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.

Warning

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 adaptor

- 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 adaptor specified for this unit. Use of another AC adaptor 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 adaptor 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.

Batteries

- Never charge batteries, try to take batteries apart, or allow batteries to become shorted. Never expose batteries to direct heat or dispose of them by incineration.
**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)
- 10 fonts
- 5 character styles (normal, bold, outline, shadow, raised)
- Various font effects
- Bar code printing
- Auto numbering
- Text memory
- Preset formats and preset layouts

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.

---

**Quick Reference**

Though your label printer is packed with powerful features and functions, it is also designed to be easy to setup and use. The following procedures tell you how to set up the label printer and start printing labels right away using preset (auto) layouts. As you become more experienced, you can use the more sophisticated settings and operations described in detail in the other sections of this manual to add even more creativity and originality to your labels.

**Getting Ready**

1. Connect the AC adaptor to the label printer (page E-6).
2. Load a tape cartridge (page E-7).
3. Turn on power (page E-6).
4. Reset the memory if necessary (page E-6).
5. Use the SET UP menu (page E-7) to make basic settings and to produce a demo print if you want.

**Creating a Label Using an Preset (Auto) Layout (page E-19)**

Example: To create a VHS video cassette label for the title "Label Printer" to appear as follows.

1. Turn on the label printer, and clear all text from its screen.
2. Press PRESETS to display the PRESETS menu.
3. Use ▲ and ▼ to move the highlighting to “LAYOUT” and then press SET.
4. Use ▲ and ▼ to move the highlighting to “NEW” and then press SET.
5. Use ▲ and ▼ to move the highlighting to “VIDEO” and then press SET.
6. Use ▲ and ▼ to move the highlighting to “VHS” and then press SET.
7. Use < and > to move the highlighting to <number> and then press SET.
8. Input the text you want to include in each block, and then press SET to advance to the next block.
9. Specify the print direction (page E-17), and either mirror or normal printing (page E-17).
10. After making the settings you want, press SET.
11. Use ▲ and ▼ to move the highlighting to “PRINT” and then press SET to execute it.
12. After printing, you can store your newly created label in memory.
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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 operate the tape cutter lever when a tape cartridge is not loaded in the label printer. Doing so can damage the cutter blade.
- Never touch the printer head with your fingers.
- Take care to avoid applying too much pressure to the tape cutter lever. Doing so can damage it.
- 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-24).
- Use of the label printer next to a television or radio may interfere with reception.
Label Printer Menus
Label printer operation is designed to be as simple as possible, thanks to on-screen 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.
- Use ▲ and ▼ 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 and replace batteries, 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.

Power Supply
The Label Printer can be powered by a specified AC adaptor (AD-A12070) or eight AA-size alkaline batteries.

AC Adaptor
Note the following important precautions when using an AC adaptor to power your label printer.

- Use only specified CASIO AD-A12070 AC adaptor, and make sure the adaptor has the same voltage rating as the household current in your area. Using a wrong adaptor can damage your label printer.
- Be sure to turn the label printer off before you connect the adaptor. Do not turn power on until the adaptor is connected to the label printer and plugged into an AC outlet.

Replacing the Cover if it Comes Off
If the cover comes off, replace it as shown in the illustration nearby. Take care to avoid damaging the tabs and hinges when installing the cover.
To connect the AC adaptor
Remove the AC adaptor connector cover, and connect the adaptor to the label printer as illustrated below. Plug the other end into a standard household AC outlet.

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

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

Loading/Replacing Batteries
A handy low battery power indicator lets you know when battery power is getting too low for proper operation. The message LOW BATTERY or REPLACE BATTERIES appears on the display if battery power is low when you perform any of the following operations.

• Switching power on
• Executing a print operation
• Executing a tape feed operation

You should still be able to perform some Label Printer operations, but some power intensive operations (like printing or tape feed) may become impossible if battery power is too low. In any case, you should replace batteries as soon as possible or switch to the AC adaptor as soon as possible after the LOW BATTERY message appears.

Important!
Batteries can burst or leak and damage your unit if you use them the wrong way. Note the following important points.

• Be sure that the plus (+) and minus (−) sides of each battery are facing correctly.
• Never mix batteries of different types
• Never leave dead batteries in the battery compartment.
• Remove the batteries if you do not plan to use the unit for a long time.
• Replace the main battery in accordance with the battery life marked on the side of the battery.
• Have the back-up battery replaced by the date noted on the sticker on the back of the label printer.

Warning!
• Never recharge the batteries you use with this unit.
• Do not expose batteries to direct heat, do not short circuit them, and do not try to take them apart.
• Keep batteries out of the reach of small children. If swallowed, consult with a physician immediately.
• Low battery power is indicated by poor print quality or power switching off while printing is in progress.

Loading/Replacing the main batteries
1. Switch power off.
   • If you are using the AC adaptor to power the unit, you should also unplug the adaptor from the Label Printer.
2. Open the battery compartment cover on the back of the Label Printer by sliding it in the direction indicated by the arrow.
3. If you are replacing batteries, remove all eight of the old batteries.
4. Load a set of eight new batteries into the battery compartment, making sure that their positive (+) and negative (−) ends are facing in the correct directions.
5. Replace the battery compartment cover.

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 "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, FUNC, 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.
3. Press SET to initialize the label printer or ESC to abort the reset operation without initializing anything.

• See “Initial Settings” on page E-24 for information on the initial default settings of the label printer following the reset operation.
• You have to reset the Label Printer if you want to change the on-screen message language. Press RESET and then perform the procedure performed under Message Language.

Auto Power Off Function
If you do not perform any key operation for about six 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.
3. Remove the stopper from a new tape cartridge and check to see that the tape is ready to use.
4. Check to make sure that the end of the tape is not bent.
5. Make sure that the tape is under the tape guide and that it is not bent or twisted.
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 and operate the tape cut lever to cut off the tape.

10. Turn on label printer power and press FUNC 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.

Removing the Tape Cartridge
Grasp the tape cartridge with your fingers as shown in the illustration, 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 FUNC and then FORM.

Use ▲ and ▼ 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-12 for details on using DEFAULT FONT, page E-11 for how to use INPUT, and page E-18 for DENSITY.
Message Language
You can use the following procedure to select any one of five different languages (English, German, French, Italian, Spanish) for display of message text.

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

To change the message language
1. On the SET UP menu, use \( \wedge \) and \( \vee \) to highlight “LANGUAGE” and then press SET.
2. Use \( \wedge \) and \( \vee \) 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 \( \leftarrow \) and \( \rightarrow \) 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, sound 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 SET.

The following are examples of the demo print that the above procedure produces. Note that the contents of the demo print depends on the width of the tape loaded in the label printer.

6mm Tape

9mm Tape

12mm Tape

18mm and 24mm Tape

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.

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 character sizes, see pages E-12 to E-16.

Important! You can input up to 255 characters per label. Further input becomes impossible after you input the 255th 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.

CAPS on/off indicator
“A” indicates upper-case input, while “a” indicates lower-case.

Font indicator
This indicator shows the font setting (page E-12) for the character where the cursor is located.

Function indicator
This indicator appears when you press the FUNC 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.

Character size display indicator
This indicator shows the size of the character where the cursor is currently located. The letter “F” to the right of the character size indicates a preset format is being used. The letter “S” indicates that the label printer’s small typeface is selected.

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

Format
This indicator shows how many lines of text have been input. See page E-25 for important information about how various format conditions are indicated.

Tape length
This value shows the length that the tape will be printed. See page E-25 for important information about how various tape length conditions are indicated.

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

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

Block mark
This mark separates two blocks on the screen.

