



# J. STEPHEN Co., Ltd.

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#### 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.

#### Hong yul Jun

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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.

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# 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)

# A

### **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.

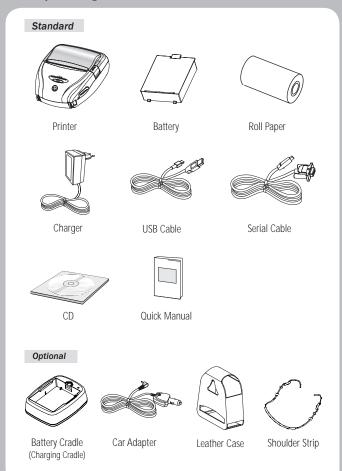
(Potential risk of fire or unit malfunction)



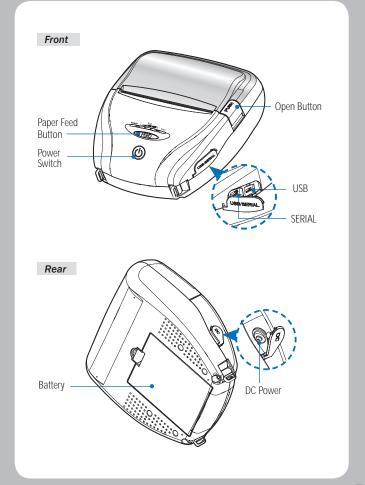


Avoid excessive shock or drops. (Potential risk of fire or property damage)

# 2. Unpacking

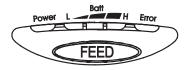


# 3. Product Overview



# 4. Usage and Installation

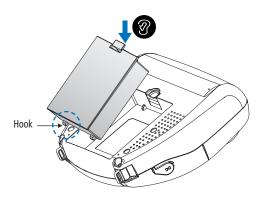
# 4-1 Control Panel Usage





Button	Name	function
<b>(b)</b>	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.
FED	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 H	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.

# **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.

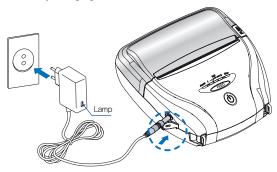
### **V** NOTE

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 Charging



- 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

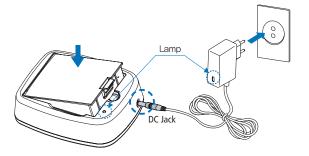
Status	Charging	Charging complete
Charging Lamp	Red	Green

### **▼** 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.

## 4-4 Charging Cradle

#### Optional



- 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.

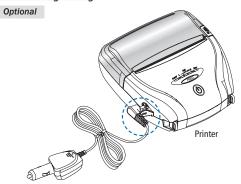
### The charging status LED

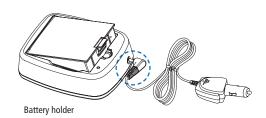
Status	Charging	Charging complete
Charging Lamp	Red	Green

## **√** NOTE

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

# 4-5 Car Charger Usage





Connect the car charger to the printer or battery cradle.

Input	12 ~ 24V
Output	8.4V 0.8 ~ 1.2A

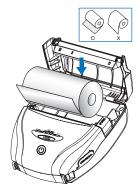
### **V** NOTE

Only use cables included with the printer.

# 4-6 Paper Installation



Press the PUSH button to open the paper cover



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



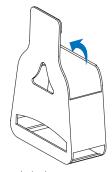
Pull a short length of paper out of the printer and close the cover.



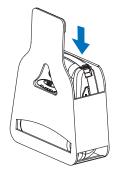
Tear off the additional paper using tear bar.

# 4-7 Leather Case Usage

#### Optional



Open the leather case



Place the printer into the leather case



Close the cover and press down on the Velcro.

# 4-8 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 print ASCII pattern additionally, press the Feed button once more
- 2. After printing ASCII pattern, the self test will be finished automatically.
- 3. If the Feed button is not pressed to print ASCII pattern, self test will be finished automatically after 3 seconds.

