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MODEL : LK-P21B

USER'S MANUAL

**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.

Vic Barczyk

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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.

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



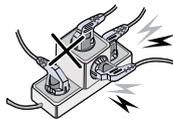
WARNING

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)



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)



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)

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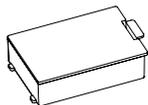
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1. Unpacking

Standard



Printer



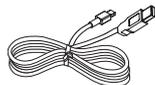
Battery



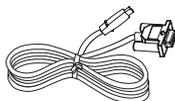
Belt Clip



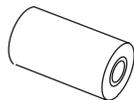
Charger



USB Cable



Serial Cable



Roll Paper



CD



Quick Manual

Option



Battery Cradle



Car Adapter

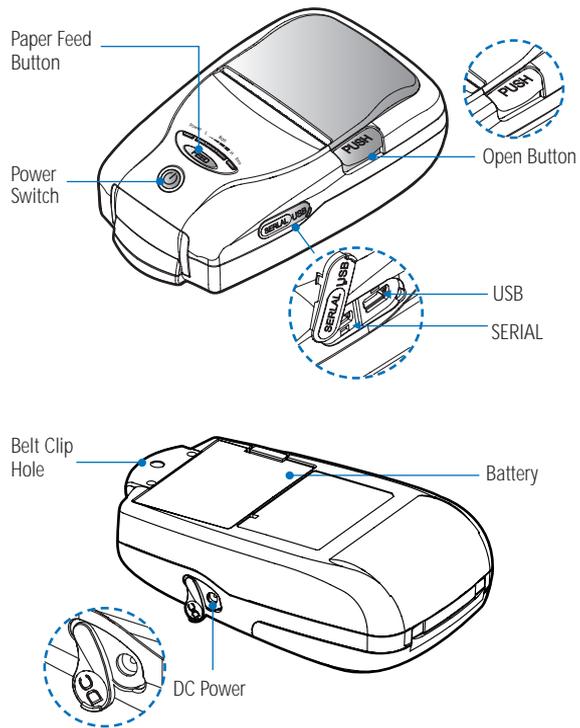


Leather Case



Shoulder Strap

2. Product Overview



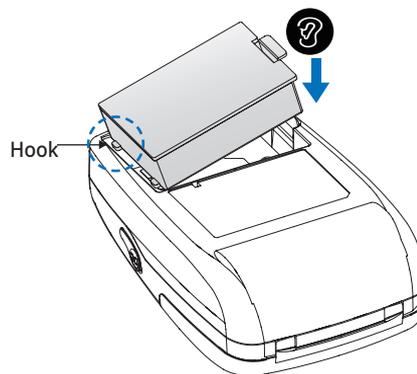
3. Usage and Installation

3-1 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. 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.
	Battery Status Lamp	1. If the Batt LED is lit, the battery is fully charged. 2. If you can hear a beeping sound and LED light is turned off, the battery is at the lowest level. 3. 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.

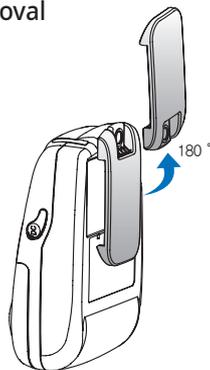
3-2 Battery Installation



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

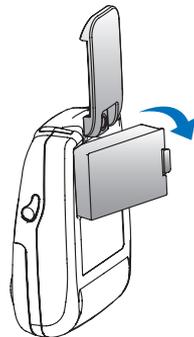
NOTE
As the battery is not charged at the time of your purchase, charge the battery prior to using the printer (Battery charger or Cradle can be used to charge)

3-3 Battery Removal



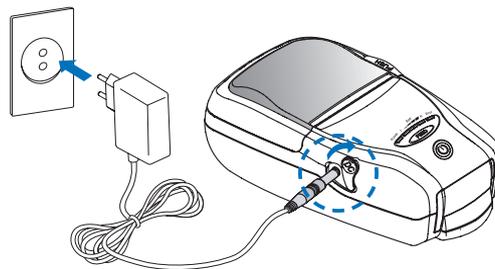
Rotate the Belt clip 180 degrees so it points upward.

1
2



After flipping the belt clip up, remove the battery as shown above.

