the symbol " ▲ " will be shown on the Display.

By depressing the CODE+T keys, the current printing mode (NORMAL, BOLD, UNDERLINE or BOLD & U/LINE) can be displayed for one second.
Decimal Tabulation

1 Depress the CODE+TAB (→) keys.
The carriage will move to the first TAB position
and the Display will show:

2 Enter the numbers and decimal point.
The entry can be seen on the Display.

3 Depress the CODE+TAB (→) keys.
The first column will be printed so that the
decimal point is positioned on the tab stop and
the carriage will move to the next tab position.
Repeat the above two steps until you have completed
all of your column entries.

- After entering the last number, depress the
  RETURN (↓), TAB (→) or PRINT key to execute printing.
- To terminate the Decimal Tabulation command, while "D" is on the Display as
  shown in steps 1 and 2, depress the CANCEL
  (×) key.
J Centring

Your KX-R310 has three ways to centre information; between margins, between tab stops and over a specified point.

**Between Margins**

1. Depress the RETURN (↓) key to position the carriage at the left margin.

2. Depress the CODE+C keys to move the carriage to the centre of the margins. The Display will show:

```
G  30
```

3. Enter the information to be centred. The characters will appear on the Display.

```
G  centring 26
```

4. Depress the RETURN (↓) key, the TAB (→) key or the PRINT key. The information entered will be printed between the margins and the Centring command will be deactivated.

● When the indent function is in operation, perform centring between the indented position and the right margin.
Between Tab Stops

1 Depress the TAB (→) key to position the carriage at the left tab position of the column you want to centre in.

2 Depress the CODE+C keys. The Display will show:

   C centring 38

3 Enter the information to be centred. The typed characters will appear on the Display.

4 Depress the RETURN (↓) key, the TAB (→) key or the PRINT key. The information will be printed between tab stops and the Centring command will be deactivated.

Over a Specified Point

1 Depress the SPACE BAR to move the carriage to the desired position.

2 Depress the CODE+C keys. The Display will show:

   C 46

3 Enter the information to be centred. The characters will appear on the Display.

4 Depress the RETURN (↓) key, the TAB (→) key or the PRINT key. The information will be printed and the Centring command will be deactivated.
K Right Margin Flush

1. Enter the information.

2. Depress the CODE + R keys to move the carriage to the right margin. The Display will show:

3. Depress the PRINT or RETURN (↓) key. The characters will be printed with the last character Right Margin Flush. The command will then be deactivated.

L Paragraph Indent

1. Depress the TAB (→) key or the SPACE BAR to move the carriage to the desired indented position.

2. Depress the CODE + I keys. This sets the indented (temporary left margin) position. The Display will show:

3. Type the characters. Depress the RETURN (↓) key to move the carriage to the indented position on the next line. Continue typing.

4. Depress the CODE + I keys again to deactivate the command. The carriage will move to the original left margin when the RETURN (↓) key is depressed.
Permanent Hyphen

When you reach the end of a line, you may need to hyphenate a word to stay within your margin settings. In this case, depress the "-" key. The hyphen will be printed and the carriage will automatically returns to the left margin of the next line. This hyphen which is used temporarily in the hot zone, is called a "Temporary Hyphen". It is indicated by the symbol "=" on the Display and will be printed at the same point every time you print this text recalled from memory.

Permanent Space

1. Type the 1st word.
2. CODE + SPACE BAR.
3. Type the 2nd word.

Since your KX-R310 allows you to print with automatic returns or with a justified margin, there may be times you do not want to separate characters or words. The KX-R310 allows you to set a "Permanent Space" between characters and will not separate them when printing with varied line lengths.

1. Type the first word.

New → 57

Caps Lock

1. CODE + SPACE comes on
2. Type.
3. CODE + SPACE goes off

To preset the unit for typing capital letters, lower case numbers, punctuation marks and symbols:

Depress the CODE+LOCK ( ) keys.

In this mode the Shift key will call for the opposite characters to be entered.

1. Depress the CODE+LOCK ( ) keys. The Shift Indicator will come on and the Caps Lock mode will be activated.

2. Type the text.

3. Depress the CODE+LOCK ( ) keys again to deactivate the command. The Shift Indicator will go off and the Caps Lock mode will be deactivated.
Micro-Pitch Spacing

Depressing the CODE+J keys move the carriage by 1/60 inch.
You may use this function to "squeeze" characters together.
In the "LJL" and "JUSTFY" mode, the symbol "..." will appear on the Display.

Half Space

Depressing the CODE+H keys reduces the normal carriage spacing by one half.

3-1 MEMORY

Your KX-R310 has an internal memory of 7,000 characters which can be used to store phrases or texts to be recalled as you wish.

At this time, you will be required to delete portions of the memory, which are no longer needed to continue with your current project. Deletion of Memory Contents will be discussed later in this manual.

