KL-C500

User's Guide





Important Safety Precautions

Note of the following safety precautions before using the label printer for the first time. Keep these safety precautions and operating instructions on hand for future reference.

About safety precaution symbols

The following symbols are used in this manual and on the product itself to alert you and others to the risk of personal and material injury.



Warning

This symbol indicates an item that can result in death or serious personal injury if ignored.

Caution

This symbol indicates an item that can result in serious personal injury or material damage if ignored.

Examples



A triangle indicates something you should be careful about. This symbol warns against electrical shock.



A circle indicates something you should not do. This symbol indicates you should not try to take something apart.



A black circle indicates something you must do. This symbol indicates you should unplug something.



Power supply and voltage



• Use only a power source whose output matches the rating marked on the plate on the bottom of the label printer. Also, avoid plugging too many appliances into the same extension cord. The wrong voltage or overloading of an AC outlet creates the danger of fire and electrical shock.

Serious malfunction



• Continued use of the unit when smoke or a strange odor is coming from it creates the danger of electrical shock. Immediately turn power off and unplug the power cord from the wall outlet. Request servicing from your original dealer.

AC power cord



• Do not allow the power cord to become damaged or broken, and never modify, over bend, twist, or pull it. Never place heavy objects on the power cord, and never expose it to direct heat. A damaged power cord creates the danger of fire and electrical shock.



 Use only the AC power cord specified for this unit. Use of another AC power cord creates the danger of fire and electrical shock.



 Should the power cord become seriously damaged (internal wiring is exposed or cut), request servicing from your original dealer. Use of a seriously damaged power cord creates the danger of fire and electrical shock.



• Never touch the AC power cord when your hands are wet. Doing so creates the danger of electrical shock.

Never try to take the unit apart



• Never try to take the unit apart or modify it in any way. Doing so creates the danger of electrical shock, burn injury, or other personal injury.

Packaging



• Keep the plastic bag that the unit comes in out of the reach of small children. Plastic bags create the danger of suffocation for small children.

Avoid dropping



Should the unit ever become damaged by falling down, immediately turn off power and unplug the power cord from the wall socket. Request servicing from your original dealer. Use of a damaged unit creates the danger of fire and electrical shock.



AC Power Cord



- Do not leave the power cord near stoves or other sources of intense heat. Doing so can melt power cord insulation and create the danger of fire and electrical shock.
- When unplugging the power cord from the wall socket, grasp the plug.
 Never pull on the cord itself. Doing so can damage the power cord and create the danger of fire and electrical shock.



• Whenever leaving the unit unattended for long periods, be sure to unplug it from the wall socket.



- At least once a year, unplug the AC power cord from the electrical outlet and clean the area around the prongs of the plug. Dust build up around the prongs creates the danger of fire.
- Whenever moving the unit, be sure to unplug it from the wall socket.
 Leaving the unit plugged in when it is being moved can result in damage to the power cord and create the danger of fire and electrical shock.
- Whenever cleaning the unit, be sure to unplug it from the wall socket.



• When you are through using the unit, use its power switch to turn it off and then unplug it from the wall socket.

Avoid unstable areas



• Never place the unit on a wobbly table or a high shelf. Doing so can cause it to fall, resulting in personal injury.

Water and other foreign matter



 Never allow coffee, juice, or other drinks, or flower vases to spill on the unit. Liquid spilled on the unit creates the danger of fire and electrical shock. Should liquid ever spill onto the unit, immediately turn off power and unplug the power cord from the wall socket. Request servicing from your original dealer.



Never allow metal objects or combustable materials to get into the air vents of the unit. Doing so creates the danger of fire and electrical shock.

High Temperature



• The printer head and other metal parts of the printer become very hot during normal operation. Touching these components creates the danger of burn injury.

Location



• Avoid leaving the unit in areas subjected to high humidity and large amounts of dust. Such conditions create the danger of fire and electrical shock.



• Avoid leaving the unit on a kitchen table, next to a humidifier, or in any other area where it might come into contact with oil vapors or steam. Such conditions create the danger of fire and electrical shock.

• Never place heavy objects on the unit. Doing so creates the danger of the unit falling, resulting in personal injury.



• Never leave the label printer on a heated carpet. Accidentally covering the label printer with a blanket while on a heated carpet creates the danger of internal overheating and fire.

Auto Tape Cutter



• The auto tape cutter operates when power is turned on and during printing. Keep your fingers away from the printer head and tape passages during these times. Tape cutter operation creates the danger of personal injury.

Memory



• Always keep separate written copies of any information you store in the memory of this label printer. Data stored in memory can be unexpectedly lost due to malfunction, repair, dead battery, etc.

Introduction

Congratulations on your selection of this product. This label printer makes it possible for you to print adhesive labels for a wide variety of applications, such as: name tags, cassette tape labels, floppy disks, binders, and other applications.

You can produce attractive, original labels thanks to such features as:

- Variable tape sizes (6mm, 9mm, 12mm, 18mm, 24mm, 36mm, 46mm)
- 10 fonts
- 10 character styles (normal, bold, outline, shadow, raised, italic, italic-bold, italic-outline, italic-shadow, italic-raised)
- · Various font effects
- · Bar code printing
- Printing of text up to about 180mm high (using 4 pieces of 46mm tape)
- Frames
- Text memory
- · Supports printing on colored tape using PC Link software

You can even store data in memory for instant recall when you need it.

Important!

- Contact a nearby dealer whenever you require servicing.
- Note that the manufacturer shall not be held liable for any loss or claims by third parties which may arise out of the use of this product.
- Note that the manufacturer shall not be held liable for any damages incurred as a result of data loss caused by malfunctions, repairs, or interruption of power supply.
- It is up to the user to keep backup records of important data.
- Keep this manual on hand for future reference.

■ Are all of the following items included with your label printer?

Included Items

- AC power cord
- Tape cartridge XR-18WE
- PC link cable
- PC Link software (CD-ROM)
- Peeler (This makes it easy to remove the backing paper from the printed label.See page E-32).

If anything is missing, contact your original retailer or nearby dealer.

Contents

Important Safety Precautions	E-1
Part 1 Getting Acquainted Important Precautions General Guide Using the Carrying Handle Label Printer Menus	E-5 E-6 E-6 E-7
Part 2 Getting Ready AC power cord To connect the AC power cord Data Storage Turning Power On and Off Power On Recall Function Resetting the Memory To reset the memory Auto Power Off Function Tape Cartridges To load a tape cartridge Removing the tape cartridge About the SET UP menu Message Language To change the message language Display Contrast To turn sound on and off Unit of Measurement To set the unit of measurement Demo Print To produce a demo print	E-7 E-8 E-8 E-8 E-8 E-8 E-8 E-8 E-8 E-8 E-8
Part 3 Inputting Characters and Symbols Inputting Characters and Symbols Display Symbols and Indicators Inputs Basic Alpha-Numeric Input Input Input To input alpha-numeric characters Inputs About the CODE key. Inputting Symbols, Dingbats, Special Numbers, Greek Characters, Russian Characters and Superscripted/Subscripted Characters. To use the SYMBOL menu Inputting Illustrations To input illustrations Inputting Illustrations	E-11 E-12 E-13 E-13 E-14 E-14 E-14

Part 4 Deleting and Inserting Characters	
Moving the Cursor	E-15
To move the cursor	
Deleting Individual Characters	
To delete characters using the BS key	
To delete characters using the DEL key	
Clearing the Display	E-15
To clear all text	
To clear a portion of text	E-16
Text Editing	
To switch between overwrite and insert	E-16
Part 5 Character Attributes and Text Effects	
Fonts	
To change the default font setting	
To change the font for displayed text	
To change the font for all the text	
To change the font for blocks of text	
To change the font for lines of text	
To change the font for specific characters	
To find out current font settings	
Character Styles	
To change the character styles	E-18
To find out current character style settings	
Text Effects	E-19
About text effect ranges	
To assign text effects	
To change the text effects for blocks of text	
To change the text effect for lines of text	
To change the text effect for specific characters	
To change the text effect for a range of text	E-20
Part 6 Character Sizes	E-21
About Auto Sizing	E-21
Manual Sizing	E-21
Direct specification of character sizes	E-22
To change character size using direct specification	E-23
Specifying Character Sizes for Lines of Text Using Preset Formats	E-23
About the format menu	E-23
To specify character sizes for lines of text using preset formats	E-24
To find out preset format character sizes	E-24

Part 7 FORM Menu Functions	E-24
Fundamentals of Label Layout	E-24
Using the Layout Display	E-25
To show the layout display	E-25
Creating and Deleting Blocks	E-25
To create a block	E-25
To delete a block mark	E-25
Block Operations	
To display the BLOCK FORMAT menu	E-25
All Text Operations	
To display the OVERALL FORMAT menu	E-27
Part 8 Printing	E 20
Printing Precautions	
Printing a Tape	
To print a tape	
Printing Multiple Copies of the Same Label	
To turn on multiple copy printing	
Tape Cutting	E-29
Auto tape cutter	
Manual Tape Cut	
Affixing a Label to a Surface	
Using the Peelers to Remove Label Backing Paper	
To remove backing paper with the built-in peeler	
To remove backing paper with the peeler tool	
Precautions when affixing a label	
Print Density	
To adjust the print density	
Using the Image Display	
To show the image display	
Part 9 Frames	
To specify a frame around the printing area	E-33
Part 10 PRESETS Menu Functions	E-33
To Display the PRESETS Menu	E-33
Enlarge	
To print a large-size label	E-34

BAR CODE	
Bar Code Tape EAN-13, EAN-8, UPC-A, UPC-E	E-34
<u>EAN-13, EAN-8, UPC-A, UPC-E</u>	E-35
To print a bar code ITF, CODE39, CODABAR	E-35
ITF, CODE39, CODABAR	E-35
To print a bar code	E-35
General Bar code Operations	E-35
To store a bar code	E-35
To recall a bar code from memory	
To delete a bar code from memory	E-36
Part 11 Memory	E-36
To store data	
Recalling Text From Memory	E-36
To recall memory text using sequential search	E-36
To recall memory text using character search	E-37
To delete memory text	E-37
Part 12 Downloading Data from your Computer	E 27
System requirements	E-3/
System requirements	
To connect the PC to the label printer	
To send data from the PC to the label printer	
Part 13 Reference	
Cleaning the Printer Head and Roller	
To clean the printer head and roller I	E-39
Initial Settings	E-39
Initializing the Label Printer	
To initialize the label printer	E-40
Format Indicator	E-40
Tape Length Indicator	E-40
Illustrations	E-41
Symbols, Dingbats, and Special Characters	E-41
Frames	
Fonts	
Enlarged Label Measurements	
Bar Code Specifications	
Troubleshooting	
Messages	
	F-40
Preset Format	
Preset Format	E-48

Part 1 Getting Acquainted

This part of the manual provides you with important information you need to know in order to use the label printer to its full potential. Be sure to read it carefully before using the label printer for the first time.

Important Precautions

- Keep your label printer out of areas subject to temperature extremes, moisture and direct sunlight. The recommended temperature range is 10° to 35°C (50° to 95°F).
- Don't let coffee, juice or other liquids splash onto the label printer.
- Never let paper clips, pins or other foreign objects get into the tape outlet slot or printer of the label printer.
- Do not pile heavy objects on top of the label printer.
- Never try to take the label printer apart or attempt your own maintenance.
- Do not drop your label printer and avoid strong impact.
- Do not pull on the tape or try to force it back into the label printer.
- Never touch the printer head with your fingers.
- Do not use benzine, thinner, or other volatile chemicals to clean the exterior of the label printer. Use a soft, dry cloth or a cloth dampened in a weak solution of a mild, neutral detergent and water. Wring the cloth out until all excess moisture is removed.
- A dirty printer head can cause printing to become smudged. When this happens, clean off the printer head by wiping it with a cotton swab moistened with alcohol (page E-39).
- Use of the label printer next to a television or radio may interfere with reception.

General Guide

Front **Using the Carrying Handle** Tape cartridge compartment Liquid crystal display (LCD) Pull up the carrying handle as shown in the Carrying (Page E-8) illustration so you can use it for carrying the handle Power Keys label printer. Turn power on 0 ח and off. Replacing the Cover if it Comes Off If the cover comes off, replace it as shown in Cover release the illustration nearby. Take care to avoid damaging the tabs and hinges when installing Press to open the cover. the cover. Tape outlet Peeler (Page E-31) Letter keys Handle Power cord connector Connect the power cord 60 that comes with the unit here.

3-pin jack Connect the communication cable here. (Page E-38)

Label Printer Menus

Label printer operation is designed to be as simple as possible, thanks to onscreen menus that you can use to select the settings you need. Each menu is described in detail in the sections that follow in this manual, but note the following general points when using them.

• The item that is highlighted in a menu is the one that is currently selected.



--- SET UP

- Use \wedge and \vee to move the highlighting up and down and change the selected item.
- Press **SET** to execute the highlighted item, or **ESC** to exit the displayed menu (and return to the previous menu or screen) without selecting anything.
- When you press **SET** to execute a menu item, the label printer either moves on to the next menu, or it executes the selected function and returns to the text input screen that you started from.