3-4 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

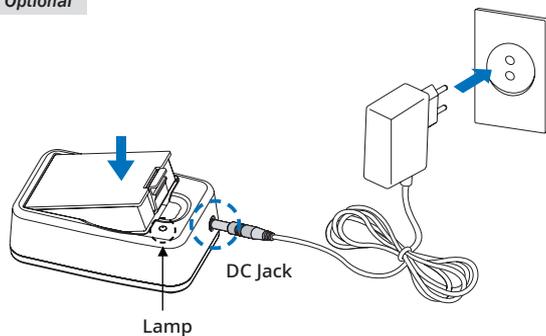
Status	charging	charging complete
Charging Lamp	Red	Green

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.

3-5 Charging Cradle

Optional



1. Insert the battery into the battery charger as shown above.
2. Connect the DC JACK to the electrical outlet.
3. Plug the power cord into the electrical outlet.
4. Once the charging is completed, remove the battery from the charger.

3-5-1 The status of lamp in charging

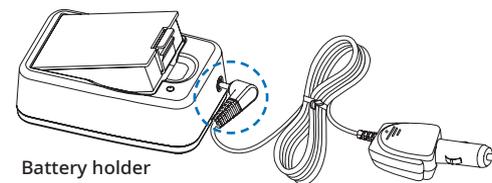
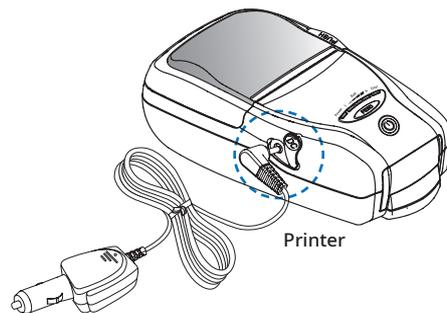
Status	charging	charging complete
Charging Lamp	Red	Green

NOTE

In the case the battery is not inserted properly, the red LED will blink.
Remove and reinsert the battery.

3-6 Car Charger Usage

Optional



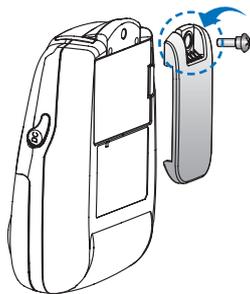
Connect the car charger into the printer or battery cradle.

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

NOTE

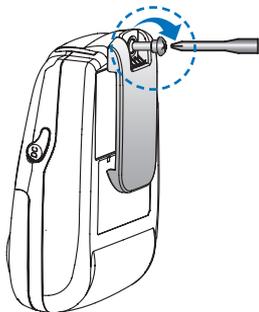
Only use the car charger included with the printer.

3-7 Belt Clip Usage



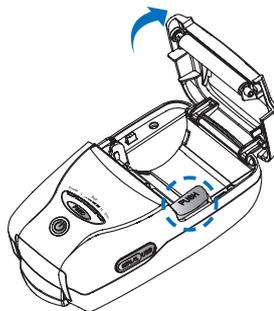
Insert the belt clip screw into the hole of the belt clip.

1
2

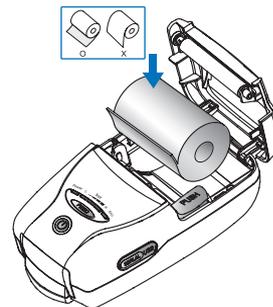


Tighten the screw with a screwdriver as shown in the picture above.

3-8 Paper Installation

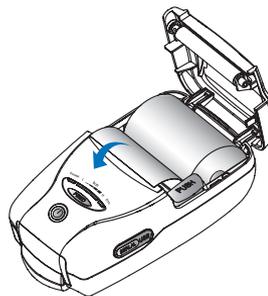


Press the PUSH button to open the paper cover.

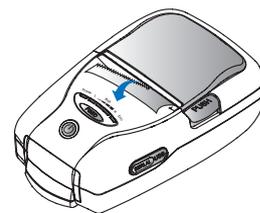


Insert the paper in the correct direction. See the image above.

1 2
3 4



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



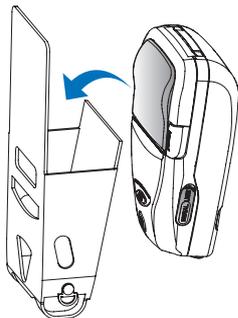
Tear off the additional paper using tear bar.

