

RIPAC-10P3

10.1" TFT Mini POS

Quick Reference Guide

1st – 11 October 2022

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Part No. E2017RP13A0R

FCC Statement



THIS DEVICE COMPLIES WITH PART 15 FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE.

(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

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 INSTRUCTION MANUAL, 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.

Notice

This guide is designed for experienced users to setup the system within the shortest time. For detailed information, please always refer to the electronic user's manual.

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Your satisfaction is our primary concern. Here is a guide to Avalue's customer services. To ensure you get the full benefit of our services, please follow the instructions below carefully.

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To receive the latest version of the user's manual; please visit our Web site at:

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1. Getting Started

1.1 Safety Precautions

Warning!



Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the PC chassis.

Caution!



Always ground yourself to remove any static charge before touching the CPU card. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components in a static-dissipative surface or static-shielded bag when they are not in the chassis.

1.2 Packing List

- 1 x RIPAC-10P3
- 1 x Power Adapter
- 1 x Power Cord
- 2 x Paper Holder



If any of the above items is damaged or missing, contact your retailer.

1.3 System Specifications

Component	
Mother Board	Intel® Celeron® Apollo Lake Platform
CPU	Intel® Celeron® Processor J3455
CPU Cooler (Type)	PLB05508S05H-B
Memory	Onboard 4GB
Adapter	DC 24V/5A 120W
Speaker	2 x 2W Speaker on back
Wireless LAN	IEEE 802.11 a/b/g/n/AC (Realtek RTL8822BE-CG)
Bluetooth	Bluetooth 4.0 + Class 1 (Realtek RTL8822BE-CG)
Operating System	Windows 10 IoT, Android 8.1
NFC	JW-HMNFC-600(optional)
Other Component	SEIKO thermal printer CAPD347D-E PP-802 V3.0 printer control board
Storage	
Solid State Drive	Onboard 128G eMMC
Panel	
LCD Panel	10.1" 1280 x 800 K101-IM2BYL02-L 280nits, MIPI interface 5" 1280 x 720 TIANMA TM050JDHG33-00 480nits, MIPI interface, 20,000 Hrs (customer facing)
Touch Screen	10" Touch
External I/O	
Serial Port	2 x RS-232
USB Port	4 x USB3.0
LAN Port	1 x RJ45 Gigabit LAN
Wireless LAN Antenna	2 x Wireless Antenna
Switch	1 x Power button
Indicator Light	1 x Power LED
Expansion Slots	1 x SD card slot
Others	1 x RJ11(12V / 24V for cash drawer) 1 x Thermal Printer support 58/80mm printing paper (Optional)
Mechanical	
Power Type	ATX Mode, +24V DC-In
Power Connector Type	DC-Jack
Dimension	(L)299.1 x (W)273.2 x (H)128.8 mm
Weight	2Kg

Color	Black & Gray, White
OS Support	Windows 10 IoT(64 Bit), Android 8.1(64 Bit)
Reliability	
EMI Test	CE/FCC Class B, VCCI, CCC
Safety	All design for this project have to comply with UL / CB
Vibration Test	<p>Random Vibration Operation</p> <ol style="list-style-type: none"> 1 Test PSD : 0.00454G²/Hz , 1.5 Grms 2 System condition : operation mode 3 Test frequency : 5~500 Hz 4 Test axis : X,Y and Z axis 5 Test time : 30 minutes per each axis 6 IEC60068-2-64 Test Fh 6 Storage : mSATA <p>Sine Vibration test (Non-operation)</p> <ol style="list-style-type: none"> 1 Test Acceleration : 2G 2 Test frequency : 5~500 Hz 3 Sweep : 1 Oct/ per one minute. (logarithmic) 4 Test Axis : X,Y and Z axis 5 Test time :30 min. each axis 6 System condition : Non-Operating mode 7. Reference IEC 60068-2-6 Testing procedures <p>Package Vibration Test:</p> <ol style="list-style-type: none"> 1 Test PSD : 0.026G²/Hz , 2.16 Grms 2 Test frequency : 5~500 Hz 3 Test axis : X,Y and Z axis 4 Test time : 30 minutes per each axis 5 IEC 60068-2-64 Test Fh
Mechanical Shock Test	<ol style="list-style-type: none"> 1 Wave from : Half Sine wave 2 Acceleration Rate : 10g for operation mode 3 Duration Time : 11ms 4 No. of shock : Z axis 300 times 5 Test Axis : Z axis 6 operation mode 7 Reference IEC 60068-2-27 testing procedures <p>Test Eb : Shock Test</p>
Drop Test	<p>Package drop test</p> <p>Reference ISTA 2A, Method : IEC-60068-2-32 Test:Ed</p> <p>Test Ea : Drop Test</p>

