



FP58
Printer
Installation Guide

A large, grey, circular graphic with a white star at the top. The text 'FP58' is in a large, gold, sans-serif font. Below it, 'Printer' and 'Installation Guide' are in a smaller, white, sans-serif font. The graphic is set against a white background with a subtle shadow.

Thank you for choosing TOP VME .



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1. Introduction

1-1. Overview

FP58 equipped with built-in clock, local time can be set before shipment and the local time can be printed on the printed document.

FP58 provide users with deletable daily and summery report, it also provide typesetting function, user can easily download or design document formats, trademarks ... etc. and can be stored inside FP58 for future use.

1-2. Features

- Easy grasp data
- Recode data quickly and securely
- Query and print easily

2. Specification

2-1. General

Power Source	12V DC (10.8~13.2V DC)
Input/Output level	HI : 12V LO : 0V DC
Roll Width	56 ± 0.5 mm
Installation	Indoor
Power Consumption	Standby : 0.18A / 2.16W Operation : 2.1A / 25.2W Maximum : 2.5A / 30W
Weight	Approx. 503g (without roll)
Temperature Range	Operation Temperature : 0° C~60° C Storage Temperature : -10° C~80° C Humidity : 20%~70%RH (no condensation)

2-2. Cutter

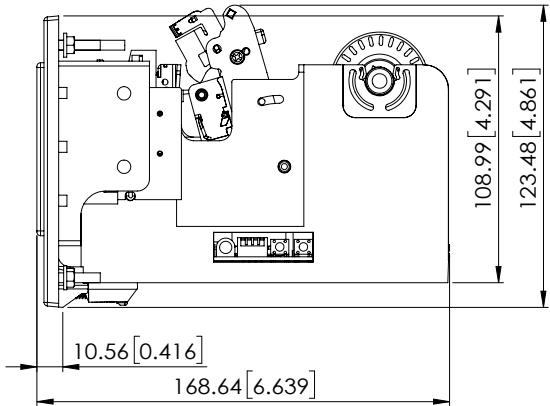
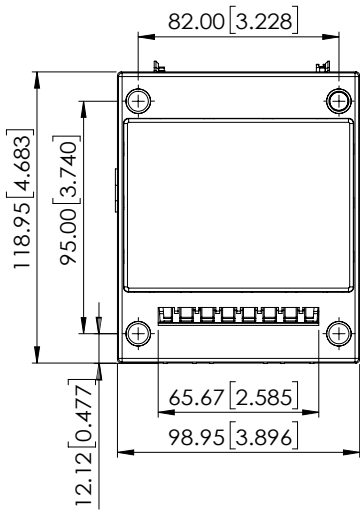
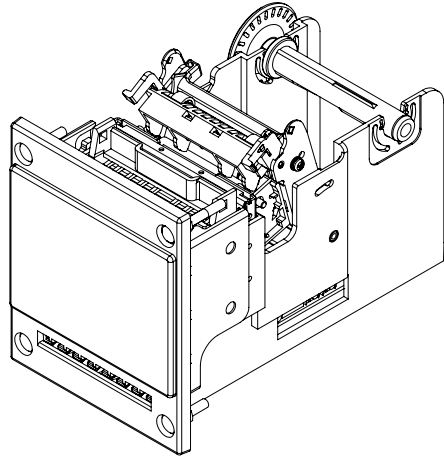
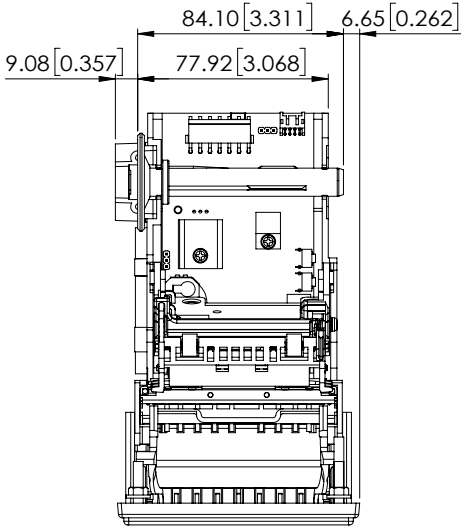
Thickness	Max. 0.12mm
Life	Up to 500,000 times
Time	Fastest 1 time / sec