The memory can be accessed in two different ways.

The first is what is referred to as "Phrase Memory", where you have quick access to the memory for storing commonly used phrases, address or paragraphs.
The second method is called "Text Memory", which is used for lengthy documents or projects requiring editing or repetitive printing.
When your KX-R310 has reached the maximum storage capacity of 7,000 characters, the bell will ring every time a key is depressed and the Display will indicate the following:

MEMORY FULL!
3-2 PHRASE MEMORY

The KX-R310 will allow you to store up to twenty (20) separate phrases, which can be used for storing short blocks of data such as dates, names and addresses, standard paragraphs, signature blocks, etc. Remember, the length of each phrase is limited by the total available memory of your KX-R310.

A  To Store Information in the Phrase Memory

1  CODE + 1-20 key +  
2  Enter the information.  
3  CODE + the selected phrase No. +

• The way printing is performed depends on the typing mode:
  In the "TPWR" mode:
  As you type, the characters are printed on the paper.
  In the "LIL" or "JSTFY" mode:
  As you type, the characters are shown on the Display and each line will be printed after the RETURN (↓) key. PRINT or TAB (→) key is depressed or an AUTOMATIC RETURN is performed.

1  Depress the CODE+ 1-20 keys (the desired phrase memory No.). The Display will show:

PHRASE 1

B  To Print from the Phrase Memory

1  CODE + the desired phrase No. +
2  PRINT

• In the "LIL" or "JSTFY" mode:
  The stored phrase will be printed continuously as long as each line reaches the right margin. When a line doesn't reach the right margin, the line will not be printed until the PRINT key or the RETURN (↓) key is depressed.

1  Depress the CODE+ 1-20 keys and then RETURN (↓) key (desired phrase memory No.). The first 12 characters of the stored phrase will appear on the Display.

   1 The quick br

2  Depress the PRINT key.
   The Display will show:

   PRINTING

• In the "TPWR" mode:
  The stored phrase will be printed continuously until it ends.

Phrase Memory will accept:
Bold Underline
Centering Right Margin Flush
Phrase Memory will not accept:
Tab Decimal Tab
Paragraph Indent Stop Code

Depress the RETURN (↓) key. The Display will show the phrase number selected:

1  Enter the information to be stored. For example, type: "The quick brown fox jumps over the lazy dog."

2  Depress the CODE+ 1-20 keys and then RETURN (↓) key (the number selected in step 1) again to close the phrase block.

• Repeat the above steps for storing information in other phrase memory block.
C  To Stop Printing in the Middle of a Phrase

1  While printing  

2  Y or N

1  Depress the PRINT key to stop printing.
The Display will show:

CONTINUE Y/N ?

2  To continue printing:
Depress the "Y" key.
To exit the printing command:
Depress the "N" key.

- Depressing the EXP key clears the PRINT command and moves the carriage to the beginning of the phrase.

D  To Modify a Phrase

1  CODE + phrase + J

2  ← or →

3  X or ERASE

4  Type.

5  CODE + the selected phrase No. + J

Example: Change the word "brown" to "yellow"

1  Depress the CODE+1-20 keys (memory number of a phrase to be modified) and then RETURN (↓) key.
The first 12 characters of the recalled phrase will be shown on the Display.

□ 1 The quick br ↓

2  Depress the FORWARD (→) or BACKSPACE (←) key to position the last character of the word to be deleted to the left of the indicator arrow.

he quick brown ↓

3  Depress the CANCEL (X) key or the QUICK ERASE key to delete the word.

□ 1 The quick ↓

4  Type the new word.

quick yellow ↓

5  After your corrections have been made:
Depress the CODE+1-20 keys (phrase number entered in step 1) to close your modified phrase and then RETURN (↓) key.

- If the part to be modified is located toward the end of the phrase, depress the RELOC key to position yourself at the end of the phrase.
To return to the beginning of the phrase, depress the EXP key.
- When modifying a phrase, additional information will not be printed on the paper.
E To Scroll through Phrase Memory

There are several ways of locating characters within a phrase to make additions, deletions or corrections. Two of these ways are called "scrolling".

- Depressing the CODE+FORWARD (→) keys allows you to scroll forward through the first few characters of each line.
- Depressing the CODE+BACKSPACE (←) keys allows you to scroll backward through the first few characters of each line.

You can also use this function to scroll through text memory.

F Direct Search to a Particular Point

1 CODE + the phrase No.

2 Depress the EXP key to move to the beginning of the phrase.

3 CODE + S

4 Enter the word(s) (maximum of 10 characters) you are searching for.
   (For example, type "dog")

5 Depress the RETURN (↓) key.
   On the Display, the last character you entered in the Search Command will be positioned to the left of the indicator arrow "▲".
   r the lazy dog ▲

- If the word is not found in the phrase, the Display will show:
   NOT FOUND !!
G  To Clear a Phrase from Memory

1 Depress the CODE+1-20 keys (memory number of a phrase to be cleared) and then RETURN (down) key.
The first 12 characters of the phrase will appear on the Display.