RIPAC-10P3

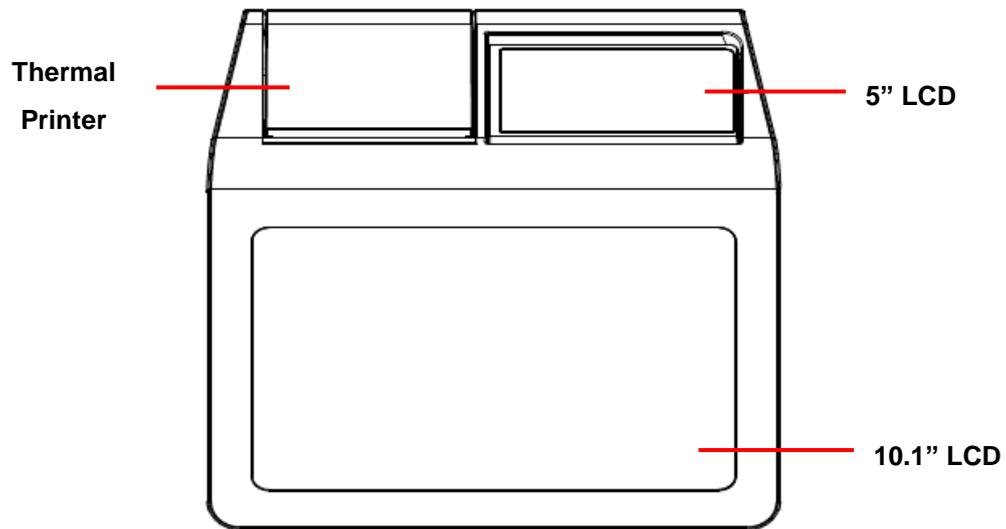
	1 Test phase : One corner, three edges, six faces 2 Test high : 96.5cm 3 Package weight : 5Kg 4 Test drawing
Operating Temperature	0°C~40°C
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Storage Temperature	-10°C~60°C



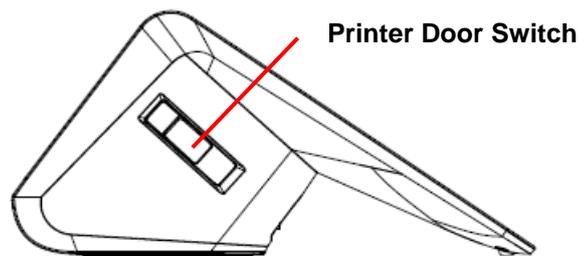
Note: Specifications are subject to change without notice.

