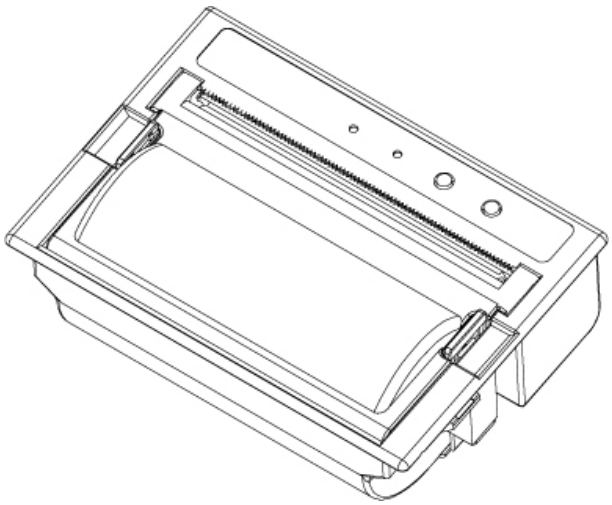
Operator's Manual

MODEL **PORTI-P340**



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PORTI-P340 THERMAL PRINTER operator's manual.

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Caution

Some semiconductor devices are easily damaged by static electricity. You should turn the printer "OFF", before you connect or removed the cable on the rear side, in order to guard the printer against the static electricity.
If the printer is damaged by the static electricity, you should turn the printer "OFF"

Notice

The contents of this manual are subject to change without notice.

"Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment."

◘ Introduction

The **PORTI-P340** is an extremely simple and functional thermal printer.
It is the ideal solution for applications which require the immediate printing of data on a paper, whether they be of an industrial,professional or laboratory nature.
Medical analyzer, Industrial instrument, Recorder, Geological analyzer, Underground analyzer, Chemical analyzer, Metallic analyzer, etc.
The general features of PORTI-P340 printer are as follows:

- ▶ Ultra small size rack mount printer.
- ▶ Very silent printing thru direct thermal printing method.
- ▶ High speed(40mm/sec)
- ▶ UART interface
- ▶ Support text and graphic printing.
- ▶ Support bit-image(logo) download.
- ▶ Easier paper loading by CLAMSHELL design.
- ▶ Easier maintenance with self-diagnostics.
- ▶ Flow control : Software (XON/XOFF)
  ※ Hardware flow control not supported in printer.

Note

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 the FCC Rules. These limits are designed to provide reasonable protection against farmful interference in a residential installation. Thes equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interfrernce to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause farmful interference to radio or television reception , which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

--Reorient or relocate the receiving antenna.
--Increase the separation between the equipment and receiver.
--Connect the equipment into an outlet on a circuit different from that to which the reciver is connected.
--Consult the dealer or an experienced radio/TV technician for help.

■ Operating Precautions

Please follow the precautions below to enjoy and maintain the full performance of the printer.

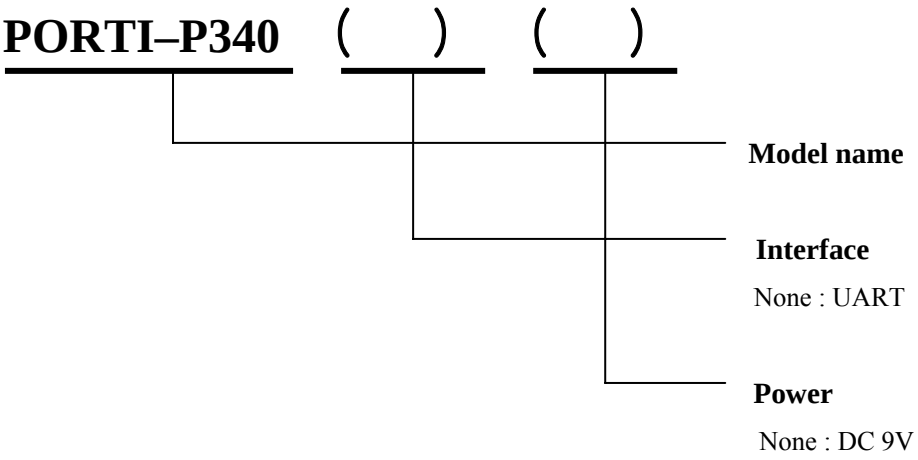
▶ Using the Printer

- Be careful not to drop or bump the printer on a hard surface.
- Do not install the printer in direct sunlight or such areas.
  Suitable environment for the use of the printer is as follows :
  - ◆ Operating temperature : -10°C to 40 °C
  - ◆ Relative humidity : 10% to 90% (no condensation)
- Do not install the printer near devices that generate strong electromagnetic fields such as a copy machine.
- Do not remove or reinstall the communication cable during printing or transmission.

