

P/N. 920-010611-02
Edition 2
April 02

EZ-4TTP/4TKP User's Manual



GODEX

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 his 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 EN50081-1 (EN55022 CLASS B) and EN50082-1 (IEC Teil 2,3,4). The equipment also tested and passed in accordance with the European Standard EN55022 for the both Radiated and Conducted emissions limits.

Specifications are subject to change without notice.

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1. About the Printer

1-1. Introduction

The EZ-4TT/4TK Plus includes the following features:

- ? The EZ-4TT/4TK Plus is a label printer capable of printing in both thermal transfer and direct thermal mode for maximum versatility
- ? EZ-4TT Plus has a 4" print wide with 16" print length that can be maximized to 40" long and the EZ-4TK Plus has a 4" print wide with 6" print length that can be maximized to 16" long
- ? The printing resolution is 203dpi / 300dpi and a high-speed performance of up to 4" per second
- ? EZ-4TT/4TK Plus are the ideal printer for different project requirements due to its design of downloadable firmware
- ? The EZ-4TT/4TK Plus can also function without a PC as a stand-alone printer when connected to the Godex user-friendly keyboard where space is limited
- ? Built-in memory for download labels, pictures, ASCII bitmap fonts and Asia bitmap fonts
- ? Y2K compliant Internal Time/Date clock can record the time automatically and functions when power is off
- ? Large label roll size for 10 inches O.D. up to 260 meters in length.
- ? Free QLabel-III software bundled in every printer package, thus providing a complete solution

1-2. General Specifications

Specifications	EZ-4TT Plus	EZ-4TK Plus
Resolution	203 dpi	300 dpi
Print speeds	1" ~ 4"	2" ~ 4"
Print length	10mm~406mm	10mm~152mm
Print width	25mm~104mm	25mm~108mm
Media	Thickness: 0.06mm to 0.2mm Roll size: Internal O.D. 4" / External O.D. 10" on a 1" or 3" I.D. core	
Ribbon	Max.110mm width; 150 meters length; I.D. 0.5"	
Memory	Fonts, Graphics, Formats and Double-byte characters storage	
Programming	Godex EZPL Language (downloadable) Label Create Software – QLabel-III Windows Driver (31/95/98/ME/2000/NT) DLL	
Bar codes	Code 39, Code 93, Code 128 (A,B,C), UCC 128, UPC A / E (add on 2 & 5), I 2 of 5, EAN 8 / 13 (add on 2 & 5), CODABAR, POSTNET, EAN 128, DUN 14	
2D Bar codes	MAXICODE, PDF417	
Fonts	Internal CG Triumvirate fonts Soft Fonts downloadable All fonts in 4 directions rotation (0, 90, 180, 270 degrees) Asia fonts in 8 directions rotation (left to right or top to bottom)	
Graphics	BMP, PCX file; Support ICO, WMF, JPG, EMF file through software	
Sensing	Sensor type: Label gap sensing, Black mark sensing Detection: Label length auto sensing and/or Program Command setting	
Real Time Clock	Standard	
Interface	RS-232 Centronics parallel	
Power	Auto Switch AC110V~240V, DC24V5A	
Environment	Operating Temperature: 40°F to 104°F (5°C to 40°C) Operating Humidity: 30%-85% Storage Temperature: -40°F to 122°F (-20°C to 50°C) Storage Humidity: 10%~90%	

Specifications	EZ-4TT Plus	EZ-4TK Plus
Options	Expanded memory module Cutter Stripper GODEX Stand alone Data Terminal Keypad USB Adapter kit Ethernet printer server kit Datamatrix Code and QR Code	

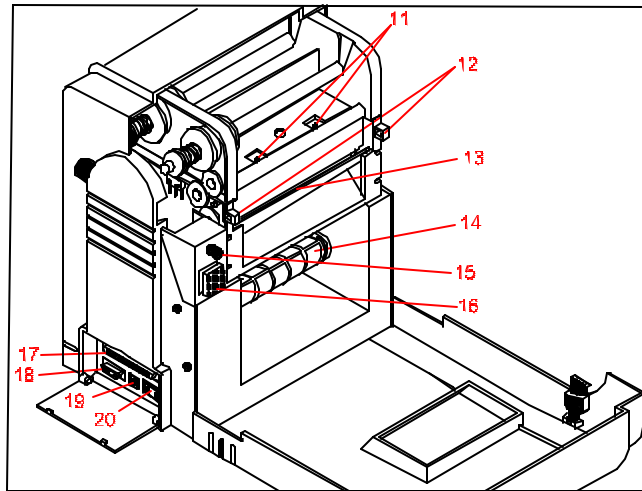
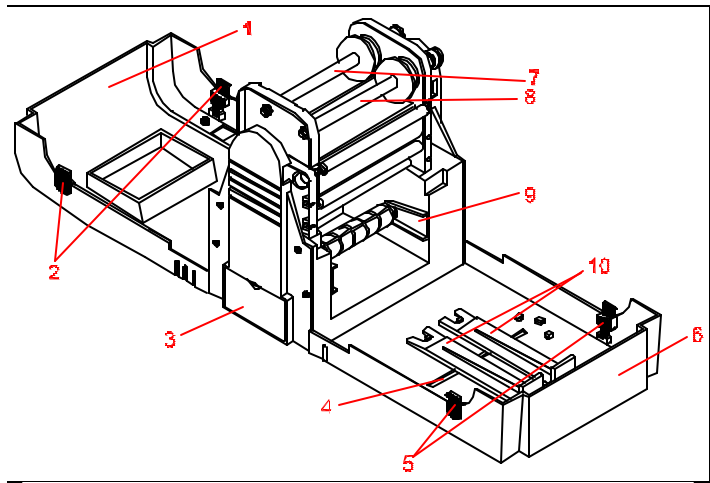
1-3. Contents

