

ACTION 200

DIRECT THERMAL BAR CODE PRINTER

USER'S  
MANUAL

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# **1. Production Introduction**

Thank you very much for purchasing this bar code printer. The attractive desktop printer delivers superior performance at an economical price. Both powerful and easy-to-use, this printer is your best choice among desktop direct thermal bar code printers.

This bar code printer offers direct thermal printing at a high speed of 3 inches per second. It can accept a wide range of media, including roll feed, die-cut, and fan-fold labels or tags. All of the most frequently used bar code formats are available. Fonts and bar codes can be printed in any one of four directions. This printer provides a choice of five different sizes of alphanumeric fonts. By using font multiplication, an even greater range of sizes is possible. Smooth fonts can be downloaded from user friendly Windows label design software. In addition, this printer is capable of independently executing BASIC programming function, including arithmetic, logical operating, loop, flow-control and file management. This programming capability provides greatest efficiency in label printing. The status of printer and error messages may either be printed out or viewed on a monitor by means of the RS-232 connection.

## **1.1 Safety Regulation**

CE Class A, FCC Class A, UL (Switching Power)

## **1.2 Warranty Information**

The manufacturer warrants to the purchaser that under normal use and service this bar code printer (with the exception of the print head) purchased hereunder shall be free from defects in material and workmanship for a period of one year, from the date of shipment by the manufacturer.

Expendable items or parts such as labels are not covered by this warranty. This warranty does not cover equipment or parts which has been misused, altered, neglected, carelessly handled, or used for purpose other than those for which the printer was manufactured. This warranty also does not cover loss, damages resulting from accident, or damages resulting from unauthorized service.

### **1.2.1 Thermal Print Head**

The warranty of the thermal print head of this bar code printer is limited to 90 days from the date of shipment to buyer. The warranty does not cover thermal print head, which has been misused, altered, neglected, handled carelessly, or damaged due to cleaning or unauthorized repairs.

### **1.2.2 Warranty Service Procedures**

If defect should occur during the warranty period, the defective unit shall be returned, freight and insurance prepared, in the original shipping container to your purchased reseller or distributor. Include a contact name, action desired, and a detailed description of the problem and examples when possible. We shall not be responsible for any loss or damages incurred during shipping. Any warranty repairs to be performed by your purchased reseller or distributor shall be subject to said company' s confirmation that such product meets warranty guidelines, in the event of a defect covered by its warranty.

### **1.2.3 General Warranty Provisions**

The manufacturer makes no warranty as to the design, capacity, or suitability of any of its hardware, supplies or software. Software is licensed on an “ as is” basis without warranty.

Except to the extent expressly provided in this warranty and in lieu of all other warranties, expressed or implied, including, but not limited to any warranties of merchantability or fitness for a particular product.

Purchaser shall be solely responsible for the selection, use, efficiency and suitability of the products.

#### **1.2.4 Limitation of Liability**

In no event shall the manufacturer be liable to purchaser for any indirect, special, or consequential damages or lost profits arising out of or relating to these products, or if the performance or breach thereof, even if the manufacturer has been advised of the possibility thereof.

The manufacturer's liability, if any, to the purchaser or to the customers of purchaser hereunder shall in no event exceed the total amounts paid to the manufacturer hereunder by the purchaser for a defective product.

In no event shall the manufacturer be liable to purchaser for any damages resulting from or related to any failure or delay of the manufacturer in the delivery or installation of the computer hardware, supplies, or software in the performance of any services.

The remedies set forth here are the sole and exclusive remedies available to any person for any damages of any kind and nature including incidental, consequential, or special, whether arising from warranty (including implied warranties), contract, negligence, tort, or otherwise. In the event that any implied warranties (including but not limited to the implied warranties of merchantability and fitness for a particular purpose) are found to exist, such warranties are limited in duration to the period of the warranties.



## 1.3 Specifications

### 1.3.1 Printer

Type	Direct Thermal Printing
Resolution	203 DPI ( 8 dots per mm)
Printing speed	1.5" , 2" , or 3"/sec
Font styles	Five alphanumeric Fonts from 0.059" H (1.5 mm) to 0.23" (6.0mm), expendable vertically and horizontally up to 8X. Smooth fonts may be download from Windows label design software
Bar Codes	Code 39, Code 93, Code 128 UCC, Code 128 (Subsets A, B, C), Codabar, Interleaved 2 of 5, EAN-8, EAN-13, UPC-A, UPC-E, EAN and UPC with 2 digits add-on
2D bar codes	PDF-417, Maxicode, DataMatrix
Graphics	Mono PCX format

### 1.3.2 Indicators and Button

Indicators	READY, ERROR
Button	FEED

### 1.3.3 Communication Interface

Communication	RS-232C (DB-9) at 2400, 4800, 9600, 19200 baud rate and standard Centronics interface.
Character set	ANSI ASCII character set
Word Length	7 or 8 data bits, 1 start bit, 1 or 2 stop bits, and even, odd or none parity.
Handshaking	Xon/Xoff and DSR/DTR
Input Buffer	60KB

### 1.3.4 Power Requirement

Input Voltage	Switching power, 100-240 VAC, 50-60 Hz
Output Voltage	24 VDC
Circuit Protection	2A maximum

### 1.3.5 Environment

Operation temperature	41°F ~ 95°F ( 5 °C ~35 °C)
Storage temperature	-4 °F ~ 140 °F ( -20 °C ~60 °C)
Operation humidity	30%~85% non-condensing
Storage humidity	20%~95% non-condensing
Ventilation	Free air movement

### 1.3.6 Dimensions

Size	8.5" x7.85" x5.70" (WxDxH)(21.59cmx19.93cmx14.48cm) with external roll mount 11.54" D(29.31cm)
Weight	3.1 lbs (1.41kg) with external roll mount 4.4 lbs (2.0 kg)

## 1.4 Option

The optional portable LCD keyboard may be added to this bar code printer for stand-alone control of your printer in the absence of a personal computer.

## 1.5 Media Specifications

This printer is capable of direct thermal printing only and there is only one media that can be used, that is, direct thermal media, label or tag. Here below is the range of specifications.

Paper width	1" ~4.4" (25.4mm~114mm)
Paper length	0.4" ~90" (10mm~2286mm)
Thickness	0.002" ~0.009" (0.06mm~0.25mm)
Max. roll diameter (1" core)	5" (127mm)

## **1.6 Communication Interface**

This bar code printer is designed to work with any kind of computer device that is capable of generating ASCII output data. Depending on the model, the printer can be connected to a computer via its standard RS-232 or Centronics interface.