3-9 Leather Case Usage

Optional

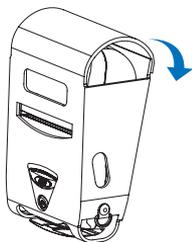


Open the leather case.

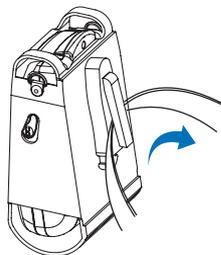


Place the printer into the leather case.

1 2
3 4

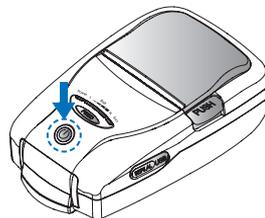


Close the cover and press down on the Velcro.

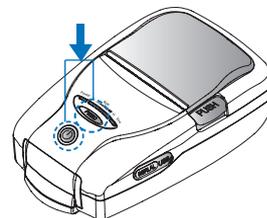


Fasten to the belt by using the clip at the rear of the leather case.

3-10 Self Test



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

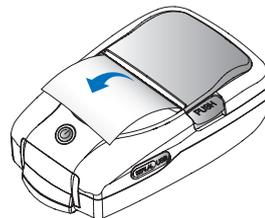


While you are holding the FEED button, press the power button.

1 2
3

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, the self-test will automatically finish after 3 seconds.



The self-test will print.

< Self-Test Printout Sample >

```

SELF-TEST
*****
Printer is as follows
Firmware Version Ver 0.09
*****
ENGFONT      Install
Codepage 437  Install
*****
Serial Interface
Baud rate   : 115200
Data bits   : 8 bits
Parity      : none
Stop bits   : 1 bit or more
Handshaking : DTR/DSR
Receive error: ignore
*****
Bluetooth
BU_ADDR    :00:13:76:52:06:ED
Passkey    :0000
*****
MSR
Read Mode   : Auto TRACK1/2
*****
Emulation   : ESC/PSDS
PrintDensity : Normal
Characters  : 32 Char/Line
*****
Low Power Mode : Not Install
Off Time    : 0 min
*****
Please press FEED button.....

```

```

abcdefghijklmnopqrstuvwxyz{|}~
bcdefghi jklmnopqrstuvwxyz{|}~
cdefghi jklmnopqrstuvwxyz{|}~ Cua
defghi jklmnopqrstuvwxyz{|}~ Cuaa
efghi jklmnopqrstuvwxyz{|}~ Cuaaa
fghi jklmnopqrstuvwxyz{|}~ Cuaaaa
ghi jklmnopqrstuvwxyz{|}~ Cuaaaaa
hijklmnopqrstuvwxyz{|}~ Cuaaaaaa
ijklmnopqrstuvwxyz{|}~ Cuaaaaaaa
jklmnopqrstuvwxyz{|}~ Cuaaaaaab
klmnopqrstuvwxyz{|}~ Cuaaaaaabc
lmnopqrstuvwxyz{|}~ Cuaaaaaabcde
mnopqrstuvwxyz{|}~ Cuaaaaaabcdeh
nopqrstuvwxyz{|}~ Cuaaaaaabcdehij
opqrstuvwxyz{|}~ Cuaaaaaabcdehijk
pqrstuvwxyz{|}~ Cuaaaaaabcdehijkl
qrstuvwxyz{|}~ Cuaaaaaabcdehijklm
rstuvwxyz{|}~ Cuaaaaaabcdehijklmno
stuvwxyz{|}~ Cuaaaaaabcdehijklmnop
tuvwxyz{|}~ Cuaaaaaabcdehijklmnopq
uvwxyz{|}~ Cuaaaaaabcdehijklmnopqr
vwxyz{|}~ Cuaaaaaabcdehijklmnopqrs
vwxyz{|}~ Cuaaaaaabcdehijklmnopqrst
vwxyz{|}~ Cuaaaaaabcdehijklmnopqrstu
vwxyz{|}~ Cuaaaaaabcdehijklmnopqrstuv
vwxyz{|}~ Cuaaaaaabcdehijklmnopqrstuvw
vwxyz{|}~ Cuaaaaaabcdehijklmnopqrstuvwx
vwxyz{|}~ Cuaaaaaabcdehijklmnopqrstuvwxy
vwxyz{|}~ Cuaaaaaabcdehijklmnopqrstuvwxyz
*****09122200*****
*** Completed ***

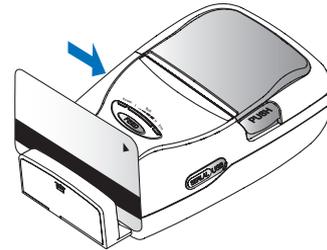
```

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.