Return symbol (↵)
The return symbol indicates a newline operation.

Character style indicators
These indicators point to the character effect that is assigned to the character where the cursor is currently located. You can select between normal, bold, outline, shadow, and raised.

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.

Mirror image printing 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 FUNC and then PRINT (FEED) to feed the tape before cutting it. If you don’t you will cut off part of the printed text.

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
```

Note If you hold down any key, it will repeat its operation or input at high speed until you release it.

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-11 for other details on editing text.
3. When you reach the end of a line of text, press ⨂ to input a newline mark.
   • A newline operation is indicated on the display by the box symbol. This shows where you changed lines.
4. Input the characters in the second line.

Example: To input á  CODE 1 (’ ) A

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.

<table>
<thead>
<tr>
<th>Key Operation</th>
<th>Input</th>
<th>Key Operation</th>
<th>Input</th>
</tr>
</thead>
<tbody>
<tr>
<td>CODE U</td>
<td>Ũ</td>
<td>CODE 1</td>
<td></td>
</tr>
<tr>
<td>CODE O</td>
<td>Æ</td>
<td>CODE 2</td>
<td></td>
</tr>
<tr>
<td>CODE P</td>
<td>À</td>
<td>CODE 3</td>
<td></td>
</tr>
<tr>
<td>CODE A</td>
<td>Æ</td>
<td>CODE 4</td>
<td></td>
</tr>
<tr>
<td>CODE J</td>
<td>Ô</td>
<td>CODE 5</td>
<td></td>
</tr>
<tr>
<td>CODE K</td>
<td>À</td>
<td>CODE 6</td>
<td></td>
</tr>
<tr>
<td>CODE L</td>
<td>Ô</td>
<td>CODE 7</td>
<td></td>
</tr>
<tr>
<td>CODE Z</td>
<td>Z</td>
<td>CODE 8</td>
<td></td>
</tr>
<tr>
<td>CODE C</td>
<td>Ç</td>
<td>CODE 9</td>
<td></td>
</tr>
<tr>
<td>CODE N</td>
<td>Ņ</td>
<td>CODE 0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key Operation</th>
<th>Input</th>
<th>Key Operation</th>
<th>Input</th>
</tr>
</thead>
<tbody>
<tr>
<td>CODE U</td>
<td>û</td>
<td>CODE 1</td>
<td></td>
</tr>
<tr>
<td>CODE O</td>
<td>Æ</td>
<td>CODE 2</td>
<td></td>
</tr>
<tr>
<td>CODE P</td>
<td>à</td>
<td>CODE 3</td>
<td></td>
</tr>
<tr>
<td>CODE A</td>
<td>æ</td>
<td>CODE 4</td>
<td></td>
</tr>
<tr>
<td>CODE J</td>
<td>õ</td>
<td>CODE 5</td>
<td></td>
</tr>
<tr>
<td>CODE K</td>
<td>à</td>
<td>CODE 6</td>
<td></td>
</tr>
<tr>
<td>CODE L</td>
<td>ø</td>
<td>CODE 7</td>
<td></td>
</tr>
<tr>
<td>CODE Z</td>
<td>z</td>
<td>CODE 8</td>
<td></td>
</tr>
<tr>
<td>CODE C</td>
<td>ç</td>
<td>CODE 9</td>
<td></td>
</tr>
<tr>
<td>CODE N</td>
<td>ř</td>
<td>CODE 0</td>
<td></td>
</tr>
</tbody>
</table>
Inputting Symbols, Dingbats, Special Numbers, Greek Characters, and Russian Characters

The SYMBOL menu provides you with a choice of symbols, dingbats, and special number formats, 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 ▲ and ▼ 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.
3. 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-25 for a complete list of symbols, dingbats, and characters that are available from each menu.

Inputting Illustrations

Your label printer gives you a choice of 50 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 ILLUSTR key to display the ILLUSTR menu.

2. Use ▲, ▼, ◄ and ► to move the highlighting to the illustration you want to select, and then press SET.

3. 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 ILLUSTR menu.

See page E-25 for a complete list of illustrations that are available.

User Characters

You can create up to four user characters and store them in memory. You can create a character from scratch, or you can use an existing character or symbol as a basis for creating a new character.

User character drawing techniques

The following describes the basic techniques for drawing on the user character screen.

• To move the cursor
Use ▲, ▼, ◄ and ► to move the cursor around the screen. FUNC ◄ and FUNC ► makes the cursor jump to the far left or far right of the screen (when “CON” is not highlighted).
   • FUNC ▲ and FUNC ▼ makes the cursor jump to the top or bottom of the screen (when “CON” is not highlighted).

• To draw a dot
Press 1 to draw a black dot at the cursor position or 2 to draw a white dot.

• To draw a series of black dots
Press 1 to highlight “BLK”, and then press 3 to highlight “CON”. In this condition, a continuous series of black dots will be drawn when you move the cursor.

• To draw a series of white dots
Press 2 to highlight “WHT”, and then press 3 to highlight “CON”. In this condition, a continuous series of white dots will be drawn when you move the cursor.

To create a user character using an existing character
1. Input the character or symbol you want to use as a basis for your new character and locate the cursor under the character.
2. Press FUNC and then ILLUSTR (USER CHR).

To create a user character from the user character you created
1. Press FUNC and then ILLUSTR (USER CHR).
2. Use ▲ and ▼ to move the highlighting to “EDIT” and then press SET.
3. Use ◄ and ► to select the user character you want to edit, and then press SET.
4. Use the user character drawing techniques described to edit the character you want, and then press SET.
5. Continue from step 7 under “To create a user character using an existing character”.

To recall a user character
1. With the cursor located in the input screen where you want to input the user character, press FUNC and then ILLUSTR (USER CHR).
2. Use \ and \ to move the highlighting to “RECALL” and then press SET.
3. Use < and > to select the user character you want and then press SET.

**To delete a user character**
1. Press FUNC and then ILLUST (USER CHR).
2. Use \ and \ to move the highlighting to “DELETE” and then press SET.
3. Use < and > to select the user character you want and then press SET.
4. Press SET to delete the selected character or ESC to abort without deleting anything.

**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 to the left, and > to move the cursor to the right.
- Press SHIFT and then < to make the cursor jump to the next block mark (\) to the left. (See page E-16 for details about blocks).
- Press SHIFT and then > to make the cursor jump to the next block mark (\) to the right.
- Press FUNC and then < to make the cursor jump to the beginning (far left) of the current line.
- Press FUNC and then > to make the cursor jump to the end (far right) of the current line.
- Press FUNC and then \ to make the cursor jump to the first character of the text.
- Press FUNC and then \ 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 < and > to move the cursor under “p”.
2. 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”.
2. Press DEL twice to delete the two m’s at the cursor’s position, shifting “puter” 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 FUNC and then BS (CLS).
2. Use \ and \ to move the cursor under “ALL” (if it isn’t already highlighted).
3. Press SET.
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 FUNC and then BS (CLS).
2. Use \ and \ to highlight “PART” (if it isn’t already highlighted).

3. Press SET.

4. Use < and > to move the cursor to start point of the text you want to delete and press SET.
5. 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
New input: XXX

**Overwrite**
- Result: ABCDXXXHI

**Insert**
- Result: ABCDXXXEFGH

**To switch between overwrite and insert**
1. Press FUNC and then FORM (SET UP) to display the SET UP menu.
2. Use \ and \ to 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 when overwrite is turned on. The CAPS indicator appears normally (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-25 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!
- Note that you cannot make font changes for illustrations.
- Note that non-English characters (Ç, ẞ, Á, etc.) cannot be used with the sans-serif, sans-serif italic, roman, roman italic and bold script fonts only.

To change the default font setting
1. Press FUNC and then FORM (SET UP) to display the SET UP menu.
2. Highlight “DEFAULT FONT” and then press SET.
   ![DEFAULT FONT](image)

3. Use ▲ and ▼ to highlight the font you want to set as the default and then press SET.
   - Be sure to perform the following procedures after changing the default font setting. Note that changes in the default font will not be recognized until the following procedure is performed.

4. Press FUNC and then BS.
5. Select ALL to clear all text from the display.
6. Turn off power, and then restart the Label Printer.
- Note that the default setting remains in effect until you change it, even when power is turned off.

To change the font for displayed text
1. While there is text on the display, press FONT.

   ![FONT](image)

2. Use ▲ and ▼ to highlight the font you want to change to and then press SET.

   ![SET](image)

- What you should do next depends on the range you want to use.

To change the font for all the text
1. 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
1. After performing the two steps under “To change the font for displayed text”, use ▲ and ▼ to highlight “BLOCK” and then press SET.

   ![BLOCK](image)

- See page E-16 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.

   ![TO BLOCK](image)

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.

Character Styles
There are five character styles: normal, bold, outline, shadow, and 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 STY LE.

   

2. 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”.

To find out current character style settings
Use the ‹ and › cursor keys to move the cursor around the display. The character style indicator shows the current character style setting for the character where the cursor is located.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Meaning</th>
<th>Indicator</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Normal</td>
<td>A</td>
<td>Shadow</td>
</tr>
<tr>
<td>B</td>
<td>Bold</td>
<td></td>
<td>Raised</td>
</tr>
<tr>
<td>C</td>
<td>Outline</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

To change the text effects for blocks of text
1. After performing the two steps under “To assign text effects”, use ▲ and ▼ to highlight “BLOCK” and then press SET.

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.

3. Move the cursor to the end character up to which you want to change the text effect and then press SET.

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.

To change the text effect for all the text