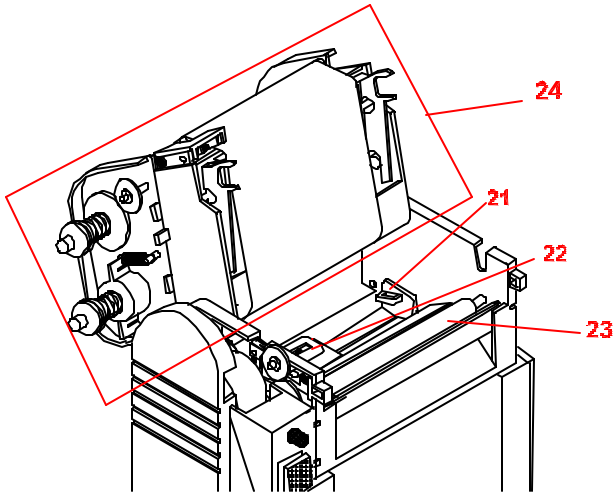
The contents comprise of the following:

- <1>Printer**
- <2>Switching Power Supply**
- <3> Ribbon**
- <4> Roll of Labels**
- <5> CD (Software/Manual/Driver/DLL)**
- <6> Quick Start**

1-4. Printer Parts

Part	Description
1	Front Cover
2	Front Locking Tenon (2 EA, left/right)
3	Dust Cover for Interface Panel
4	Fan-Fold Media Entry
5	Back Locking Tenon (2 EA, left/right)
6	Back Cover
7	Ribbon Rewind Spindle
8	Ribbon Supply Spindle
9	Core Guide
10	Label Roll Stand (2 EA)
11	Printhead Pressure Adjusting Screws
12	Printer Lock (2 EA, left/right)
13	Tear Bar
14	Label Roll Core
15	LED Indicator
16	Paper Feed Button
17	Parallel Port
18	Serial Port
19	Power Jack
20	Power Switch
21	Label Guide (Adjustable Horizontally)
22	Gap Sensor Assembly
23	Rubber Roller
24	Printhead Assembly





1-5. Indicators

LED indicator

Color	Meaning
Green (solid)	Media and Ribbon* loaded
Green (flashing)	Asia fonts download
Red (solid)	Out of media, ribbon
Red (flashing)	Upgrading firmware
Orange	Firmware damaged, refer described on page 13
* Thermal transfer printing only	

Buzzer indicator

Beep sound	Meaning
1 times	Power on
2 times	Paper out / Paper jam
3 times	Ribbon end
4 times	Printhead assembly is unlocked

2. Setting up Your Printer

2-1. RS-232 Setting

The Serial Port setting sees as below:

Syntax : ^Yp1.p2,p3,p4
Parameter : p1 : Baud Rate; 48=4800bps; 96=9600bps; 19=19200bps; 38=38400bps
p2 : Parity (N, O, E); N=none parity; O=odd parity; E=even parity
p3 : Number of data bits (7 or 8)
p4 : Number of stop bits (1 or 2)

2-2. Loading the Ribbon

Thermal transfer ribbons are required when printing on non heat-sensitive receiving face materials. Follow these steps to load the ribbon.

1. Open the cover by pressing the locking tenon on both sides and folding the cover rearwards (see figure 2.2.1 step 2 & step 3).
2. By pressing toward the cap-side, take out the ribbon supply spindle (part 8) and the rewind spindle (part 7). (see figure 2.2.2)
3. Install a new ribbon onto the supply spindle and install a empty paper core onto the rewind spindle (see figure 2.2.3)
4. Put back the supply spindle and the rewind spindle.
5. Press the two printer locks (part 12) to loosen the printhead assembly and turn it over.
6. Pass the front edge of the new ribbon through the printhead assembly, and then stick the front edge to the paper core of the rewind spindle (see figure 2.2.4).
7. Load the label roll (see Chapter 2, Section 3).
8. Put back the printhead assembly and fasten it by pressing down from the top (see figure 2.2.5).
9. Close the front cover and back cover.

Power on. Press the feed button until the LED becomes green.