2 Depress the CODE+CANCEL (X) keys. The Display will show:

CLEAR PHR. Y/N?

3 Depress the “Y” key for yes.
• Depress the “N” key for no.

3-3 TEXT MEMORY

1 TEXT 2 I INSERT or E END or L LIST

• The Text Memory allows you to enter documents which would require revisions, repetitive print-out, insertion of variable information or width changes. With this memory you may store documents that are either short or lengthy. Once you begin using the Text Memory, you will find yourself using it all the time because of its ease of operation and the perfect finished appearance of your projects.

• You can also enter special functions such as Tab, Decimal Tab and Indent commands as well as Centering, Bold Print and Underlining.

• You will notice that when entering, modifying or printing a document, the Display on your KX-R310 will ask:

1 IN/EDIT/LIST?

2 You should depress the “I” key for In, “E” key for Edit, or “L” key for List.

Depress the “I” key when you are:
• creating the initial text
• continuing (adding) to the end of a text

Depress the “E” key when you are:
• recalling a text for modification
• recalling a text to print it
• listing the text names in memory on the Display
• deleting a text from memory
• renaming a text

Depress the “L” key when you are:
• requesting a printed list of text names in memory
To Store Information in the Text Memory

1 Depress the TEXT key.

2 Since you are entering information into the text memory:
Depress the “I” key.

3 Name the text as you wish, but do not exceed ten (10) characters. (For example, “TEST 1”)

4 Depress the RETURN (↓) key.
The Display will show the symbol “T” and the number of characters you have available on the writing line.

5 Begin typing your document.
"The quick brown fox jumps over the lazy dog."
• The way the text is printed depends on the typing mode:
  In the “TPWR” mode:
  As you type, the characters are printed on the paper with the automatic return.
  In the “UL” or “JSTFY” mode:
  As you type, the characters are shown on the Display and each line will be printed after the RETURN (↓), PRINT or TAB (→) key is depressed or an AUTOMATIC RETURN is performed.

6 To complete the typing, depress the TEXT key again to store the information and close the text.
• The carriage will move to the left margin when the text is closed.

When entering text names, all characters will appear in capital letters no matter how you type them.

The minimum storage capacity of 47 bytes is necessary to store a text (file).
To Add to an Existing Text (File)

1. Depress the TEXT key.

2. Depress the "I" key.

3. Enter the text name to be recalled.

4. Depress the RETURN (↓) key. The Display will show the following message.

5. Depress the "Y" key.
   - Depress the "N" key to go back to step 2.

6. This positions you at the end of the text. Continue typing as you did while storing.
   - You cannot scroll backwards through the text at this time, using the BACKSPACE (←) key, etc. You may only continue where you left off.

7. Depress the TEXT key again to store the added information and close the text.

If you are interrupted while entering a text, simply end the document and continue it later.

IN/EDIT/LIST?

TXT=

CONT. TEXT Y/N?
You have entered your document into memory and now want to print it.

1. Depress the TEXT key.

   IN/EDIT/LIST?

2. Depress the "E" key.

   TXT=

3. Enter the name of the text to be printed.
   - If you don't remember the text name, depress the CODE+INDEX (↓) keys, the first text stored in memory will be recalled and the Display will show its name.
   - Depress the CODE+INDEX (↓) keys to display the next text, or the CODE+REVERSE INDEX (↑) keys to display the previous one.

4. Depress the RETURN (↑) key.

   MAR CURR/STOR?

If the margin format you want to use is:
- the current format, depress the "C" key. The text will be opened and the unit will start printing from the point where the carriage is located.
- the format used when the text was stored last, depress the "S" key. The text will be opened, the carriage will move to the left margin and the unit will start printing.

The Display will show the symbol "7" and the text name, followed by the symbol (1) indicating you are at the beginning of the text.

7. In case the text name is not stored in memory, the Display will show the following message for about one second:

   NOT FOUND!!

- Go back to the step 1.

5. Depress the PRINT key.

6. Your KX-R310 will begin printing the document and the Display will show the following:

   PRINTING

7. When printing has finished, the Display will show the last part of the text.
   - If you want to print more than one original, depress the PRINT key again. The KX-R310 will start printing from the current carriage position.

8. Depress the TEXT key to close the text.
D  To Stop Printing in the Middle of a Text

1 During printing

2 N or Y

1 Depress the PRINT key during printing.

CONTINUE Y/N?

2 If you want to exit the printing mode:
Depress the "N" key or any other key.
If you want to continue printing the text:
Depress the "Y" key.
Your KX-R310 will resume printing from the point on the line where it stopped.