1. While there is text on the display, press EFFECT.

   

2. Use ▲ and ▼ to highlight the effect you want and then press SET.

   

3. Move the cursor to and then press SET.

• What you should do next depends on the range you want to use.

To change the text effect for all the text
1. While there is text on the display, press EFFECT.

   

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

   

To change the font 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.

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.

To change the font for blocks of text
1. After performing the two steps under “To assign text effects”, use ▲ and ▼ to highlight “BLOCK” and then press SET.

2. Use ▲ and ▼ to highlight the effect you want and then press SET.

3. Move the cursor to the end block up to which you want to change the text effect and then press SET.

• What you should do next depends on the range you want to use.
Part 6 Character Sizes

Your label printer comes with two basic typefaces: standard and small. You can adjust the size of characters either by direct specifying for each character or specifying character size for entire lines of text using preset formats. 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 size of characters using the numeric factors shown in the tables below. A character size change is indicated on the display by a character size indicator.

Standard Typeface

- The normal size for the standard typeface is 1 \times 1 (24 \times 24 dots; 3\text{mm} \times 3\text{mm}).
- Character size can be changed by specifying a vertical factor (1, 2, 3, 4, 5) and a horizontal factor (1, 2, 3, 4, 5, 6, 7).
- The table below shows the character size indicator values that appear for each character size.

<table>
<thead>
<tr>
<th>Vertical</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1\times1</td>
<td>1\times2</td>
<td>1\times3</td>
<td>1\times4</td>
<td>1\times5</td>
<td>1\times6</td>
<td>1\times7</td>
<td>1\times8</td>
</tr>
<tr>
<td>2</td>
<td>2\times1</td>
<td>2\times2</td>
<td>2\times3</td>
<td>2\times4</td>
<td>2\times5</td>
<td>2\times6</td>
<td>2\times7</td>
<td>2\times8</td>
</tr>
<tr>
<td>3</td>
<td>3\times1</td>
<td>3\times2</td>
<td>3\times3</td>
<td>3\times4</td>
<td>3\times5</td>
<td>3\times6</td>
<td>3\times7</td>
<td>3\times8</td>
</tr>
<tr>
<td>4</td>
<td>4\times1</td>
<td>4\times2</td>
<td>4\times3</td>
<td>4\times4</td>
<td>4\times5</td>
<td>4\times6</td>
<td>4\times7</td>
<td>4\times8</td>
</tr>
</tbody>
</table>

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

Small Typeface

- The normal size for the small typeface is 1 \times 1 (16 \times 16 dots; 2\text{mm} \times 2\text{mm}). 8 \times 16 dots matrix is used to form alpha-numeric characters and symbols.
- Character size can be changed by specifying a vertical factor (1, 2, 3, 4) and a horizontal factor (1, 2, 3, 4, 5, 6, 7, 8).
- The table below shows the character size indicator values that appear for each character size.
- The character size indicator 1 \times 1 is shown on the display when the small typeface is being used.

<table>
<thead>
<tr>
<th>Vertical</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1\times1</td>
<td>1\times2</td>
<td>1\times3</td>
<td>1\times4</td>
<td>1\times5</td>
<td>1\times6</td>
<td>1\times7</td>
<td>1\times8</td>
</tr>
<tr>
<td>2</td>
<td>2\times1</td>
<td>2\times2</td>
<td>2\times3</td>
<td>2\times4</td>
<td>2\times5</td>
<td>2\times6</td>
<td>2\times7</td>
<td>2\times8</td>
</tr>
<tr>
<td>3</td>
<td>3\times1</td>
<td>3\times2</td>
<td>3\times3</td>
<td>3\times4</td>
<td>3\times5</td>
<td>3\times6</td>
<td>3\times7</td>
<td>3\times8</td>
</tr>
<tr>
<td>4</td>
<td>4\times1</td>
<td>4\times2</td>
<td>4\times3</td>
<td>4\times4</td>
<td>4\times5</td>
<td>4\times6</td>
<td>4\times7</td>
<td>4\times8</td>
</tr>
</tbody>
</table>

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

Notes

- Proportional spacing cannot be used with the small typeface.
- Available font is only one.
- Style and text effect settings may not print correctly when used with the small typeface.
- Dingbats and user characters may not print correctly when used with small typeface.

To change character size using direct specification

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

2. Use \wedge and \vee to highlight "SIZE" and then press SET.

3. Specify the character size you want.
   - Use \langle and \rangle to move the highlighting between the two dimensions.
   - To change a dimension, press \vee to increase it or \wedge to decrease it. Or you can input a value directly on the label printer’s keyboard.
   - Remember that the dimensions you can specify depend on the width of the tape loaded in the label printer (see table, left).

4. After you finish setting the character size you want, press SET to register it.
5. 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.

The following shows a character size mark.

<table>
<thead>
<tr>
<th>Character size mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>a SANS A 12 345 E - - - -</td>
</tr>
</tbody>
</table>

**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 mark 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. The following shows all of the formats available for each tape width and the number of lines of text.

- Note that with the preset formats, all character sizes have the same vertical and horizontal measurements.

24mm and 18mm tape, 1 line of text

<table>
<thead>
<tr>
<th>1 × 1</th>
<th>2 × 2</th>
<th>3 × 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 × 4</td>
<td>5 × 5</td>
<td></td>
</tr>
</tbody>
</table>

24mm and 18mm tape, 2 lines of text

<table>
<thead>
<tr>
<th>1 × 1/1 × 1</th>
<th>1 × 1/2 × 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 × 1/1 × 1</td>
<td>2 × 1/2 × 2</td>
</tr>
<tr>
<td>1 × 1/3 × 3</td>
<td>3 × 1/3 × 1</td>
</tr>
</tbody>
</table>

24mm and 18mm tape, 3 lines of text

<table>
<thead>
<tr>
<th>1 × 1/1 × 1/1 × 1</th>
<th>1 × 1/1 × 1/2 × 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 × 1/2 × 2/1 × 1</td>
<td>2 × 2/1 × 1/1 × 1</td>
</tr>
</tbody>
</table>

12mm tape, 1 line of text

<table>
<thead>
<tr>
<th>1 × 1</th>
<th>2 × 2</th>
<th>3 × 3</th>
</tr>
</thead>
</table>

9mm tape, 1 line of text

<table>
<thead>
<tr>
<th>1 × 1</th>
<th>2 × 2</th>
</tr>
</thead>
</table>

**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 indicator, the FORMAT item will be dimmed on the SIZE menu, which means it cannot be selected.

**To specify character sizes for lines of text using preset formats**

1. While the cursor is located inside of the block of text where you want to use the preset formats, press SIZE.

2. Use the cursor keys 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 < 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.

**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 you are using. If you are using frames (page E-19), characters are automatically balanced with the type of frame being used. The following are examples of how auto sizing works.

<table>
<thead>
<tr>
<th>Tape width</th>
<th>1 × 1 (Manual Setting)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Auto Fit</td>
</tr>
<tr>
<td>6mm</td>
<td>ABC</td>
</tr>
<tr>
<td>9mm</td>
<td>ABC</td>
</tr>
<tr>
<td>12mm</td>
<td>ABC</td>
</tr>
<tr>
<td>18mm</td>
<td>ABC</td>
</tr>
<tr>
<td>24mm</td>
<td>ABC</td>
</tr>
</tbody>
</table>

**Important!** Remember that changing the tape cartridge may make it impossible to print text if there are too many lines. Note the following relationships between tape width and the number of text lines.
### Part 7 FORM Menu Functions

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 ( ). 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 side spaces are only added when you are using auto feed, and are not added when using manual feed.

**Automatic Feed (with side spaces)**

### Manual Feed (no side spaces)

#### Label Length
The label 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**
1. After laying out the label you plan to print, press LAYOUT.

**Feed setting (E-18)**

2. If the label layout is too big to fit on a single display, use < and > 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-19.

#### Creating and Deleting Blocks

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

**To create a block**

Example: To input the text “ABC Computer Company” and create two blocks: “ABC” and “Computer Company”.

1. Input the text.
2. Move the cursor to the space between “ABC” and “Computer Company”.
3. Press BLOCK.

- If you wanted to break the text up into three blocks, you would input another block mark.

**To delete a block mark**
To delete a block mark, use the procedures for BS and DEL as described under “Deleting Individual Characters” (page E-11).

#### Block Operations

The procedures in this section can be used to control the following parameters for each block.
- Direction (vertical, horizontal)
- Alignment (left, center, right, uniform spacing)
- Justification (justify, ragged)
- Character pitch (none, narrow, medium, wide)
- Block length (auto, fixed)

Use the BLOCK FORM menu to perform block operations.

**To display the BLOCK FORM menu**
1. While there is text on the display, press FORM.

2. Use < and > to move the highlighting to “BLOCK FORM” and then press SET.

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 ^ and v to move the highlighting between menu items.
The BLOCK FORM menu has two pages. Press SET while the first page is displayed to change to the second page. Pressing SET while the second 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 BLOCK FORM menu items in detail.

**DIRECTION**

<table>
<thead>
<tr>
<th>HORIZONTAL</th>
<th>VERTICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>123</td>
<td>123</td>
</tr>
</tbody>
</table>

**ALIGNMENT**

<table>
<thead>
<tr>
<th>LEFT</th>
<th>CENTER</th>
<th>RIGHT</th>
<th>EQUAL (Uniform Spacing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anne Green</td>
<td>Anne Green</td>
<td>Anne Green</td>
<td>Anne Green</td>
</tr>
<tr>
<td>ABC Co., Ltd.</td>
<td>ABC Co., Ltd.</td>
<td>ABC Co., Ltd.</td>
<td>ABC Co., Ltd.</td>
</tr>
<tr>
<td>B Team</td>
<td>B Team</td>
<td>B Team</td>
<td>B Team</td>
</tr>
</tbody>
</table>

**JUSTIFICATION**

This item lets you specify justified (even) or ragged (uneven). The following shows some examples of how justification affects text.

- Justification is applied only when EQUAL is selected for ALIGNMENT.

