



Thermal Printer  
**GP58V  
&  
Combo**

\_\_\_\_ Installation Guide \_\_\_\_

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# 1. Introduction

GP58V, a compact-size design, is installed on the vending machine that needs the functionality of output a receipt while the transaction completed. The friendly user interface of built-in print-button and the adjustable paper length function, the user can easy and quick operate GP58V to increase the efficiency of paper-use and reduce the maintenance cost.

With a DAB (ICT's Data Audit Box) installation, it can satisfy the operator not only the requirements of audit transaction(DAB) but also to print out the receipt/coupon for the vending machines.

Both coupon and receipt, the format including the logo, text contents and QR/ bar code, etc, can be set-up by the user. The downloadable design that the operator can save or upload the printing format/ settings between GP58V and utility tool via a USB pen-drive would considerable educe the maintenance efforts.

## 1-1. Feature

- Design dedicated for Vending Applications
- Easy Installation and Low Maintenance
- Anti-Pull Paper Mechanism
- Adjustable Paper Length
- Low-paper Alarm Indicator
- Quick, Easy Settings & Upgrade via USB Pen-drive

# 2. Specifications

## *General*

|                                 |   |
|---------------------------------|---|
| <b>Interface</b>                | RS232, USB  |
| <b>Power Source</b>             | 20VDC~45VDC<br>24VAC  |
| <b>Power Consumption</b>        | Standby: 2.08W<br>Operation: 5.04W<br>Maximum: 29W<br>(in case of printing in all gray)                               |
| <b>Operation Environment</b>    | Operation Temperature : 0°C~+50°C<br>Storage Temperature : -20°C~+60°C<br>Humidity : 30 %~85 %RH<br>(no condensation) |
| <b>Paper Size</b>               | Width: 58+-0.5mm<br>Outside Diameter: 40+-1.0mm   |
| <b>Paper -Length Adjustment</b> | 7.0~11.4 cm   |
| <b>Weight</b>                   | Approx. 700g (without paper roll)   |
| <b>Installation</b>             | Indoor  |

### Cutter

|           |                     |
|-----------|---------------------|
| Thickness | Max. 0.12mm         |
| Life Time | Max. 500,000 cuts   |
| Time      | Approx. 1.0s/ cycle |

### Print head

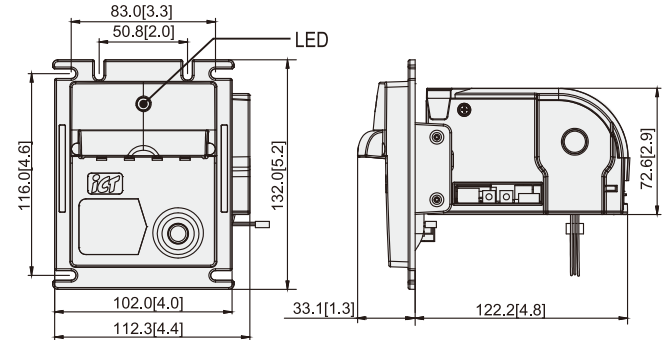
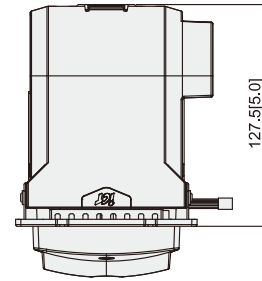
|            |            |
|------------|------------|
| Resolution | 8 dots/mm  |
| Speed      | 90±5mm/Sec |

## 3. Packing List

|           |   |
|-----------|---|
| Main      | Thermal Printer                                   |
| Accessory | Harness: Refer to 5-1<br>GP58V Installation Guide |

