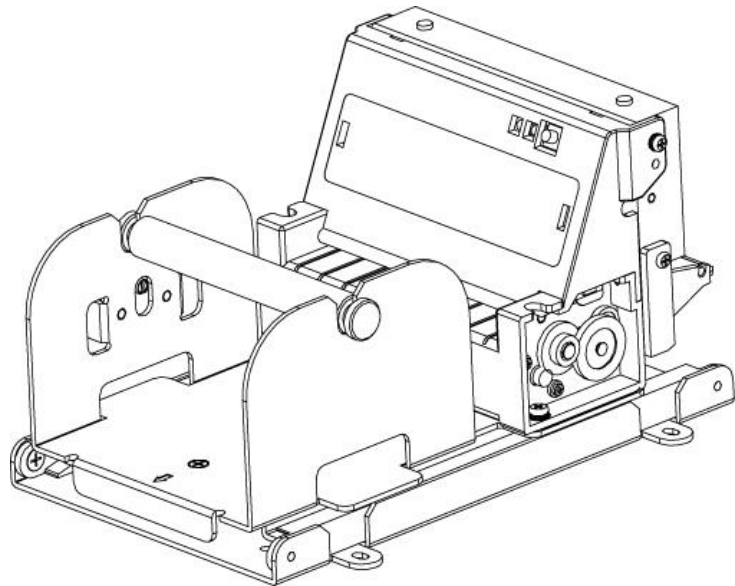Operator's Manual

MODEL   WSP-T380

(Kiosk&Ticket Printer)

Rev. 4.0

All specifications are subjected to change without notice

◘ Copyright

WSP-T380 3inch Kiosk/Ticket printer operator's manual.

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◘ Trademark

◘ 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-T380** printer is the ideal solution for kiosk, Ticket vending machines and receipt output for vending machines, ATM, etc.

The general features of **WSP-T380** printer are as follows:

▶ Very silent printing thru direct thermal printing method.

▶ High speed(150mm/sec, MAX)

▶ High resolution(203dpi : 8dots/mm).

▶ UART(RS-232C or TTL), USB(option) Interface

▶ Low power consumption.

▶ Auto cutting.

▶ Supports text and graphic printing.

▶ Easier maintenance with self-diagnostics.

▶ In field programming – Update Firmware, Download Fonts and Logos

▶ Microsoft Windows/Windows CE, Linux, Android compatible

▶ Flow control : Software (XON/XOFF)

　※ Hardware flow control not supported in printer.

◼ 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℃ to 50℃
   - ◆ Relative humidity　　　 : 　30% to 80%
- 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.
- POWER OFF when not in use.
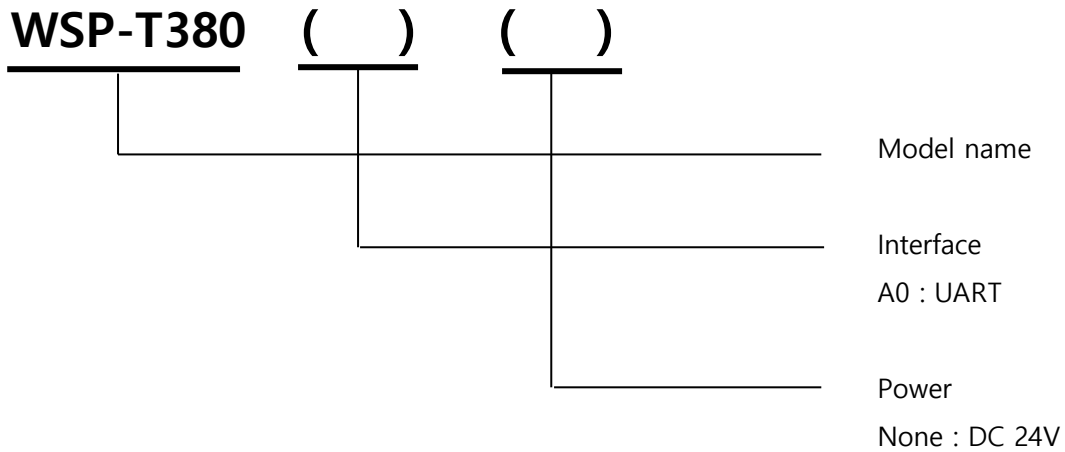- Do not use other solvent.