### **1.6.1 Serial Interface**

The serial port of this bar code printer is factory set to 9600 baud, no parity, 8 data bits and one stop bit using Xon/Xoff protocol as well as DSR/DTR handshaking.

When using an MS-DOS computer, you may want to include the following two lines in your AUTOEXEC.BAT file in order for the computer to automatically execute the commands when turned on:

```
MODE COM1:96,N,8,1
```

```
MODE LPT1:=COM1;
```

The commands above will configure and direct the serial output to COM1 serial port. If you are to use different ports, make appropriate substitutions.

The following table shows the pin assignments of the printer's RS-232 serial interface. Cable: DB9 Male to DB9 Female (PC) straight pin to pin connection or DB9 male to DB25 Female.

25 pin	9 pin	Host function	9 pin	Printer Function
3	2	RxD	2	TxD
2	3	TxD	3	RxD
20	4	DTR	4	N/C
7	5	GND	5	GND
6	6	DSR	6	RDY
4	7	RTS	7	N/C
5	8	CTS	8	RDY

## 1.6.2 Parallel Interface

Connector Type: Centronics 36-pin

Pin	Function	Transmit
1	/Strobe	Host
2-9	Data 0~7	Host
10-11	Busy	Printer
12	Paper empty	Printer
13	Connect to 5V DC	Printer
14-16	N/C	---
17	Ground	---
18	N/C	---
19-30	/ERROR	Printer
31	Ground	---
32	N/C	Printer
33-35	Ground	---
36	N/C	---

## **2. Getting Started**

### **2.1 Unpacking and Inspection**

The printer has been specially packaged to withstand damage in the shipping process. However, for fear that unexpected damage might occur, upon receiving the bar code printer, carefully inspect the package and the device. In case of evident damage, contact the carrier directly to specify the nature and extent of the damage. Please retain the packaging materials in case you need to reship the printer.

### **2.2 Equipment Checklist (Refer to Figure 2-1)**

- One bar code printer (1)
- Direct thermal label (2) (Optional)
- One roll spindle (3)
- Quick installation guide (4)
- One AC adapter and power cord (5)
- Two external roll mount supports (6)
- One external roll mount base plate (7)
- Communication cable (8) (Optional)
- Windows label design software (9)

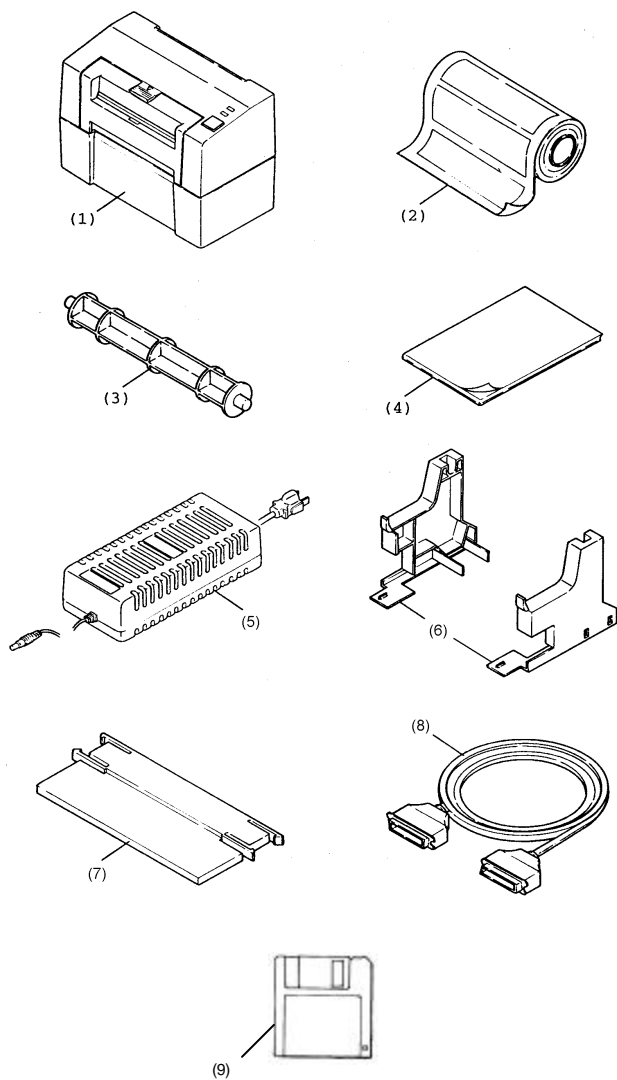
Separately purchased items may also be included. These additional items may include:

Additional direct thermal label

Portable LCD keyboard

If any parts are missing, please contact the Customer Service

Department of your purchased reseller or distributor.

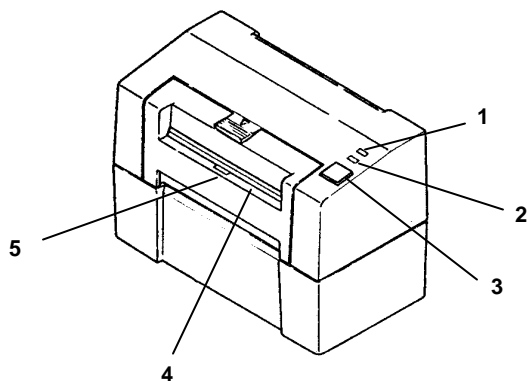


**Figure 2-1**



## 2.3 Printer Parts

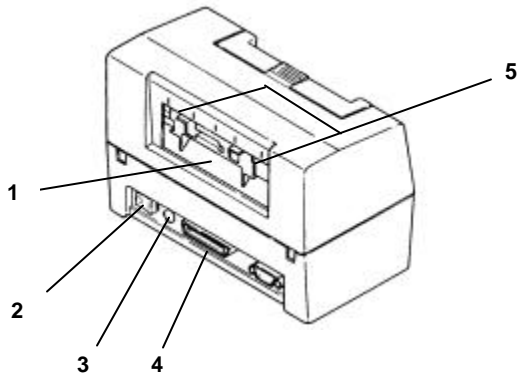
### 2.3.1 Top Front View



**Figure 2-2**

1. **ERROR** Indicator
2. **READY** Indicator
3. **FEED** Button
4. Label Dispense Opening
5. Peel-off Sensor

