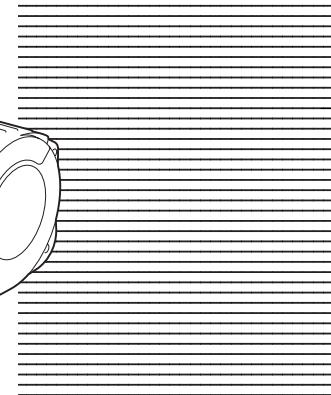
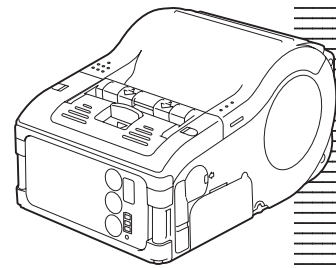




**Barcode Printer**  
*MB200i/MB201i*

---

**Quick Guide**



## Introduction

This manual is intended to help you become familiar with the basic operation of Petit lapin the barcode printer in a short time.

Please read this manual carefully to make full use of the functions of Petit lapin.

## Notes

1. Reproduction of all or part of this manual is prohibited without permission of the copyright owner.
2. The information in this manual is subject to change without notice.
3. If you find any ambiguous or erroneous information in this manual, please contact your nearest dealer or service center.

## Warning

This is a Class B product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this equipment is used in a domestic environment, radio disturbance may arise. When such trouble occurs, the user may be required to take corrective actions.

First Edition October 1, 2004  
© 2004 Sato Corporation

## For Customers Using the Bluetooth or Wireless Communication Models

### Notes on Radio Wave

This product has been approved of adaptability in the technological standard based on Radio Law. Therefore, use of this product does not require a license for radio station. This product is limited for use in Japan only.

The following behavior may result in judicial punishment.

- Disassembling/modifying this product
- Removing the certificate label (serial number seal) attached on this product

Use of this product in the following place may shorten the communication distance or disable communication.

Near microwave oven, place where static electricity or radio failure is caused, or near wireless LAN equipment.



"Bluetooth" is a trademark of Bluetooth SIG, Inc., USA. We use the mark with a license by the said company.

Before using wireless LAN interface, be sure to make all the settings related to the security of wireless LAN equipment in accordance with the manual supplied with the equipment.

## Table of Contents

Preparation	1. Safety Precautions .....	6	Reference	13. Reference .....	41
	Markings and Symbols .....	6		Options .....	41
	Precautions in Use .....	13		Operation Mode .....	47
	2. Unpacking .....	14		Basic Specifications of Petit lapin .....	56
3. Parts Name .....	15	Before Asking for a Repair .....		58	
Name and Function of Controls .....	17	After-sale Services .....		59	
4. Before Starting .....	18				
Charging the Battery Pack .....	18				
Installing and removing the Battery Pack .....	21				
Using AC Adapter .....	23				
Setting Labels .....	24				
• Continuous mode .....	24				
• Dispense mode .....	26				
5. Turning Printer On .....	29				
6. Test Printing .....	30				
7. Using RS-232C Interface .....	31				
8. Using IrDA Interface .....	32				
9. Using Bluetooth Interface or Wireless LAN Interface .....	33				
10. Printing .....	34				
First Aid	11. When in Trouble .....	36			
Routine Maintenance	12. Daily Maintenance .....	39			

# 1. Safety Precautions

1

In this section, safety precautions about printer operation are explained to ensure proper care and usage. Make sure to read these carefully before using your printer.

## Markings and Symbols

The following symbols or markings are used in this manual and on the printer so that you can properly use the printer, and to prevent any damage to property, harm or injury to yourself and others. Make sure to read their explanations carefully to familiarize yourself with their meanings.



**Warning**

This symbol indicates information that, if ignored or applied incorrectly, creates the danger of death or serious personal injury.



**Caution**

This symbol indicates information that, if ignored or applied incorrectly, creates the possibility of personal injury or property damage.

## Symbol examples



The triangle ( $\triangle$ ) indicates something you should take absolute care with. The cautions are indicated concretely within the symbol. The symbol on the left indicates a risk of electric shock.



A circle with a diagonal line ( $\otimes$ ) indicates something you should not do. The symbol on the left indicates that you should not try to take the unit apart.




A black circle with a picture inside ( $\bullet$ ) indicates something you need to do. The symbol on the left indicates that you should unplug the unit from the wall outlet.




1

Safety Precautions




**Warning****Liquid**

-  Do not place any container with water or chemicals, such as flower vase or cup, as well as small metallic objects, near the printer. If any of these should fall into the printer, immediately turn off the power and contact your nearest dealer or service center. Continued use creates a damage of fire or electric shock.



**Foreign Matter**

-  Do not drop or insert metallic or flammable objects into the openings on the printer (such as outlets for cables). If any of these should fall into the printer, immediately turn off the power and contact your nearest dealer or service center. Continued use creates a danger of fire or electric shock.
-   creates a danger of fire or electric shock.



**Dropping and Damage**

-  Should the printer ever fall or otherwise become damaged, immediately turn off the power and contact your nearest dealer or service center. Continued use creates a danger of fire or electric shock.
-  





**Warning****Abnormal Conditions**

-  Continued use of the printer while it is emitting smoke or strange odors creates the danger of fire or electric shock. Immediately turn off the power and contact your nearest dealer or service center. Do not try to service the printer by yourself.
- 




**Disassembly**

-  Never try to take the unit apart or modify it in any way. Doing so creates the danger of fire or electric shock. Contact your nearest dealer or service center for repair.
- 


**Battery Pack**

-  • Never try to take apart the battery pack or modify it in any way such as with a solder iron.
  -  • Never expose the battery to direct flame, throw it into fire, or take any actions that may lead to shorting.
  -  • When charging the battery pack, make sure to use the printer or the specified battery charger.
- 


**Warning****AC Adapter/Battery Charger (Option)**

-  • Use only the specified voltage. Using a different voltage may create the danger of fire or electric shock.
-  • Use only the specified battery charger. Using a different battery charger may create the danger of fire or electric shock.
-  • Never use the battery charger with any other battery pack except for the specified one. Doing so can rupture the battery, cause leakage, fire or electric shock.
- Never cut, damage or modify the power cord. Also, never place heavy objects on the power cord or heat or pull the power cord. Doing so may damage the cord and create the danger of fire or electric shock.
- Should the power cord ever become seriously damaged (internal wiring exposed or shorted), contact your nearest dealer or service center for repair. Continued use of such a cord creates the danger of fire or electric shock.
- Never modify, excessively bend, twist, or pull the power cord. Doing so creates the danger of fire or electric shock.



**Caution****Location**

-  Do not locate the printer in the area subjected to high humidity or dew. If dew forms inside the printer, immediately turn off the printer and do not use it until it has been dried up. Continued use creates the danger of electric shock or the printer damage.


**Power**

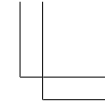
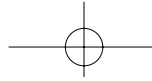
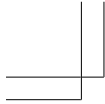
-  Do not use wet hands to operate the power switch, replace the battery pack or unplug the AC adapter or battery charger. Doing so creates the danger of electric shock.