▶ 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.

CONTENTS

1. Outline

1.1. Model classifications

WSP-T380   (   )   (   )

———— Model name

———— Interface
A0 : UART

———— Power
None : DC 24V

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	0	None
D	RS-485		
E	Parallel		
Z	None		

Example) 1. Porti-S40   Serial/Bluetooth   Part No. ⇒ S40/A1
               2. Porti-SC30   Bluetooth Only   Part No. ⇒ SC30/Z1

Note)   The above table is the interface format which is supported.
          But some of the interfaces are not supported according to the product
          and please contact us, if you have any questions regarding the interface.
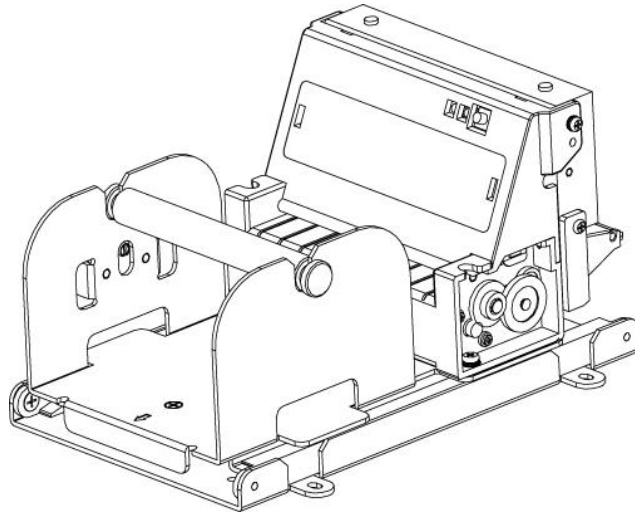
1.3. Specifications

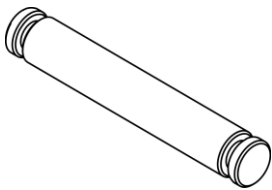| Item	Specification		
Print method	Direct thermal line printing		
Character size	- Font Size A: 12X24 / Font Size B : 9X24 / Font Size C : 8X16 - KOR : 24X24(16X24) / CHN, JPN : 24X24		
Characters per line	- Font A, B, C : 48 / 64 / 72cpl - KOR, CHN, JPN : 24cpl		
Optional Characters	Alphanumeric:95, Extended Graphics:128X31 pages, International:10, Simplified/Traditional Chinese, Japanese, Korean		
Resolution	203dpi, 8dots/mm		
Print width	3-inch (72mm, 576dots)		
Printing speed	150mm/sec (MAX)		
Dimensions	169 X 88.2 X 101mm		
Weight (w/o paper)	980g		
Interface	UART(RS-232C or TTL), USB(option)		
Paper supplied	Thermal roll paper (80mm wide, 80ø)		
Barcodes	1-dimension : UPC-A, UPC-E, EAN-8, EAN-13, CODE-39, CODE-93, CODE-128, ITF, CODABAR 2-dimension : PDF417, Micro PDF417, Truncated PDF417, QR-CODE, DATA Matrix, Maxicode Etc : GS1 databar		
Driver	Microsoft Windows, Linux		
H/W spec	MCU : RX-32bit, RAM : 128M bit, FLASH : 64M bit		
Receive buffer size	1M bytes		
Input Power	24VDC, Stand by 60mA and Max 3A		
Option	Sliding mount assembly		
Environment conditions	Temperature	-10 °C ~ 50°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	
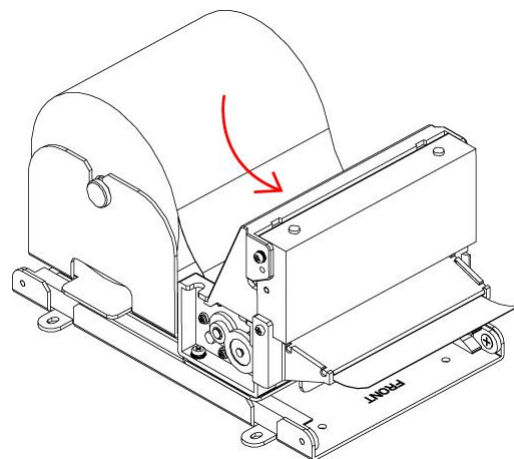
<Table 1 >