Part 2 Getting Ready

This part of the manual tells you how to load the tape cartridge, and perform other basic setups for the label printer.

Important! Be sure to read this section before attempting to use the label printer.

AC power cord

Note the following important precautions about the AC power cord.

- Use only the power cord that comes with the label printer. Using a wrong power cord can damage your label printer.
- Be sure to turn the label printer off before you connect the power cord. Do not turn power on until the power cord is connected to the label printer and plugged into and AC outlet.

To connect the AC power cord

Connect the power cord to the label printer as illustrated nearby. Plug the other end into a standard household AC outlet.



After you finish using the label printer, turn it off and disconnect the AC power cord.

• Be sure to grasp the plug of the AC power cord when disconnecting it. Never pull on the cord.

Data Storage

• The label printer has a built-in memory backup battery that supplies the power required to retain text and other data in memory.

A label on the back of the label printer shows when the memory backup battery needs to be replaced. If the memory backup battery goes dead, data stored in memory will be corrupted or lost completely. Whenever it gets close to the battery replacement date noted on the label, take the label printer to your original retailer to have it replaced. Note that you will be charged for the replacement.

Be sure to keep separate written copies of all text data stored in label printer memory.

Turning Power On and Off

Press ON to turn power on, and OFF to turn power off.

Important! If you are using the label printer for the first time, you should reset it first.

Power On Recall Function

Whenever you turn power off, any input that is on the display is automatically stored in memory. Then the next time you turn on power, the message "PRESS [SET] TO RECALL" appears on the display. Pressing **SET** when this message is on the display recalls the text that was on the screen when you last turned off power.

• Pressing any key besides **SET**, **FUNCTION**, **SHIFT** or **CODE** clears the text from memory.

Resetting the Memory

You should reset the memory of the label printer before using it for the first time, after you have not used it for a long time, or if nothing happens when you turn power on.

Important! Resetting label printer memory clears its memory of all input data.

To reset the memory

- 1. Make sure that label printer power is off.
- 2. While holding down the **PRINT** and **ESC** keys, press **ON** to turn power on.

INITIALIZE? SET/ESC

- 3. Press **SET** to initialize the label printer or **ESC** to abort the reset operation without initializing anything.
- See "Initial Settings" on page E-39 for information on the initial default settings of the label printer following the reset operation.

Auto Power Off Function

If you do not perform any key operation for about thirty minutes, the label printer automatically turns power off. To restore power, press **ON**.

Tape Cartridges

Use the procedures described below to load a tape cartridge into the label printer. The label printer automatically detects what size tape is loaded.

Important! Never try to push the tape back into the cassette. Once tape is out of the cassette, there is no way to wind it back in. Trying to do so can cause operational problems with the label printer.

To load a tape cartridge

- 1. Make sure the label printer is turned off.
- 2. Press the cover release and open the cover.
- If there is a cartridge already in the label printer, remove it by grasping the cartridge on both sides with your thumb and forefinger, and lift straight up.







- 4. Check to make sure that the end of the tape is not bent.
- If the end of the tape is bent, use scissors to cut off the bent portion.
- 5. Make sure that the tape is under the tape guide and that it is not bent or twisted.
- Make sure the end of the tape is passing through the tape guide. If it isn't, pass the end of the tape through the tape guide as shown in the illustration.
- 6. Pull out about 3cm (1 $^{1}/_{8}$ ") of tape.
- Never try to force tape back into the cartridge once it is pulled out.
- Do not pull on the tape too hard. Doing so can break the ink ribbon and result in malfunction.
- 7. Use a pencil or some other thin object to take up slack in the ink ribbon as shown in the illustration. Note that the tape does not move at this time.
- If the ink ribbon is slack when you load it into the label printer, it can break or cause some other problem.
- Be sure to turn the ink ribbon take up spool only in the direction indicated by the arrow (a).
- Turn the spool until the other spool (b) starts turning in the direction noted by the arrow. This indicates there is no slack in the ribbon.
- 8. Load the tape cartridge into the label printer, making sure that the tape and ink ribbon pass between the head and roller.
- Be sure to lower the tape cartridge straight down into the label printer, and press down on it until it clicks securely into place.
- 9. Close the cover.
- 10. Turn on label printer power and press **FUNCTION** and then **PRINT** (FEED) two or three times to make sure that the tape comes out without any problem.
- If the tape does not come out normally, turn off power and start again from step 1 above.

11. Making sure that the tape is correctly exiting from the tape outlet, press **FUNCTION** and then **IMAGE** (CUT) to cut the tape.

Removing the tape cartridge

- Grasp the tape cartridge with your fingers, and lift it straight up out of the label printer.
- To make it easier to remove a narrow (6mm, 9mm) tape cartridge, insert a pencil or some other thin, pointed object under the right side of the tape and lift up, as shown in the illustration.



About the SET UP menu

The SET UP menu lets you change various basic settings quickly and easily. To display the SET UP menu, press the **SET UP** key.



Use \land and \lor to move the highlighting to the item you want to select and then press **SET**. Press **ESC** to clear the SET UP menu without selecting anything. The following sections explain how to use most of the SET UP menu items. See page E-17 for details on using DEFAULT FONT, page E-16 for how to use INPUT, page E-29 for COPIES(Multiple Copy Printing), and page E-32 for DEN-SITY.

Message Language

You can use the following procedure to select any one of five different languages (English, German, French, Italian, and Spanish) for display of message text.

• All of the display examples in this manual use English as the display language.



Tape guide

Tape

Ink ribbon



To change the message language

- On the SET UP menu, use ∧ and ∨ to highlight "LANGUAGE" and then press SET.
- Use ∧ and ∨ to highlight the language you want to use and then press SET.

Display Contrast

Use the following procedure to make the characters on the display darker or lighter.

To change the display contrast

- 1. On the SET UP menu, highlight "CONTRAST" and then press SET.
- 2. Use < and > to make the display contrast lighter and darker.
- 3. After setting the contrast, press SET.

Sound

The label printer is equipped with sound capabilities that signal when power is turned on and when an illegal operation is attempted. Normally, sounds are turned on whenever you turn power on, but you can use the following procedure to turn the sound on and off.

To turn sound on and off

- 1. On the SET UP menu, highlight "SOUND" and then press SET.
- 2. Use \wedge and \vee to highlight the setting you want (ON or OFF) and then press SET.

Unit of Measurement

This label printer can use either centimeters (cm) or inches (inch) as the unit of measurement.

To set the unit of measurement

- 1. On the SET UP menu, highlight "cm/inch" and then press SET.
- 2. Use \wedge and \vee to highlight the setting you want (cm or inch) and then press SET.



Demo Print

After setting up the label printer, you may want to produce a demo print to make sure that everything is working properly.

To produce a demo print

- 1. Press ON to turn power on.
- 2. Press PRINT and then press SET.

Note that the contents of the demo print depends on the width of the tape loaded in the label printer.

Important!

- You can produce a demo print when the text input display is clear, immediately after turning power on only. Even if you input text and then delete it, pressing **PRINT** will not produce a demo print.
- If you experience problems with printing, check your tape cartridge and power supply, and try again.
- You cannot specify the number of copies for demo printing.
- You cannot demo print on 46mm or 36mm wide colored tape.

Part 3 Inputting Characters and Symbols

This part of the manual tells you how to input characters. To make things easier to understand, we call everything you input a character, regardless of whether it is actually a letter, number, or symbol. Explanations here all use the default settings that are in effect from the initial power-on screen.

For information on using other fonts, styles, effects and characters sizes, see pages E-17 to E-21.

Important! You can input up to 511 characters per label. Further input becomes impossible after you input the 511th character.

Display Symbols and Indicators

Before getting into actual input, you should first become acquainted with the symbols and indicators used on the label printer display.



①CAPS OFF/ON indicator (ab/AB)

This indicator toggles between "ab" (lower-case) and "AB" (upper-case) each time you press the **CAPS** key. The initial default setting is lower-case (ab).

Insert/overwrite mode (ab, AB/ ab , AE)

The insert mode is specified when neither "ab" nor "AB" is highlighted. The overwrite mode is specified when "ab" or "AB" is highlighted. The initial default setting is insert.

See "Text Editing" on page E-16 for information about switching between the overwrite and insert modes.

②Font indicator

This indicator shows the font setting (page E-17) for the character where the cursor is located.

③Function indicator (□)

This indicator appears when you press the **FUNCTION** key. Pressing a key while this indicator is on the display causes the function marked above that key to be executed.

Shift indicator (🕤)

This indicator appears when you press the **SHIFT** key. While this indicator is on the display, the keyboard is shifted, so the letter keys input the opposite of their current upper-case/lower-case setting. The number keys input the punctuation symbols marked in the upper right corners of the keys. The keyboard automatically unshifts (and the shift indicator disappears) as soon as you input a character.

Code indicator (🖸)

This indicator appears when you press the **CODE** key. While this indicator is on the display, number keys input the accents marked above them and the **U**, **O**, **P**, **A**, **S**, **J**, **K**, **L**, **Z**, **C** and **N** keys input the special characters marked in their lower right corners. The keyboard automatically returns to normal (and the code indicator disappears) as soon as you input an accent.

Shift & Code indicator (Se)

This indicator appears when you press both the SHIFT and CODE keys.

While this indicator is on the display, the keyboard is shifted, so the letter keys input the opposite of their current upper-case/lower-case setting of the special characters.

The keyboard automatically returns to normal (and the Shift & Code indicator disappears) as soon as you input a character.

④Character size display indicator

This indicator shows the size of the character where the cursor is currently located. When a size error occurs, the label printer automatically adjusts the character size to fit the tape you are using. The character size indicator becomes highlighted (

The characters size indicator value is replaced with dashes (--pt) when printing is impossible because there is no tape cartridge loaded or there are too many lines.

⑤Block number

This value appears when there are 2-16 blocks in the text. It shows the sequential number of the block where the cursor is currently located (page E-25).

The block number changes to dashes () when there is no tape cartridge loaded.

6 Format

This indicator shows how many lines of text have been input. See page E-40 for important information about how various format conditions are indicated.

⑦Tape length

This value shows the length of the tape that will be printed. See page E-40 for important information about how various tape length conditions are indicated. You can use **SET UP** to select either inches or centimeters as the measurement unit.

BCharacter position marks

These marks show where characters will appear as you input them.

Oursor

The cursor shows the next input position. Any character you input appears at the point where the cursor is located.

@Return symbol

The return symbol indicates a newline operation.See page E-13 for important information about inputting newlines.

①Character style indicators

These indicators point to the character style that is assigned to the character where the cursor is currently located. You can select between normal, bold, outline, shadow, raised, and italic. Use of italic in combination with another character style (italic-bold, italic-outline, italic-shadow, italic-raised) is indicated by

(DVertical printing indicator

This indicator appears when the label printer is set up for vertical printing. Normal (horizontal) printing is performed when this indicator is not shown.

Mirror image printing indicator

This indicator appears when the label printer is set up for mirror image printing. Normal (non-mirror image) printing is performed when this indicator is not shown.

Manual feed indicator

This indicator appears when you are using manual feed instead of auto feed. Auto feed is in effect when this indicator is not on the display.

Important! After you finish printing when using manual feed, be sure to always press **FUNCTION** and then **IMAGE** (CUT). This feeds the tape and then cuts it. See "Tape Cutting" on page E-30 for details.

(BUp/Down scroll indicators

The \square indicator means there is more data running off the top of the screen, while \square indicates more data below. Scroll the screen to view the data that does not fit.

Block mark (

Block marks inside of text define where one block ends and another block starts, and where there is a format change.

Text effects

Text appears on the screen in an image that reflects the effects assigned to it.

Character size marks

The print size of each character is indicated by print marks such as " $\begin{bmatrix} a \\ a \end{bmatrix}$ ".

Basic Alpha-Numeric Input

The following operation shows you the basic procedures for inputting letters and numbers. We will explain the procedure by inputting the following characters using the default initial power-on screen.

ABXYZ Computer Company 1234567890

To input alpha-numeric characters

- 1. Turn power on.
- 2. Input the first line of characters.
- To input the upper-case letters, you can use either SHIFT or CAPS. With SHIFT you must shift the keyboard for each character. With CAPS the keyboard keeps its upper-case/lower-case setting until you press CAPS again.
- Press SPACE to input spaces.
- If you input a wrong character, press **BS** to delete it and input again. See page E-15 for other details on editing text.
- 3. When you reach the end of a line of text, press \leftarrow to input a newline mark.
- A newline operation is indicated on the display by the 🖃 symbol. This shows where you changed lines.
- The maximum number of lines you can input depends on the width of the tape you have loaded in the label printer.

The maximum number of lines is also affected by whether you are using normal printing or frame printing, as shown in the table below.

- 4. Input the characters in the second line.
- To print the text that you input, press **PRINT**. For details on printing, see page E-29.