### 2.3.2 Rear View

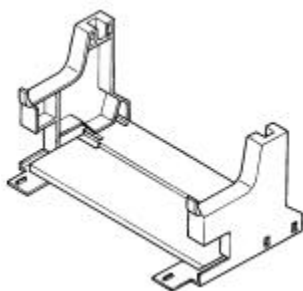


**Figure 2-3**

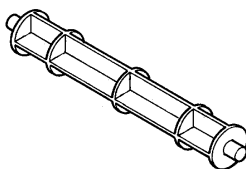
1. Label Insert Opening
2. Power Switch
3. Power Jack
4. Centronics Interface Connector
5. Paper Guide

### 2.3.3 External Roll Mount

(1)



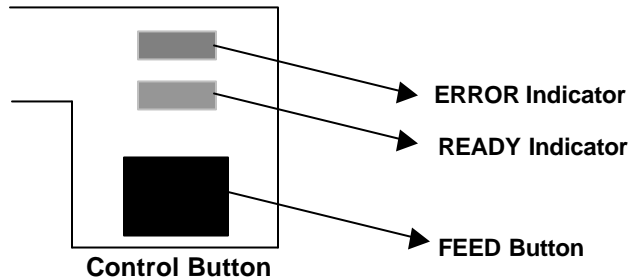
(2)



**Figure 2-4**

1. External Roll Mount
2. Spindle

## 2.3.4 Control Panel



### Button

#### **FEED Button**

Press the **FEED** button to feed the label to the beginning of the next label.

### Indicators

#### ✦ **READY Indicator**

When the power is activated and label properly loaded, the **READY** indicator will turn on.

#### ✦ **ERROR indicator**

The **ERROR** indicator will light on if the label is not properly loaded or when the printer is out of labels.

#### ✦ **Syntax Error Indication**

When a malfunction is detected or when a program error occurs, a syntax error message will be printed out on the label, and **ERROR** and **READY** indicators will flash in turn. For detailed information, please refer to the Troubleshooting section.

## **3. Using the Bar Code Printer**

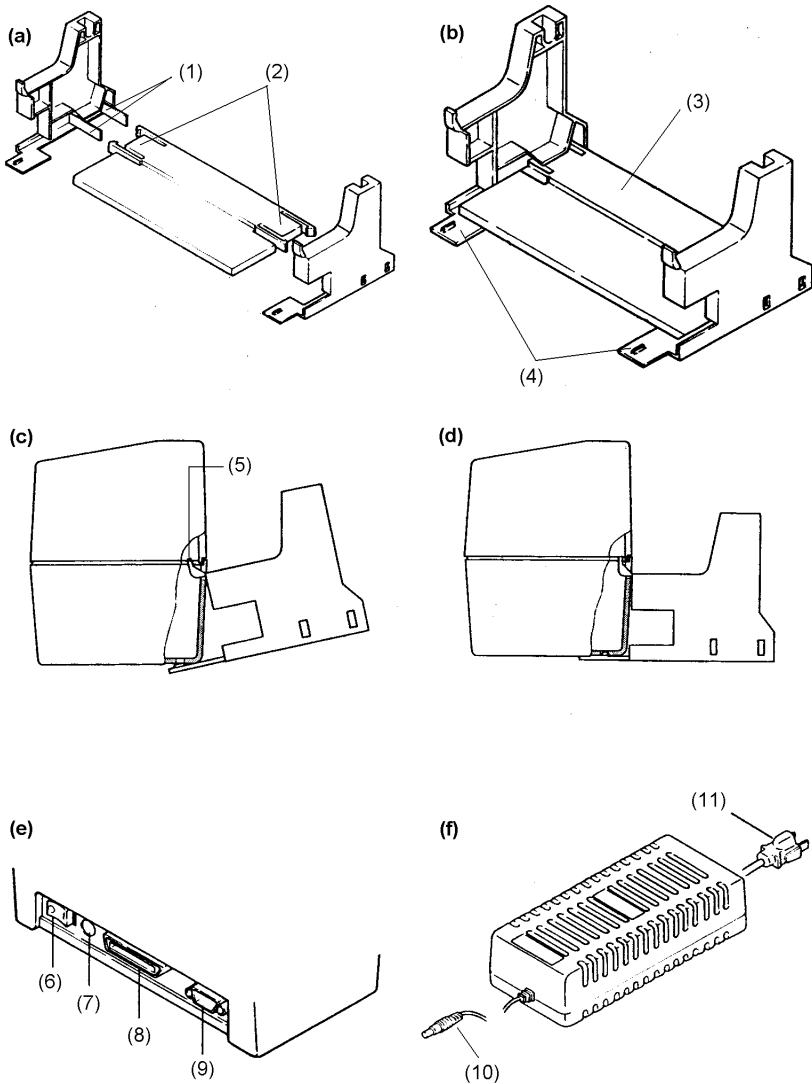
### **3.1 Setting Up the Printer (Refer to Figure 3-1)**

#### **3.1.1 Setting Up the External Roll Mount**

1. Insert the tenons (1) of external roll mount supports into the slots (2) of the base plate as depicted in (a).
2. Make sure the roll mount supports are tightly connected to the slots of the base plate (3) as shown in (b).

#### **3.1.2 Setting Up the Printer**

1. Make sure the power is off.
2. Lay the front surface of the printer on a flat and stable table. Insert the two hooks (5) of the external roll supports into the back of the printer as depicted in (c). Then press down on the external roll mount until the tenons (4) of the external roll supports snap into the bottom of the printer mechanism, as shown in (d).
3. Connect the Centronics or RS-232 cable to corresponding ports (8) or (9) at the rear of printer. Connect the other end of the cable to your computer.
4. Plug the power cord (10) into the power jack (7) at the rear of the printer, and then plug the power cable (11) into a properly grounded wall outlet.