E  To Print from a Particular Point

1 Enter the text name.

2 or

CODE +

3 Depress the BACKSPACE (←) key until the first character to be printed disappears behind the indicator arrow (▲).

4 Depress the PRINT key to start printing.

*If you want to reprint from the beginning of the text:
Depress the EXP key to return to the beginning of the text.
Depress the PRINT key.
Your KX-R310 will start printing from the beginning of the text.

*The Word Search function (see p. 33) will help you to locate the desired word(s) easily.
To Modify a Text (File)

1. Depress the TEXT key.

2. Depress the "E" key.

3. Enter the name of the text to be modified.

4. Depress the RETURN (↓) key.

The Display will show the symbol "\(\text{\textsuperscript{7}}\)" and the text name, followed by the symbol (\(\text{\textsuperscript{4}}\)) indicating you are at the beginning of the text.

The text name is:

5. Depress the FORWARD (→) key or the BACKSPACE (←) key to position the last character of the word or phrase to be deleted to the left of the indicator arrow.

6. Depress the CANCEL (\(\text{\textsuperscript{X}}\)) key to delete the characters and type new characters.

7. Depress the TEXT key again to store the modified information and close the text.

- If you wish to use the current margin settings (format), depress the "C" key. The text will be opened and the unit will start printing from the present carriage position.
- To use the same format as when the text was stored (if different from the current format), depress the "S" key. The text will be opened, the carriage will move to the left margin and the unit will start printing.
G | Word Search

1. Enter the text name.
2. Depress the CODE+S keys.
3. Enter the word or words (maximum of 10 characters) you are searching for.
   - To search for a return mark, depress the CODE+RETURN (→) keys.
   - To search for a start mark of the BOLD or UNDERLINE function, depress the CODE+B keys for BOLD or CODE+U keys for UNDERLINE.
   - To search for an end mark of the BOLD or UNDERLINE function, depress the CODE+B keys twice for BOLD or CODE+U keys twice for UNDERLINE.
4. Depress the RETURN (↓) key. The Display will show the word(s) you entered in the Search Command just left of the indicator arrow (↑).
5. Modify the word if necessary.
6. Depress the BACKSPACE (←) key or the FORWARD (→) key to move to the desired position, and depress the CANCEL (X) key to modify.

As you have done in the Phrase Memory, you can locate the word to be corrected directly within a text.

1. Perform the steps 1-4 of "To Modify a Text (File)" on p. 38 to recall the text from memory.

2. When the entered word is not included in the text, the Display will show:

   NOT FOUND!!

3. To locate the second position of the entered word within the text, depress the CODE+INDEX (↑) keys.
4. If you have passed the word location you are looking for and want to go backwards through the text, depress the CODE+REVERSE INDEX (↑) keys.
Word Replace

There may be times when certain words (such as titles or names) appear very often in a document, and need to be changed. Rather than modifying each one separately, the KX-R310 can perform a "global search" and replace the words wherever they appear in the text.

1. Perform the steps 1–4 of "To Modify a Text (File)" on p. 39 to recall the text.

2. Depress the CODE+X keys.

3. Enter the word you want to replace (maximum 10 characters). Depress the RETURN (↓) key.

4. Enter the word or words you want to insert (maximum 10 characters).

5. Depress the RETURN (↓) key. The Display will show the last position in the text where your change has been made. The changes have been made throughout the text.

- UNDER BAR
- TAB
- DEC TAB
- BOLD, UNDERLINE MARK
- INDENT
- CENTRING
- RIGHT MARGIN FLUSH
- RETURN
- STOP CODE
- BLOCK MARK ([])

If the word entered is not in the text, the Display will show the following for about one second and deactivate the Word Replace command.

NOT FOUND !!

Only the word or words, with the following symbols in front of and behind, can be searched for.

• SPACE, CODE+H, CODE+SPACE, CODE+J
Your KX-R310 allows you to recall phrases stored in the Phrase Memory and insert them into the Text Memory.

1 Recall your text.  
[Refer to the steps 1–4 of “To Modify a Text (File)” on p. 39.]

2 Depress the CODE+S keys.

S-WD=

3 Enter the word preceding the point at which the phrase is to be inserted.

4 Depress the RETURN ( ) key.  
The Display will show the word(s) entered in the Search Command just left of the indicator arrow ( ).

5 Depress the CODE+1-20 keys (the phrase No. to be inserted) and then RETURN ( ) key.  
The Display will show:

COPY PHR. Y/N?

6 Depress the “Y” key if you want it copied into the text.  
*If you do not want it copied into the text, depress the “N” key.
Block Move, Copy and Delete

When the need to move, copy or delete a sentence or a paragraph arises, the KX-R310 can do it simply and automatically.

Mark a Block

1 Recall your text.
[Refer to the steps 1-4 of “To Modify a Text (File)” on p. 39.]
The Display shows you are at the beginning of the text.

