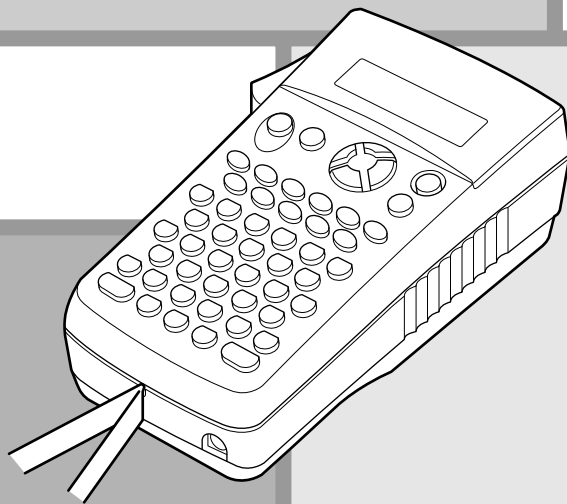# PANDUIT

LS7

OPERATOR'S MANUAL

- Read this Operator's Manual before you start using your LS7 printer.
- Keep this Operator's Manual in a handy place for future reference.
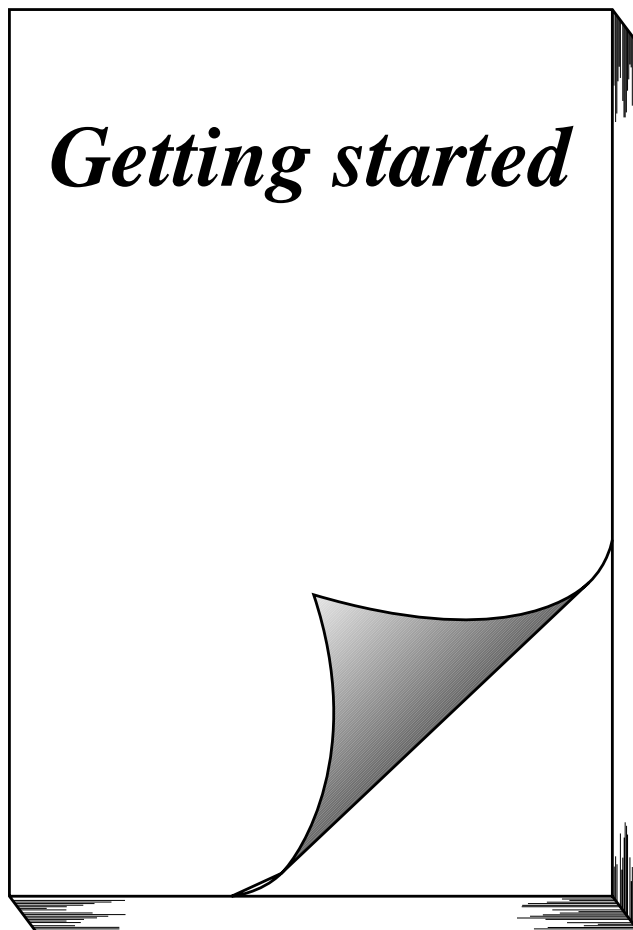
LS7-MAN-A

CONTENTS

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Getting started

INTRODUCTION AND SAFE OPERATION

The LS7 printer was designed specifically to make cable, patch panel, faceplate and facility marking effortless. This palm-sized printer combines high quality thermal transfer print, fast loading tape cassettes and industrial label materials to eliminate concerns about labels falling off.

This manual will guide you step by step through the set-up, operation, and troubleshooting of the LS7 Printer. If you have problems not covered herein, contact your local Panduit Sales Representative or call Panduit Technical Support at 866-871-4571 (outside the US, refer to page 70 for contact information).

SAFE OPERATION PRACTICES

The following general safety practices supplement the specific warnings and cautions depicted elsewhere in this manual. They are recommended precautions that must be understood and applied during the operation and maintenance of this printer.

⚠ Do Not Operate In An Explosive Environment

Do not operate the printer in the presence of flammable gases or fumes. Operation of this printer in such an environment constitutes a definite safety hazard.

⚠ Do Not Operate In Wet Or Damp Areas

Do not operate this printer in wet or damp areas. Operation of the printer in such an environment constitutes a definite safety hazard.

⚠ Do Not Substitute Parts Or Modify Equipment

Because of the danger of introducing additional hazards, do not install substitute parts or perform an unauthorized modification to the printer or its accessories. The proper components for service and repair may be obtained from Panduit Corp.

⚠ WARNING:

When the printer has been in use for an extended period of time, the printer motor may become hot. DO NOT touch the printer motor with bare hands.

Patent numbers and patent publication numbers which are related to this product are as follows: USP4839742, USP4927278, USP4976558, USP4983058, USP5009530, USP5069557, USP5120147

Information to USA Users

NOTE: This printer has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference when the printer is operated in a commercial environment. This printer generates, uses, and can radiate radio frequency energy and, if not used in accordance with this instruction manual, may cause harmful interference to radio communications. Operation of this printer in a residential area is likely to cause interference in which case the user will be required to correct the interference at his own expense.

Information to Canadian Users

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la class A est conforme à la norme NMB-003 du Canada.

It is possible that infrequent electrical phenomena (static discharge, power line fluctuations) may cause printer function to be temporarily interrupted. In this case, the printer will usually reset itself. In extreme cases, the user should remove then re-apply power (battery and/or AC Adapter).

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GENERAL PRECAUTIONS

⚠ **WARNING:** Observe the following warnings in order to avoid damage to the LS7 or its accessories.

● Use only Panduit LS7 tapes with this machine (green colored cassettes).

● Use only the LS7-ACS, AC adapter designed exclusively for this machine. Use of any other adapter will void the warranty.

● Do not use the machine in dusty places, and keep it out of both direct sunlight and rain.

● Do not expose the machine to high temperatures or high humidity. Never leave it on the dashboard or in the back of your car.

● Do not touch the print head mechanism. If the head is touched, clean it immediately with a cotton swab to avoid permanent damage.

● Do not pull on the tape being fed from the LS7. This may damage the tape cassette.

⚠ **CAUTION:** Observe the following cautions in order to prevent malfunction of the LS7.

● When the AC adapter (LS7-ACS) is connected, unplugging the adapter from the electrical outlet before unplugging it from the machine can delete all text files in the memory, even if batteries are installed.

● Use six AA (AM3, LR6) alkaline batteries in this machine.
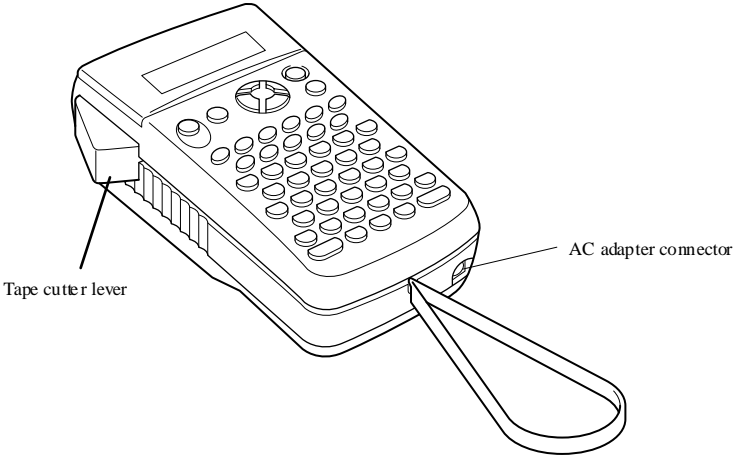
4

WARRANTY INFORMATION

Our products are warranted to be free from defects in material and workmanship at the time of sale but our obligation under this warranty is limited to the replacement of any product proved to be defective within 6 months (for product) or 90 days (for printers) from the date of delivery. Printer warranty is void if Panduit printers are modified, altered or misused in any way. Use of Panduit printers with any product other than the specified Panduit products for which the printer was designed, constitutes misuse. Before using, user shall determine the suitability of the product for his intended use and user assumes all risk and liability whatsoever in connection therewith.

This warranty is made in lieu of and excludes all other warranties, expressed or implied. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE ARE SPECIFICALLY EXCLUDED. Neither seller nor manufacturer shall be liable for any other injury, loss or damage, whether direct or consequential, arising out of the use of, or the inability to use the product.
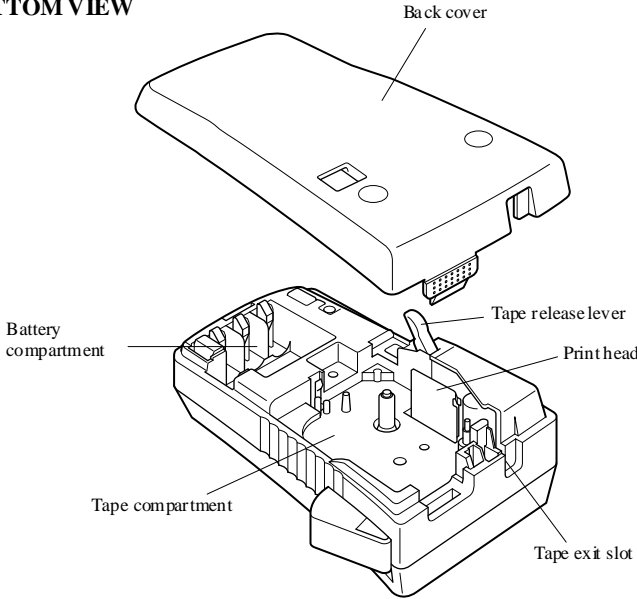
The information contained in this literature is based on our experience to date and is believed to be reliable. It is intended as a guide for use by persons having technical skill at their own discretion and risk. We do not guarantee favorable results or assume any liability in connection with its use. Dimensions contained herein are for reference purposes only. For specific dimensional requirements consult the factory. This publication is not to be taken as a license to operate under, or a recommendation to infringe any existing patents. This supersedes and voids all previous literature, etc.
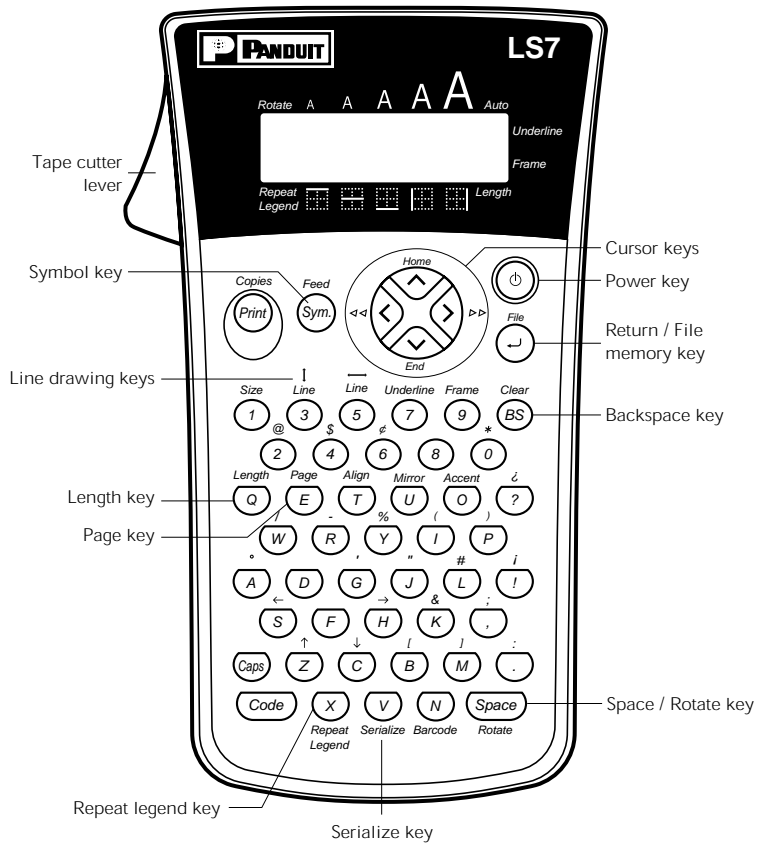
5

GENERAL DESCRIPTION

TOP VIEW

AC adapter connector

Tape cutter lever

BOTTOM VIEW

Back cover

Battery compartment

Tape release lever

Print head

Tape compartment

Tape exit slot

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LS7

Tape cutter lever

Symbol key

Line drawing keys

Length key

Page key

Repeat legend key

Serialize key

Cursor keys

Power key

Return / File memory key

Backspace key

Space / Rotate key

BATTERIES

This lightweight and portable machine can be used anywhere by installing six (6) **AA (AM3, LR6) alkaline batteries**. When changing the batteries, always replace all six at the same time.