## 4. Dimension

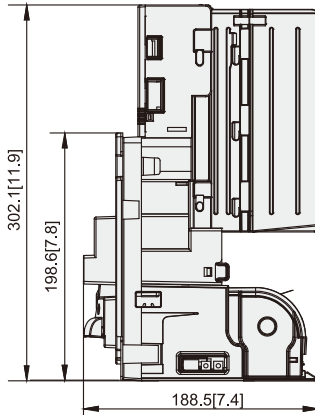
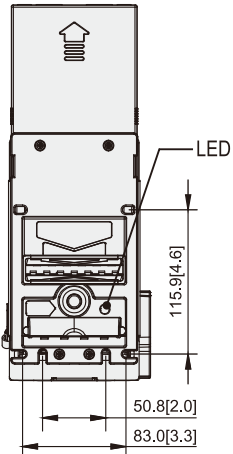
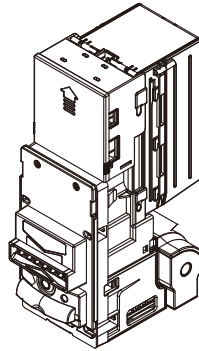
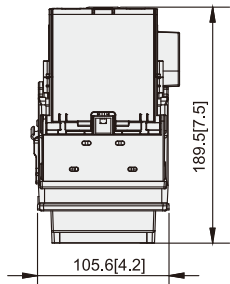
<GP58V>



Unit:mm[inch]

4 FIG.01

<COMBO>



Unit:mm[inch]

4 FIG.02

## 5. Hardware Setup

### 5-1. Harness Application

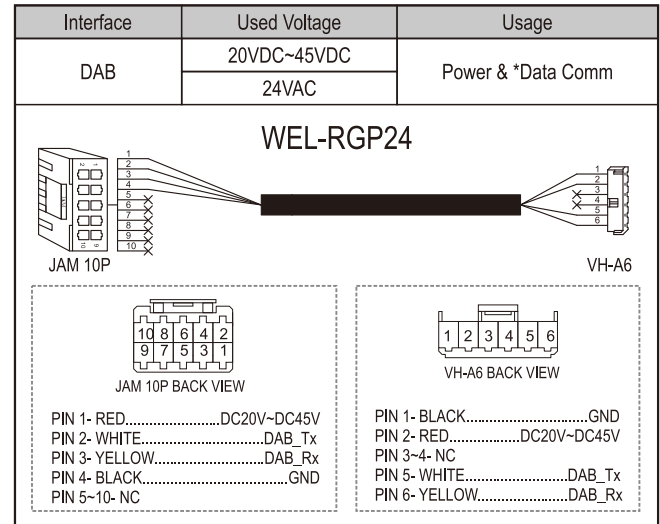
5-1 TABLE 01

| Interface           | Used Voltage | Usage              | Harness     | Page |
|---------------------|--------------|--------------------|-------------|------|
| DAB                 | 20VDC~45VDC  | Power & *Data Comm | WEL-RGP24   | 7    |
|                     | 24VAC        |                    |             |      |
| Alternating Current | 24VAC        | Power Wire         | **WEL-RGP25 | 8    |
| ICT Protocol        | 0~5VDC       | *Data Comm         | **WEL-RGP23 | 9    |
| USB                 | 0~5VDC       | *Data Comm         | **WEL-RHP57 | 10   |