1.4 System Overview

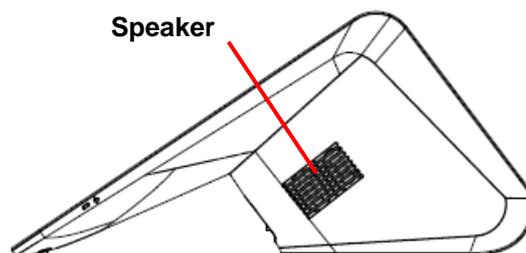
1.4.1 Top View



1.4.2 Left Side

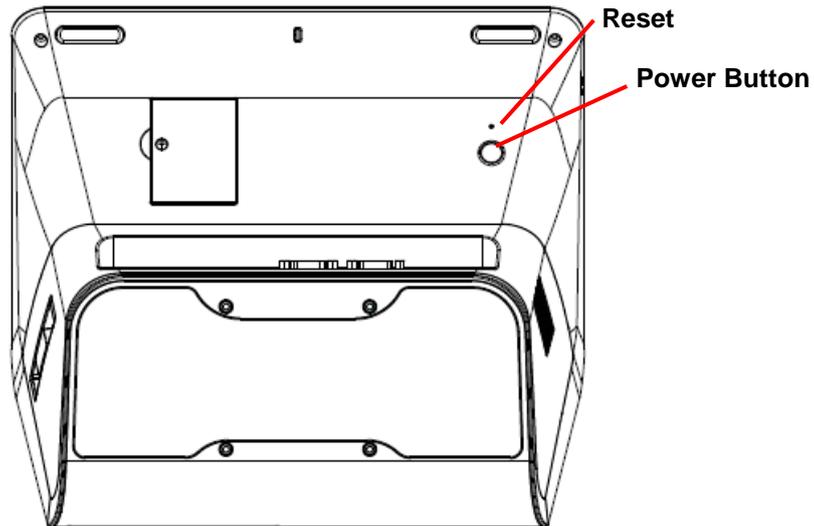


1.4.3 Right Side

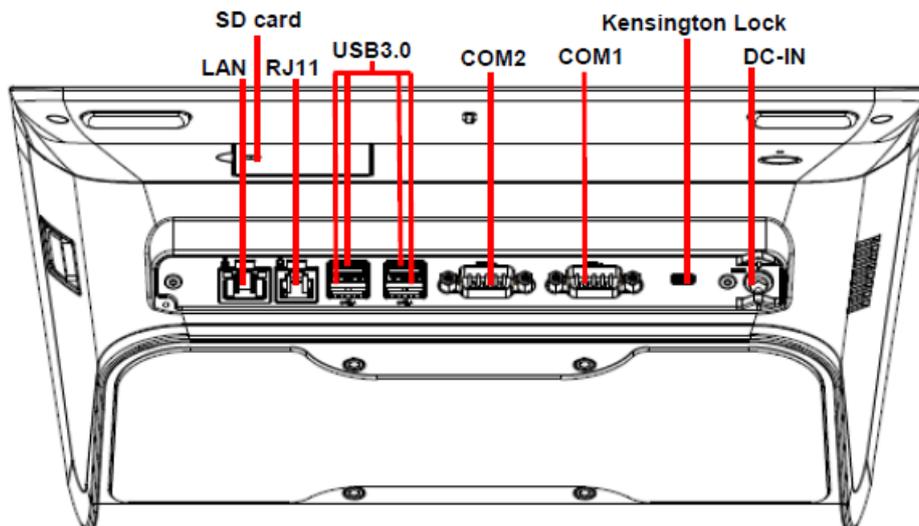


RIPAC-10P3

1.4.4 Bottom



1.4.5 I/O Interface

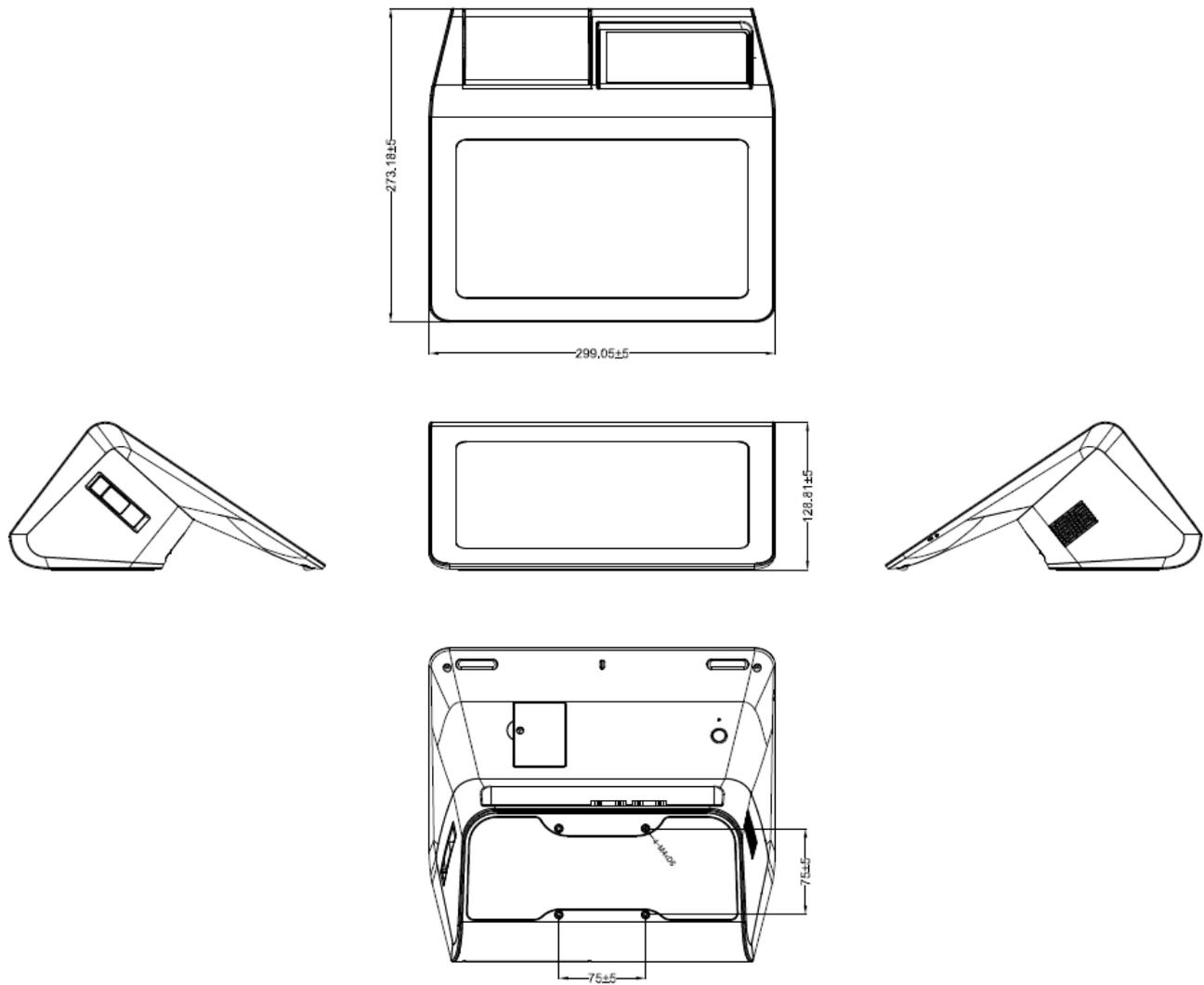


Connectors

I/O	Function	Note
COM1/2	Serial port connector 1/2 (RS232)	DB-9 male connector
RJ11	Cash drawer connector	
LAN	RJ45 connector	
USB3.0	4 x USB3.0 connectors	
SD card	SD card slot	
Kensington Lock	Kensington Security Slot	
DC-IN	DC Power-In connector	5.5 x 2.5mm DC Jack

1.5 System Dimensions

1.5.1 RIPAC-10P3



(Unit: mm)

2. Hardware Configuration

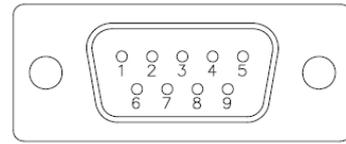
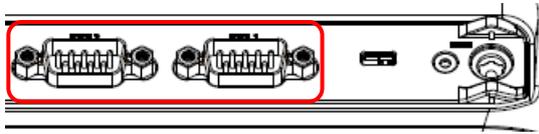


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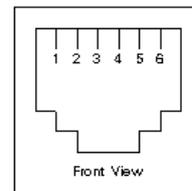
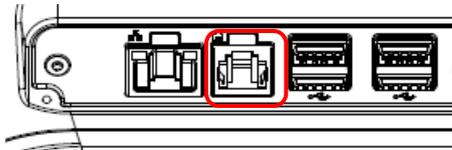
2.1 RIPAC-10P3 Connector Mapping

2.1.1 Serial Port Connector 1/2 (COM1/2)



Signal	PIN	PIN	Signal
DCD#_1	1	6	DSR#_1
RXD_1	2	7	RTS#_1
TXD_1	3	8	CTS#_1
DTR#_1	4	9	RING/5V/12V
GND	5		

