

sewoo

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sewoo



MOBILE PRINTER
MODEL : LK-P20 II

USER'S MANUAL

All specifications are subject to change without notice

**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.

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**Risk of explosion if battery is replaced by an incorrectly type.
Dispose of used battery according to the local disposal instructions.**



**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.



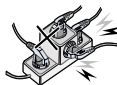
Do not pull or touch the power plug with wet hands.

Potential risk of electric shock or fire



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

Potential risk of electric shock or fire



Do not overload an electrical outlet.

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





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



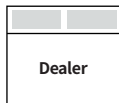
CAUTION

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



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

Potential risk of fire or unit malfunction



Keep product away from the water and other material.

Potential risk of fire or unit malfunction



Avoid excessive shock or drops.

Potential risk of fire or property damage

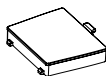


2. Unpacking

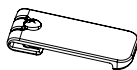
Standard



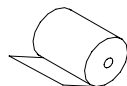
Printer



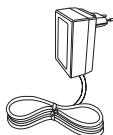
Battery



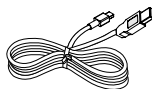
Belt Clip



Roll Paper



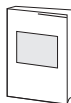
Charger



USB Cable

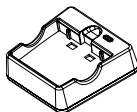


CD



Quick Manual

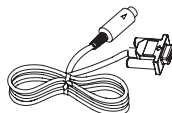
Optional



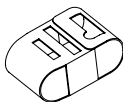
Battery Cradle



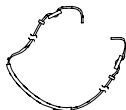
Car Adapter



Serial Cable



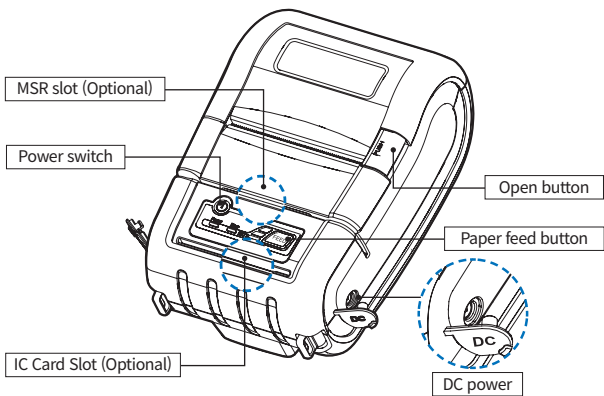
Leather Case



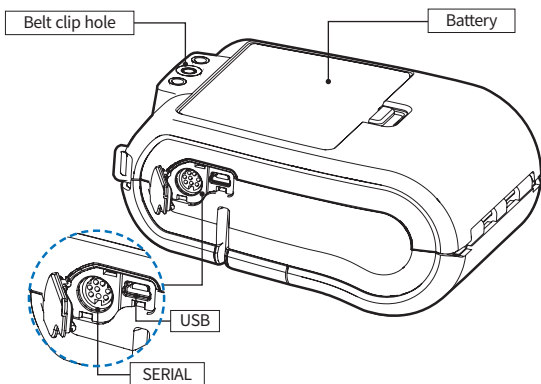
Strap

3. Product overview

Front

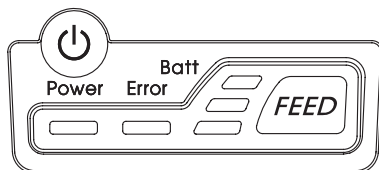


Bottom



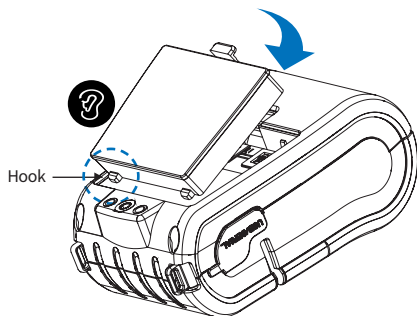
4. Usage and Installation

4-1. Control Panel Usage



Button	Name	function
	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. 01 Refer to the Self Test section of this manual for information regarding self-tests. 02 Refer to the Note in Self Test section of this manual for information regarding Hexadecimal Dumping.
	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 Lamp	- If the red light is turned on, there is no paper or the paper cover is open.