2. Setting up the printer
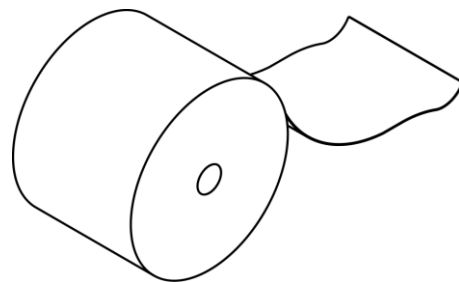
2.1. Printer & Accessories

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.
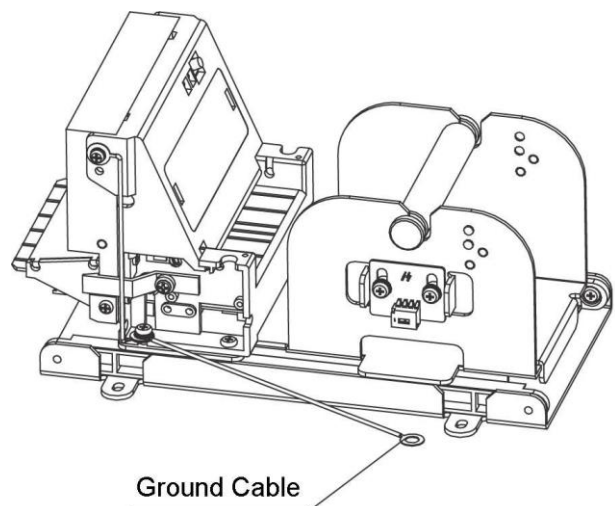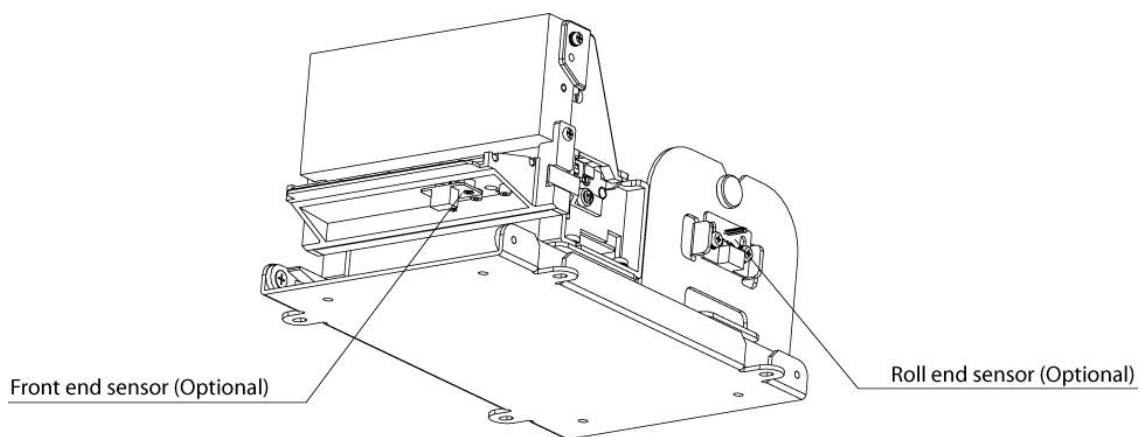