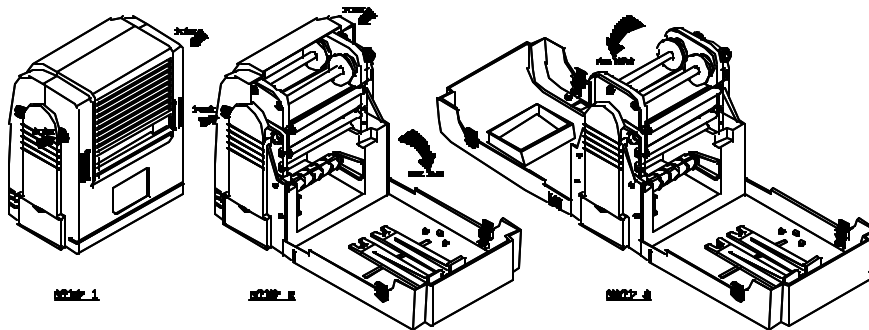


Fig. 2.2.1

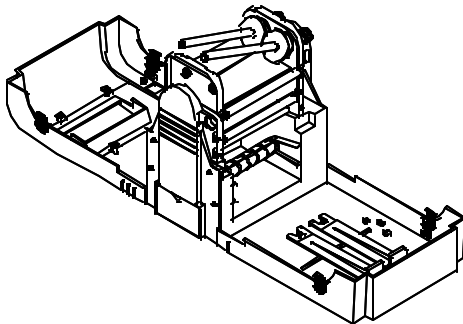


Fig. 2.2.2

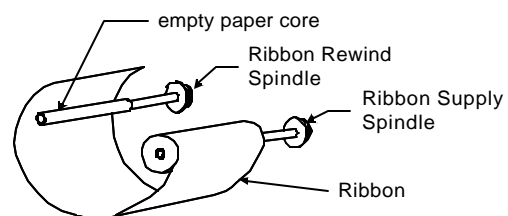


Fig. 2.2.3

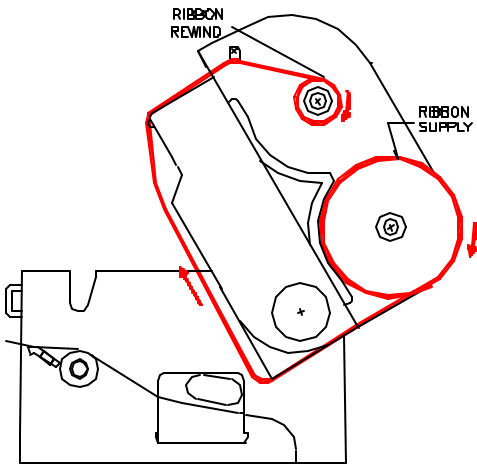


Fig. 2.2.4

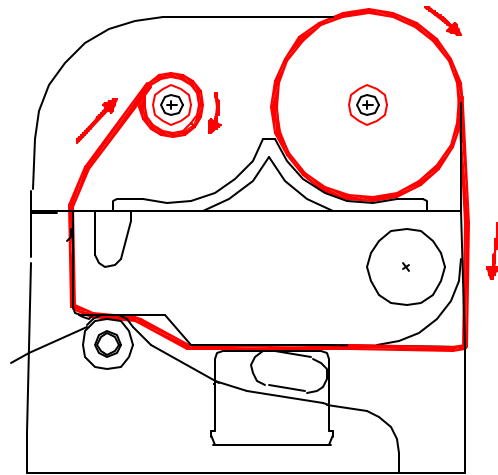


Fig. 2.2.5

2-3. Loading Label Roll

Load a small label roll

The EZ-4TTP/4TKP printer can print on heat-sensitive direct thermal paper and non heat-sensitive thermal transfer paper. In case of non heat-sensitive paper, a suitable thermal transfer ribbon must be used. Whatever media in used, the recommended minimum label height is 20 mm.

1. Open the front cover and back cover.
2. Install a label roll onto the roll core (part 14).
3. Put back label roll into the core guide (see figure 2.3.1).
4. Press the printer locks (part 12) to loosen the printhead assembly.
5. Turn over the printhead assembly. Pass the front edge of the label through the gap sensor and overstride the Rubber roller (see figure 2.3.2).
6. Adjust the label guide to fit the label size.
7. Put back the printhead assembly and fasten it by pressing down from the top.
8. Close the front and back cover.
9. Press the feed button (part 16) to feed labels.