4-2. Battery Installation

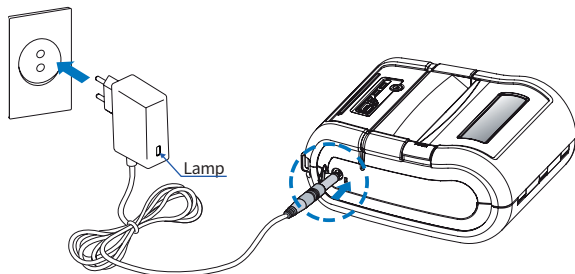


- 1 Align battery hook as shown in the picture.
- 2 Push the battery into the printer until it locks in place.

✓ 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)

4-3. Charging Battery



- 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.

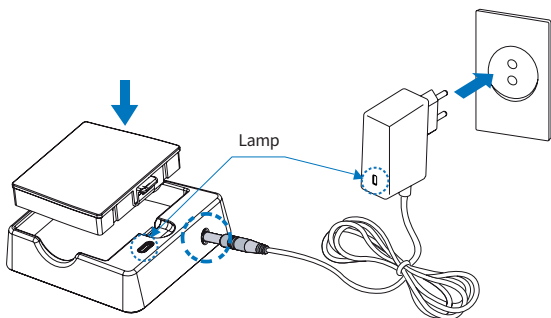
The charging status LED

Status	charging	charging complete
Charging Lamp	Red	Green

✓ NOTE

- 01 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.
- 02 Before removing the battery, make sure that power is turned off.
- 03 The printer does not work when only connected to the charger.
- 04 The battery needs to be installed to operate the printer.
- 05 While charging, do not turn on the power.
- 06 Do not operate the printer while charging the battery.
- 07 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.

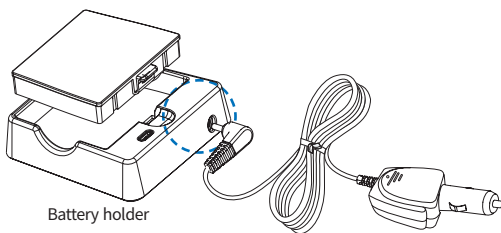
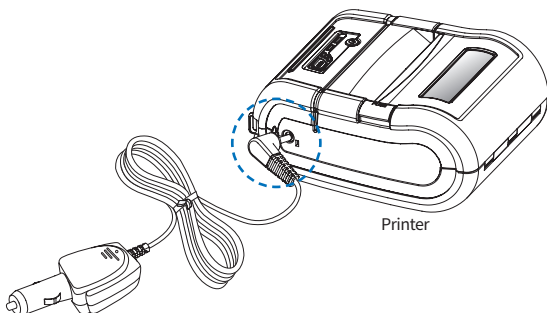
The charging status LED

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 *Optional*



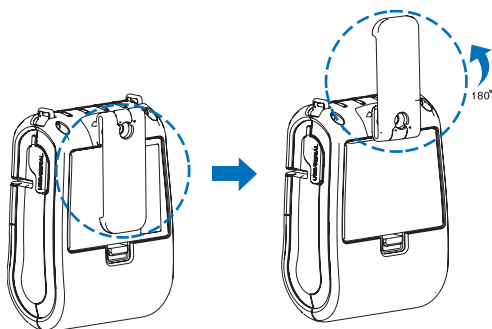
Connect the car charger to the printer or cradle.

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

✓ NOTE

Only car charger included with the printer.