**Thermal Head and Stepping Motor**

-  • The thermal head gets very hot after printing. Take care when replacing paper or cleaning the printer just after printing to avoid burn.
-  • Touching the end of the thermal head with bare hands may cause injury. Take care when replacing paper or cleaning the printer to avoid injury.
- Do not try to replace the thermal head by yourself. Doing so creates the danger of injury, burn, or electric shock.

**Easy Cutter**

-  This part contains a blade. Take care to avoid cutting your hands.



1

Safety Precautions

### Caution



#### Replacing the Battery Pack

- Use only the specified battery pack.
- When replacing the battery pack, make sure to install the pack with the correct direction. Incorrectly replacing the battery create the danger of injury or damage to surrounding areas.
- Replacing a small-size rechargeable battery (Lithium ion battery) Apply insulation treatment for the old battery pack by sealing the contact with tape or the like and ask our sales representative or service center for the measure to be taken for effective use of scarce resource. Do not place the battery pack together with other batteries such as dry batteries.

#### Leaving the printer unused for a long time

If you have no plan to use the print for a long time, remove the battery pack from the printer and unplug the AC adapter from the wall outlet.

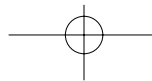
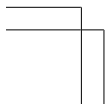


#### Maintenance and Cleaning

For safe maintenance or cleaning of the printer, make sure to remove the battery pack and the AC adapter from the printer.



12



### Precautions in Use

1

Safety Precautions

#### Do not place the printer in a hot or cold place.

The operation temperature range is -15°C to 50°C. Do not place the printer in an area with high humidity or at the temperature outside the specified range.

#### Do not drop or give shock to the printer.

The printer is given a protection against vibration possibly caused during normal transportation. However, do not apply extreme vibration or shock by dropping to the printer.

#### Do not disassemble or modify the printer.

The printer has high-precision components inside requiring fine adjustment. Do not disassemble the printer.

#### Connect the specified cables to the external input terminals.

Special cables are required to connect to the external equipment through the external input terminals. Contact your nearest dealer or service center if necessary.

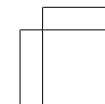
#### Use a specified option.

Do not use a device not specified as option. Otherwise a fault may occur.

#### Use the specified paper.

Use the specified paper. Otherwise, broken head or faulty printing may occur.

13

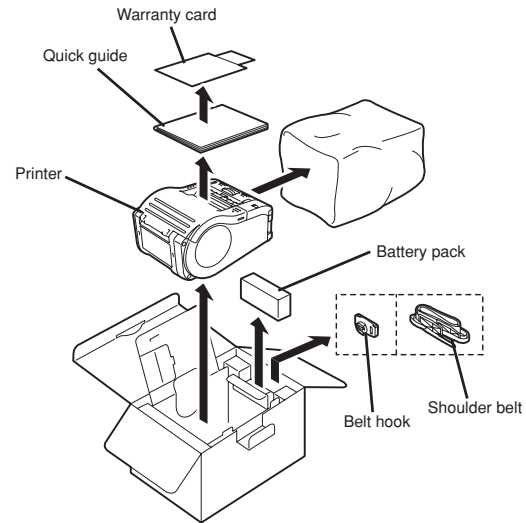


## 2. Unpacking

2

Unpacking

After unpacking, make sure that all the printer components are present. If any component or part is missing, contact your nearest dealer or service center.



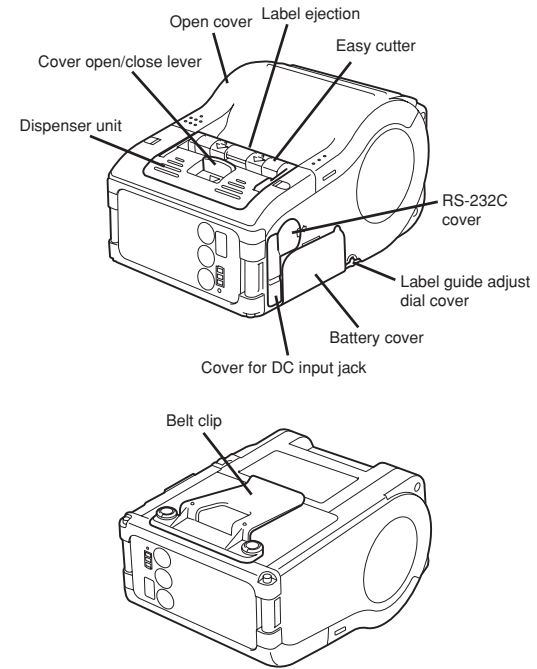
\* Belt holder has already installed on the printer when shipping (see Page 42).  
Shape of cushioning material (protecting pad, etc. for supporting printer) may partly differ by the lot.

14

## 3. Parts Name

3

Parts Name

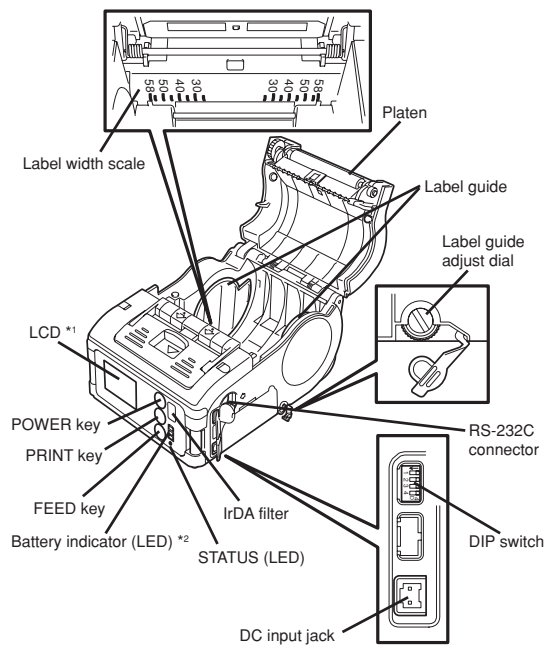


15



**3**

Parts Name



\*1 Operation panel with LCD is built in the wireless LAN interface model only (for manufacture option). For other option information, see "Reference" on page 41.

\*2 Operation panel with LCD for the wireless LAN interface model has CHARGE LED (for manufacture option) .

