RL-42TT

Thermal Printer

Operation Manual

RICE LAKE WEIGHING SYSTEMS

ISO 9001 REGISTERED

108223

Contents

Technical training seminars are available through Rice Lake Weighing Systems. Course descriptions and dates can be viewed at www.ricelake.com or obtained by calling 715-234-9171 and asking for the training department.

November 2008

About This Manual

This manual is intended for use by qualified service technicians responsible for installing and servicing the *RL-42TT* printer.

Authorized distributors and their employees can view or download this manual from the Rice Lake Weighing Systems distributor site at **www.ricelake.com**.

Warning *Danger of explosion if battery is incorrectly replaced. Replace only with the equivalent type recommended by the manufacturer. Dispose of batteries according to the manufacturer's instructions.*

1.0 Introduction

After unpacking, check to make sure all accessories are included:

- Barcode printer
- Power cord
- Switching power
- USB cable
- Label
- Ribbon
- Empty ribbon roll
- Clean card

1.1 Safety Instructions

- Keep the equipment away from humidity.
- Before you connect the equipment to the power outlet, check the voltage of the power source.
- Disconnect the equipment from the voltage of the power source to prevent possible transient over-voltage damage.
- Don't pour any liquid near the equipment, as it may result in electric shock.
- Only qualified service personnel should open the equipment.
- Don't repair or adjust energized equipment alone under any circumstances. Someone capable of providing first aid must always be present for your safety.

1.2 Printer Parts

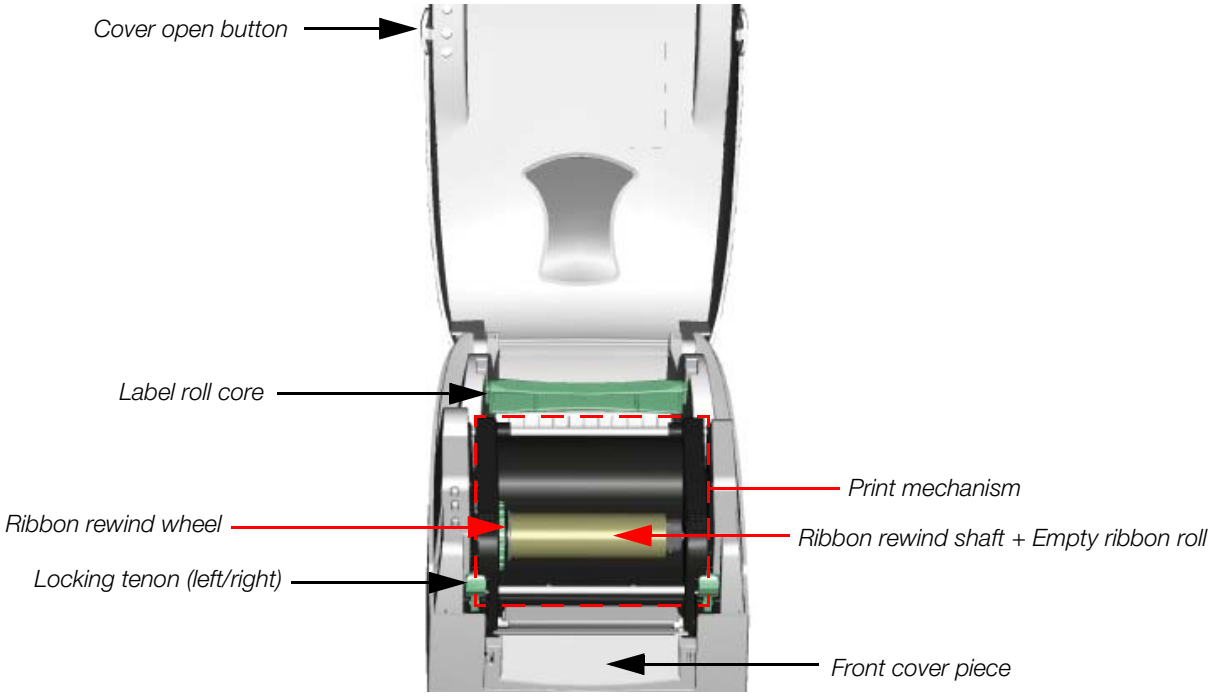


Figure 1-1. Top cover lifted, printer parts illustrated

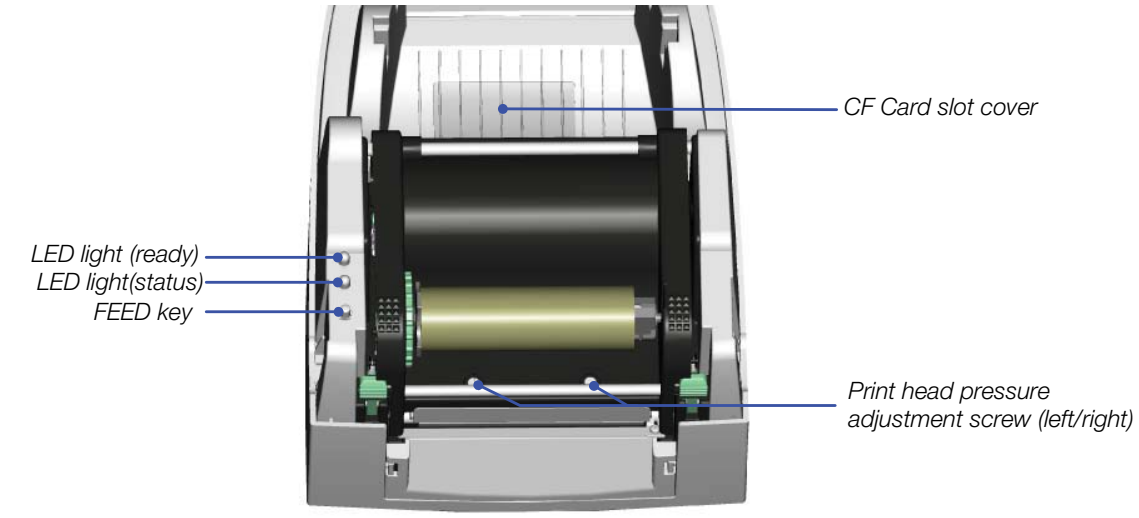


Figure 1-2. Inside of printer

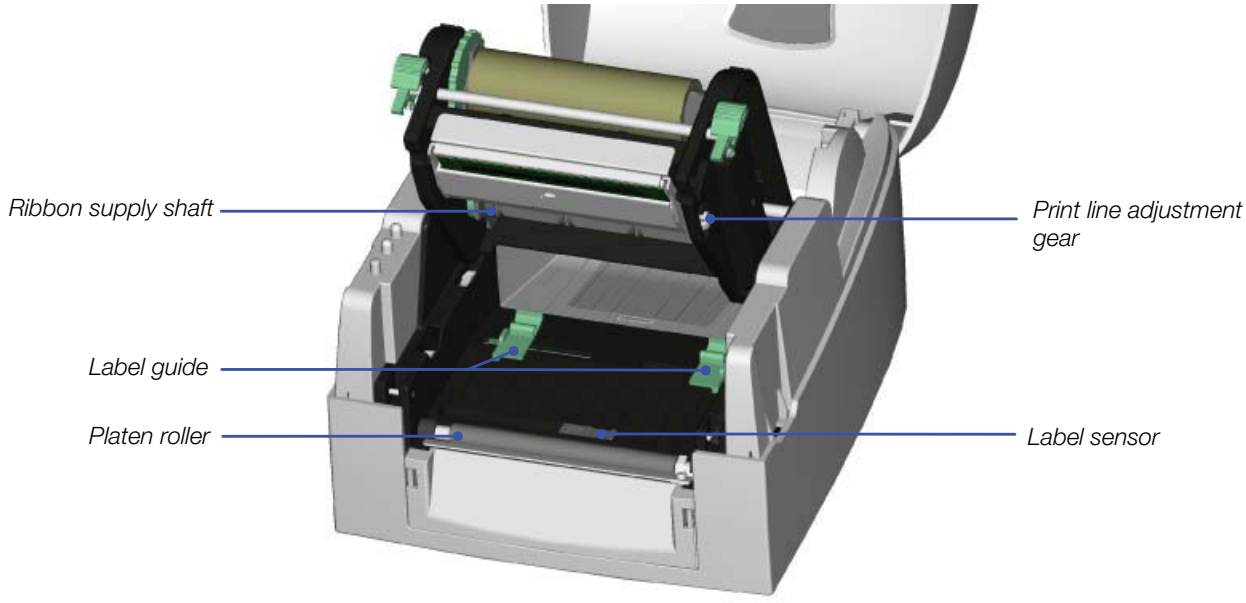


Figure 1-3. Inside of printer, print mechanism lifted

Figure 1-4. Back of printer

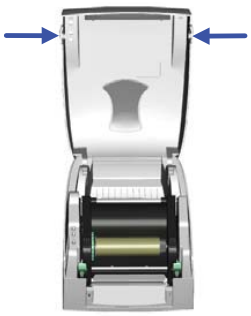
2.0 Installation

This section contains information on installing the ribbon, labels, label roll core and cord/hang tags. It also contains instructions on connecting to a PC.