```
E-17
```

**CHARACTER PITCH**

This is the relative spacing between characters. You can specify character pitch as NONE, NARROW, MEDIUM or WIDE. The following shows examples of each character pitch setting.

- **NONE**
  - ABC Company

```
```

- **NARROW**
  - ABC Company

```
```

- **MEDIUM**
  - ABC Company

```
```

- **WIDE**
  - ABC Company

```
```

**BLOCK LENGTH**

Select “FIX” if you want so specify a fixed block length in the range of 0.0 cm to 99.9 cm. 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 (mirror, normal)
- Proportional character spacing (on, off)
- Smoothing (on, off)
- Block space (none, narrow, wide)
- Feed (long, short, manual)

**Examples**

- **Justified**
  - Anne Green
  - ABC Co., Ltd.
  - B Team

```
```

- **Ragged**
  - Anne Green
  - ABC Co., Ltd.
  - B Team

```
```

**To display the ALL FORM menu**

1. While there is text on the display, press FORM.
2. Use ▲ and ▼ to move the highlighting to “ALL FORM” and then press SET.

- **MIRROR/NORMAL**
  - MIRROR
  - NORMAL

```
```

- **PROPORTIONAL**
  - ON
  - OFF

```
```

- **Tape length (auto, fixed)**
- **Block alignment (left, center, right, uniform spacing)**

Use the BLOCK FORM menu to perform block operations.

E-17
You can also one of two different feed settings that provides either long or short side spaces ("Fundamentals of Label Layout" page E-16). You can also specify manual feed.

LONG
This setting causes the tape to feed 16mm at the beginning and end of each printing.

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

MANUAL
This setting provides side spaces of only 1mm 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 when using manual feed, be sure to always press FUNC and then FEED to feed the tape before cutting it. If you don’t you will cut off part of the printed text.

TAPE LENGTH
Select “FIX” if you want so specify a fixed tape length in the range of 0.0 cm to 99.9 cm. Specify “AUTO” for this option if you want the label printer to automatically adjust the length of the tape.

BLOCK ALIGN

LEFT

Anne Green
B Team

RIGHT

Anne Green
B Team

CENTER

Anne Green
B Team

EQUAL

Anne Green
B Team

Part 8 Printing

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

Note The following information covers basic printing procedures only. Other printing related information can be found in the sections of this manual describing presets (page E-19), stamp printing (page E-22), frames (page E-19), and memory operations (page E-23).
3. Use \ and \ to highlight “DENSITY”, and then press \.

4. Use \ and \ to highlight the density you want to use and then press \ 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 \.

2. To stop the image from scrolling and freeze the current contents on the display, press \.

3. Press \ again to resume scrolling.

4. Press \ to quit the image display.

The appearance of the message “REPLACE BATTERIES!” or “LOW BATTERY!” indicates that battery power is low. Whenever either of these messages appears, replace all the batteries with a full set of new ones as soon as possible. Continued use of the label printer while battery power is low can result in sudden power failure during operation or printing.

**Part 9 Frames**
The frame feature makes it easy to add attractive ornamental frames to your text. You get a choice of two types of frames.

- **Frame around the printing area**
  1. Input the text you want to frame.
  2. Press \.
  3. Use \ and \ to move the highlighting to “EACH CHARACTER” and press \.
  4. Use \, \, \, and \ to move the highlighting to the frame you want to use and press \.

- **Frames around each character**
  1. Input the text you want to frame.
  2. Press \.
  3. Use \ and \ to move the highlighting to “EACH CHARACTER” and press \.
  4. Use \, \, \, \ and \ to move the highlighting to the frame you want to use and press \.

To specify a frame around the printing area
1. Input the text you want to frame.
2. Press \.
3. Use \ and \ to move the highlighting to “ALL TEXT” and press \.
4. Use \, \, \, \ and \ to move the highlighting to the frame you want to use and press \.

   - See page E-25 for a complete list of the ALL TEXT frames that are available.

5. Press \ to print your text with the selected frame or \ to abort the print operation without printing anything.

To specify frames around each character
**Note**
Five kinds of frames are available when 6mm tape is loaded in the label printer.

**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 \.

   - 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 \, the message “CLEARS INPUT TEXT!” appears on the screen. You can proceed with the operation (and clear the text) by pressing \, or press \ to abort without clearing anything.

2. Use \ and \ to move the highlighting to the preset you want to select and then press \.

   - See page E-25 for a complete list of the EACH CHARACTER frames that are available.

3. Press \ to print your text with the selected frame or \ to abort the print operation without printing anything.

**Important!** Printing cannot be performed on 6mm tape while EACH CHARACTER frames are being used.

**LAYOUT**
The preset layouts provide a total of 74 label templates that you can use to create attractive labels quickly and easily. Each template is made up of “elements” whose contents you can use as they are or change to something else. You can even store completed labels in memory for instant recall when you need them.

- Note that 6mm wide tape cannot be used for printing a preset layout.
To use a preset layout to create a label and print it
1. While the PRESETS menu is on the display, use ▲ and ▼ to move the highlighting to “LAYOUT” and then press SET.

To recall a preset layout label from memory
1. While the LAYOUT menu is on the display, use ▲ and ▼ to move the highlighting to “RECALL” and then press SET.

2. Use ▲ and ▼ to display the name of the label you want, and then press SET to recall it.

3. Now you can make any changes in the label contents and then print it, or simply print the label without making any changes.

• To make changes in the label contents, use the procedures starting from step 8 under “To use a preset layout to create a label and print it”.

• To print the label without making any changes, perform the procedure starting from step 6 under “To use a preset layout to create a label and print it”.

To delete a preset layout label from memory
1. While the LAYOUT 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 label you want, and then press SET to delete it.

3. Press SET to delete the label.

ENLARGE
This item lets you print up to 16 characters on multiple tapes. You can then assemble the tapes into an enlarged label. Note that this item is available only when 12, 18, or 24mm tape is loaded in the label printer. See page E-26 for important information about character sizes and tape width when using the various setting of this item.

• 12mm tape cannot be used for printing a tape enlarged using the “4 PIECES LARGE” setting.

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. Use ▲ and ▼ to move the highlighting to “NEW” and then press SET.

3. Use ▲ and ▼ to move the highlighting to “VIDEO” and then press SET.

4. Use ▲ and ▼ to move the highlighting to “VHS” and then press SET.

5. Use ▲ and ▼ to move the highlighting to “STORE” and then press SET.

6. Press SET to end the operation.

To store a label created using a preset layout
1. Perform steps 1 through 8 under “To use a preset layout to create a label and print it” to create the label.

2. Use ▲ and ▼ to move the highlighting to “STORE” and then press SET.

3. Input up to five characters for the name of the label, and then press SET.

4. Press SET to store the label or ESC to abort the operation without storing anything.

5. Use ▲ and ▼ to move the highlighting to “EXIT” and then press SET.

6. Press SET to end the operation.