Таре	Number of lines Maximum									
Width	Normal Printing	Frame Printing								
6mm	1line	1line								
9mm	1line	1line								
12mm	2lines	2lines								
18mm	4lines	3lines								
24mm	5lines	4lines								
36mm	8lines	6lines								
46mm	10lines	8lines								

 If your input exceeds the maximum number of lines, the message "LABEL HAS TOO MANY LINES!" appears in the case of normal printing, while the message "TOO MANY LINES TO FRAME!" in the case of frame printing. Printing cannot be performed when either of these messages appears.

About the CODE key...

The **CODE** key makes it possible to input punctuation needed for a number of different languages. The following shows the key operations you should use for each of the characters formed using the **CODE** key.

■CAPS on

Key Operation	Input	Key Operation	Input	Key Operation	Input
CODE U	Ü	CODE Z	Ż	CODE 5	^
CODE O	Œ	CODE C	Ç	CODE 6	v
CODE P	Å	CODE N	Ñ	CODE 7	•
CODE A	Æ	CODE 1	,	CODE 8	/
CODE J	Ö	CODE 2	`	CODE 9	"
CODE K	Ä	CODE 3	-	CODE 0	L.
CODE L	Ø	CODE 4	~		

■CAPS off

Key Operation	Input	Key Operation	Input	Key Operation	Input
CODE U	ü	CODE L	ø	CODE 4	~
CODE O	œ	CODE Z	ż	CODE 5	^
CODE P	å	CODE C	ç	CODE 6	v
CODE A	æ	CODE N	ñ	CODE 7	•
CODE S	ß	CODE 1	,	CODE 8	/
CODE J	ö	CODE 2	`	CODE 9	"
CODE K	ä	CODE 3		CODE 0	·

Silent Code Input

	Е	е	R	r	T	t	Y	у	U	u	I	i	0	0	А	а	S	s	D	d	L	I	Ζ	z	С	с	Ν	n
(´)	É	é					Ý	ý	Ú	ú	Í	í	Ó	ó	Á	á	Ś	ś					Ź	ź	Ć	ć	Ń	ń
(`)	È	è							Ù	ù	Ì	ì	Ò	ò	À	à												
(")	Ë	ë							Ü	ü	Ï	ï	Ö	ö	Ä	ä												
(~)													Õ	õ	Ã	ã											Ñ	ñ
(^)	Ê	ê							Û	û	Î	î	Ô	ô	Â	â												
(`)	Ě	ě	Ř	ř	Ť	ť									Å	å	Š	š	Ď	ď			Ž	ž	Č	č	Ň	ň
(°)									Ů	ů					Å	å												
(/)													Ø	ø							Ł	ł						
(``)									Ű	ű			Ő	ő														
(,)	Ę	ę													Ą	ą												

Example: To input á, press CODE, 1, A.

Inputting Symbols, Dingbats, Special Numbers, Greek Characters, Russian Characters and Superscripted/ Subscripted Characters

The SYMBOL menu provides you with a choice of symbols, dingbats, and special number formats, superscripted/subscripted characters, in addition to Greek and Russian letters.

To use the SYMBOL menu

1. With the cursor at the location where you want to input a symbol, dingbat, number, or character, press the **SYMBOL** key to display the SYMBOL menu.



- 2. Use \wedge and \vee to move the highlighting to the item you want to select and then press **SET**.
- Pressing **SET** causes a menu of symbols, dingbats, number formats, or characters to appear.
- To clear the SYMBOL menu without selecting anything, press ESC.
- Use ∧, ∨, < and > to move the highlighting to the character you want to select, and then press SET.
- Pressing **SET** returns to the input screen, with the symbol, dingbat, or character you selected input at the location where the cursor was located when you displayed the SYMBOL menu.

See page E-41 for a complete list of symbols, dingbats, and special characters that are available from each menu.

Inputting Illustrations

Your label printer gives you a choice of 126 illustrations that you can use in your labels.

To input illustrations

1. With the cursor at the location where you want to input an illustration, press the **ILLUST** key to display the ILLUSTRATIONS menu.



- Use ∧, ∨, < and > to move the highlighting to the illustration you want to select, and then press SET. Pressing ↓ while an illustration is selected displays the large version of the illustration. Press ↓ again to return to the ILLUSTRATIONS menu.
- Pressing SET returns to the input screen with the illustration you selected input at the location where the cursor was located when you displayed the ILLUSTRATIONS menu.

See page E-41 for a complete list of illustrations that are available.

Part 4 Deleting and Inserting Characters

This section describes everything you need to know about deleting and editing characters you have already input.

Moving the Cursor

Use the cursor keys to move the cursor around the display and position it for deleting and editing characters.

To move the cursor

- Press ∧ to move the cursor one line up and ∨ to move it one line down.
- Press < to move the cursor to the left, and > to move the cursor to the right.
- Press **SHIFT** and then > to move the cursor to the beginning of the next block to the right.

(See page E-25 for details about blocks).

- Press SHIFT and then < to move the cursor the beginning of the current block. If the cursor is already at the beginning of a block SHIFT < moves it to the beginning of the next block to the left.
- Press FUNCTION and then < to make the cursor jump to the beginning (far left) of the current line.
- Press FUNCTION and then > to make the cursor jump to the end (far right) of the current line.
- Press FUNCTION and then ∧ to make the cursor jump to the first character of the text.
- Press **FUNCTION** and then \lor to make the cursor jump to the end of the text.
- Holding down the < or > cursor key moves the cursor at high speed.

Deleting Individual Characters

You can delete individual characters with either the **BS** key or the **DEL** key. The only difference between the operation of these two keys is the location of the cursor.

To delete characters using the BS key

Example: To change the word "commputer" to "computer".

1. Use \leq and > to move the cursor under "p".



Press BS twice to delete the two m's to the left of the cursor, shifting "puter" to the left as you do.

To delete characters using the DEL key

Example: To change the word "commputer" to "computer".

- 1. Use < and > to move the cursor under the first (far left) "m".
- Press DEL twice to delete the two m's at the cursor's position, shifting "mputer" to the left as you do.

Clearing the Display

The label printer gives you a choice of clearing the entire display or only a specific block of text.

To clear all text

1. Press FUNCTION and then BS (CLS).

	CLEAR	TEXT	
H U PART			

2. Use \wedge and \vee to highlight "ALL" (if it isn't already highlighted).

3. Press SET.

CLEAR?		
compu	ilei -	

4. Press **SET** to clear all of the text on the display or **ESC** to abort without clearing anything.

To clear a portion of text

- 1. Press FUNCTION and then BS (CLS).
- 2. Use \wedge and \vee to highlight "PART" (if it isn't already highlighted).
- 3. Press SET.



- Use ∧, ∨, < and > to move the cursor to start point of the text you want to delete and press SET.
- Use ∧, ∨, < and > to move the cursor to end point of the text you want to delete.
- The text between the cursor and the start point is highlighted as you move the cursor.
- 6. Press **SET** to clear the highlighted text or **ESC** to abort without clearing anything.

Text Editing

You can set up the label printer so it either overwrites existing characters with new input, or inserts new input between existing characters. Note the following example.

Example

Existing text: ABCDEFGHI Cursor location: E New input: XXX

Overwrite

Result: ABCDXXXHI

Insert

Result: ABCDXXXEFGHI

To switch between overwrite and insert

- 1. Press **SET UP** to display the SET UP menu.
- 2. Highlight "INPUT" and then press SET.

- 3. Use ∧ and ∨ to highlight the setting you want ("INSERT" or "OVERWRITE") and then press SET.
- The CAPS indicator on the display is highlighted (AB or ab) when overwrite is turned on. The CAPS indicator appears normally "AB" or "ab" (unhighlighted) when insert is turned on.

Part 5 Character Attributes and Text Effects

The operations in this part of the manual explain how to change fonts and character styles. These characteristics are called "character attributes." It also tells you how to assign such text effects as underlining, shading, and box printing to text.

Important!

- Character attributes you specify affect printed text only. The characters on the display do not change.
- Remember that character attributes are assigned to specific characters. Whenever you replace a character with another one, the new character also picks up the attributes of the original character.
- Text effects are applied to both displayed text and printed text.

Fonts

This label printer gives you a choice of 10 different fonts. See page E-42 for examples of each type of font.

The following sections describe how to change the default font setting (the font that is automatically used whenever you input text), how to change the font for displayed text, and how you can find out what the font setting is for text on the display.

Important!

- You cannot change the font for symbols other than the 15 noted above or for illustrations.
- When the SIZE setting is 12pt or 9pt, superscripted or subscripted characters are not affected by FONT settings.

H ₂ SO ₄

• Changing the FONT setting also affects the print length.

To change the default font setting

1. Press **SET UP** to display the SET UP menu.

2. Highlight "DEFAULT FONT" and then press **SET**.



3. Use \land and \lor to highlight the font you want to set as the default and then press **SET**.

To change the font for displayed text

1. While there is text on the display, press **FONT**.



- Use ∧ and ∨ to highlight the font you want to change to and then press SET.
- What you should do next depends on the range you want to use.



To change the font for all the text

- After performing the two steps under "To change the font for displayed text", use ∧ and ∨ to highlight "ALL" and then press SET.
- 2. Press SET to change the font for all the text on the display.
- At this point, the label printer returns to the text input screen.
- Pressing ESC returns to the RANGE menu without changing anything.

To change the font for blocks of text

 After performing the two steps under "To change the font for displayed text", use ∧ and ∨ to highlight "BLOCK" and then press SET.



• See page E-25 for details about how to use blocks.

2. Move the cursor to the start block from which you want to change the font and then press **SET** to register your selection.



- 3. Move the cursor to the end block up to which you want to change the font and then press **SET** to register your selection and change the font.
- At this point, the label printer returns to the text input screen.

To change the font for lines of text

- 1. After performing the two steps under "To change the font for displayed text", use ∧ and ∨ to highlight "LINE" and then press **SET**.
- 2. Move the cursor to the start line from which you want to change the font and then press **SET** to register your selection.
- 3. Move the cursor to the end line up to which you want to change the font and then press **SET** to register your selection and change the font.
- At this point, the label printer returns to the text input screen.

To change the font for specific characters

- 1. After performing the two steps under "To change the font for displayed text", use ∧ and ∨ to highlight "CHARACTER" and then press **SET**.
- 2. Move the cursor to the start character from which you want to change the font and then press **SET** to register your selection.
- 3. Move the cursor to the end character up to which you want to change the font and then press **SET** to register your selection and change the font.
- At this point, the label printer returns to the text input screen.

To find out current font settings

Use the < and > cursor keys to move the cursor around the display. The font indicator shows the current font setting for the character where the cursor is located.

Important! Neighboring characters with different font settings, may overlap on the printed tape. You can correct for this by changing the PITCH setting on the BLOCK FORMAT menu (see page E-25), or by inputting a space between the overlapping characters.

Character Styles

There are ten character styles: normal, bold, outline, shadow, raised, italic, italicbold, italic-outline, italic-shadow, and italic-raised.

The following sections describe how to change the character style for displayed text, and how you can find out what the character style setting is for text on the display.

To change the character styles

1. While there is text on the display, press **STYLE**.



--- STYLE

- RANGE

LINE CHARACTER

- Use ∧ and ∨ to highlight the style you want to change to and then press SET.
- What you should do next depends on the range you want to use.
- The range setting procedures are the same as those for font range settings.

ALL: See "To change the font for all the text".

BLOCK: See "To change the font for blocks of text".

LINE: See "To change the font for lines of text".

CHARACTER: See "To change the font for specific characters".

Important! Normal and Italic style settings can be applied to illustrations (ILLUST).

The following table shows how STYLE settings affect illustrations (ILLUST).

STYLE SETTING	EFFECT ON ILLUSTRATIONS
Normal	Normal
Italic	Italic
Bold	Normal
Outline	Normal
Shadow	Normal
Raised	Normal
Italic+Bold	Italic
Italic+Outline	Italic
Italic+Shadow	Italic
Italic+Raised	Italic

E-18

To find out current character style settings

Use the \leq and > cursor keys to move the cursor around the display. The character style indicator points to the current character style setting for the character where the cursor is located.

- The ▲ indicator points to the character style that is assigned to the character where the cursor is currectly located. ▲ indicates combination of a character style with italic (italic-bold, italic-outline, italic-shadow, italic-raised).
- The following table shows the indicator that appears on the upper-right corner of the STYLE menu.

Indicator	Meaning	Indicator	Meaning
A	Normal	A	Italic
A	Bold	A	Italic-bold
A	Outline	A	Italic-outline
A	Shadow	A	Italic-shadow
A	Raised	A	Italic-raised

• Changing STYLE to italic also makes the print length longer.

Text Effects

You get a choice of three text effects: shading, underline, and box. Effects can be used in combination with each other.

Important! The text effects are applied to text on the display, in addition to the printed text.

About text effect ranges

As with fonts and character styles, you can specify a range for your text effect specifications. The following shows an example for each of the ranges available for text effects.

BLOCK

This range specifies application of a text effect for all the text in a specific block.

• See page E-25 for details about how to use blocks.



Example: Box

LINE

This range specifies application of a text effect for all the text in a specific line.

CHARACTER

This range specifies application of a text effect for a specific character.

TEXT

This range is used to specify text across various lines, etc.