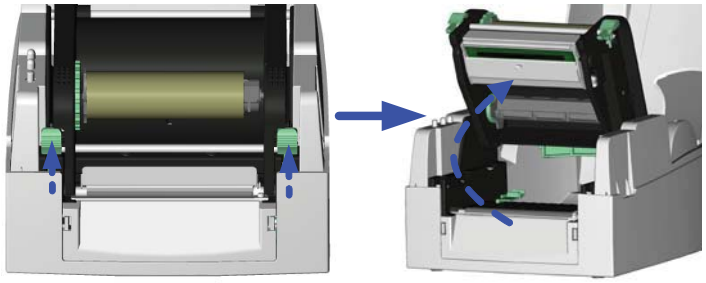
2.1 Ribbon Installation

1. Place the printer on a horizontal surface.

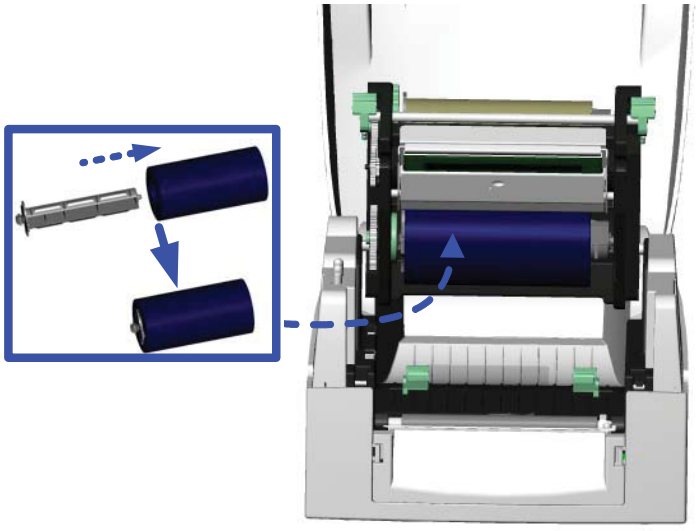
2. Open the top cover by pressing the cover open buttons on both sides and lifting.



3. Loosen and lift the upper print mechanism by pressing the locking tenons.

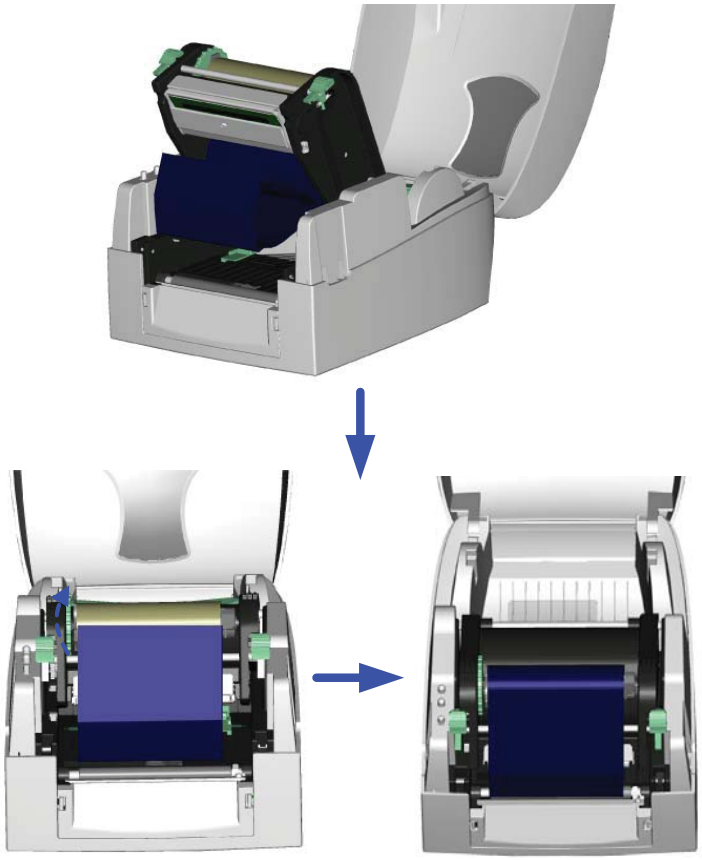


4. Place a new ribbon roll onto the ribbon supply shaft.



5. Feed the ribbon from the ribbon supply shaft under the print head.

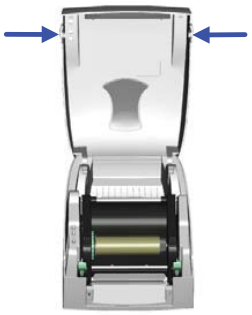
6. Wrap the ribbon around the ribbon shaft and stick the ribbon onto the empty ribbon roll core.



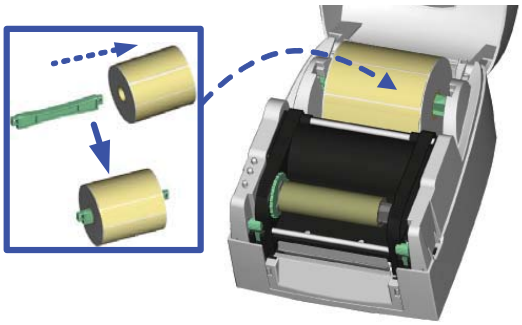
7. Close the upper print mechanism from the top to finish ribbon installation.

2.2 Label Installation

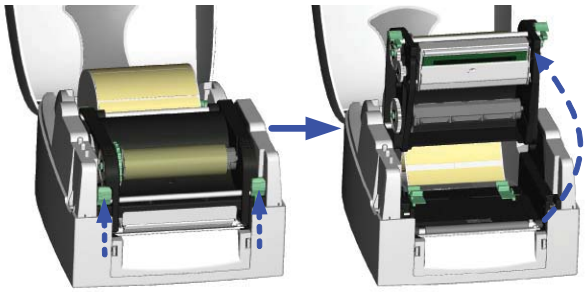
1. Open the top cover by pressing the cover open buttons on both sides and lifting.



2. Place the label roll onto the label roll core.

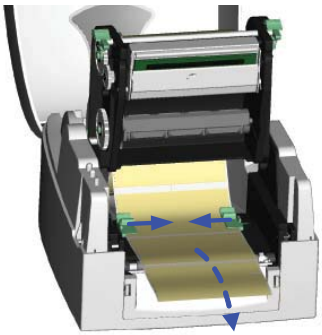


3. Loosen and lift the upper print mechanism by pressing the locking tenons.



4. Feed the label through the two label guides to the tear-off bar.

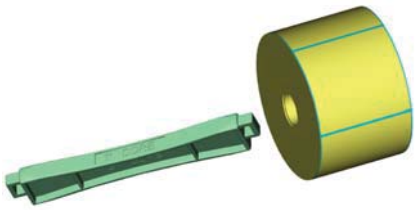
5. Align the label guides to the label edge.

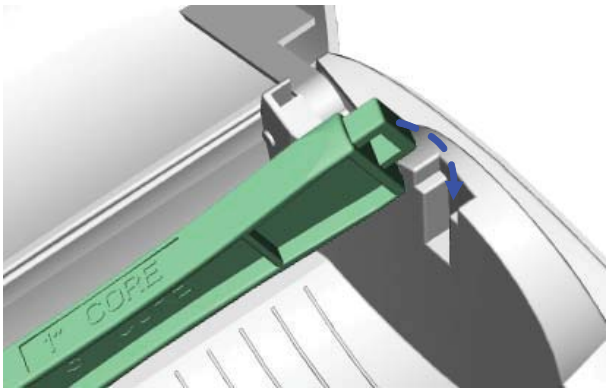


6. Close the upper print mechanism from the top to finish label installation.

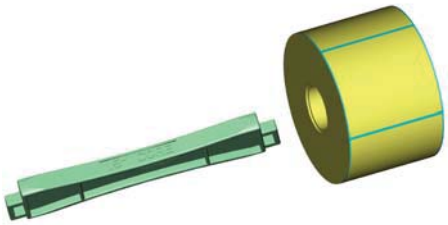
2.3 Label Roll Core Installation

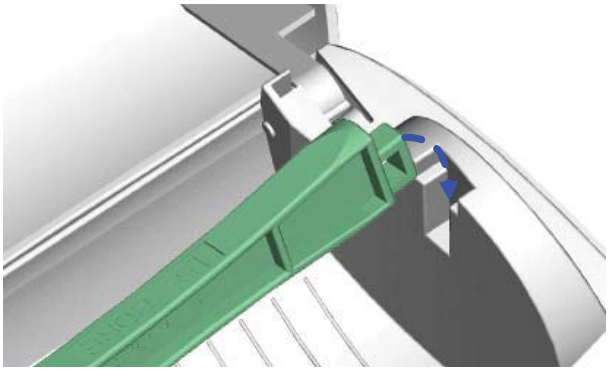
1” roll core installation



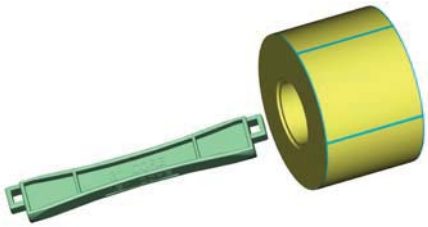


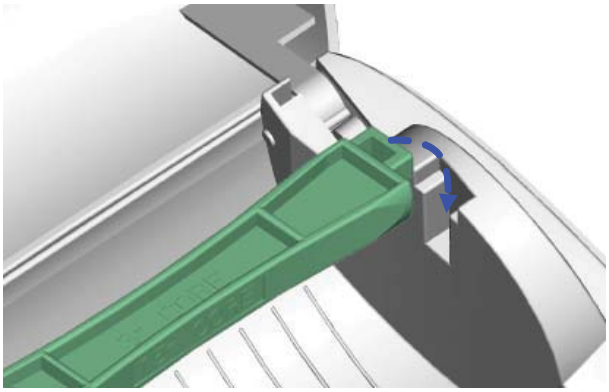
1.5” roll core installation





3” roll core installation





2.4 Cord/Hang Tags Installation

When installing cord tags, the tag hole must align with the sensor arrow as indicated in Figure 2-2. Then, use the label guide to secure the tags.