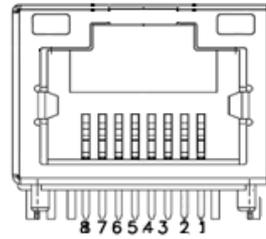
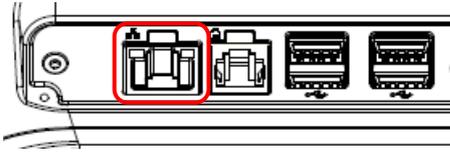
2.1.2 Cash drawer connector (RJ11)



Signal	PIN
GND	1
KICKOUT1	2
CASH_SENSE	3
+12VA_+24VA_CASH	4
KICKOUT2	5
GND	6

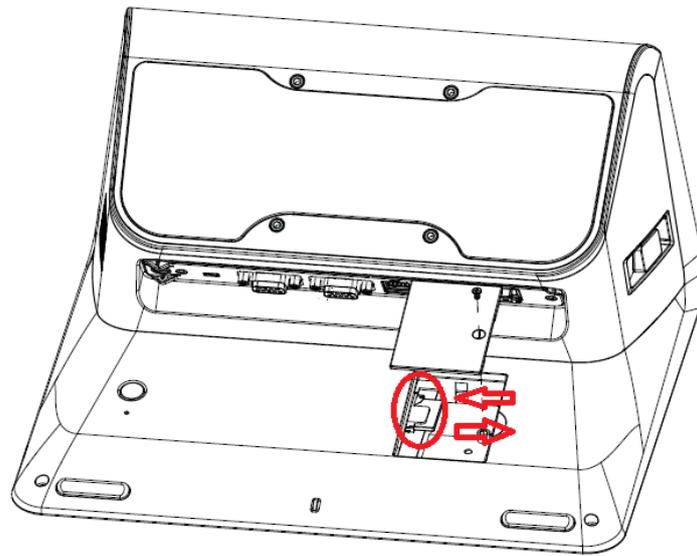
RIPAC-10P3

2.1.3 RJ45 connector (LAN)



Signal	PIN
LAN1_TX0+	1
LAN1_TX0-	2
LAN1_TX1+	3
LAN1_TX2-	4
LAN1_TX2-	5
LAN1_TX1-	6
LAN1_TX3+	7
LAN1_TX3-	8

2.2 Installing SD Card



Step 1. Unfasten screw from the cover and take it off.

Step 2. Insert SD Card slot into designated locations (SD Card can be pushed back and forth).

3. Peripherals



Note: If you need more information, please visit our website:

<http://www.avalue.com.tw>

3.1 Wi-Fi, Bluetooth

3.1.1 Features

- Support 2.4GHz and 5GHz band channels.
- 20MHz, 40MHz and 80MHz bandwidth transmission.
- Compatible with IEEE 802.11a standard to provide wireless 54Mbps data rate.
- Compatible with IEEE 802.11b standard to provide wireless 11Mbps data rate.
- Compatible with IEEE 802.11g standard to provide wireless 54Mbps data rate.
- Compatible with IEEE 802.11n standard to provide wireless 300Mbps data rate.
- Compatible with IEEE 802.11ac standard to provide wireless 866.7Mbps data rate.
- Operation at 2.4G-2.5GHz and 5.15~5.825GHz frequency band to meet worldwide regulations.
- Bluetooth 4.2 dual mode support: simultaneous LE and BR/EDR.
- Compatible with Bluetooth v2.1 and v3.0 systems.
- Support Bluetooth 4.2 Low and Energy (LE).
- Maximum reliability, throughput and connectivity with automatic data rate switching.
- Complies with PCI Express base specification revision 2.1 for WLAN.
- Complies with USB with configurable baud rate for Bluetooth
- DSSS with DPSK and DQPSK, CCK modulation with long and short preamble.
- OFDM with BPSK, QPSK, 16QAM, 64QAM and 256QAM modulation.
- Support infrastructure networks via Access Point and ad-hoc network via peer-to-peer communication.

3.2 NFC

3.2.1 Features

- NXP NFC Controller
- Compliant with ISO/IEC 14443 A/B
- Compliant with 15693/18092
- Frequency 13.56Mhz
- USB interface