• A TEXT range specification must begin and end with in the same block.

To assign text effects

- 1. While there is text on the display, press **EFFECT**.
- Use ∧ and ∨ to highlight the effect you want and then press SET.
- What you should do next depends on the range you want to use.

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C------ EFFECT ------- RANGE -INTE LINE CHARACTER TEXT

To change the text effects for blocks of text

- After performing the two steps under "To assign text effects", use ∧ and ∨ to highlight "BLOCK" and then press SET.
- See page E-25 for details about how to use blocks.



2. Move the cursor to the start block from which you want to change the text effect and then press **SET** to register your selection.

	EFFECT	BLOCK	
12345E			
abc····			

- Move the cursor to the end block up to which you want to change the text effect and then press SET to register your selection and change the effect.
- At this point, the label printer returns to the text input screen.

To change the text effect for lines of text

- 1. After performing the two steps under "To assign text effects", use ∧ and ∨ to highlight "LINE" and then press **SET**.
- 2. Move the cursor to the start line from which you want to change the text effect and then press **SET** to register your selection.
- 3. Move the cursor to the end line up to which you want to change the text effect and then press **SET** to register your selection and change the text effect.
- At this point, the label printer returns to the text input screen.

To change the text effect for specific characters

- 1. After performing the two steps under "To assign text effects", use ∧ and ∨ to highlight "CHARACTER" and then press **SET**.
- 2. Move the cursor to the start character from which you want to change the text effect and then press **SET** to register your selection.
- 3. Move the cursor to the end character up to which you want to change the text effect and then press **SET** to register your selection and change the text effect.
- At this point, the label printer returns to the text input screen.

To change the text effect for a range of text

- 1. After performing the two steps under "To assign text effects", use ∧ and ∨ to highlight "TEXT" and then press **SET**.
- 2. Move the cursor to the start character from which you want to change the text effect and then press **SET** to register your selection.
- 3. Move the cursor to the end character up to which you want to change the text effect and then press **SET** to register your selection and change the text effect.

• At this point, the label printer returns to the text input screen.

Important!

• Any of the following settings for the TEXT range or CHARACTER range can cause vertical BOX lines between characters to overlap with characters.

STYLE: Italic (italic, italic + bold, italic + outline, italic + shadow, italic + raised)

EFFECT: BOX

Certain FONT settings can also cause BOX lines to overlap with characters, even when italic is not being used.

If you experience such overlapping, use BLOCK range or LINE range to change the BOX setting, or increase the PITCH setting on the BLOCK FORMAT menu (see page E-25).



Part 6 Character Sizes

There are two methods you can use to set characters sizes: Auto sizing and manual sizing.

Normally you should use auto sizing, except when you need to make particular character size specifications yourself.

By using auto sizing, the character size is set automatically in accordance with the tape size you are using and the number of lines you are printing.

About Auto Sizing

If you do not specify a character size, the label printer automatically selects the optimum size in accordance with the width of the tape and the number of lines you are using. If you are using frames (page E-33), characters are automatically balanced with the type of frame being used.

The following table shows the character size for "Normal Justified Printing" and "Frame Justified Printing".

It also shows the specified size in accordance with the tape width and the number of lines.

■ Normal Justified Printing (Auto Sizing)

number of lines tape width	1	2	3	4	5	6	7	8	9	10	more than 10 lines
46mm	119pt	43pt	26pt	20pt	17pt	14pt	12pt	12pt	9pt	9pt	
36mm	85pt	34pt	20pt	17pt	14pt	12pt	9pt	9pt			
24mm	59pt	20pt	14pt	12pt	9pt						
18mm	43pt	17pt	12pt	9pt							
12mm	26pt	12pt									
9mm	17pt	An	error n	nessag	je, "LAE	BEL HA	AS TOO	D MAN	Y LINE	S!" ap	pears.
6mm	9pt										

Frame Justified Printing (Auto Sizing)

number of lines tape width	1	2	3	4	5	6	7	8	more than 8 lines
46mm	85pt	34pt	20pt	17pt	14pt	12pt	9pt	9pt	
36mm	68pt	26pt	17pt	14pt	12pt	9pt			-
24mm	43pt	17pt	12pt	9pt					
18mm	34pt	14pt	9pt						
12mm	20pt	9pt			An er	ror me	ssage.		
9mm	14pt		"TO		IY LIN	ES TO	FRAM	E!" app	ears.
6mm	9pt								

Manual Sizing

Your label printer provides you with two different ways to change character sizes manually: direct specification of character size and specification of character size for entire lines of text using preset format.

The operations in this part of the manual explain how to change character sizes using each of these techniques.

Direct specification of character sizes

You can specify the character size in points to any one of 14 sizes from 9pt to 119pt.

A character size change is indicated on the display by a character size mark. The following table shows the 14 character sizes that are available.

Character size (point)		Actual Size (mm)
9pt	3mm	A
12pt	4mm	A
14pt	5mm	A
17pt	6mm	A
20pt	7mm	A
26pt	9mm	A
34pt	12mm	A
43pt	15mm	A
51pt	18mm	A
59pt	21mm	A
68pt	24mm	Α

Character size (point)		Actual Size (mm)
85pt	30mm	A
102pt	36mm	A
119pt	42mm	A

Important! Note that the millimeter sizes shown in the above table are approximations only. The actual size may be smaller, depending on the font you are using.

The vertical character sizes you can use are automatically limited by the tape width of the tape loaded in the label printer.

Important! The character size indicator becomes highlighted when you specify a character size that is too large to fit on the tape using the number of lines you have specified. In this case, the label printer automatically adjusts the character size so the text fits.

Tape width	Character Size
6mm	9pt
9mm	9pt-17pt
12mm	9pt-26pt
18mm	9pt-43pt
24mm	9pt-59pt
36mm	9pt-85pt
46mm	9pt-119pt

• The range (From-To settings) for a character size specification cannot extend from one block to another.

To change character size using direct specification

1. While there is text on the display, press SIZE.

SIZE - RANGE - NICINICALINE	
SIZE	
Ept (Samm) 12pt (4mm) 14pt (5mm) 17pt (6mm) 20pt (7mm) 26pt (9mm)	

- Use ∧ and ∨ to highlight "CHARACTER" and then press SET.
- 3. Use \wedge and \vee to specify the character size you want.
- Remember that the dimensions you can specify depend on the width of the tape loaded in the label printer (see table, above).
- 4. After you decide the character size you want, press **SET** to register it.



 Move the cursor to the start character from which you want to change the character size and then press SET to register your selection.



- 6. Move the cursor to the end character up to which you want to change the character size and then press **SET** to register your selection and change the character size.
- At this point, the label printer returns to the text input screen.



Specifying Character Sizes for Lines of Text Using Preset Formats

With this method, you input the text you want and then use preset formats to specify the character size for each line of text. Note that character size marks do not appear inside of text when you specify character sizes using this method. Instead, the character size display indicator shows the size of the characters where the cursor is currently located.

About the format menu

The format that appears in the following procedure uses symbols to indicate character sizes in each line of text. The formats that appear depend on the width of the tape loaded in the label printer and the number of lines in the block of text where the cursor is located when you press the **SIZE** key. See page E-48, E-49 for details about the formats available for each tape width and the number of lines of text.

Important! You can use preset formats to specify character sizes for lines of text only when there is no character size specification already made inside of the text. If you press the **SIZE** key while the cursor is located inside of a block that already contains a character size mark, the character size specification menu appears instead of the menu below (RANGE menu). This means you cannot use the preset format menu when you have already made a character size specification in the same block.

To specify character sizes for lines of text using preset formats

- While the cursor is located inside of the block of text where you want to use the preset formats, press SIZE.
- See page E-25 for details about blocks.
- 2. Use ∧ and ∨ to highlight "LINE" and then press **SET**.
- The FORMAT menu appears with all of the preset formats that are available in accordance with the number of text lines that are in the block where you located the cursor, and with the width of the tape loaded in the label printer (page E-48, E-49).
 - e G**und** e

SIZE

11 INE

FORMAT

-- SIZE ---

- Use ∧, ∨, < and > to move the highlighting to the format that you want to use and then press SET to select it.
- At this point, the label printer returns to the text input screen.

To find out preset format character sizes

Use the \leq and > cursor keys to move the cursor around the display. The character size indicator shows the current size setting for the character where the cursor is located.

Also, the display shows an image of what the block where the cursor is located will look like when you print it. See page E-32 for more information.



This part of the manual describes how to use the FORM menu to layout your text exactly the way you want it on the label. With the FORM menu, you can control character pitch, text blocks, text alignment, and a wide range of other features.

Fundamentals of Label Layout

Before we actually begin our discussion about how to layout a tape, we should first define a few terms. Note the following.

Blocks

A block is text that is enclosed between two block marks (a). Note that the first (far left) block does not require a block mark at the beginning, and the last (far right) block does not require a block mark at the end. If there are no block marks, all of the text is treated as a single block. You can individually specify the length of each block, as well as the pitch and the number of lines of inside each block.

Print Area

The print area is the actual area of a label that contains printed text. It starts with the left side of the first character printed, and ends with right side of the last character printed.

Side Spaces

The side spaces are blank areas that the label printer automatically adds on either end of the print area. Note that both of the side spaces are added when you are using auto feed, and they are not added when using manual feed.

Auto Feed (with side spaces)



Manual Feed (no side spaces), Multiple copy printing



Tape Length

The tape length is the print area, plus the side spaces.

Settings you make for side spaces, block spacing, and mirror printing affect the entire label length.



Using the Layout Display

You can check the layout of your label at any time using the layout display. The layout display shows all of the graphics and text elements that make up your label to give you a general idea of how the label is laid out.

To show the layout display

Feed setting (E-30)

 After laying out the label you plan to print, press LAYOUT.

(when the entire layout does not fit on a single screen)

ſ	1 L0	ONG	13.9cm
;			

- 2. If the label layout is too big to fit on a single display, use \wedge and \vee to scroll it.
- Pressing ∧ returns to the top of the layout.
- 3. Press ESC to quit the layout display.
- You can view the actual appearance of the label using the image display, which is described on page E-32.

Creating and Deleting Blocks

The following procedures describe how to create and delete blocks. Later you will learn how you can change certain settings on a block-by-block basis.

To create a block

Example: To input the text "ABXYZ Computer Company" and create two blocks: "ABXYZ" and "Computer Company".

- 1. Input the text.
- 2. Move the cursor to the space between "ABXYZ" and "Computer Company".
- 3. Press BLOCK.
- If you wanted to break the text up into three blocks, you should input another block mark.



To delete a block mark

To delete a block mark, use the procedures for **DEL** as described under "Deleting Individual Characters" (page E-15). You cannot use **BS** for deleting block marks.

Important!

- You can input up to 15 block marks into a single passage of text.
- When your passage of text consists of a single block (when it contains no), pressing the **FORM** key displays BLOCK FORMAT menu 1/4 through 4/4, followed by OVERALL FORMAT menu 1/6 through 6/6. Make the settings you want as each of these screens appears.
- When your passage of text consists of multiple blocks (when it contains at least one), pressing the **FORM** key displays the FORM menu. Select BLOCK FORMAT, and then ONE BLOCK or ALL BLOCKS in the RANGE setting screen to display BLOCK FORMAT menu 1/4 through 4/4, or OVERALL FORMAT to display OVERALL FORMAT menu 1/6 through 6/6.

Block Operations

The procedures in this section can be used to control the following parameters for each block.

- Direction (horizontal, vertical)
- Alignment (left, equal justify, equal ragged, center, right)
- Character pitch ($^{8}/_{8}$, $^{9}/_{8}$, $^{10}/_{8}$, $^{11}/_{8}$, $^{12}/_{8}$, $^{16}/_{8}$, $^{24}/_{8}$ character)
- Block length (auto, fixed)

Use the BLOCK FORMAT menu to perform block operations.

To display the BLOCK FORMAT menu

- 1. While there is text on the display, press **FORM**.
- This menu appears only when the passage of text consists of multiple blocks (when it contains at least one).
- Use ∧ and ∨ to move the highlighting to "BLOCK FORMAT" and then press SET.



RANGĚ

- 3. Specify whether you want your specifications to apply to one block or all blocks and then press SET.
- If you specify one block, the specifications you make will be applied to the block where the cursor was located when you pressed FORM.



- Use \wedge and \vee to move the highlighting between menu items.
- The BLOCK FORMAT menu has four pages. Press SET while the first page is displayed to change to the second page.

Pressing SET while the fourth page is displayed registers any setting with the menu and returns to the text input screen.

- Use \lt and > to change between settings of the currently selected (highlighted) item.
- The following explanations describe each of the BLOCK FORMAT menu items in detail.

DIRECTION

HORIZONTAL

CASI



Switching between HORIZONTAL and VERTICAL also affects the print length.