CONTENTS

1. Outline

1.1. Model classifications



1.2. Product Part Number System

Model name / Interface Spec.

S40
SC30
W25
.
.
.

	Wired		Wireless
A	RS-232C	1	Bluetooth
B	TTL	2	IrDA
C	USB	3	HPIR
D	RS-485	0	None
E	Parallel		
Z	None		

Example) 1. PORTI-S40 Serial/Bluetooth Part No. ⇒ S40/A1

2. PORTI-SC30 Bluetooth Only Part No. ⇒ SC30/Z1

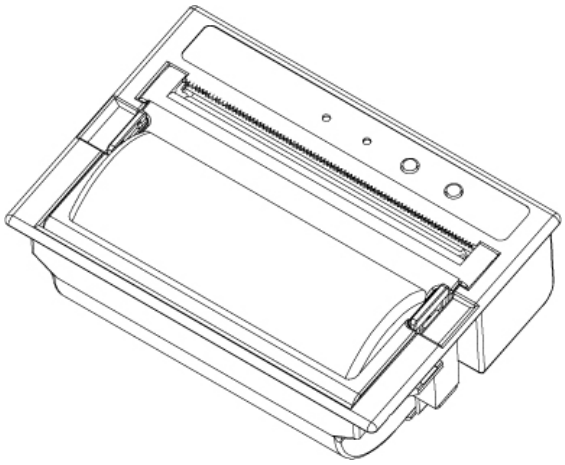
1.3. Specifications

Item	Specification	
Print method	Direct thermal line printing	
Characters per line	64cpl (MAX)	
Character size	Eng. : 9×24dots, 12×24dots Kor. : 16×24dots, [24×24dots]	
Resolution	203dpi, 8dots/mm	
Print width	3-inch (72mm, 576dots)	
Print speed	40mm/sec	
Dimension	110 × 77.7 × 48 mm	
Weight	300g (including paper roll)	
Interface	UART	
Paper roll	Thermal paper roll (80mm wide, 38ø)	
Barcodes	PDF417(2-dimension), Code128, Code39, I2/5, Code93 UPC, EAN(KAN, JAN), CODABAR	
Receive buffer size	10K bytes	
Note	Printing speed may be slower, depending on the data transmission speed and the combination of control commands.	
Input Power	9VDC, Standby 60mA and Max 3A	
Environment conditions	Temperature	-10°C ~ 40°C (operating) -10°C ~ 70°C (storage)
	Humidity	30% - 80% (operating) 10% - 90% (storage)
MCBF (Mean Cycle Between failure)	Mechanical	37,000,000 lines
	Head	Approximately 50 Km

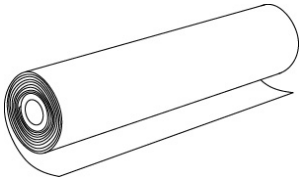
2. Setting up the printer

2.1. Printer & Accessories

When unpacking your printer box make sure it contains the printer and all accessories.
If any accessories are missing or damage, please contact your dealer for assistance.

