



J. STEPHEN Lab., Ltd.

28-6, Gajangsaneopdong-ro, Osan-si, Gyeonggi-do, 18103, Republic of Korea
TEL:+82-31-8077-5000 FAX:+82-31-459-8880
www.miniprinter.com





Disposal of Old Electrical&Electronic Equipment(Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste.

Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronics equipment. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

# Table of Contents

1. Safety Precautions	4
2. Unpacking	6
3. Product overview	7
4. Usage and Installation	8
4-1. Control Panel Usage	8
4-2. Battery Installation	9
4-3. Battery Removal	10
4-4. Battery Charging	11
4-4-1. Charging Usage	11
4-4-2. Charging Cradle (Optional)	12
4-5. Set Cradle Usage (Optional)	13
4-6. Belt Clip & Strap	14
4-6-1. Belt Strap+Bracket Usage	14
4-6-2. Belt Clip Usage (Optional)	16
4-7. Paper Installation	17
4-8. Leather Case Usage (Optional)	18
4-9. Self Test	19
4-10. MSR Usage (Optional)	21
4-11. IC Card Usage (Optional)	22
5. Peripheral Connection	23
5-1. Bluetooth Connection (Optional)	23
5-1-1. NFC Connection (Optional)	24
5-2. Wi-Fi Connection (Optional)	25
5-3. Interface Cable Connection	26

6. Roll Media Specification	27
7. Black Mark	28
8. Cleaning the Printer	29
9. Printer Specification	30
9-1. Specification	30

# 1. Safety Precautions

For better safety and reliability, adhere to the following precautionary measures. Read and follow the instructions carefully before operation of the product.

#### Indication



Prohibition



Must follow



Do not disassemble



Unplug the power from the outlet



Grounding to prevent electric shock



Do not handle the product with wet hands



#### WARNING

Failure to follow these instructions could result in fire, electric shock, other injuries, or property damage.





Do not pull or touch the power plug with wet hands.

(Potential risk of electric shock or fire)





Do not overload an electrical outlet. (Potential risk of electric shock or fire)





Do not bend the wire and do not allow the wire to be pinched or crushed by heavy objects.

(Potential risk of electric shock or fire)





If a power plug is broken or a plug is cut or worn, do not use it.

(Potential risk of electric shock or fire)

# $\Lambda$

#### **WARNING**

Failure to follow these instructions could result in fire, electric shock, other injuries, or property damage.





Do not unplug the power cable to turn off the product.

(Turn off the power using the power button)





Do not disassemble, repair or modify the product.

(Potential risk of malfunction, electric shock, or fire. When the product needs to be repaired, please contact your reseller)



#### CAUTION

Failure to follow these instructions could result in fire, electric shock, other injuries, or property damage.





Do not install the product on an unstable or inclined surface.

(May cause damage or injury)





Keep product away from the water and other material.

(Potential risk of electric shock or damage)



Dealer

If the product needs to be repaired, please contact your reseller.

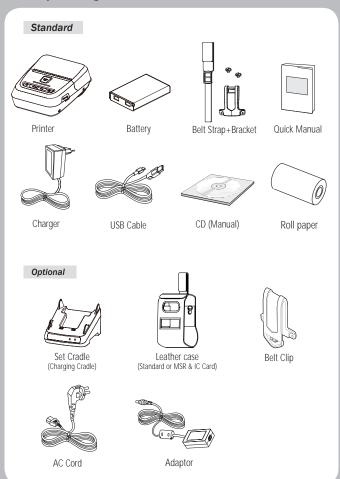
(Potential risk of fire or unit malfunction)



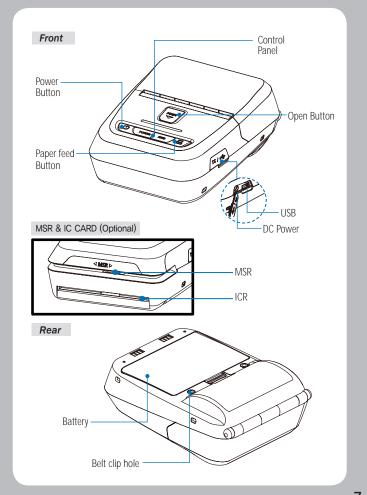


Avoid excessive shock or drops. (Potential risk of fire or property damage)