**16**

## Name and Function of Controls

**RS-232C Interface:** Connects to PC or handy terminal.

**RS-232C cover:** Cover for RS-232C connector.

**Open cover:** Opened for setting labels.

**Cover Open/Close lever:** Used to open or close the cover.

**Easy cutter:** Cuts printed labels.

**IrDA filter:** Contains IrDA sensor and emitter.

**DIP switch:** Sets the operation mode of the printer. (See page 53.)

**Dispenser unit:** Moved to select Dispense mode.

**POWER key:** Turns on/off the printer.

**Battery cover:** Cover for special battery pack.

**Battery indicator (LED):** Indicates the remaining amount of battery of the printer.

**Belt clip:** Used when hanging the printer on your belt.  
\* Do not hang the printer on to anything but a belt.

**Label guide:** Set to meet the size of the label used.

**Label guide adjust dial:** Adjusts the label guide to the width of the label used.

**Label guide adjust dial cover:** Cover for label guide adjust dial.

**Label ejection:** Ejects the printed label.

**Label width scale:** Indicates the width of label used.

**DC input jack:** Connects to AC adapter.

**Cover for DC input jack:** Cover for DC input terminal and DIP switch.

**FEED key:** Press to feed label.

**PRINT key:** Sets the printer online or offline.

**STATUS (LED):** Indicates the status of the printer. (See pages 36, 37, and 48 to 52.)

**3**

Parts Name

**17**

## 4. Before Starting

4

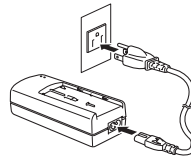
### Charging the Battery Pack

Before Starting

- Using the battery charger (option) to charge the battery pack

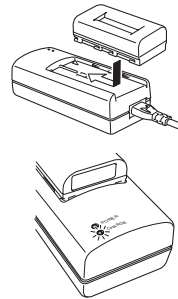
Follow the steps below to charge the battery pack using the battery charger.

- 1 Plug one end of the power cord to the battery charger and the other to the wall outlet. (POWER lamp lights red.)



- 2 Put the battery pack on the battery charger and then slide it in the direction of the arrow.

Charging starts and the CHARGE lamp lights orange. When charging is completed (fully charged), the CHARGE lamp goes off. In case of five-socket charger, charging starts and the CHARGE lamp lights orange. When charging is completed (fully charged),



18

the CHARGE lamp lights green.

- 3 After charging, remove the battery pack from the charger. Slide the battery pack in the opposite direction of step (2) to remove the battery back.

#### Notice

- If the POWER lamp does not light at the start of charging, check the power cord connection.
- If the CHARGE lamp does not light at the start of charging, make sure the battery pack is firmly mounted to the battery charger. Poor mounting of the battery pack may result in poor charging.
- When the fully charged battery pack is placed on the battery charger, the CHARGE lamp goes on and then off. In case of five-socket charger, the CHARGE lamp lights green.
- When charging a battery pack that has not been used for a long time, the CHARGE lamp may blink for a while. This does not indicate an error. You can continue charging.
- The battery pack can be recharged by about 300 times (when used in normal temperature). If the battery is fully charged but runs out very soon, renew the battery pack.

#### Charging Time

It takes about 2.5 hours for the battery pack to reach full charge from a fully discharged state.

4

Before Starting

19

• Using the AC adapter (option) to charge the battery pack

4

The battery pack can be charged while it is mounted in the printer.

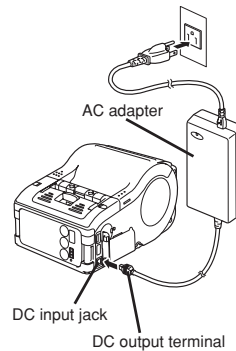
Before Starting

- 1 Open the cover for DC input jack and insert the DC output terminal.

- 2 Plug the AC adapter to the wall outlet.

Charging starts and the battery indicator lights red. When charging is completed (fully charged), the battery indicator goes off.

In the case of the LCD built-in wireless LAN interface model, CHARGE LED lights red when charging starts and is completed (fully charged), the CHARGE LED goes off.



### Charging Time

It takes about 5 hours for the battery pack to reach full charge from a fully discharged state.

20

## Installing and removing the Battery Pack

1

- 1 Open the battery cover.

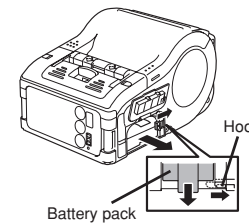
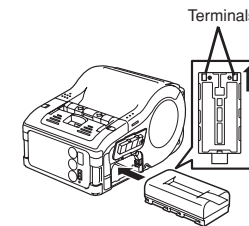
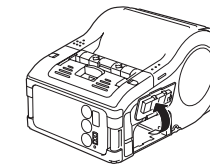
2

- 2 Insert the battery pack while pressing and holding the gray hook and close the battery cover.

Insert the battery pack with the terminal side toward the printer.

3

- 3 When removing the battery, press and hold the gray hook and then pull the tape.



Battery pack

4

Before Starting

21

4

Before Starting

\* Make sure to turn the printer power off when removing or replacing the battery.

When the printer is turned off, the STATUS LED goes off. Do not remove the battery while the STATUS LED is on. Remove the battery when the STATUS LED is off. (See page 29.)

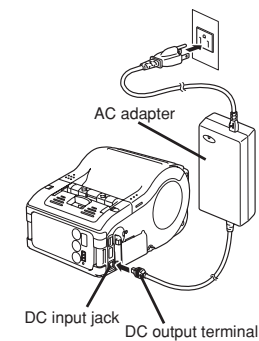
\* If you turning off the printer otherwise, the information stored in the printer may not be updated.

22

## Using AC Adapter

Follow the procedure below to use the printer with the AC adapter (option).

- 1 Open the cover for DC input jack and insert the DC output terminal.
- 2 Plug the AC adapter to the wall outlet.



4

Before Starting

\* Be sure to turn the printer power off when removing the DC output terminal of AC adapter or disconnecting the power source.

If you turning off the printer otherwise, the information stored in the printer may not be updated.

A battery pack is unnecessary when an AC adapter is used. If a battery pack and an AC adapter are being used at the same time, the printer starts charging (when a battery is not fully charged) or the battery indicator goes off (when a battery is fully charged).

23

## Setting Labels

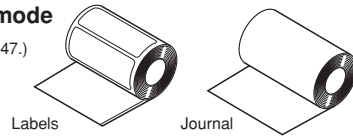
4

The method of setting label may vary depending on the print mode.

Before Starting

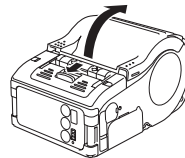
### Continuous mode

(See figure in page 47.)

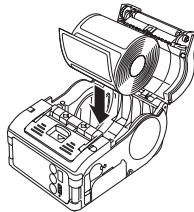


- 1 Slide the Cover Open/Close lever in the direction of arrow to open the cover.

If you are using the printer in Dispense mode, lifting the change lever, slide the dispenser unit until stops (see Page 28).



- 2 Place the label to the printer. Pay attention to the direction of the label roll.



24

- 3 Open the label guide adjust dial cover and turn the dial till the label guide fits with label roll.

Turn the label roll lightly by the hand and confirm that it rotates smoothly.

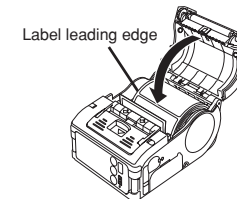
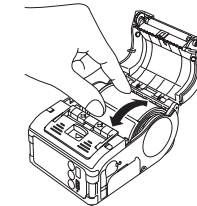
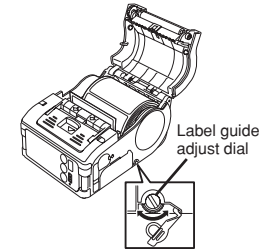
If a drags is felt, paper may not be fed correctly. Return the dial for adjustment. When using the paper of the same width as that used previously, adjustment of the label guide is not necessary.