To change the batteries:

1   Remove the back cover by pressing in on the rough area at the top end of the machine and pulling off the cover. Pulling off the back cover lifts up the tape release lever.

2   If batteries are already installed, remove them.

3   Insert six new batteries, making sure that they face the direction shown in the illustration on the bottom of the battery compartment. The positive ends of the three batteries in the bottom row point towards the bottom of the machine, while the positive ends of the top three batteries point in the opposite direction.

4   Attach the back cover by inserting the tab on the bottom end of the cover into the slot on the bottom end of the machine, then pushing down firmly on the top end of the cover until it snaps into place.

☞   *Be sure to insert the new batteries within five minutes of removing the old ones, otherwise the text shown in the LCD display and any text files stored in the memory will be lost (unless the machine is plugged into an electrical outlet with the AC adapter).*

If alkaline batteries are not used, large fonts and barcodes cannot be printed.

8
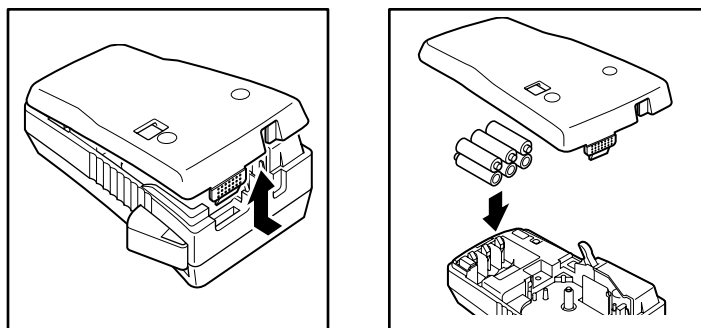
OPTIONAL AC ADAPTER

The AC adapter (LS7-ACS) allows you to use this machine wherever there is an electrical outlet.

To connect the optional AC adapter:

1   Insert the plug on the adapter cord into the connector marked DC IN 9.5V on the bottom end of the machine.

2   Insert the plug on the adapter into the nearest standard electrical outlet.

☞   *Only use the AC adapter (part no. LS7-ACS) designed exclusively for this machine.*

When the AC adapter is connected, unplugging the adapter from the electrical outlet before unplugging it from the machine can delete all text files in the memory, even if batteries are installed.
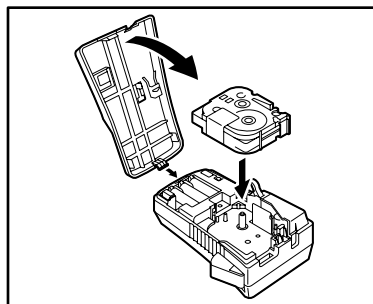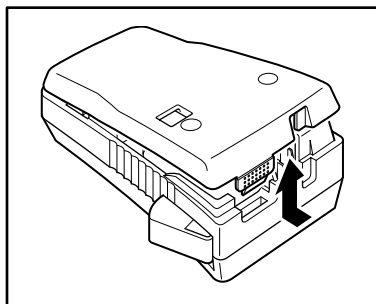
It is recommended that you use the AC adapter when printing large fonts and barcodes on 3/4" (18-mm)-wide tape since these operations can quickly drain the batteries.

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TAPE CASSETTE

A single LS7 tape cassette is supplied with this unit. This machine has been designed to allow the tape cassette to be changed quickly and easily.

To change the LS7 tape cassette:

1   Remove the back cover by pressing in on the rough area at the top end of the machine and pulling off the cover. Pulling off the back cover lifts up the tape release lever.

2   If a tape cassette is already installed, remove it by pulling it straight out.

3   If the ink ribbon in the other tape cassette is loose, use your finger to wind the toothed wheel in the direction of the arrow on the cassette until there is no slack in the ribbon.

☞   *If you are using a new tape cassette provided with a stopper, be sure to remove the stopper before installing the cassette.*

Make sure that the end of the tape feeds under the cassette tape guides.

4   Insert the tape cassette firmly into the tape compartment, making sure that the entire back of the cassette touches the bottom of the compartment.

☞   *When inserting the tape cassette, make sure that the inner ribbon does not catch on the corner of the metal guide.*

5   Attach the back cover by inserting the tab on the bottom end of the cover into the slot on the bottom end of the machine, then pushing down firmly on the top end of the cover until it snaps into place.

6   Turn on the machine if it is off, and then feed the tape to remove any slack by holding down `Code` and pressing `Sym.` *Feed* once.

7   Press in the tape cutter lever to cut off any excess tape.

The "**LABEL CODE**" message appears on the display when the following tape cassettes are loaded:

Part Number	Tape Width	Color	Label Code
LS7-50-1	1/2" (12 mm)	Black/White	1
LS7-50-2	1/2" (12 mm)	Black/Clear	1
Future	—	—	See Tape Cassette

The Label Code must be entered in order for the printer to function with the tape cassette listed. Future parts may require Label Code entry.

The Label Code is printed on the cassette and can be viewed with the cassette either unloaded or loaded in the printer.

☞ *The majority of tape cassettes do not require manual entry of a Label Code.*

EXAMPLE

To enter a Label Code using LS7-50-1:

Rotate   A   A   A   A   A   Auto

    L A B E L   C O D E   Underline
    _   Frame

Repeat
Legend   Length

● Press *Size* (1) *File* (↵) . Printer is now ready for operation.

Rotate   A   A   A   A   A   Auto

    1:                       Underline
                             Frame

Repeat
Legend   Length

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LAMINATED INDUSTRIAL TAPE SEPARATOR TOOL

LAMINATED INDUSTRIAL TAPE

The enclosed tape separator enables you to easily remove the backing from labels printed on laminated tapes.

1   Hold the tape in one hand, with the printed surface facing up, and hold the tape separator in your other hand.

2   Pass the tape halfway through the long narrow hole in the tape separator.

3   Turn the tape separator three-quarters of a turn towards you, and then pull the tape separator away from you as shown below.

4   Peel off the label backing.

12
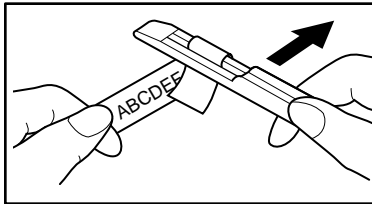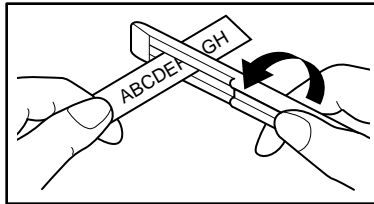
PRINT HEAD & ROLLERS

Occasionally, specks of dust or dirt become attached to the machine's print head and rollers. This is particularly likely when you are using the unit outdoors or in a very dusty environment. If a section of the print head is covered with dust, a blank horizontal streak may appear through the label text. Therefore, the machine's head may need to be cleaned from time to time.

To clean the print head and rollers:

1   Turn off the machine.

2   Remove the back cover, and then remove the tape cassette if one is installed. The print head and rollers are located in the tape compartment.

3   Print head: Use a dry cotton swab to gently wipe the print head with an up-and-down motion.

     Rollers: Use a dry cotton swab to wipe each roller with an up-and-down motion while rotating them with your finger.

4   Install a tape cassette, attach the back cover, and then try printing again.

5   If dust still remains, use Panduit Cleaning Cassette (LS7-CLN).

If none of the above works, contact Technical Support at 866-871-4571.

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Print head

Print head

Rollers

Cotton swab

Gently wipe off this
black line.

14
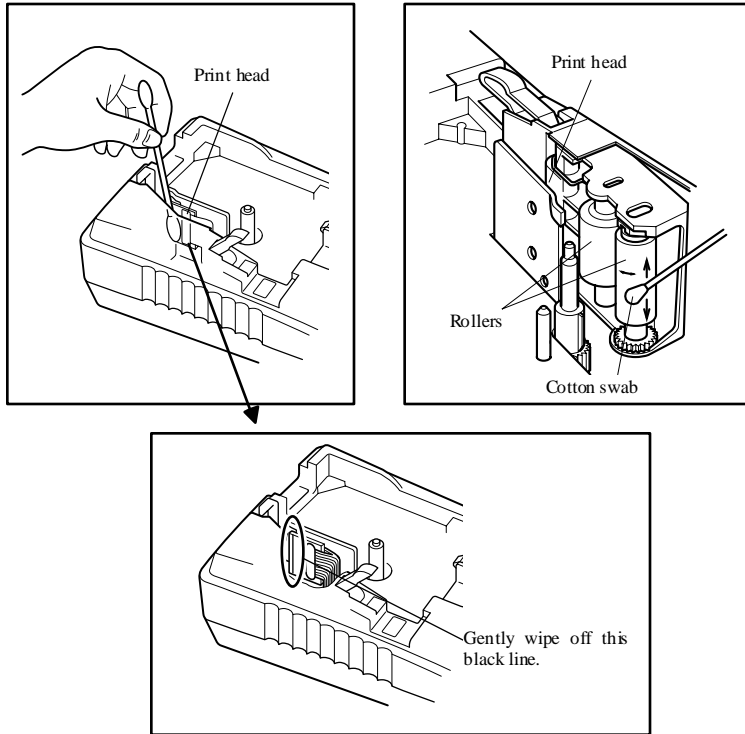
TAPE CUTTER

With use, the tape cutter may become covered with adhesive, making it difficult to cut the tape. If the tape cannot be cut correctly, clean the tape cutter blades as explained below.

☞ *To avoid injuries, be extremely careful not touch the cutter blades with bare hands.*

To clean the tape cutter blades:

1 Turn off the machine.

2 Remove the back cover, and then remove the tape cassette if one is installed. The tape cutter is located near the tape exit slot.

3 Using a cotton swab dipped in isopropyl (rubbing) alcohol, wipe the tape cutter blades with an up-and-down motion.

Tape cutter blade

Tape cutter blade

Cotton swab
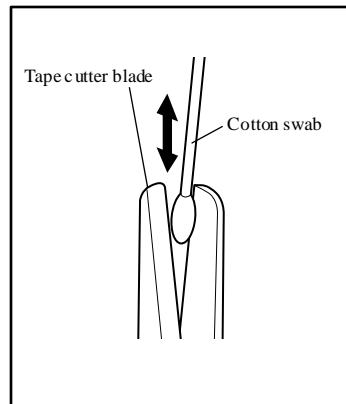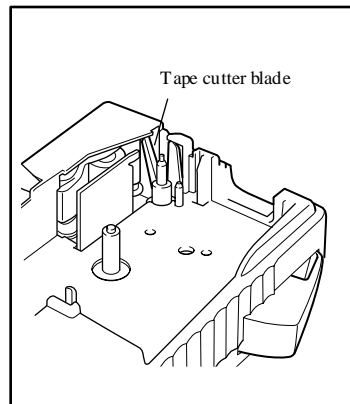
⚠ **Be careful not to touch the cutter blades with bare hands.**

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CARRYING CASE

The enclosed hard case is designed to protect your LS7 and its accessories while you store or carry them. Therefore, keep them in this carrying case whenever they are not being used.

