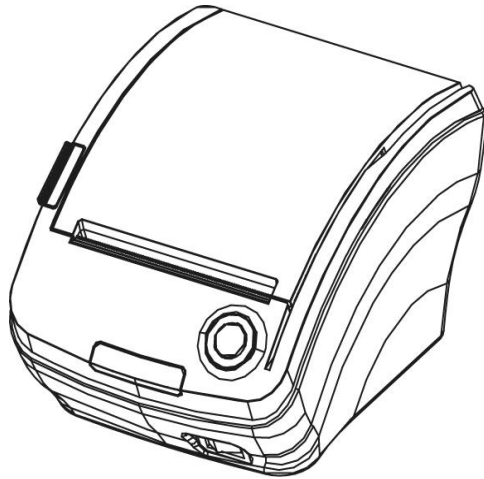


MODEL **WSP-DT380**

(3inch POS Printer)

Rev. 4.0



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All specifications are subjected to change without notice.

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WSP-DT380 3inch POS 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.

▣ Introduction

The **WSP-DT380** is the ideal solution for POS system, kitchen printer, Electronic scale, Measuring equipment, Lottery etc.

The general features of **WSP-DT380** printer are as follows:

- ▶ Very silent printing thru direct thermal printing method
- ▶ High speed(170mm/sec, MAX)
- ▶ USB, Bluetooth(Ver 2.1 + EDR) interface
- ▶ Auto cutting
- ▶ Support text and graphic printing
- ▶ Support Magnetic Stripe Reader
- ▶ Intuitive LED's indicate Power(on/off), Error
- ▶ Easier maintenance with self-diagnostics
- ▶ Easier paper loading by CLAMSHELL design.
- ▶ One touch paper cover
- ▶ In field programming – Update Firmware, Download Fonts and Logos
- ▶ Microsoft Windows XP / VISTA / 7 / 8 / CE / Linux / Android compatible.
- ▶ Flow control : Software (XON/XOFF)
 - ※ Hardware flow control not supported in 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 50°C
 - ◆ Relative humidity : 30% to 85%
- Do not install the printer near devices that generate strong electromagnetic fields such as a copy machine.
- Do not open the platen cover during printing .
- Do not remove or reinstall the communication cable during printing or transmission.
- Do not touch the connectors of the communication during printing.
- Switch the POWER OFF when not in use.
- Do not use alcohol or other solvent.
- When the battery pack is used at low temperature, the length of time the printer can be used may be shortened.

▶ Thermal Paper Handling

- Store the thermal paper in a cool, dry and dark place.
- Do not rub the paper with hard object.
- Do not leave the paper with hard object.
- Do not allow plastic film, erasers, or adhesive tape to touch the paper for long periods.
- Do not stack the thermal paper with diazo copies immediately after copying or wet-type copies.
- Do not use chemical glue.
- Always use the clean thermal paper.

FCC ID : QDDWSP-DT380

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES.

Operation is subject to the following two conditions; (1)

This device may not cause harmful interference, and (2) this device must accept any interference received,

including interference that may cause undesired operation.

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

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. 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. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful 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 receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Modifications not expressly approved by the manufacturer could void the user's authority to operated the equipment under FCC rules.

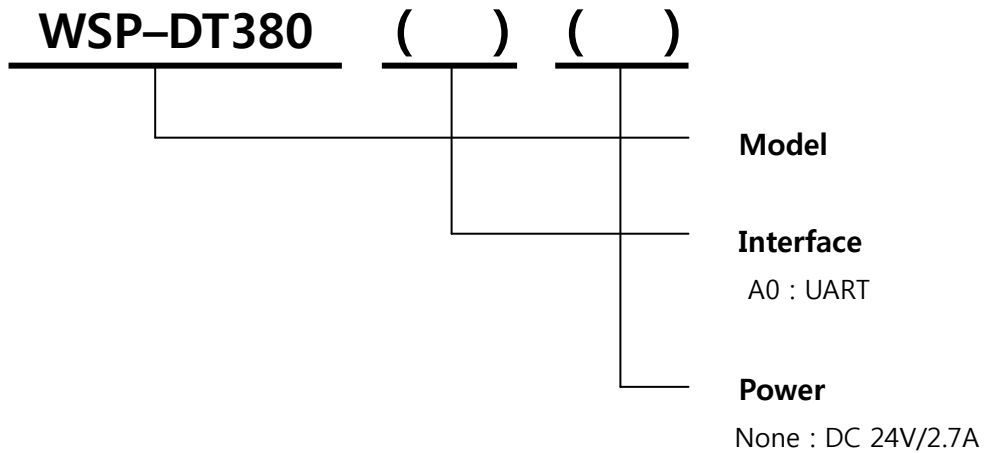
This Device has been evaluated to comply with RF exposure requirement for general use limit in portable condition. It is safe to be used in sold condition.