2-3. Thermal Print Head

Life	30 km
Resolution	8 Ponints / mm
Speed	40 mm / sec

3. Dimension

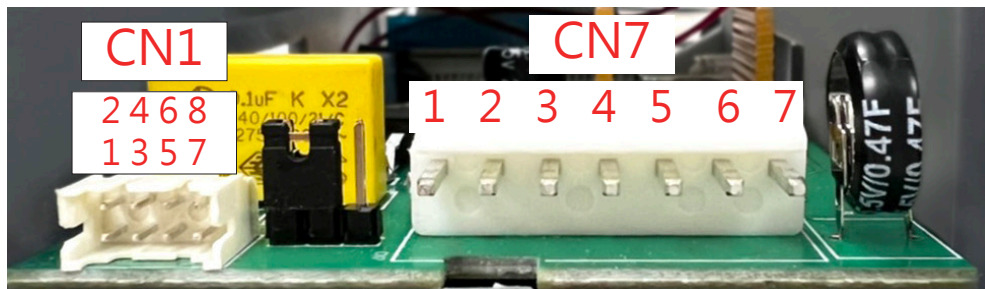
Unit : mm [inch]



4. The Hardware Setup

4-1. Connection Setting

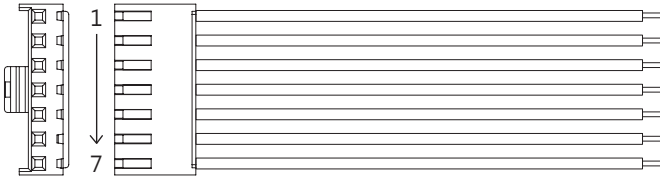
Please refer to the diagram below for the PIN information :



CN1 Serial Interface	
PIN 1- GND	PIN 5- RESET
PIN 2- X	PIN 6- VCC (+5V DC)
PIN 3- PGD	PIN 7- RX
PIN 4- PGC	PIN 8- TX

HARNES FORMAT

WEL-RU082-K

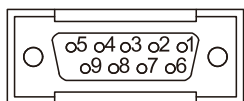
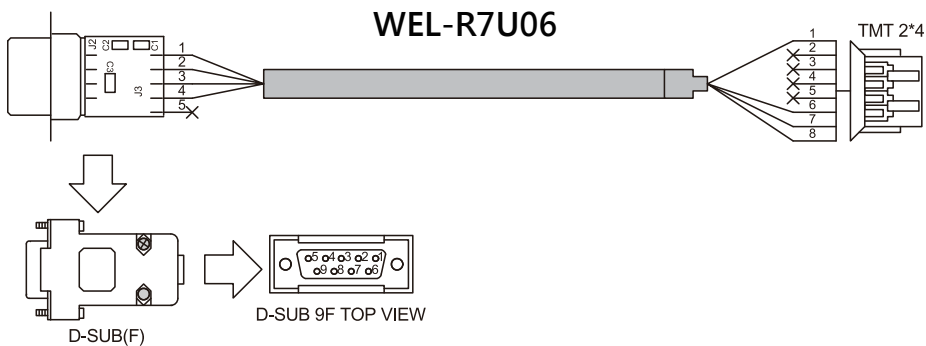


PLUSE MODE				
PIN	COLOR	FEATURES	SIGNAL	I/O
1	Red	+12VC		
2	Black	GND		
3	Brown	Coin	PULSE	I
4	Orange	Note	PULSE	I
5	Yellow	Payout	PULSE	I
6	Green	NC		
7	Blue	Error	Low active	O

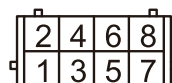
HOPPER MODE				
PIN	COLOR	FEATURES	SIGNAL	I/O
1	Red	+12VC		
2	Black	GND		
3	Brown	Coin	PULSE	I
4	Orange	Note	PULSE	I
5	Yellow	HOPPER SSR	Low active	I
6	Green	HOPPER SW	PULSE	O
7	Blue	Error	Low active	O