Before opening the carrying case, be sure that the side with the Panduit logo faces upward.
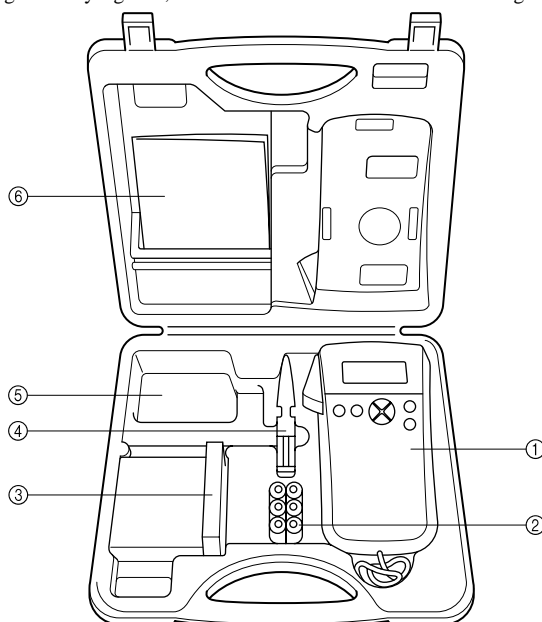
1   LS7

2   Six AA batteries

3   Tape cassette

☞   *Stand up the tape cassettes so that the end with the label attached faces upwards.*

This compartment can store up to five 1/4" (6-mm)-, 3/8" (9-mm)- or 1/2" (12-mm)-wide cassettes, four 3/4" (18-mm)-wide cassettes, or a combination of three 1/2" (12-mm)- and two 3/4" (18-mm)-wide cassettes.

4   Tape Separator Tool

5   AC adapter

☞   *This compartment can store the optional AC adapter (model LS7-ACS), designed exclusively for the LS7.*

6   Operator's Manual (LS7-MAN-A)

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For your information
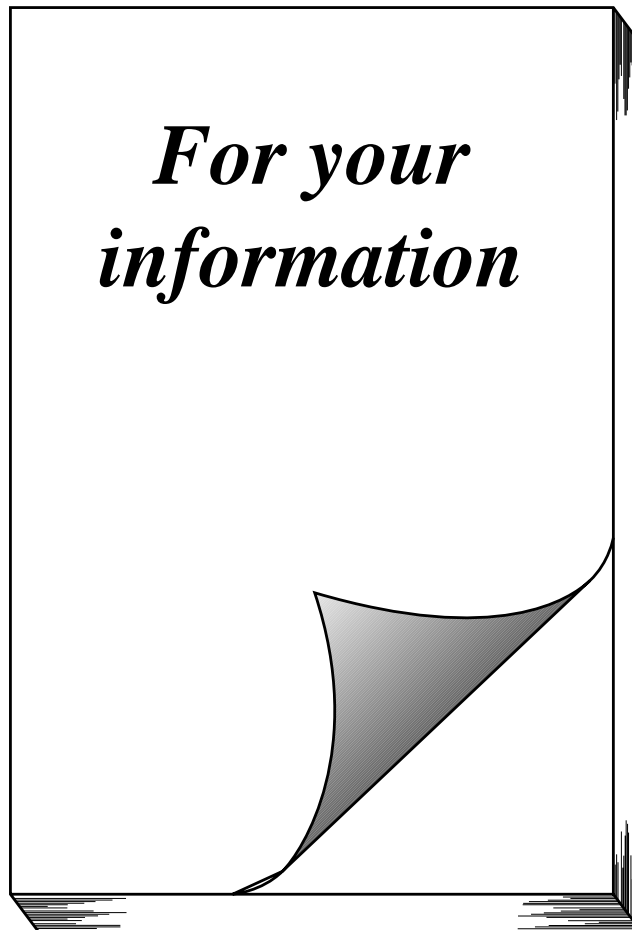
POWER KEY

The power key (⏻) is located in the top right-hand corner of the keyboard. If batteries have been installed or the machine has been plugged in using the optional AC adapter, the previous session's information is displayed when the machine is turned on. This feature allows you to stop work on a label, turn off the machine, and return to it later without having to re-enter the text.

The machine will automatically turn off if no key is pressed within 5 minutes. The machine's internal memory stores the current session's information and displays it when you turn on the machine again.

To turn on the machine:

● Press ⏻ . The previous session's information appears in the LCD display.

To turn off the machine:

● Press ⏻ . The current session's information is stored in the internal memory.

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CODE & CAPS KEYS

Most characters can be entered simply by pressing their keys. However, to use special functions or to enter capital letters, accented characters and some symbols, the following special keys are necessary.

CODE KEY

To use a function or type in characters printed either above or below a key:

● Hold down (*Code*) and press the key either immediately below or immediately above the desired function or character written in orange.

EXAMPLE

To start the accent function:

● Hold down (*Code*) and press (*O*) (Accent) once.

Rotate   A   A   A   A   A   Auto

```
ACCENT
a-u/A-U?
```

Underline
Frame

Repeat   Length
Legend

CAPS KEY

To type capital letters continuously:

1   Press (Caps) until the **Caps** indicator (**Caps**) on the left side of the display lights up.

2   Press the keys of the desired letters.

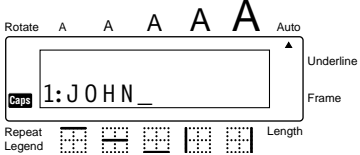   ☞   *To exit **Caps** mode, press* (Caps) *until the **Caps** indicator goes off.*

EXAMPLE

To type in "JOHN":

1   Press (Caps) once.

Rotate A   A   A A A Auto
Underline
Caps 1:_
Frame
Repeat   Length
Legend

2   Press (J), (O), (H), then (N) once each.

Rotate A   A   A A A Auto
Underline
Caps 1:JOHN_
Frame
Repeat   Length
Legend

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CURSOR KEYS

The machine's LCD display shows two rows of 11 characters; however, the text that you create can be up to 99 characters long. You can review and edit your text by using the cursor keys (◄◄◇, ◇ *Home* ◇, ◇►►, ◇ *End* ◇) to move the cursor so that different parts are shown in the display.

LEFT CURSOR KEY

To move the cursor one character to the left:

● Press ◄◄◇ once.

To move the cursor several characters to the left:

● Hold down ◄◄◇ until the cursor moves to the desired position.

To move the cursor to the beginning of the current line:

● Hold down ⌐Code⌐ and press ◄◄◇.

RIGHT CURSOR KEY

To move the cursor one character to the right:

● Press ◇►► once.

To move the cursor several characters to the right:

● Hold down ◇►► until the cursor moves to the desired position.

To move the cursor to the end of the current line:

● Hold down ⌐Code⌐ and press ◇►►.

UP CURSOR KEY

To move the cursor up to the previous line:

● Press $\overset{Home}{\diamondsuit}$ once.

To move the cursor up several lines:

● Hold down $\overset{Home}{\diamondsuit}$ until the cursor moves to the desired position.

To move the cursor to the beginning of the entire text:

● Hold down (Code) and press $\overset{Home}{\diamondsuit}$.

DOWN CURSOR KEY

To move the cursor down to the following line:

● Press $\underset{End}{\diamondsuit}$ once.

To move the cursor down several lines:

● Hold down $\underset{End}{\diamondsuit}$ until the cursor moves to the desired position.

To move the cursor to the end of the entire text:

● Hold down (Code) and press $\underset{End}{\diamondsuit}$.

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SPACE KEY

The **Space** key lets you add blank spaces between characters in your text. It is different from the right cursor key (◇ ►►), which just moves the cursor without adding blank spaces.
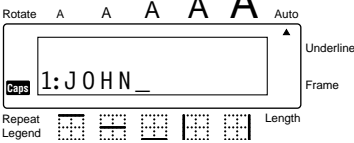
To add a space:

● Press (*Space*).
  Rotate

EXAMPLE

To add a space:

● Press (*Space*).
  Rotate

Rotate   A   A   A   A   A   Auto

Underline

Caps `1:JOHN_`

Frame

Repeat   Length
Legend

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RETURN KEY

Like on a typewriter or word processor, this machine's return key (*File* ↵) is used to end a line of text and start another one. When you have finished entering one line of text, press the return key to add a return mark (↵) to the end of the line and start a new one.

☞ *A maximum of four text lines can be entered. If you press* (*File* ↵) *when the cursor is located in the fourth line, the error message "4 LINE LIMIT!" will appear.*

The number of text lines that can be printed on the installed tape depends on the tape width.

Tape width	Maximum number of lines that can be printed
1/4" (6 mm)	1
3/8" (9 mm)	2
1/2" (12 mm)	2
3/4" (18 mm)	4
All Widths Rotated Legend	10

The return key can also be used to select an item from a list (e.g., add a symbol or accented character to the text) or to apply a selected setting.

Some question asking you to confirm a command may appear on the LCD display, especially when the function that you have chosen will delete or affect text. In these cases, pressing

(*File* ↵) is the same as answering "yes".

☞ *To answer "no", press* (*Clear* BS). *Refer to* BACKSPACE KEY *on pages 27 and 28.*

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To add a new line of text:

1   Press ◄◄ ◇ , ◇ ►►, ^{Home} ⬦ or ⬦ _{End} to position the cursor to the right of the character that will end the line.

2   Press ⟲ *(File)*. The return mark (↵) appears at the end of the line and the cursor moves to the new line.

EXAMPLE

To add a second line of text:

Rotate   A   A   A   **A**   **A**   Auto
                                              ▲   Underline

1:John Smith

                                                    Frame

Repeat   Length
Legend

● Press ⟲ *(File)*.

Rotate   A   A   **A**   **A**   **A**   Auto
                                              ▲   Underline

1:John Smith ↵
2:

                                                    Frame

Repeat   Length
Legend
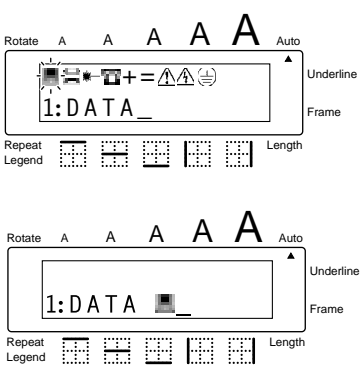
To apply a selected item:

● Press ⟲ *File* once.

EXAMPLE

To add "▣" to your text:

Rotate   A   A   A   A   **A**   Auto

▣🔲✳🔲+=⚠⚠⏚   Underline

1:DATA_   Frame

Repeat   Length
Legend

● Press (Sym.) *Feed* once

● Then select ▣,

Rotate   A   A   A   A   **A**   Auto

1:DATA ▣_   Underline

Frame

Repeat   Length
Legend

● Then ⟲ *File*

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The backspace key (*Clear* BS) allows you to remove characters to the left of the cursor's current position. It differs from the left cursor key (◄◄◄), which only moves the cursor without deleting any characters.

The backspace key can also be used to quit most functions and return to the previous display without changing the text.

☞ *The backspace key cannot be used to quit the* **barcode** *function. To quit the* **barcode** *function, hold down* Code *and press* N *Barcode* .

Some questions asking you to confirm a command may appear on the LCD display, especially when the function that you have chosen will delete or affect text. In these cases, pressing *Clear* BS is the same as answering "no".

☞ *To answer "yes", press* *File* ↵ . *Refer to* RETURN KEY *on pages 24 to 26.*

To delete one character:

1   Press ◄◄◄ , ►► , *Home* or *End* to position the cursor below the character immediately to the right of the one that you wish to delete.