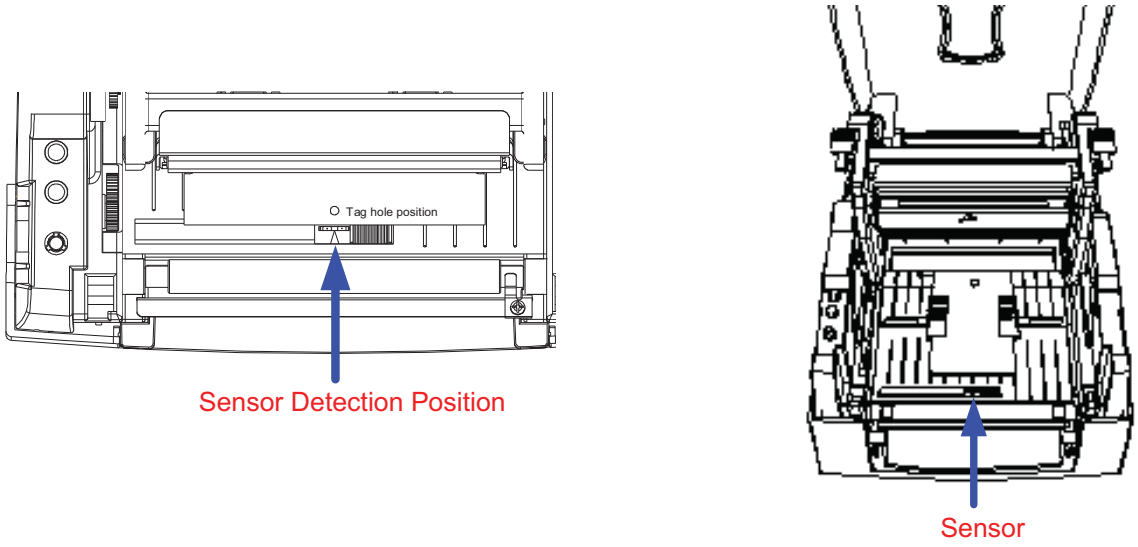


Figure 2-1. Sensor detection position and sensor location

2.5 PC Connection

1. Make sure the printer is powered off.
2. Take the power cable, plug the cable switch to the power socket, then connect the other end of the cable to the printer power socket.
3. Connect the cable to the USB/parallel port on the printer and on the PC.
4. Power on the PC and printer. The printer's LED light will turn on.

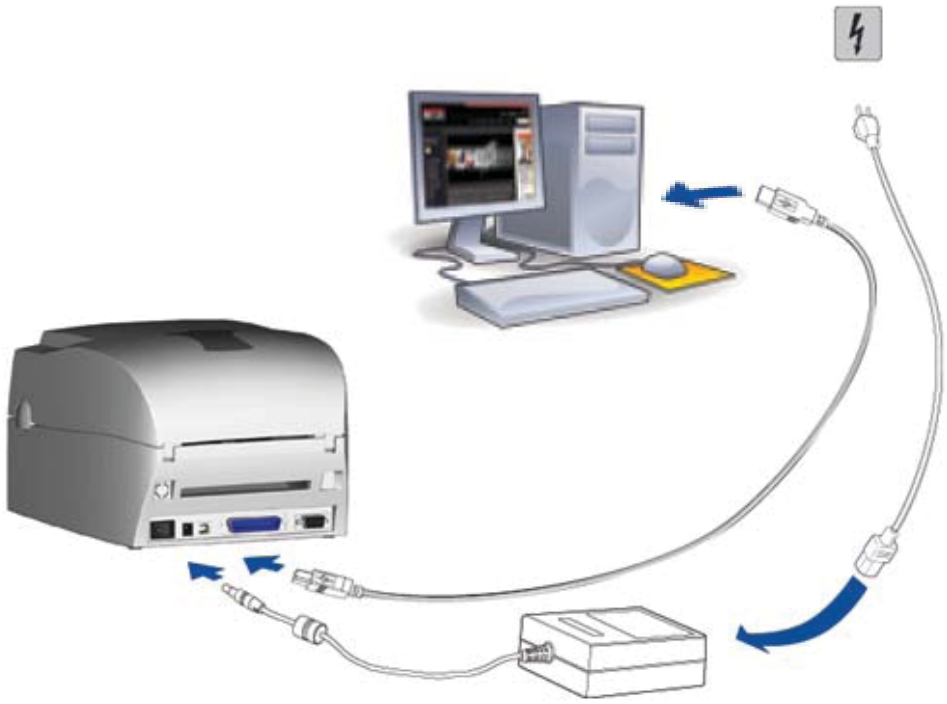


Figure 2-2. PC connection illustration

2.5.1 Store Format - Autoform Capability

1. Design the form in *Label View* and save it as AUTOFR.
2. Generate a command file.
3. Exit *Label View* and bring up the file in Dos Edit (the file is AUTOFR.EJF).
4. Add a line at the beginning and add the interrupt command. This is added by holding down the CTRL key and pressing the P, and then the S keys. Two exclamation points should appear at the beginning of the line.
5. Add before PE the command PA1.
6. Turn the printer off for a minute and then on again to make sure the buffer is empty.
7. Download the form to the printer by choosing Print from Dos Edit.

This is now the form that will be printed every time the print button is pushed. This example works with only one variable field, which means that only gross or only net weight can be printed. Once this form is loaded in the printer the customer cannot use the printer for any other label format.

2.5.2 Deleting the AUTOFR Form From the Printer

1. Turn the printer off for a minute, then turn it back on.
2. Send the interrupt command, CTRL S, and then FK"*".
   This will delete all stored forms from the printer memory.

This will open up doors for a simple label application, and works with most devices that are sending a single weight and capable of 9600 baud, 8 data bits.

3.0 Accessories

3.1 Stripper Module

The stripper module separates a label from its backing, allowing the user to apply a label without peeling.

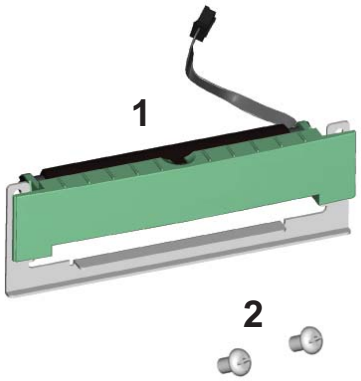
To install the stripper module, follow these instructions:

1. Make sure you have the module and two provided screws.
2. Power off the printer before installing the stripper module.

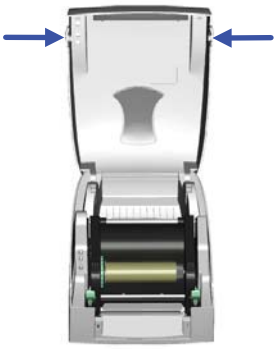
NOTES: *Label liner thickness is recommended to be 0.06 mm ± 10% with basic weight 65g/m^2 ± 6%.*

The maximum width for the stripper is 110 mm.

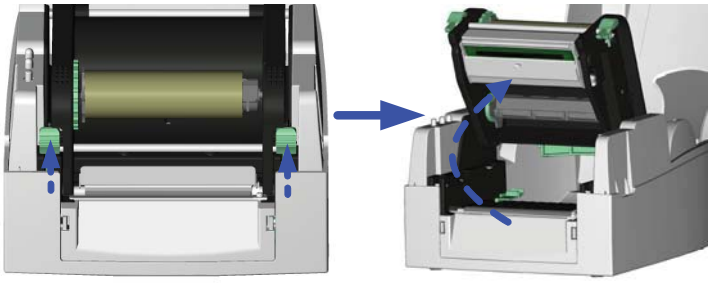
When using the stripper module, it is recommended to set the stop position to 9 in QLabel and the E value is 9.



3. Place the printer on a horizontal surface and open the top cover by pressing the cover open buttons on both sides and lifting upward.