# 2. Unpacking

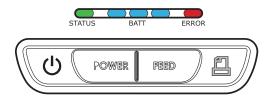


# 3. Product overview



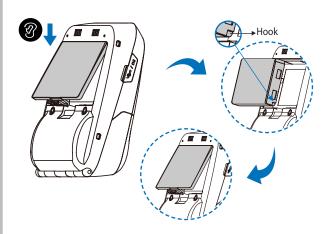
# 4. Usage and Installation

# 4-1 Control Panel Usage



Button	Name	function
ம	Power Button	This button is used to turn the printer on and off.  When the printer is off, press this button for approximately 3 seconds and the printer will power on. When you press this button while the printer is powered on, the printer will turn off.
	Paper Feed Button	This button can be used to manually feed the paper. Additionally, this button is also used to initiate self-tests and Hexadecimal Dumping.  1. Refer to the Self Test section of this manual for information regarding self-tests.  2. Refer to the Note in Self Test section of this manual for information regarding Hexadecimal Dumping.
BATT	Battery Status Lamp	If the Batt LED is lit, the battery is fully charged.     If you can hear a beeping sound and LED light is turned off, the battery is at the lowest level.     If the battery is not charged at all, the printer turns off automatically.
ERROR	Error Lamp	If the red light is turned on, there is no paper or the paper cover is open.
STATUS	LINK/ Power Light	- LINK: LED BLINK - POWER ON: GREEN LED ON - POWER OFF: LED OFF

# **4-2 Battery Installation**



- 1. Align battery hook as shown in the picture
- 2. Push the battery into the printer until it locks in place.

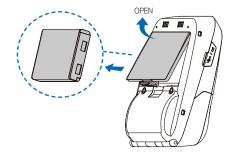
### **√** NOTE

As the battery is not charged at the time of your purchase, charge the battery prior to using the printer (Battery charger or Cradle can be used to charge)

#### **A**CAUTION

Risk of explosion if the battery is replaced by an incorrect type. Dispose of used batteries according to local regulations.

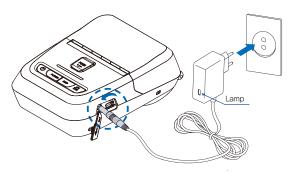
# 4-3 Battery Removal



Remove the battery as shown

# 4-4 Battery Charging

#### 4-4-1 Charging Usage



- 1. Make sure the printer is turned off.
- 2. After opening the DC JACK cover, connect the DC JACK to the printer.
- 3. Plug the power cord into the electrical outlet.

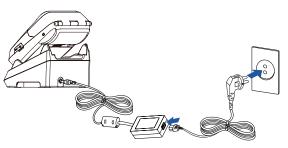
#### The charging status LED

Status	charging	charging complete
Charging Lamp	Red	Green

#### **V** NOTE

- 1. If the charger provided by the manufacturer is not used, the printer can be damaged, and the manufacturer is not liable for the consequential damage.
- 2. Before removing the battery, make sure that power is turned off.
- 3. The printer does not work when only connected to the charger.
- 4. The battery needs to be installed to operate the printer.
- 5. While charging, do not turn on the power.
- 6. Do not operate the printer while charging the battery.
- 7. Do not connect the charger while the printer is operating.





- 1. Place the printer into the charging cradle as shown above.
- 2. Connect the DC JACK to the charging cradle.
- 3. Plug the power cord into an electrical outlet.
- 4. Once the charging is completed, remove the printer from the charging cradle.

## The charging status LED

Status	charging	charging complete
Charging Lamp	Red	Green

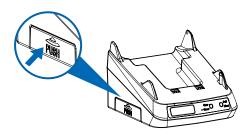


## **√** NOTE

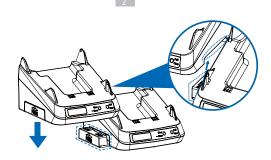
If the printer is not properly mounted on the charging cradle, the red lamp will blink. Remove and reinsert the battery.

## 4-5 Set Cradle Usage

Optional



Press the PUSH button to pop out the cradle connector.

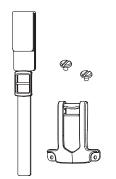


Align the second cradle with the connector of the existing cradle, and connect the cradles by pressing down.

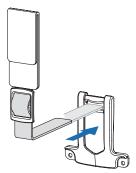
(To disassemble, repeat these steps in reverse order)

# 4-6 Belt Clip & Strap

#### 4-6-1 Belt Strap+Bracket Usage



Prepare the belt strap, bracket, and 2 screws.



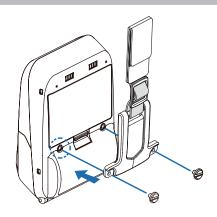
Put the strap into the hole on the top of the belt bracket.



Slide the strap into the loop on the back side.



Make sure the strap is fastened tight enough.

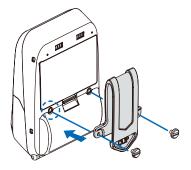


After connecting the strap and bracket, insert the screws into the bracket hole.



Use a screw driver to tighten the bracket.

## 4-6-2 Belt Clip Usage Optional



Insert the belt clip screw into the hole of the belt clip.



Tighten the screw with a screwdriver as shown in the picture above.

# 4-7 Paper Installation



Press the PUSH button to open the paper cover.



Insert the paper in the correct direction. See the image above.