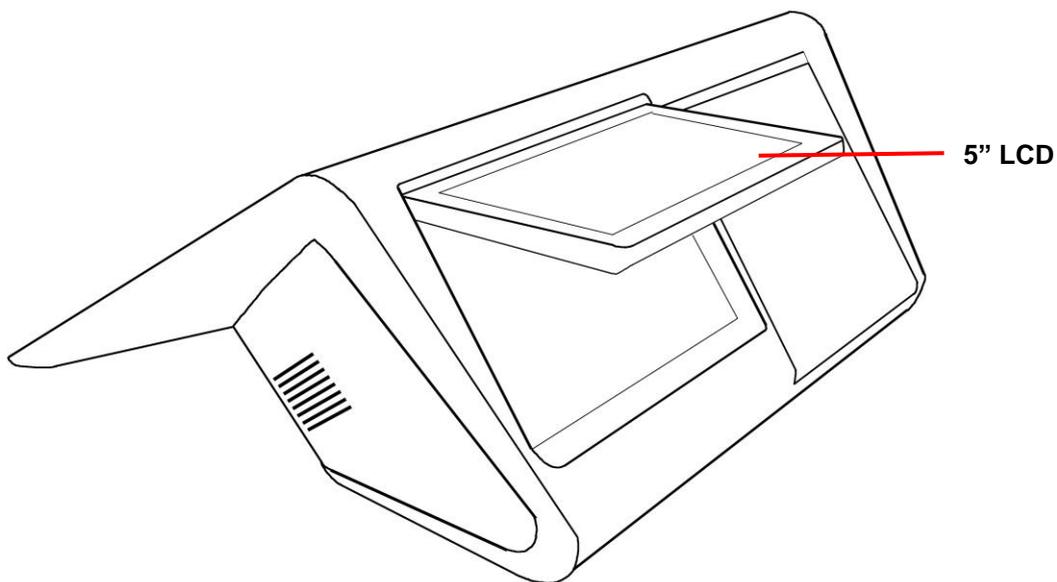
3.3 Thermal Printer

3.3.1 Thermal Printer Specifications

Thermal Printer	
Printing Method	Thermal Dot Line Printing
Total Dots Per Line	576 Dots
Resolution	(W)8 Dots/mm, (H)8 Dots/mm
Max. Print Speed	200mm/s
Max. Print Width	72mm
Max. Paper Width	80mm
Type of Paper Cutting	Full Cut & Partial Cut
Media Dimensions:	80mm: 79.5 ± 0.5 (W) x 80mm diameter (3.13" ± 0.02" x 3.15") 58mm: 57.5 ± 0.5 (W) x 80mm diameter (2.26" ± 0.02" x 3.15")

3.4 Second Display

3.4.1 Second Display



3.4.2 Second Display Specifications

5" Second Display	
LCD Type	TFT/Transmissive
Viewing Angle	Full Viewing Angle
Pixel Pitch (W x H)	0.08625x0.08625 mm ²
Resolution	1280 x 720
Backlight Type	LED

4. Hardware Maintenance

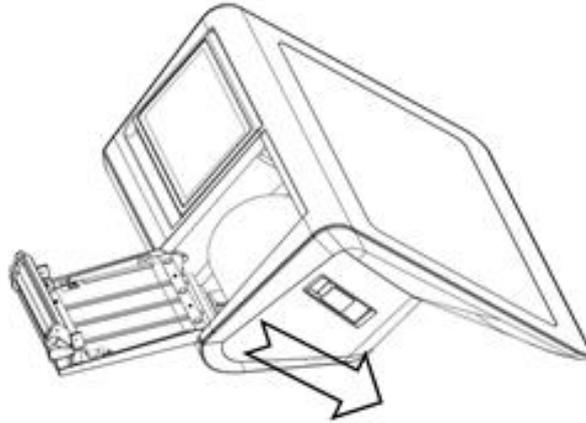


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4.1 Paper Roll Loading

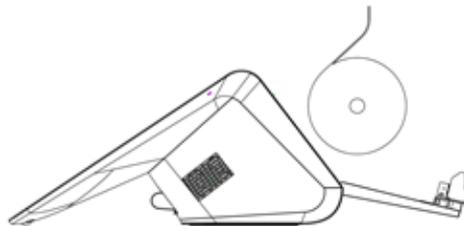
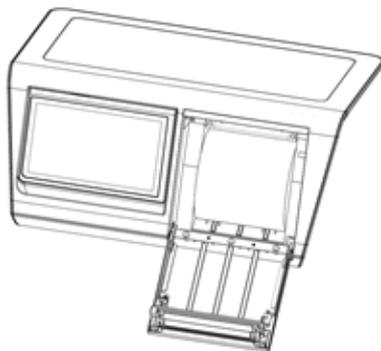
Step 1 Push down the switch to open the paper roll door.



Step 2

80mm Paper Roll

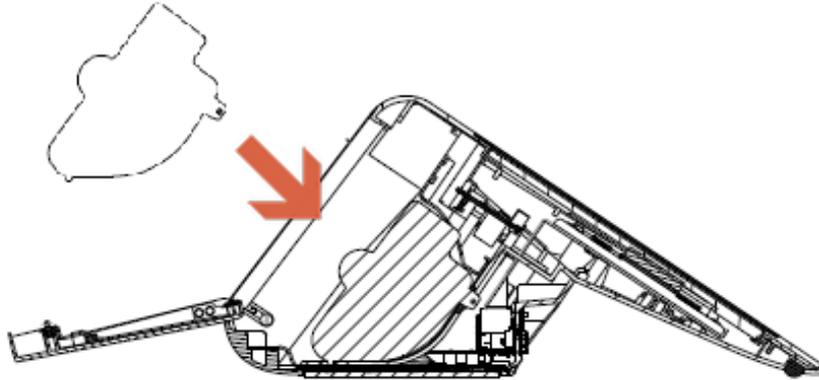
If you are using an 80mm paper roll, load the paper roll into the printer, in the direction indicated in below picture and close up the printer door after loading.



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58mm Paper Roll

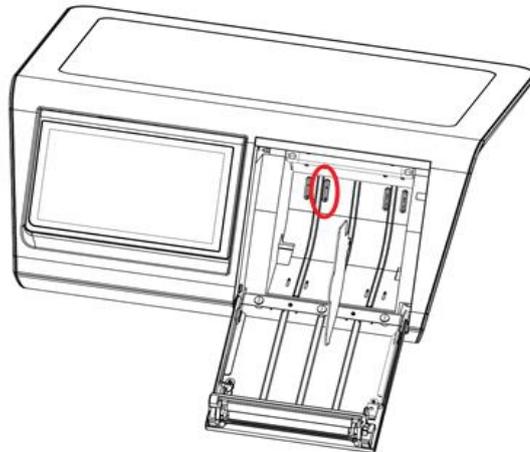
If you are using a 58mm paper roll, you can choose to load the paper roll either to the left, right or keep in the middle according to your printing settings and paper holders are provided to help keep the paper roll in place. Note that there are four holes in the printer for you to insert the paper holders.



