

# LINE THERMAL PRINTER

## MODEL CT-S4000L/CT-S4000DCL

### User's Manual

Refer to CT-S4000/CT-S4000DC User's Manual of standard model when reading this manual.

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## 1.1 Features

- High-speed printing at a maximum of 120 mm/sec
- 2-dimensional barcode
- Label of nonstep 58 to 105 mm wide as well as 112 mm is usable
- Paper sensor sensitivity adjustment by variable resistor is adopted.

## 4.6 Error Indication

The following LED indications are added to CT-S4000L/CT-S4000DCL.

Status	POWER LED	ERROR LED	Buzzer
Wait for cutting label	OFF		—
Paper detection error	OFF		

## 5.3 Manual Setting of Memory Switch

Functions of memory switches SW4-4 and SW4-5 of CT-S4000L/CT-S4000DCL are as shown below. (The **white-on-black characters** are factory setting.)

Memory Switch	Function	0 (OFF)	1 (ON)
SW4-4	Paper Select	Thermal Roll	<b>B.M./Lbl.P *</b>
SW4-5	Position detect	Black Mark	<b>Label</b>

- \* The Print Width 660 dots is not available for printing a label paper.
- \* The memory switches SW2-8 will be ignored for Label.

## 5.4 Selecting Paper Type

Paper type selection is available by the combination of memory switches SW4-4 and SW4-5 by the used of "Memory Switch Select Mode". In addition, the following procedure is available.

### 1 Enter Selecting Paper Type mode.

- 1) Open the printer cover and remove paper. Pressing and holding the **FEED button**, turn the printer power ON. The POWER LED starts blinking.
- 2) Release the **FEED button** and then close the printer cover. Buzzer sounds and the paper type currently set is indicated by the LED on the operation panel.

### 2 Select Paper Type.

Press the **FEED button** to match the paper type loaded to the LED indications in the table below. (Refer to the table below.)

	POWER LED	ERROR LED
Label	Green lit	(OFF)
Thermal paper roll	(OFF)	Red lit
Black Mark paper	Green lit	Red lit

### 3 Save the selected Paper Type to the Printer.

Open and close the printer cover. By this operation, selected paper type is stored in the printer memory and the Selecting Paper Type mode is terminated.

Since then, "P.Length Set" of Memory switch 4-1 becomes disable.

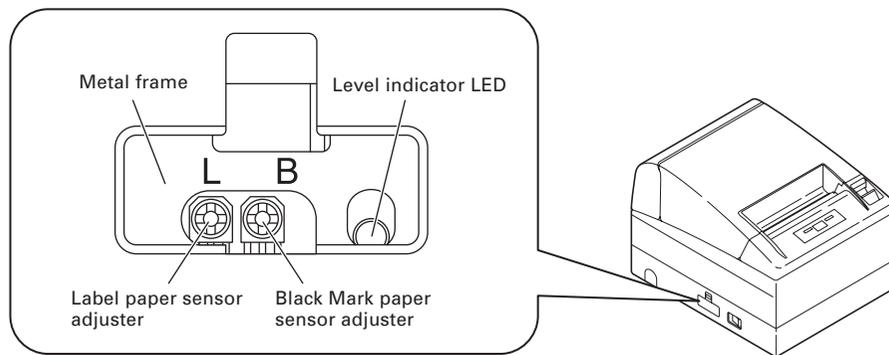
When closing the printer cover during the setting a Black Mark paper or label paper in the printer, paper length is measured, and the result will be printed out.

\* If Paper Detection error occurs at the measurement of paper length, the printer automatically enters Adjusting Paper Sensor mode. Adjust the sensor in accordance with "5-5 Adjusting Paper Sensor".

## 5.5 Adjusting Paper Sensor

Before using Black Mark paper (BM paper) or label, adjust the Paper sensor. First, hold the lever at the upper end of the sensor adjustment control cover located at the left of the Power switch and press the lever down and toward the front to remove the cover from the printer.

As shown below, the most left one is a label paper sensor adjuster, the next is Black Mark paper sensor adjuster, and the right one is a level indicator LED. Adjust them in the following procedure.

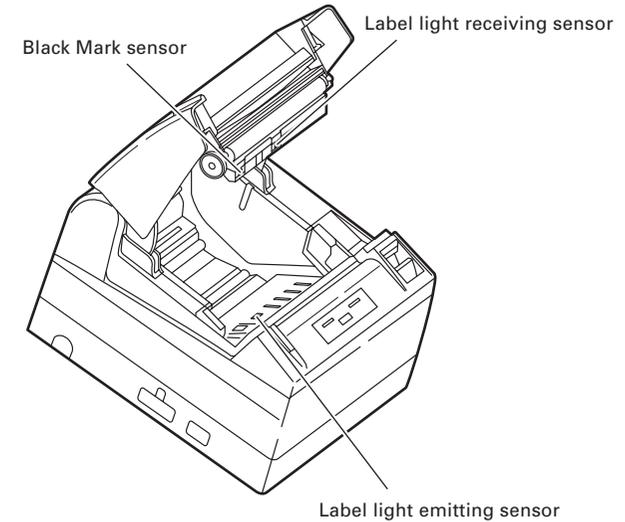


### 1 Enter Adjusting Paper Sensor mode.

Open the printer cover, remove paper, and then set the printer power switch to ON. Here, POWER LED and ERROR LED go on with the buzzer sound. Then close the printer cover while pressing the **FEED button**. The ERROR LED starts blinking with the buzzer sound.