- 4 Close the cover after confirming that the leading edge of the label is outside the printer.

This completes the label setting in continuous mode.

4

Before Starting



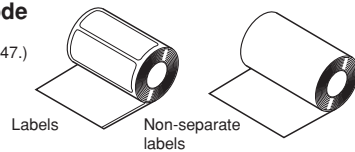
25

4

Before Starting

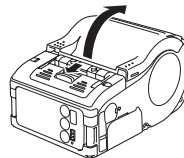
### Dispense mode

(See figure in page 47.)



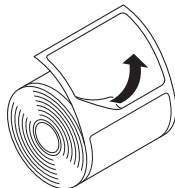
- 1 Slide the Cover Open/ Close lever in the direction of arrow to open the cover.

If you are using the printer in Dispense mode, lifting the change lever, slide the dispenser unit until stops.



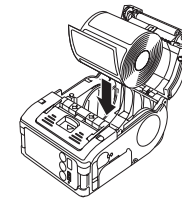
- 2 Peel the first label on the top of the label.

This step is unnecessary when a non-separate label is used.

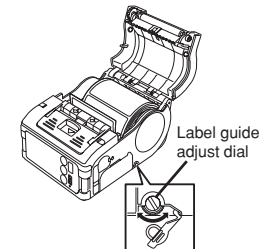


26

- 3 Set the label to the printer.  
Pay attention to the direction of the label roll.

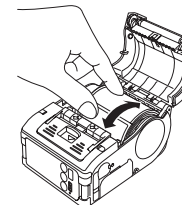


- 4 Open the label guide adjust dial cover and turn the dial till the label guide fits with label roll.



Turn the label roll lightly by the hand and confirm that it rotates smoothly.

If a drags is felt, paper may not be fed correctly. Return the dial for adjustment. When using the paper of the same width as that used previously, adjustment of the label guide is not necessary.



4

Before Starting

27

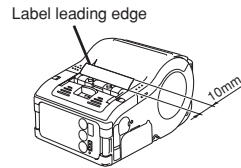
4

Before Starting

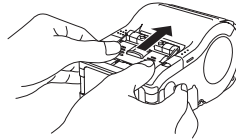
- 5 Close the cover after confirming that the leading edge of the label is outside the printer (more than 10 mm).

When using a non-separate label, press FEED key to feed a piece of label and pull the label upward to cut it along the perforation.

If the label is jammed, retry label setting procedure.



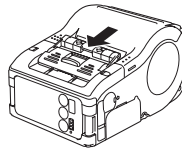
- 6 Slide the dispenser unit until it stops.



This completes the label setting in the Dispense mode.

• **To changing Dispense mode to continuous mode**

Lifting the change lever, slide the dispenser unit until stops.

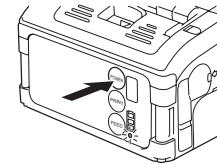


28

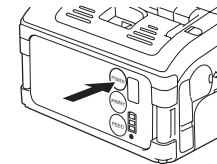
## 5. Turning Printer On

After the procedure mentioned before has been finished, try to turn the printer power on and off.

- 1 Press and hold the POWER key. When the STATUS LED lights green, release the key.



- 2 Press and hold the POWER key again. When the STATUS LED goes off, release the key..



5

Turning Printer On

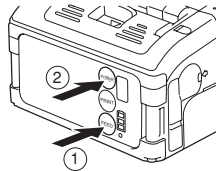
29

## 6. Test Printing

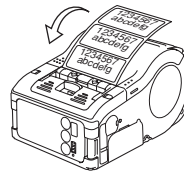
6

Test Printing

- 1 Pressing and holding the FEED key, set the POWER key. The printer enters the test mode. Press the FEED key again to start test printing.



- 2 Verify the following using the output of the test printing.
  - There is no chipped character.
  - Print condition is good.



In the test printing, the battery residual is indicated by ■■■ (■■■ for full charge).  
When the battery indicates ■■■, charge the battery.

\* If any fault is detected, contact the store you bought the printer, dealer, or service center.  
Before asking for a repair, please read "Before Asking for a Repair" on page 58.

30

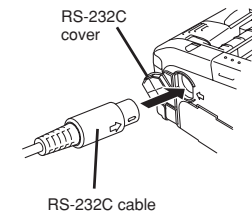
## 7. Using RS-232C Interface

7

Using RS-232C Interface

Use the following procedure to print by connecting to a PC or a handy terminal through an RS-232C cable option.

- 1 Open the RS-232C cover.
- 2 Plug one end of the RS-232C cable into the connector firmly.  
Be sure that the arrow mark on the connector of the RS-232C cable matches with the arrow mark by the side of the printer connector.
- 3 Plug the other end of the RS-232C cable to the connector of the PC or handy terminal.  
For the information on the connector of the PC or handy terminal, refer to the manual supplied with the PC.



31



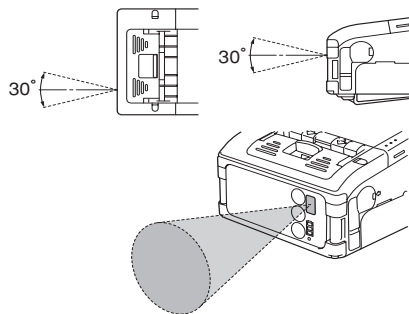
## 8

Using IrDA Interface

### 8. Using IrDA Interface

Use the following procedure to print through IrDA interface.

- 1 Place the printer within the distance of 20 cm from the PC or handy terminal to communicate through IrDA.
- 2 Adjust the printer position to let the PC or the handy terminal in the range of 30° from the center of the IrDA filter (a corn area shown below).



32

The distance available for IrDA communication is a maximum of 15 to 20 cm.

- \* This distance may vary depending on the environment of use or the party to communicate with. Especially under direct sun light or in the environment exposed to strong illumination, communication may be disabled. In such a case, block the strong light not to enter the IrDA filter or make the PC contact the IrDA filter.

### 9. Using Bluetooth Interface or Wireless LAN Interface

Note that when printing with Bluetooth interface or wireless LAN interface, the distance between the printer and the host may differ depending on the environment of use and the performance of the PC or handy terminal used.

## 9

Using Bluetooth Interface or Wireless LAN Interface

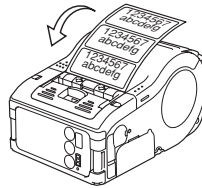
33

## 10. Printing

10

Printing

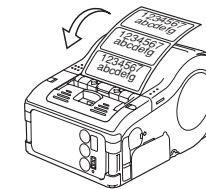
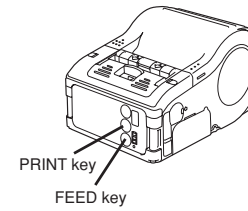
- 1 Allow data transmission from the PC.
- 2 When printing is finished, pinch either right or left corner of the label top and pull it with arrow direction.