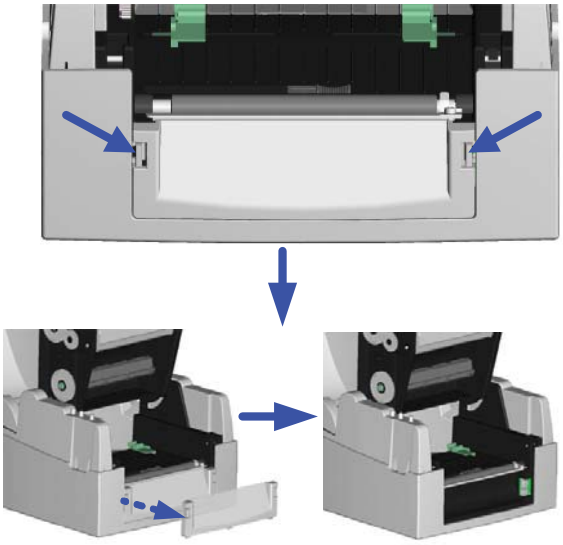


4. Loosen and then lift the upper print mechanism by pressing the locking tenons.



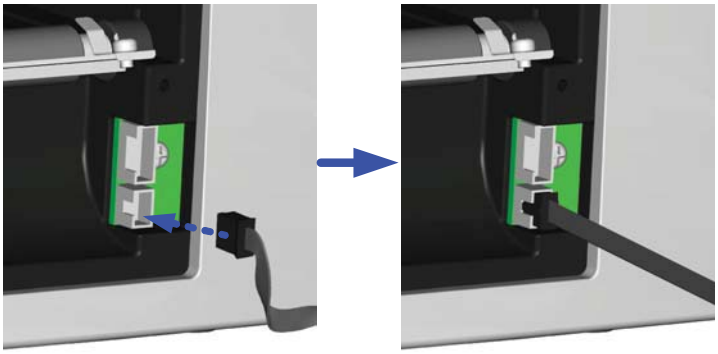
5. Unlock the front cover piece by pushing locks inward.

6. Lift/take off the front cover piece according to the figure shown at the right.

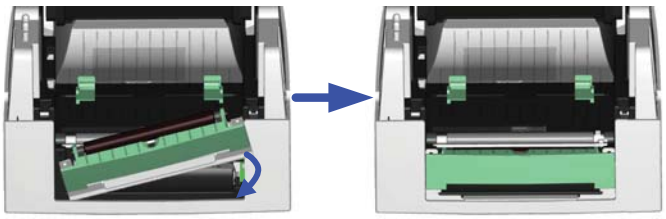


7. Plug in the stripper module's connector to the switchboard socket.

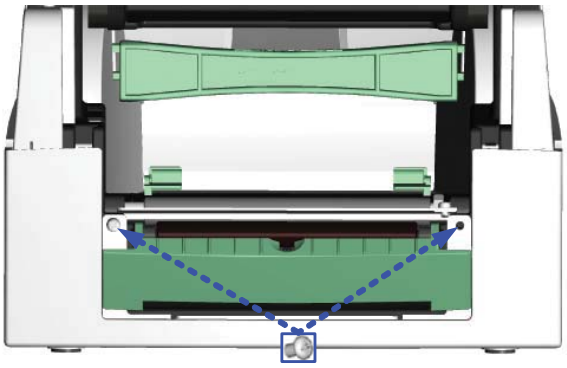
NOTE: *There are two sockets on the converting boards. One is for stripper module installation, and the other is for the cutter. Before you plug the connector into the socket, check the pin first.*



8. Place the left side of the stripper module first, then fit the right side.

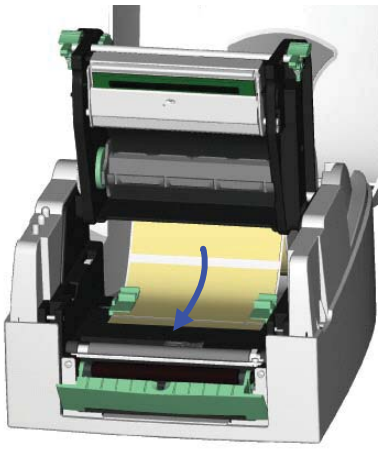


9. Hold the stripper module in place and tighten the screws to secure its location.

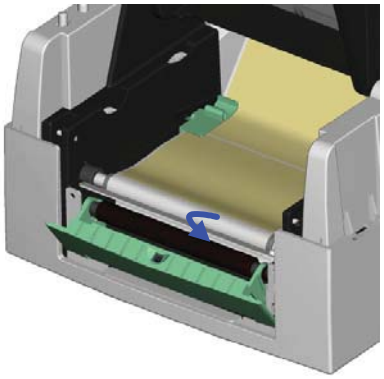


10. Feed the label through the label guides.

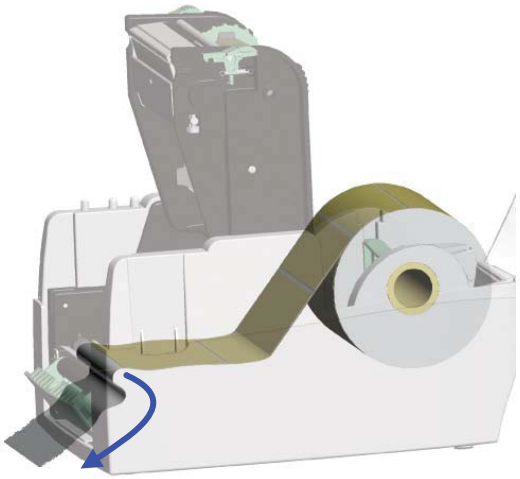
NOTE: *The label/paper used for rewinding purpose is suggested to be at least 30 mm in height.*



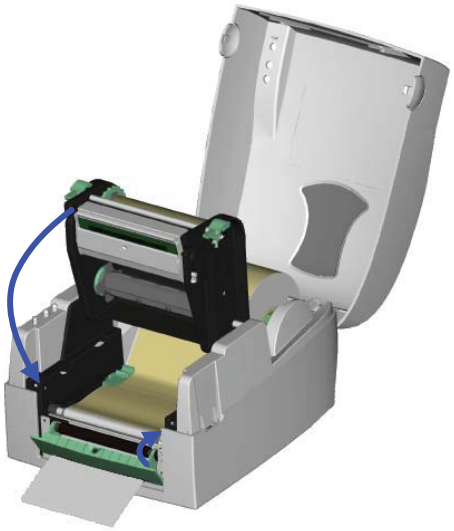
11. Peel off the first label and feed the liner through the roller and the tear-off bar.



12. Follow the direction shown in the figure at the right to feed the liner across the stripper module.



13. Close the upper print mechanism and the stripper module.



14. Press the FEED key to adjust the position of the label and complete the installation.

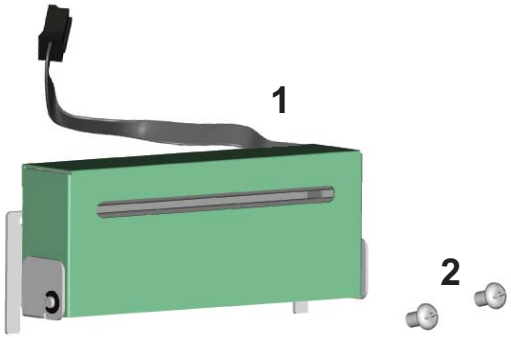
3.2 Cutter Installation

The *RL-42TT* printers feature a photo-eye, which detects gaps between labels. When a gap is detected, the cutter will separate the label from the roll. To install the cutter, follow these instructions:

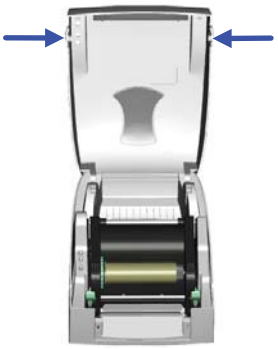
1. Make sure you have the cutter module and two provided screws (TAP 3*8).
2. Power off the printer before installing the cutter module.

NOTES: *Do not cut self-adhesive labels! The traces of adhesive will pollute the rotary knife and impair safe operation.*

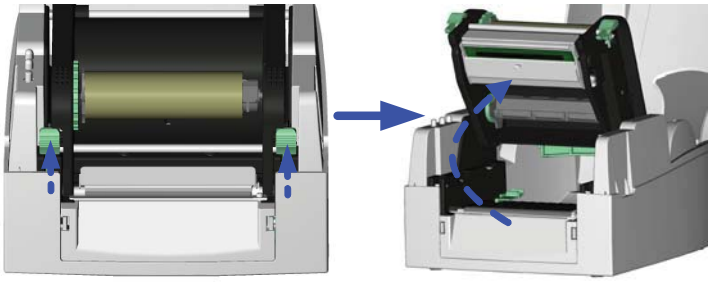
The service life of the cutter is 500,000 cuts for paper weights up to 160g/m^2, and 250,000 cuts for paper weights 200g/m^2 paper weight.



3. Place the printer on a horizontal surface and open the top cover by pressing the cover open buttons on both sides and lifting upward.