### 2 Set Paper to be adjusted to the Printer.

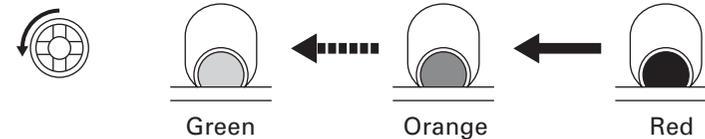
This printer has three types of built-in paper sensors. In case of label, set it so that label is positioned on the label light receiving sensor and label light emitting sensor. In case of Black Mark paper, set it so that the printable portion (other than black mark) is positioned on the Black Mark sensor. With this state kept, closing the printer cover causes ERROR LED to blink with the buzzer sound.



### 3 Adjust Paper Sensor.

Turn the corresponding adjuster counterclockwise by using a tapered flat screwdriver. Set the adjuster at the position where LED begins to change from orange to green.

Turning the adjuster counterclockwise

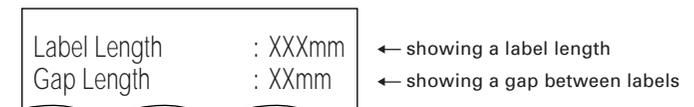


\* While turning the adjuster by the screwdriver, do not let the part of the screwdriver touch the metal frame. Otherwise proper LED light color will not be displayed while touching.

### 4 Perform Paper Measuring operation

When the **FEED button** is pressed, label is fed and paper measuring is carried. If the **FEED button** is pressed during the paper measuring, the result will be printed out as follows, and the printer memory switch will be initialized.