2   Press *Clear* BS once.
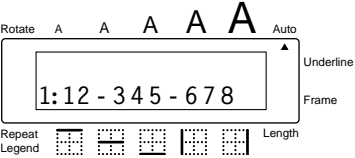
To delete a sequence of characters:

1   Press ◄◄◄ , ►► , *Home* or *End* to position the cursor below the character immediately to the right of the last character that you wish to delete.

2   Hold down *Clear* BS until all of the characters that you wish to delete are deleted.

EXAMPLE

To delete "**9**" in legend "**012-345-6789**":

Rotate   A   A   A   A   A   Auto

1:2 - 3 4 5 - 6 7 8 9

Underline

Frame

Repeat
Legend

Length

1   Press (BS) *Clear* once.

Rotate A   A   A **A** **A** Auto
                                    ▲ Underline
1:12 - 345 - 678   Frame
Repeat   Length
Legend
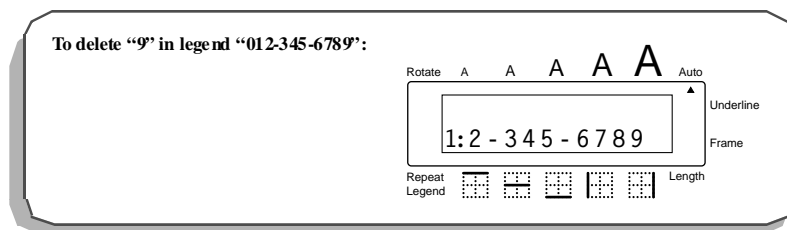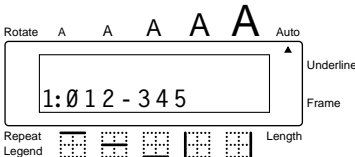
To delete "-678":

2   Hold down (BS) *Clear* until "-678" are
    deleted.

Rotate A   A   A **A** **A** Auto
                                    ▲ Underline
1:0 1 2 - 3 4 5   Frame
Repeat   Length
Legend
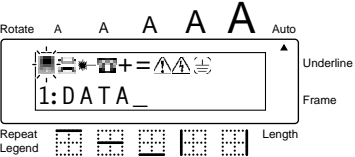
To quit a function without changing your text:
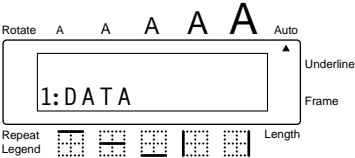
●   Press (BS) *Clear* to return to your text.

EXAMPLE

To quit the symbol function without adding a symbol to your text:

Rotate A   A   A **A** **A** Auto
                                    ▲ Underline
1:D A T A_   Frame
Repeat   Length
Legend

●   Press (BS) *Clear* .

Rotate A   A   A **A** **A** Auto
                                    ▲ Underline
1:D A T A   Frame
Repeat   Length
Legend

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CLEAR FUNCTION

The **clear** function is used to remove all characters from the display so that you can begin entering new text. Although all of the text is erased, the **Caps** mode does not change.

To delete all of the text:

● Hold down ⬚Code⬚ and press (BS)*Clear*. All of the text is erased from the display.

EXAMPLE

To clear the display:

Rotate   A   A   A   A   A   Auto
```
3:bury, Lond↵
4:2-345-6789_
```
Underline   Frame

Repeat Legend   Length

● Hold down ⬚Code⬚ and press (BS)*Clear*.

Rotate   A   A   A   A   A   Auto
```
1:_
```
Underline   Frame

Repeat Legend   Length

ACCENT FUNCTION

The **accent** function can be used to add accented characters to your text. The accented characters are grouped according to the capital or lowercase letter that they are combined with. The following accented characters are available:

Letter	Accented characters	Letter	Accented characters
a	à á ä â ã æ	I	Í Ï Î
A	À Á Ä Â Ã Æ	n	ñ
c	ç	N	Ñ
C	Ç	o	ó ö ô õ
e	è é ë ê ẽ	O	Ó Ö Ô Õ
E	È É Ë Ê Ẽ	u	ù ú ü û
i	í ï î	U	Ù Ú Ü Û

To type in an accented character:

1   Hold down ⌜Code⌟ and press ⓞ (*Accent*). The message "ACCENT a–u/A–U?" appears on the display.

2   Press the key of the letter in the desired accented character.

☞   *If you wish to type in a capital letter, press* (Caps) *to enter* **Caps** *mode (the* **Caps** *indicator lights up) before pressing the letter key.*

3   Press ◄◄◇ or ◇►► until the desired accented character flashes.

4   Press ⟳ (*File*). The accented character is added to the text.

☞   *To type in a series of accented characters, hold down* ⌜Code⌟ *before pressing* ⟳ (*File*). *Then, continue adding accented characters by selecting them as explained in steps 2 and 3, and holding down* ⌜Code⌟ *while pressing* ⟳ (*File*). *Press just* ⟳ (*File*) *after selecting the last character in the series.*

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EXAMPLE

To add the accented character "Ë":

1   Hold down (*Code*) and press (*O*).

Rotate A A A A **A** Auto

```
ACCENT
a-u/A-U?
```
Underline / Frame
Repeat Legend Length

2   Press (*Caps*).

Rotate A A A A **A** Auto

```
ACCENT
[Caps] a-u/A-U?
```
Underline / Frame
Repeat Legend Length

3   Press (*E*).

Rotate A A A A **A** Auto

```
È É Ë Ê Ẽ
[Caps] 1:NO
```
Underline / Frame
Repeat Legend Length

4   Press ▷ ▹▹ until "Ë" flashes.

Rotate A A A A **A** Auto

```
È É Ë Ê Ẽ
[Caps] 1:NO
```
Underline / Frame
Repeat Legend Length

5   Press (↵).

Rotate A A A A **A** Auto

```
[Caps] 1:NOË
```
Underline / Frame
Repeat Legend Length

SYMBOL FUNCTION

In addition to the letters, symbols and numerals on the key tops, there are 9 additional marks available with the **symbol** function. These symbols are shown below.

Symbols								
Data	Fax	Fiber Optic	Phone	Plus	Equals	Caution	Shock Hazard	Ground

To type in a symbol:

1   Press (Sym.). A row of symbols appears in the display.

2   Press ◄◄ ⟨◇⟩ or ⟨◇⟩ ►► until the desired symbol flashes.

3   Press (↵). The symbol appears in the text.

> ☞   *To type in a series of symbols, hold down* (Code) *before pressing* (↵). *Then, continue adding symbols by selecting them as explained in steps* 2 *and* 3, *and holding down* (Code) *while pressing* (↵). *Press just* (↵) *after selecting the last symbol in the series.*

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EXAMPLE

To add the symbol "☎":

1　Press (Sym.).

Feed

2　Press ◄◄◇ or ◇►► until "☎"
　　flashes.

| Rotate | A | A | A | A | A | Auto |

```
■☵☀☏+=⚠⚠☺
Caps  1:PHONE
```

| Repeat Legend | | | | | | Length |

3　Press (↵).

File

| Rotate | A | A | A | A | A | Auto |

```
Caps  1:PHONE  ☏
```

| Repeat Legend | | | | | | Length |

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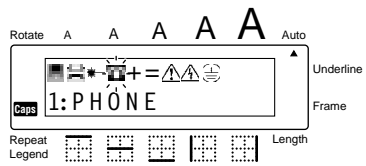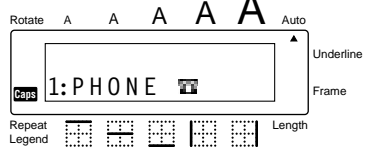
LENGTH FUNCTION

Although the length of the printed label automatically adjusts to fit the length of the entered text, there may be times when you will want to make a label with a specific length. The **length** function allows you to set the label length between 0.25" and 11.80" (6.4 and 299.7 mm).

The default length setting is **OFF**. If **ON** is selected, the **Length** indicator at the bottom of the display lights up. The default length when ON is 0.65" (16.5 mm) - the width of a Panduit Modular Jack.

To turn on or off the length function:
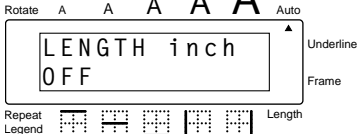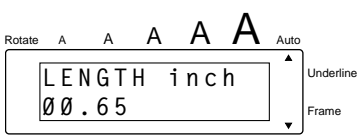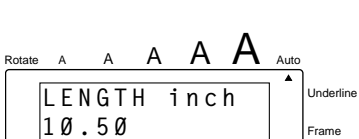
1   While holding down (Code), press (Q)^(Length) once to display the current setting (ON or OFF).

2   While still holding down (Code), continue pressing (Q)^(Length) until the desired label length setting is displayed.

☞   *The **Length** indicator lights up when **ON** is selected.*

3   Release (Code). If **ON** was selected, the current label length setting is displayed.

To set the length of the label:

4   Use the number keys to enter a length.

5   Press (↵)^(File).

☞   *Cut marks are printed on the labels when Length Function is set.*

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EXAMPLE

To select a label length of 10.5":

1 Hold down (Code) and press (Q) *Length* once.

```
Rotate   A    A    A   A   A   Auto
┌──────────────────────────┐
│  LENGTH  inch            │ ▲  Underline
│  OFF                     │    Frame
└──────────────────────────┘ ▼
Repeat                           Length
Legend
```

2 Keep (Code) held down and continue pressing (Q) *Length* until **ON** is displayed.

```
Rotate   A    A    A   A   A   Auto
┌──────────────────────────┐
│  LENGTH  inch            │ ▲  Underline
│  ON                      │    Frame
└──────────────────────────┘ ▼
Repeat                           Length
Legend
```

3 Release (Code).

```
Rotate   A    A    A   A   A   Auto
┌──────────────────────────┐
│  LENGTH  inch            │ ▲  Underline
│  00.65                   │    Frame
└──────────────────────────┘ ▼
Repeat                           Length
Legend
```

4 Press **"1050".**

```
Rotate   A    A    A   A   A   Auto
┌──────────────────────────┐
│  LENGTH  inch            │ ▲  Underline
│  10.50                   │    Frame
└──────────────────────────┘ ▼
Repeat                           Length
Legend
```

5 Press (↵) *File*.

SIZE FUNCTION

The character size of the entire text can be adjusted using the **size** function. Since the character size that can be used depends on the width of the tape, the following table shows the character sizes that can be used with each tape width.

Tape width	Sizes (in points)
1/4" (6 mm)	12, 9
3/8" (9 mm)	18, 12, 9
1/2" (12 mm)	24, 18, 12, 9
3/4" (18 mm)	36, 24, 18, 12, 9

The default size setting is **AUTO**. The currently selected size setting is always shown by the indicators at the top of the display.

With the **AUTO** size setting, the machine compares your text with the width of the installed tape and automatically adjusts the characters to the largest size possible. However, six other point sizes are also available.

Setting (in points)	Size
36	ABC
24	ABC
18	ABC
12	ABC
9	ABC
6	ABC

• Only font available for Rotated Text ON.