HARNESS FORMAT



PIN NO	PIN DEFINE
PIN2	TXD
PIN3	RXD
PIN5	GND



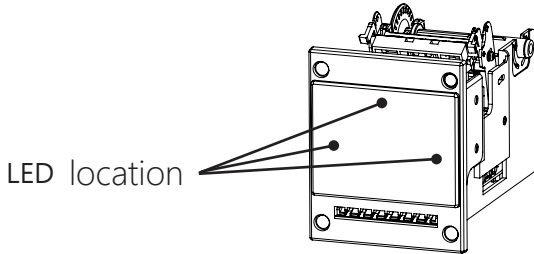
TMT 2*4 BACK VIEW

PIN NO	COLOR	PIN DEFINE
PIN1	BLUE	GND
PIN6	WHITE	VCC
PIN7	BLACK	RXD
PIN8	PURPLE	TXD

Topvme

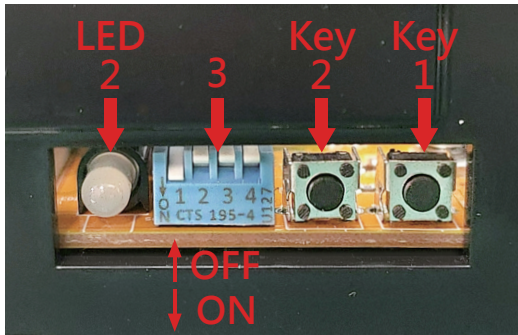
4-2. LED and DIP Switch Setting

A. LED Display :



LED Colour	Status
Colorful	Normal
Red	Malfunction (paper jamming, no paper)

B. Status Indicator LED light : Normal in Green, Malfunction in Red



C. DIP Switch

Features	SW1	SW2	SW3	SW4
Paper Cut (partially)	OFF			
Paper Cut (fully)	ON			
Pulse Width 30ms		OFF	OFF	
Pulse Width 50ms		ON	OFF	
Pulse Width 100ms		OFF	ON	
Pulse Width 200ms		ON	ON	
Input Normal High (NC)				OFF
Input Normal Low (NO)				ON

D. KEY1 and KEY2

- Press KEY1 once : Print daily report.
- Hold KEY1 for more than 2 sec : The last record before printing.
- Press KEY2 : Paper moving forward.

4-3. Setting Step

A. Connect the power cord to the PCBA signal CN7.

B. Install the paper roll into the roll groove according to the direction of the grating mounted.

C.RS-232 interface or bill format setting – connect the RS232 cable to the COM port of the computer and the CN1 port of the printer.

D.Turn on the power · put the paper into the printer · the machine will sense the paper automatically in 2 seconds.For Roll Installation, please refer to 7-1.

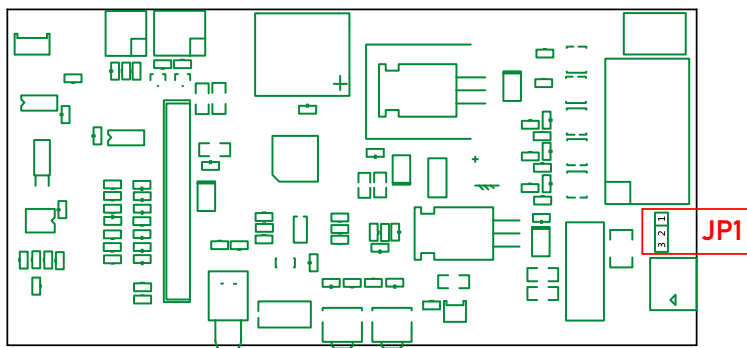
E. Through Print Tools or Index 6 RS232 to configure ticket format and time setting.