4-6. Battery Removal



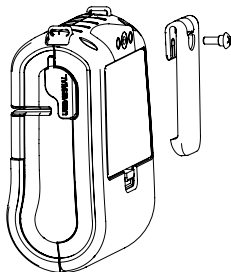
Rotate the belt clip as shown.

1
2

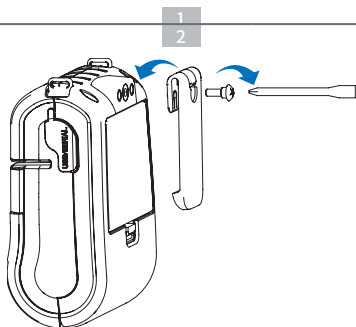


Remove the battery as shown.

4-7. Belt clip Usage

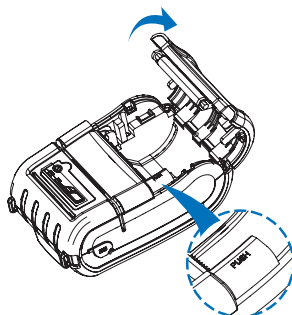


Insert screw into belt clip.

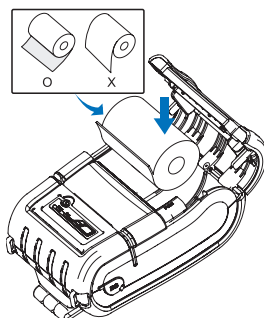


Tighten the screw with a screwdriver as shown.

4-8. Paper Roll Installation

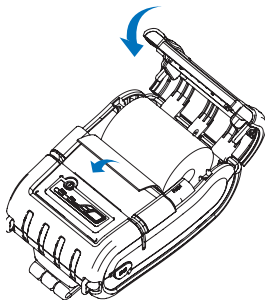


Press the cover open button and open



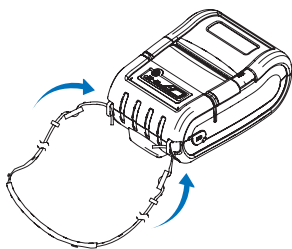
Place the paper roll as shown.
Make sure the paper is placed in right
direction.

1 2
3

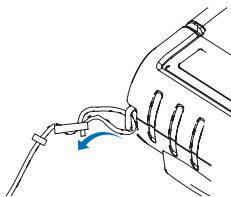


Pull a short length of paper out of the printer and close the cover.

4-9. Shoulder Strap Usage *Optional*

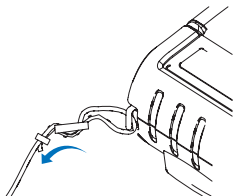


Insert the strap into the hook on the printer.

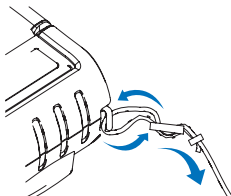


Place the end of strap into the hook of shoulder strap.

1 2
3 4

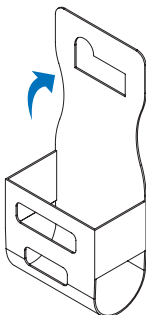


After pulling out the end of strap tightly, put it into the clip to be fastened.

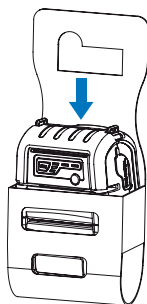


Fasten the strap in the opposite side with the same way.

4-10. Leather Case Usage *Optional*

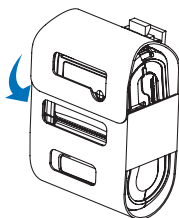


Open the leather case.

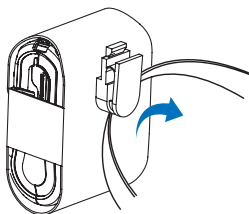


Place the printer into the leather case.

1 2
3 4

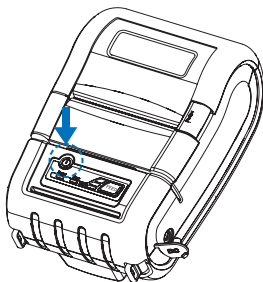


Close the cover and press down on the Velcro.