#### Self-Test Printout Sample

SELF-TEST
*************************
Printer is as follows
Firmware Version   Ver 0.05
*************************
ENGFONT Instal
Codepage 437 Instal
**********************
Serial Interface
Baud rate : 115200
Data bits : 8 bits
Parity : none
Stop bits : 1 bit or more
Handshaking : DTR/DSR
Receive error: ignore
E444444444444444444444444444
Bluetooth
BO_ADDR :00:13:7B:52:06:ED
Passkey :0000
*************************
MSR
Read Mode : Auto TRACK 1/2
**********************
Enulation : ESC/POS
PrintDensity : Normal
Characters : 32 Char/Line
************************
Low Power Mode : Not Install
Off Time : 0 mir
****************************
Please press FEED button

abodetahijklmnoparstuvwxyz{|}} bodefghi jklmnopgrstuvwxyz{}} Dü cdefghijk Imnopgrstuvwxyz[]} Çüé defghijklmnopgrstuvwxyz{|}" Çüéä efghijklmnopgrstuvwxyz{]} Cueša fghijklmnopgrstuvwxyz{|}" Cúéááa ghi jk Imnopgrstuvwxyz { | } " Cūėšäää hijkimnopgrstuvwcyz{|} Qüéšäáác ijk/mnopgrstuvwxyz{|}) Cúéáááácé jk Imnopgrstuvwxyz{|}" Çüéääääçéë kimnopgratuvwxyz{|)" Çüééééépé Innopgrstuvwxyz{|} Cúéáááágééé! mnopgrstuvwxyz{|} Quedae#çeeeil nopgrstuvwxyz{|}~ Çüéáäááçéééíli opgratuvwxyz{|} CüeaadaçeeeiiiA pgrstuwwxyz{|}" ÇüeâaâāçêeêiiiāĀ grstuvwxyz(1) CuéaaaagéeeïiiAAE rstuvwxyz{|}" Çüdáaááçédéi|iAÁÉæ stuvwxyz{|} ÇüéááááçéséiiiAÁÉa£ tuvwxyz{|}" Cueasaaceae;;;AAEaAo UVWXYZ{|}" Cúśżażacese i i iAAEzdoo vwxyz{|} Cüéáäáácééé⊺i iAÁÉæ€ócó wxyz(1) Cüddadacee i i i AAEz-főöcü xyz{|}" CüsäääääceeeiliAA£æ6öööü yz{|}" QüeásaácéééjijAAÉæfőőőüüv z{|} Cuesaáscese i i i AAFæfocouuvo (1) Cueásságéééii i AAEzfőcóüúyőű 1) Cuésaadoése i i AAÉ&foccouvous Cuesasacees i i AAE#AogoucystusE Quesasaçeee i i AAEs£00000900¢£¥ Quedadações i i AAÉ BÃO CO CÚY DUSE VA \*\*\* Completed \*\*\*

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

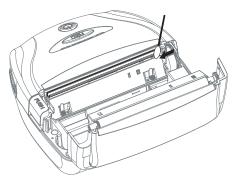
To prevent the motor from overheating, stop the printer for at least 30 seconds after continuously printing 1.5 meters.

### 4-9 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.
- 4. Take care not to allow the printhead to become scratched and /or damaged in any way.



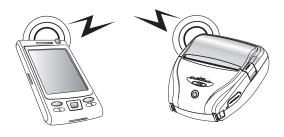
- Use an applicator swab moistened with an alcohol solution to clean the printhead and remove any dust.
- Once the cleaning is completed, wait a few minutes before inserting the paper roll into the printer.

### ▼ Preventing Overheating

To prevent the motor from overheating, continuous driving of the printer should be 1.5 m or less in print length. Set the pause time for 30 seconds or more after driving the printer.

# 5. Peripheral Connection

This product can communicate with other devices via Bluetooth, Wi-Fi, 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.

### **V** NOTE

Please refer to the configuration manual for details.

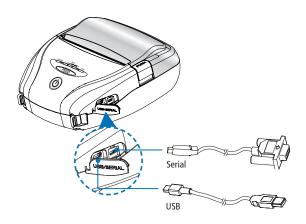
### 5-2 Wi-Fi Connection Optional

- 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

Only use cables included with the printer.