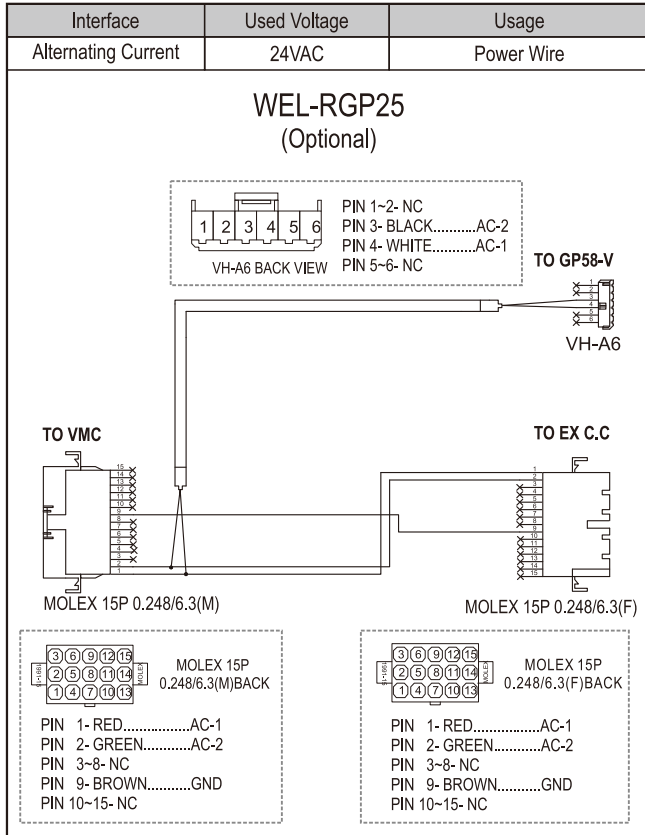
\*Data Communication

\*\*Optional, used to connect to ICT CC6100E. Please contact ICT Sales for purchase.