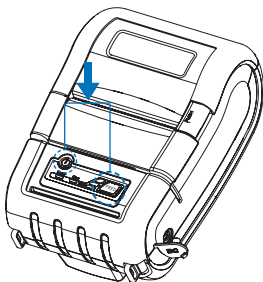


Fasten to the belt by using the clip at the rear of the leather case.

4-11. Self Test

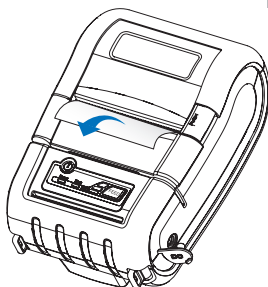


Turn off the power by pressing the power button for approximately 3 seconds.



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

1 2
3



The self-test will print.

✓ NOTE

- 01 To print ASCII pattern additionally, press the Feed button once more.
- 02 After printing ASCII pattern, the self test will be finished automatically.
- 03 If the Feed button is not pressed to print ASCII pattern, self test will be finished automatically after 3 seconds.

Self-Test Printout Sample

SEWOO, LK-P20 II

Printer Configuration Info.

F/W Version : v3.03
BM(Adj) : 148(0)
Sensor Mode: [JOURNAL]
Battery : 7.7V
Timeout(Sleep) : 60 sec
Ext' Flash: Exist
H/W Version : v1.1
MS Track: 1/2

Emulation Configuration Info.

Emulation : CPCL
Top Of Form : 0
Top Margin : 0
Left margin : 0

Serial Interface

Baud : 115200
Data bit : 8bit
Parity Bit : none
Stop bit : 1bit

USB Interface

Version 2.0 Full speed
compliant
Product String : LK-P20

WiFi Interface

Ver: 2574
SSID: MOBILE_PRINTEROFFCID
MAC: 84:72:07:0f:fc:1d
IP: 192.168.100. 1
SUBNET: 255.255.255. 0
GATEWAY: 192.168.100. 1
Operating Mode : SoftAP
DHCP : Enabled



19216810001

Press FEED button to
enter HEX-DUMP mode.

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.

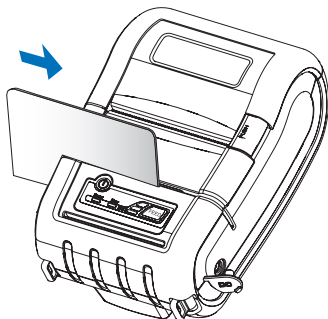
If no issues are found with the diagnostic test, examine other devices and software.

The diagnostic test is working independently of devices and software.

※ Motor protection from being overheated

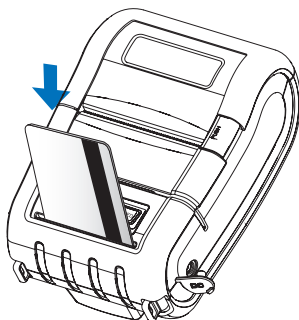
To prevent the motor from overheating, stop the printer for at least 30 seconds after continuously printing 1.5 meters.

4-12. MSR Usage *Optional*



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

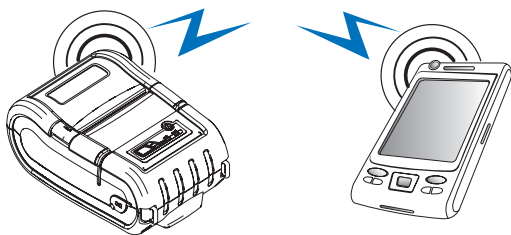
4-13. IC CARD Usage *Optional*



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, 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 your device to connect to the printer.

✓ NOTE

- This model supports numeric comparison function.
- Please refer to the configuration manual for details.