☞   *If the **AUTO** size setting is selected and only one line of characters has been entered, the text can be printed with a character size slightly larger than the maximum for the installed tape under any of the following conditions.*

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•1/2" (12-mm)- or 3/4" (18-mm)-wide tape is installed and the text contains only capital letters

*•3/4" (18-mm)-wide tape is installed and the characters are not formatted (i.e., the **underline** or **frame** setting is not applied)*

Tape width / Text lines	1/4" (6 mm)	3/8" (9 mm)	1/2" (12 mm)	3/4" (18 mm)
1	12 pts	18 pts	All caps: 29 pts Not all caps: 24 pts	All caps, not formatted: 57 pts All caps, formatted: 45 pts Not all caps, not formatted: 45 pts Not all caps, formatted: 36 pts
2	N/A	9 pts	12 pts	18 pts
3	N/A	N/A	N/A	12 pts
4	N/A	N/A	N/A	9 pts
Length Dependent	6 pts (only font size available) for Rotated Legend or Repeat Legend ON			

To change the size setting:

1 While holding down (Code), press (Size 1) once, and keep (Code) held down to display the current size setting.

2 While still holding down (Code), continue pressing (Size 1) until the desired size setting is displayed.

☞ *The current character size setting is also shown by the size indicators above the display.*

3 Release (Code) to apply the selected size setting to the entire text.

EXAMPLE

To select the 24 point size setting:

1 While holding down (Code), press (Size 1) once, and keep (Code) held down.

Rotate   A   A   A   **A**   **A**   Auto

```
SIZE
AUTO
```

Underline
Frame
Repeat Legend
Length

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To select the 24 point size setting:

2   While still holding down (*Code*), continue pressing *Size* 1 until **24** is displayed.

Rotate   A   A   A   **A**   **A**   Auto

SIZE
24

Underline

Frame

3   Release (*Code*).

Repeat
Legend

Length
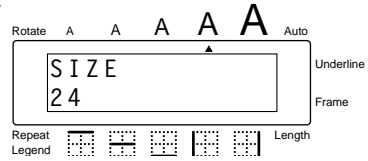
UNDERLINE FUNCTION

You can add emphasis to your text by underlining it.

The default underline setting is **OFF**. When the **underline** function is set to **ON**, the **Underline** indicator on the right side of the display lights up.

☞ *If a frame has been chosen while the **ON** underline setting is selected, the frame setting changes back to **OFF** and the text is underlined.*

OFF

ABC

ON

ABC
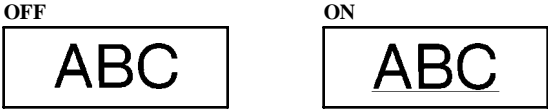
To change the underline setting:

1 While holding down ⟨Code⟩, press ⑦ *Underline* once, and keep ⟨Code⟩ held down to display the current underline setting.

2 While still holding down ⟨Code⟩, continue pressing ⑦ *Underline* until the desired underline setting is displayed.

   ☞ *The **Underline** indicator lights up when the **ON** setting is selected.*

3 Release ⟨Code⟩ to apply the selected underline setting to the entire text.

EXAMPLE

To select the ON underline setting:

1 While holding down ⟨Code⟩, press ⑦ *Underline* once, and keep ⟨Code⟩ held down.

   Rotate   A   A   A   A   **A**   Auto

   UNDERLINE
   OFF

   Underline
   Frame

   Repeat
   Legend
   Length

2 While still holding down ⟨Code⟩, continue pressing ⑦ *Underline* until **ON** is displayed.

   Rotate   A   A   A   A   **A**   Auto

   UNDERLINE
   ON

   Underline
   Frame

   Repeat
   Legend
   Length

3 Release ⟨Code⟩.

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FRAME FUNCTION

With the **frame** function, you can choose from various frames and highlights to make more decorative or emphasized text.

The following frame settings are available:

OFF **DIAMOND**

ABC ABC

ROUND **SLANT**

ABC ABC

DOT

ABC
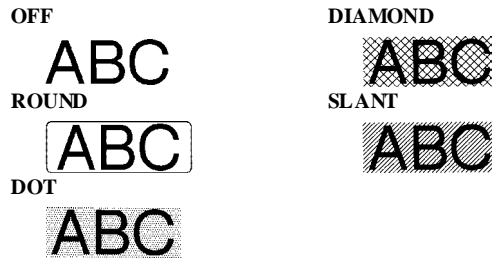
The default frame setting is **OFF**. When any setting other than **OFF** is selected, the **Frame** indicator on the right side of the display lights up.

☞ *If the **ON** underline setting has been chosen when a frame is selected, the underline setting changes back to **OFF** and the text is framed.*

To change the frame setting:

1 While holding down (Code), press (9) *Frame* once, and keep (Code) held down to display the current frame setting.

2 While still holding down (Code), continue pressing (9) *Frame* until the desired frame setting is displayed.

☞ *The **Frame** indicator lights up when any setting other than **OFF** is selected.*

3 Release (Code) to apply the selected frame setting to the entire text.

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EXAMPLE

To select the DOT frame setting:

1 While holding down (*Code*), press

   Frame
   (*9*) once, and (*Code*) keep held
   down.

   Rotate   A   A   A A **A** Auto
   ```
   FRAME        ▲    Underline
   OFF               Frame
   ```
   Repeat Length
   Legend
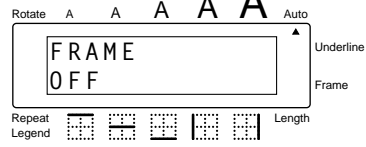
2 While still holding down (*Code*), con-

   Frame
   tinue pressing (*9*) until **DOT** is dis-
   played.

   Rotate   A   A   A A **A** Auto
   ```
   FRAME        ▲    Underline
   DOT          ■    Frame
   ```
   Repeat Length
   Legend

3 Release (*Code*).

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HORIZONTAL ALIGNMENT FUNCTION

You can choose to align lines in the text in one of three ways. In addition, if the **length** function was used to set the length of the label, the text will align within the label according to the selected horizontal alignment setting.

The default horizontal alignment setting is **CENTER**; however, two other settings are also available:

LEFT
AB
CDE
FG

CENTER
AB
CDE
FG

RIGHT
AB
CDE
FG

To change the horizontal alignment setting:

1   While holding down ⬭Code, press Ⓣ *Align* once, and keep ⬭Code held down to display the current horizontal alignment setting.

2   While still holding down ⬭Code, continue pressing Ⓣ *Align* until the desired horizontal alignment setting is displayed.

3   Release ⬭Code to apply the selected horizontal alignment setting to the entire text.

EXAMPLE

To select the RIGHT horizontal alignment setting:

1   While holding down ⬭Code, press Ⓣ *Align* once, and keep ⬭Code held down.

Rotate   A   A   A A **A** Auto

```
H.ALIGNMENT
LEFT
```
Underline

Frame

Repeat
Legend   Length

2   While still holding down ⬭Code, continue pressing Ⓣ *Align* until **RIGHT** is displayed.

Rotate   A   A   A A **A** Auto

```
H.ALIGNMENT
RIGHT
```
Underline

Frame

Repeat
Legend   Length

3   Release ⬭Code.

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MIRROR PRINTING FUNCTION

With this function, you can print your text so that the characters can be read from the adhesive side of the tape. If mirror-printed labels are attached to glass or some other clear material, they can be read correctly from the opposite side.

The default mirror printing setting is **OFF**.

OFF

ABC

ON

ƆᗺA

To change the mirror printing setting:

1   While holding down (*Code*) and press (*U*) once, and keep (*Code*) held down to display the current mirror printing setting.

2   While still holding down (*Code*), continue pressing (*U*) until the desired mirror printing setting is displayed.

3   Release (*Code*) to apply the selected mirror printing setting to the entire text.

EXAMPLE

To select the ON mirror printing setting:

1   While holding down (*Code*), press (*U*) once, and keep (*Code*) held down.

```
MIRROR
OFF
```

2   While still holding down (*Code*), continue pressing (*U*) until **ON** is displayed.

```
MIRROR
ON
```

3   Release (*Code*).
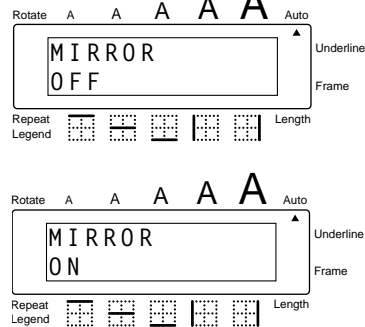
PRINT KEY, COPIES & FEED FUNCTIONS

After you have entered your text and chosen the desired format settings, you are ready to print the label.

To print a label:

● Press (*Print*/*Copies*) once. The message "COPIES 01/01" is displayed while the label is being printed. The label is fed out of the tape exit slot at the top end of the machine.

To print copies of a label:

● Hold down (*Code*) and press (*Print*/*Copies*). The message "COPIES 01" is displayed. Enter between 01 and 99 copies.

● Press (↵/*File*).

To feed the tape:

● Hold down (*Code*) and press (*Sym.*/*Feed*). The message "FEED" appears while 1" (24 mm) of tape is fed out.

To cut the tape:

● Press in the tape cutter lever.

   ☞   *In order to prevent damaging the tape, do not try to cut it while printing or feeding. Pressing in the tape cutter lever too far may break it.*

   Check your cassette before printing a large number of copies to ensure sufficient tape is available.

EXAMPLE

To make 3 copies of a label:

1   Hold down (*Code*) and press (*Print*/*Copies*).

   Rotate   A   A   A   A   A   Auto

   C O P I E S   Underline
   Ø 3   Frame

   Repeat   Length
   Legend

2   Enter "**03**" and press (↵/*File*).

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SERIALIZATION FUNCTION

This function can be used to print many copies of the same text while increasing a certain value in the text after each label is printed. This type of automatic incrementation is very useful when printing serial number labels, patch panel labels or other labels requiring ascending codes.

To use the numbering function:

1   Hold down ⬭*Code* and press Ⓥ *Serialize*. The message "SERIALIZE   NUMERIC" appears in the display. Continue to hold down ⬭*Code* and press Ⓥ *Serialize* to toggle between NUMERIC and ALPHABETIC serialization.

2   When you release ⬭*Code*, the message "START VALUE" appears in the display. Type the number or letter of the first value to be printed and press ⬤ *File*.

3   The message "END VALUE" appears in the display. Type the number or letter of the last value to be printed and press ⬤ *File*.

4   The message "INCREMENT BY" appears in the display. Type the number of the increment value desired and press ⬤ *File*.

5   The serialization will be denoted on the display as a "Ω" for a one digit serialization and "ΩΩ" for a two digit serialization.

☞   *Check your cassette before printing a large serialization to ensure sufficient tape is available.*

To print a four position patch panel label for Building A:

1   Position the cursor next to the "A".

Rotate   A   A   A   A   A   Auto

Underline

1: A _

Frame

Repeat
Legend   Length

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2 Hold down ⌐Code⌐ and press Ⓥ .
Serialize

Rotate A   A A A **A** Auto
```
SERIALIZE...
NUMERIC
```
Underline
Frame
Repeat
Legend Length

3 Release ⌐Code⌐ .

4 Press ⓪ ① ↵ .
   *   Size File

Rotate A   A A A **A** Auto
```
START VALUE
Ø1
```
Underline
Frame
Repeat
Legend Length

5 Press ⓪ ④ ↵ .
   * $ File

Rotate A   A A A **A** Auto
```
END VALUE
Ø4
```
Underline
Frame
Repeat
Legend Length

6 Press ⓪ ① ↵ .
   *   Size File

Rotate A   A A A **A** Auto
```
INCREMENT BY
Ø1
```
Underline
Frame
Repeat
Legend Length

7 Serialization is displayed as ΩΩ.

Rotate A   A A A **A** Auto
```
1:AΩΩ
```
Underline
Frame
Repeat
Legend Length

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ROTATE LEGEND FUNCTION

The rotate legend function is used when a label must be oriented vertically yet read horizontally. A common need for this function is terminal block labeling.