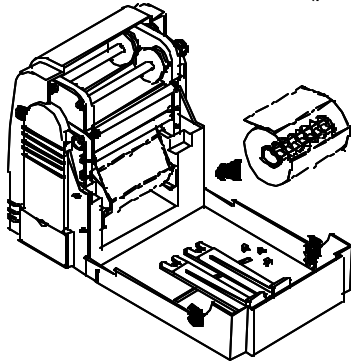


Fig. 2.3.1

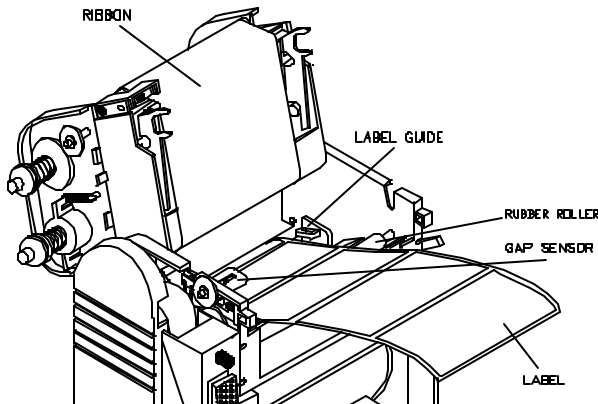


Fig. 2.3.2

B. Load large label roll

1. Open the front and back cover.
2. To load a label roll onto the roll core (part 14).
3. Remove the label roll stands (part 10). Vertically place the two stands along the left side and right side of the back cover (see Fig. 2.3.3).
4. Place the large-size label roll on the stands (see Fig. 2.3.3).
5. Press the printer locks (part 12) to loosen the printhead assembly.
6. Turn over the printhead assembly. Pass the front edge of the label through the gap sensor and overstride the Rubber roller (see figure 2.3.2).
7. Adjust the label guide to fit the label size.
8. Put back the printhead assembly and fasten it by pressing down from the top.
9. Close the front cover.
10. Press the feed button (part 16) to feed labels.

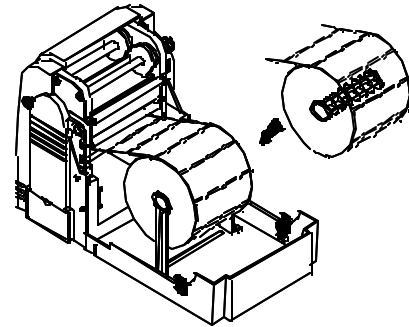


Fig. 2.3.3

Fan-fold type media setting

1. Open the back cover.
2. Take out the two Big Label Roll Stands (part 10)
3. Insert the paper into the Fan-fold Media Entry (part 4) of the back cover.
4. Push and release the printer locks (part 12) to open the printhead.
5. Turn over the opened printhead assembly. Pass the front edge of the label through the gap sensor and overstride the Rubber roller.
6. Adjust the label guide to fit the label size.
7. Put back the printhead assembly and fasten it.
8. Close the front cover and back cover.
9. Push feed button (part 16) to feed out label.

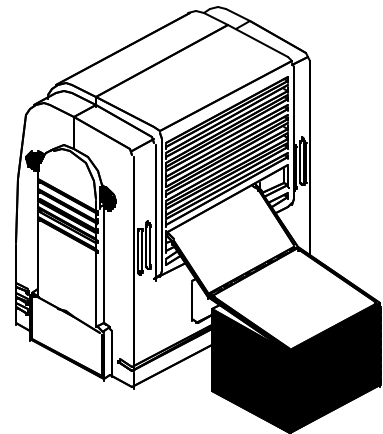


Fig. 2.3.4

The media setting for laying down printing

1. Open the front cover and back cover.
2. Hold the open end (the apron) of the Core Guide, lift it up about 5 mm then turn it round 180 degree and snap in the little hole.
3. Follow the above steps to adjust another Core Guide.
4. Press the printer locks (part 12) to open the printhead.
5. Turn over the opened printhead assembly. Pass the front edge of the label through the gap sensor and overstride the Rubber roller.
6. Adjust the label guide to fit the label size.
7. Put back the printhead and fasten it.
8. Close the front cover and back cover.
9. Lay the printer down.
10. Push feed button (part 16) to feed out label.

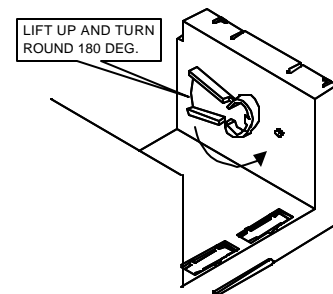


Fig. 2.3.5

2-4. To Connect the Printer to an Interface

1. Be sure the power is switch off.
2. Plug in the power adapter to the printer power jack.
3. Connect the printer to an interface (parallel or serial port).
4. Load the label and ribbon (if need).
5. Power on, the printer will beep one time and the LED is green. If the LED is red, and beep over one times, refer the page 5 to solve problems.

2-5. Stripper

Stripper (Peeler) helps you separate the printed label from the liner (backing paper). Only when the separated label has been taken away, will another label be printed automatically.