ALIGNMENT

LEFT	EQUAL JUSTIFY
CASIO	CASIO
COMPUTER CO.,LTD.	COMPUTER CO.,LTD.
MADE IN JAPAN	MADE IN JAPAN
MADE IN JAPAN	MADE IN JAPAN



CENTER

CASIO COMPUTER CO., LTD. MADE IN JAPAN



PITCH (CHARACTER PITCH)

This is the relative spacing between characters. You can specify character pitch as $\frac{8}{8}$, $\frac{9}{8}$, $\frac{10}{8}$, $\frac{11}{8}$, $\frac{12}{8}$, $\frac{16}{8}$ or $\frac{24}{8}$ character. The following shows some examples of character pitch setting.



Important! Vertical printing can cause characters to overlap on the printed tape. You can correct for this by increasing the PITCH setting, or by turning off PROPORTIONAL on the OVERALL FORMAT menu.

B-LENGTH (BLOCK LENGTH)

Select "FIXED" if you want to specify a fixed block length. Use ∨ to highlight [] below "FIXED". Use \langle or \rangle to specify the block length in the range of 0.0 cm to 99.9 cm(0~39.3 inch). Specify "AUTO" for this option if you want the label printer to automatically adjust the length of the block.

All Text Operations

The procedures in this section control the following parameters for all of the text on the display.

- Mirror printing (normal, mirror)
- Proportional character spacing (on, off)
- Block space (narrow, wide, none)
- Feed (long, medium, short, manual)
- Tape length (auto, fixed)
- Block alignment (left, equal, center, right)

Use the BLOCK FORMAT menu to perform block operations.

To display the OVERALL FORMAT menu

- 1. While there is text on the display, press FORM.
- 2. Use \wedge and \vee to move the highlighting to "OVERALL FORMAT" and then press SET.
- Use ∧ and ∨ to move the highlighting between menu items.
- The OVERALL FORMAT menu has six pages. Press **SET** while the first page is displayed to change to the second page. Pressing **SET** while the sixth page is displayed registers any settings with the menu and returns to the text input screen.
- Use < and > to change between settings of the currently selected (highlighted) item.
- The following explanations describe each of the OVERALL FORMAT menu items in detail.

NORMAL/MIRROR

NORMAL







MIRROR

T-LENGTH 24.4cm

-- OVERALL FORMAT 1/6 --

2003101219

ABC

PROPORTIONAL

ON

CASIO CASIO





- * PROPORTIONAL is automatically turned off for the types of characters listed below.
 - ILLUSTRATIONS and the following SYMBOL characters: DINGBATS, NUMBERS, GREEK, RUSSIAN.

BL-SPACE (BLOCK SPACE)



FEED

You can also select one of four different feed settings that provides either long or short side spaces ("Fundamentals of Label Layout"). You can also specify manual feed.

LONG

This setting causes the tape to feed 21mm at the beginning and end of each printing.



About 21mm

About 21mm

MEDIUM

This setting causes the tape to feed 10mm at the beginning and end of each printing.

LEADING MARGIN AUTO TAPE CUT (Page E-30)

leader





About 23 mm

About 10 mm

About 10 mm

• Leading margin auto tape cut is not performed when TAPE LENGTH: About 31 mm or less is set for OVERALL FORMAT (See page E-27).

SHORT

This setting causes the tape to feed 3mm at the beginning and end of each printing.

LEADING MARGIN

AUTO TAPE CUT (Page E-30)

leader



• Leading margin auto tape cut is not performed when TAPE LENGTH: About 24 mm or less is set for OVERALL FORMAT (See page E-27).

MANUAL

This setting doesn't provide any side spaces of the printed text. If you perform two consecutive print operations (without manually feeding between prints), the last character of the first print operation is followed by the first character of the second print operation, with no space provided between them. It is a good way to save tape when you print a series of tapes.

Important! After you finish printing with manual feed, be sure to always press **FUNCTION** and then **IMAGE** (CUT). This feeds the tape and then cuts it. See "Manual Tape Cut" on page E-31 for details.

T-LENGTH (TAPE LENGTH)

Select "FIXED" if you want to specify a fixed tape length. Use \lor to highlight [] below "FIXED". Use \lt or > to specify the tape length in the range of 0.0 cm to 99.9 cm (0~39.3 inch). Specify "AUTO" for this option if you want the label printer to automatically adjust the length of the tape.

B-ALIGN (BLOCK ALIGN)

LEFT



EQUAL



CENTER



RIGHT



Part 8 Printing

This part of the manual includes all the information you need to print tapes.

Printing Precautions

- Never turn power off while printing is being performed.
- Make sure that the tape outlet is not blocked before you start printing.
- Printing text that has large dark areas, printing on wide tape, and printing continuously can cause the printer to become hot. When this happens, the message "GETTING READY..." appears on the screen and printing is momentarily suspended to prevent serious overheating. Printing will automatically restart when temperature returns to normal.
- If the message "GETTING READY..." appears and printing is interrupted frequently, try using a lower print density setting.

Printing a Tape

Printing a tape is as easy as pressing the **PRINT** key.

To print a tape

- 1. Press the **PRINT** key to print a tape of the text you have input and laid out.
- To stop a print operation that is in progress, press ESC.
- You can add extra margin to the beginning of the tape by pressing **FUNC-TION** and then **PRINT** (FEED) before starting the print operation.

Important! To specify printing of multiple copies of the same label, turn on multiple copy printing before you start the print operation. See "Printing Multiple Copies of the Same Label" for more information.

If you want to print only one copy of the label, jump to step 6.

- 2. Use < and > to specify the number of copies you want to print. < decreases the value, while > increases it.
- You can also input values directly for COPIES. Note, however, that the first value you input is inserted to the right of the value currently on the display. If 1 is displayed, for example, inputting 9 results in a setting of 19. To specify a value in the range of 1 to 9, you must include a leading zero (01, 02, 03, etc.).
- 3. Use \lor to select the AUTO CUT menu.

- 4. Use < and > to turn on AUTO CUT.
- 5. After making sure there is nothing blocking the tape outlet, press **PRINT** or **SET**.

Each label is cut automatically after it is printed.

- 6. Use scissors to trim the tape to the size you want, if necessary.
- After you print a tape, you can peel off its paper backing and stick the tape onto the object you want.

Printing Multiple Copies of the Same Label

After you turn on multiple copy printing, you can specify how many copies of the label you want to print. You can specify up to 100 copies.

Important!

- When you specify multiple copies of the same label, the labels are printed one after another, non-stop.
- Before starting the print operation check to make sure there is enough tape left in the tape cartridge to print all of the copies you want. If you run out of tape part way through, press **ESC** to cancel the print operation.

To turn on multiple copy printing

- 1. Press SET UP.
- 2. Use \wedge and \vee to select COPIES (Multiple Copy Printing), and then press SET.
- 3. Use \land and \lor to select ON and then press SET.

Now when you start a label print operation, a message appears on the display to ask how many copies you want to print. Actual printing starts after you specify the number of copies.

Note

- To turn off multiple copy printing (for printing of one label per print operation), use ∧ and ∨ in step 3 of the above procedure to select OFF.
- Auto tape cutting is not performed when FEED:MEDIUM, TAPE LENGTH:About 31mm or less or FEED:SHORT, TAPE LENGTH:About 24mm or less is set for OVERALL FORMAT setting. In such a case, use scissors to cut the tape after printing is complete. When MANUAL is set for FEED, tape cutting is never performed, regardless of the AUTO CUT setting is ON or OFF.
- Printing of multiple copies may be impossible when the label is very long. In such a case, shorten the label or reduce the number of copies and try again.

Important!

• Make sure that printed labels do not accumulate in the area around the tape outlet. Labels piling up around the tape outlet can cause tape jams and malfunction.

Tape Cutting

There are two methods for cutting tape. The auto tape cutter cuts the tape automatically after printing is complete. You can also perform a manual operation to cut the tape.

Auto tape cutter

The auto tape cutter can be used to perform the following operations.

- To cut the margin at the beginning of a label
- To cut the tape after printing of each label (when AUTO CUT is ON during Multiple Copy Printing)
- To cut the tape after printing of a label is complete

■ The following table shows when auto tape cut is performed and when it is not. ○: Tape cut X: No tape cut

FEED ((Margin) and TAPE LENGTH	Leading Margin Tape Cut	Multiple Copy Printing Tape Cut After Each Label	Final Tape Cut
FEED: LO	ONG (Large Margins)	×	0	0
FEED: MEDIUM	About 31mm or more	0	0	0
(Medium Margins)	About 31mm or less	×	×	0
FEED: SHORT	About 24mm or more	0	0	0
(Small Margins)	About 24mm or less	×	×	0
FEED: I	MANUAL (No Feed)	×	×	×

 Certain feed settings can disable tape cutting. In such a case, use scissors to cut the tape. ■ The following shows how printing is performed in accordance with the AUTO CUT setting for Multiple Copy Printing.



Auto tape cut is not performed when AUTO CUT: OFF is selected. The auto cut location is determined in accordance with the feed setting, as shown below.

FEED: LONG



FEED: MANUAL



Important!

- Auto tape cut is not performed after a tape feed operation (FUNCTION and then PRINT (FEED)). In such a case, manually cut the tape as required.
- Pressing ESC does not stop an ongoing auto tape cut operation. If you want to interrupt an ongoing auto tape cut operation, wait until the auto tape cut operation is complete and then press ESC.

Manual Tape Cut

Pressing **FUNCTION** and then **IMAGE** (CUT) feeds the tape and then cuts it. Since the tape is fed automatically before cutting, there is no danger of figures from the previous print operation appearing at the beginning of the subsequent print operation.

You can use **FUNCTION IMAGE** (CUT) to manually cut the tape after interrupting a print operation by pressing **ESC**.

Important!

- Tape feed is always performed with a manual cut. You cannot perform the cut operation alone.
- FUNCTION IMAGE (CUT) does not work while a print operation is in progress, while colored tape is loaded, or when there is no tape cartridge loaded.

Affixing a Label to a Surface

The label printer comes with a built-in peeler and a separate peeler tool that makes it easy to remove the backing paper from printed labels.

Using the Peelers to Remove Label Backing Paper

The following procedures describe how to use the built-in peeler and the separate peeler tool to remove the backing paper from printed labels.

To remove backing paper with the built-in peeler

1. Insert the label into the peeler.



Insert the label into the peeler until about 2mm at the end of the label bends back slightly.



Position the printed surface towards the front of the label printer.

2. Pull the label straight down through the peeler slot.



3. Repeat steps 1 and 2 until the backing paper works free from the label. You can use scissors to trim a label to the size you want.

To remove backing paper with the peeler tool

1. Open the peeler slot.



- 2. With the printed surface of the label facing downwards, insert it into the peeler.
- 3. Close the peeler slot.
- 4. Press the button a number of times.



5. Open the peeler slot and remove the label.



The backing paper should be peeled from the label at this corner.

Precautions when affixing a label

- The following types of surfaces may be unsuitable for affixing a label.
- Rough surfaces
- · Wet, oily, or dusty surfaces
- Special plastic material (silicon base, PP material, etc.)
- Do not affix labels to the following types of surfaces.
- · Surfaces exposed to direct sunlight or rain
- Buildings or walls that are the property of others
- Train stations or other public structures
- On the body of a person or animal
- On utility poles

- Note that adhesive from the tape may remain on the surface when you peel off a label.
- The backing of certain types of tape may be difficult to remove using the peelers. If you experience problems, try bending the label to work the backing free.

Print Density

The print density setting controls how darkly figures are printed on your tapes.

To adjust the print density

- 1. Turn power on.
- 2. Press SET UP to display the SET UP menu.
- 3. Use ∧ and ∨ to highlight "DENSITY", and then press **SET**.



- Use < and > to highlight the density you want to use and then press SET to apply the setting and return to the text input screen.
- The higher the number you select, the darker the characters that are printed.

Using the Image Display

The image display lets you view a realistic image of exactly what your tape will look like before you print it.

To show the image display

- 1. After laying out the label you plan to print, press **IMAGE**.
- The image on the display scrolls from right to left.



- 2. To stop the image from scrolling and freeze the current contents on the display, press **SET**.
- 3. Press SET again to resume scrolling.
- 4. Press ESC to quit the image display.
- Labels that contain very thin lines or a large number of characters may not appear normally on the image display.

Part 9 Frames

The frame feature makes it easy to add attractive ornamental frames to your text.

To specify a frame around the printing area

- 1. Input the text you want to frame.
- 2. Press FRAME.
- Use ∧, ∨, < and > to move the highlighting to the frame you want to use and press SET.

FRAMES	
	- 2

- 4. Press **SET** to print your text with the selected frame or **ESC** to abort the print operation without printing anything.
- For information about the maximum number of lines you can use with frame printing, see "To input alpha-numeric characters" on page E-13.

Part 10 PRESETS Menu Functions

This part of the manual describes how to use the PRESETS menu to access a variety of different built-in functions that make label creation quicker and easier.

To Display the PRESETS Menu

1. Press PRESETS.

- Note that PRESETS menu functions are normally used when there is no text on the input screen. If there is text on the screen when you press PRESETS, the message "INPUT TEXT WILL BE CLEARED! OK TO CONTINUE? SET/ ESC" appears on the screen. You can proceed with the operation (and clear the text), or press ESC to abort without clearing anything.
- 2. Use ∧ and ∨ to move the highlighting to the preset you want to select and then press **SET**.