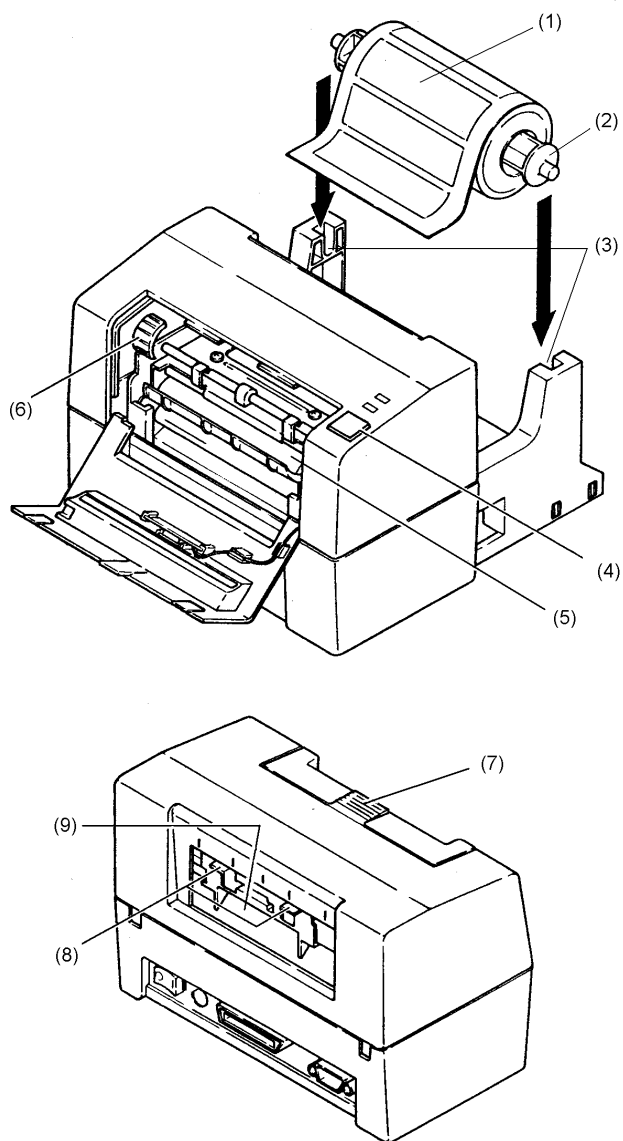
**Figure 3-1**

### 3.2 Installing the Label (Refer to Figure 3-2)

**Note:** (1) In order to avoid jammed or stuck labels, remove any curled or damaged labels from the label roll before installation.

(2) Open the paper guide to its maximum width before loading the labels.

1. Insert the spindle (2) into the core of the label roll.
2. With the label printing area (1) facing up. Place the label spindle onto the two slots (3) of external roll mount supports.
3. Insert and push the label into the label insert opening (9) until it stops.
4. Press and hold the **FEED** button (4) until the front edge of the label roll ejects approximately half an inch out of the printer's label dispense opening (5).
5. If the label roll is not centered within the feeder slot, open the front cover by pushing down the release button of front cover (7). Push the paper release button (6) to the back and hold it to adjust the label to its proper position, then release the paper release button and close the front cover.
6. Rewind the label roll to remove any slack and adjust the paper guides (8) until they are close to the edges of the label roll without bending the edges.
7. Press the **FEED** button until the **READY** indicator is on, then the label is properly installed.



**Figure 3-2**

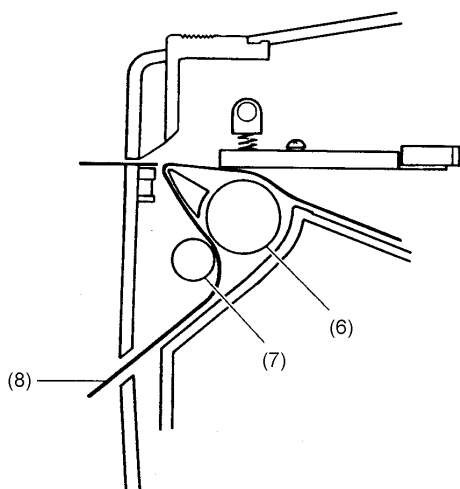
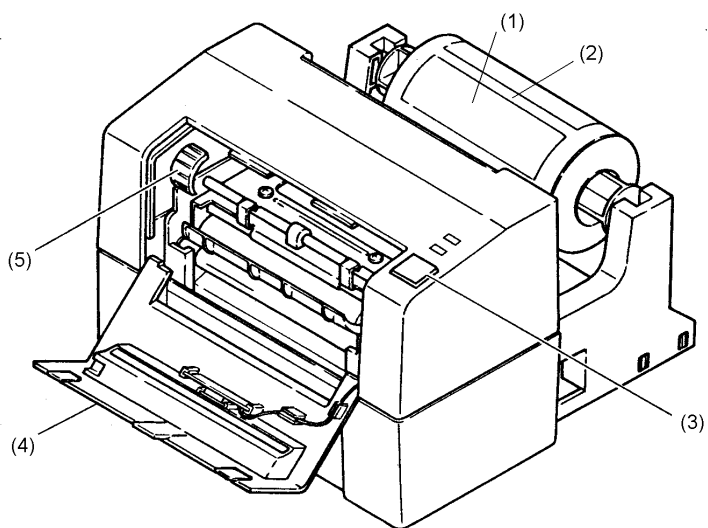


### 3.3 Peel-off Function (Refer to Figure 3-3)

In peel-off function, the printed label will be stripped from the liner paper automatically. Follow the steps below:

1. Follow the directions in the previous section “Installing the label” to load the label well.
2. Press the **FEED** button (3) until about 3 inches of the label extends out of the label dispense opening. Open the front cover (4).
3. Tear off the label (1) from the liner paper (2). Place the front edge of the liner paper between the platen (6) and the stripping roller (7) and push in until it stops.
4. Press the **FEED** button until the liner paper is out of the bottom of the stripping roller, as shown in (8)
5. Push the paper release button (5) to the back and hold it to adjust the position of the label. Rewind the label roll until the label is pulled tight between the platen and the stripping roller. When the labels have been properly adjusted, release the paper release button.
6. Press and release the **FEED** button until the front edge of next label is visible.
7. Close the front cover. The installation now is complete.