2. Use ▲ and ▼ to move the highlighting to the enlargement size you want to use and then press SET.

3. Input up to 16 characters of text, and then press SET.
4. Specify the print direction (page E-17) and either mirror or normal printing (page E-17).
   - Use ▲ and ▼ to move the highlighting between items, and ▼ and ▲ to change each setting.
5. After making the settings you want, press SET.

6. Use ▲ and ▼ to move the highlighting to “PRINT” and then press SET to execute it.
7. Use ▲ and ▼ to move the highlighting to “EXIT” and then press SET.
8. Press SET to end the operation.

**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.

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

**Bar Code Tape**

Only the following types of 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 6mm tape to print bar codes.
- You can input up to 60 characters as comment text when using 18mm/24mm tape. You cannot input comment text with 9mm and 12mm tape (the comment input screen will not appear). 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 (page E-18) or using a larger character size.

---

**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.
2. 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.
4. Input up to 60 characters of comment text if you want, and then press SET.

- This display appears only if you are using 18mm/24mm tape. If you are using different tape, skip to step 5.
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 ▲ and ▼ to move the highlighting to “STORE” and then press SET.
3. Input up to five characters for the name of the bar code, and then press SET.
4. Press SET to store the bar code or ESC to abort the operation without storing anything.
5. Use ▲ and ▼ 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 ▲ and ▼ 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.

---

**Bar Code Tape**

Only the following types of 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 6mm tape to print bar codes.

---

2. Use ▲ and ▼ to move the highlighting to the enlargement size you want to use 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.
4. Use ▲ and ▼ to select “YES” (use check digit) or “NO” (do not use check digit) and then press SET.
- This display appears only if you are using 18mm/24mm tape. If you are using different tape, skip to step 6.
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 ▲ and ▼ to move the highlighting to “STORE” and then press SET.
3. Input up to five characters for the name of the bar code, and then press SET.
4. Press SET to store the bar code or ESC to abort the operation without storing anything.
5. Use ▲ and ▼ 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 ▲ and ▼ 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 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.
4. Use ▲ and ▼ to select “YES” (use check digit) or “NO” (do not use check digit) and then press SET.
- This display appears only if you are using 18mm/24mm tape. If you are using different tape, skip to step 6.
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 ▲ and ▼ to move the highlighting to “STORE” and then press SET.
3. Input up to five characters for the name of the bar code, and then press SET.
4. Press SET to store the bar code or ESC to abort the operation without storing anything.
5. Use ▲ and ▼ 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 ▲ and ▼ 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 \( \wedge \) and \( \vee \) to display the name of the bar code you want, and then press \textbf{SET} to delete it.
3. Press \textbf{SET} to delete the bar code.

\section*{NUMBERING}

This label printer gives you a choice of four different numbering formats that you can print to sequentially numbered labels from 0 to 999.

\begin{itemize}
\item \textbf{Formats}
\begin{enumerate}
\item : Number followed by up to 220 characters of text.
\item : Number preceded by up to 220 characters of text.
\item : Number with up to 110 characters of text on either side.
\item : Number only.
\end{enumerate}
\end{itemize}

\subsection*{To print sequentially numbered labels}

1. While the \textbf{PRESETS} menu is on the display, use \( \wedge \) and \( \vee \) to move the highlighting to “NUMBERING” and then press \textbf{SET}.

2. Use \( \wedge \) and \( \vee \) to move the highlighting to “NEW” and press \textbf{SET}.

3. Use \( \langle \) and \( \rangle \) to move the highlighting to the number of the format you want and then press \textbf{SET}.

4. Input the starting number of the numbering sequence and then press \textbf{SET}.

5. Input any comment text you want and then press \textbf{SET}.

6. Specify the print direction (page E-17) and either mirror or normal printing (page E-17).

7. After making the settings you want, press \textbf{SET}.

8. Use \( \wedge \) and \( \vee \) to move the highlighting to “PRINT” and then press \textbf{SET} to execute it.

9. The label printer prints a tape with the number and comment text, and then displays the screen shown in step 3, with the number incremented by one.

10. To quit the numbered label operation, press \textbf{ESC} and then \textbf{SET}.

\subsection*{To store a numbering format}

1. Perform steps 1 to 7 to create the numbering format so the following is on the screen.

2. Use \( \wedge \) and \( \vee \) to move the highlighting to “STORE” and then press \textbf{SET}.

3. Input up to five characters for the name of the numbering format, and then press \textbf{SET}.

4. Press \textbf{SET} to store the numbering format or \textbf{ESC} to abort the operation without storing anything.

5. Use \( \wedge \) and \( \vee \) to move the highlighting to “EXIT” and then press \textbf{SET}.

6. Press \textbf{SET} to end the operation.

\subsection*{To recall a numbering format from memory}

1. While the \textbf{NUMBERING} menu is on the display, use \( \wedge \) and \( \vee \) to move the highlighting to “RECALL” and then press \textbf{SET}.

2. Use \( \wedge \) and \( \vee \) to display the name of the numbering format you want, and then press \textbf{SET} to recall it.

3. Now you can make changes in the numbering format and print it or store it as a new format.

\subsection*{To delete a numbering format from memory}

1. While the \textbf{NUMBERING} menu is on the display, use \( \wedge \) and \( \vee \) to move the highlighting to “DELETE” and then press \textbf{SET}.

2. Use \( \wedge \) and \( \vee \) to display the name of the numbering format you want, and then press \textbf{SET} to delete it.

\section*{PHRASES}

A collection of preset English phrases can be recalled quickly and easily when you need them. See page E-26 for a complete list of the preset phrases that are available.

\subsection*{To print a preset phrase}

1. While the \textbf{PRESETS} menu is on the display, use \( \wedge \) and \( \vee \) to move the highlighting to “PHRASES” and then press \textbf{SET}.

2. Use \( \wedge \) and \( \vee \) to scroll through the preset phrases until the one you want is highlighted and then press \textbf{SET}.

3. Use \( \wedge \) and \( \vee \) to highlight “PRINT”, then press \textbf{SET} to print the phrase.

4. Use \( \wedge \) and \( \vee \) to move the highlighting to “EXIT” and then press \textbf{SET} to end the operation.

\section*{Part 11 Stamp Printing}

The stamp printing feature lets you create your own stamps using a selection of various formats. Then you can print on special stamp tape and attach the finished tape to an optionally available stamp holder.

When using the ST-15 stamp holder, select NL (10 \( \times \) 55mm) as the stamp holder type in step 3 of the procedure described below.

\subsection*{Important!}

Note that an optional special stamp tape cartridge and stamp tape holder is required in order to create a pre-inked stamp. Contact your dealer to purchase the necessary tape and holder. Load the special stamp tape before performing the following procedure.
To create a new stamp label
1. Press **STAMP**.