\* The measuring result is a reference value



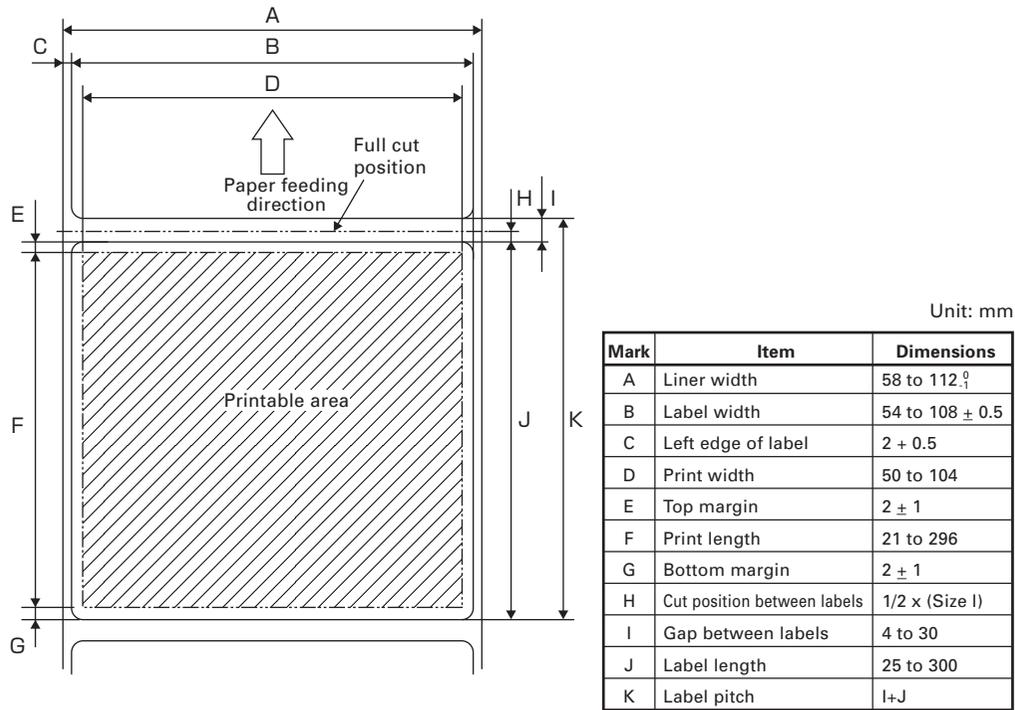
< Example of label measuring result >

## 5.6 Printing Paper

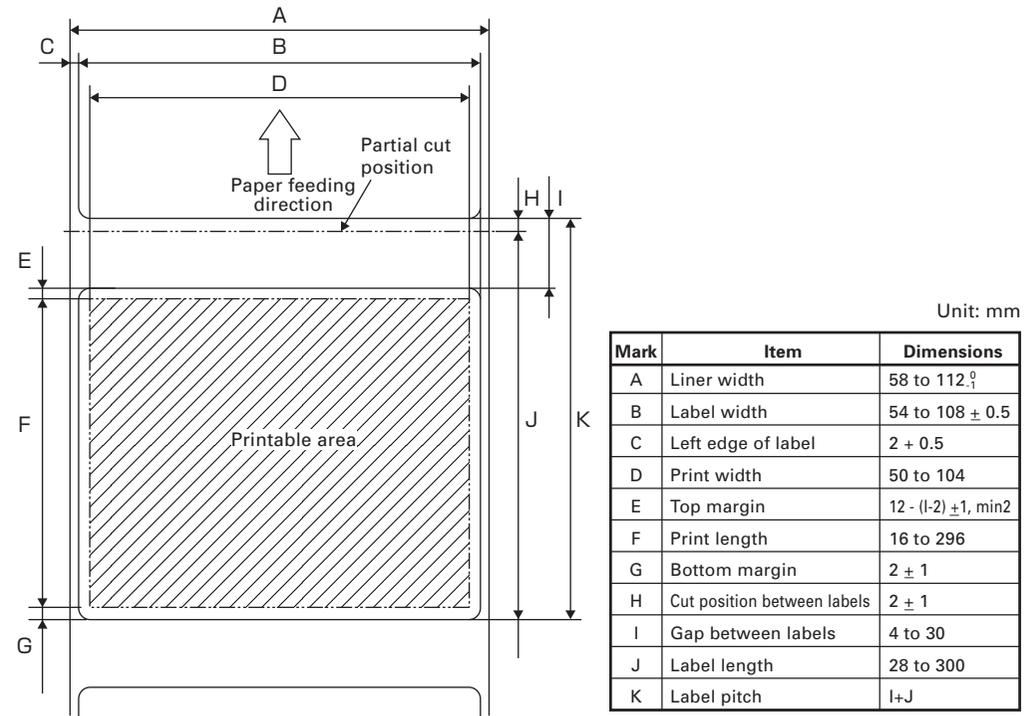
Also refer to the core dimension and notes of “5.2 Printing Paper” in User’s Manual of standard model. Use print paper shown in the following table or the equivalent.

Paper type	Product name
Recommended thermal label paper	GG40/P22/G6B from Ojita, HD75 from Nippon Paper, 150LA-1 from Ricoh

### a) Label paper



In the case of memory switch 4-8 set to 0 (OFF)



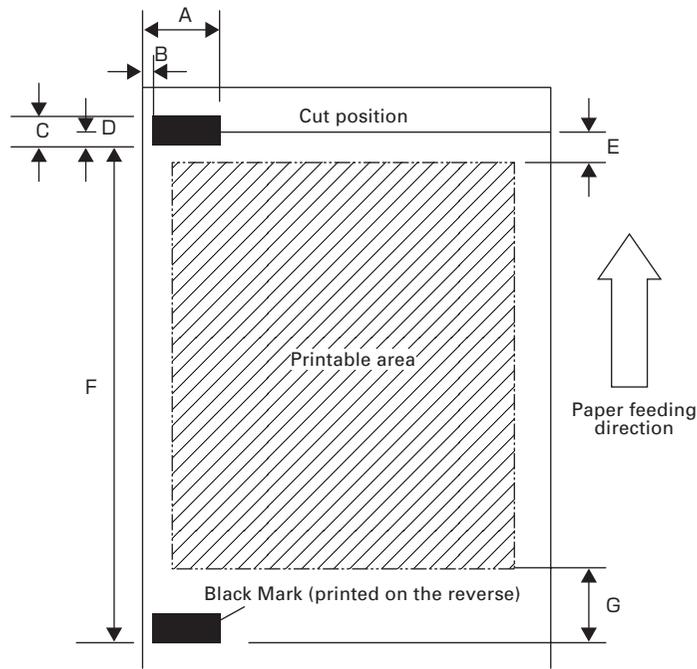
In the case of memory switch 4-8 set to 1 (ON)

### CAUTION!

Pay attention to the following when using Auto Cutter. Otherwise, a cutter lock or a cutter failure may occur.

- Set the cut length of paper to 25 mm or more.
- When using label paper, cut the gap between labels (liner sheet). Do not cut the label paper (tack paper).
- Adjusting the paper sensor must be carried when the type of liner is changed.

b) Black mark paper (BM paper)



Unit: mm

Mark	Item	Dimensions
A	Right edge of black mark	15 or more
B	Left edge of black mark	0 to 1.5
C	Black mark height	5
D	Cut position in black mark	2.5
E	Top margin	6.5 / 12
F	Black mark pitch	30 to 300
G	Bottom margin	9

Top margin will be changed by the setting of the memory SW4-8.  
 In the case of 0 (OFF), the top margin is 6.5mm.  
 In the case of 1 (ON), the top margin is 12mm.

**CAUTION!**

- PCS value of black mark must be 0.9 or more.
- When using the black mark paper, consider the margin of +/- 2 mm for the print position against the standard position and +/- 5 mm for print length.
- Refer to the above drawing for the printable area and have enough margins specified in the marks E and G. If the print data size is out of the printable area, the printer should skip to next page.