2 Depress the FORWARD (→) key, the CODE+FORWARD (→) keys, the CODE+S keys, the BACKSPACE (←) key or the CODE+BACKSPACE (←) keys to move the first character of the block to be moved, copied or deleted until it disappears behind the indicator arrow (↓).

3 Depress the CODE+M keys.
The Display will show a rectangular (□) symbol just left of the indicator arrow, which indicates the "beginning of move, copy or delete command".

4 Depress the FORWARD (→) key, the CODE+FORWARD (→) keys, the CODE+S keys, the BACKSPACE (←) key or the CODE+BACKSPACE (←) keys to position the last character of the block to be moved, copied or deleted to the left of the indicator arrow.

5 Depress the CODE+M keys again.
A second rectangle will appear on the Display indicating “end of move, copy or delete command” (□).

7 the lazy dog ▶️

7 x jumps over ▶️
To MOVE the information block

1 Mark the block.
2 Locate the new position.
3 CODE + M
4 M

1 Perform the steps 1–5 of "Mark a Block" on p. 43 to locate the information block to be moved.
2 Move to the position where you want to insert the information block which you have just marked, using the FORWARD (→) key, BACKSPACE (←) key or CODE+BACKSPACE (←) or CODE+FORWARD (→) keys.

The lazy dog ▶

3 Depress the CODE+M keys.

MOVE/COPY/DEL?

4 Depress the "M" key to delete the words inside the □ marks and move them to the new position.

The lazy dog ▶

To COPY the information block

1 Mark the block.
2 Locate the position.
3 CODE + M
4 C

1 Perform the steps 1–5 of "Mark a Block" on p. 43 to locate the information block to be copied.
2 Move to the position where you want to copy the information block.
(Refer to the step 2 of "To MOVE the information block" on this page.)

3 Depress the CODE+M keys.

MOVE/COPY/DEL?

4 Depress the "C" keys to copy the information block at the new position.

The lazy dog ▶

To DELETE the information block

1 Mark the block.
2 CODE + M
3 D

1 Perform the 1–5 steps of "Mark a Block" on p. 43 to mark the information block to be deleted.
2 Depress the CODE+M keys.
The Display will show:

MOVE/COPY/DEL?

3 Depress the "D" key to delete the information block.

fox jumps over ▶
### To Rename a Text

1. **Enter the text name.**
   
   ![Diagram](image1.png)

2. **Depress the CODE+N keys.**

   ![Diagram](image2.png)

   **NEW =**

3. **Enter the new name.**

   ![Diagram](image3.png)

4. **Depress the RETURN (↓) key.**

   If the name you just entered is already being used, the Display will show:

   **ALREADY EXISTS**

5. **Depress the TEXT key to close the text.**

   - Your text is now renamed. In the future, the new text name should be used because the original is no longer in memory.

---

1 Recall your text. [Refer to the steps 1–4 of “To Modify a Text (File)” on p. 39.]

   The Display will indicate the beginning of the text.

2 **Depress the CODE+N keys.**

   **NEW =**

3 **Enter the new name.**

4 **Depress the RETURN (↓) key.**

   If the name you just entered is already being used, the Display will show:

   **ALREADY EXISTS**

5 **Depress the TEXT key to close the text.**

   - Your text is now renamed. In the future, the new text name should be used because the original is no longer in memory.
**L** To List Texts on the Display

1. Depress the TEXT key.

```
IN/EDIT/LIST?
```

2. Depress the "E" key.

```
TXT=
```

3. If you don't remember the text name, depress the CODE+INDEX (↑) keys. Your Display will show the name of the first text which you have in memory.

- Continue depressing the CODE+INDEX (↑) keys to scroll forward through the remaining text names.

- Depress the CODE+REVERSE INDEX (↓) keys to scroll backward through the text names.

- When you have reached the last text in memory, your KX-R310 will beep to indicate "End of Memory".

- To select a text to edit or print, depress the RETURN (↓) key when the correct text name is displayed.

4. Depress the TEXT key to exit the text listing command.

---

**M** To Print the Text Listing

1. Depress the TEXT key.

```
IN/EDIT/LIST?
```

2. Depress the "L" key.

```
PRINTING
```

- The names of the texts in memory will be printed on the paper.
- The amount of available memory will also be printed.
Memory Left

Depress the CODE+Q keys.
The Display will show the following for about one second.

MEM LEFT (# chr. available)

Occasionally you will want to know how much memory is available before entering a new text. To find out;

To Clear a Text from Memory

When you no longer need a particular text, or need the space to enter a new text, you can delete an old text from memory as follows:

1 Recall your text. (Refer to the steps 1–4 of "To Modify a Text (File)" on p. 39.)

2 Depress the CODE+CANCEL (✓) keys.

CLEAR TEXT Y/N?