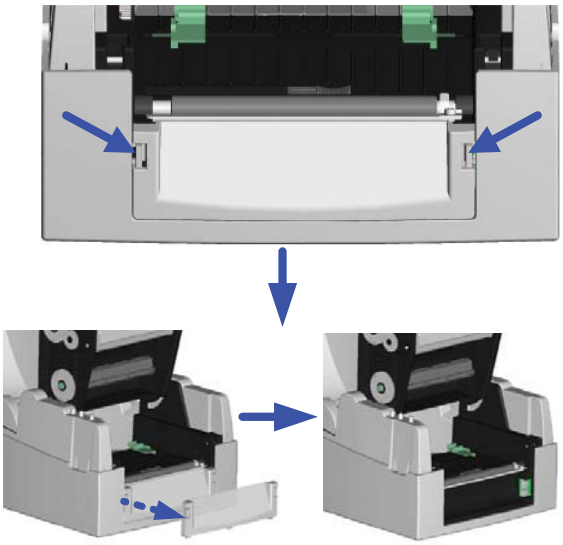


4. Loosen and then lift the upper print mechanism by pressing the locking tenons.



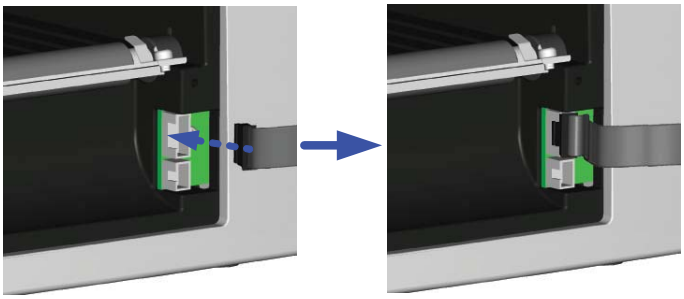
5. Unlock the front cover piece by pushing locks inward.

6. Lift/take off the front cover piece according to the figure shown at the right.

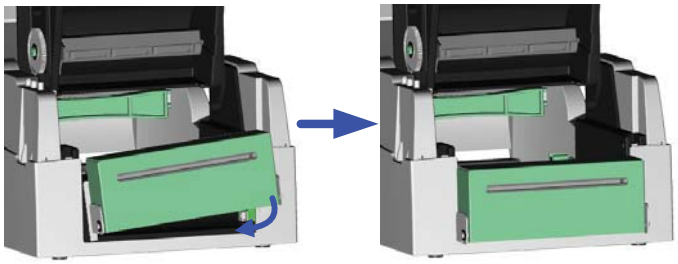


7. Plug in the cable connector of the cutter module to the switchboard socket.

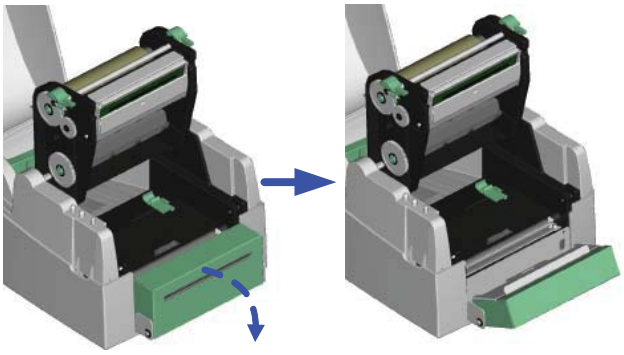
NOTE: *Before you plug the connector to the socket, check the pin*



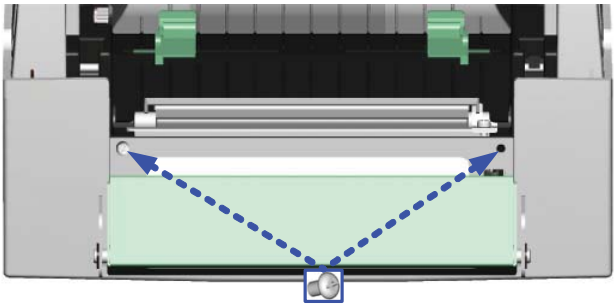
8. Place the left side of the stripper first, and then fit the right side.



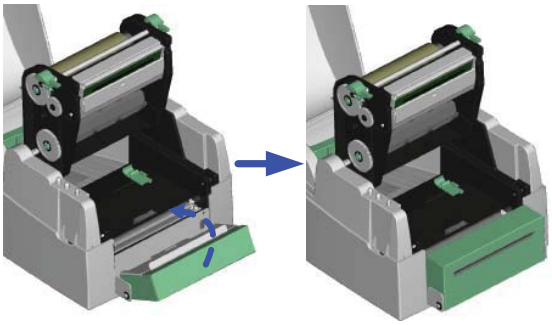
9. Flip the cutter module downward to open the cutter.



10. Hold the cutter module and lock it with screws.

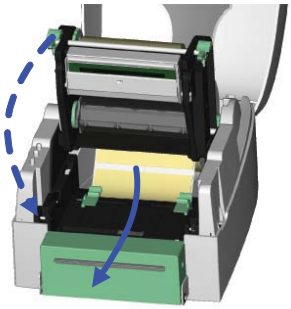


11. After the screws are locked, flip close the cutter module.

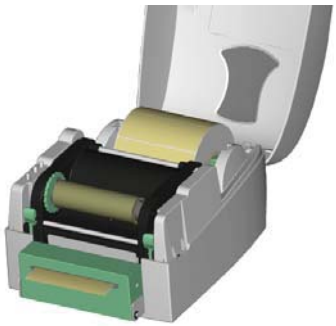


12. Feed the label through the label guides.

13. Close the mechanism.



14. Press the FEED key to adjust the position of the label and complete the installation.



3.3 CF Card Adapter Installation

The *RL-42TT* printer can use a compact flash (CF) card for additional memory in storing label formats, graphics, and fonts. The CF card adapter, shown in Figure 3-1, must first be installed. The printer supports CF capacities from 128MB to 1GB. Always power off the printer before installing or removing the CF card from the card slot.

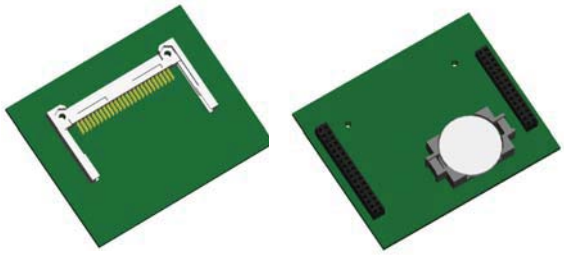
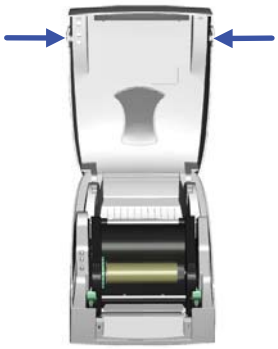
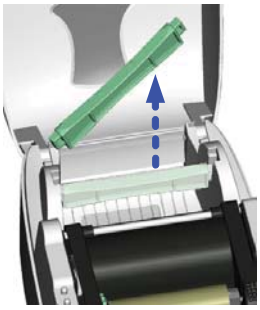


Figure 3-1. CF card adapter front (left) and back (right)

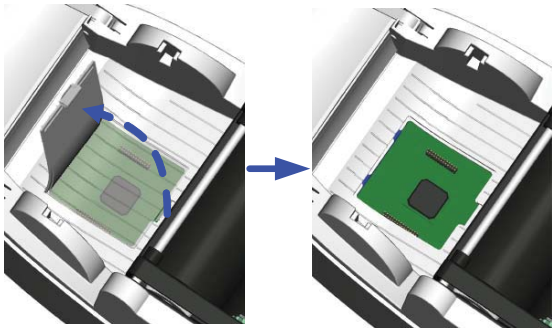
1. Place the printer on a horizontal surface and open the top cover by pressing the cover open buttons on both sides and lifting upward.



2. Take off the label roll core.

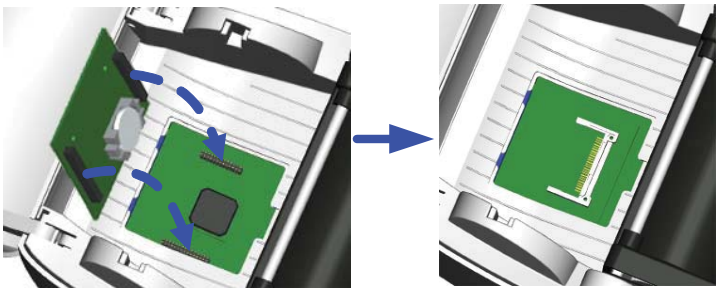


3. Open and remove the plastic cover from the inner base.



4. Check the correspondent pins and sockets to plug the adapter card onto the main board.

NOTE: *Make sure the sockets and pins match; otherwise, the pins may get damaged.*



5. Close the plastic cover to complete installation.

3.3.1 Using the CF Card

Always power off the printer before installing or removing the CF card from the card slot. The CF card cannot be used for the printer's external memory until it is formatted in FAT16. When the printer has detected that the CF card is not formatted in FAT16, it will beep 3 times and the STATUS LED light will flash orange.

The *RL-42TT* printer supports CF capacities from 128MB to 1GB. The*RL-42TT* printer can format the CF card (which will erase all data on the card) in the proper format. If you choose not to format the CF card, open the top cover and wait for the turn-on procedure. To format the card in FAT16 format:

1. Press the FEED key. The printer will format the CF card in FAT16.
2. When the format is complete, the LED light will turn green.
3. A file folder named "Godex" will be created automatically on the card. This folder is used for storing all data from the printer. Do not rename or change the folder in any way.

4.0 Control Panel

The control panel accesses printer diagnostics and settings. This section provides information on LED status, the FEED key, self-tests, auto-sensing, dump mode, direct thermal/thermal transfer switch, and error messages.