To enable the rotate legend function:

1   Hold down ⬭Code⬭ and press ⬭Space⬭ until "ON" appears in the display.
     ⬭Rotate⬭

☞   *When Rotate Legend is enabled, the largest font size available is 6 pt.*

☞   *The number of characters is limited by the tape width:*
     3/4"   10 characters
     1/2"   6 characters
     3/8"   5 characters
     1/4"   3 characters

     Uses: Terminal Block Labeling, Vertical Labels
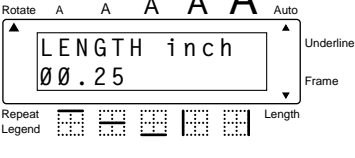
EXAMPLE

To print a terminal block label numbered 1-10:
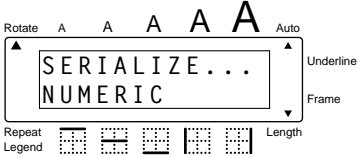
1   Hold down ⬭Code⬭ and press ⬭Space⬭
     until **ON** is displayed. Release ⬭Code⬭.

     Rotate   A   A   A   **A   A**   Auto

     ```
     ROTATE  LEGND
     ON
     ```
     Underline
     Frame

     Repeat Legend   Length

2   Hold down ⬭Code⬭ and press ⬭Q⬭
     until **ON** is displayed. Release ⬭Code⬭.

     Press ⬭0⬭ ⬭0⬭ ⬭2⬭ ⬭5⬭

     ⬭↵⬭ .

     Rotate   A   A   A   **A   A**   Auto

     ```
     LENGTH  inch
     ØØ.25
     ```
     Underline
     Frame

     Repeat Legend   Length

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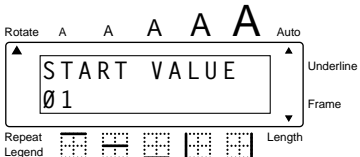
3   Hold down `Code` and press `V` `Serialize` until **NUMERIC** is displayed.
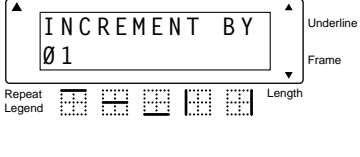
Rotate   A   A   A   **A**   **A**   Auto

```
S E R I A L I Z E . . .
N U M E R I C
```
Underline

Frame

Repeat
Legend   Length

4   Release `Code`.

5   Press `*` `0`   `Size` `1`   `File` `↵`.
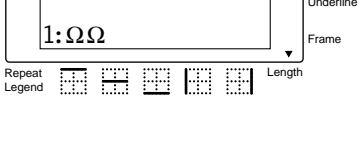
Rotate   A   A   A   **A**   **A**   Auto

```
S T A R T   V A L U E
Ø 1
```
Underline

Frame

Repeat
Legend   Length

6   Press `Size` `1`   `*` `0`   `File` `↵`.

Rotate   A   A   A   **A**   **A**   Auto

```
E N D   V A L U E
1 Ø
```
Underline

Frame

Repeat
Legend   Length

7   Press `*` `0`   `Size` `1`   `File` `↵`.

Rotate   A   A   A   **A**   **A**   Auto

```
I N C R E M E N T   B Y
Ø 1
```
Underline

Frame

Repeat
Legend   Length

8   Serialization is displayed as **ΩΩ**.

Rotate   A   A   A   **A**   **A**   Auto

```

1:ΩΩ
```
Underline

Frame

Repeat
Legend   Length

9   Press `Print` `Copies`.

REPEAT LEGEND FUNCTION

The repeat legend function is used to duplicate a legend over the length of a label. Using the combined functionality of rotated legend and repeat legend produces an excellent quality label for marking cables and wires prior to or after installation.

To enable the repeat legend function for marking wires or other curved surfaces:

1   Hold down [*Code*] and press (*X* Repeat Legend) until "ON" appears in the display.

2   Hold down [*Code*] and press (*Space* Rotate) until "ON" appears in the display.

☞   *When Repeat Legend is enabled, Length* (*Length* *O*) *must be* **ON** *and the largest font available is 6 pt.*

Uses: Wire and cable marking

EXAMPLE

To print a wire marker with length of 1.0" that reads "D101" using LS7-75-1 cassette:

1   Hold down [*Code*] and press (*X* Repeat Legend)
until **ON** is displayed. Release [*Code*].

Rotate   A   A   A   A   A   Auto
┌─────────────────────────────┐
│ R E P E A T   L E G N D   │   Underline
│ O N   │   Frame
└─────────────────────────────┘
Repeat   Length
Legend

2   Hold down [*Code*] and press (*Space* Rotate)
until **ON** is displayed. Release [*Code*].

Rotate   A   A   A   A   A   Auto
┌─────────────────────────────┐
│ R O T A T E   L E G N D   │   Underline
│ O N   │   Frame
└─────────────────────────────┘
Repeat   Length
Legend

49

3   Hold down (Code) and press (Q) *Length*
    until **ON** is displayed. Release (Code).

Rotate   A   A   A   **A**   **A**   Auto

```
LENGTH inch
ON
```
Underline

Frame

Repeat
Legend   Length

4   Press (0)* (1)*Size* (0)* (0)*
    (↵)*File* .

Rotate   A   A   A   **A**   **A**   Auto

```
LENGTH inch
Ø1.ØØ
```
Underline

Frame

Repeat
Legend   Length

5   Press (D) (1)*Size* (0)* (1)*Size* .

Rotate   A   A   A   **A**   **A**   Auto

```
1:D1Ø1
```
Underline

Frame

Repeat
Legend   Length

6   Press (Print)*Copies* .

The line function is used to separate legends for easier recognition. The line function has two vertical line positions (left and right edge) and three horizontal positions (label top, every line and label bottom).

To enable/disable the line function:

1   Hold down (Code) and press either ³Line or ⁵Line to toggle between the line positions. Release (Code) when the desired line position is displayed.

☞   *Can be combined with the length, serialization and symbol functions.*

Uses: Faceplate, patch panel and 110 block marking

EXAMPLE

To print a four position patch panel label serialized 100 thru 103 divided by lines:

1   Hold down (Code) and press (Q) Length until **LENGTH ON** is displayed. Release (Code). Press (0) (0) (6) (5) Line (↵) File.

Rotate   A   A   A   A   **A**   Auto
▲ Underline
LENGTH inch
ØØ.65
▼ Frame
Repeat Legend   Length

2   Hold down (Code) and press (3) Line until **LEFT EDGE is displayed**. Release (Code).

Rotate   A   A   A   A   **A**   Auto
▲ Underline
VERTCL LINE
LEFT EDGE
▼ Frame
Repeat Legend   Length

3   Hold down (Code) and press (3) Line until **RIGHT EDGE** is displayed. Release (Code).

Rotate   A   A   A   A   **A**   Auto
▲ Underline
VERTCL LINE
RIGHT EDGE
▼ Frame
Repeat Legend   Length

51

4 Press [Size 1].

Rotate A A A **A** **A** Auto
Underline
```
1:1_
```
Frame
Repeat Legend   Length

5 Hold down [Code] and press [V Serialize].
   Release [Code].

Rotate A A **A** **A** **A** Auto
Underline
```
SERIALIZE...
NUMERIC
```
Frame
Repeat Legend   Length

6 Press [* 0] [* 0] [File ↵].

Rotate A A **A** **A** **A** Auto
Underline
```
START VALUE
ØØ
```
Frame
Repeat Legend   Length

7 Press [* 0] [| Line 3] [File ↵].

Rotate A A **A** **A** **A** Auto
Underline
```
END VALUE
Ø3
```
Frame
Repeat Legend   Length

8 Press [* 0] [Size 1] [File ↵].

Rotate A A **A** **A** **A** Auto
Underline
```
INCREMENT BY
Ø1
```
Frame
Repeat Legend   Length

9 Press [Copies Print].

Rotate A A **A** **A** **A** Auto
Underline
```
1:1ΩΩ
```
Frame
Repeat Legend   Length

52

PAGE FUNCTION

The page function is used to group multiple labels in a file. A file is a document consisting of up to 8 pages (labels). The page function is useful when labeling a group of items that have non-serialized unique legends and must be grouped together.

To enable the page function:

1   Hold down ⬭Code⬬ and press ⬭Page/E⬬ to move to pages 1 thru 8. Release ⬭Code⬬ to enter text onto a page.

☞   *Default position is page 1 of any label file.*

☞   *A page with no data is printed when Length function is set.*
     A page with no data is not printed, but the margin between the pages is printed, when Length function is not set.

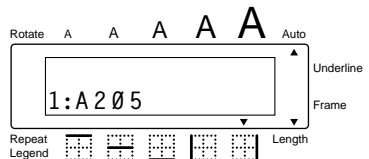   *Uses: Faceplate, patch panel and 110 block marking*

EXAMPLE

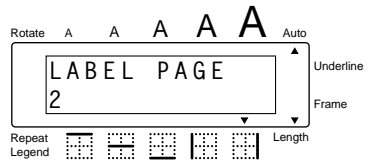**To print a four position faceplate label with the legend A205, A207, B101, C506 separated by lines:**

1   Hold down ⬭Code⬬ and press ⬭Length/Q⬬ until **LENGTH ON** is displayed. Release ⬭Code⬬. Press ⬭0⬬ ⬭0⬬ ⬭6⬬ ⬭Line/5⬬ ⬭File/↵⬬.

    Rotate   A   A   A A A   Auto
    ┌──────────────────┐ Underline
    │ L E N G T H   i n c h │
    │ Ø Ø . 6 5   │ Frame
    └──────────────────┘
    Repeat Length
    Legend

2   Hold down ⬭Code⬬ and press ⬭Line/3⬬ until **RIGHT EDGE** is displayed. Release ⬭Code⬬.

    Rotate   A   A   A A A   Auto
    ┌──────────────────┐ Underline
    │ V E R T C L   L I N E │
    │ R I G H T   E D G E   │ Frame
    └──────────────────┘
    Repeat Length
    Legend

3 Press Ⓐ ②@ ⓪* ⑤Line (page 1).

Rotate A A **A** **A** **A** Auto
Underline
Frame
```
1:A2Ø5
```
Repeat Legend Length

4 Hold down (Code) and press Ⓔ Page until **LABEL PAGE 2** is displayed. Release (Code).

Rotate A A **A** **A** **A** Auto
Underline
Frame
```
LABEL PAGE
2
```
Repeat Legend Length

5 Press Ⓐ ②@ ⓪* ⑦Underline .

Rotate A A **A** **A** **A** Auto
Underline
Frame
```
1:A2Ø7_
```
Repeat Legend Length

6 Hold down (Code) and press Ⓔ Page until **LABEL PAGE 3** is displayed. Release (Code). Press Ⓑ ①Size ⓪* ①Size .

Rotate A A **A** **A** **A** Auto
Underline
Frame
```
1:B1Ø1_
```
Repeat Legend Length
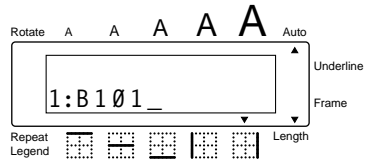
7 Hold down (Code) and press Ⓔ Page until **LABEL PAGE 4** is displayed. Release (Code). Press Ⓒ ⑤Line ⓪* ⑥¢ .

Rotate A A **A** **A** **A** Auto
Underline
Frame
```
1:C5Ø6_
```
Repeat Legend Length

8 Press (Print)Copies .

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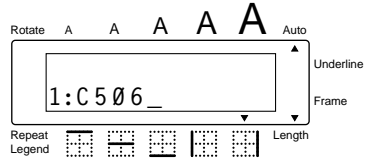
MEMORY FILE FUNCTIONS

You can use the memory to store your most frequently used text files. The text remains in the memory, even after all characters are removed from the display using the **clear** function (see page 29).

When a file is stored, it is given a number to make recalling it easier. A maximum of 9 text files or about 300 characters can be stored in the memory. A stored text file can contain a maximum of 99 characters.