5. Battery setup

1、2 PIN shorted : Enable(Default Setting)

(the battery will be charged after connecting to the power, able to supply power to the internal clock after power off)

2、3PIN : Disable



6. RS232

6-1. Transmission Specification

Transmission Method	Full Duplex Transmission
Transmission Speed	38400 Baud Rate
Synchronizing Method	Asynchronous Method
Data Format	Start bit 1, Data bit 8, Parity bit none, Stop bit 1

6-2. Reading Date and Time

Byte1	Byte2
1Bh	F0h

6-3. Setting the Date and Time Command

Command :

Byte1	Byte2	Byte3~12	Byte13
1Bh	F1h	Data	Format

Return code:

Byte1	Byte2
77h	33h

Style :

Format	Command
yy/mm/dd	0x00
mm/dd/yy	0x01
dd/mm/yy	0x02
yy/dd/mm	0x03

For example : at 17:33 on August 13, 2014

The command will be : 1Bh F1h 31h 34h 30h 38h 31h 33h 31h 37h 33h 33h 00h



6-4. Upload Trademark Graphic Formats

Picture width and file size are respectively limited to 384 pixel and 16kb.

Byte1	Byte2	Byte3	Byte4	Byte5~52
1Dh	F4h	Graphic size low-tuple	Graphic size high-tuple	Data

Return code :

48bytes Data received correctly	42h
All data reception is completed	ABh

6-5. Typeset Print Function

Byte1	Byte2	Byte3~ Byte32
33h	BBh	Data

*Parameters1 : Byte3,Byte5,Byte7~~~~~,Byte31 Information Content.

Blank lines	20h	Character2	75h
Trademark	4Ch	Character3	76h
Two-dimensional code	51h	Character4	77h
Fraction	50h	Character5	78h
date	44h	Character6	79h
Barcode	42h	Character7	7ah
character1	74h	Character8	7bh

*Parameters1 : Byte4,Byte6,Byte8~~~~~,Byte32 Information Content

If the parameter1 is a trademark, QR code, date or barcode, please set parameter 2 to the following:

No parameters	B0h
---------------	-----

If the parameter 1 is score choosing, a text 1, text 2, text 3 or text 4. The parameter 2 options are set as follow:

1*1 Font	B1h	2*4 Font	B4h
1*2 Font	B2h	3*3 Font	B5h
2*2 Font	B3h	3*6 Font	B6h



If the parameter 1 is set to "blank line", parameter 2 options are set as follow:

Empty 1 row	1h	Empty 6 row	6h
Empty 2 row	2h	Empty 7 row	7h
Empty 3 row	3h	Empty 8 row	8h
Empty 4 row	4h	Empty 9 row	9h
Empty 5 row	5h	Empty 10 row	10h

Receive information is complete, it will respond to 06h.

6-6. NO / NC choose

Byte1	Byte2	Byte3
33h	BCh	Data

Byte3= 00h (pulse normal High)

Byte3= 01h (pulse normal Low)

6-7. Upload Text

Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7	Byte8	Byte9
33h	BDh	Data1	Data2	Data3	Data4	Data5	Data6	Data7
Byte10	Byte 11~34	Byte 35~58	Byte 59~82	Byte 83~106	Byte 107~130	Byte 131~154	Byte 155~178	Byte 179~202
Data 8	Data 9	Data 10	Data 11	Data 12	Data 13	Data 14	Data 15	Data 16

Byte3 ~ Byte10 :

Left	00h
Middle	01h
Right	02h

6-8. Clear Diary

Byte1	Byte2
1Bh	F2h

6-9. Paper Cutting

Byte1	Byte2
1Bh	F5h



6-10. Direct Print Format - Graphics

Byte1	Byte2	Byte3~50
1Dh	F8h	Data

Printer reply 06h : receive successfully

Printer reply 0Ah : receive unsuccessfully

6-11. Direct Printing Format - Text

Byte1	Byte2	Byte3	Byte4~9	End character
1Dh	F7h	Mode	ASCII Character	0Dh

Printer reply 06h: receive successfully

Printer reply 0Ah,: receive unsuccessfully

	Print Size (width x height)
Mode = 00h	1x1
Mode = 01h	1x2
Mode = 02h	2x2
Mode = 03h	2x4
Mode = 04h	3x3
Mode = 05h	3x6