4.1 LED Status

Press and hold the FEED key then power on the printer, the printer will beep 3 times and enter into Self-Test status. If keep holding the FEED key, the status will change in sequence to Auto Sensing Mode, Dump Mode, See-through Sensor on/off, and then return to Self-Test again. These different statuses can change the setting of printer; they are described as follows:

	FEED	LED LIGHT	BEEP	STATUS	DESCRIPTION
	READY	Green	1	Normal	Normal status
	STATUS				
		Press and hold the FEED key, then power on the printer. ↓			
	READY	Red (flash)	3	Self-Test	Printing self-test page. For operation instructions, refer to Section 4.3 on page 19.
	STATUS	Orange			
		↓			
	READY	Orange (flash)	1	Auto-Sensing Mode	The printer is currently in auto-sensing mode. For operation instructions, refer to Section 4.4 on page 19.
	STATUS	Orange			
		↓			
	READY	Green (flash)	1	Dump Mode	The printer is currently in dump mode. For operation instructions, refer to Section 4.5 on page 20.
	STATUS	Orange			
		↓			
	READY	Red (flash)	1	Direct Thermal (DT) Mode	Sets the printer to Direct Thermal (DT) mode. For operation instructions, refer to Section 4.6 on page 20
	STATUS	Red			
		↓			
	READY	Orange (flash)	1	Thermal Transfer (TT) Mode	Sets the printer to Direct Thermal (DT) mode. For operation instructions, refer to Section 4.6 on page 20
	STATUS	Red			
				↓	
	READY	Green (flash)	1	See-Through Sensof On/Off	Sets the see-through sensor on or off. For operation instructions, refer to Section 4.7 on page 20
	STATUS	Red			
		↓ Return to Self Test			
	READY				
	STATUS	Red (flash)			Printer is downloading firmware

Table 4-1. LED status

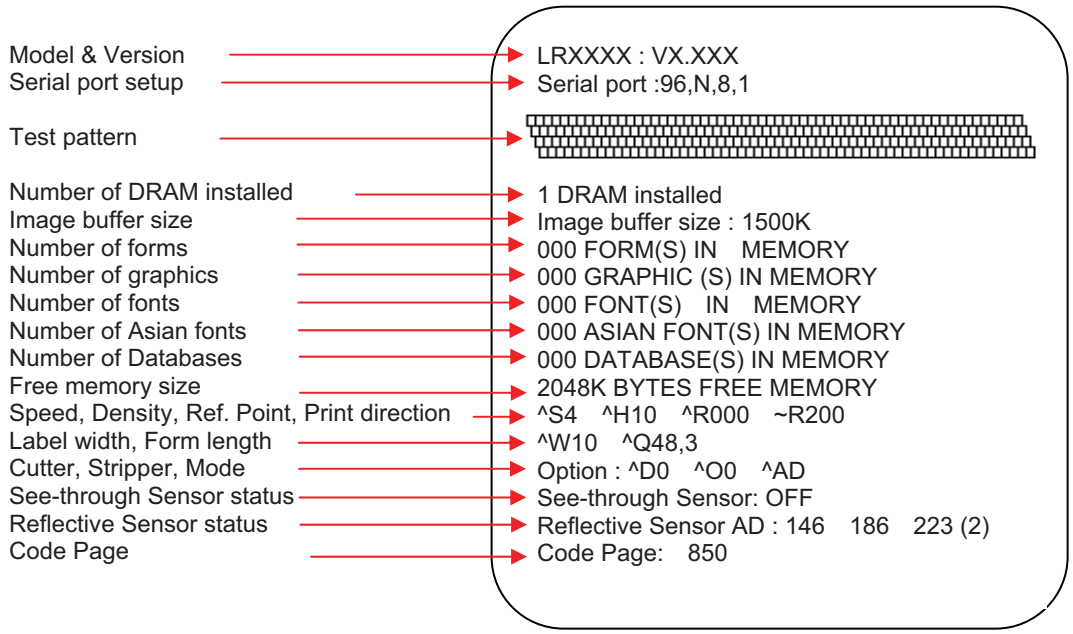
4.2 Feed Key Introduction

After pressing the FEED key, the printer will send the media (according to media type) to the specified stop position. When printing with continuous media, pressing the FEED key will feed media out to a certain length. When printing with labels, pressing the FEED key will feed one label at a time. If the label is not sent out in a correct position, please proceed with the Auto sensing (see Section 4.4 on page 19).

4.3 Self-Test

The Self-Test function in a printer will help the user to figure out whether the printer is operating normally. In the Self-Test Mode, the printer will print out a test sample as shown in Figure 4-1. The printer will go back to standby mode after printing out the test sample. Below are the Self-Test procedures:

1. Power off the printer, then press and hold the FEED key.
2. Power on the printer (while still holding the FEED key); release the FEED key after the printer beeps 3 times.
3. After about 1 second, printer would automatically print out the following. This means the printer is operating normally.



Self-Test includes the internal printer data setting.

Figure 4-1. Self-test print page

4.4 Auto-Sensing

The printer can automatically detect label (black mark paper) length and record it. By doing this, the printer can accurately detect the label (black mark) positions without setting the print length.

1. Check if the Moveable Sensor Mark is located at the right sensing position.
2. Power off the printer, press and hold the FEED key.
3. Power on the printer (while still holding the FEED key) and the printer will beep 3 times. Keep holding the FEED key, wait for the LED flashes orange and then release the FEED key. Printer will automatically detect the label size/length and record it.
4. The printer goes back to standby mode after displaying the measurement.

4.5 Dump Mode

When label setting and the print result don't match for each other, it is recommended to go into the Dump Mode to check for mistakes in data transmission between the printer and the PC. For example, when printer receives 8 commands, yet without processing these commands, only printing out the contents of commands, this will confirm whether the commands were received correctly. Test procedures to enter the Dump Mode are as follows:

1. Power off the printer, press and hold the FEED key.
2. Power on the printer (while still holding the FEED key) and the printer will beep 3 times.
3. Release the FEED key when LED flashes green. Printer will automatically print “DUMP MODE BEGIN.” This means the printer is already in Dump Mode.
4. Send commands to the printer, and check if the print result matches the commands sent.
5. To cancel (get out of the Dump Mode), press the FEED key, the printer will automatically print out “OUT OF DUMP MODE”. This indicates that printer is back in the standby mode. Powering off the printer is another way to exit the Dump Mode.

4.6 Direct Thermal/Thermal Transfer Mode Switch

1. Power off the printer, press and hold the FEED key.
2. Power on the printer (while still holding the FEED key) and the printer will beep 3 times. Keep holding the FEED key, wait for the STATUS light turn red and READY light flash red, then release the FEED key. The printer will go into Direct Thermal (DT) Mode and automatically print “NOW IS DIRECT THERMAL (DT MODE)”. This indicates that printer is currently in DT Mode.
3. Power on the printer (while still holding the FEED key) and the printer will beep 3 times. Keep holding the FEED key, wait for the STATUS light turn red and READY light flash orange, then release the FEED key. The printer will go into the Thermal Transfer (TT) Mode and automatically print “NOW IS THERMAL TRANSFER (TT MODE)”. This indicates that printer is currently in TT Mode.

4.7 See-Through Sensor On/Off

There are two types of sensor in the printer - Reflective Sensor and See-through Sensor. Users can set one of them as active sensor. By default, the Reflective Sensor is turned on and the See-through Sensor is turned off. However, the reflective sensor may not be able to detect the label gap on special label materials. For example, when printing on labels with thick liner, colored liner, or back graphics, then the see-through sensor would need to be enabled since the reflective sensor may not work correctly.

To turn the See-through Sensor on:

1. Power off the printer, press and hold the FEED key.
2. Power on the printer (while still holding the FEED key) and the printer will beep 3 times. Keep holding the FEED key, wait for the LED light turn to orange and then release the FEED key. The printers will automatically print “SEE-THROUGH SENSOR IS ON”. This indicates that the See-Through Sensor is turned on (and the Reflective Sensor is turned off).
3. To turn off the See-Through Sensor, please repeat above-mentioned procedures. Then the printer will print “SEE-THROUGH SENSOR IS OFF” to indicate that the See-Through Sensor is turned off.
4. For checking the status of See-through Sensor (on or off), please perform Auto Sensing once. If LED light is green when doing Auto Sensing, then the See-through Sensor is on. If LED light is orange, then the See-through Sensor is off.

NOTE: *When the See-through Sensor is enabled, the Label Sensor must be placed in the center of the printer.*

4.8 Error Messages

LED LIGHT Ready	LED LIGHT Status	BEEP	DESCRIPTION	SOLUTION
	Red	4 beeps twice	• Print head is not firmly closed.	• Re-open print head and make sure it closes tightly.
Red (flash)	Red (Flash)	None	• Print head temperature is too high.	• Wait for the print head temperature to drop to normal range. The printer will go back to standby mode and the LED light will stop flashing.
	Red	3 beeps twice	• Ribbon is not installed, and printer shows error message • Ribbon is used up or ribbon supply shaft is not moving	• Make sure the printer is in the Direct Thermal mode. • Replace with new ribbon roll.
	Red	2 beeps twice	• Unable to detect paper • Paper is used up	• Make sure the movable sensor mark is at the correct position. If the sensor is still unable to detect paper, repeat auto-sensing. • Replace with new label roll.
	Red	2 beeps twice	• Abnormal paper feed	• Possible causes: card tags or paper fell into the gap behind the platen roller; can't find label gap/black mark; black mark paper out. Please adjust according to actual usage.
	Red	2 beeps twice	• Memory is full; printer will print "memory full"	• Delete unnecessary data in the memory.
	Red	2 beeps twice	• Can't find the file; printer will print "Filename cannot be found."	• Use "~X4" command to print out all the files, then check whether the file exists and the names are correct.
	Red	2 beeps twice	• File name is repeated; printer will print "Filename is repeated"	• Change the file name and download again.