3-11 MSR Usage

Optional

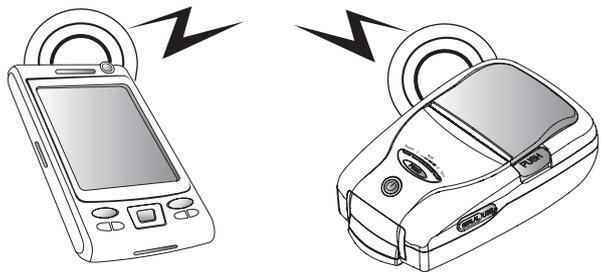


Insert and swipe the card in the direction of the arrow as shown in the picture.

4. Peripheral Connection

This product can communicate with other devices via Bluetooth, a communication cable.

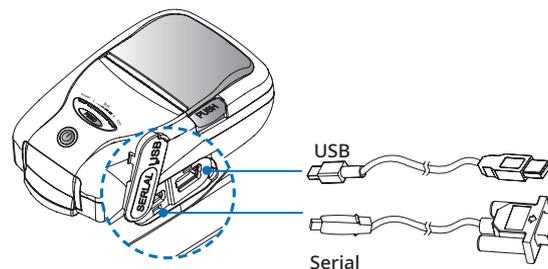
4-1 Bluetooth Connection Optional



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.

4-2 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.).

5. Pritner Specification

Printing Method	Direct Thermal	
Printing Speed	80mm/sec	
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
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 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 Sensor	

Paper	Paper type	Thermal paper/Linerless(Optional)
	Width	Max. 58±0.5mm
	Thickness	0.06-0.09mm
	Roll Max Diameter	40mm
Reliability	Roll Core	12.5mm +/-0.5mm
	TPH	50km
Battery	Battery	Continuous printing: 29min Standby: 19hours Printing length: 130m
	Communications	Serial(RS-232C), USB, Bluetooth Class2
MSR (Optional)	Card Standard	ISO7811/2, JIS
	Track	1Track, 2Track, 3Track, JIS-II
	Magnet Head Life	300,000 Passes(minimum)
Battery Charger	Input	AC100~240V, 50/60 Hz
	Output	8.4V , 800~1400mA
Battery	Battery type	Li-ion
	Output	7.4V, 1130mAh
	Charging time	2.2 hours
Size	W X D X H(mm)	80 x 133 x 47
	W X D X H(inch)	3.14 x 5.21 x 1.84
Weight	240 g (with Battery)	
Temperature	Operation	-10 ~ 50℃
	Storage	-20 ~ 60℃
Humidity	Operation	35 ~ 95%
	Storage	10 ~ 90%

6. Certification

FCC Information

This device complies with part 15 of the FCC Results. Operation is subject to the following two conditions:

- (1) This Device may not cause harmful interface, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

✔ NOTE

This equipment has been tested and found to comply with the limits for CLASS B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. 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 correct the interference by one or more of the following measures:

- 1.1. Reorient or relocate the receiving antenna.
- 1.2. Increase the separation between the equipment and receiver.
- 1.3. Connect the equipment into an outlet on a circuit different from that to which receiver is connected.
- 1.4. Consult the dealer or experienced radio/TV technician for help.

⚠ WARNING

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

⚠ CAUTION

Antenna shall be mounted in such a manner to minimize the potential for human contact during normal operation. The antenna should not be contacted during operation to avoid the possibility of exceeding the FCC radio frequency exposure limit.

The device meets the FCC requirements for radio frequency (RF) radiation exposure in the standard body worn configuration with no minimum configuration. In this configuration, which applies whether the belt clip or shoulder strap is used, the face of the printer from which paper is transported is facing away from the user's body. The standard configuration must always be used when the printer is body worn.

PATENT