1. Open the front cover and back cover.
2. Press the printer locks (part 12) to loosen the printhead assembly, and turn over the head assembly.
3. Press the stripper arm down to "on" position (see figure 2.5.1b)
4. Peel away the labels from the first 4 inches.
5. Load the liner paper through the gap sensor and overstride the Rubber roller about 2 inches. Adjust the label guide to fit the liner paper size.
6. Insert the front edge of the liner paper between the tear bar and the stripper roller (see figure 2.5.1b).
7. Power on the printer. The LED turns red and beeps 4 times.
8. Press the paper feed button a few times until the liner paper appears under the stripper roller.
9. Press the stripper arm down to "off" position. Hold the labels while pulling at the liner so it becomes tight, then adjust the edge of the first label is under the gap sensor.
10. Press the stripper arm down to "on" position
11. Close the printhead assembly. The LED will be green.
12. Refer to the figure 2.5.3 to setup the strip bracket bar to the right position.
13. Refer to the figure 2.5.4, follow the 3-arrow position and direction to gently insert the strip bracket bar until hear the click sound (figure 2.5.4 is a part of zoom out to show the strip bracket bar correct position).
14. Refer to the figure 2.5.5 to setup the strip sensor (press the top area and lift from the bottom).

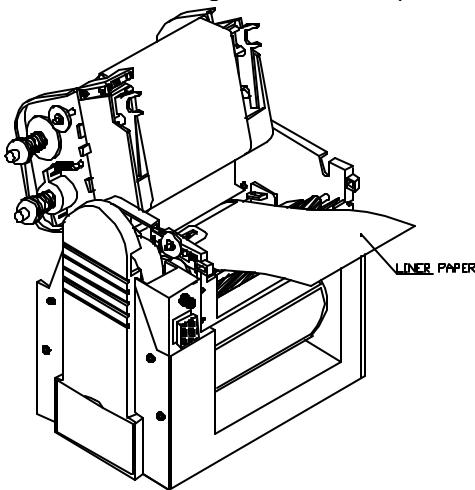


Fig. 2.5.1a

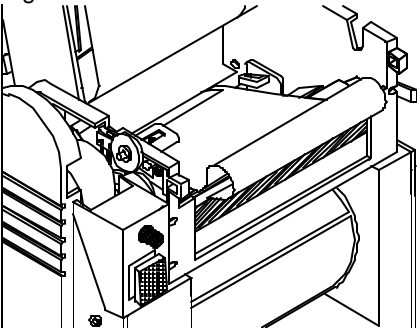


Fig. 2.5.1b

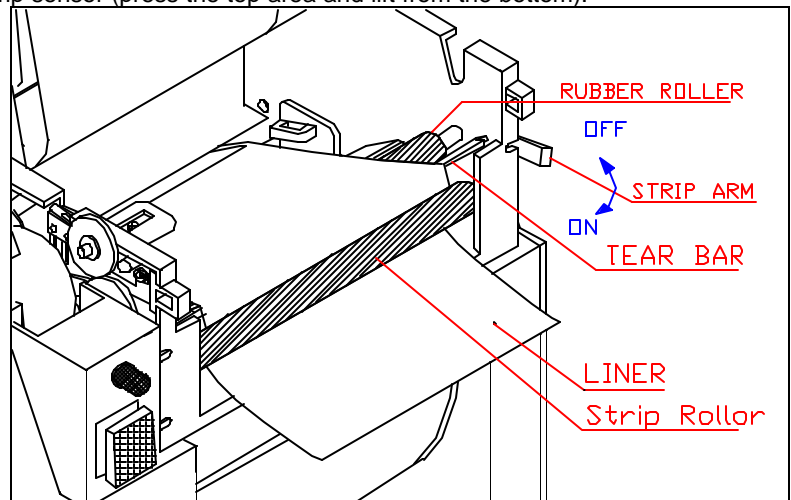


Fig. 2.5.2

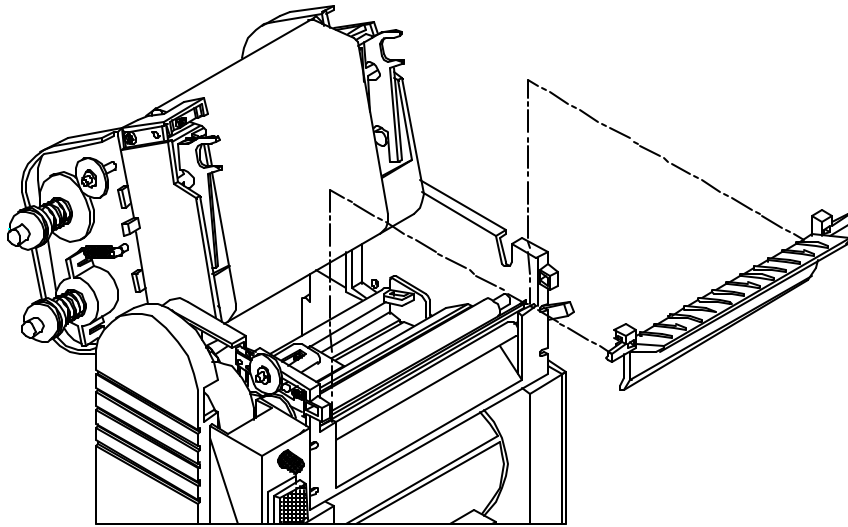


Fig. 2.5.3

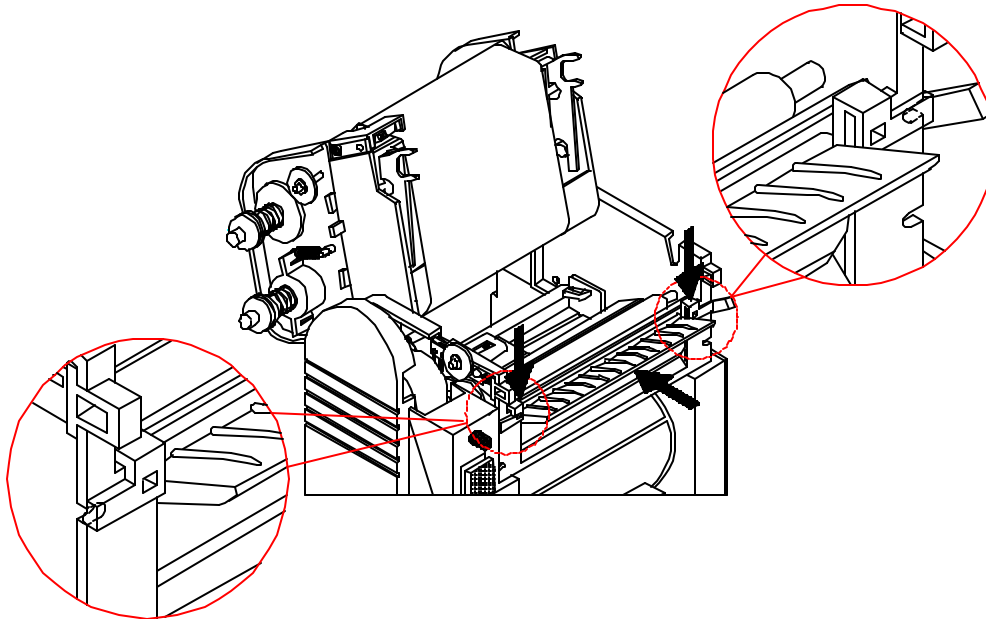


Fig. 2.5.4

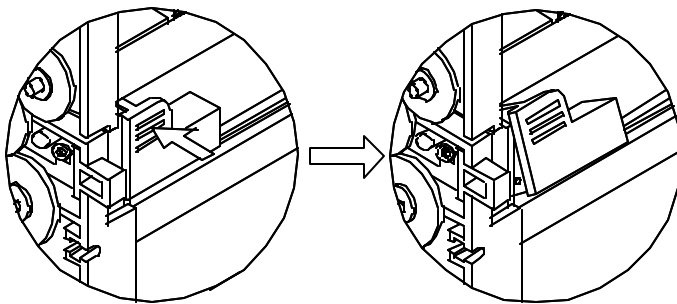


Fig. 2.5.5

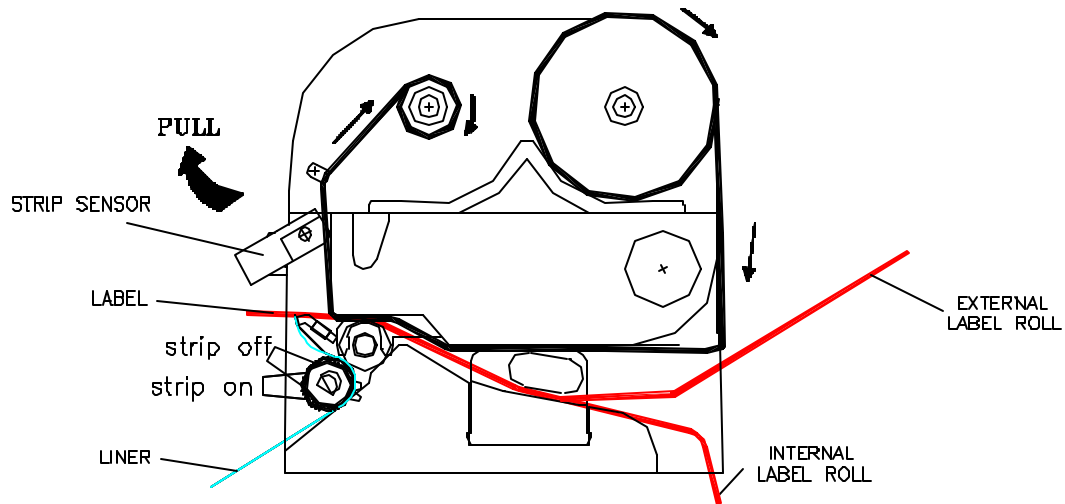


Fig. 2.5.6

Note: Lift the strip arm to “off” position whenever you do not choose stripper.
 Put back the strip sensor whenever you do not choose stripper.

The strip bracket bar is used for strip function. If you don't need to use strip function, you may take out the strip bracket bar and keep to safe place. Please follow these steps to install the strip bracket bar.