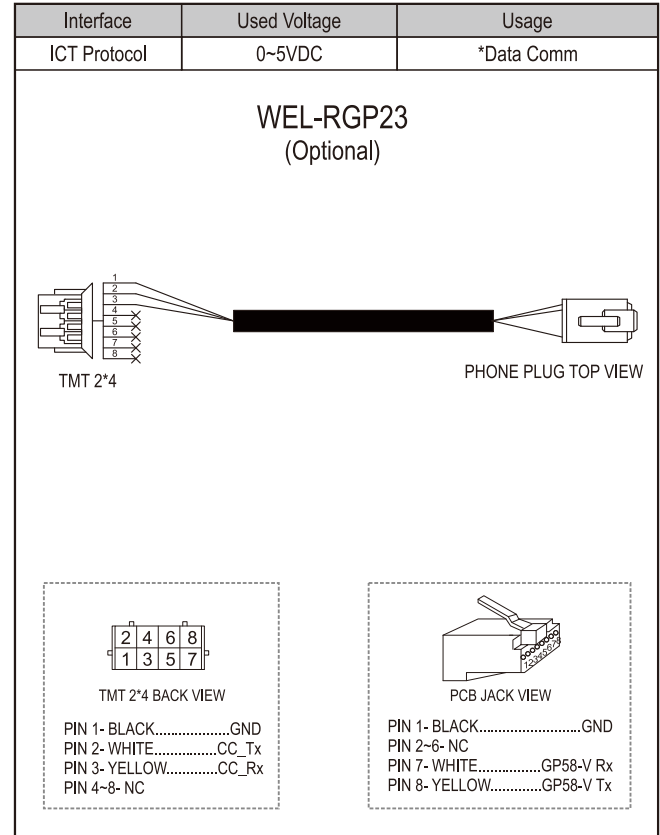
5-1 FIG.01



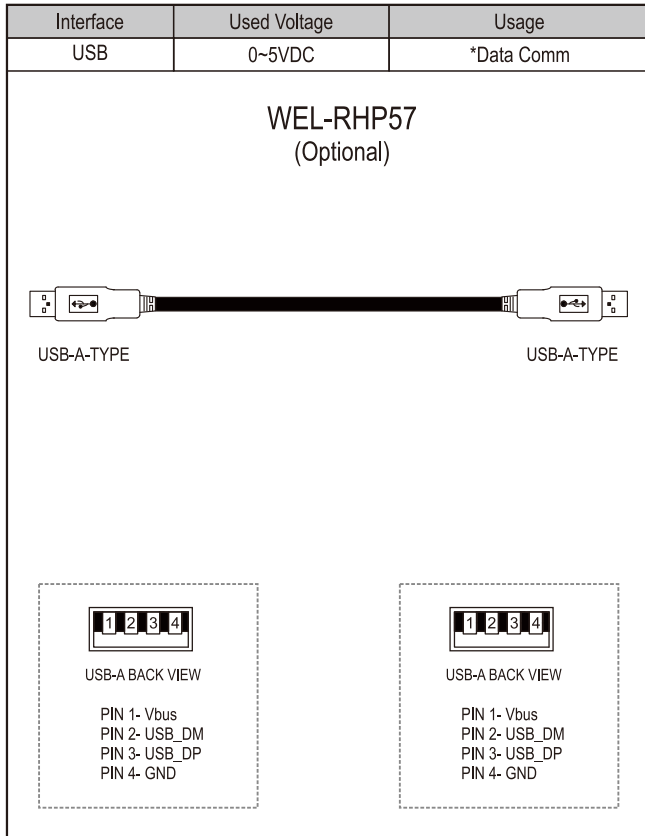
5-1 FIG.02



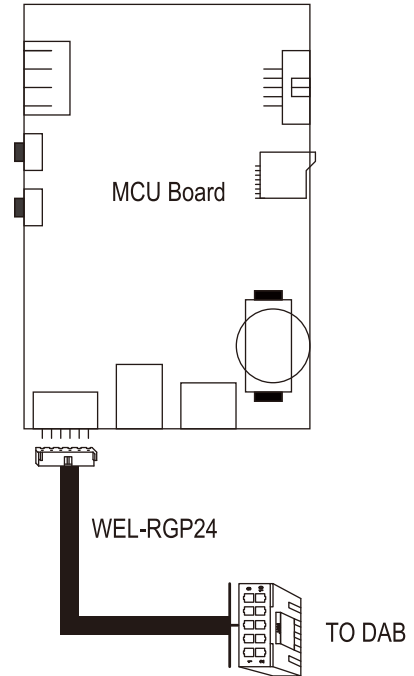
5-1 FIG.03



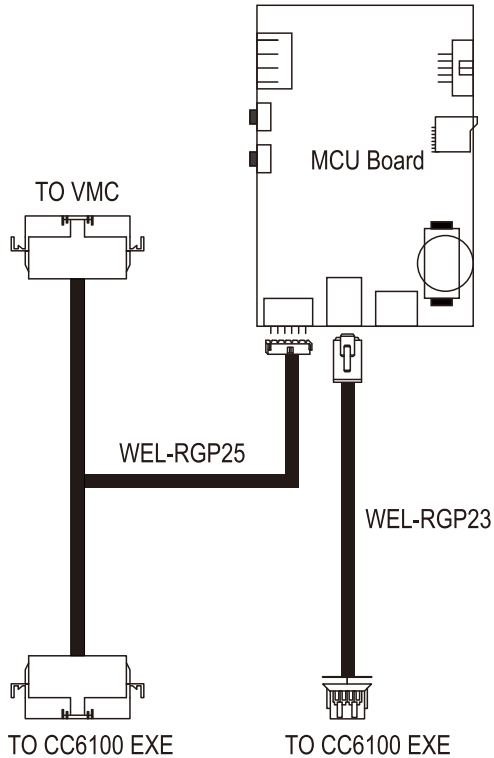
5-1 FIG.04



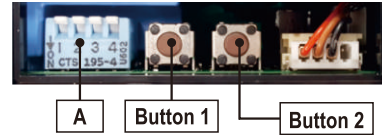
### 5-1-1. DAB connection



### 5-1-2. CC6100 EXE & VMC connection



### 5-2. I/O Connector

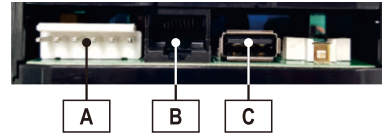


5-2 FIG.01

**A:** DIP Switch, please refer to section 5.3

**Button 1:** Print test.

**Button 2:** Reserved .



5-2 FIG.02-1

**A:** PWR/DAB Communication connector  
(for cable: WEL-RGP24)

| PN.            | RPN-R9004       |
|----------------|-----------------|
| Pin Assignment | note            |
| 1              | P-GND           |
| 2              | VIN             |
| 3              | AC-2            |
| 4              | AC-1            |
| 5              | RS232-RXD1      |
| 6              | RS232-TXD1      |
|                | ±12V EIA-RS-232 |

5-2 TABLE 01





5-2 FIG.02-2



**B:** RJ-45 (for cable: WEL-RGP23)

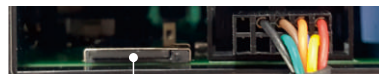
5-2 TABLE 02

| PN.            |          | CNT-R8001-7                   |
|----------------|----------|-------------------------------|
| Pin Assignment |          | note                          |
| 1              | GND      | GND                           |
| 2              | TXD3     | UART_TX3 TTL 5V (PROGRAM USE) |
| 3              | RXD3     | UART_RX3 TTL 5V (PROGRAM USE) |
| 4              | /PROGRAM | PROGRAM USE                   |
| 5              | /RESET   | RESET                         |
| 6              | VCC      | 5V                            |
| 7              | RXD6     | UART_RX6 TTL 5V               |
| 8              | TXD6     | UART_TX6 TTL 5V               |