Table 4-2. Error messages

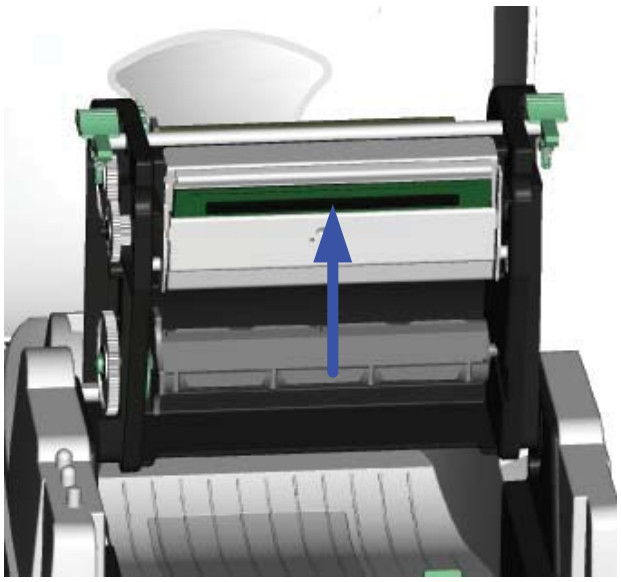
5.0 Maintenance and Adjustments

Occasionally, you may need to install clean the thermal print head, balance the thermal print head, adjust the print line, or adjust the cutter.

5.1 Thermal Print Head Cleaning

Unclear printouts may be caused by dusty print head, ribbon stain or label liner glue. Therefore when printing, it's necessary to keep the top cover closed. Also, check and prevent paper/label from being stained or dusty to ensure print quality and to prolong the print head life. Print head cleaning instructions are as follows:

1. Power-off the printer.
2. Open the top cover.
3. Take out the ribbon.
4. Open the print head by pressing the locking tenons.
5. If on the print head (see blue arrow) there's label pieces or other stain, please use a soft cloth with industrial use alcohol to wipe away the stain.

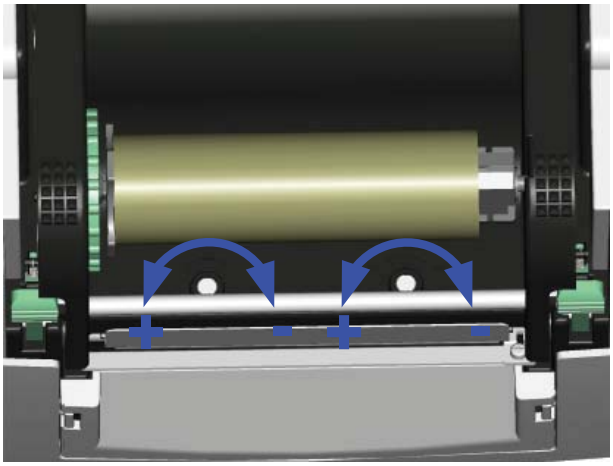


Notes: *Weekly cleaning on the print head is recommended. When cleaning the print head with soft cloth, make sure there is no any metal or hard particles attached on it. You can also clean the print head with the cleaning card that comes with the printer.*

5.2 Thermal Print Head Balance Adjustment

When printing with different label materials or using different ribbon types, unbalanced print quality may occur due to the media material differences. Thus, it is necessary to adjust the thermal print head pressure.

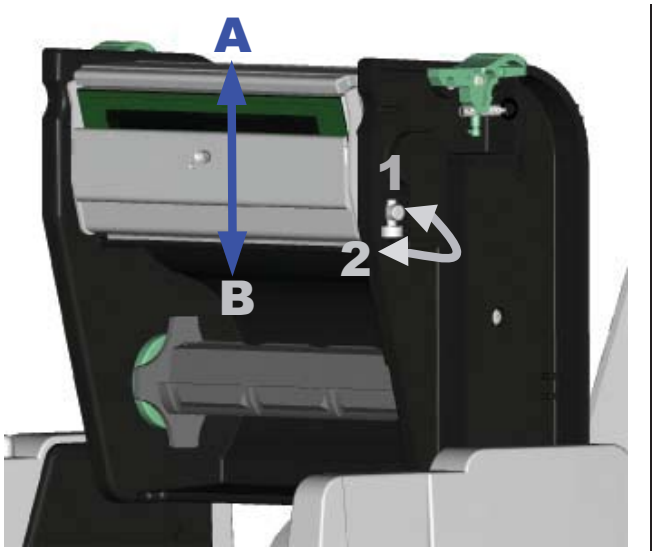
1. Open the top cover.
2. Take out the ribbon.
3. Use a screwdriver to turn the print head adjustment screws slightly to increase or decrease the print head pressure as needed.



5.3 Print Line Adjustment

To get better printing balance and quality, use the print head adjusting gear to adjust the contacting surface between the print head and label.

1. When turning the print head adjustment gear counter-clockwise (as arrow 1 shows), the print head would move in the direction Arrow A shows.
2. When turning the print head adjustment gear clockwise (as Arrow 2 shows), the print head would move in the direction Arrow B shows.

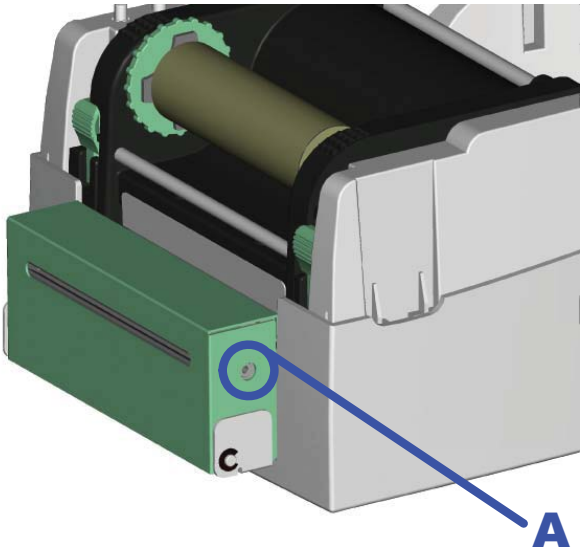


5.4 Cutter Adjustment (Paper Jams)

When using the cutter module, paper jams may occur from time to time. Paper jams can be resolved by adjusting the cutter.

1. A cutter-adjusting hole is present on the side of the cutter (denoted as A in the figure at right).
2. Turn the power off and use a #M3 hexagon wrench inserted into hole A, and turn it counter-clockwise.
3. Power on the printer after clearing the paper jam. The cutter will reset automatically.

NOTE: *The label/paper used for cutting is suggested to be at least 30mm in height.*



6.0 Appendix

6.1 Specifications

Feature	RL-42TT
Resolution	203 dpi (8 dot/mm)
Print Mode	Thermal Transfer/Direct Thermal
CPU	32 Bit
Memory	4MB Flash, 8MB SDRAM
Print Speed	2 IPS ~ 4 IPS
Print Length	Min. 12 mm (0.47"), Max. 1727mm (68")
Print Width	Max.108mm (4.25")
Sensor Type	Adjustable Reflective sensor; Fixed transmissive, center aligned
Sensor Detection	Type: Label gap and black mark sensing. Detection: Label length auto sensing and / or program command setting
Media	Label Roll OD: Max. 125 mm (4.92") Core Diameter: 1", 1.5", 3" Width: 25mm (1") ~ 118 mm (4.64") Thickness: 0.06~0.25 mm (0.0025"~0.0098")
Ribbon	Length: 300M (981 ft) Max. ribbon roll OD: 68mm (2.67") Type: transfer ribbons (wax, hybrid, and resin) in widths of 30 mm to 110 mm (1.88" to 4.33") Core Inner Diameter: 25.4mm (1")
Printer Language	EZPL (Firmware downloadable)
Resident Fonts	11 resident alphanumeric fonts (included OCR A & B), those are expandable 8 times horizontally and vertically. All bit mapped fonts in 8 orientations. Scalable Font (Code Page 850 & 852) in 4 orientations.
Fonts Download	Windows bit mapped in 8 orientations. True Type font (Ver. 2.XX) and Asian fonts in 4 orientations.
Image Handling	BMP, PCX, Support ICO, WMF, JPG, EMF file through software.
Barcodes	Code 39, Code 93, Code 128 (subset A, B, C), UCC/EAN-128 K-Mart, UCC/EAN-128, UPC A / E (add on 2 & 5), I 2 of 5, I 2 of 5 with Shipping Bearer Bars, EAN 8 / 13 (add on 2 & 5), Codabar, Post NET, EAN 128, DUN 14, MaxiCode, HIBC, Plessey, Random Weight, Telepen, FIM, China Postal Code, RPS 128, PDF417, Datamatrix code & QR code
Interfaces	Serial port: RS-232 (Baud rate : 4800 ~ 115200 , Xon/Xoff , DSR/DTR) USB port: V2.0 Parallel port: Bi-direction
Control Panel	One Tri-color LED: Ready, Status Function Key: FEED
Power	Auto Switching 100/240VAC, 50/60 Hz
Environment	Operation: 41°F to 104°F (5°C to 40°C) Storage: -4°F to 122°F (-20°C to 50°C)
Cert. Approval	CE, FCC Class A, CCC, CB, cUL, BSMI
Humidity	Operation: 30-85%, non-condensing. Free air. Storage: 10-90%, non-condensing. Free air.
Printer Dimensions	Length: 285 mm (11.2") Height: 171 mm (6.8") Width: 226 mm (8.9") Weight: 6 lb (2.72 kg)
Options	Rotary Cutter Module Stripper Module CF Card Adapter with RTC Internal Ethernet Adapter Card