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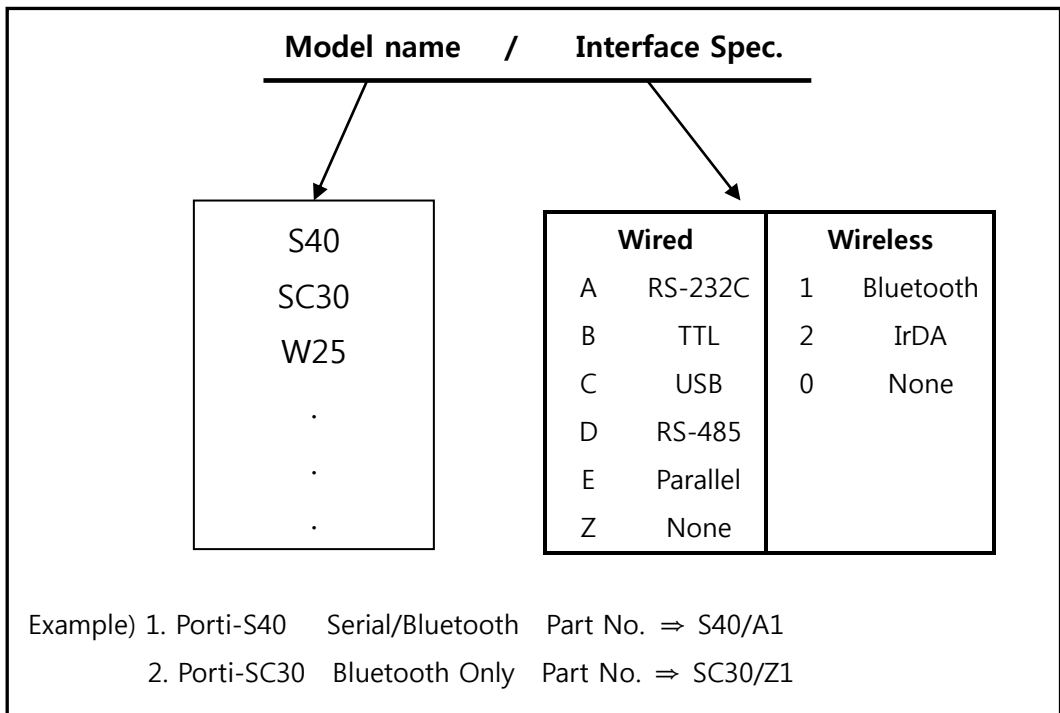
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1. Outline.