3 Depress the ‘Y’ key to delete the text from memory.
- If you want to exit from this mode without deleting the text, depress the ‘N’ key.
To Delete Contents of Memory

1. Depress the CODE+K keys.

2. Depress the "M" key to clear the contents of Phrase and Text Memories.
   If you want to clear the entire memory of the machine (including Margin Format storage):
   Depress the "A" key to clear the entire memory of the machine (including Margin Format storage).
   Depress the CANCEL (C) key to stop from clearing them.

To Change the Margin Format in the Text

1. Enter the text name.
   - Press CODE+E
   - Press CODE+F
   - Press CODE+N

The KX-R310 allows you to change the margin format in the text memory to the current margin format.

1. Recall your text. (Refer to the steps 1–4 of "To Modify a Text (File)" on p. 39.)
   Depress the "C" key to choose the current margin format.

2. Depress the CODE+F keys.

3. Depress the "Y" key to store the current margin format in the text.
   Depress the "N" key, if you do not want to change the format.
You may have to type a letter and send it to several different people. Each letter must be personalized and have specific but different information inserted into the body of the text. These different bits of information are referred to as "variables". Your KX-R310 will allow you to enter a text and instruct it to stop printing at a particular point so that you may insert the variable within the body of the letter. This code "to stop printing and insert variables" is called a Stop Code.

1. Enter the text name.
2. Begin typing the document.
3. When you are at the position within the text where you want to insert variable information: Depress the CODE + P keys.

**STOP CODE SET**

1. Perform the steps 1–4 of "To Store Information in the Text Memory" on p. 35.
2. Begin typing the document.
3. When you are at the position within the text where you want to insert variable information: Depress the CODE + P keys.
4. Continue typing.
   When your Typing Mode Selector is set to the "LiL" or "JSTFY", the symbol "S" appears on the Display at the position where the stop codes will be inserted.
   (See the example below.)
   - Continue entering the stop codes following the above procedure for all locations where the variables will be inserted.

   **7 yellow S jump 25**

5. When you have completed entering the text, depress the TEXT key again to store the stop codes and close your text.
To Print a Text with Stop Codes

1. Perform steps 1-4 of “To Modify a Text (File)” on p. 39 to recall the text. The Display will indicate that you are at the beginning of the text.

2. Depress the PRINT key to print to the point where the first stop code was set. The Display will show:

   STOP CODE

3. Enter your variable which will be inserted in the first position by typing it or recalling it from the Phrase Memory. [CODE+1-20+RETURN (↑) key]

4. Depress the PRINT key to resume printing.

B. To Store Information with No Print

The KX-R310 allows you to store phrases and texts with the NO PRINT feature. By using this feature you can store information without printing them on the paper.

When storing in the phrase memory:
- Perform step 1 of “To Store Information in the Phrase Memory” on p. 31.
- Depress the PRINT key or the CODE+PRINT keys. The Display will show:

   ♂ T P
   ➡60

- Perform steps 2-3 of “To Store Information in the Phrase Memory” on p. 31.

When storing in the text memory:
- Perform steps 1-4 of “To Store Information in the Text Memory” on p. 35.
- Depress the PRINT key or the CODE+PRINT keys. The Display will show:

   T P

- Perform steps 5-6 of “To Store Information in the Text Memory” on p. 35.

When you use the PRINT key, the carriage will move corresponding to the Typing Mode Selector. When you use the CODE+PRINT keys, the carriage will not move.
4-1 LIST OF CODE KEY FUNCTIONS

- **set/releases BOLD print**
- **Centres information**
- **resets carriage and Correction Memory**
- **stores Margin Format and changes Margin Format in a text**
- **Half spacing**
- **set/releases Paragraph Indent**
- **moves the carriage by 1/60 inch (Micro-Pitch Spacing)**
- **clears memory**
- **moves, copies and deletes information block in a text**
- **renames texts**
- **sets the Stop Code in a text**
- **inquires memory available**
- **_prints information with the last character on each line aligned at the right margin**
- **searches words in a phrase or a text**
- **displays the current printing mode (NORMAL, BOLD, UNDERLINE or BOLD & U/LINE)**
- **sets/releases Underlining**
- **replaces words in a phrase or a text**
- **recalls Margin Format**
- **recalls Margin Format**
- **recalls/store phrase memory**
- **scrolls backward through the first characters of each line in a phrase or a text**
- **scrolls forward through the first characters of each line in a phrase or a text**
- **sets correction manually in normal model/clears phrases or texts**
- **moves next text name/moves next search word position**
- **moves prior text name/moves previous search word position**
- **sets Permanent Space**
- **aligns decimal points at the preset tab stops**
- **clears all tabs and margins**
- **searches the return mark while executing the word search command or the word replace command**
- **presets the unit for typing capital letters, lower case numbers, punctuation marks and symbols**
- **stores information without printing or carriage movement**
### 4-2 LIST OF DISPLAY MESSAGES