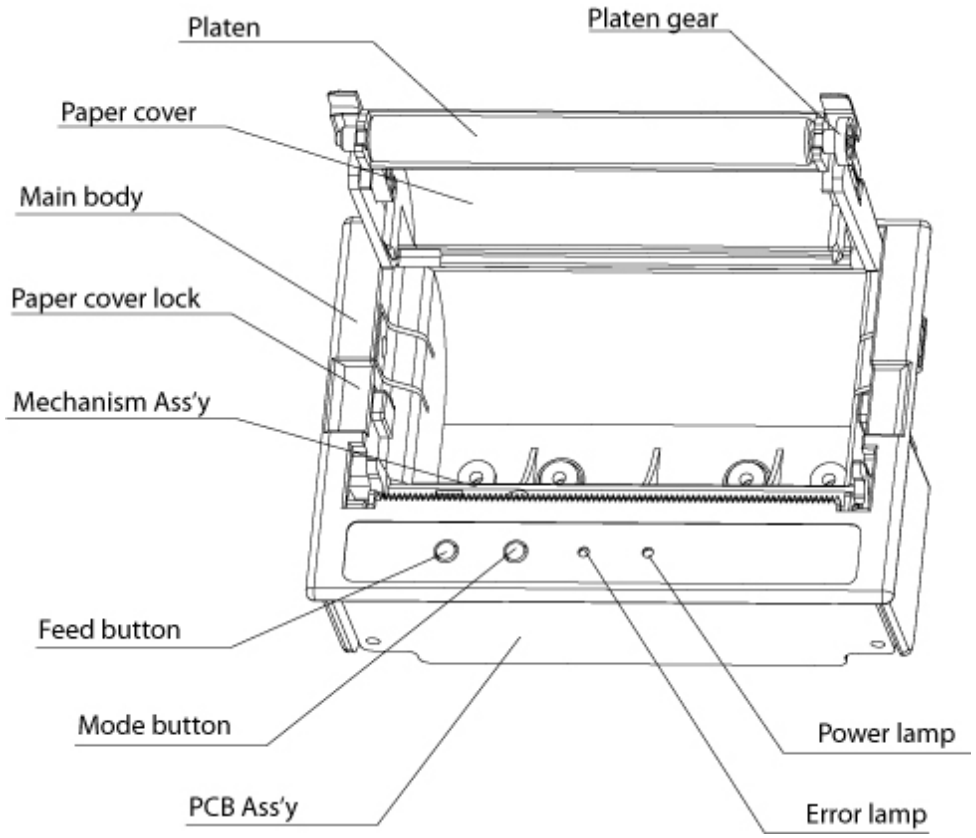


PORTI-P340

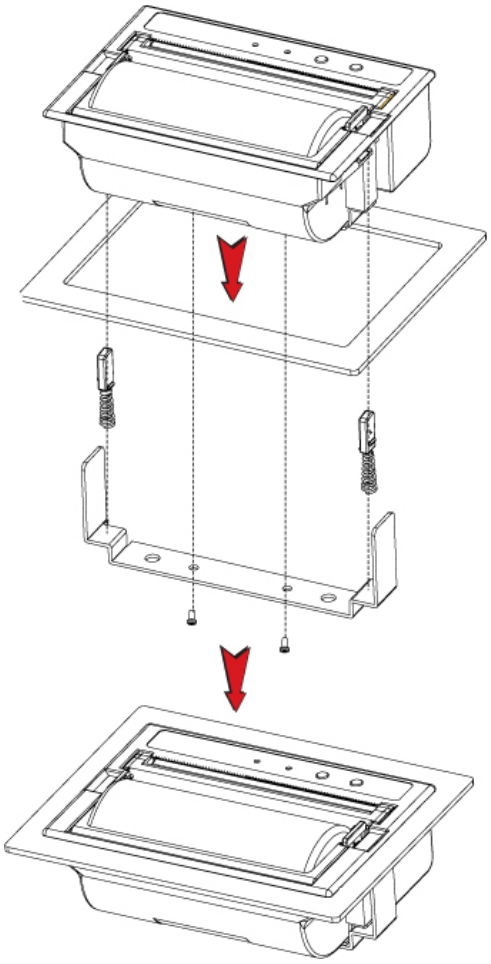


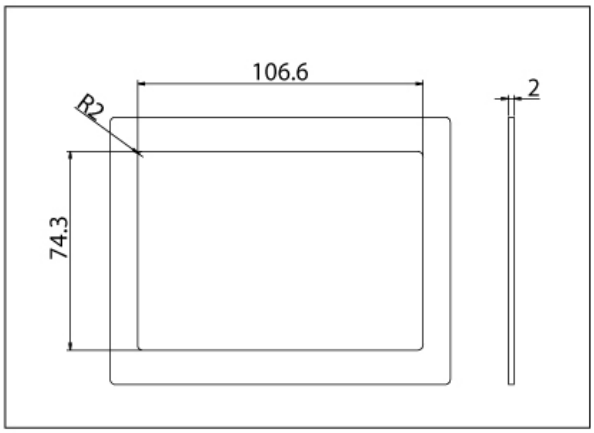
Roll paper

2.2. Printer Features



2.3. Installation

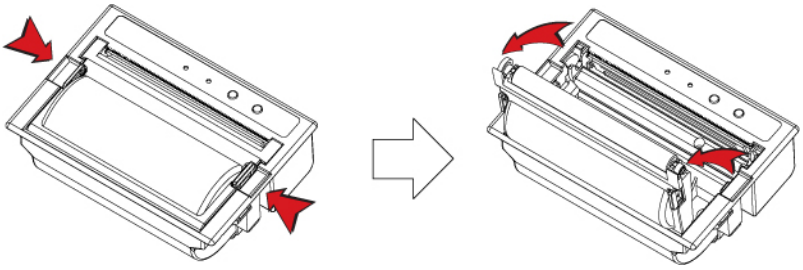




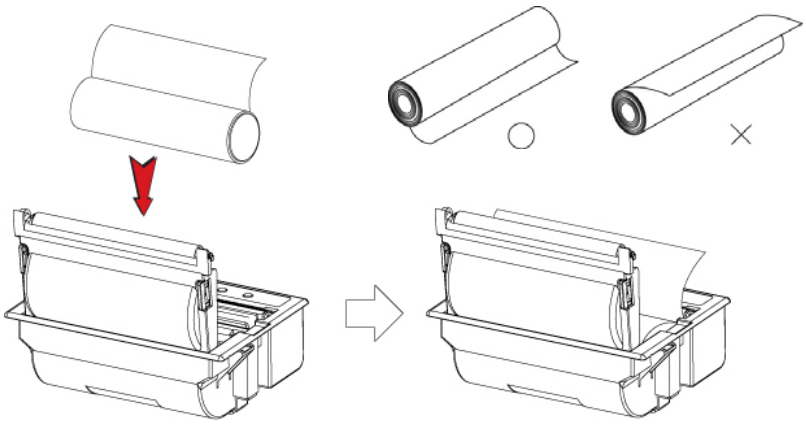
2.4. Replacing paper roll

Note : Be sure to use paper rolls that meet the specifications. Do not use paper rolls that have the paper glued to the core because the printer cannot detect the paper end correctly.

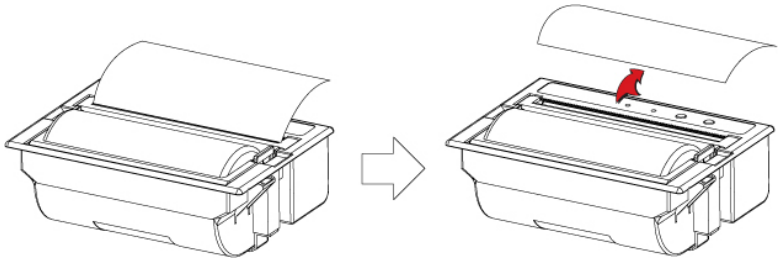
1. Make sure that the printer is not receiving data; otherwise, data may be lost.
2. Open the paper roll cover using your finger on both side of printer and remove the remaining paper.



3. Insert a new paper roll as shown.



4. Tear the excess paper off using the edge of paper door as a tear bar.



2.5. Set operation mode

1. Press the **Mode Button** until the **Error Lamp** twinkles 5 times
2. Change the mode and option using the **Mode Button** and the **Feed Button** according to the MODE code(Table1)

   ● **Feed button** : use for changing **MODE** status

   ● **Mode button** : use for changing **OPTION** status

   [Example]

   The defaults of the printer are:RS-232C/9600 BPS/8 DATA BIT/NO PARITY/ DENSITY LOW

   If a user wants to modify the defaults with

   RS-232C / 38400 BPS/7 DATA BIT/ EVEN PARITY / DENSITY HIGH

   Press the **Mode Button** until the **Error Lamp** twinkles 5 times and release the button.