WSP-T380
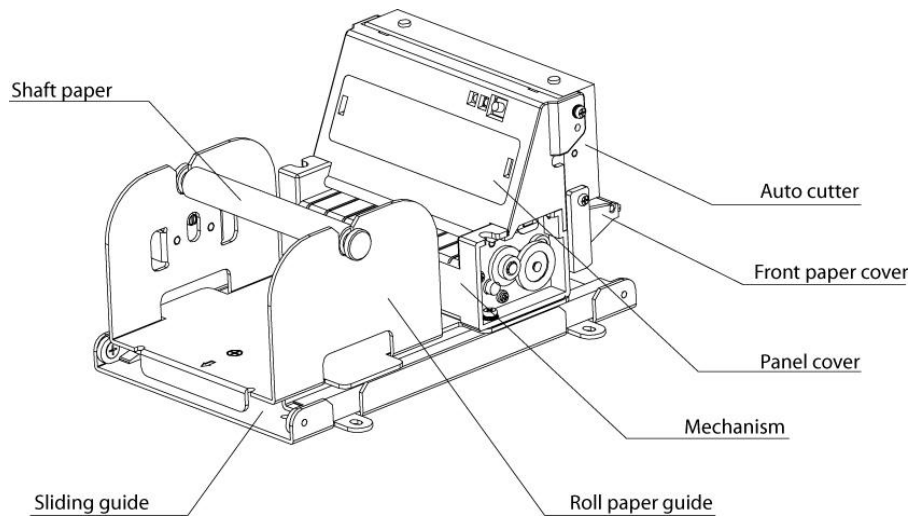
SHAFT   Thermal roll paper
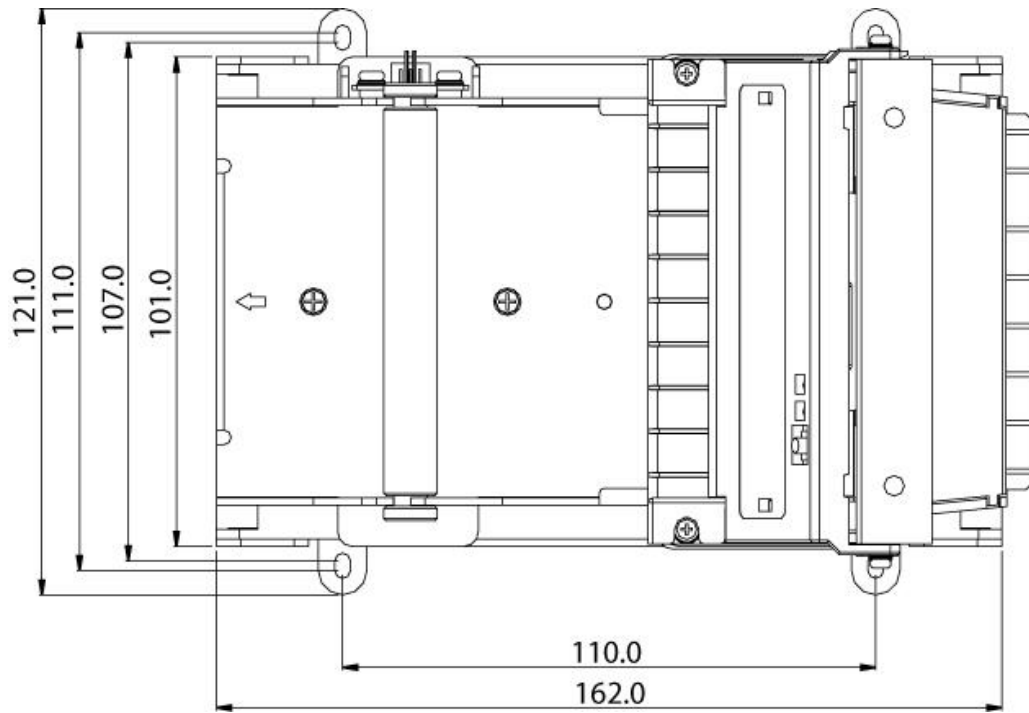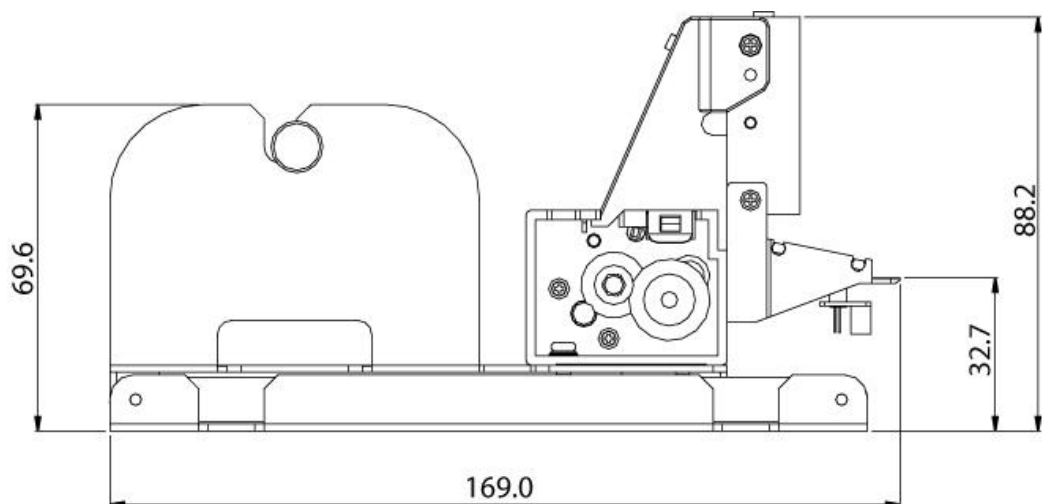
2.2. Printer Features