<table>
<thead>
<tr>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALREADY EXISTS</td>
<td>The entered text name has already been stored in the memory.</td>
</tr>
<tr>
<td>BOLD</td>
<td>Bold print is in operation.</td>
</tr>
<tr>
<td>BOLD &amp; U/LINE</td>
<td>Both bold and underline modes are in operation.</td>
</tr>
<tr>
<td>BUSY</td>
<td>The machine is operating.</td>
</tr>
<tr>
<td>CHECK PRINTER!</td>
<td>Something is wrong with the printer. Check the typewriter.</td>
</tr>
<tr>
<td>CHG FORM Y/N?</td>
<td>Do you want to change the margin format stored in the text?</td>
</tr>
<tr>
<td>CLEAR MEM/ALL?</td>
<td>Do you want to clear only stored phrases and texts or entire contents of memory?</td>
</tr>
<tr>
<td>CLEAR PHR. Y/N?</td>
<td>Do you want to clear this phrase from memory?</td>
</tr>
<tr>
<td>CLEAR TFXT Y/N?</td>
<td>Do you want to clear this text from memory?</td>
</tr>
<tr>
<td>CODE</td>
<td>CODE key is depressed.</td>
</tr>
<tr>
<td>CONT. TEXT Y/N?</td>
<td>Do you want to continue typing in the text?</td>
</tr>
<tr>
<td>CONTINUE Y/N?</td>
<td>Do you want to continue printing?</td>
</tr>
<tr>
<td>COPY PHR. Y/N?</td>
<td>Do you want to add this phrase to the body of a text?</td>
</tr>
<tr>
<td>C-WD=</td>
<td>Enter the word or words you want to replace. Enter the word or words you want to insert.</td>
</tr>
<tr>
<td>IN/EDIT/LIST?</td>
<td>Do you want to enter a text; recall a text; or print a list of texts in memory?</td>
</tr>
<tr>
<td>LID OPEN</td>
<td>The top cover is opened.</td>
</tr>
<tr>
<td>MAR CURR/STOR?</td>
<td>Which margin format do you want to use, the current one or the one you used when storing?</td>
</tr>
<tr>
<td>MARGIN Y, Z?</td>
<td>In which location do you want to store the margin format?</td>
</tr>
<tr>
<td>MEM LEFT</td>
<td>The numeric value represents the number of characters left in memory.</td>
</tr>
<tr>
<td>MEMORY FULL!</td>
<td>Entire memory capacity has been used.</td>
</tr>
<tr>
<td>MOVE/COPY/DL?</td>
<td>Do you want to move the block? copy the block? delete the block?</td>
</tr>
<tr>
<td>NEW=</td>
<td>Enter the new name for a stored text.</td>
</tr>
<tr>
<td>NORMAL</td>
<td>The printing mode is normal.</td>
</tr>
<tr>
<td>NOT FOUND!!</td>
<td>The required word is not within this phrase or text, or the text not in the memory.</td>
</tr>
<tr>
<td>PHRASE (the selected No.)</td>
<td>The selected phrase number is entering.</td>
</tr>
<tr>
<td>POWER SAVE</td>
<td>Power Saving function is in operation.</td>
</tr>
<tr>
<td>PRINTING</td>
<td>The machine is printing. The KX-R310 is printing from text or phrase memory.</td>
</tr>
<tr>
<td>RESET Y/N?</td>
<td>Do you want to reset the carriage and correction memory?</td>
</tr>
<tr>
<td>STOP CODE</td>
<td>Insert variable information here and depress the PRINT key to continue text.</td>
</tr>
<tr>
<td>STOP CODE SET</td>
<td>Stop printing command for variable entry.</td>
</tr>
<tr>
<td>S-WD=</td>
<td>Enter the information you want to search for.</td>
</tr>
<tr>
<td>TOO MANY TABS</td>
<td>You have tried to enter more than the maximum number of tab stops.</td>
</tr>
<tr>
<td>TXT=</td>
<td>Enter the name of the text.</td>
</tr>
<tr>
<td>UNDERLINE</td>
<td>Underline mode is in operation.</td>
</tr>
<tr>
<td>WEAK BATTERY</td>
<td>The battery needs recharging.</td>
</tr>
</tbody>
</table>
### Troubleshooting