1.1. Model classifications.



1.2. Product Part Number System



1.3. Specifications.

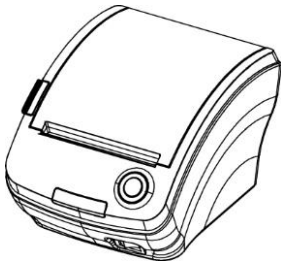
Item	Specifications
Printing method	Thermal dot line printing
Characters per line	64cpl (MAX)
Character size	Eng. : 9*24dots, 12*24dots Kor. : 16*24dots, [24*24dots]
Optional Characters	Simplified/Traditional Chinese, Arabic, Cyrillic, Russian, Turkish, Greek, Japanese, Persian, Latin9 and Others upon request.
Resolution	W 8dots/mm X H 8 dots/mm
Paper feed pitch	0.0625mm
Print width	3-inch (72mm, 576dots)
Printing speed	170mm / sec (MAX)
Dimensions	126 * 165.5 * 108.2 mm
Weight	801g
Interface	USB, Bluetooth Ver2.1 + EDR
Paper supplied	Thermal roll paper (80mm wide, 80ø)
Barcode supplied	1-dimension : Code128, EAN 128, Code39, I2/5, Code93 UPC, EAN, KAN,JAN, CODABAR 2-dimension : PDF417, QR Code, DATA Matrix
Driver	Microsoft Widows XP / VISTA / 7 / 8 / Windows CE, Linux, Android OS driver compatible
H/W Spec.	MCU : 32bit RISC, FLASH : 4 Mbytes, RAM : 8 Mbytes
Receive buffer size	1M bytes
MSR	ISO 7810 / 7811 / 7812 Triple tracks(1&2&3) Reading
Paper cutting method	Slide cutting
Type of paper cutting	Full cut and Partial cut (1.5±0.5mm tab left at the center)
AC adapter	Rated Voltage : AC 100-240V, 50-60Hz Capable of Supplying : +24VDC at 2.7A

Item	Specifications	
Environment conditions	Temperature	-10°C ~ 50°C (operating) -20°C ~ 60°C (storage)
	Humidity	30% - 85% (operating)
Life span (at 25°C and rated energy)	Activation pulse resistance	100 million pulses or more
	Abrasion resistance	100km or more (excluding damage caused by dust and foreign materials)
	Paper cutting resistance	700,000 cuts or more

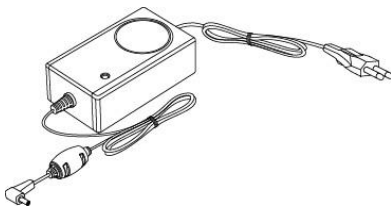
2. Setting up the printer.

2.1. Printer & Accessories

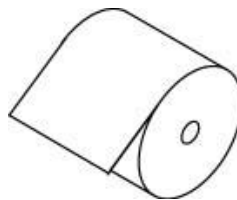
Your printer box should include these items. If any items are damaged or missing, please contact your dealer for assistance.