Connecting Ground Cable to Ground(0V) or to the land, if Ground Cable is not correctly connected, it will cause malfunctioning or the printer will be damaged.

2.3. Dimensions
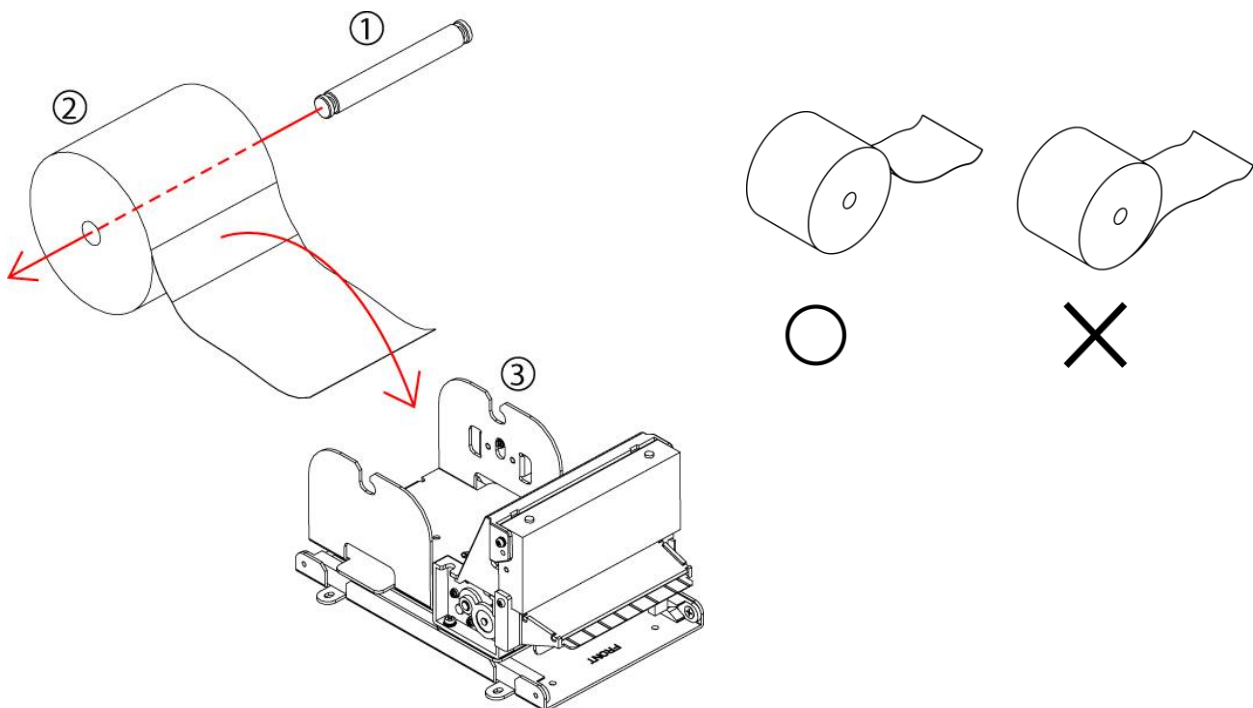
- Top view

- Side view

2.4. Replacing the 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. Remove the used paper roll core if there is one.

3. Insert the paper roll as shown.

4. Be sure to not the correct direction that the paper comes off the roll.

5. Push in the paper, as shown.

The paper will be loaded automatically.

2.5. Power Supply

2.5.1. Specified Power supply

The following specifications are requested for Power supply.