Pull a short length of paper out of the printer and close the cover.



Tear off the additional paper using tear bar.

# 4-8 Leather Case Usage

Optional



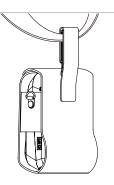
Open the leather case.



Place the printer into the leather case.



Close the cover and press down on the Velcro.



Fasten to the belt by using the strap at the rear of the leather case.

# 4-9 Self Test



Turn off the power by pressing the power button for approximately 3 seconds.



While you are holding the FEED button, press the power button.

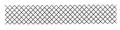


The self-test will print.

#### **√** NOTE

- 1. To enter hex dump mode, press the Feed button once more
- 2. If the Feed button is not pressed, the self-test will automatically finish after 3 seconds.

#### Self-Test Printout Sample



## SEWOO, LK-P22

Printer Configuration Info. F/W Version: v1.03 FontRom Version: v1.0 Black Mark(Adj): 154(868) Battery: 8.1V(831),offset:17 Timeout(Sleep): 60 sec Ext' Flash: Exist H/W Version: v1.0 SDRAM: 8MB

Emulation Configuration Info.

Emulation : CPCL Top Of Form : O Top Margin : O Left margin : O

Serial Interface Baud : 115200

Data bit : 8bit
Parity Bit : none
Stop bit : 1bit

**USB** Interface

Version 2.0 Full speed compliant Product String : LK-P22

Bluetooth Interface Version : v0.5.39

Device Name : Mobile Printer Mode : SPP ONLY

Paring Info: REGACY\_MODE Class Type: PRINTER\_CLASS Auto connection: Disabled Address: 74:F0:7D:B0:15:05

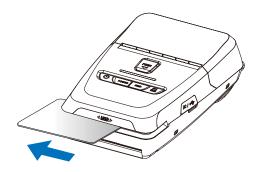


Upon initial installation or for troubleshooting, you can run the diagnostic test to get information about:
Firmware version, emulation, codepage, sensor settings, interface settings, etc.
If no issues are found with the diagnostic test, examine other devices and software.
The diagnostic test is working independently of devices and software.

• Motor protection from being overheated To prevent the motor from overheating, stop the printer for at least 30 seconds after continuously printing 1.5 meters.

### 4-10. MSR Usage

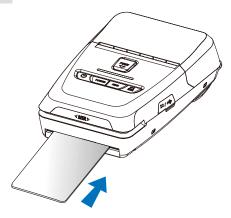
Optional



Insert and swipe the card in the direction of the arrow as shown in the picture.

# 4-11. IC Card Usage

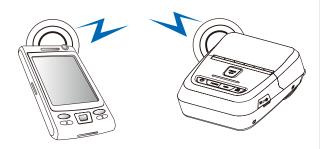
Optional



Insert the card in the direction of the arrow as shown in the picture.

# 5. Peripheral Connection

This product can communicate with other devices via Bluetooth, Wi-Fi(802.11a/b/g), or a communication cable.



# 5-1. Bluetooth Connection Optional

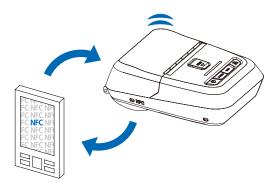
- 1. The Printer can be connected to devices equipped with Bluetooth communication capabilities (PDAs, PCs, etc.).
- 2. Use the Bluetooth connection function supported by the device to connect to the printer.

### **√** NOTE

- Please refer to the configuration manual for details.

### 5-1-1. NFC Connection Optional

This product can communicate with other devices via NFC.

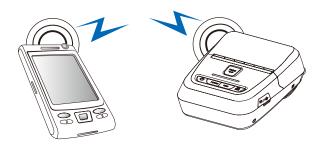


- 1. The printer can be connected to devices equipped with NFC communication capabilities.
- 2. Use the NFC connection function supported by the device to connect to the printer.

#### **V** NOTE

- Please refer to the configuration manual for detail.
- NFC is only compatible with Bluetooth.

This product can communicate with other devices via Wi-Fi communication or an interface cable.



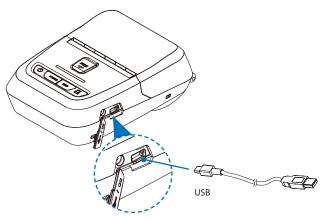
## 5-2. Wi-Fi Connection Optional

- 1. The Printer can be connected to devices equipped with Wi-Fi communication capabilities (PDAs, PCs, etc.).
- 2. Use the Wi-Fi connection function supported by the device to connect to the printer.

## **√** NOTE

- Please refer to the configuration manual for details.

# 5-3. Interface Cable Connection



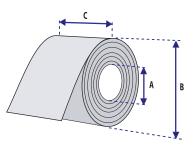
1. Connect USB cable to the connector on the printer.