***Note: The self-peeling function is an optional device***

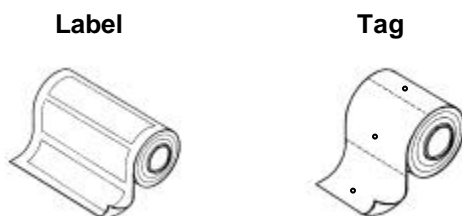


**Figure 3-3**

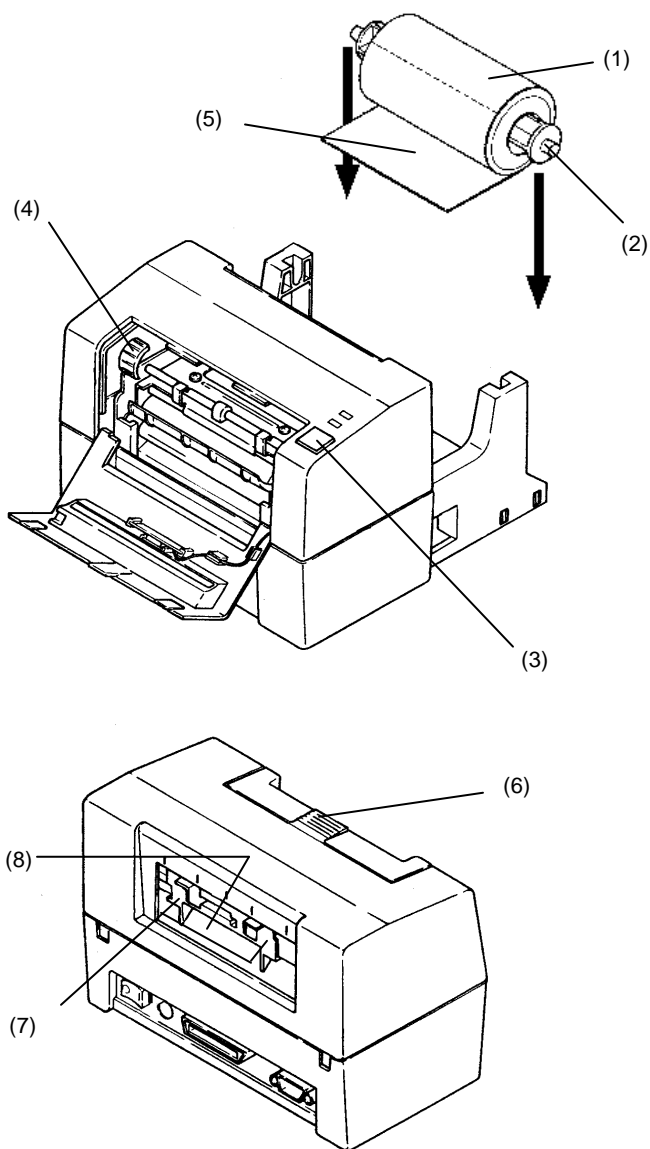
### 3.4 Installing the Tag (Refer to figure 3-4)

**Note:** (1) The major difference between tag and label is that there is no adhesive liner paper on the back of the tag.

(2) The only difference between installing tag and label is that the tag roll unwinds from the bottom as depicted.



1. Insert the spindle (2) into the core of the tag roll (1).
2. With the tag roll setting to unwind from the bottom (5), place the spindle onto the slots of the external roll mount supports.
3. Push the front edge of the tag into the label insert opening (8) until it stops.
4. Press and hold the **FEED** button (3) until the front edge of tag feeds out of the label dispense opening of the printer.
5. Open the front cover by pushing down the front cover release button (6), then push the paper release button (4) to the back and hold to adjust the tag to its proper position.
6. Rewind the tag roll to remove any slack and adjust the paper guides (7) until they are close to the edges of the tag roll.
7. Press and release the **FEED** button until the **READY** indicator is on.  
The installation now is complete.



**Figure 3-4**

## **3.5 Label Design Software Installation**

### **3.5.1 Installing Label Design in Windows 3.X**

1. Insert Disk1 of the label design software into the 1.44 MB floppy drive.
2. From the File menu, select Run.
3. Enter "a:\setup.exe" in the dialog box and press Enter. (If your floppy drive has a different drive designation, enter the correct path, for example, "b:\". )
4. Follow the on-screen prompts to complete the installation.

### **3.5.2 Installing Label Design Software in Windows 9X**

1. Insert Disk1 of the label design software into the 1.44 MB floppy drive.
2. Open the Windows Start menu and select Run.
3. Enter "a:\setup.exe" in the dialog box and press Enter. (If your floppy drive has a different drive designation, enter the correct path, for example, "b:\". )
4. Follow the on-screen prompts to complete the installation.

Refer to the label design software User's Guide included with the disks for more information of instruction and label designing.

### 3.6 Printer Initialization

To initialize the printer, press the **FEED** button while turning on the printer. Instantly the red and green indicators will flash alternately. Press the **FEED** button again and the printer will be initialized.

***Note: Please calibrate the gap sensor again after printer initialization is done.***

### 3.7 Self Test Mode and Gap Detection

To initiate the self-test mode, depress the **FEED** button while turning on the printer power. Instantly the red and green LEDs will flash alternately. Release the button when this happens, wait for 10 seconds, and the printer will calibrate the label length as well as detect the gap sensor emission strength. If the label gap is not detected within 7 inches, the printer stops feeding labels and the media is treated as continuous paper. In self-test mode, a check pattern is used to check the performance of the thermal print head. Following the check pattern, the printer prints internal setting as listed below:

#### PRINTER INFO.



MILAGE(Km):0.22  
FLASH TIMES:29  
CHECK SUM:48CE  
SERIAL PORT:96,N,8,1  
CODE PAGE:437  
COUNTRY CODE:001  
SPEED:2 INCH  
DENSITY:09  
SIZE:4.02,4.02  
GAP(BLINE):0.15,0.00  
TRANSPARENCE:04,04,04  
\*\*\*\*\*  
FILE LIST:  
TOTAL FLASH: 192 K BYTES  
AVAIL FLASH: 192 K BYTES  
TOTAL RAM: 1984K BYTES  
AVAIL RAM: 1950K BYTES  
END OF FILE LIST  
\*\*\*\*\*  
NOW IN DUMP MODE

- |                                     |  |
|-------------------------------------|--|
| 1. Print head test pattern          | 9. Print speed setting                   |
| 2. Printer Model & Firmware Version | 10. Print density setting                |
| 3. Mileage                          | 11. Label size setting                   |
| 4. Flash times                      | 12. Gap (Bline) width and offset setting |
| 5. Firmware check sum               | 13. Liner paper transparence             |
| 6. Serial port setting              | 14. File list                            |
| 7. Parallel port setting            | 15. Memory available                     |
| 8. Country code setting             |  |

**Note:** Avoid using labels that are too thick to be detected by the gap sensor (emission strength). Else, the error message “Out of Paper” may appear.