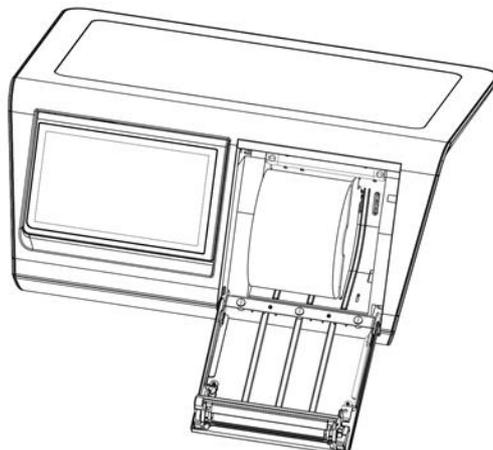
The methods for loading the paper roll are as below.

1. 58mm Paper Roll on the Right Side.

Insert the paper holder into the second hole from the left.

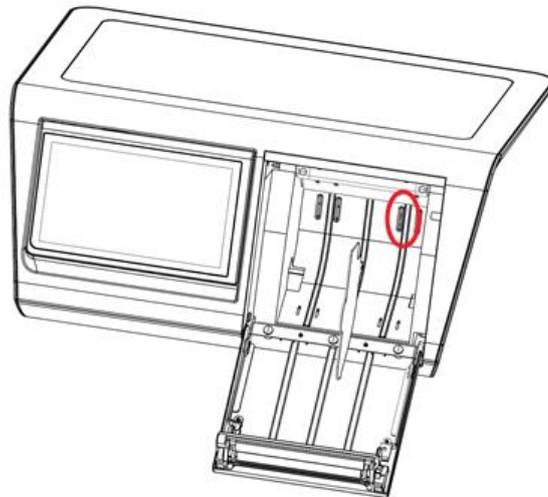


Load the paper roll to the right side and close the printer door.

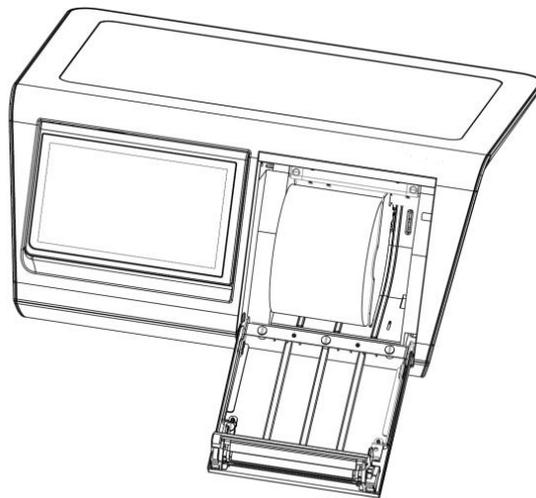


2. 58mm Paper Roll on the Left Side

Insert the paper holder into the second hole from the right.

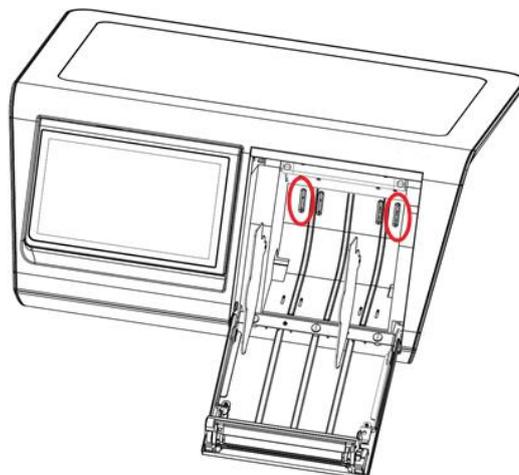


Load the paper roll to the left and close the printer door.



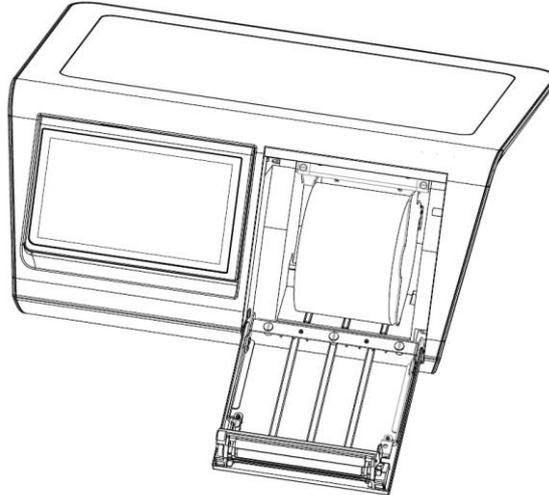
3. 58mm Paper Roll at the Middle.

Insert holders into the holes at the far left and the far right.



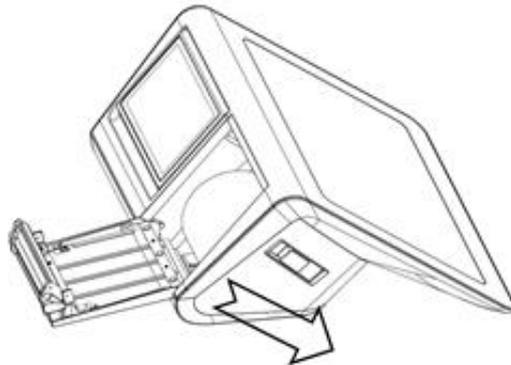
RIPAC-10P3

Load the paper roll in between the two holders then close the printer door.