Since a copy of the stored text file is recalled when the **recall** function is used, the text can be edited or printed without changing the originally stored file. When a file is no longer needed or more space is necessary, the **memory delete** function can be used to delete it.

☞ *When inserting new batteries, be sure to insert the new ones within five minutes of removing the old ones, otherwise any text files stored in the memory will be lost (unless the machine is plugged into an electrical outlet with the AC adapter).*

STORING TEXT

To store a text file:

1   Hold down (Code) and press (↵) *File* .

2   Press ◁◁(◇) or (◇)▷▷ until **STORE** flashes on the display.

3   Press (↵) *File* . The message "STORE SELECT 1–9?" appears on the display.

4   Press the key ((1) *Size* to (9) *Frame*) of the file number where you wish to store the text. The text is stored under the selected file number and the text previously shown in the display reappears.

  ☞ *If a file is already stored under the selected file number, the message "OVER-WRITE?" appears in the display and you must decide whether or not to overwrite it (delete it from the memory and store the new one).*

  ☞ *If 300 characters have already been stored, the error message "MEMORY FULL!" appears in the display. If this occurs, an existing text file must be deleted before the new one can be stored.*

  *To quit the **store** function without storing the text, hold down (Code) and press*

  (↵) File (or press just (BS) Clear).

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To overwrite the stored file with the new one:

● Press $\overset{\textit{File}}{\underset{}{\longleftarrow}}$ to delete the previously stored file and store the new one under the selected number.

☞ *To go back and choose another file number without overwriting the text file, press* $\overset{\textit{Clear}}{(\text{BS})}$, *and then select a different file number.*

RECALLING TEXT

To recall a text file:

1 Hold down (Code) and press $\overset{\textit{File}}{\underset{}{\longleftarrow}}$.

2 Press ◂◂$\langle\diamond\rangle$ or $\langle\diamond\rangle$▸▸ until **RECALL** flashes on the display.

3 Press $\overset{\textit{File}}{\underset{}{\longleftarrow}}$. The message "RECALL SELECT 1–9?" appears on the display.

☞ *To quit the **recall** function without recalling the text file, hold down* (Code) *and press* $\overset{\textit{File}}{\underset{}{\longleftarrow}}$ *(or press just* $\overset{\textit{Clear}}{(\text{BS})}$ *).*

4 Press the key ($\overset{\textit{Size}}{①}$ to $\overset{\textit{Frame}}{⑨}$) of the file number containing the text that you wish to recall. The text stored under the selected file number is shown.

☞ *To see other parts of the displayed text file, press* ◂◂$\langle\diamond\rangle$ *or* $\langle\diamond\rangle$▸▸*.*

To display the text stored under other file numbers, press $\overset{\textit{Home}}{\langle\wedge\rangle}$ *or* $\underset{\textit{End}}{\langle\vee\rangle}$, *or the key of a different file number.*

5 Press $\overset{\textit{File}}{\underset{}{\longleftarrow}}$. Any text previously entered in the display is erased and the text stored under the selected file number is recalled into the display.

DELETING A FILE

To delete a text file:

1 Hold down (Code) and press $\overset{\textit{File}}{\underset{}{\longleftarrow}}$.

2 Press ◂◂$\langle\diamond\rangle$ or $\langle\diamond\rangle$▸▸ until **CLEAR** flashes on the display.

3 Press $\overset{\textit{File}}{\underset{}{\longleftarrow}}$. The message "CLEAR SELECT 1–9?" appears on the display.

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☞ *To quit the **file delete** function without deleting the text file, hold down* Code *and press* ↵ (File) *(or press just* BS (Clear) *).*

4   Press the key (1 (Size) to 9 (Frame)) of the file number containing the text that you wish to delete. The text stored under the selected file number is shown.
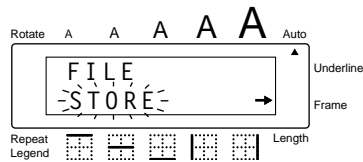
☞ *To see other parts of the selected text file, press* ◁◁ ◇ *or* ◇ ▷▷.

To display the text stored under other file numbers, press ⌄ (Home) *or* ⌄ (End) *, or the key of a different file number.*

5   Press ↵ (File) to delete the text file that was selected.

EXAMPLE

To store text under file number 8:

1   Hold down Code and press ↵ (File).

Rotate A   A   A A A Auto

```
FILE
-STORE-        →
```
Underline
Frame
Repeat
Legend   Length

2   Press ↵ (File).

Rotate A   A   A A A Auto

```
STORE
SELECT   1-9?
```
Underline
Frame
Repeat
Legend   Length

3   Press 8.

Rotate A   A   A A A Auto

```
1:AΩΩ
```
Underline
Frame
Repeat
Legend   Length

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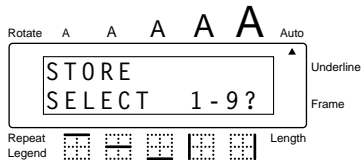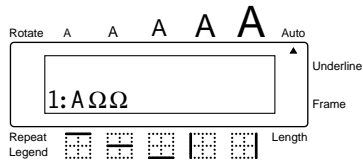
To recall the text from file number 4:

1   Hold down (*Code*) and press (↵) *File* .

```
Rotate  A   A   A  A  A  Auto
        ┌──────────────────┐
        │  FILE            │ Underline
        │ -STORE-        → │ Frame
        └──────────────────┘
Repeat                      Length
Legend
```

2   Press ◇ ▸▸ until **RECALL** flashes on the display.

```
Rotate  A   A   A  A  A  Auto
        ┌──────────────────┐
        │  FILE            │ Underline
        │ ←RECALL-       → │ Frame
        └──────────────────┘
Repeat                      Length
Legend
```

3   Press (↵) *File* .

```
Rotate  A   A   A  A  A  Auto
        ┌──────────────────┐
        │ RECALL           │ Underline
        │ SELECT   1-9?    │ Frame
        └──────────────────┘
Repeat                      Length
Legend
```

4   Press (4) *$* .

```
Rotate  A   A   A  A  A  Auto
        ┌──────────────────┐
        │ RECALL           │ Underline
        │ [4]John  Smit    │ Frame
        └──────────────────┘
Repeat                      Length
Legend
```

5   Press (↵) *File* .

```
Rotate  A   A   A  A  A  Auto
        ┌──────────────────┐
        │                  │ Underline
        │ 1:John  Smith ↵ │ Frame
        └──────────────────┘
Repeat                      Length
Legend
```

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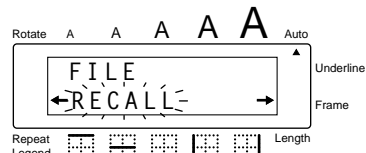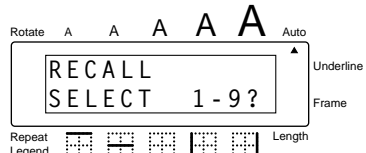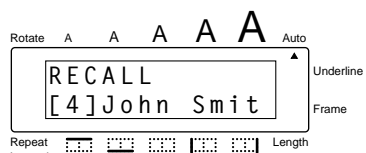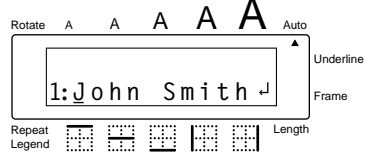
To delete the text stored under file number 8:

1 Hold down `Code` and press `↵` (*File*).

```
Rotate  A   A   A  A  A  Auto
┌─────────────────────┐
│  FILE               │ Underline
│ ⌐STORE⌐         →   │ Frame
└─────────────────────┘
Repeat                  Length
Legend
```

2 Press `◇` ▸▸ until **CLEAR** flashes on the display.

```
Rotate  A   A   A  A  A  Auto
┌─────────────────────┐
│  FILE               │ Underline
│←⌐CLEAR⌐             │ Frame
└─────────────────────┘
Repeat                  Length
Legend
```

3 Press `↵` (*File*).

```
Rotate  A   A   A  A  A  Auto
┌─────────────────────┐
│ CLEAR               │ Underline
│ SELECT   1-9?       │ Frame
└─────────────────────┘
Repeat                  Length
Legend
```

4 Press `8`.

```
Rotate  A   A   A  A  A  Auto
┌─────────────────────┐
│ CLEAR               │ Underline
│ [8]AΩΩ              │ Frame
└─────────────────────┘
Repeat                  Length
Legend
```

5 Press `↵` (*File*).

```
Rotate  A   A   A  A  A  Auto
┌─────────────────────┐
│                     │ Underline
│ 1:John  Smith ↵     │ Frame
└─────────────────────┘
Repeat                  Length
Legend
```

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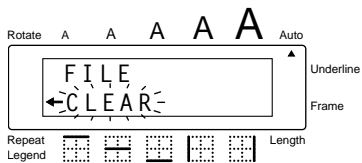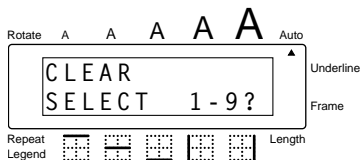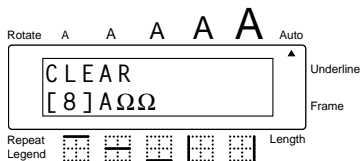
BARCODE FUNCTION

The **barcode** function enables barcodes to be printed as part of labels. Four different parameters enable you to create custom barcodes.

Parameter	Settings
PROTOCOL	**CODE 39**
WIDTH (barcode width)	**LARGE**, **SMALL**
HUMAN READABLE (numbers printed below barcode)	**ON**, **OFF**
CHECK DIG. (check digit)	**OFF**, **ON**

The default settings are **CODE 39 PROTOCOL**, **LARGE WIDTH**, **HUMAN READABLE** set to **ON**, and **CHECK DIG.** set to **OFF**.

Barcodes must be entered according to the following rules:

Protocol	Number of digits (including check digits and start and stop codes)	Characters that can be used	Notes
CODE 39	4 through 22	Numbers, letters, spaces, and symbols –, **$**, /, +, and **%.**	The asterisk (*) is not needed as start and stop codes.

To use the barcode function:

1   Hold down (Code) and press (N)/Barcode .

☞   *To change the data or parameters of a barcode that has already been created, position the cursor below the barcode mark (* ▐▐▌ *) before holding down* (Code)

and pressing (N)/Barcode *.*

A label can only contain one barcode. If a barcode has already been entered when (Code) *is held down and* (N)/Barcode *is pressed, the error message "1 BAR CODE / LABEL" will appear.*

To quit the **barcode** *function without making any changes, hold down* (Code)

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and press $\overset{N}{\underset{Barcode}{\bigcirc}}$.

2   Type in the new barcode data or edit the old data.

To change the barcode parameter settings:

1   Press $\overset{Home}{\diamondsuit}$.

    ☞   *To return to the barcode data display without changing any parameter settings,*
        press $\overset{Clear}{\underset{BS}{\bigcirc}}$.

2   Press ◂◂$\langle \diamond \rangle$ or $\langle \diamond \rangle$▸▸ until the parameter that you wish to change appears.

3   Press $\overset{Home}{\diamondsuit}$ or $\underset{End}{\diamondsuit}$ until the desired setting is displayed.

4   Repeat steps 2 and 3until all parameters are set as you wish.

5   Press $\overset{File}{\bigcirc}$.

To add a special character to the barcode data:

1   Press ◂◂$\langle \diamond \rangle$ or $\langle \diamond \rangle$▸▸ until the cursor is below the character immediately to the right of
    where you want to add special character.

2   Press $\overset{Feed}{\underset{}{(Sym.)}}$.

3   Press $\overset{Home}{\diamondsuit}$ or $\underset{End}{\diamondsuit}$ until the desired special character is displayed.