### 3.8 Dump Mode

After the Self-Test mode, the printer is in Dump Mode. In Dump Mode, any characters received from the host computer will be printed in two columns as follows: on the left side of the paper are the characters received and on the right side are the corresponding hexadecimal values of the characters. This allows the user to verify programming commands and debug the program. To exit Dump Mode, turn off and then on the printer.

```
*****
NOW IN DUMP MODE

DOWNLOAD *DE 44 4F 57 4E 4C 4F 41 44 20 22 44 45
MO2.BAS" SI 4D 4F 32 2E 42 41 53 22 0D 0A 53 49
ZE 4.00,5.00 5A 45 20 34 2E 30 30 2C 35 2E 30 30
CLS SPEED 0D 0A 43 4C 53 0D 0A 53 50 45 45 44
1.5 DENSIT 20 31 2E 35 0D 0A 44 45 4E 53 49 54
Y 10 DIRECT 59 20 31 30 0D 0A 44 49 52 45 43 54
ION 0 SET C 49 4F 4E 20 30 0D 0A 53 45 54 20 43
UTTER OFF S 55 54 54 45 52 20 4F 46 46 0D 0A 53
ET DEBUG LAB 45 54 20 44 45 42 55 47 20 4C 41 42
EL REFERENC 45 4C 0D 0A 52 45 46 45 52 45 4E 43
E 0.0 A=100 45 20 30 2C 30 0D 0A 41 3D 31 30 30
0 Y=100 FO 30 0D 0A 59 3D 31 30 30 0D 0A 46 4F
R I=1 TO 3 52 20 49 3D 31 20 54 4F 20 33 0D 0A
BARCODE 100, 42 41 52 43 4F 44 45 20 31 30 30 2C
Y, "39".96,1. 59 2C 22 33 39 22 2C 39 36 2C 31 2C
0.2,4,STR$(A 30 2C 32 2C 34 2C 53 54 52 24 28 41
) A=A+1 Y= 29 0D 0A 41 3D 41 2B 31 0D 0A 59 3D
Y+150 NEXT 59 2B 31 35 30 0D 0A 4E 45 58 54 0D
PRINT 1 EO 0A 50 52 49 4E 54 20 31 0D 0A 45 4F
P DEMO2 50 0D 0A 44 45 4D 4F 32 0D 0A
```

**Note:** If the gap sensor does not locate gaps precisely, perform the self test function described in the foregoing section to calibrate the gap sensor.

## 4. Maintenance

Periodically clean the printer external cover by wiping it with a soft cloth that has been dampened with water. Never use abrasive cleaners or solvents to clean the printer, as it will cause damage by these ways.

Once a week, clean the printer head by carefully wiping it with a soft cloth soaked with alcohol. Following the maintenance procedures below will ensure longer service life with higher printing quality.

### 4.1 Pre-maintenance

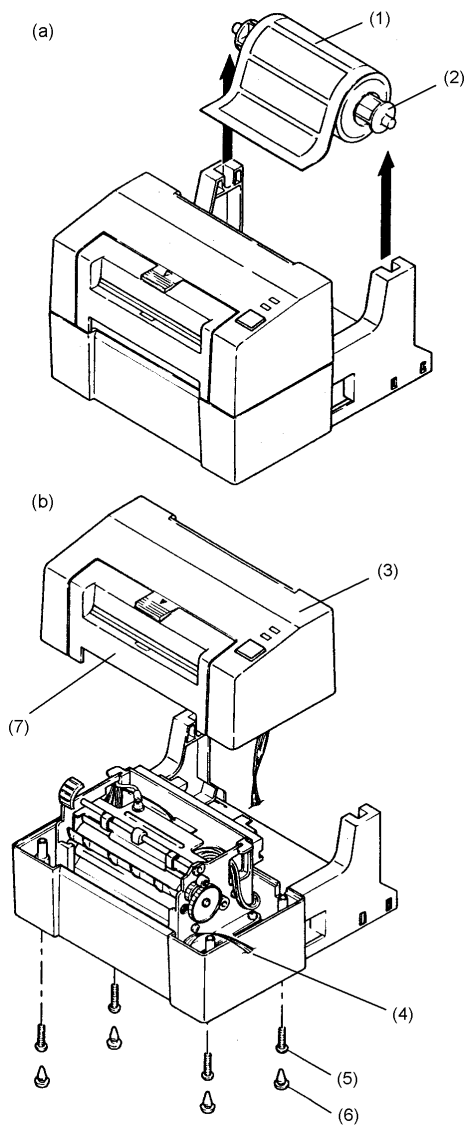
The problem that frequently happens is that the label is jammed or stuck in the print head or the feeder mechanism. The easiest way to avoid it is to make sure the label is closely adhered to the liner paper .

**Note :** Before you start the maintenance procedures, make sure the power is off and remove the interface cable and plug from the printer.

### **4.1.1 Removing the Upper Cover (Refer to Figure 4-1)**

Before starting to take care of the problem inside the printer, follow the steps below to remove the upper cover (3).

1. Remove the label roll (1) or tag roll and spindle (2).
2. Remove the upper cover (3) as shown in (b):
  - a. Turn the printer upside down.
  - b. Pull out the four rubber pads (6).
  - c. Remove the four screws (5).
  - d. Remove the upper cover. You may also need to unplug the cable of peel-off sensor connector (4) from the front cover (7).