Enlarge

This item lets you print up to 16 characters on multiple tapes, which you can then assemble into an enlarged label. The character size on such a label can be up to about 180mm. Note that this item is available only when 36 or 46mm tape is loaded in the label printer. See page E-42 for important information about character sizes and tape width when using the various settings of this item.

• You cannot use less than 36mm width tape or colored tapes.

To print a large-size label

- 1. While the PRESETS menu is on the display, use ∧ and ∨ to move the highlighting to "ENLARGED" and then press **SET**.
- 2. Input up to 16 characters of text, and then press **SET**.



- 3. Specify the print direction (page E-26) and either mirror or normal printing (page E-27).
- Use \wedge and \vee to move the highlighting between items, and < and > to change each setting.
- 4. After making the settings you want, press **SET**.



5. Use ∧ and ∨ to move the highlighting to the enlargement size you want to use and then press **SET**.



6. Make sure that "PRINT" is highlighted, and then press **SET**.

ENLARGED				
LEVEL AUTO CUT				

- 7. Use < and > to select "ALL" on the "LEVEL" item.
- 8. Use \lor to move the highlighting to the "AUTO CUT" menu. Use \lt and \gt to select ON.
- 9. Press SET or PRINT to execute it.

If you want to print only one of the tapes that make up the enlarged label, use the > and < keys in step 7 to select the tape you want to print.

Important!

- You cannot input or print superscripted or subscripted symbols (SYMBOL) using Enlarged printing. (See page E-14 for information about superscripting and subscripting symbols.)
- With enlarged printing any of the following conditions can cause printing to take a long time.
 - · Very wide tape
 - A large number of pieces
 - A large number of characters
 - Certain fonts
 - · Many illustrations

Such conditions can cause the message, "GETTING READY..." to remain on the display for quite a long time. This is due to internal processing and does not indicate malfunction. If you want to interrupt printing, press **ESC**.

BAR CODE

With this item, you can print any one of seven different types of bar codes: EAN-13, EAN-8, UPC-A, UPC-E, ITF, CODE39, CODABAR(NW7).

Important! The procedure you use to print a bar code depends on the type of bar code you select.

Bar Code Tape

Only 18/24/36/46mm tape should be used for printing bar codes.

- Black on white tape (WE)
- Blue on white tape (WEB)
- Black on yellow tape (YW)

Important!

- You cannot use 6/9/12mm/colored tape to print bar codes.
- You cannot input superscripted or subscripted symbols (SYMBOL) using bar codes.
- You can input up to 60 characters as comment text. If you do not want to input comment text, press **SET** without inputting anything.
- Always test bar codes produced using this label printer before actually using them. If bar codes cannot be read properly, try adjusting the print density to a lighter level (page E-32), or using a larger bar code size (See step 6 under "To print a bar code" on page E-35.)

EAN-13, EAN-8, UPC-A, UPC-E

The following applies to EAN-13, EAN-8, UPC-A, and UPC-E bar codes.

To print a bar code

- 1. While the PRESETS menu is on the display, use ∧ and ∨ to move the highlighting to "BAR CODE" and then press **SET**.
- Use ∧ and ∨ to move the highlighting to "NEW" and then press SET.



3. Use ∧ and ∨ to move the highlighting to the type of bar code you want to print and then press **SET**.

ab.▲ COMMENT	 	 Α'

- 4. Input up to 60 characters of comment text if you want, and then press SET.
- 5. Input the bar code's data and then press SET.
- The number of digits you must input depends on each type of bar code you have chosen. (See "Bar Code Specifications" on page E-43)
- Note that inputting barcode data automatically turns on upper-case input.
- 6. Use ∧ and ∨ to move the highlighting to the size you want to use and then press SET.

Bar	CODE	3.4cm	
			J

- 7. Use \wedge and \vee to move the highlighting to "PRINT" and then press SET to execute it.
- 8. Use \land and \lor to move the highlighting to "EXIT" and then press SET.
- 9. Press **SET** to end the operation.

ITF, CODE39, CODABAR

The following applies to ITF, CODE39 and CODABAR bar codes.

To print a bar code

- 1. While the PRESETS menu is on the display, use ∧ and ∨ to move the highlighting to "BAR CODE" and then press **SET**.
- 2. Use \wedge and \vee to move the highlighting to "NEW" and then press SET.
- Use ∧ and ∨ to move the highlighting to the type of bar code you want to print and then press SET.

 - CHECK	BAR CODE DIGIT -	

- Use ∧ and ∨ to select "YES" (use check digit) or "NO" (do not use check digit) and then press SET.
- 5. Input up to 60 characters of comment text if you want, and then press SET.
- 6. Input the bar code's data and then press SET.
- 7. Perform steps 6 through 9 under "To print a bar code" of "EAN-13, EAN-8, UPC-A, UPC-E".

General Bar code Operations

The following procedures apply to all bar code types.

To store a bar code

- 1. Perform the required steps to create the bar code so the following is on the screen.
- 2. Use \land and \lor to move the highlighting to "STORE" and then press **SET**.
- 3. Input up to eight characters for the name of the bar code, and then press $\ensuremath{\textbf{SET}}$
- 4. Press **SET** to store the bar code or **ESC** to abort the operation without storing anything.
- The message "COMPLETE" appears on the display when the store operation is complete.
- 5. Use \land and \lor to move the highlighting to "EXIT" and then press SET.
- 6. Press **SET** to end the operation.
To recall a bar code from memory

- 1. While the BAR CODE menu is on the display, use ∧ and ∨ to move the highlighting to "RECALL" and then press **SET**.
- 2. Use \wedge and \vee to display the name of the bar code you want, and then press SET to recall it.
- 3. Now you can make changes in the bar code and print it or store it as a new bar code.

To delete a bar code from memory

- 1. While the BAR CODE menu is on the display, use ∧ and ∨ to move the highlighting to "DELETE" and then press **SET**.
- 2. Use ∧ and ∨ to display the name of the bar code you want,and then press **SET** to delete it.
- 3. Press SET to delete the bar code.

Part 11 Memory

This part of the manual tells you how to store text data in memory for instant recall when you need it. You can store up to 4,000 characters in memory.

To store data

1. Input the text you want to store, and then press **MEMORY**.

MEMORY	
RECALL DELETE	
USED MEMORY	2%

- 2. Use \land and \lor to move the highlighting to "STORE" and then press **SET**.
- 3. Press **SET** to store the text in memory or **ESC** to abort the store procedure without storing anything.
- The message "MEMORY FULL!" appears if memory is already full.

Recalling Text From Memory

There are two methods you can use to recall text: sequential search and character search. With sequential search, you scroll through memory contents until you find what you want. With character search, you input up to eight characters and the label printer searches through its memory to find them for you.

To recall memory text using sequential search

- 1. Press MEMORY.
- Use ∧ and ∨ to move the highlighting to "RECALL" and then press SET.

ab	LOOK	FOR?	
<u> </u>	••••		
l			

- 3. Press **SET** without inputting anything and the first item stored in memory appears.
- Use ∧ and ∨ to scroll through the items in memory until the one you want is on the display.

- 5. Press SET.
- What you do next depends on whether or not you want to delete existing text on the display or combine the recalled text with existing text.



NEW

- 1. Use \land and \lor to move the highlighting to "NEW".
- 2. Press **SET** to delete any text that was previously on the input screen and replace it with the recalled text.

INSERT

- 1. Use \wedge and \vee to move the highlighting to "INSERT" and then press **SET**.
- 2. Use ∧, ∨, < and > to move the cursor to the location where you want the recalled text inserted and then press **SET**.
- If the text you recalled has more than 511 characters or 16 blocks, the message "CANNOT INSERT!" appears on the screen. Press any key besides FUNCTION, ON, SHIFT, CODE or OFF to return to the text input screen.

To recall memory text using character search

- 1. Press MEMORY.
- 2. Use \wedge and \vee to move the highlighting to "RECALL" and then press **SET**.
- 3. Input the characters you want and then press **SET** to start the search operation.
- The first item that starts with the characters you input appears on the screen.
- The characters must come at the very beginning of the item. The label printer does not find the characters if they come at the beginning of a block or line inside the item.
- 4. Continue from step 4 under "To recall memory text using sequential search".
- You cannot input or print superscripted or subscripted symbols (SYMBOL) in response to the "LOOK FOR?" prompt. To find the text H₂O, for example, use H2O for character search, or use sequential search.

To delete memory text

- 1. Press MEMORY.
- 2. Use \land and \lor to move the highlighting to "DELETE" and then press **SET**.
- 3. Use either sequential search or character search to display the memory text you want to delete and then press **SET**.
- 4. Press SET to delete the data.

Part 12 Downloading Data from your Computer

The PC Link Software (FA-930C) that comes bundled with the label printer makes it possible for you to print data from your computer on the label printer. See the documentation that comes with the FA-930C for information about how to connect the label printer to your computer and how to use the software.

Important! The FA-930C software may not run properly on certain computer configurations.

The following are the system requirements to run the FA-930C software.



 Note that the above is intended to provide only a general idea of the appearance of a computer. Specific components may be arranged or located differently from those shown above.

System requirements

Operating System: Microsoft® Windows® 95/98 English Version CPU: i486/66MHz or higher (Pentium 75MHz or higher recommendend) Connector: RS-232C port (D-sub 9-pin)

RAM: At least 16MB (32MB recommended)

Hard Disk: At least 20MB available for installation ;40MB available for operation

Monitor: Support for at least 256 colors CD-ROM Drive

 Microsoft Excel 95/97/2000 must also be installed on your system if you plan to import Excel files using a version of the PC Link application that supports Excel file import.

Sending Data from your personal computer

This section tells you how to send data from your personal computer to the label printer.

Important!

- Before performing any of the procedures in this section, make sure to load a single-color tape for monochrome data or a colored tape for color image data.
- You need to prepare the cable that comes with the package to connect the PC to the label printer for data communication.

The FA-930C application that comes with the package, makes it possible for you to use the label printer to print data created on your personal computer.

To connect the PC to the label printer

- 1. Turn off the power of the label printer and your PC.
- 2. Use the cable to connect to the label printer.
- 3. Turn on the power of the label printer and the PC.

To send data from the PC to the label printer

- 4. Recall the data you want to send.
- See the User's Guide that comes with the FA-930C for details on how to recall data.
- 5. On the label printer, press COMPUTER LINK.
 This causes the message "RECEIVE? SET/

ESC" to appear on the label printer screen.

---- COMPUTER LINK -----RECEIVE? SET ÆSC

- Press SET to execute the operation, or ESC to quit data communication.
- If there are text remaining in the text input screen, a message "INPUT TEXT WILL BE CLEARED! OK TO CONTINUE? SET/ESC" will appear. Press **SET** to clear the text or **ESC** to return to the text input screen.
- 6. After pressing SET the message changes to "RECEIVE OK!".
- A communication error occurs on the label printer if it does not start to receive data within about 20 seconds after the "RECEIVE OK!" message appears on its screen.
- If a communication error occurs on the label printer, press any key besides OFF, FUNCTION, SHIFT, CODE or ON to clear the error, and then try again.
- A message "NOW SENDING" appears on the screen of the label printer while data is being transferred.
- 7. The data will be automatically printed.
- 8. Turn the label printer and the computer off and disconnect the cable.

Important! Label printer functions are disabled while data communication with a computer is in progress.

Part 13 Reference

This section contains information about the label printer that you can use as reference when you need it.

Cleaning the Printer Head and Roller

A dirty printer head and roller can result in poor printing quality. If you have problems with print quality, use the following procedure to clean the printer head and roller.

To clean the printer head and roller

- 1. Make sure the label printer is turned off.
- 2. Press the tape cartridge compartment cover release and open the compartment cover.
- 3. Remove the tape cartridge.
- 4. Use a cotton swab dipped in alcohol to clean the printer head and roller as shown in the illustration.

ollei



5. Replace the tape cartridge and close the compartment cover.

Initial Settings

The following are the initial settings of the label printer whenever you turn it power on or reset the unit.

ltem	Power On	Reset
Display	Cleared*	Cleared
Memory	Retained	Cleared
ab(CAPS OFF)/AB(CAPS ON)	Retained	ab

* Pressing SET when the message "PRESS [SET] TO RECALL" appears on the display, recalls the text that was on the screen when you last turned off power.

Item	Power On	Reset
Horz/Vert	Horizontal	Horizontal
Text Alignment	Left	Left
Character Pitch	8/8	8/8
Block Length	Auto	Auto
Mirror Printing	Normal	Normal
Proportional Spacing	On	On
Block Spacing	Narrow	Narrow
Auto Feed	Long	Long
Tape Length	Auto	Auto
Default Font	Retained	Sans-Serif
Insert/Overwrite	Retained	Insert
Contrast (32 levels)	Retained	Level 15
Density (5 levels)	Retained	Level 3
Sound	Retained	On
Language	Retained	English
Character Attributes		
Fonts	Default font	Sans-Serif
Character Styles	Normal	Normal
Text Effects	None	None
Character Sizes:		
(SIZE 9-119pt)	Auto sizing	Auto sizing
(LINE:FORMAT MENU)	Canceled	Canceled
cm/inch	Retained	cm

Initializing the Label Printer

If you experience serious malfunction of the label printer or if operation fails completely, try performing the following operation to initialize the printer.