WSP-DT380



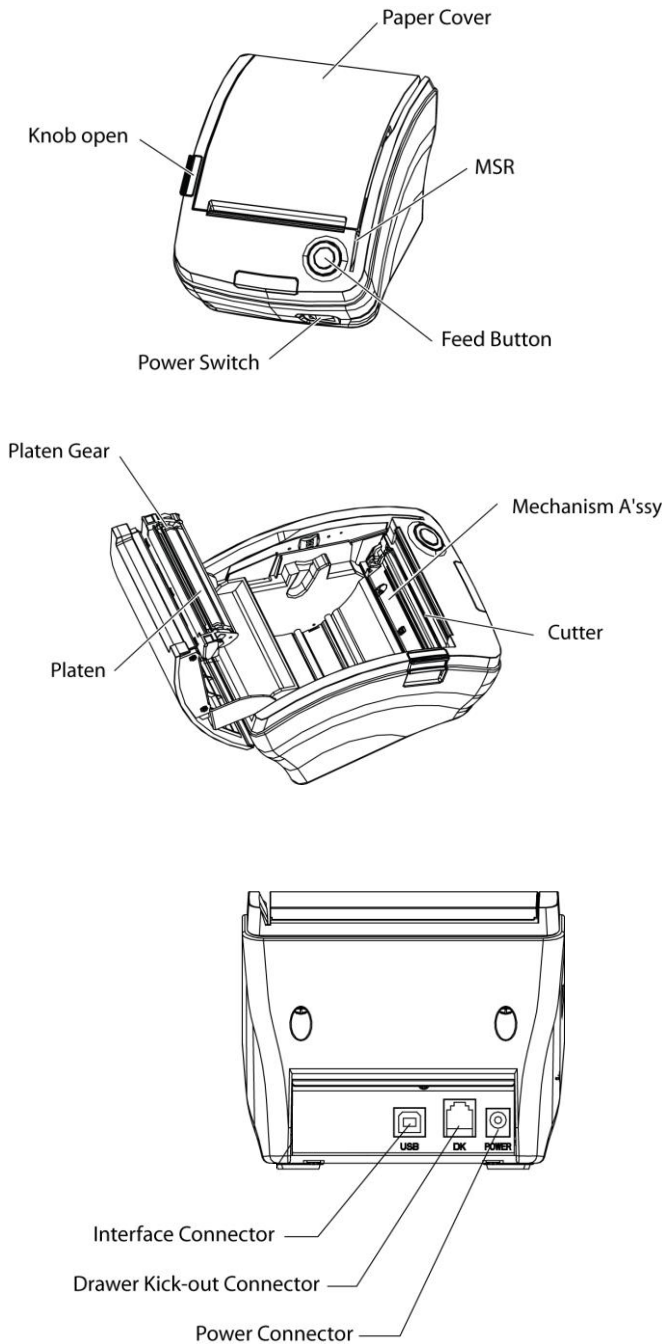
AC Adapter



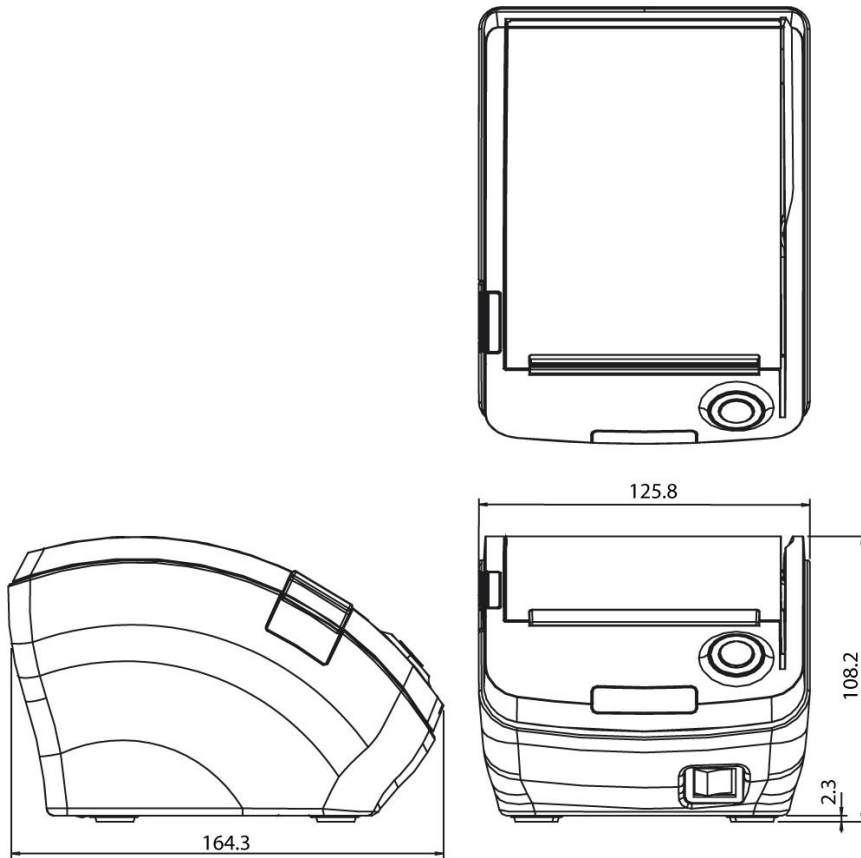
Thermal roll paper

2.2. Printer Features

► Part Name



► Dimensions

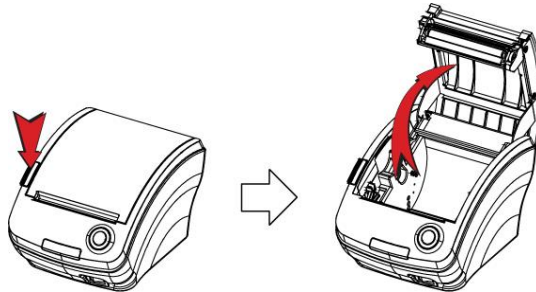


2.3. Replacing paper roll.

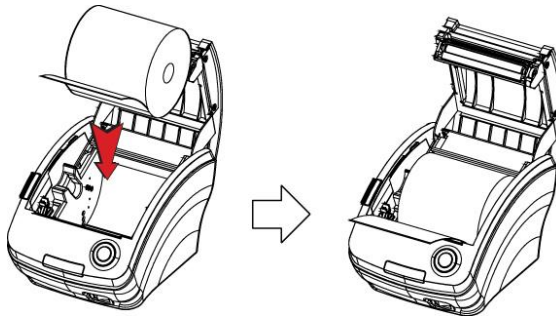
Note : Be sure to use paper rolls that meet the specifications.

Do not use paper rolls that have the paper glued to the core because the printer can not detect the paper end correctly.

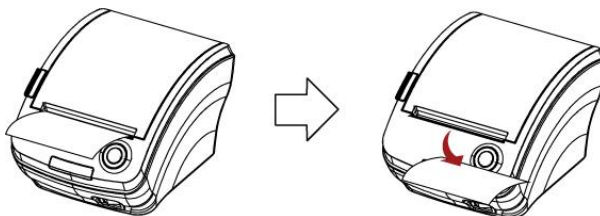
1. Make sure that the printer is not receiving data; otherwise, data may be lost.
2. Open the paper cover as the “One-Touch” way by pressing the button in the arrow direction like the picture.



3. Insert a new paper roll as shown.