ASCII Character input 1~6 digital

6-12. Print Score Reports

Byte1	Byte2
1Bh	F9h

Printer reply 06h: receive successfully

6-13. Print Diary

Byte1	Byte2
1Bh	F9h

Printer reply 06h: receive successfully



6-14. Retrieve Software Version

Byte1	Byte2
1Bh	FBh

Printer will reply to 12 bytes of data

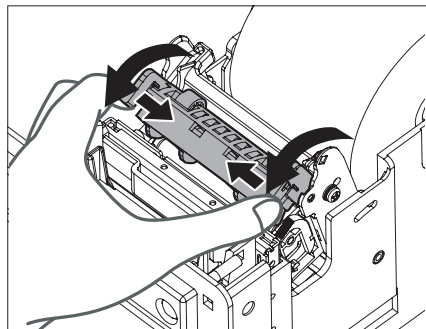
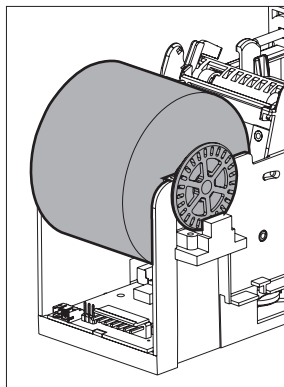
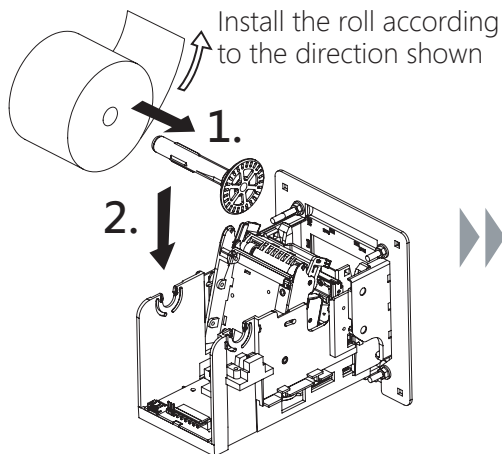
6-15. Read Machine Status

Byte1	Byte2
1Bh	FCh

Printer show: 00h Status normal , 01h run out paper, 02h cutter failure

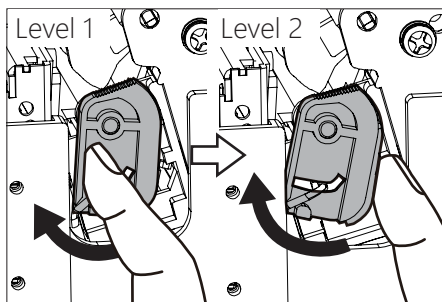
7. Printer Introduction

7-1. Roll Installation



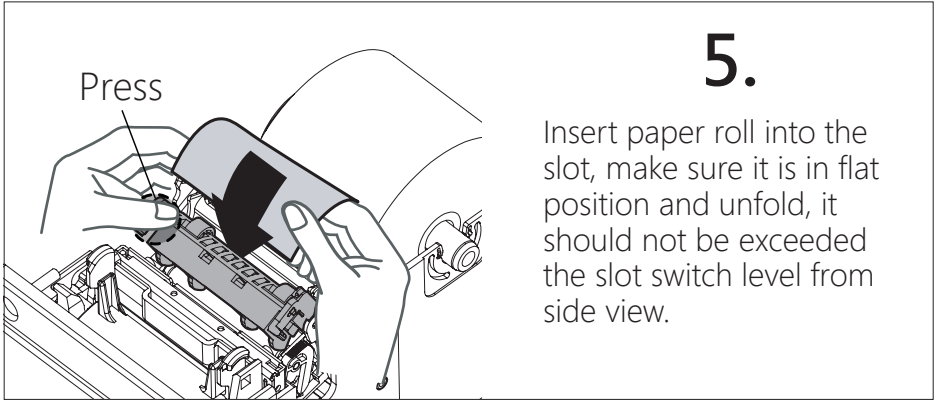
3.