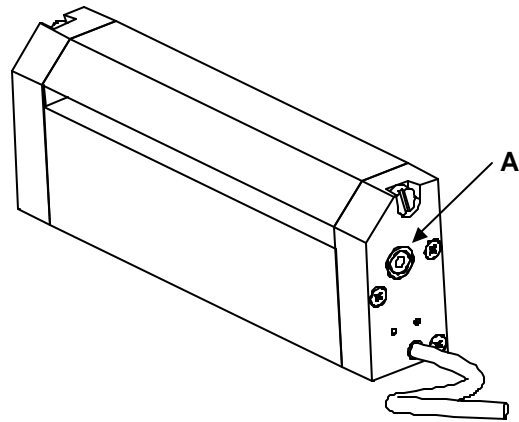
Although the stripper function can support a label as short as 18 mm high, we suggest that the minimum label height be more than 25 mm.

2-6. Cutter

We suggest that the minimum label height be more than 35 mm. If you need any help in installation and maintenance, please consult your supplier or dealer.

Rotary Cutter Adjustment

1. There are two adjustable opening showed as arrow "A" on the cutter.
2. The paper jam may cause the cutter work improperly, power off the printer.
3. Use #M3 Hex Key insert into the opening "A" and turn clockwise. The blade of cutter should be opened, then remove the paper inside the cutter.
4. After the paper jam problem is eliminated, power on the printer, at this moment, the cutter will regress automatically to cutting position.

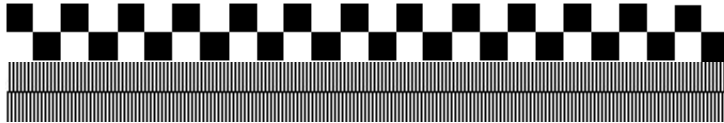


2-7. Self Test

Print out the Self Test

The self-test function helps you to check if the printer works well. To have self-test, please follow the steps.

1. Load the continuous paper.
2. Hold down the feed button when powering on.
3. Release the feed button after the printer beeps 3 times.
4. Wait for about 3 seconds; the printer will print the following contents.
5. Disable the Self-test, please power off the printer at least 2 seconds, than power on again.



EZ-4TT Plus LABEL PRINTER

VERSION : Vx.xxx

CODE 39



123456

EAN 8



1234 5670

EAN 13



1 234567 890128

CODE 93



1234567890

UPC E



0 123456 5

UPC A



1 23456 78901 2

I 2/5



1234567890

CODABAR



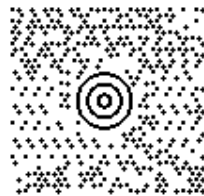
A12356A

CODE 128



1234AcdE

MAXI CODE



PDF417



Get in the Dump mode

When enter the dump mode, the printer will print out the echo of the received ASCII. Use this function to debug your software when the printer does not perform as you expect.

To get in the dump mode, follow the steps as below:

1. Load the continue paper.
2. Hold down the feed button when powering on.
3. Release the feed button after the printer stop.
4. The printer will automatically adjust the label gap sensor firstly and then print "DUMP MODE BEGIN".
5. To end the Dump mode, press the feed button. The printer will print out "OUT OF DUMP MODE".

Get in the Download mode

When the power on, the LED is turn to orange, it may be the firmware was damage (firmware upgrade fail), use the following steps to reload the firmware.

1. Open the print head assembly
2. Hold down the feed button when powering on.
3. Release the feed button after the LED turns to orange.

4. Running the firmware upgrade file to load the firmware. To get the firmware, please contact your agent.
Please contact your agent for help if the above information cannot help you.

3. Maintenance and Adjustments

3-1. Cleaning the Printhead

Open the Front cover and back cover.

Press the printer lock (part 14) to loosen the printhead assembly.

Turn over the head assembly.

Use a soft cloth soaked with isopropyl alcohol to remove the stuck label and cleans the surface.

Put back the printhead and fasten it.

3-2. Label Gap Sensor Adjustment

Sensitivity adjustment by Auto sensing

The EZ-4TTP and EZ-4TKP printer is fitted with a label gap sensor that detects gaps between labels, as the media is fed past the sensor during printing. Thus the firmware can determine the length of the labels and control the media/ribbon feed accordingly.

The label gap sensor is a left-aligned photoelectric sensor that measures the light that passes through the media path. The transparency of the liner (backing paper) of label supply may differ between batches, making it difficult for the sensor to discriminate between labels and liner. When this occurs, the LED indicator will switch from green to red, indicating that sensor should be adjusted by entering the Auto sensing mode, as described below.

1. Load the paper.
2. Hold down the feed button when powering on.
3. Release the feed button after the printer stop, then the printer will entering the Auto sensing mode.
4. The printer will automatically adjust the label gap sensor and media feed according to the characteristics of the media. After that, the printer goes into the dump mode.
5. Press the feed button to end the Dump mode.

Adjusting the Sensor Position

When the start print position is too left or right, you can adjust the sensor position. No matter the plain paper or label is used, the sensor position adjustment in same way. Please follow the steps.

1. Choose the expected distance "x" (from the left edge to the start print position). In this case, we suppose the distance is 4 mm (see figure 3.2.1).
2. Turn over the printhead assembly.
3. Move the gap sensor and choose the distance 4mm (from the left margin line to the digit "0" on ruler). (See figure 3.2.2).
4. Load the media and move the label guide to fit in the media's edge.
5. Put back and fasten the printhead assembly; then you can try to print a label to verify the start print position.