Input : DC 24V   / Max 3A

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

2.5.2. Power connector

The WSP-T380 printer is equipped to an external supply electrical power.

The functions assigned to the pins in the connector are as follows:

Pin	Function
#4	+24V DC
#3	+24V DC
#2	GND
#1	GND

⚠ **WARNING**

A wrong connection of power supply connector could be damage the

Applicable connector : MOLEX 53014-0410 or equivalent.

2.6. Sensor

2.6.1. Sensor connector (option)

Front end sensor
S1 : SG-2BC
J1 : 53014-0310 (Molex)

Applicable connector
51004-0300 (Molex)

Roll end sensor
S1 : SG-2BC
J1 : 53015-0310 (Molex)

Pin No.	Pin Spec.	Function
1	VCC	Anode
2	Signal	Collector
3	GND	Emitter

3. Interface

3.1. UART (RS-232C or TTL) or USB

UART   **USB**

The WSP-T380 printer has a UART(RS-232C or TTL) or USB interface and is connected by means of a 3pin or 4pin male connector.

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

① **UART**

Pin No	Name	Direction	Function
3	TxD	Output	Transmit Data
2	RxD	Input	Receive Data
1	GND	-	Ground

<Molex : 51004-03P>

Applicable connector : MOLEX 53014-03P or equivalent.

② **USB**

Pin No	Name	Function
1	USB_VCC	5VDC
2	DM	Data "-"
3	DP	Data "+"
4	GND	Ground

<Molex : 51004-04P>

Applicable connector : MOLEX 53014-04P or equivalent.

4. Using the printer

4.1. Control panel

Error lamp

Power lamp

Feed buton

▶ **Button**

- **FEED Button** :

   When the printer is on, paper can be feed manually by pressing and holding the FEED button
   for more than one second.

▶ **LAMP**

- **POWER lamp(GREEN) :** Printer is ON and ready to receive data.
- **ERROR lamp(RED)   :** Indicated a fault condition or a printer error.
                          (details: no paper, paper cover opened. etc.)

4.2. The self test

Self-Test prints out the current setting value of printer. The way of self-test is as follows.

1. Insert proper paper into the printer.
2. Power on while pressing feed button to start self-test.
3. Printer will print out the current status. (F/W version and set contents)
4. And then pattern of characters will be printed out.
5. Self-test will be finished automatically and turned to the standby status.

※ In case printer does not work properly, please contact Woosim customer service center.
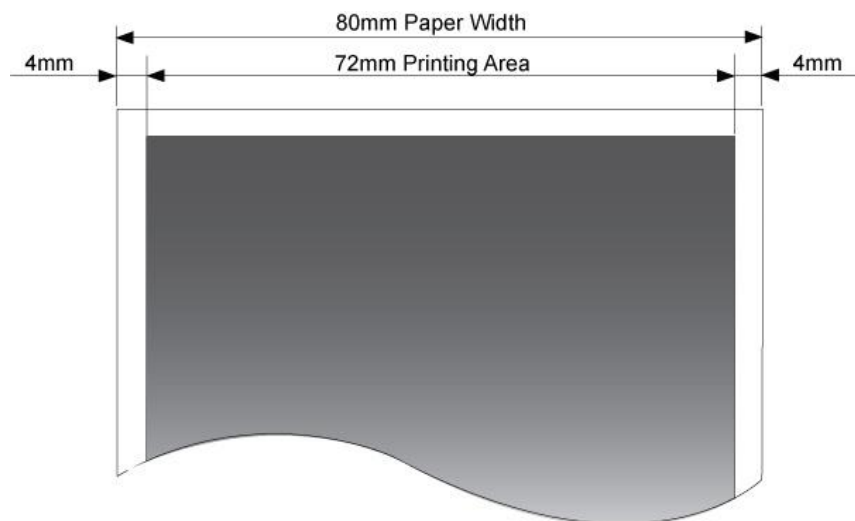
5. Consumable Parts

5.1. Recommended paper

Type	: Thermal Paper
Paper width	: 80mm
Paper thickness	: 60±5μm
External diameter	: Ø 80mm or less
Inside diameter	: Ø 12mm
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

6. Revision History

Date	Version	Comments
Jun. 07. 2017	4.0	RX version renewal * Change page layout (B5→A4) * Delete address