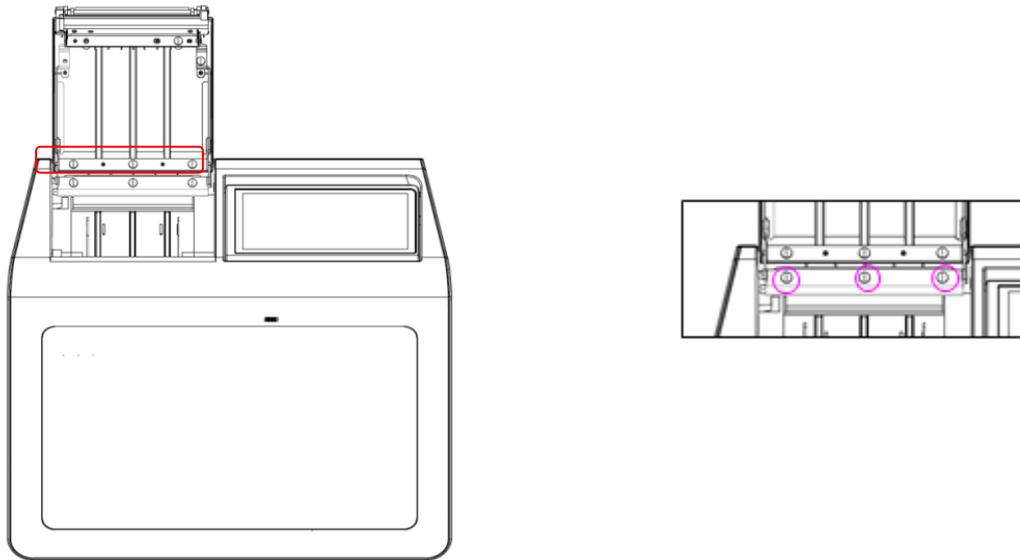


4.2 Replacement of Thermal Printer Module

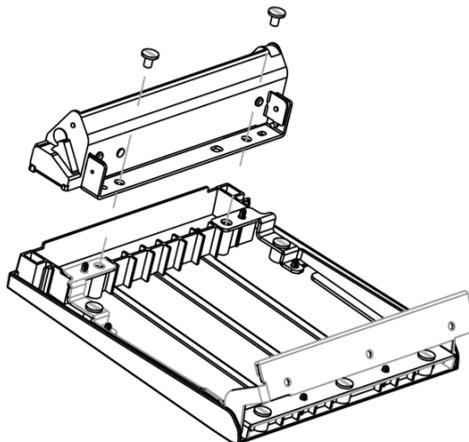
Step 1 Push down the switch to open the paper roll door.



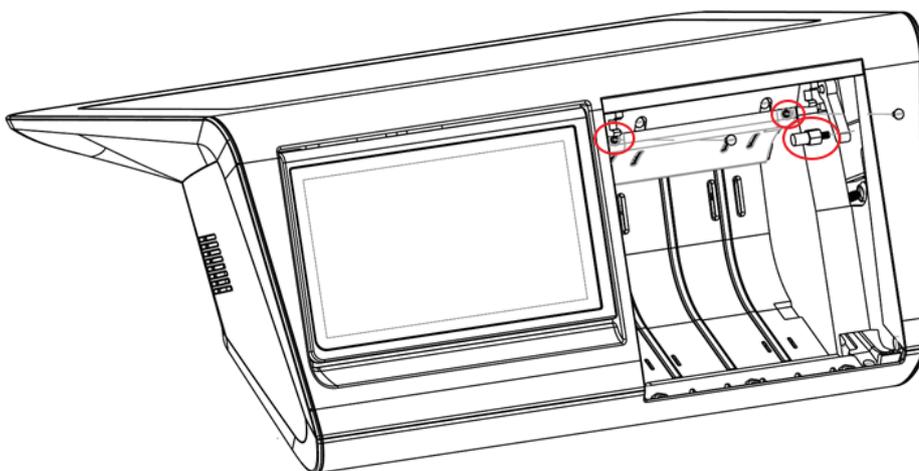
Step 2 Unscrew the three screws that connects the printer door to the device in order to take down the printer door.



Step 3 Unscrew the two screws on the printer door to remove printer wheel.

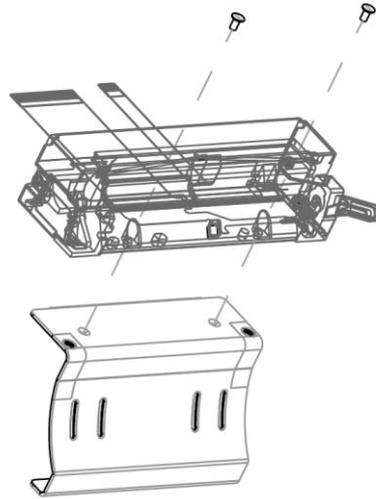


Step 4 Unscrew the two screws and the hex bolt to remove the printer assembly.