- \* The number of sheets you can print in this mode differs with that in the continuous or peel mode.
- \* When the non-separate label is cut at a place other than perforation and next printing is not available, follow the procedure in page 35.

## When next printing is not available

- 1 Press the PRINT key in the online state to set the printer off line state (STATUS LED goes off).
- 2 Press the FEED key to feed label.
- 3 When the feeding stops, cut the label by pulling the label top with arrow direction.
- 4 Press the PRINT key to return to the online state (STATUS LED lights green).



10

Printing

## 11. When in Trouble

11

When in Trouble

The printer has indicators (LEDs) to indicate the status of the printer. When the indicator shows any of the following conditions, the printer is not in normal state. Follow the procedure to remove the abnormality.

When the indicator shows low battery state, the printer is automatically turned off before about 30 seconds. After confirming that the printer is off, remove the battery pack and recharge the battery.

11

When in Trouble

STATUS (LED)	Mode	Description		Cause	Remedy
Light (Red)	All modes	Low battery	⇒ ⇒	① Battery charge level is low.	① Recharge the battery.
Blink (Red) at 2s intervals	Online	Abnormal module (Bluetooth, wireless LAN)	⇒ ⇒	① Interface module is abnormal. (Bluetooth, wireless LAN)	① Replace the board.
Light (Red)	After Power On	① Program illegal error ② Flash ROM error	⇒ ⇒	① Flash ROM read/write error has occurred.	① Replace Flash ROM*. ② Retry downloading program*.
Blink (Green⇔Red) at 2s intervals	Online	Head error	⇒ ⇒	① Head wiring is disconnected.	① Replace the head*.
Blink (Red) at 0.5s intervals	Online	Cover open	⇒ ⇒	① Cover is not locked. ② Sensor for opening and closing cover is abnormal.	① Lock the cover. ② Adjust the sensor*.
		Paper end	⇒ ⇒	① Paper is not present.	① Set new paper.
		Sensor error	⇒ ⇒	① Sensor level is not proper. ② Sensor type is not proper. ③ Paper skew	① Adjust the sensor level*. ② Use the correct type of sensor. ③ Retry setting paper.
Blink (Green) at 0.5s intervals	Online (During printing or receiving data)	Buffer near-full	⇒ ⇒	① Receive buffer area has little space.	① Stop sending data from the host and wait till the buffer becomes empty. Resume sending data.
Blink (Green) at 4s intervals	All modes	Sleep mode	⇒ ⇒	① Not in error. Low power consumption mode is active.	① This mode is cleared by pressing a key, receiving data, opening or closing the cover.
Blink (Green→off→Red→off) at 1s intervals	All modes	Head overheat protecting feature	⇒ ⇒	① Head overheat protecting feature Not in error. When the head temperature rises to exceed 70°C, the head overheat protecting feature is activated.	① Cleared when the head temperature decreases to 50°C.

\* Contact your nearest service center or sales representative.

Print fault	Cause	Measure
Smudged printing	① Head is dirty. ② Roller is dirty.	① Clean the head (see page 39). ② Clean the platen and dispense roller (see page 40).
Vertical streak	① Head is dirty. ② Head is faulty.	① Clean the head (see page 39). ② Replace the head.
Slanted printing of character	① Paper guide is positioned improperly. ② Roller is dirty.	① Retry label paper (see page 24) ② Clean the platen and peel roller (see page 40).
No printing	① RS-232C cable is poorly connected. ② IrDA interface is faulty. ③ Bluetooth/Wireless LAN interface is faulty. ④ DSW setting is not properly. ⑤ Head is faulty.	① Check the connection of the RS-232C cable connector (see page 31). ② Set the distance between PC and printer within 15 to 20 cm. Check that PC is located within 30° from the center of the IrDA filter (corn area) of the printer (see page 32). ③ Check the communication setting. ④ Check the DSW setting (see page 53). ⑤ Replace the head.

\* Contact your nearest service center or sales representative.

## 12. Daily Maintenance

Use the following procedure after turning the printer off and removing the battery pack.

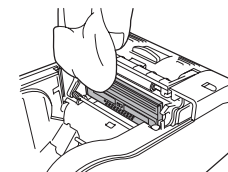
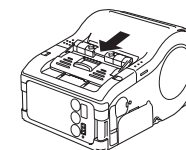
### Cleaning thermal head

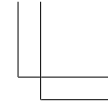
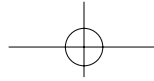
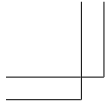
- Slide the cover Open/Close lever and open the Open cover.

If you are using the printer in Dispense mode, lifting the change lever, slide the dispenser unit until stops (see Page 28).

- Wipe off the dirt using cloth wetted (soaked) in alcohol.

\* Never use thinner, benzene, or kerosene.





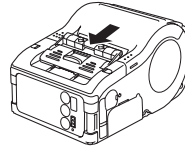
## 12

Daily Maintenance

### Cleaning the platen and peel roller

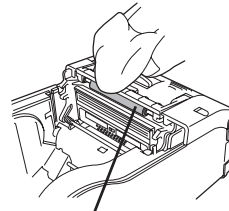
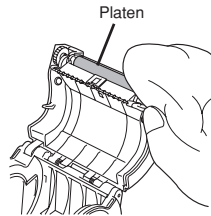
- 1 Slide the cover Open/Close lever and open the Open cover.

If you are using the printer in Dispense mode, lifting the change lever, slide the dispense unit until stops.

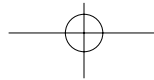
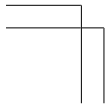


- 2 Wipe off the dirt using cloth wetted (soaked) in alcohol.

\* Never use thinner, benzene, or kerosene.



Dispense roller



## 13. Reference

### Options

## 13

Reference

#### User Option

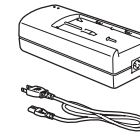
##### Battery Pack (Supplied with the printer)

Preparing a spare battery pack will insure uninterrupted operation due to Low Battery.



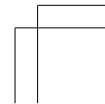
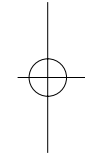
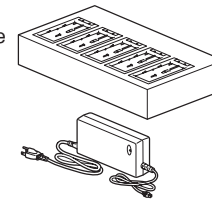
##### Battery Charger (Single-socket)

Charges the battery pack.



##### Battery Charger (Five-socket)

Charges the battery pack (up to five packs).

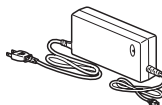


13

Reference

### AC Adapter

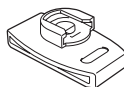
Used to supply power from domestic power supply.  
The DC output terminal of the AC adapter is connected to the printer.



- Be sure to use the specified AC adapter.
- Plug or unplug the AC adapter while holding its body.
- Pay attention not to injure the cord.
- Keep the AC adapter unplugged when not in use.

### Belt Hook

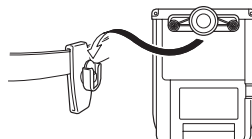
Allows one-touch operation to attach the printer to or remove it from the waist belt.



#### Installation

- 1 Pass your belt through the belt holder.
- 2 Insert the belt hook into the belt holder.