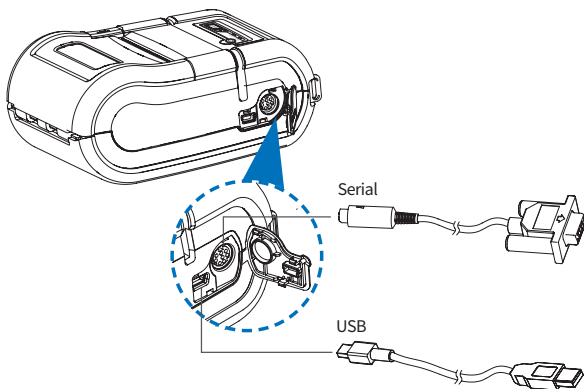
5-2. Wi-Fi Connection *Optional*

- 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 or Serial 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.).

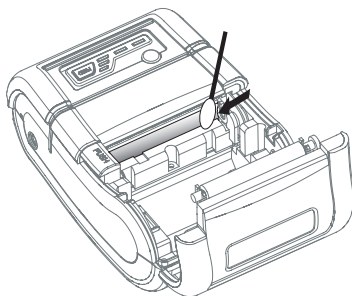
6. Cleaning the Printer

If the interior of the printer is dusty, printing quality can be reduced.

In this case, follow the instructions below to clean the printer.

✓ NOTE

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

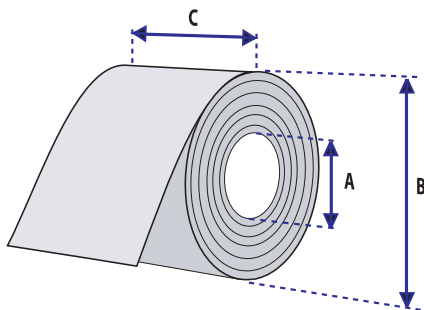


- 1 Use an applicator swab moistened with isopropyl alcohol to clean the print-head and remove any dust.
- 2 Once cleaning is complete, allow the printer to dry then install the paper and close the cover.

✓ Preventing Overheating

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

7. Standard Roll Media Specification



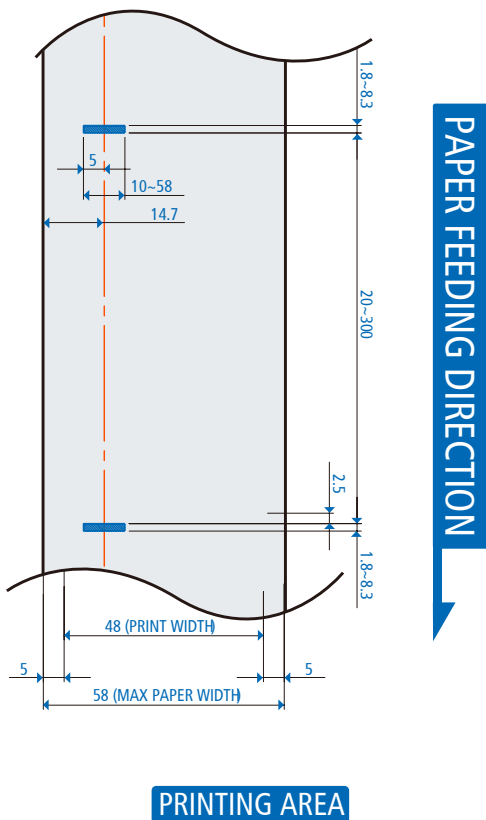
Core	
Diameter (A)	12.5 mm $\pm$ 0.5 mm
Roll	
Max.Diameter (B)	48 mm
Max.Media Width (C)	58 mm
Thickness	0.06 mm ~ 0.09 mm



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.