#### **√** NOTE

Use the cable offered by the manufacturer (USB)

2. Connect the interface cable to the USB port of the device (PDA, PC, etc.).

# 6. Roll Media Specification



Core		
Diameter(A) 12.5mm +/-0.5mm		
Roll		
Max.diameter(B)	Max.	
Max.Media Width (C)	Max. 58 ± 0.5mm	
Min.media Thickness	0.06mm	



Protect the printhead from sand, grit, and other hard particles during printing and storage. Keep the cover closed.

Even very small foreign particles may cause severe harm to the printhead.

# 7. Black Mark

# PAPER FEEDING DIRECTION

48 (PRINT WIDTH)

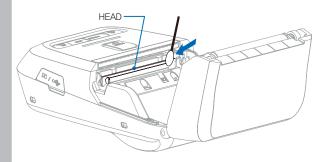
58 (MAX PAPER WIDTH)

# 8. Cleaning the Printer

If the interior of the printer is dusty, printing quality can lowered. In such a case, follow the instructions below to clean up the printer.

#### **√** NOTE

- 1. Make sure to turn the printer power off prior to cleaning.
- Regarding printhead cleaning, as the printhead gets very hot during printing, turn off the printer power and wait approximately 10 minutes before cleaning.
- When cleaning the printhead, take care not to touch the heated portion of the printhead. The printhead can be damaged by static electricity.
- Take care not to allow the printhead to become scratched and / or damaged in any way.



- Use an applicator swab moistened with an alcohol solution to clean the printhead and remove any dust.
- 2. Once the cleaning is completed, wait a few minutes before inserting the paper roll into the printer.

#### ✓ Preventing Overheating

To prevent the motor from overheating, stop the printer for at least 30 seconds after continuously printing 1.5 meters.

# 9. Printer Specification

# 9<u>-1 Specification</u>

Printing Method		Direct Thermal	
Printing Speed		Max. 100mm/s	
Resolution		203 DPI	
Character	ESC/POS	FontA(12x24), FontB(9x17), Asian Font(KOR, JPN,CHN_GB2312,CHN_BIG5)	
	CPCL	Font0/1/2/4/5/6/7, 24x24 Asian Font(KOR, JPN,CHN_GB2312,CHN_BIG5), Resident TTF, Downloadable TTF	
	ZPL	FontA~H, FontGS,Resident TTF(Font0), Download- able TTF	
Barcode	ESC/POS	1D: EAN-8, EAN-13, Code39, ITF, UPC-A, UPC-E, Codabar, Code93, Code128 2D: QR, PDF417	
	CPCL	1D: LUPC-A(+2,+5), UPC-E(+2, +5), EAN13(+2, +5), EAN8(+2,+5), Code39 etc. (CPCL) 2D: QR, PDF417, MicroPDF417, Maxicode, Datamatrix, Aztec, TLC39, RSS14	
	ZPL	1D : Code11, ITF, Code39, Planet, EAN-8, UPC-E, Code93, Code128 etc. (ZPLII) 2D: QR, PDF417, MicroPDF417, Maxicode, Datamatrix, Aztec, TLC39, RSS14	
Emulation		ESC/POS, CPCL, ZPL	
Driver		Window Printer Driver(10, 2012, 8.0/8.1, 7, 2008, Vista, 2003, XP, 32 & 64bit), Windows (CE 4.2 & 5.0 & 6.0 & 7.0 / Mobille 5.0 & 6.0)	
Sensor		Paper End Sensor, Cover Open Sensor, Black Mark Sensor	
Paper	Paper type	Thermal Paper	
	Width	Max. 58±0.5mm	
	Thickness	0.06-0.09mm	
	Roll Max Diameter	40mm	
	Roll Core	12.5mm +/-0.5mm	

Interface		Standard	USB
		Option	Bluetooth Smart Ready Ver 4.2 or Wi-Fi(802.11a/b/g/n)
Battery Charger		Input	AC100~240V, 50/60Hz
		Output	8.4V , 800~1400mA
Battery		Battery type	Li-ion
		Output	7.4V, 1510mAh
		Charging time	2 Hrs (MSR+ICR : 2.5 Hrs)
EMV II	MSR	Card Standard	ISO 1&2&3 or ISO 1&2&JIS-II
(Optional)		Track	ISO Track 1&2&3
		Magnetic Head Life	500,000 Passes(minimum)
	ICR	Card Standard	ISO 7816
		Head Life Cycle	100,000 Passes(minimum)
Size [W x D x H (mm)]		Standard	80 x 119.4 x 44
		MSR+ICR	80 x 135.8 x 44
Weight		Standard	242.5g (With Battery)
		MSR+ICR	280.8g (With Battery)
Temperature		Operation	-10~50℃
		Storage	-20~60℃
Humidity		Operation	35 ~ 80%
		Storage	10 ~ 90%