- Check the points below before returning your typewriter for service.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Remedy/Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>No operation; even when keys are depressed, nothing appears on the Display.</td>
<td>The plug for the Ni-Cd Battery Pack is not correctly connected.</td>
<td>Correctly connect the plug for the Ni-Cd Battery Pack.</td>
</tr>
<tr>
<td></td>
<td>The POWER switch is turned to &quot;STANDBY&quot; or Power Cord is unplugged.</td>
<td>Turn the POWER switch &quot;ON&quot;. Plug in the Power Cord.</td>
</tr>
<tr>
<td></td>
<td>The Power Saving function is in effect.</td>
<td>Depress the RETURN (↓) key.</td>
</tr>
<tr>
<td></td>
<td>The LCD Contrast Adjuster is set to low contrast.</td>
<td>Adjust the setting of the LCD Contrast Adjuster.</td>
</tr>
<tr>
<td></td>
<td>The battery has run down after a very short period of use, even though it was correctly charged.</td>
<td>Replace the battery pack with a new one. (optional)</td>
</tr>
<tr>
<td>Unit does not print correctly, or printing is blurred.</td>
<td>Flasching Display (battery has worn out).</td>
<td>Recharge the battery.</td>
</tr>
<tr>
<td></td>
<td>End of Ribbon Cassette or Correction Tape.</td>
<td>Replace with new Ribbon Cassette or Correction Tape.</td>
</tr>
<tr>
<td>No deletion even with the CANCEL (.deep) key; blurred characters.</td>
<td>Correction Tape is not installed, or installed incorrectly.</td>
<td>Install Correction Tape.</td>
</tr>
<tr>
<td>Buzzer sounds during typing and typing is disabled (keys do not function).</td>
<td>Carriage at right margin.</td>
<td>Depress the RETURN (↓) key and move carriage to next line.</td>
</tr>
<tr>
<td></td>
<td>Text Memory is full.</td>
<td>Depress the MAR REL (→) key and continue printing on same line.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re-edit the data or cancel the Text Memory Mode.</td>
</tr>
</tbody>
</table>
B  Product Service

Should your Panasonic product ever require service, consult your authorised Panasonic dealer for detailed instructions.

C  Cautions

• Do not place your typewriter where it is exposed to direct sunlight, heat or intense vibration.

• Do not allow any foreign matter to enter the interior of the typewriter or get between the keys. Be especially careful of metal objects.

• To prevent electric shock, do not remove screws. No user serviceable parts inside.

• Use only soft, dry cloth to clean your typewriter. Water or thinners may damage the covers, cases or electronic circuitry.
4-4 OPTIONAL ACCESSORIES

- Replacement parts and accessories are available through your local authorized parts distributor.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>KX-R10</td>
<td>Daisywheel Printing Element</td>
<td>1 unit</td>
</tr>
<tr>
<td>KX-R12</td>
<td>PRESTIGE ELITE 12</td>
<td>1 unit</td>
</tr>
<tr>
<td>KX-R14</td>
<td>MINI BQC 15</td>
<td>1 unit</td>
</tr>
<tr>
<td>KX-R20</td>
<td>Correctable Film-Ribbon Cassette</td>
<td>1 unit</td>
</tr>
<tr>
<td>KX-R21</td>
<td>Fabric Ribbon Cassette</td>
<td>1 unit</td>
</tr>
<tr>
<td>KX-R30</td>
<td>Lift-off Correction Tape</td>
<td>2 units</td>
</tr>
<tr>
<td>KX-R31</td>
<td>Cover-up Correction Tape</td>
<td>2 units</td>
</tr>
<tr>
<td>KX-R40</td>
<td>Ni-Cd Rechargeable Battery Pack</td>
<td>1 unit</td>
</tr>
</tbody>
</table>

4-5 SPECIFICATIONS

Print Element: Daisy Wheel; 96 characters
Print Speed: 12 cps
Print Pitch: 10, 12, 15
Line Spacing: 1, 1½, 2
Paper Width: 12"
Writing Line: 10"
Ribbon: Correctable Carbon Ribbon, Fabric Ribbon
Correction Tape: Lift-off Tape, Cover-up Tape
Operating Modes: TPWR, L/L, JSTFY
Memory Life: Min. 5 years
Correction Memory: 1 line
Line Format Memory: Current+2 formats (Y, Z)
Phrase Text Memory: 7 KB
Display Type: Liquid Crystal Display with contrast adjuster
Display size: 14 chr. + counter
Power Requirements: AC 240 V 50 Hz
DC 10.8 V (Ni-Cd, Optional)
Power Consumption: 35 W (Approx. 3 W: When the power switch is turned off)
Operating Temperature: 41°F (5°C) to 95°F (35°C)
Operating Humidity: 20 to 80% RH
Storage Temperature: -4°F (-20°C) to 140°F (60°C)
Dimensions: 16\(\frac{1}{2}\)" (W) × 14\(\frac{1}{4}\)" (D) × 4\(\frac{3}{8}\)" (H)
(427 × 375 × 112 mm)
Weight: 13\(\frac{3}{4}\) lbs. (6 kg)

NOTE: Design and specifications subject to change without notice. Weight and dimensions are approximate.
Instruction manuals and user guides

Samsung
Pioneer
Alpine
LG
Dell
Sharp
Sony
Philips
Epson
Netgear