```
+-------+---+
| STAMP |
+-------+---+
| RECALL| DELETE|
+-------+---+
```

2. Use ▲ and ▼ to move the highlighting to “NEW” and then press **SET**.

```
+-------+---+
| STAMP |
+-------+---+
| L1(16x32mm) NS(16x32mm) WL(16x78mm) |
+-------+---+
```

3. Use ▲ and ▼ to move the highlighting to the stamp holder model that you will be using with your stamp tape and then press **SET**.

```
+-------+---+
| NS(10x22mm) |
+-------+---+
| D\_U\_W \_S\_N\_A\_I\_M\_E\_R\_O\_T\_S \_E\_N\_O\_M\_E\_R\_Y \_E\_X\_I\_T|
+-------+---+
```

4. Select the type of frame you want to use and press **SET**.

```
+-------+---+
| L2 | 2 |
+-------+---+
```

- The number of layouts that appear on the right display depends on the type of stamp holder you are using.

5. Use < and > to select the layout that you want to use and then press **SET**.

```
+-------+---+
| a S A N S | A |
| ITEM |
+-------+---+
```

6. Input the text you want to include in each block, and then press **SET** to advance to the next block.
- To leave a block blank, press **SET** without inputting anything.
- When you press **SET** after inputting the text for the last block, the following menu appears.

```
+-------+---+
| STAMP |
+-------+---+
| BOX | OFF |
+-------+---+
```

7. Use ▲, ▼, < and > to select a box type and then press **SET**.

```
+-------+---+
| STAMP |
+-------+---+
| DIRECTION \_USE \_STAMP |
+-------+---+
```

- If you select “ROUND”, proceed immediately to step 8.
- If you select “LONG FRAME”, you will then have to select a specific frame type before to proceed to step 8.

8. Use ▲ and ▼ to move the highlighting and use < and > to specify the setting and then press **SET**.