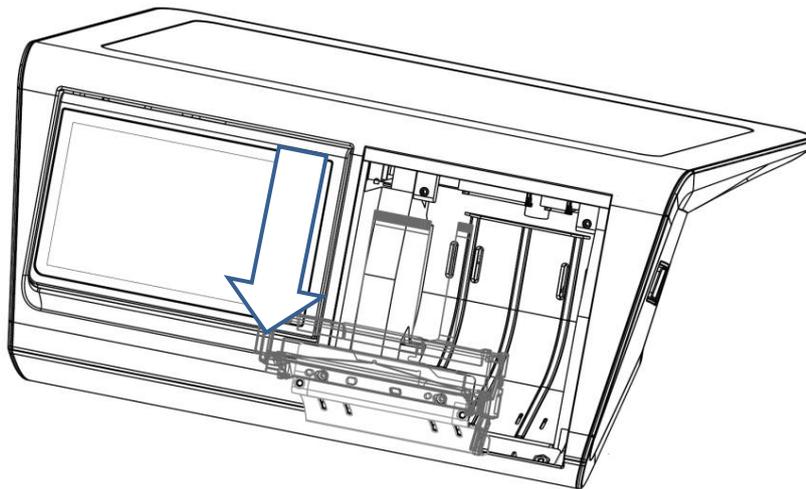


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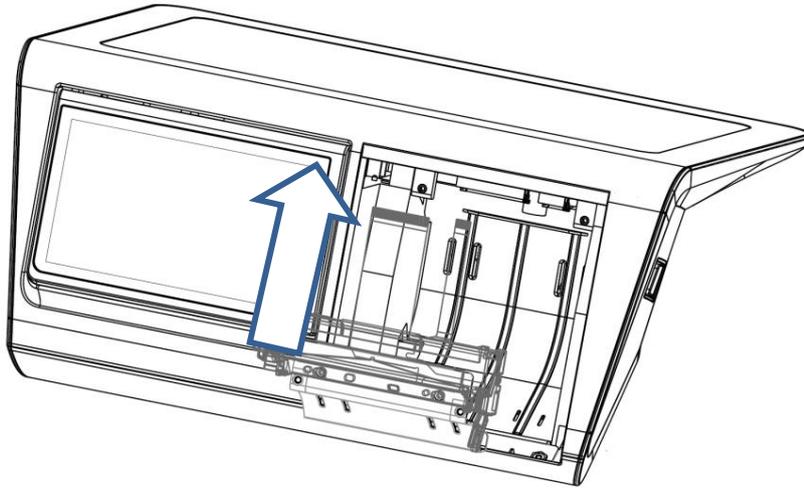
Step 5 Unscrew two screws on the printer assembly to take down the printer module.



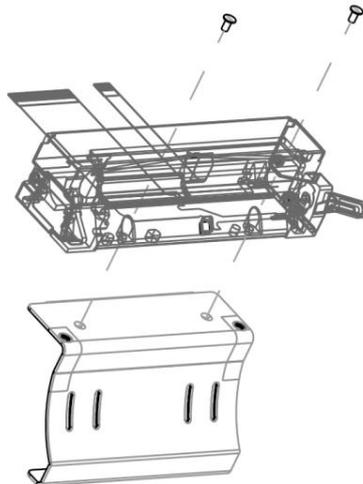
Step 6 Disconnect the two FPCs from the PCB.



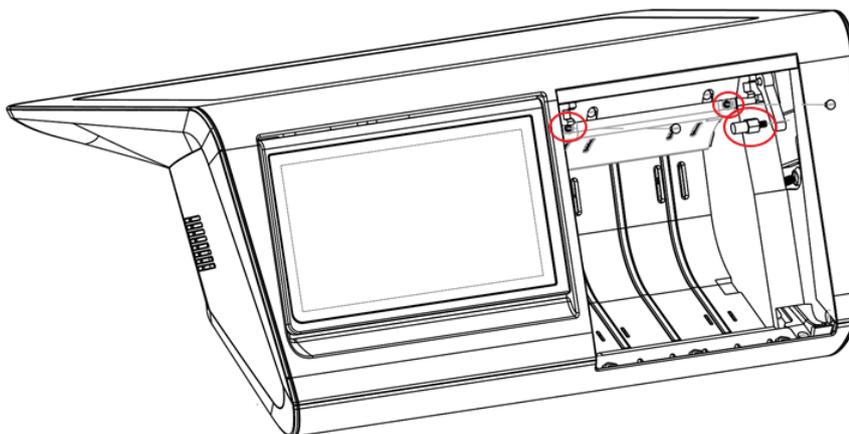
Step 7 Connect the FPCs of the new printer module onto the PCB.



Step 8 Use the screws to tie the printer module.



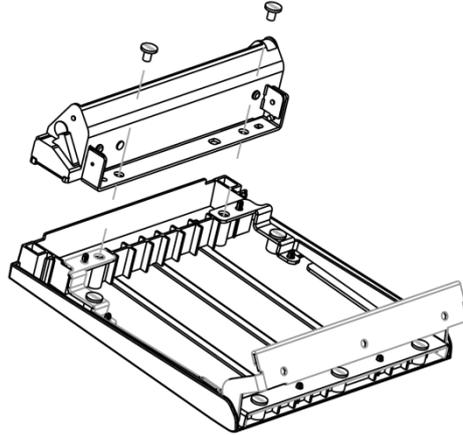
Step 9 Install the printer assembly back into the device with the screws and insert the hex bolt back into place.



NOTE: Always install the hex bolt back before closing up the printer door.

RIPAC-10P3

Step 10 Install the new printer wheel back onto the printer door.



Step 11 Fix the printer door back onto RiPac-10P1 and close up the door.