Press the platen inward and release, it will automatically fall into appropriate slot, if unsuccessful, relocate it to the refill position manually.



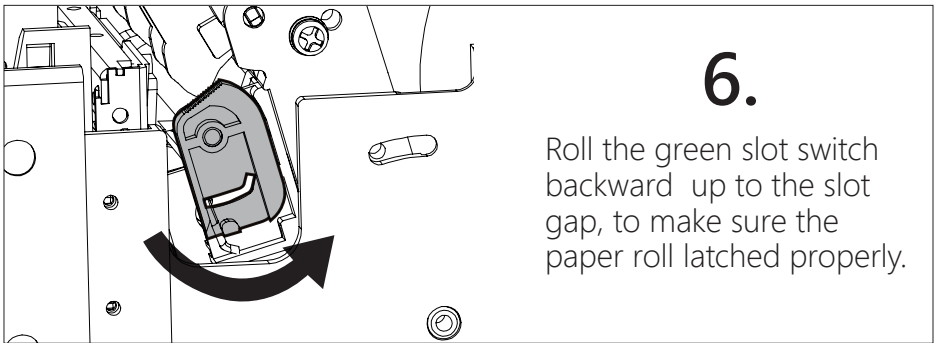
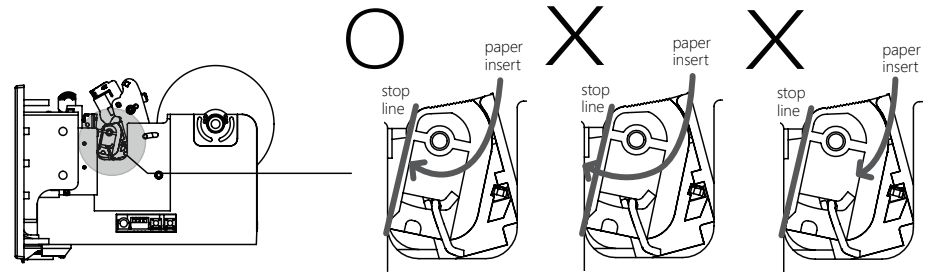
4

Roll green slot switch forward until to the end (second level), release the rolling gap, the roll will be inserted more easily.



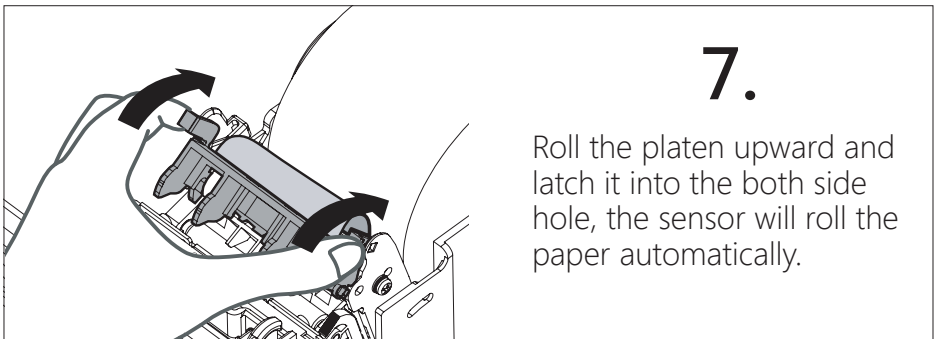
5.

Insert paper roll into the slot, make sure it is in flat position and unfold, it should not be exceeded the slot switch level from side view.



6.