**C:** USB Port (for cable: WEL-RHP57)

5-2 TABLE 03

| PN.            |      | CNT-R9B15 |
|----------------|------|-----------|
| Pin Assignment |      | note      |
| 1              | VBUS | VBUS      |
| 2              | DM   | USB_D-    |
| 3              | DP   | USB_D+    |
| 4              | GND  | GND       |



5-2 FIG.03



**A:** Micro SD card socket (MicroSD card inserted)

### 5-3. DIP Switch Setup

There are two kinds of mode that the user can configure to print out the receipt. One is DAB Mode (auto), the other is DAB Mode (button).

**DAB Mode(auto):** While each transaction finished, GP58V would automatically print out the receipt.

**DAB Mode(button):** While each transaction finished, the user would need to press the print button then to get the receipt.

The DIP S/W Setup is as below table:

5-3 TABLE 01

| Function              | SW1 | SW2 | SW3    | SW4 |
|-----------------------|-----|-----|--------|-----|
| DAB Mode (auto)       | OFF | OFF | OFF    | OFF |
| DAB Mode (button)     | OFF | OFF | ON     |     |
| Reserve               | ON  | OFF | ON/OFF |     |
| Reserve               | OFF | ON  | ON/OFF |     |
| Dagnostic (auto test) | ON  | ON  | ON/OFF |     |

If you would like to diagnose GP58V via PC tool, please follow up the DIP Switch Setup as above table.

## 6. Receipt Format setting

There are two kinds of methods that you can setup the receipt format for GP58V.

### Method 1:

In case of GP58V is connected to DAB, you should open the software of Audit Box Tool (WinXP/7 and above OS) to edit your receipt format. Please refer to DAB-M/DAB-E user manual, section 2.3.

### Method 2:

In case of GP58V is connected to ICT 6100E (Please contact ICT Sales for necessary communication cables & GP58 series all-in-one tool) you should open GP58 series all-in-one tool to edit receipt format.

The beginning tool screen is as below.



You can save the format data that you setup on all-in-one PC tool to GP58V's Micro SD card or a USB Pendrive. After that, plug that Micro SD card or USB Pendrive into your GP58V to finish data upgrade.

## 7. Download & Upgrade program

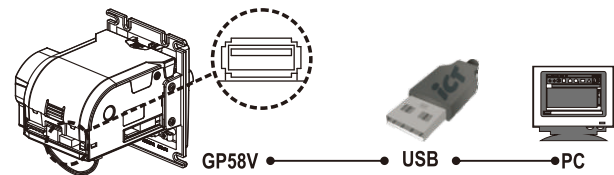
There are two kinds of methods that you can download Firmware for upgrading GP58V.

### Method 1:

In case of GP58V is connected to DAB, you can download GP58V firmware(.ecf file). (please make sure the communication cable is connected to DAB and DAB is on the status of power on. Please refer to DAB-M/DAB-E user manual, section 1.7 Upgrade BA/CC Firmware)

### Method 2:

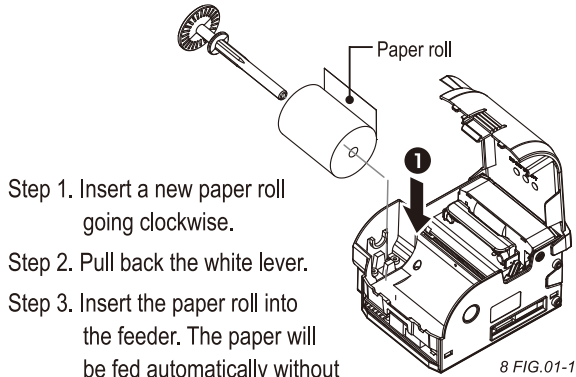
1. Please copy the firmware file (.bin) to the folder of ECF of your USB pen drive. Please keep only one file (.bin) in this folder to avoid the possible version fault.
2. Please insert the USB Pen drive to GP58V USB Port, no need of any changes on DIP switch at this moment.
3. After inserted the USB Pen drive, please re-power on GP58V to finish firmware upgrade.