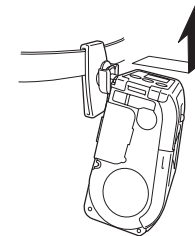
Insert the belt hook until a click is heard. If the belt hook is not inserted properly, dropping of the printer may occur.



42

### Removal

- 1 Pull the printer sideways and pull it up to remove.



### Shoulder Belt

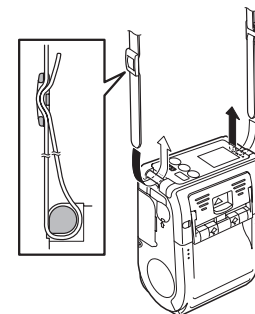
A belt to hold the printer from the shoulder.



#### Installation

- 1 Pass the Shoulder belt through the belt hole of the printer from outside to inside.
- 2 Pass one end of the Shoulder belt to through the buckle and adjust the length properly.

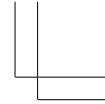
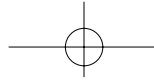
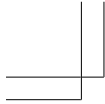
If the Shoulder belt is poorly passed, it may be detached causing the printer to drop.



13

Reference

43



13

### Rainproof Case (with shoulder belt)

An over-the-shoulder type case convenient for use in a rainy day.

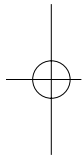
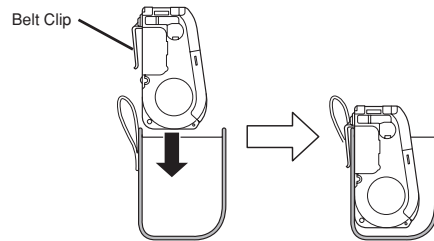


Reference

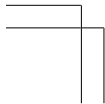
#### Installation

- 1 Pinch the Rainproof case with the belt clip of the printer.

If the Rainproof case is not pinched with the belt clip correctly, dropping of the printer may occur.

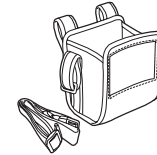


44



### Waist Case

A protection case to hold the printer on the waist belt for transportation.



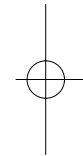
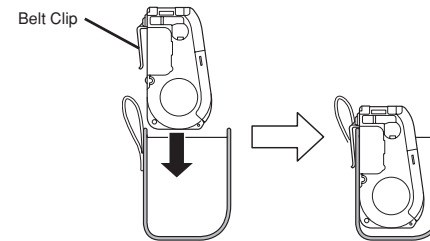
13

Reference

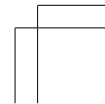
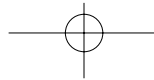
#### Installation

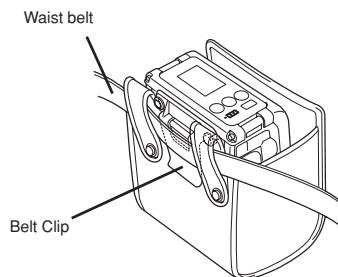
- 1 Pinch the Waist case with the belt clip of the printer.

If the Waist case is not pinched by the belt clip correctly, dropping of the printer may occur.



45





**RS-232C Cable**

Used for connection to a PC or handy terminal.

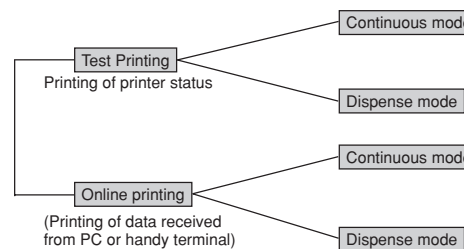
**Manufacturer Option**

**Operation Panel for Wireless LAN Interface (with LCD)**

Operation panel with LCD to display the status of wireless communication.

**Operation Modes**

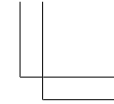
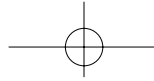
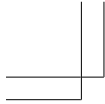
The printer can operate in two modes: continuous mode and dispense mode. In either mode, test printing and online printing are available.



Continuous mode	Dispense mode (Labels)	Dispense mode (Non-separate labels)

\* You can select Dispense mode (Non-separate labels) by using the printer setting tool.

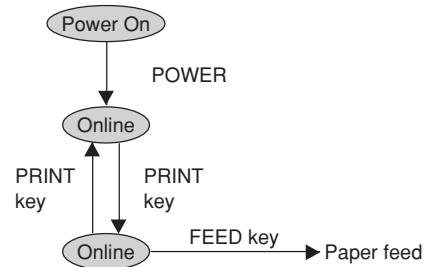




13

Reference

### Normal Operation



LED indication in normal operation is as shown below.

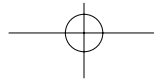
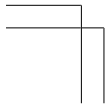
Operating state	STATUS (LED)
At the start of normal printing	Light (Orange)
Online state	Light (Green)
Offline state	Not lit

\* Battery indicator is lit even in offline state.

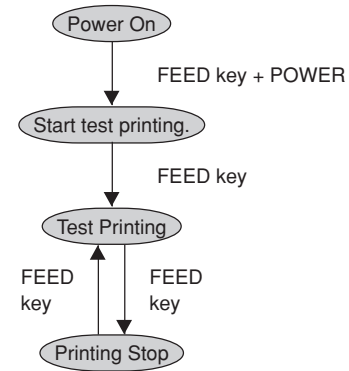
### Power Save Mode

1. **Sleep Mode:** STATUS (LED) blinks (Green) at intervals of 4 seconds. In offline state, STATUS (LED) goes off. Battery indicator is lit even in offline state. When you do not operate for 5 seconds, the printer enters the Sleep mode (Standby state). When you press the PRINT key or FEED key, when the printer receives data, or when you open and close the Open cover, the printer returns to the normal state.

48



### Test Print Mode (FEED key + Power On)



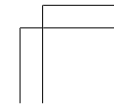
LED indication at the test print mode is as shown below.

Operating state	STATUS (LED)
At the start of test print mode	Light (Orange)
Test print starting	Blink (Green)
In test printing	Light (Green)
Printing stop	Not lit

13

Reference

49



## Dispense Mode

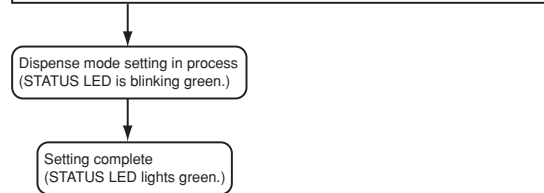
### Specifying dispense mode

Type	Operation	Default
Auto print	Prints one label after receiving data and waits for peeling. After peeling a label, automatically prints next label.	Manual print
Manual print	Prints one label after receiving data and enters offline state. Pressing the PRINT key allows next label to be printed. After printing the specified number of labels, printing terminates. No printing occurs even when the PRINT key is pressed.	

### Dispense mode designation change

Change of dispense mode setting is available with the designation of DSW and key at the printer power on. The setting is valid after turning the printer off.