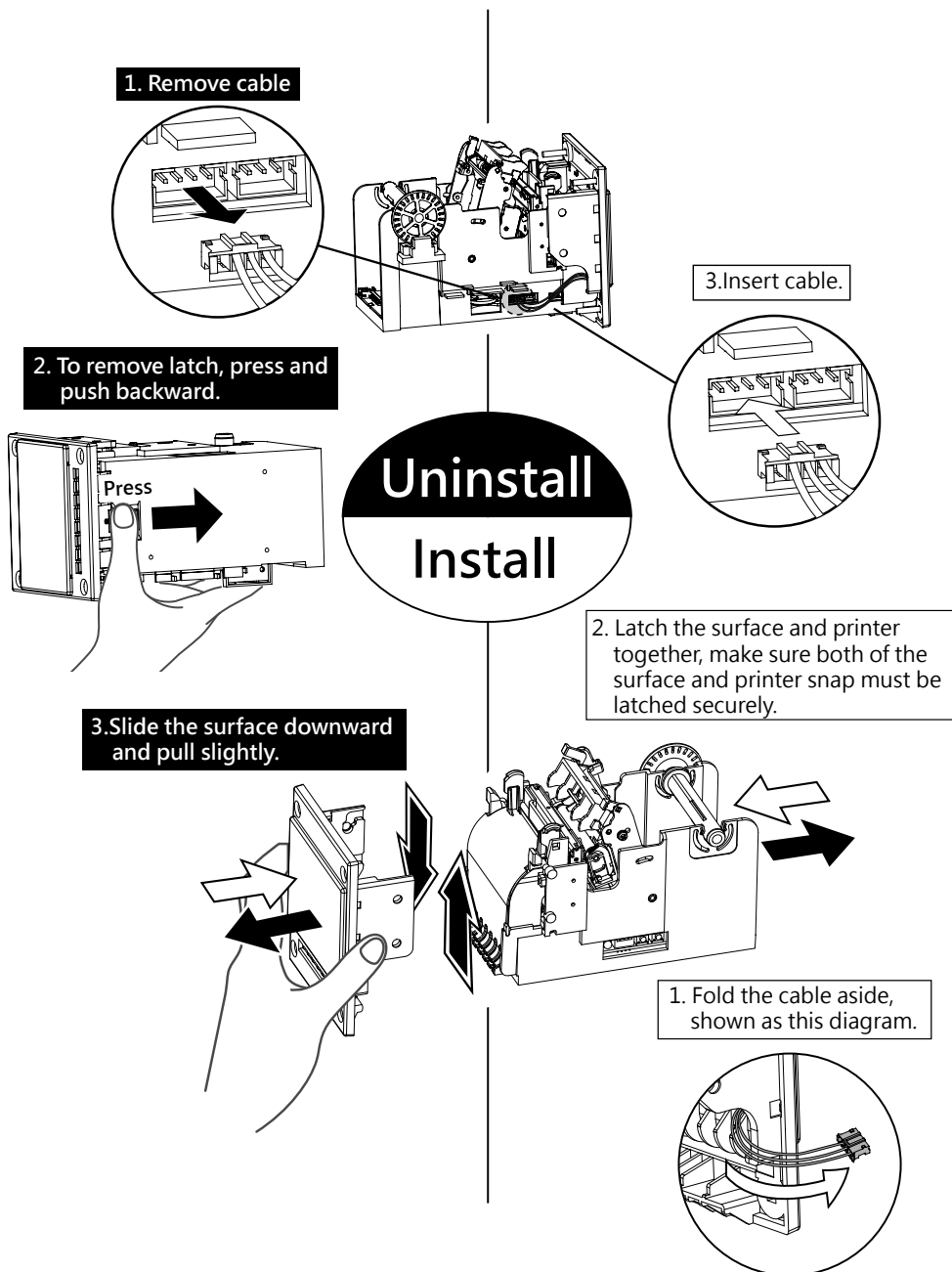
Roll the green slot switch backward up to the slot gap, to make sure the paper roll latched properly.



7.

Roll the platen upward and latch it into the both side hole, the sensor will roll the paper automatically.