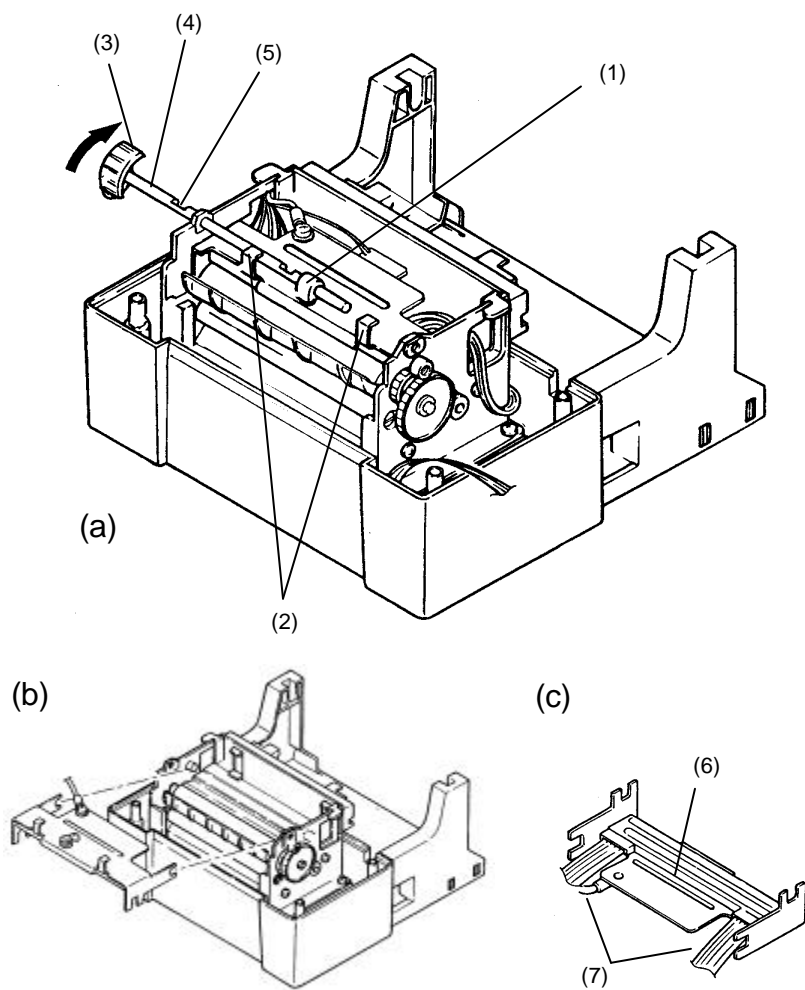
**Figure 4-1**

## 4.2 Removing labels stuck on the print head (Refer to Figure 4-2)

**Note:** Static electricity will damage the print head. Touch any grounded object such as a metal doorframe to discharge yourself before touching the print head. Avoid any action that might possibly cause lots of static electricity like chafing your feet on the carpet.

1. Follow the steps below to remove the print head:
  - a. Rotate the paper release button (3) and push out the release lever rod (4) while pushing and holding down the spring holder (c) until the two slots (5) in the release button are out of the hooks (2).
  - b. Remove the screw of spring (1).
  - c. Take out the print head bracket, as shown in (b).
  - d. Unplug the connector (7) from the print head.
2. Turn over the print head (6), as shown in (c) and check for anything stuck on it.
3. Use clean soft cloth soaked with alcohol to clean the print head (6) carefully.

After all the steps described above have been finished, and the mechanism is cleaned up, reassemble the printer in the reverse order of removal. For detail procedures, refer to section 4.4 “Reassemble the Removal”.



**Figure 4-2**

### 4.3 Removing Label stuck in the Feeder Mechanism (Refer to Figure 4-3)

Remove the upper cover as described earlier in section 4.1.1 “Removing the upper cover” .

Follow the steps below to remove the label guides assembly (2:

- a. Squeeze the left and right latches (1) of the label guide assembly together toward each other, in the direction as shown in \* of Figure 4-3.
- b. Pull the label guides assembly up and away, in the direction as shown in \*\* of Figure 4-3, from the mechanism to remove. Be careful not to pull too strongly to break the cable of gap sensor.

Check the label guides assembly for stuck labels. Also check for material that may obstruct the gap sensor that is located on the bottom surface of the guide assembly.

Use clean soft cloth soaked with alcohol to clean the stuck label carefully.

After all the steps described in above have been finished, and the mechanism is cleaned up, reassemble the printer in the reverse order of removal. For detail procedures, refer to section 4.4.

**Warning :** Never use any metal to scrap stuck material from the print head, for this will cause damage.

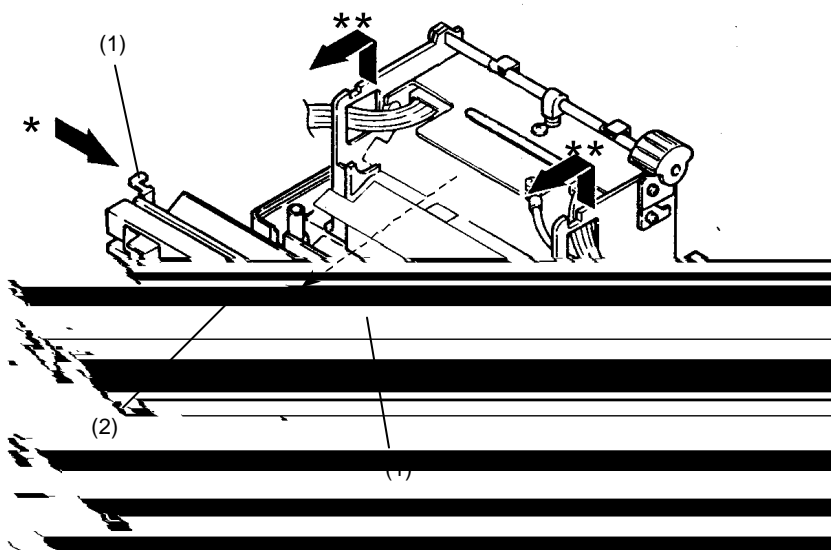


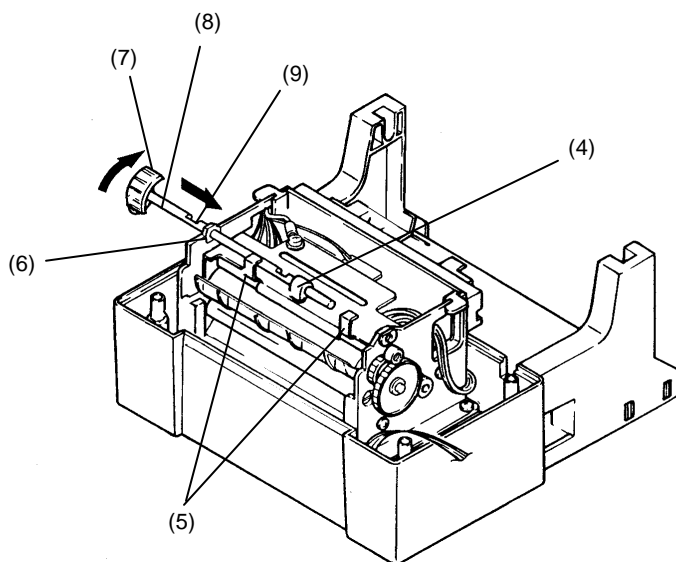
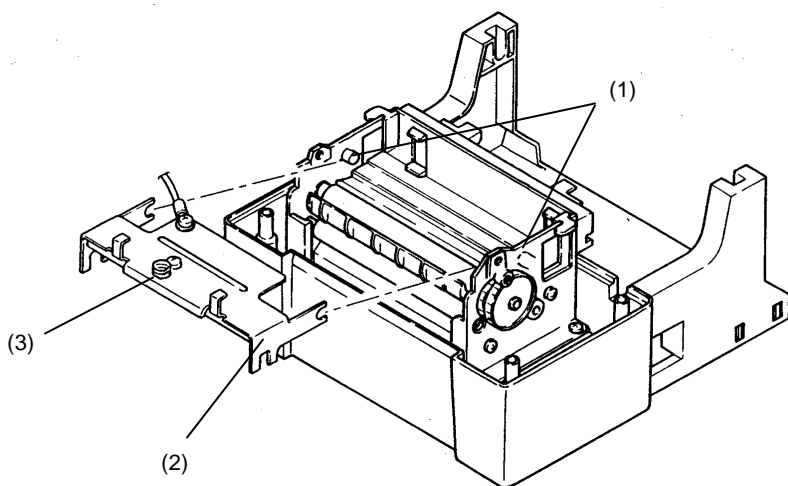
Figure 4-3