Important! Initializing the label printer deletes all memory contents. Make sure you have a back-up copy of text stored in memory if you need it.

To initialize the label printer

- 1. Turn power off.
- 2. While holding down the **PRINT** and **ESC** keys, press **ON** to turn power on.
- This prompt confirms whether or not you want to initialize the label printer.

INITIALIZE? SET/ESC

3. Press **SET** to initialize the label printer or **ESC** to abort the reset operation.

Format Indicator

The format indicator uses an imager to show the print format for the block where the cursor is currently located. In the case of multiple lines, the format of the line where the cursor is currently located flashes. Depending on the format type, the format indicator may appear as an imager or as a fractional value.

• Format Indicator for Just Fit (Auto Sizing) (1 to 8 lines) Example: 4 lines in a block, cursor located in line 4



• Format Indicator for Selected Format Example: 3-line B format selected, cursor located in line 3



 Format Indicator for Print Size Specified by Character Specification, Just Fit (Auto Sizing) (9 or 10 lines)

Example: 10 lines in a block, cursor located in line 5



The following shows how the brackets on either side of the format indicator change to indicate various conditions.

- [■]: fixed block length (specified by user)
- (■]: block text too long for fixed block length, but printing will be performed by compressing text.
- I: Printed tape will be longer than specified fixed tape length because text will not fit within fixed tape length even if its size is reduced 50%.

ERR: Printing not possible because there are too many lines.

Tape Length Indicator

The following shows how the brackets on either side of the tape length indicator change to indicate various conditions.

- [10.0cm]: fixed tape length specified by user
- 10.0cm]: Text too long for fixed tape length.
- ---- : Printing operation cannot be performed.
- ???.?cm: Tape length longer 999.9cm is specified.

Illustrations



Frames



Fonts

1. SANS-SERIF 123ABC 3. COURIER 123ABC 5. SANS-SERIF ROUNDED 123ABC 7. RICH STROKE 123ABC 9. BOLD SCRIPT 123ABC

2. OLD FACE **123ABC** 4. LOGO STYLE **123ABC** 6. ROMAN **123ABC** 8. STENCIL **123ABC** 10. BLACK LETTER **123ABC**

Enlarged Label Measurements

Tape Width	ltem	2 Pieces	3 Pieces	4 Pieces
36mm	Character Size 72mm		108mm	144mm
3011111	Resulting Tape Width	72mm	108mm	144mm
46mm	Character Size	90mm	135mm	180mm
	Resulting Tape Width	92mm	138mm	184mm

• You cannot use 6mm, 9mm, 12mm, 18mm, 24mm or colored tapes.

Bar Code Specifications

Bar Code Type	Check Digit *1	Print Digits *3	Input Digits *4	Assi Num	atically gned ber of gits Check Digit *1	Input Characters *8
EAN-13	Yes	13	12	_	1	Numerals
EAN-8	Yes	8	7	_	1	Numerals
UPC-A	Yes	12	11	—	1	Numerals
UPC-E	(Yes) *2	6	6	_	—	Numerals
ITF	No	4 to 22	4 to 22 (even only) *5	_	_	Numerals
	Yes	4 to 22	3 to 21 (odd only) *6	_	1	
CODE39	No	4 to 22	2 to 20	2 *7	_	Alpha-numeric characters; hyphen; period; space; dollar
	Yes	4 to 22	1 to 19	2 *7	1	sign; slash; plus sign; percent sign
CODABAR	No	4 to 22	4 to 22	_	_	Numerals; hyphen; period; dollar sign; colon; slash; plus
	Yes	4 to 22	3 to 21	_	1	sign; letters A through D (first and final digits only) *9

- *1 The check digit is automatically calculated in accordance with input data. For EAN-13, EAN-8, UPC-A, and ITF, the check digit is appended at the end of the printed digits. For CODE39 and CODABAR, the check digit is appended one digit before the final digit (when a check digit is used).
- *2 UPC-E includes a check digit, but it is not printed as a numeral below the bar code.
- *3 The number of digits printed below a bar code equals the input characters plus automatically appended characters.

- *4 An error message is displayed whenever there are insufficient digits. The unit will not allow input of too many digits.
- *5 An error message appears and printing is impossible if an odd number of digits are input when an ITF check digit is not being used. Append a zero to the beginning of the digits and re-input.
- *6 An error message appears and printing is impossible if an even number of digits are input when an ITF check digit is being used. Append a zero to the beginning of the digits and re-input.
- *7 Both the start code and end stop code of CODE39 must be asterisks.
- *8 An error message appears and printing is impossible if any characters other than those specified here are used.
- *9 With CODABAR, A, B, C, or D can be used as the start code and stop code. An error message appears and printing is impossible if any other character is used.

Troubleshooting

Power Supply

Nothing appears on the display.			
Possible Cause Action			
Improper display contrast setting	Adjust display contrast.		
AC power cord is not con- nected correctly.	Make sure the AC power cord is connected correctly.		

• Text Input

Cannot input text.		
Possible Cause	Action	
FUNCTION key has been pressed.	Press ESC to clear FUNCTION key operation.	

Tape does not come out when PRINT is pressed.		
Possible Cause	Action	
Tape cartridge compart- ment cover is not closed completely.	Securely close the tape cartridge cover.	
No more tape left in the cartridge.	Replace the tape cartridge with a new one.	
Tape jam	Remove the tape cartridge and pull out the jammed tape by hand. Cut off excess tape with scissors, and carefully replace the cartridge into the label printer.	
	 Important! Never do any of the following while printing is in progress. Allow the tape outlet to become blocked Touch the tape coming out of the label printer Open the tape cartridge compartment cover Turn off label printer power 	

Tape comes out when PRINT is pressed, but nothing is printed on it.			
Possible Cause	Action		
Only blank spaces were input.	Input the text you want to print.		

Printing is blurred, blotched, broken, etc.			
Possible Cause	Action		
Improper print density set- ting	Adjust the print density setting.		
Improper loading of the cartridge	Remove the tape cartridge and reload it correctly.		
Dirty print head or rubber roller	Clean the printer head and roller.		

Ink ribbon is being fed from the tape outlet along with the tape.		
Possible Cause	Action	
Ink ribbon cassette loaded while the ink ribbon is slack.		
	 Important! Before loading an ink ribbon cassette into the label printer, always make sure you take up any slack in the ink ribbon first. If the ink ribbon is broken, you must change to another ink ribbon cassette. 	

• Tape Cutting

Cannot cut tape.					
Possible Cause	Action				
Tape cutter blade is dull.	Take the label printer to the dealer from whom you purchased it to have the tape cutter blade replaced.				
Tape is jammed.	Turn off power, remove the tape cartridge, and clear the jammed tape.				
You are using colored tape.	When using colored tape, you cannot cut the tape by pressing FUNCTION IMAGE .				
MANUAL is set as the FEED setting.	Change the feed setting to LONG, MEDIUM, or SHORT.				
You selected AUTO CUT : OFF before printing.	Change the setting to AUTO CUT : ON.				
The label length (TAPE LENGTH) setting is too short (less than 31mm when using FEED: MEDIUM, less than 24mm when using FEED: SHORT).	After printing is complete, use scissors to cut the tape.				

• Using Labels

Label will not adhere to a surface.					
Possible Cause Action					
The backing paper is still on the back of the tape.	Peel the backing paper from the back of the tape to expose the adhesive.				
Surface is unsuitable for affixing a tape.	Labels do not adhere well to surfaces that are rough, wet, oily, or dirty.				

Data Communication

Cannot transfer data.					
Possible Cause	Action				
Poor data communication cable connection	Make sure the data communication cable jacks are connected securely.				
Passage of too much time after setting up for data communication	Be sure to start actual data transfer within about 20 seconds after pressing SET to start a data communication operation.				

Messages

The messages in the following table are listed in alphabetical order.

Message	Possible Cause	Action	Page
CANCEL FORMAT? SET/ESC	 You changed the number of lines. You specified char- acter size (points) for individual characters. 	 To cancel preset format specification press SET. If you do not want to cancel the specification, press ESC. 	E-23
CANNOT INSERT!	Recalling text into ex- isting text results in more than 511 charac- ters or 16 blocks.	Reduce the number of characters or blocks in existing text.	E-15 E-25

Message	Possible Cause	Action	Page
CANNOT PRINT! BAR CODE MUST HAVE EVEN NUMBER OF DIGITS!	 Even number of digits input for ITF bar code when a check digit is being used. Odd number of digits input for ITF bar code when a check digit is not being used. 	 Add a 0 (zero) at the first digit and re-input. Add a 0 (zero) at the first digit and re-input. 	E-43
CANNOT PRINT! NOT ENOUGH DIGITS!	Bar code printed does not have enough digits.	Re-input with the proper number of dig- its.	E-43
CANNOT PRINT! YOU ARE USING ILLEGAL CHARACTERS!	 Invalid characters used in a bar code. Letter other than A, B, C or D input for CODABAR bar code start code or end code. 	 Change to allowed characters. Use only the allow- able characters. 	E-43
CANNOT RECALL MEMORY DATA IN THIS MODE!	Attempt made to recall barcode data as text.	Recall data as barcode data in the PRESETS menu.	E-36
DATA ERROR! RESET THE LABEL PRINTER!	 Corrupted or lost memory contents due to low battery power. Attempting to save text in memory be- fore initializing memory. Attempting to print text before initializing memory. 	Perform the reset op- eration and try again.	E-8
GETTING READY	Printer is hot.	 Wait for a while. Printing will resume when temperature returns to normal. If this problem happens often, try making the print density lighter (lower). 	E-29

Message	Possible Cause	Action	Page
INPUT TEXT!	Attempt made to perform text save without input- ting text first.	Input text and then per- form text save opera- tion.	E-36
INPUT TEXT WILL BE CLEARED! OK TO CONTINUE? SET/ESC	Selecting enlarged printing, the barcode printing menu (PRE- SETS), or the data c o m m u n i c a ti o n menu (COMPUTER LINK) while there is in- put text on the display.	 To proceed with the operation and delete the text, press SET. To cancel the operation, press ESC and then save the text. 	E-33 E-38
LABEL HAS TOO MANY LINES!	Too many lines to be printed.	Reduce the number of lines or use a wider tape.	E-13
LABEL IS LONGER THAN TAPE LENGTH! SET/ESC	Tape length specified for printing is longer than the actual tape length.	 To proceed with the print operation, press SET. To cancel printing, press ESC. Next, you can correct the condition by reducing the number of characters, changing the tape length setting, or turning on automatic tape length setting. 	E-15 E-28
LENGTH OF PRINT IS TOO LONG!	When printing text that is longer than the al- lowed length, the length of each piece is too long, or the number of copies specification causes the total print length to be longer than eight meters.	Shorten the print length or reduce the number of copies.	E-28 E-29
LOAD A TAPE CARTRIDGE THAT IS 18mm OR WIDER	Loaded tape width is less than 18mm during barcode printing.	Use a tape cartridge that is 18 mm or wider.	E-8 E-34

Message	Possible Cause	Action	Page
LOAD A TAPE CARTRIDGE THAT IS 36mm OR WIDER	Loaded tape width is less than 36mm during enlarged printing.	Use a tape cartridge that is 36 mm or wider.	E-8 E-33 E-42
LOOK FOR? NOT FOUND!	No text in memory matches what you specified.	Specify the correct text or scroll through text in memory to find what you want.	E-36 E-37
MEMORY FULL!	Memory is full.	Delete data you no longer need to make room for more data.	E-36
NO DATA!	There is no data stored in memory.	You must have data in memory before you can search for data.	E-36
NOT ENOUGH MEMORY! SET/ESC	Not enough memory to store a barcode.	 To print the barcode without storing it, press SET. To store the barcode, press ESC to return to the PRESETS menu. Delete memory data you no longer need and then perform the barcode store operation again. 	E-35 E-36
PRESS [SET] TO RECALL	Input characters were left on the display the last time power was turned off.	 To recall the text that was last on the dis- play, press SET. To perform another operation without re- calling text, simply perform the opera- tion. 	E-8 E-39

Message	Possible Cause	Action	Page
PRINTING ERROR! CHECK THE TAPE CAR- TRIDGE!	 Tape jam during printing Some foreign object in the tape cutter Some foreign object 	 Turn off power, remove the tape cartridge, and clear the tape jam. Turn off power, remove the tape cartridge, and remove the foreign object. Clean the rubber 	E-8 E-9 E-39
	or tape residue on the rubber roller	roller to remove the foreign object.	
RESET THE LABEL PRINTER!	Memory has not been initialized yet.	Perform the reset op- eration.	E-8
SAME DATA ALREADY EXISTS!	Attempt made to store data when the same data already exists in memory.	Store other data.	E-36
SEND ERROR!	 You did not perform sending the data within 20 seconds af- ter the "RECEIVE OK!" message ap- peared. Label printer was un- able to receive data 	 Press any key be- sides ON, FUNC- TION, SHIFT or CODE and start again. Check cable connec- tions and parameter 	E-38
	 being sent from an external source. Tape cartridge type is not suitable for the type of data being sent to the label printer. 	 settings. Turn off power and replace the tape car- tridge. Load a single- colored tape for monochrome data or a colored tape for color image data. 	
	 Interruption of data send from the com- puter 	• Try again.	