- ① Auto dispense mode designation  
DSW-1, 2, 3, 4 = (OFF, OFF, OFF, ON) + Cover open + PRINT Key + POWER
- ② Manual dispense mode designation  
DSW-1, 2, 3, 4 = (OFF, OFF, OFF, ON) + Cover open + FEED key + POWER



**Note:** When terminating the dispense mode designation, confirm that the STATUS LED lights green and then turn the printer power off.

50

## Head Check Setting Mode

In the Head Check Setting mode, head checking can be implemented in two check ranges: normal print area and barcode print area. Head check feature can be verified for presence or absence and head check range can be set in accordance with DSW setting, status of pressing key, and status of cover at the time of printer power on.

### DIP switch setting

	DSW-1	DSW-2	DSW-3	DSW-4
(A)	OFF	ON	OFF	ON
(B)	ON	OFF	OFF	ON

DSW setting	Status of key and cover	Function
(A)	PRINT key + Cover open	Sets head check range to print area.
	FEED key + Cover open	Sets head check function to Disable.
(B)	PRINT key + Cover open	Sets head check range to only barcode print area.
	FEED key + Cover open	Sets head check function to Disable.

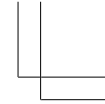
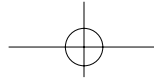
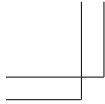
DSW setting (A/B) + Cover open + (PRINT/FEED key) + POWER

Head check function is being set.  
(STATUS LED blinks green.)

Setting complete.  
(STATUS LED lights green.)

**Note:** You can check the current setting with the test printout (see Page 30). When terminating head check setting, confirm that STATUS LED lights green and then turn the printer power off.

51



13

Reference

### Online Command Setting Mode

#### Online Command Designation

Type	Operation	Default
Petit lapin compatible command designation	Uses online command as Petit lapin standard command.	SBPL command designation
SBPL command designation	Uses online command as SBPL command.	

#### Online command designation change

Change of online command designation is available with the designation of DSW and key at the printer power on. The setting is valid after turning the printer off.

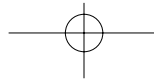
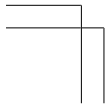
- ① Petit lapin compatible command designation  
DSW-1, 2, 3, 4 = (ON, ON, ON, ON) + Cover open + PRINT key + POWER
- ② SBPL command designation  
DSW-1, 2, 3, 4 = (ON, ON, ON, ON) + Cover open + FEED key + POWER

Setting in process  
(STATUS LED blinks green.)

Setting complete  
(STATUS LED lights green.)

**Note:** You can check the current setting with the test printout (see Page 30). When terminating the online command designation, confirm that the STATUS LED lights green and then turn the printer power off.

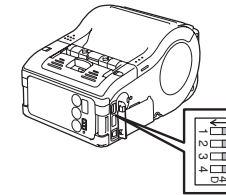
52



### DIP Switch

#### Setting DIP switch

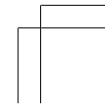
- 1 Turn the printer power off.
- 2 Open the DIP switch cover.
- 3 Change the position of the switch you want to change using a pointed tool such as the tip of ball-point pen.

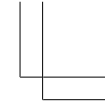
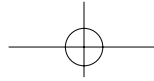
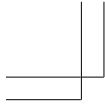


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Reference

53



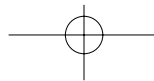
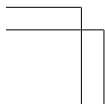
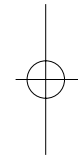
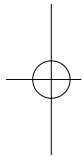


**DIP Switch Setting**

**13**

Reference

DIP switch				Cover	Key		Starting mode	
1	2	3	4		PRINT	FEED	Interface	Description
OFF	OFF	OFF	OFF	Close	OFF	OFF	RS-232C	Normal print mode
				Close	OFF	ON	—	User test print mode
OFF	OFF	ON	ON	Close	OFF	OFF	RS-232C	HEX dump mode
OFF	OFF	OFF	ON	Open	ON	OFF	—	Auto peeling mode
				Open	OFF	ON	—	Manual print mode
OFF	ON	OFF	OFF	Close	OFF	OFF	Bluetooth interface/ Wireless interface	Normal print mode
				Close	OFF	ON	—	User test print mode
OFF	ON	OFF	ON	Open	ON	OFF	—	Head check (print area) designation
				Open	OFF	ON	—	Head check designation clear
OFF	ON	ON	ON	Open	OFF	OFF	Bluetooth interface/ Wireless interface	HEX dump mode
				Open	ON	OFF	—	CRC check enable designation
				Open	OFF	ON	—	CRC check disable designation
ON	OFF	OFF	OFF	Close	OFF	OFF	IrDA interface	Normal print mode
				Close	OFF	ON	—	Test print mode
ON	OFF	ON	ON	Close	OFF	OFF	IrDA interface	HEX dump mode

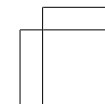


**DIP Switch Setting (cont'd)**

**13**

Reference

DIP switch				Cover	Key		Starting mode	
1	2	3	4		PRINT	FEED	Interface	Description
ON	OFF	OFF	ON	Open	ON	OFF	—	Head check (Barcode print area) designation
				Open	OFF	ON	—	Head check clear
ON	ON	ON	ON	Open	ON	OFF	—	Online command designation (Petit lapin compatible)
				Open	OFF	ON	—	Online command designation (SBPL command)



## Basic Specifications of Petit lapin

Item	Description
Printing system	Thermal printing system
Head density	8 dots/mm (203 dpi)
Maximum print area	48 mm (width) x 160 mm (pitch)
Print speed	103 mm/s max. (The speed varies depending on print duty and environment of use.)
Dimensions	Printer: 119 mm (width) x 64 mm (depth) x 88 mm (height) (excluding belt clip)
Weight	390 g (Standard model, including battery pack)
Power supply (Battery)	Pack type (Lithium ion) 2400 mAh (DC7.4 V) Prints 4 rolls of thermal labels with full charge. (equivalent of 48 m) Continuous printing is permitted (provided print duty is 16% or less.)
Paper	Be sure to use specified paper.
Paper thickness	0.064 to 0.190 mm
Shape of paper	Roll paper: Wound with surface out Maximum diameter: f58 mm
Label size (Liner sheet and eye mark pitch)	Width: 25.4 to 55 mm (28.4 to 58 mm) Pitch: 13 to 160 mm (16 to 163 mm)
Label printing	Continuous, Dispense
Self-diagnosis	Head check/Cover open/Paper end/Battery check/Test print
Power saving feature	Enters Sleep mode after no operation for 5 minutes. Auto power off after no operation for 5 minutes. With Bluetooth or wireless LAN specifications, no auto power off is defaulted. Auto power off time can be changed by the printer operation register command <PG>.
Interface	For details of command, refer to Programming Guide.
• RS-232C	
• Photo coupling	
• Bluetooth	Mini DIN IrDA communication (Complies with IrDA standard Ver. 1.2. Communication range: 15 to 20 cm max.)
• Wireless LAN	Bluetooth Specification Ver. 1.1 Class 2 Wireless LAN interface (IEEE802.11b)
	TCP/IP (FTP, LPR, SOCKET)