```
+-------+---+
| STAMP |
+-------+---+
| STORE \_PRINT |
+-------+---+
```

9. Use ▲ and ▼ to move the highlighting to “PRINT” and then press **SET** to execute it.
- After printing is complete, operate the tape cut lever to cut the tape.

10. Use ▲ and ▼ to move the highlighting to “EXIT” and then press **SET**.
11. Press **SET** to end the operation.

To store a stamp label
1. Perform steps 1 through 9 under “To create a new stamp label” to create the label.
2. Use ▲ and ▼ to move the highlighting to “STORE” and then press **SET**.
3. Input up to five characters for the name of the label, and then press **SET**.
4. Press **SET** to store the label or ESC to abort the operation without storing anything.
5. Use ▲ and ▼ to move the highlighting to “EXIT” and then press **SET**.
6. Press **SET** to end the operation.

To recall a stamp label from memory
1. While the STAMP menu is on the display, use ▲ and ▼ to move the highlighting to “RECALL” and then press **SET**.
2. Use ▲ and ▼ to display the name of the label you want, and then press **SET** to recall it.
3. Press **SET**. Now you can make any changes in the label contents and then print it, or simply print the label without making any changes.
- To make changes in the label contents, use the procedures starting from step 6 under “To create a new stamp label”.
- To print the label without making any changes, perform the procedures starting from step 6 without putting any characters.

To delete a stamp label from memory
1. While the STAMP 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 label you want, and then press **SET** to delete it.
3. Press **SET** to delete the label.

- There are two stamp tape sizes: 18mm and 24mm. There are also four types of stamp holders: large and small for 24mm tape, and large and small for 18mm tape. Note that certain stamp tape and stamp holders may not be available in some areas.

**Part 12 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 2,500 characters in memory.

To store data
1. Input the text you want to store, and then press **MEMORY**.
2. Use ▲ and ▼ 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.

**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**.
2. Use \(^{\wedge}\) and \(^{\vee}\) to move the highlighting to “RECALL” and then press SET.

3. Press SET without inputting anything and the first item stored in memory appears.
4. Use \(^{\wedge}\) and \(^{\vee}\) 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 \(^{\wedge}\) and \(^{\vee}\) 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.

COMBINE
1. Use \(^{\wedge}\) and \(^{\vee}\) to move the highlighting to “COMBINE” 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.

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.”

To delete memory text
1. Press MEMORY.
2. Use \(^{\wedge}\) and \(^{\vee}\) 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 13 Data Communication

- The FA-920 makes it possible for you to use the label printer to print data created on your personal computer.

Important!
- Data communication with a personal computer requires Computer Link software and a data communication cable.
- See the documentation that comes with the Computer Link software for details on how to operate it.
- Data communication with your label printer requires a specific computer system configuration as described in the documentation that comes with the Computer Link software. You may not be able to exchange data with a personal computer that does not conform with the required system configuration.
- After finishing with a data communication operation (including printing), press ESC to exit the Data Communication Mode. All other functions are disabled while data communication is being performed.

Part 14 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.

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

<table>
<thead>
<tr>
<th>Item</th>
<th>Power On</th>
<th>Reset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display</td>
<td>Cleared</td>
<td>Cleared</td>
</tr>
<tr>
<td>Memory</td>
<td>Retained</td>
<td>Cleared</td>
</tr>
<tr>
<td>User Characters</td>
<td>Retained</td>
<td>Cleared</td>
</tr>
<tr>
<td>Horz/Vert</td>
<td>Horizontal</td>
<td>Horizontal</td>
</tr>
<tr>
<td>Text Alignment</td>
<td>Left</td>
<td>Left</td>
</tr>
<tr>
<td>Justification</td>
<td>Justified</td>
<td>Justified</td>
</tr>
<tr>
<td>Character Spacing</td>
<td>Narrow</td>
<td>Narrow</td>
</tr>
<tr>
<td>Block Length</td>
<td>Auto</td>
<td>Auto</td>
</tr>
<tr>
<td>Mirror Printing</td>
<td>Normal</td>
<td>Normal</td>
</tr>
<tr>
<td>Proportional Spacing</td>
<td>On</td>
<td>On</td>
</tr>
<tr>
<td>Smoothing</td>
<td>On</td>
<td>On</td>
</tr>
<tr>
<td>Block Spacing</td>
<td>Narrow</td>
<td>Narrow</td>
</tr>
<tr>
<td>Auto Feed</td>
<td>Long</td>
<td>Long</td>
</tr>
<tr>
<td>Tape Length</td>
<td>Auto</td>
<td>Auto</td>
</tr>
<tr>
<td>Block Alignment</td>
<td>****(Left)</td>
<td>****(Left)</td>
</tr>
<tr>
<td>Default Font</td>
<td>Retained</td>
<td>Sans-Serif</td>
</tr>
<tr>
<td>Insert/Overwrite</td>
<td>Retained</td>
<td>Insert</td>
</tr>
<tr>
<td>Contrast (32 levels)</td>
<td>Retained</td>
<td>Level 17</td>
</tr>
</tbody>
</table>
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 the memory if you need it.

**To initialize the label printer**
1. Turn power off.
2. Holding down the **PRINT**, **ESC**, and **ON** keys, turn power back on.

   ![INITIAL?] SET/ESC

   • This prompt confirms whether or not you want to initialize the label printer.
3. Press **SET** to initialize the label printer or **ESC** to abort the reset operation.

**Format Indicator**
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.
- **[ ]**: Printed tape length will be longer than specified fixed length because text will not fit within fixed tape length even if its size is reduced 50%.

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

- **[5.1cm]**: Fixed tape length specified by user.
- **5.1cm****: Printing operation cannot be performed.

**Symbols, Dingbats, and Special Characters**

- **SYMBOL**
  
  ![SYMBOL]

- **DINGBAT**
  
  ![DINGBAT]

- **NUMBER**
  
  ![NUMBER]

- **GREEK, RUSSIAN**
  
  ![GREEK, RUSSIAN]

**Illustrations**

---

**Frames**

- **ALL TEXT**
  
  ![ALL TEXT]

- **EACH CHARACTER**
  
  ![EACH CHARACTER]

**Fonts**

- **New Sans-serif**
  
  ![New Sans-serif]

- **New Sans-serif Italic**
  
  ![New Sans-serif Italic]

- **New Roman**
  
  ![New Roman]

- **New Roman Italic**
  
  ![New Roman Italic]

- **Courier**
  
  ![Courier]

- **Logo Style**
  
  ![Logo Style]

- **Rich Stroke**
  
  ![Rich Stroke]

- **Stencil**
  
  ![Stencil]

- **Bold Script**
  
  ![Bold Script]

- **Black Letter**
  
  ![Black Letter]
ENLARGED Label Measurements

<table>
<thead>
<tr>
<th>Tape Width</th>
<th>Size Increase</th>
<th>Character Size</th>
<th>Resulting Tape Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>12mm</td>
<td>2 pieces 8 x 8 times</td>
<td>24 x 24mm</td>
<td>24mm</td>
</tr>
<tr>
<td>2 pieces 12 x 12 times</td>
<td>36 x 36mm</td>
<td>36mm</td>
<td></td>
</tr>
<tr>
<td>4 pieces 16 x 16 times</td>
<td>48 x 48mm</td>
<td>48mm</td>
<td></td>
</tr>
<tr>
<td>18mm</td>
<td>2 pieces 8 x 8 times</td>
<td>24 x 24mm</td>
<td>30mm</td>
</tr>
<tr>
<td>2 pieces 12 x 12 times</td>
<td>36 x 36mm</td>
<td>42mm</td>
<td></td>
</tr>
<tr>
<td>4 pieces 16 x 16 times</td>
<td>48 x 48mm</td>
<td>54mm</td>
<td></td>
</tr>
<tr>
<td>4 pieces Large</td>
<td>20 x 20 times</td>
<td>60 x 60mm</td>
<td>63mm</td>
</tr>
<tr>
<td>24mm</td>
<td>2 pieces 8 x 8 times</td>
<td>24 x 24mm</td>
<td>36mm</td>
</tr>
<tr>
<td>2 pieces 12 x 12 times</td>
<td>36 x 36mm</td>
<td>48mm</td>
<td></td>
</tr>
<tr>
<td>4 pieces 16 x 16 times</td>
<td>48 x 48mm</td>
<td>60mm</td>
<td></td>
</tr>
<tr>
<td>4 pieces Large</td>
<td>20 x 20 times</td>
<td>60 x 60mm</td>
<td>69mm</td>
</tr>
</tbody>
</table>

Phrases
- **BARGAIN**
- **DO NOT BEND**
- **DUPLICATE**
- **FRAGILE**
- **NO SMOKING**
- **SALE**
- **SECRET**
- **SPECIMEN**

Bar Code Specifications

<table>
<thead>
<tr>
<th>Bar Code Type</th>
<th>Check Digit *1</th>
<th>Print Digits *3</th>
<th>Input Digits *4</th>
<th>Automatically Assigned Number of Digits</th>
<th>Input Characters *8</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAN-13</td>
<td>Yes</td>
<td>13</td>
<td>12</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>EAN-8</td>
<td>Yes</td>
<td>8</td>
<td>7</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>UPC-A</td>