8. Black Mark



9. Printer Specification

Printing Method		Direct Thermal
Printing Speed		80 mm/s
Width		48 mm, 384 Dots/line
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), Downloadable TTF
	EPL	Font1 ~ 8
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
	EPL	- 1D : Code39, Code93, Code128, Codabar, EAN-(+2,+5), EAN13(+2,+5), ITF etc. (EPLII) - 2D : QR, PDF417, Maxicode, Datamatrix, Aztec, RSS14
Emulation		ESC/POS, CPCL, ZPL 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, Java POS Driver, iOS SDK, Android(2.1~) SDK, Blackberry SDK, Symbian

Sensor		Paper end	
Paper	Paper type	Thermal paper	
	Width	Max. 58 mm	
	Thickness	0.06 mm ~ 0.09 mm	
	Roll Max Diameter	48 mm	
	Roll Core	12.5 mm ± 0.5 mm	
Reliability		TPH	50 km
		Battery	Continuous Printing 52min Standby for 16hours 20min Printing length: 236m
Communications		Standard	Serial(RS-232C), USB
		Optional	Bluetooth Smart ready 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, 2000mAh
		Charging time	150min
MSR (Optional)		Card Standard	ISO 1&2 or ISO 2&3
		Track	1&2 Track or 2&3 Track
		Magnetic Head Life	300,000 Passes(minimum)
EMV II (Optional)	MSR	Card Standard	ISO 1&2&3 or ISO 1&2&JIS-II
		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	WxDxH(mm)	93 x 138 x 62
	WxDxH"	3.66 x 5.43 x 2.44
Weight		340g (With Battery : 440g)
Environmental sealing		IP42, IP54 (With Protection case)
Temperature	Operation	-10~50°C
	Storage	-20~60°C
Humidity	Operation	10 ~ 80%
	storage	10 ~ 90%

10. Utilities

The following utilities and concerned manual can be found on the CD or homepage.

No.	Name	Description
1	Configuration Tool	This is a utility that allows you to set printers by interface. Detailed settings such as Wi-Fi, Ethernet, and COM ports can be configured.
2	Download Tool(F/W)	Printer F/W and Font Download are available, and BT, Wi-Fi module F/W Download is supported. – P22, 20II can download ICR F/W. – BT/Wi-Fi Download function is not supported for P400, P21, P25. – P400 supports SD Card Download function instead of Font Download.
3	NVUpload (ESC/POS)	With NVUpload running on Windows OS, you can upload and remove the bmp file as Logo in the printer's flash memory, and print test is possible.
4	Bitmap Font Download(CPCL)	It is a utility that allows you to change Windows Fonts stored on your PC into Bitmap Fonts for use on the printer.
5	LabelMaker(CPCL)	This program is for label form design and designed label printing.
6	Android Utility (Sewoo M_Utility) (ESC/POS)	It is a utility app that prints text, barcodes, images, etc. through Bluetooth and Wi-Fi communication, and able to printer settings.

11. S/W

We provides SDK, Driver, etc. as follows to respond to various S/W usage environments.

You can download this S/W from the homepage.

No	Name	Description
1	Windows Driver	This is an install program used to print a Mobile printer in Windows OS.
2	Linux Driver	This is the Cups Driver used to print a Mobile printer in the Linux environment.
3	OPOS Driver (ESC/POS)	This is a driver that controls Mobile printers using the OPOS standard. It can be used after initial setting(Mobile Printer&MSR) using the setting tool.
4	JavaPOS Driver (ESC/POS)	JavaPOS driver is an interface standard for POS software written in Java, and can be used in Mobile Printer when printing a receipt.
5	Mac Driver	This is the Cups Driver used to print a Mobile printer in the Mac OS environment.
6	Android Plugin (Sewoo Print Service Plugin) (ESC/POS)	This is a print service plug-in that allows you to print documents, images, and web pages without installing additional apps.
7	Windows SDK	This is library for communication and data output with Mobile printer in Windows OS.
8	Android SDK	This is library for communication and data output with Mobile printers in Android OS.
9	iOS SDK	This is library for communication and data output with Mobile printers in iOS.

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