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



2.4. Power supply

2.4.1. Specified power supply.

The following specification is requested for Power supply.

Input : Rated Voltage : AC 100-240V, 50-60Hz

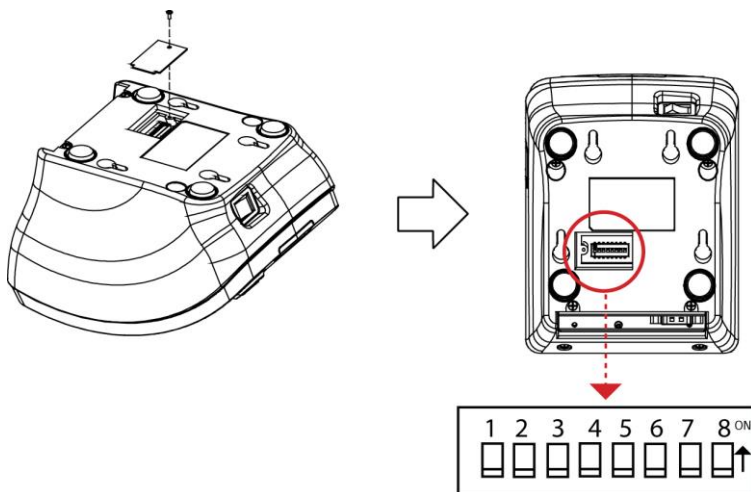
Capable of Supplying : +24VDC at 2.7A

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

2.5. Setting the DIP switches

The DIP switches are located on the bottom of the printer. The DIP switches are used to set the printer to perform various functions. Follow these steps when changing DIP switches setting :

1. Turn the printer power switch off.
2. Turn the printer over and remove the DIP switch cover.
3. Move the DIP switches using tweezers or another narrow-ended tool.
4. The new setting takes effect when you turn on the printer.