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

# 6. Printer Specification

# 6-1 Specification

Printing Method		Direct Thermal
Printing Speed		80mm/sec
Resolution		203 DPI
Character Per Line		Font A: 69 columns, Font B: 92 columns
Character Set		Alpha Numeric Character, Expended Graphic, International Character
Barcode	1D	EAN-8, EAN-13, Code39, ITF, UPC-A, UPC-E, Codabar, Code93, Code128
	2D	PDF417, QR Code, Maxicode, Datamatrix
Emulation		ESC/POS, CPCL Command Compatible
Driver		Windows Driver(10, 2012, 8, 7, 2008, VISTA, 2003, XP, 32bit & 64bit), Window CE & Mobile Driver & SDK(CE 4.2 –, Mobile 5.0 –), Linux Driver, Mac Driver, OPOS Driver, JavaPOS Driver, iOS SDK, Android(2.1 –) SDK, Blackberry SDK, Symbian
Sensor		Paper end, Gap, Black mark, Cover open
Paper	Paper type	Thermal Paper / Label
	Width	50mm ~112mm
	Thickness	0.06mm ~ 0.16mm
	Roll Max Diameter	56mm
	Roll Core	12.5mm +/-0.5mm
Reliability	TPH	50km
Battery		Continuous printing: 48min Standby: 165Hrs Stand-by(5200mAh)
Communications	Standard	Serial(RS-232C), USB
	Optional	Bluetooth Smart ready (Bluetooth 4.2+BLE) or Wi-Fi(802.11a/b/g/n)

Battery Charger	Input	AC100~240V, 50/60 Hz
	Output	8.4V , 800~1400mA
Battery	Battery type	Li-ion
	Output	7.4V 2600mAh / 5200mAh(Optional)
	Charging time	3.3Hrs Charging time(2600mAh) 6.2Hrs Charging time(5200mAh)
Size	W x D x H(mm)	149 × 162 × 70
	W x D x H"	5.87 × 6.37 × 2.75
Weight		572g (with 2600mAh battery)
Temperature	Operation	-10 ~ 50°℃
	Storage	-20 ~ 60℃
Humidity	Operation	35 ~ 80%
	Storage	10 ~ 90%

# 7. CPCL Command Compatibility

# **▼** NOTE

Compatible	Compatible with only commanders provided by the manufacturer.	Partially Compatible	Not Compatible
0	•	Δ	х

Printer Commands	Compatibility
PRINT	0
FORM	0
JOURNAL	0
UNITS	0
Comments	0
TEXT	Compatibility
TEXT	0
FONT-GROUP(FG)	0
TEXT CONCATENATION	0
MULTILINE(ML)	0
COUNT	0
SETMAG	0
SCALABLE TEXT	X
Linear Bar Codes	Compatibility
BARCODE	0
BARCODE-TEXT	0
Two-Dimensional Bar Codes	Compatibility
PDF417 (PORTABLE DATA FILE)	0
MAXICODE	0
QRCODE	•
DATAMATRIX	•
GS1(RSS)	•

Graphics	Compatibility
BOX	0
LINE	0
INVERSE-LINE	0
PATTERN	0
GRAPHICS	0
PCX	0
Advanced Commands	Compatibility
CONTRAST	0
TONE	0
JUSTIFICATION	0
PAGE-WIDTH	0
PACE	0
NO-PACE	0
WAIT	0
REWIND	X
TENSION	X
SPEED	0
SETSP	0
ON-OUT-OF-PAPER	X
ON-FEED	0
PREFEED	0
POSTFEED	0
PRESENT-AT	X
COUNTRY/CODE PAGE	0
FORMAT FILES	0
BEEP	0
CUT	X
PATIAL-CUT	X
MCR	•

#### Line Print Mode Compatibility SETLP 0 SETLF 0 Moving With X and Y Coordinates 0 LMARGIN 0 SETBOLD 0 SETSP 0 Special ASCII Characters 0 SETFF 0 SET-TOF 0 SETLP-TIMEOUT 0

# 8. Setting up the Software

Please refer to the programming manual included in CD.

PATENT