Table 6-1. Printer specifications

6.2 Compliance Statements

FCC COMPLIANCE STATEMENT FOR AMERICAN USERS

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

EMS AND EMI COMPLIANCE STATEMENT FOR EUROPEAN USERS

This equipment has been tested and passed with the requirements relating to electromagnetic compatibility based on the standards EN 55022:1998+A1:2000+A2:2003, CISPR 22, Class A EN 55024:1998+A1:2001+A2:2003, IEC 61000- 4 Series EN 61000-3-2 / 2000 & EN 61000-3-3 / 1995. The equipment also tested and passed in accordance with the European Standard EN55022 for the both Radiated and Conducted emissions limits.

RICE LAKE SERIES TO WHICH THIS DECLARATION RELATES IS IN CONFORMITY WITH THE FOLLOWING STANDARDS

EN55022: 1998,CLSPR 22, Class A / EN55024: 1998IEC 61000-4 Serial / EN61000-3-2: 2000 / EN 6100-3-3: 1995 / CFR 47, Part 15/CISPR 22 3rd Edition: 1997, Class A / ANSI C63.4: 2001 / CNS 13438 / IEC60950-1: 2001 / GB4943: 2001 / GB9254: 1998 / GB17625.1: 2003 /EN60950-1: 2001

Caution

Danger of explosion if battery is incorrectly replaced

Replace only with the equivalent type recommended by the manufacture.
Dispose of used batteries according to the manufacturer's instructions.

6.3 Parallel Interface

Handshake:	DSTB connects to the printer, BUSY connects to the host
Interface cable:	Parallel cable compatible to PC
Pin out:	See Table 6-2

Pin Number	Function	Transmitter
1	/Strobe	host/printer
2-9	Data 0-7	host
10	/Acknowledge	printer
11	Busy	printer
12	/Paper empty	printer
13	/Select	printer
14	/Auto-Linefeed	host/printer
15	N/C	
16	Signal Gnd	
17	Chassis Gnd	
18	+5V, max 500mA	
19-30	Signal Gnd	host
31	/Initialize	host/printer
32	/Error	printer
33	Signal Ground	
34-35	N/C	
36	/Select-in	host/printer

Table 6-2. Pin out connections

6.4 Serial Interface

The serial default setting is: 9600 baud rate, no parity, 8 data bits, 1 stop bit, and XON/XOFF protocol.

NOTE: *The total current output from the serial port cannot exceed 500mA.*

DB9 Socket		DB9 Plug
---	1_____1	+5V, max 500mA
RXD	2_____2	TXD
TXD	3_____3	RXD
DTR	4_____4	N/C
GND	5_____5	GND
DSR	6_____6	RTS
RTS	7_____7	CTS
CTS	8_____8	RTS
RI	9_____9	N/C
PC		PRINTER

Table 6-3. RS232 Housing (9-pin to 9-pin)

6.5 USB Interface

RL-42TT printers use a Type B connector type.

Pin Number	1	2	3	4
Function	VBUS	D-	D+	GND

Table 6-4. USB interface Specs

6.6 Internal Interface

.

UART1 wafer		Ethernet module
N.C	1_____1	N.C
TXD	2_____2	RXD
RXD	3_____3	TXD
CTS	4_____4	RTS
GND	5_____5	GND
RTS	6_____6	CTS
E_MD	7_____7	E_MD
RTS	8_____8	CTS
E_RST	9_____9	E_RST
+5V	10_____10	+5V
GND	11_____11	GND
+5V	12_____12	+5V

Table 6-5. Internal interface specs

UART2 wafer		Ethernet module
+5V	1_____1	+5V
CTS	2_____2	RTS
TXD	3_____3	RXD
RTS	4_____4	CTS
RXD	5_____5	TXD
GND	6_____6	GND

Table 6-6. Internal interface specs

6.7 Troubleshooting

Symptom	Remedy
LED light is not lit	• Check the power connector
LED light turns red (power/status) after printing stops	• Check for software setting or program command errors • Replace with suitable label • Check if label or ribbon is all out • Check if mechanism is not closed (Thermal Print Head not positioned correctly) • Check if sensor is blocked by paper/label • Check for abnormal cutter function or of no actions (if cutter is installed)
Nothing is printed on label	• Check if label is placed upside down or if label is not suitable for the application • Select the correct printer driver • Select the correct label and print type
Label is jammed	• Clean the label jam; if the label is stuck on the thermal print head, remove by using a soft cloth and alcohol
Only some of the contents is printed	• Check if label is stuck on the Thermal Print Head • Check if application software has errors • Check if start position setting has errors • Check if ribbon has wrinkles • Check if ribbon supply shaft is creating friction with the platen roller. If the platen roller needs to be replaced, contact your dealer for more information • Check if power supply is correct
Part of the label isn't printed completely	• Check if Thermal Print Head is stained or dusted • Use internal command "~T" to check Thermal Print Head can print completely • Check the media quality
Printout is not in the desired position	• Check if sensor is covered by paper or dust • Check if liner is suitable for use, please contact reseller for more information • Check if label roll edge is aligned with Label Width Guide
Page skipping occurs	• Check if error occurs on label height setting • Check if sensor is covered by dust
Unclear printout	• Check print darkness setting • Check if Thermal Print Head is covered with glue or stain
Labbel isn't cut straight	• Check if label is set up straight
Label isn't cut	• Make sure label thickness does not exceed 0.2 mm
Label couldn't feed or unexpected cutting occurs	• Check if cutter is installed properly • Check if paper feed rods are sticky
The stripper module isn't working correctly	• Check if stripper module sensor is covered with dust • Check if label is installed properly

Table 6-7. Troubleshooting

RL-42TT Limited Warranty

Rice Lake Weighing Systems (RLWS) warrants that all RLWS equipment and systems properly installed by a Distributor or Original Equipment Manufacturer (OEM) will operate per written specifications as confirmed by the Distributor/OEM and accepted by RLWS. All systems and components are warranted against defects in materials and workmanship for two years.

RLWS warrants that the equipment sold hereunder will conform to the current written specifications authorized by RLWS. RLWS warrants the equipment against faulty workmanship and defective materials. If any equipment fails to conform to these warranties, RLWS will, at its option, repair or replace such goods returned within the warranty period subject to the following conditions:

- Upon discovery by Buyer of such nonconformity, RLWS will be given prompt written notice with a detailed explanation of the alleged deficiencies.
- Individual electronic components returned to RLWS for warranty purposes must be packaged to prevent electrostatic discharge (ESD) damage in shipment. Packaging requirements are listed in a publication, *Protecting Your Components From Static Damage in Shipment*, available from RLWS Equipment Return Department.
- Examination of such equipment by RLWS confirms that the nonconformity actually exists, and was not caused by accident, misuse, neglect, alteration, improper installation, improper repair or improper testing; RLWS shall be the sole judge of all alleged non-conformities.
- Such equipment has not been modified, altered, or changed by any person other than RLWS or its duly authorized repair agents.
- RLWS will have a reasonable time to repair or replace the defective equipment. Buyer is responsible for shipping charges both ways.
- In no event will RLWS be responsible for travel time or on-location repairs, including assembly or disassembly of equipment, nor will RLWS be liable for the cost of any repairs made by others.

THESE WARRANTIES EXCLUDE ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NEITHER RLWS NOR DISTRIBUTOR WILL, IN ANY EVENT, BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

RLWS AND BUYER AGREE THAT RLWS'S SOLE AND EXCLUSIVE LIABILITY HEREUNDER IS LIMITED TO REPAIR OR REPLACEMENT OF SUCH GOODS. IN ACCEPTING THIS WARRANTY, THE BUYER WAIVES ANY AND ALL OTHER CLAIMS TO WARRANTY.

SHOULD THE SELLER BE OTHER THAN RLWS, THE BUYER AGREES TO LOOK ONLY TO THE SELLER FOR WARRANTY CLAIMS.

NO TERMS, CONDITIONS, UNDERSTANDING, OR AGREEMENTS PURPORTING TO MODIFY THE TERMS OF THIS WARRANTY SHALL HAVE ANY LEGAL EFFECT UNLESS MADE IN WRITING AND SIGNED BY A CORPORATE OFFICER OF RLWS AND THE BUYER.

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