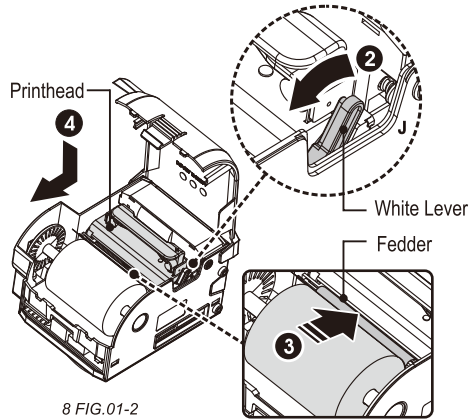
### Please note:

1. During the process of upgrading, the panel's LED would flash in orange. After finished the LED would change to green light.
2. During the process of upgrading, please don't shut down the GP58V or remove USB Pen drive and SD card.

## 8. How to replace a new paper roll?



- Step 1. Insert a new paper roll going clockwise.
- Step 2. Pull back the white lever.
- Step 3. Insert the paper roll into the feeder. The paper will be fed automatically without opening the printer head.
- Step 4. Push back the Printhead.

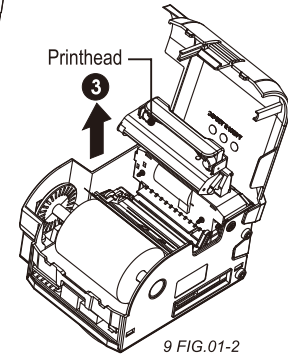
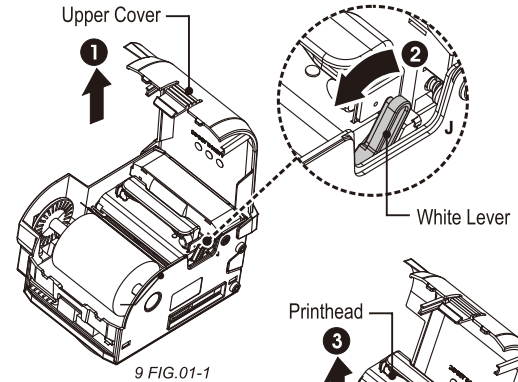


## 9. Printer Head Guide

When you need to reset the printer head please follow the steps below.

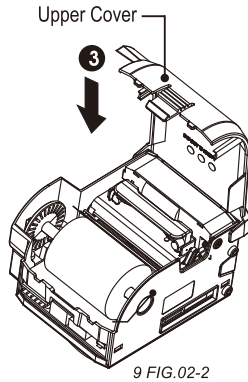
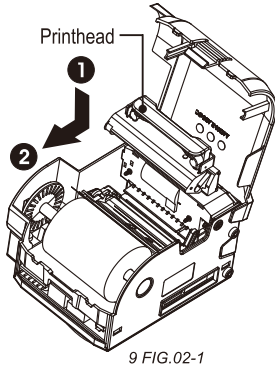
### Unlock the Printer Head:

- Step 1. Open the upper cover.
- Step 2. Pull back the white lever.
- Step 3. Lift the Printhead.



## Lock the Printer Head:

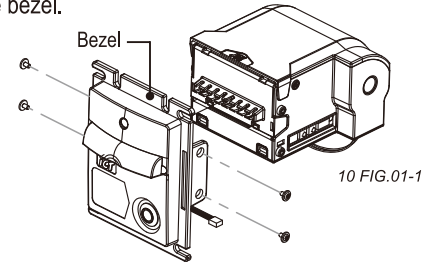
- Step 1. Push down the Printhead.
- Step 2. Push back the Printhead.
- Step 3. Closes the upper cover.