   → You will see the **Power Lamp** twinkles one time and the **Error Lamp** twinkles 1 time.

   → This mode is RS-232C mode.

   Press the **Feed button** one time, the **Power Lamp** twinkles twice and the **Error Lamp** winkles 4 times.

   → Press the **Mode Button** one time, the **Error Lamp** twinkles 5 times and press the **Mode Button** one more time, the **Error Lamp** twinkles 6 times.

   (The baud rate has set to 38,400 bps)

   Press the **Feed Button** one time, the **Power Lamp** twinkles 3 times and the **Error Lamp** twinkles 2 times.

   → Press the **Mode Button** one time, the **Error Lamp** twinkles one time.

   (The Data Bit has set to 7 data bit.)

   Press the **Feed Button** one time, the **Power Lamp** twinkles 4 times and the **Error Lamp** twinkles 1 time.

→ Press the **Mode Button** one time, the **Error Lamp** twinkles 2 times.
(The Parity bit has set to even parity bit.)

Press the **Feed Button** one time, the **Power Lamp** twinkles 5 times and the **Error Lamp** twinkles 1 time.

→ Press the **Mode Button** one time, the **Error Lamp** twinkles 2 times after then press the **Mode Button** again, the **Error Lamp** will twinkle 3 times
(The density has set to High)

If all mode have set, press the **Mode Button** and the **Feed button** at the same time after then release the buttons at the same time.

The printer will print out the mode status which has modified.