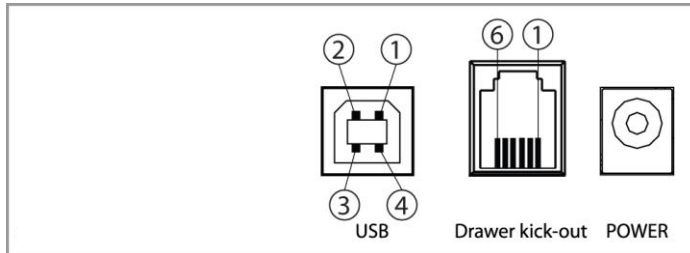


No	DIP SWITCH		No.	
1	1	2		
	Off	Off		Density High
	Off	On		Density Medium
	On	Off		Density High
	On	On		Density Low
2	3	4	5	
	Off	Off	Off	1000000 Baud Rate
	On	Off	Off	500000 Baud Rate
	Off	On	Off	230400 Baud Rate
	On	On	Off	115200 Baud Rate
	Off	Off	On	57600 Baud Rate
	On	Off	On	38400 Baud Rate
	Off	On	On	19200 Baud Rate
On	On	On	9600 Baud Rate	
3	6			
	Off			8 Data Bit
	On			7 Data Bit
4	7	8		
	Off	Off		Odd Parity, 1 Stop Bit
	Off	On		Even Parity, 1 Stop Bit
	On	Off		Odd Parity, 1 Stop Bit
	On	On		No Parity, 1 Stop Bit

<DIP SWITCH Specification>

NOTE : Always change DIP switch settings when the printer is turned off.
 Changes made with the power on have no effect until you turn the printer off and then on again.

3. Interface



WARNING

A wrong connection of power supply connector could be damage the printer.
In the printer power off state Please connect the power supply.

3.1. USB

USB

Pin No.	Signal Name	Function
1	USB_VCC	+5V
2	DM	DATA '-'
3	DP	DATA '+'
4	GND	Ground

< USB (B TYPE)>

Drawer Kick-out

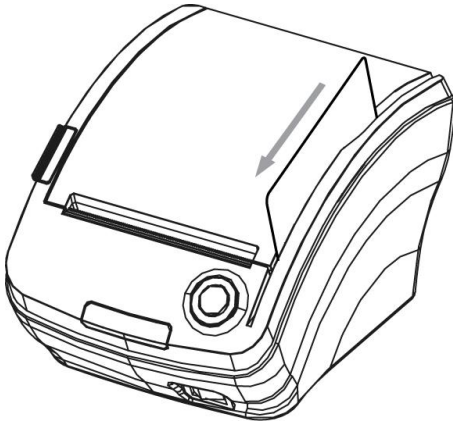
Pin No.	Signal Name	Direction
1	Frame GND	-
2	Drawer Kick-out driver signal 1	Output
3	Drawer open/close signal	Input
4	+12V	-
5	Drawer kick-out drive signal 2	Output
6	Signal GND	-

< MODULAR JACK - DK623PCB6P>

3.2. Bluetooth

Category	Specification
Bluetooth Spec.	Bluetooth Ver2.1 +EDR / Class2 (10m)
Frequency Range	2.4GHz ISM BAND
Data Transmission Rate	57600bps Fixed.
Data bit	8 Data bit Fixed.
Parity bit	No parity Fixed.
Stop bit	1 Stop bit Fixed.

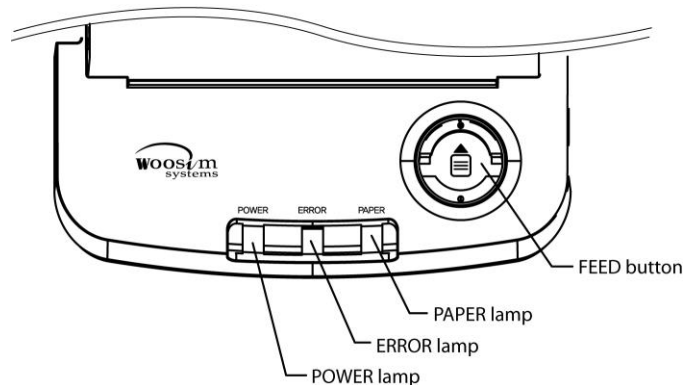
3.3. Card Reading



Please take notice that Magnetic Stripe Card should be swapped in direction of arrow. Card can be read in one direction.

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.

► 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.)
- PAPER (Red)** : Indicates the shift time of the paper.

4.2. The self test.

The self test procedure will check most of the printer functions. 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 completed the self test.

5. Consumable Parts

5.1. Recommended paper

Type	: Thermal Paper
Paper width	: 80mm
Paper thickness	: $60 \pm 5 \mu\text{m}$
Outer diameter	: $\varnothing 80\text{mm}$ 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°C.
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.