## **4.4 Reassemble the Removal**

### **4.4.1 Reassemble the Print Head (Refer to Figure 4-4-1)**

1. Slantingly put the bracket (2) of the print head onto the two supports (1) of the main mechanism.
2. Set the spring set (4) on the spring (3).
3. Rotate the paper release button (7) and the release lever rod (8) backward.
4. Insert the release lever rod and the release button through the left bearing set (6). While pressing the spring set down, push the release lever rod through the spring set and the right bearing set.
5. Rotate the paper release button and the release lever rod toward the front until the two slots (9) of the release lever rod are aligned under the hooks (5) of the bracket.
6. Connect the cable between the print head and the main mechanism.  
The reassembling of print head has been done.



**Figure 4-4-1**

#### 4.4.2 Reassemble the Feeder Guide Mechanism (Refer to Figure 4-4-2)

1. Push the feeder guide assembly (3) down and toward the printer.
2. Snap the two latches (2) of feeder guide assembly into the slots (1) of main mechanism.

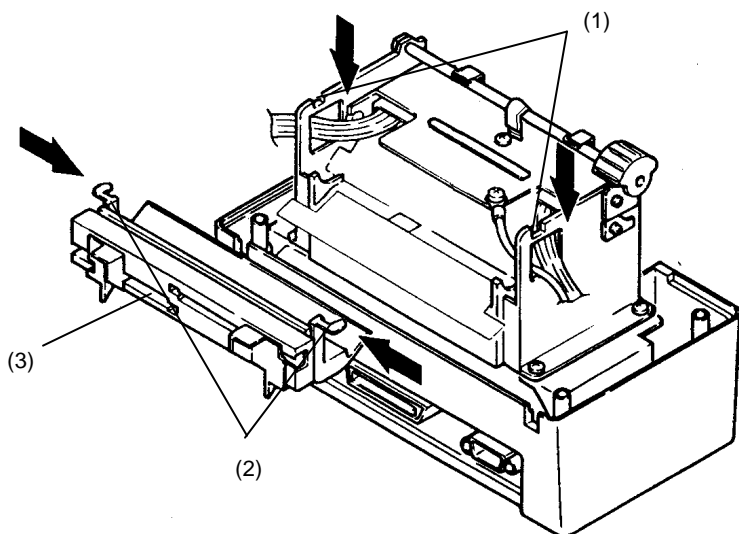
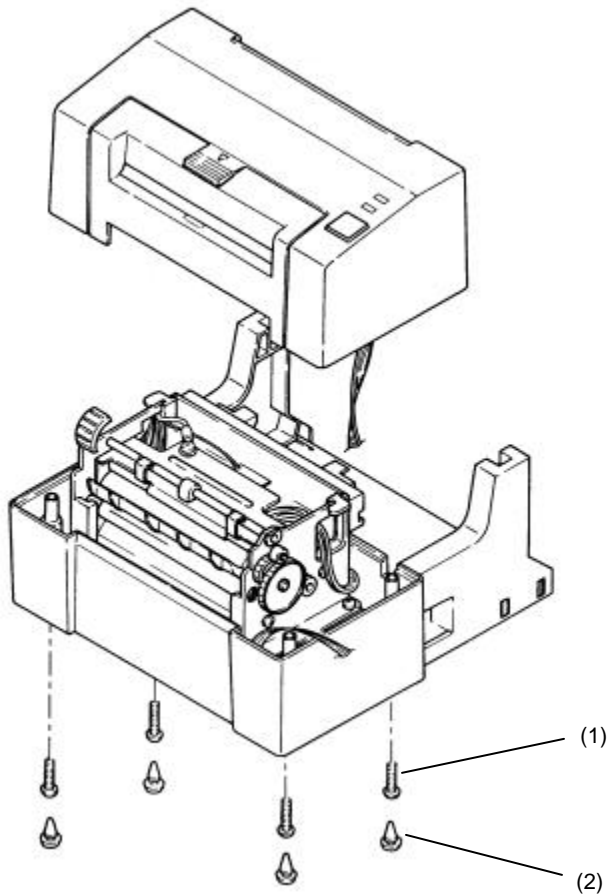


Figure 4-4-2

### 4.4.3 Reassemble the Upper Cover (Refer to Figure 4-4-3)

1. Locate the upper cover over the printer mechanism and reconnect the cables which had been unplugged.
2. Turn the printer upside down.
3. Screw in the four screws (1).
4. Insert the four rubber pads.(2)



**Figure 4-4-3**

## 4.5 Troubleshooting

The following is a list of symptoms and solutions for the most commonly encountered problems:

Problem Symptom	Solution
1.Both indicators are off if the printer is turned on.	Check all the power connections of the printer. Be sure that the AC adapter is connected to the printer and the power is plugged into an active outlet.
2.The <b>READY</b> indicator is on, but the printer doesn't work.	Check the interface cables between the printer and the computer are correct and securely attached.
3.The printer appears to be working but does not print.	Check that the label roll is properly loaded with the labels facing up. Make sure you are using thermal direct labels.
4.The printing quality is poor.	Clean the print head carefully (Refer to section 4.2). Adjust the darkness setting, or run the printer in a slower printing speed.
5.The labels are not completely printed.	Check for and remove any label stuck on the print head.
6.Problems on loading labels roll.	Check for and remove any label sticks on the print head or inside the feeder guide assembly.
7.Labels are stuck on the print head.	Remove stuck labels and make sure any curled or damaged label is removed from the label roll prior to loading.

8.The printer continues to print even though it has run out of labels.	Check for and remove any label sticks on the gap sensor or paper guide.
9.Printing stops and the indicators are flashing between <b>READY</b> and <b>ERROR</b> .	<ul style="list-style-type: none"> <li>a. Program error happens, use the “Dump Mode” to debug.</li> <li>b. Check if the label gap is too small. The label gap must be larger than 1/16 inch.</li> <li>c. Check and remove any stuck label on gap sensor.</li> </ul>
10.A large amount of black graphics printed on the label and the darkness is not adequate.	Run the printer at a slower speed.