(RS-232C/ 38,400 BPS/ 7 DATA BIT/ EVEN PARITY/ DENSITY HIGH)

If the status is not correct, please try it again according to the procedure.

MODE	POWER Lamp (Green)	ERROR Lamp (Red)	Option
Communication Port	1	1	UART
		2	Protocol UART
Baud Rate	2	1	9600 bps
		2	19200 bps
		3	38400 bps
		4	57600 bps
		5	115200 bps
Data Bit	3	1	7 Data bit
		2	8 Data bit
Parity Bit	4	1	No Parity
		2	Even Parity
		3	Odd Parity
Stop Bit	5	1	1 Stop Bit
		2	2 Stop Bit
Density	6	1	Density Low
		2	Density Medium
		3	Density High
Mark	7	1	No use
		2	Use
Sensor	8	1	Low
		2	Medium1
		3	Medium2
		4	High

TABLE 1

2.6. Specified power supply

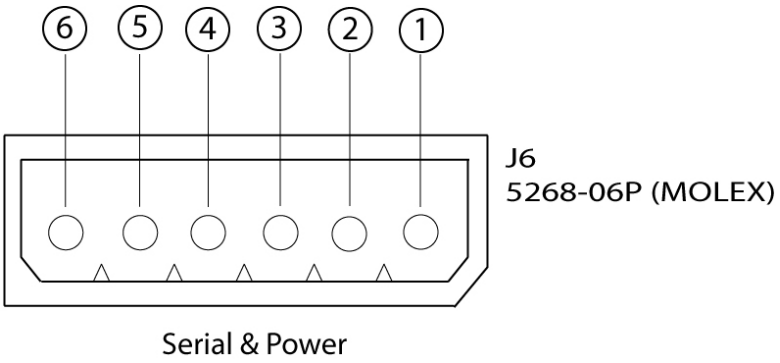
The following specifications are requested for power supply.

Input : DC 9V / Max 3A

Avoid using power supply which its power capacity of power current is extremely high.

3. Interface

3.1. UART



The PORTI-P340 printer has UART interface and power connector is connected by 6 pin female connector.

In the following table, the signals present on the connector are listed:

Pin no.	Signal name	Direction	Function
1	INPUT		9VDC/3A
2	TxD	Output	Transmit Data
3	RxD	Input	Receive Data
4	N.C		
5	N.C		
6	GND		Ground

<J6 : MOLEX (5268-06P)>

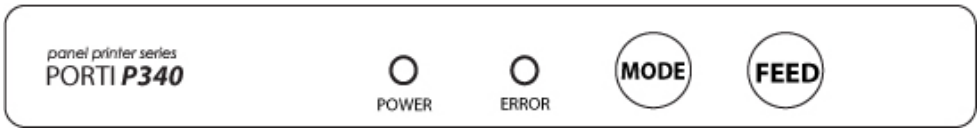
Applicable connector : MOLEX 5264-06P or equivalent.

WARNING

⚠ wrong connection of power supply connector could be damage the printer.

4. Using the printer

4.1. Control panel



▶ Button

- **FEED :** When the printer is on, paper can be feed manually by pressing and holding the FEED button for more than one second.
- **MODE :** MODE Button is for use to change communication mode. Do not operate the mode button without instructions.

▶ Panel lamp

- **Power(Green) :** Printer is ON and ready to receive data.
- **Error (Red) :** Indicates a fault condition or a printer error. (i.e : no paper, paper cover opened. etc.)

4.2. The self test

The Self-Test checks whether the printer has any problems. If the printer does not function properly, contact your dealer. For Self-Test, turn on the power while holding down the FEED Button. The Self-Test checks the following :

1) Make sure paper roll has been installed properly.
2) The Self-Test prints the current printer status, which provides the control ROM version and the communication method setting.
3) After printing the current printer status, Self-Test will print a pattern using the built-in character set.
4) The Self-Test automatically ends.

The printer is ready to receive data as soon as it complete the Self-Test.

5. Consumable Parts

5.1. Recommended paper

Type	: Thermal Paper
Paper width	: 80mm
Paper thickness	: 60±5㎛
Outer diameter	: Ø38mm or less
Recording side	: Outside of roll

Cautions

1. Do not paste the paper to the core. And the roll paper which has near end mark printing on its near end is recommended.
2. Chemicals or oil may change the color of paper, or printed characters may fade.
3. Change of paper color starts from approx . 70℃.
   Pay attention to heat, humidity and sun light.
4. Color of paper may be changed by being scratched by nail or hard metal, etc.

5.2 Printing position