Message	Possible Cause	Action	Page
THAT NAME IS ALREADY USED!	Name being assigned to a barcode is already used.	Use a different name.	E-35
THIS IS THE WRONG TYPE OF TAPE CARTRIDGE	Tape cartridge is not compatible with label printer model.	Turn off power and load the proper tape cartridge.	E-8
TOO MANY BLOCKS!	Attempt to input a 16th block mark (only 15 are allowed).	Delete block marks you don't need.	E-25
TOO MANY LINES TO FRAME!	Too many lines for printing with a frame.	Reduce the number of lines or use a wider tape.	E-13 E-21
TURN OFF POWER THEN LOAD A TAPE CARTRIDGE	Printing operation per- formed while the tape cartridge compartment is empty.	Load a tape cartridge and try again.	E-8

Preset Format

Normal Printing See page E-49 for the maximum number of lines that can be printed with frame printing.

Lines	F	Format	46mm	36mm	24mm	18mm	12mm	9mm	6mm		Lines
	А		17pt	14pt	9pt	9pt	9pt	9pt	9pt		
	В		34pt	26pt	17pt	17pt	17pt	17pt	9pt		
	С		51pt	34pt	26pt	26pt	26pt	17pt	9pt		
	D		68pt	51pt	34pt	34pt	26pt	17pt	9pt		
1 (7 types)	E		85pt	59pt	43pt	43pt	26pt	17pt	9pt		
-	F		102pt	68pt	51pt	43pt	26pt	17pt	9pt		
	G		119pt	85pt	59pt	43pt	26pt	17pt	9pt		
	А		43pt	34pt	20pt	17pt	12pt				
			43pt	34pt	20pt	17pt	12pt				
	В		26pt	17pt	9pt	9pt	9pt				pes)
			26pt	17pt	9pt	9pt	9pt				3 (11 types)
	с —	17pt	14pt	9pt	9pt	9pt				3 (1	
			34pt	26pt	17pt	17pt	12pt				
(s	D		34pt	26pt	17pt	17pt	12pt				
2 (8 types)			17pt	14pt	9pt	9pt	9pt				
(81	Е		26pt	17pt	14pt	14pt	9pt				
			43pt	34pt	20pt	20pt	14pt				
	F		43pt	34pt	20pt	20pt	14pt				
			26pt	17pt	14pt	14pt	9pt				
	G		34pt	26pt	17pt	14pt	9pt				
			51pt	43pt	26pt	20pt	14pt				
	н		51pt	43pt	26pt	20pt	14pt				
			34pt	26pt	17pt	14pt	9pt				
	A		26pt	20pt	14pt	12pt					
(se			26pt	20pt	14pt	12pt					
3 (11 types)			26pt	20pt	14pt	12pt					
11	В		17pt	14pt	9pt	9pt					
3			17pt	14pt	9pt	9pt					
			17pt	14pt	9pt	9pt					

Lines	Format	46mm	36mm	24mm	18mm	12mm	9mm	6mm
	С	17pt	14pt	9pt	9pt			
		17pt	14pt	9pt	9pt			
		34pt	26pt	17pt	17pt			
	D	17pt	14pt	9pt	9pt			
		34pt	26pt	17pt	17pt			
		17pt	14pt	9pt	9pt			
	E	34pt	26pt	17pt	17pt			
		17pt	14pt	9pt	9pt			
		17pt	14pt	9pt	9pt			
	F	17pt	17pt	9pt	9pt			
		34pt	26pt	17pt	14pt			
		34pt	26pt	17pt	14pt			
3 (11 types)	G	34pt	26pt	17pt	14pt			
1 tỷ		17pt	17pt	9pt	9pt			
3 (1		34pt	26pt	17pt	14pt			
	н	34pt	26pt	17pt	14pt			
		34pt	26pt	17pt	14pt			
		17pt	17pt	9pt	9pt			
	I	20pt	17pt	12pt	9pt			
		20pt	17pt	12pt	9pt			
		43pt	34pt	20pt	17pt			
	J	20pt	17pt	12pt	9pt			
		43pt	34pt	20pt	17pt			
		20pt	17pt	12pt	9pt			
	к	43pt	34pt	20pt	17pt			
		20pt	17pt	12pt	9pt			
		20pt	17pt	12pt	9pt			

Lines	Format	46mm	36mm	24mm	18mm	12mm	9mm	6mm
	Α	20pt	17pt	12pt	9pt			
		20pt	17pt	12pt	9pt			
		20pt	17pt	12pt	9pt			
		20pt	17pt	12pt	9pt			
	В	17pt	14pt	9pt	9pt			
		17pt	14pt	9pt	9pt			
		17pt	14pt	9pt	9pt			
		34pt	26pt	17pt	9pt			
s)	С	17pt	14pt	9pt	9pt			
4 (5 types)		17pt	14pt	9pt	9pt			
(5 t		34pt	26pt	17pt	9pt			
4		17pt	14pt	9pt	9pt			
	D	17pt	14pt	9pt	9pt			
		34pt	26pt	17pt	9pt			
		17pt	14pt	9pt	9pt			
		17pt	14pt	9pt	9pt			
	E	34pt	26pt	17pt	9pt			
		17pt	14pt	9pt	9pt			
		17pt	14pt	9pt	9pt			
		17pt	14pt	9pt	9pt			

Frame Printing

Lines	ł	Format	46mm	36mm	24mm	18mm	12mm	9mm	6mm
1 (7 types)	А	_	17pt	14pt	9pt	9pt	9pt	9pt	9pt
	В		34pt	26pt	17pt	17pt	17pt	14pt	9pt
	С		51pt	34pt	26pt	26pt	20pt	14pt	9pt
	D		68pt	51pt	34pt	34pt	20pt	14pt	9pt
	Е		85pt	59pt	43pt	34pt	20pt	14pt	9pt
	F		85pt	68pt	43pt	34pt	20pt	14pt	9pt
	G		85pt	68pt	43pt	34pt	20pt	14pt	9pt
(1)	А		34pt	26pt	17pt	14pt	9pt		
			34pt	26pt	17pt	14pt	9pt		
	В		26pt	17pt	9pt	9pt	9pt		
			26pt	17pt	9pt	9pt	9pt		
	С		17pt	14pt	9pt	9pt	9pt		
			34pt	26pt	17pt	17pt	9pt		
	D		34pt	26pt	17pt	17pt	9pt		
2 (8 types)			17pt	14pt	9pt	9pt	9pt		
(8 t	E	26pt	17pt	14pt	12pt	9pt			
7			43pt	34pt	20pt	17pt	9pt		
	F	43pt	34pt	20pt	17pt	9pt			
			26pt	17pt	14pt	12pt	9pt		
	G	=	26pt	17pt	14pt	12pt	9pt		
			43pt	34pt	20pt	17pt	9pt		
	Н		43pt	34pt	20pt	17pt	9pt		
			26pt	17pt	14pt	12pt	9pt		
3 (11 types)	А		20pt	17pt	12pt	9pt			
			20pt	17pt	12pt	9pt			
			20pt	17pt	12pt	9pt			
	В		17pt	14pt	9pt	9pt			
			17pt	14pt	9pt	9pt			
			17pt	14pt	9pt	9pt			

Lines	Format	46mm	36mm	24mm	18mm	12mm	9mm	6mm
3 (11 types)	С	17pt	14pt	9pt	9pt			
		17pt	14pt	9pt	9pt			
		34pt	26pt	17pt	12pt			
	D	17pt	14pt	9pt	9pt			
		34pt	26pt	17pt	12pt			
		17pt	14pt	9pt	9pt			
	E	34pt	26pt	17pt	12pt			
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		17pt	14pt	9pt	9pt			
	F	17pt	14pt	9pt	9pt			
		26pt	20pt	14pt	9pt			
		26pt	20pt	14pt	9pt			
	G	26pt	20pt	14pt	9pt			
		17pt	14pt	9pt	9pt			
		26pt	20pt	14pt	9pt			
	н	26pt	20pt	14pt	9pt			
		26pt	20pt	14pt	9pt			
		17pt	14pt	9pt	9pt			
	I	17pt	14pt	9pt	9pt			
		17pt	14pt	9pt	9pt			
		34pt	26pt	17pt	12pt			
	J	17pt	14pt	9pt	9pt			
		34pt	26pt	17pt	12pt			
		17pt	14pt	9pt	9pt			
	к	34pt	26pt	17pt	12pt			
		17pt	14pt	9pt	9pt			
		17pt	14pt	9pt	9pt			

Lines	Format	46mm	36mm	24mm	18mm	12mm	9mm	6mm
	А	17pt	14pt	9pt				
		17pt	14pt	9pt				
		17pt	14pt	9pt				
		17pt	14pt	9pt				
	В	14pt	14pt	9pt				
		14pt	14pt	9pt				
		14pt	14pt	9pt				
		26pt	17pt	12pt				
()	С	14pt	14pt	9pt				
ype		14pt	14pt	9pt				
4 (5 types)		26pt	17pt	12pt				
4		14pt	14pt	9pt				
	D	14pt	14pt	9pt				
		26pt	17pt	12pt				
		14pt	14pt	9pt				
		14pt	14pt	9pt				
	E	26pt	17pt	12pt				
		14pt	14pt	9pt				
		14pt	14pt	9pt				
		14pt	14pt	9pt				

Specifications

Model: KL-C500

Input Keyboard Layout: Typewriter (QWERTY)

Character Types

Alpha (English and other languages): 52 (A~Z, a~z), 99 (Á, ß, Ç, Ż etc.) Numbers: 10 Symbols/Greek and Russian Characters: 331 Illustrations: 126

Display

Type: Liquid crystal display Character matrix: 144×64 -dot plus symbol Columns: 18 Lines: 4

Printing

Type: Monochrome: Melt-type thermal transfer Color: Thermal dye sublimation

Speed: Approximately 6.25mm/second

Width: 46mm maximum; 4mm(6mm tape) ; 7mm(9mm tape) ; 10mm (12mm tape) ; 16mm (18mm tape) ; 22mm (24mm tape) ; 32mm (36mm tape) ; 36mm (enlarged printing on 36mm tape) ; 43mm (46mm tape) ; 46mm (enlarged printing on 46mm tape) ; 18mm (color 18mm tape) ; 36mm (color 36mm tape) ; 46mm (color 46mm tape)

Character Configuration: Outline fonts

Character fonts: Sans-serif, Old face, Courier, Logo style, Sans-serif rounded, Roman, Rich stroke, Stencil, Bold script, Black letter

Character Pitch: 7 levels; 8/8, 9/8,10/8,11/8,12/8,16/8, 24/8 character Tape Length: 0.0cm to 99.9cm (FIXED); longer lengths possible with AUTO Printing Functions: Just Fit, horizontal, vertical, mirror, multiple copy printing etc.

Character Sizes: 14 types (mm sizes are approximate)

9pt (3mm), 12pt (4mm), 14pt (5mm), 17pt (6mm), 20pt (7mm), 26pt (9mm), 34pt (12mm), 43pt (15mm), 51pt (18mm), 59 pt (21mm), 68pt (24mm), 85pt (30mm), 102pt (36mm), 119pt (42mm)

Number of Lines:

Normal Printing: 6mm tape: 1 line maximum 9mm tape: 1 line maximum 12mm tape: 2 lines maximum 18mm tape: 4 lines maximum 24mm tape: 5 lines maximum 36mm tape: 8 lines maximum 46mm tape: 10 lines maximum

Frame Printing:

6mm tape: 1 line maximum 9mm tape: 1 line maximum 12mm tape: 2 lines maximum 18mm tape: 3 lines maximum 24mm tape: 4 lines maximum 36mm tape: 6 lines maximum 46mm tape: 8 lines maximum

- Character Styles: Normal, bold, outline, shadow, raised, italic, italic-bold, italicoutline, italic-shadow, italic-raised
- Character Effects: Shade, underline, box (Can be specified for each individual character.)

Frames: 65types

Memory

Text Input: Up to approximately 511 characters **Text Storage:** Up to approximately 4,000 characters

Memory Data Recall: Sequential search, character search Data Communication: Using bundled PC Link software (FA-930C)

General

Power Supply: Power cord

Memory Back-up: Built-in battery

Memory Back-up Battery Life: As indicated on the sticker on the back of the label printer. Indicated battery life is for operation under normal temperatures (20°C). Contact a nearby dealer for battery replacement. You will be charged for replacement.

Power consumption: As noted on the bottom of the unit.

Auto Power Off: Approximately thirty minutes after last key operation Ambient Temperature: 10° to 35°C (50° to 95°F)

Dimensions: $101(H) \times 225(W) \times 262(D)$ mm

Weight: Approximately 1600g

CASIO_®

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