Item	Description
Paper sensor	Reflection type (eye mark), Transmission type (gap)
Character magnification	1 to 6 times
Rotation of character	0°, 90°, 180°, 270°
Character type	SATO standard font: X20, X21, X22, X23, X24, OCR-A, OCR-B, POP character Kanji: 16 x 16, 22 x 22, 24 x 24 Square Gothic (JIS Level 1, Level 2)
Barcode	JAN8/13, UPC-E/UPC-A, NW-7, CODE39, CODE93, CODE128, INTERLEAVED2of5, Customer barcode, RSS-14 However, barcode shall be used with the following. Parallel barcode: Thin bar width of 2 dots or more Serial barcode: Thin bar width of 3 dots or more
2-dimensional code	Any one of PDF417, QR code (including micro QR), Data matrix code (ECC200), MAXI code, Composite symbol can be used by downloading.
Switch	POWER key, PRINT key, FEED key
Indicator	STATUS LED: One (Lights in three color: Green, Red and Orange) Battery LED: Three
Application standards	FCC 15 ClassB, EN55022, EN55024, EN61000-3-2, EN61000-3-3, UL60950-1, CSA C22.2 No.60950, GB9243, GB9254, GB17625.1
Protective feature	Overcharge protection Head overheat protection Detection of Low Battery.
Waterproof feature	Rainproof type (JIS protection class 3), Shoulder rainproof cover (option) installed. * Removed when communication cable is connected.
Environmental condition (including battery pack)	Operating ambient temperature: -15 to 50°C Humidity: 20 to 80% without condensation Storage ambient temperature: -25 to 60°C Humidity: 20 to 80% without condensation Environment for paper is excepted.
Options	Battery pack, AC adapter, Battery charger (Single-socket), Battery charger (5-socket), Rainproof case, Shoulder belt, Belt hook (one-touch type), Waist case, RS-232C cable

## Before Asking for a Repair

13

Reference

- When asking for a repair due to a fault in printing or operation, be sure to send the printer with a sample of faulty printing or description of operational problem.
- After completion of repair, the customer may be requested to register a format.

## After-Sale Services

13

Reference

SATO has been in maintenance service to insure that you can use SATO system equipment safely.

### Kinds of Service

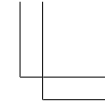
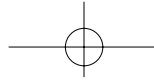
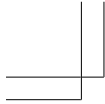
	Replacement parts	Technical fee
Service in maintenance period	Free of charge based on warranty rule	Free of charge based on warranty rule
Maintenance contract service	Included in contracted rate.	Included in contracted rate.
Spot service	Pay per service	Pay per service

Period for storing spare parts for standard equipment is five years from the end of sales of the relevant equipment. (For termination of sales of equipment, refer to our web page <http://www.sato.co.jp>.)

### Contents of Maintenance Service

Carry-in service	Send-back service	If any fault occurs, the customer is requested to carry the equipment together with paper to the service center or dealer to get the equipment repaired. The transportation charge is at customer's cost.
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Onsite repair service is not supported.



### Explanation of Maintenance Services

13

Reference

#### Maintenance Service in Warranty Period

The product has been inspected and delivered after inspection per unit. However, to insure safety use of the equipment, a fault that occurred under normal use will be repaired free of charge during the warranty period of six months from the date of delivery.

As the warranty condition may differ depending on the model, refer to the warranty card supplied with your equipment.

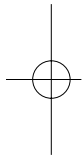
#### Payment to bank account

You are requested to pay through "Bank account transfer system" that can be conveniently used without transfer procedure.

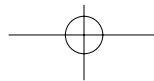
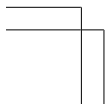
#### Storage data

Note that the data (such as format) stored in the equipment may be lost during the repair work.

Especially, in the send-back service, the customer is requested to keep the data separately. Please confirm the registered data at the receipt of repaired equipment or try registration of data.



60



### Maintenance Contract Service

13

Reference

"Maintenance Contract Service" is available for safe use of the equipment even after the warranty period.

#### Full Maintenance Service

##### 1. Purpose

The customer and SATO conclude Maintenance Contract. Any fault under normal use during the contract period is repaired based on this contract. Technical fee and replacement parts used for repair are covered by this contract. Therefore, the customer can use the equipment at ease at a specified maintenance fee per year.

##### 2. Maintenance Contract Rate

Annual maintenance contract rate is estimated for each device depending on the status of use.

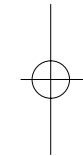
#### Period of Maintenance Contract Service

Full maintenance service allows a contract per year. Without application for cancellation, the customer can continue the contract for four years. For the maintenance contract service exceeding four years, separate estimation will be given in accordance with the standard.

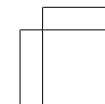
#### Areas for Maintenance Contract

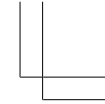
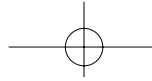
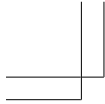
The area for maintenance contract is within 80 km from the site of SATO head office, branch, sales office, and service center. In the outside area, the customer is requested to make a maintenance contract at the maintenance contract rate including additional charge for remote area.

In case of isolated island, maintenance contract rate includes transportation expenses.



61





### Spot Service

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Reference

Without maintenance contract, the equipment is supported by Spot Service after warranty period.

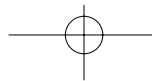
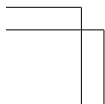
Note that the customer with maintenance contract has priority in receiving the repair service and it may take some time for the customer of spot service to get the equipment repaired.

For Spot Service, the customer is requested to pay maintenance fee in accordance with the specified service rate after each repair service.

In the area of frequency band used for this equipment, in addition to the industrial, scientific, and medical equipment, in-plant radio station (radio station requiring license) for identifying mobile object used in the manufacturing line or the like in a plant, specific low power radio system, and amateur radio station (radio station requiring license) are in service.

1. Before using this equipment, make sure that neither in-plant radio station for mobile object identification, specific low power radio system, nor amateur radio station is not in service.
2. If any harmful radio interference should occur on the in-plant radio station for mobile object identification, immediately change the frequency used or stop radiation of the radio wave. Contact your nearest dealer or service center to take appropriate measure to prevent interference (e.g., installing partition).
3. If you are in trouble as in the event that this equipment has caused harmful radio interference to specific low power radio system for mobile object identification, contact your nearest dealer or service center.

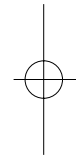
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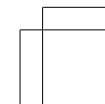
2.4FH1	Frequency band used	2.4 GHz
	Modulation system	FH - SS system
	Assumed distance of interference	10 mm max.
	Availability of frequency change	All area is used and exclusion of the band for equipment for mobile object identification is impossible.

13

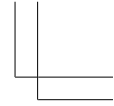
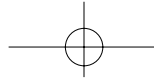
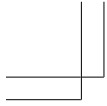
Reference



63

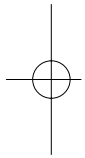




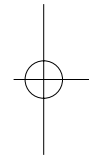


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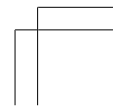
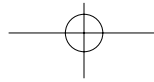
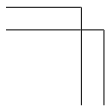
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**64**



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