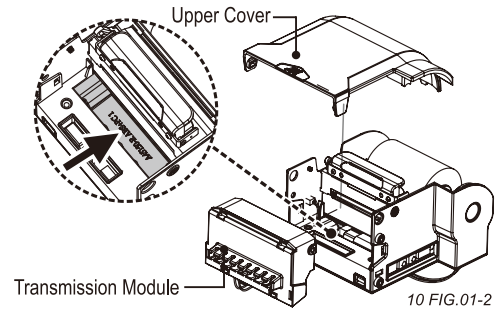
## 10. Maintenance


<GP58V>

- Step 1. Use a screwdriver to loose 4 screws and disassemble the bezel.



- Step 2. Remove the upper cover and Transmission Module.



| <b>Maintenance Notice</b><br>(Any improper maintenance will result invalid warranty.) |   |
|---|---|
|     | <b>Recommended</b> Mild, non-abrasive, soap water.              |
|   | <b>DO NOT USE</b> Organic solvent , Alcohol, Volatility liquid. |

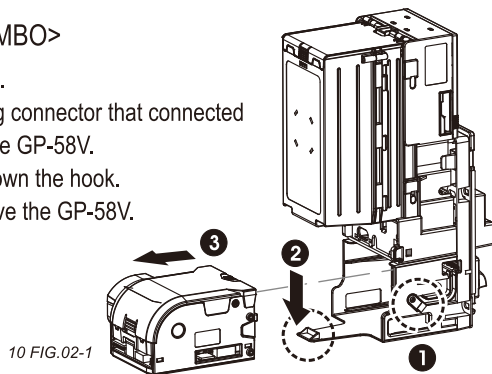
<COMBO>

Step 1.

Unplug connector that connected with the GP-58V.

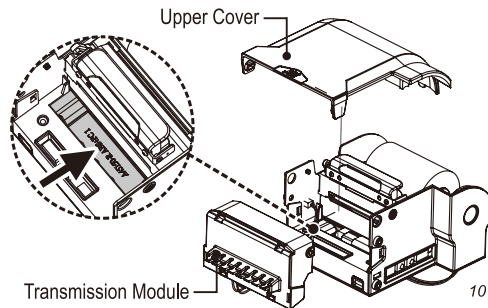
Pull down the hook.

Remove the GP-58V.



10 FIG.02-1

Step 2. Remove the upper cover and Transmission Module.



10 FIG.02-2

|  |   |  |
|--|---|--|
|  | <b>Maintenance Notice</b>                                       |  |
|  | <i>(Any improper maintenance will result invalid warranty.)</i> |  |
|  | <b>Recommended</b>  | <b>Mild, non-abrasive, soap water.</b>               |
|  | <b>DO NOT USE</b>   | <b>Organic solvent , Alcohol, Volatility liquid.</b> |

## 11. Troubleshooting

11 TABLE.01

| LED Indicator   | Status  | Solution   |
|---|---|--|
| Red   | Check Sum abnormal.                                       | Contact technician.  |
| Green   | Standby.  |  |
| Red flash 1 time  | 1. Moveable frame not close.<br>2. Thermal head no paper. | 1. To make sure moveable frame is closed<br>2. Re-feed paper.  |
| Red flash 2 times   | Cutter abnormal.  | To make sure paper path jam-free.  |
| Red flash 3 times   | Out of paper or raster error.                             | Refill paper roll.   |
| Red flash 4 times   | Anti-jam abnormal.  | To make sure paper path jam-free.  |
| Red flash 5 times   | SD card abnormal.   | 1. To make sure SD card inserted.<br>2. To make sure SD card format and specify the file exists.   |
| Red flash 6 times   | Printer head over heat.                                   |  |
| Orange light / green light will flash alternately (1 sec) | In testing mode.  | 1. DIP switch is set as not to enter the test mode, and restart device.<br>2. If the DIPSW is set into the non-test mode, please contact technician. |
| Orange  | System booting  |  |
| Orange light Flash  | Firmware upgrading or USB data operation.                 |  |
| Green light Flash   | Printing  |  |
| Red light highly flash                                    | Low paper warning   |  |



If the error can not be solved after corrective actions or it recurs, please contact ICT for technical support.



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