<td>Yes</td>
<td>12</td>
<td>11</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>UPC-E</td>
<td>(Yes) *2</td>
<td>6</td>
<td>6</td>
<td>—</td>
<td>Numerais</td>
</tr>
<tr>
<td>ITF</td>
<td>No</td>
<td>4 to 22</td>
<td>4 to 22 (even only) *5</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>4 to 22</td>
<td>3 to 21 (odd only) *6</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>CODE39</td>
<td>No</td>
<td>4 to 22</td>
<td>2 to 20</td>
<td>2 *7</td>
<td>Alpha-numeric characters; hyphen; period; space; dollar sign; slash; plus sign; percent sign</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>4 to 22</td>
<td>1 to 19</td>
<td>2 *7</td>
<td>1</td>
</tr>
<tr>
<td>CODABAR</td>
<td>No</td>
<td>4 to 22</td>
<td>4 to 22</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>4 to 22</td>
<td>3 to 21</td>
<td>—</td>
<td>1</td>
</tr>
</tbody>
</table>

*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

<table>
<thead>
<tr>
<th>Possible Cause</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improper display contrast setting</td>
<td>Adjust display contrast.</td>
</tr>
<tr>
<td>Low batteries</td>
<td>Replace batteries.</td>
</tr>
<tr>
<td>Batteries loaded incorrectly</td>
<td>Remove batteries and reload them correctly.</td>
</tr>
<tr>
<td>AC adaptor is not connected correctly.</td>
<td>Make sure the AC adaptor is connected correctly.</td>
</tr>
</tbody>
</table>

### Text Input

<table>
<thead>
<tr>
<th>Possible Cause</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing appears on the display.</td>
<td>Adjust display contrast.</td>
</tr>
<tr>
<td>Improper contrast setting</td>
<td>Low batteries</td>
</tr>
<tr>
<td>Battery loaded incorrectly</td>
<td>AC adaptor not connected correctly.</td>
</tr>
<tr>
<td>Tape comes out when PRINT is pressed, but nothing is printed on it.</td>
<td></td>
</tr>
<tr>
<td>Possible Cause</td>
<td>Action</td>
</tr>
<tr>
<td>Only blank spaces were input.</td>
<td>Input the text you want to print.</td>
</tr>
</tbody>
</table>

### Printing is blurred, blotched, broken, etc.

<table>
<thead>
<tr>
<th>Possible Cause</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improper print density setting</td>
<td>Adjust the print density setting.</td>
</tr>
<tr>
<td>Improper loading of the cartridge</td>
<td>Remove the tape cartridge and reload it correctly.</td>
</tr>
<tr>
<td>Dirty print head or rubber roller</td>
<td>Clean the printer head and roller.</td>
</tr>
</tbody>
</table>

### Ink ribbon is being fed from the tape outlet along with the tape.

<table>
<thead>
<tr>
<th>Possible Cause</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ink ribbon cassette loaded while the ink ribbon is slack.</td>
<td>Remove the ink ribbon cassette and check to make sure the ink ribbon is not broken. Next, take up any slack in the ink ribbon and then reload the tape cartridge.</td>
</tr>
</tbody>
</table>

### Tape Cutting

<table>
<thead>
<tr>
<th>Possible Cause</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tape cutter blade is dull.</td>
<td>Take the label printer to the dealer from whom you purchased it to have the tape cutter blade replaced.</td>
</tr>
</tbody>
</table>

### Printed text is cut off by tape cut operation.

<table>
<thead>
<tr>
<th>Possible Cause</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>The printer is set up for manual tape feed.</td>
<td>Be sure to press the FEED key before performing the tape cut operation.</td>
</tr>
</tbody>
</table>

### Using Labels

<table>
<thead>
<tr>
<th>Possible Cause</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>The backing paper is still on the back of the tape.</td>
<td>Peel the backing paper from the back of the tape to expose the adhesive.</td>
</tr>
<tr>
<td>Surface is unsuitable for affixing a tape.</td>
<td>Labels do not adhere well to surfaces that are rough, wet, oily, or dirty.</td>
</tr>
</tbody>
</table>
### Error Messages

<table>
<thead>
<tr>
<th>Message</th>
<th>Cause and Recommended Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAME NAME ALREADY USED!</strong></td>
<td>Name being assigned to a preset format is already used. Use a different name.</td>
</tr>
<tr>
<td><strong>DATA ITEM NOT FOUND!</strong></td>
<td>No match for characters specified for a search operation. Change to other characters or use sequential search.</td>
</tr>
<tr>
<td><strong>TOO MANY LINES!</strong></td>
<td>Too many lines to be printed. Reduce the number of lines or use a wider tape.</td>
</tr>
<tr>
<td><strong>TOO MANY LINES TO FRAME!</strong></td>
<td>Too many lines for printing with a frame. Reduce the number of lines or use a wider tape.</td>
</tr>
</tbody>
</table>
| **ODD NUMBER OF DIGITS! CANNOT PRINT** | • Odd number of digits input for ITF bar code when a check digit is not being used. Add a 0 (zero) as the first digit and re-input.  
• Even number of digits input for ITF bar code when a check digit is being used. Add a 0 (zero) as the first digit and re-input. |
| **NOT ENOUGH DIGITS! CANNOT PRINT** | Bar code print printed does not have enough digits. Re-input with the proper number of digits. |
| **RESET!**                       | Memory has not been initialized yet. Perform the reset operation. |
| **COMMUNICATION ERROR!**         | Label printer was unable to receive data being sent from an external source. Check cable connections and parameter settings. |
| **POWER OFF THEN LOAD A TAPE CARTRIDGE** | Printing operation performed while the tape cartridge compartment is empty. Load a tape cartridge and try again. |
| **TEXT TOO LONG!**               | Text being printed does not fit within a fixed-length tape. Shorten the text or change the tape length. |

### Data Communication

- **Cannot transfer data.**
  - **Possible Cause:** Poor data communication cable connection
  - **Recommended Action:** Make sure the data communication cable jacks are connected securely.

- **Passage of too much time after setting up for data communication**
  - **Recommended Action:** Be sure to start actual data transfer within about 20 seconds after pressing **SET** to start a data communication operation.
## Specifications

### Model: KL-8100

### Input
- **Keyboard Layout:** Typewriter (QWERTY)

### Character Types
- **Alpha (English and other languages):** 52 (A–Z, a–z), 99 (Á, ß, Ç, ÷, etc.)
- **Numbers:** 10
- **Symbols/Greek and Russian Characters:** 306
- **Illustrations:** 50

### Display
- **Type:** Liquid crystal display
- **Columns:** 12
- **Lines:** 2

### Printing
- **Type:** Thermal transfer
- **Speed:** Approximately 12mm/second
- **Width:** 4mm (6mm tape); 8mm (9mm tape); 10mm (12mm tape); 16mm (18/24mm tape)
- **Character Matrix:** $48 \times 48$ dots
- **Character fonts:** New Sans-serif, New Sans-serif Italic, New Roman, New Roman Italic, Courier, Logo Style, Rich Stroke, Stencil, Bold Script, Black Letter
- **Character spacing:** NONE, NARROW, MEDIUM, WIDE
- **Tape Length:** 0.0cm to 99.9cm (FIX); longer lengths possible with AUTO
- **Block Length:** 0.0cm to 99.9cm (FIX); longer lengths possible with AUTO
- **Character Effects:** Shading, underline, box
- **Character Styles:** Normal, bold, outline, shadow, raised
- **Character Sizes:** 72 from $1 \times 1$ to $5 \times 8$ and $1 \times 1S$ to $4 \times 8S$
- **Number of Lines:**
  - 6mm tape: 2 lines
  - 9mm tape: 4 lines
  - 12mm tape: 5 lines
  - 18mm or 24mm tape: 8 lines
- **Frames:** 55 types
- **Preset Formats:** 74 types
- **Preset Phrases:** 8 types

### Memory
- **Text:** up to 2,500 characters

### General
- **Main power supply:** Specified for the AD-A12070 AC adaptor or eight AA-size alkaline batteries
- **Battery life:** Approximately 3 tape cartridge (continuous printing)
- **Memory Back-up Battery:** Built-in
  - Battery life: Marked on the sticker on the back of the label printer. Be sure to have the battery replaced by the date noted on the sticker on the back of the label printer. Have the battery replaced by the retailer where you purchased the label printer or by an authorized CASIO service provider. Note that you will be charged for battery replacement.
- **Power consumption:** 12 W
- **Auto Power Off:** Approximately six minutes after last key operation
- **Ambient Temperature:** $10^\circ$ to $35^\circ$C ($50^\circ$ to $95^\circ$F)
- **Dimensions:** $63.5 \times 196 \times 195$ mm ($2\frac{1}{2}\times 7\frac{11}{16}\times 7\frac{1}{16}$ in)
- **Weight:** 580g (20.5oz) (except main batteries)