4   The following special characters can only be entered when using protocols **CODE 3**9.

Symbol	Character
1	+
2	$

5   Press $\overset{File}{\bigcirc}$ to add the selected special character to the barcode data.

To add the barcode to your text:

1   Press $\overset{File}{\bigcirc}$.

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To delete the barcode from your text:

1   Press ◁◁⟨◇⟩, ⟨◇⟩▷▷, ⟨Home⟩ or ⟨End⟩ until the cursor is positioned either below the right half of the barcode mark or immediately to the right of the entire barcode mark.

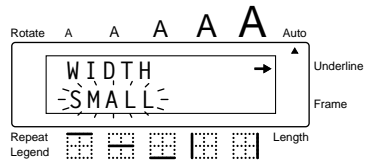2   Press ⟨Clear BS⟩. The message "OK TO CLEAR? ||| ||| ".

3   Press ⟨File ↵⟩ .

EXAMPLE

To add a barcode to the label:

1 Hold down `Code` and press `N` `Barcode`.


```
CODE 39        ↑
▶ ★ ★ ◀
```

2 Press `Home ∧`.


```
WIDTH          →
SMALL
```

3 Press `◇` ▸▸ until the **CHECK DIG.** parameter is displayed.


```
←CHECK DIG.
OFF
```
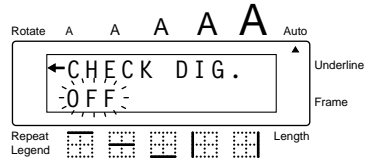
4 Press `Home ∧` or `∨ End` until **ON** is displayed.
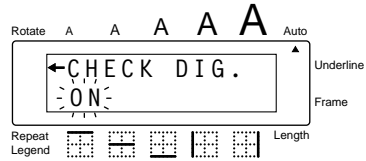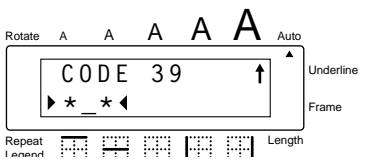

```
←CHECK DIG.
ON
```

5 Press `↵ File`.


```
CODE 39        ↑
▶ ★ _ ★ ◀
```

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6 Press ⓵ *(Size)*, ⓶ *(@)*, ⓷ *(l Line)*, ⓸ *($)*, then ⓹ *(Line)*.

Rotate A A A **A** A Auto

```
 CODE  39        ↑
▶*12345F*◀
```
Underline
Frame

Repeat
Legend Length

7 Press ⤶ *(File)*.

Rotate A A A **A** A Auto

```
1:||||||_
```
Underline
Frame

Repeat
Legend Length

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TROUBLESHOOTING

Problem	Remedy
1. The printer is asking for "**LABEL CODE**".	• Enter LABEL CODE printed on tape cassette.
2. The display stays blank after you have turned on the machine.	• Check that the correct AC adapter (LS7-ACS) is being used and that it is connected correctly. • If you are using alkaline batteries, check that they are correctly inserted. • If the batteries are low, replace them with new ones.
3. The machine does not print or the printed characters are blurred.	• Check that the correct AC adapter (LS7-ACS) is being used and that it is connected correctly. • Check that the tape cassette has been inserted properly. • If the tape cassette is empty, replace it with a new one. • Make sure that the back cover has been attached.
4. The text files that you stored in the memory are no longer there.	• If the batteries are low, replace them with new ones.
5. The printed characters are not formed properly.	• If you are using alkaline batteries, they may be low. Try using the AC adapter or replace the batteries with new ones. • Check that the correct AC adapter (LS7-ACS) is being used and that it is connected correctly.
6. A blank horizontal white line appears through the printed label.	• Clean the print head as explained on page 13 and 14.
7. Striped tape appears.	• You have reached the end of the tape. Replace the tape cassette with a new one.
8. The machine has "locked up" (i.e., nothing happens when a key is pressed).	• Turn off the machine, and then while holding down (Code) and (BS) *Clear*, turn the machine back on. WARNING: The text in the display, all format settings, and all text files stored in the memory are erased.

ERROR MESSAGE LIST

Error Message	Cause	Remedy
1 BAR CODE / LABEL	• This message appears if a barcode has already been added to the label when you hold down ⬭Code and press Ⓝ Barcode.	• Limit the number of barcodes in the text to one.
1 SERIALIZE LIMIT!	• This message appears if a serialization has already been added to the label when you hold down ⬭Code and press Ⓥ Serialize.	• Limit the number of serializations in the text to one.
10 LINE LIMIT!	• This message appears if ten lines already exist when you press ⊙ File using the **Rotate** function.	• Limit the number of lines in the text to ten.
4 DIGIT MIN.!	• This message appears when less than the minimum four digits are entered as barcode data.	• Enter a minimum of four digits before pressing ⊙ File.
4 LINE LIMIT!	• This message appears if four lines already exist when you press ⊙ File.	• Limit the number of lines in the text to four.
BATTERIES WEAK!	• This message appears when the installed alkaline batteries become weak.	• Replace the batteries or use the AC adapter.

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Error Message	Cause	Remedy
BUFFER EMPTY!	• This message appears if you try to print, but no text has been entered. • This message appears if you try to store a text file in the memory, but no text has been entered in the display.	• Enter text before printing. • Enter text before storing.
BUFFER FULL!	• This message appears if you try to enter a character, symbol, barcode, return or space after 99 characters have already been entered.	• Delete some existing text so that more can be entered.
CAN'T HERE!	• This message appears if a character, symbol, space or return is entered while the cursor is located below the right half of a barcode and "Ω" mark.	• Move the cursor or delete the barcode and "Ω" mark before entering the character, symbol or return.
CHANGE ADAPTER	• This message appears if a high-voltage adapter is being used.	• Remove the high-voltage adapter and connect the AC adapter (LS7-ACS).
CHECK TAPE!	• This message appears if you try to print a label or feed the tape when a tape cassette is not installed. • This message appears if you install a non-Panduit tape cassette. • This message appears if the tape cassette is not properly seated.	• Install a tape cassette. • Install a Panduit (green colored) tape cassette. • Remove the back cover of the printer and re-install cassette in printer.

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Error Message	Cause	Remedy
FUNCTION NOT ALLOWED!	• This message appears if **Size**, **Frame** or **Barcode** is set when **Rotate** function is being selected. • This message appears if **Size** is set when **Repeat Legend** function is being selected.	• Delete **Rotate** function. • Delete **Repeat Legend** function.
INVALID VALUE	• This message appears if you input the wrong value for the function selected.	• Re-input valid value.
LABEL CODE	• This message appears if the tape cassette in the printer requires manual entry of a label code.	• Enter the label code printed on the tape cassette.
LINE LIMIT!	• This message appears if the number of lines in the text is greater than the maximum number of lines possible for the installed tape.	• Reduce the number of lines or install a tape of greater width.
MEMORY FULL!	• This message appears if you try to store a text file after 300 characters have already been stored in the memory.	• Delete an unwanted file to make room for the new one.
NO FILES!	• This message appears if you try to recall or delete a text file from the memory when none are stored.	• Store a text file first.
REPLACE BATTERIES!	• This message appears if the installed alkaline batteries are about to run out.	• Replace the batteries or use the AC adapter.
ROM PROBLEM!	• This message appears if there is a problem with the machine's read only memory.	• Contact Technical Support at 866-871-4571 (outside the US, refer to page 70 for contact information).

Error Message	Cause	Remedy
SET LENGTH!	• This message appears if length has not been set when **Rotate** and **Repeat Legend** are selected.	• Set length between 0.25" and 11.80" (6.4 and 299.7 mm).
SYSTEM ERROR!	• This message appears if there is a problem with the machine's software.	• Contact Technical Support at 866-871-4571 (outside the US, refer to page 70 for contact information).
TEXT TOO HIGH!	• This message appears if the size of the text is larger than the width of the installed tape.	• Reduce the size of the characters or install a wider tape.
TEXT TOO LONG!	• This message appears if the length of the text is longer than the label length that has been set using the **Length** function. • This message appears if the number of characters is more than the limit of an installed tape when **Rotate** function is selected.	• Delete some of the text or increase the set label length. • Delete **Rotate** function.
VALUE TOO SMALL!	• This message appears if the last value set to be printed is less than the selected value in the text using the **Serialize** function.	• Press the key of the value that is greater than the value in the text.

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SPECIFICATIONS

HARDWARE

Input device: Keyboard with 52 keys (including the power key)

LCD: 12 characters × 2 lines (7 × 5 dots/character)
17 indicators

Print tape: LS7 Tape
Four widths available:

    1/4"   (6 mm)
    3/8"   (9 mm)
    1/2"   (12 mm)
    3/4"   (18 mm)

Power supply: Six AA (AM3, LR6) alkaline batteries or optional AC adapter (LS7-ACS)
Auto power-off if no key is pressed for 5 minutes

Print head: 128 dot/180 dpi

Dimensions: 4 3/4" (121 mm) (W) × 7 31/64" (190 mm) (D) × 2 51/64" (71 mm) (H)

Weight: 1.1 lbs. (520 g) (without a tape cassette and batteries installed)

SOFTWARE

Buffer size: Maximum 99 characters

Memory size: 300 characters

Character size: Five sizes (9, 12, 18, 24 and 36 points) + AUTO for non-rotated text
One size (6 point) for rotated text

TECHNICAL SUPPORT CONTACTS

For technical support in the U.S., call **866-871-4571**. For other countries, contact the Panduit Headquarters nearest you:

Headquarters	Location	Phone
PANDUIT Canada	Markham, Ontario	(905) 475-6922
PANDUIT Latin America	Jalisco, Mexico	(52) 3 666 2501
PANDUIT Europe Ltd.	Westgate, London UK	(44) 208 601 7200
PANDUIT Asia Pacific Pte. Ltd.	Singapore	(65) 379 6700
PANDUIT Australia Pty. Ltd.	Victoria, Australia	(61) 3 9794 9020
PANDUIT Japan	Tokyo, Japan	(81) 3 3767 7011

NOTE

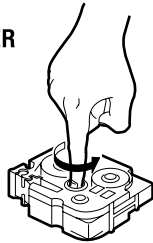**• Please read this notice carefully before starting**

To insert a new tape cartridge
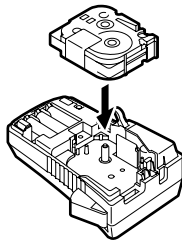
- **REMOVE THE PAPER STOPPER**
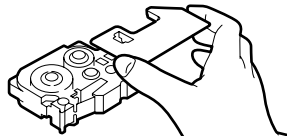
  SOME TAPE CASSETTES ARE NOT PROVIDED WITH A STOPPER.
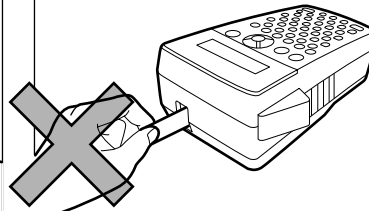
- **USE YOUR FINGER TO TIGHTEN THE RIBBON**
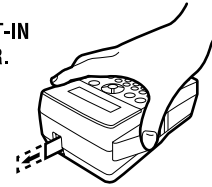
- **INSTALL AND PRESS CODE+FEED**
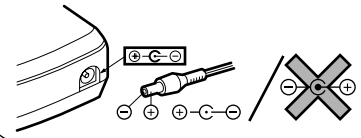
Cutting Tape

- **DO NOT PULL TAPE TO ADVANCE**

- **TO CUT TAPE, USE THE BUILT-IN CUTTER LEVER. UNDER NO CIRCUM-STANCES ATTEMPT TO CUT THE TAPE WHILE PRINTING OR FEEDING.**

AC Adapter connection

- **USE AC ADAPTER DESIGNED EXCLUSIVELY FOR THIS UNIT**

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Printed in Japan
LA6951001