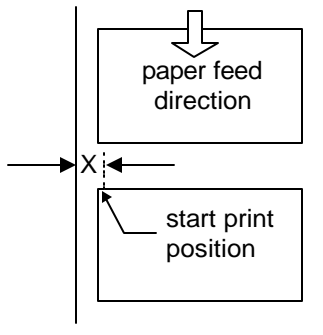


Fig. 3.2.1

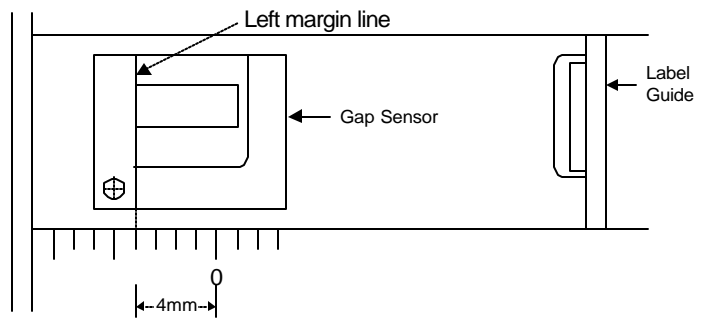
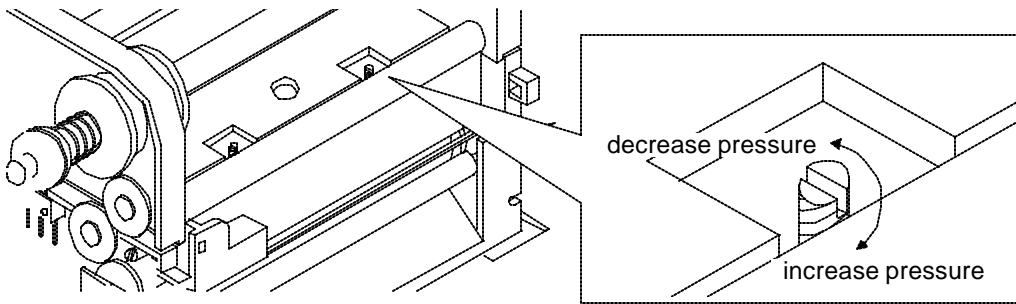


Fig. 3.2.2

3-3. Adjusting the Printhead Pressure Screws



When opening the front cover, you can see two screws on the top of the printhead assembly. With different paper material or ribbon material, you may need to adjust the printhead pressure by turning these two screws to decrease or increase the pressure. If the pressure between the right and left sides of printer is not balanced, please readjust these two screws.

Appendix

A. Troubleshooting

Problem	Solution or Reason
LED does not light (power switch already turned on).	? Check Power connector.
Printing stops and LED turns red.	? Software setting or programming problem. ? Refer described on page 5. ? Perform a Label Gap Sensor Adjustment as described on page 14.
Printing no stops or skip label	? Perform a Label Gap Sensor Adjustment as described on page 14.
Printer seems to be working but nothing is printed.	Direct Thermal Printing: Verify that the media is intended for direct thermal printing by testing if the paper is blackened by the heat from a hot object (+ 70°C/160°F or more). Check that the heat-sensitive side faces the printhead. ? Thermal Transfer Printing: Verify that the printer is loaded with thermal transfer ribbon and that the ink-coated sided faces the receiving face material.
Label stuck.	? Remove the stuck labels and use soft cloth soaked with alcohol to clean the adhesive glue.
Only part of the label is printed.	? Label or ribbon stuck on the printhead. ? Software problem. ? Margin setting incorrect. ? Printhead not completely locked. ? Make sure the ribbon is not wrinkled. ? Adjust the printhead pressure screws to increase the pressure. ? Check if using correct power source.
Difficult to load label roll.	? Labels stuck in the printer.
When printing out, some dots missing.	? Clean printhead with alcohol (If the label glue is stuck to printhead, apply alcohol to printhead, and wipe with soft cloth softly). ? Replace printhead.
Printing position not correct.	? Check the gap sensor, it may be covered with dust. ? Perform a Label Gap Sensor Adjustment as described on page 14. ? Contact your label supplier, make sure they use qualified label material. ? Check the label guide, it may not be in the proper position.
Label printing jumps to next label.	? Check the label height setting. ? Check the gap sensor, it may be covered with dust.
Label printing not very clear.	? Clean the printhead as described on page 14. ? Check the printer darkness (density) setting.
Paper is not properly cut.	? Check the cutter, it may be covered with paper dust in the blade holder shaft.
Label peeling not working correctly.	? Check the printer strip sensor, it may be covered with dust. ? Check label installation.
Printer not feeding when using narrow label.	? Decrease the pressure on the right hand side of the printhead, refer described on page 15.
Garbage appears when printing length is over 16 inches.	? Check if expanded SRAM (option) is installed.