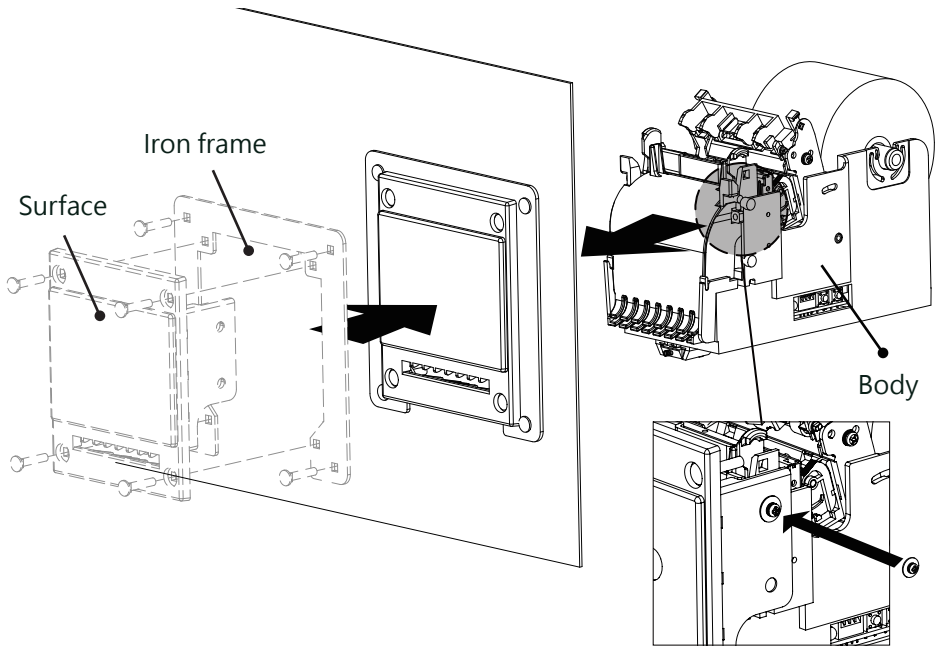
7-2. Assemble and Disassemble of the Printer



7-3. Printer Installation

Mount the surface onto the board, followed by installing the printer (refer to 7-2). Secure the surface onto the iron frame before mounting it onto the board if an iron frame is needed.

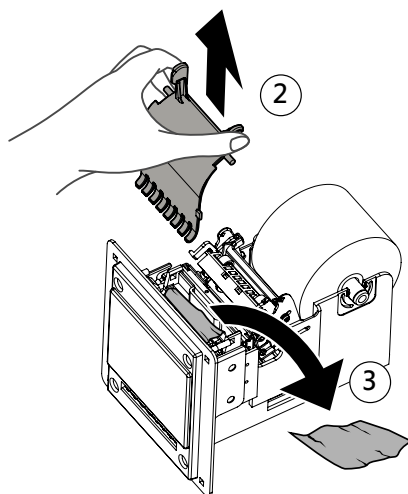
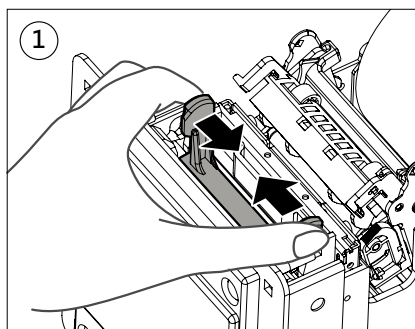
* screw, nut and iron frame has been attached with package



After assemble the panel and body, lock the crew into both side of the panel.

8. Troubleshooting

8-1. Paper Jamming



8-2. No paper out

Situation	Reason	Solution
No Paper Out	Paper unable to be rolled out in correct path due to inserted too deep.	Release lever, adjust paper to correct position, refer to index 7-1.
	Paper unable to rolled out by the roller as inserted not deep enough.	



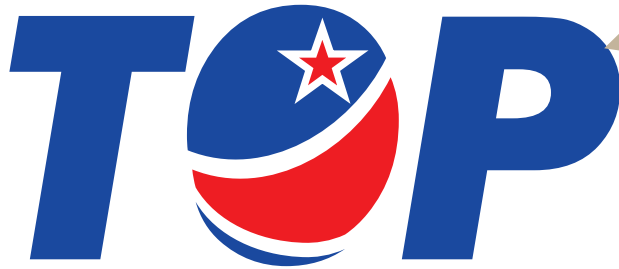
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