



# USER'S GUIDE

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Thermal Printer

## **MP-A40 SERIES**

Read this USER'S GUIDE carefully before using the printer.  
Keep this USER'S GUIDE in a place where it can be accessed quickly.

**Seiko Instruments Inc.**

## MP-A40 SERIES THERMAL PRINTER USER'S GUIDE

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### Applicable EC Directive and Standards

<u>Product:</u>	<u>Thermal Printer MP-A40-B</u>
<u>Directive:</u>	<u>Title</u>
2014/53/EU	Radio Equipment Directive
2011/65/EU	Restriction of the use of certain hazardous substances (RoHS) Directive

#### Standards

EN 301 489-1  
EN 301 489-17  
EN 300 328  
EN 60950-1  
EN 50581

<u>Product:</u>	<u>Thermal Printer MP-A40-W</u>
<u>Directive:</u>	<u>Title</u>
2014/53/EU	Radio Equipment Directive
2011/65/EU	Restriction of the use of certain hazardous substances (RoHS) Directive

#### Standards

EN 301 489-1  
EN 301 489-17  
EN 300 328  
EN 301 893  
EN 60950-1  
EN 50581



This product may be used in following all EU and EFTA countries:

EU

Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia,  
Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania,  
Luxembourg, Malta, Poland, Portugal, Romania, Slovakia, Slovenia,  
Spain, Sweden, Netherlands, United Kingdom

EFTA

Iceland, Norway, Switzerland, Liechtenstein

**Product: AC adapter PW-D0940-W2**

<u>Directive:</u>	<u>Title</u>
2014/30/EU	EC Electromagnetic Compatibility Directive
2014/35/EU	EC Low Voltage Directive
2011/65/EU	Restriction of the use of certain hazardous substances (RoHS) Directive

**Standards**

EN 55022 Class B  
EN 61000-3-2  
EN 61000-3-3  
EN 55024  
EN 60950-1  
EN 50581

**Product: Battery Charger PWC-A071-A1**

<u>Directive:</u>	<u>Title</u>
2014/30/EU	EC Electromagnetic Compatibility Directive
2011/65/EU	Restriction of the use of certain hazardous substances (RoHS) Directive

**Standards**

EN 55022 Class A  
EN 61000-3-2  
EN 61000-3-3  
EN 55024  
EN 50581

**Federal Communications Commission (FCC) compliance statement**

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the 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 instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

Operations in 5150-5250 MHz band is for indoor use only.

**Industry Canada (IC) compliance statement**

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Operations in 5150-5250 MHz band is for indoor use only.

**RF exposure compliance**

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Applied to only Bluetooth model:

contains FCC ID: QOQBT121  
contains IC: 5123A-BGTBT121

Applied to only WLAN model:

contains FCC ID: C4ZAB000005  
contains IC: 4445A-AB000005

# 1. INTRODUCTION

This manual describes how to handle MP-A40 thermal printer (hereinafter referred to as printer), battery pack, AC adapter, AC cable, car charger and battery charger.

Read through the "2. SAFETY PRECAUTIONS" and "3. OPERATING PRECAUTIONS" carefully before using the printer, and handle it safely and properly.

Keep this manual in a place where it can be accessed quickly.



See "MP-A40 SERIES THERMAL PRINTER TECHNICAL REFERENCE" for more detailed function and specifications on the printer.

This USER'S GUIDE consists of the following sections.

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## 2. SAFETY PRECAUTIONS

In this SAFETY PRECAUTIONS, the following symbols are used to ensure safe and proper use of products and prevent from damaging devices.

 <b>WARNING</b>	Failure to follow the instructions marked with this symbol could result in severe personal injury or death.
 <b>CAUTION</b>	Failure to follow the instructions marked with this symbol could result in minor personal injury or property damage.

### About symbols



The symbol indicates information which you should pay attention to (including danger and warnings).



The symbol indicates information about prohibited procedures.

indicates "Disassembly is prohibited."


















The symbol indicates information about obligated or instructed procedures.






indicates "Unplug the power plug from an outlet."








## OPERATING PRECAUTIONS

The "products" shall collectively mean printer, battery pack, AC adapter, AC cable, car charger, and battery charger.





### WARNING

Never attempt the followings. Failure to follow the instructions leads to fire, electric shock, or accident.	
	DO NOT disassemble or reconstruct the products.
	Take care not to spill liquid on the products.
	DO NOT touch the products with wet hand.
	DO NOT insert any foreign objects such as a piece of metal or any liquid into the products.
	Keep the terminal portion of the products, power connector, AC plug, DC plug and cigar plug away from dust and metal objects.
	DO NOT touch the terminal portion of the products, power connector, AC plug, DC plug and cigar plug. To avoid short circuits, prevent terminals of the products, power connector, AC plug, DC plug and cigar plug from touching any conductor such as metal.
	Make sure the AC plug, DC plug and cigar plug are securely plugged in when using the products.
	DO NOT destroy the AC cable, AC plug, DC plug and cigar plug. DO NOT bend, pull, or twist the cable forcibly or place heavy staff on them.
	Use the printer only with specified battery pack, specified AC adapter, specified AC cable and specified car charger.
	Use the AC adapter only for specified printer or specified battery charger.
	DO NOT connect any AC cable other than specified with the AC adapter.
	Use the battery charger only with specified battery pack, specified AC adapter and specified AC cable.
	DO NOT connect the car charger to the battery charger.
	DO NOT use the AC adapter and the car charger with a voltage other than specified voltage.
	DO NOT charge the battery pack by any printer or battery charger other than specified printer or specified battery charger.



	Be sure to charge the battery pack under the specified temperature range. It may cause leakage, overheating, rupture or fire.
	DO NOT expose the battery pack in a fire and heat it.
	To avoid liquid leakage, overheat, rupture or fire, DO NOT leave battery pack under high temperature conditions such as in scorching heat, inside a car, or near a fire.
	DO NOT apply strong impact to the battery pack with a hammer or a nail, and DO NOT crush it.
	DO NOT print out during a vehicle driving. Ejected thermal paper may hinder a vehicle driving.

Be sure to observe the following instructions. Failure to follow the instructions may lead to fire, electric shock, or accident.	
	Be sure to use only in countries where the products meet the regulations. Using non-compliant products may endanger the safety of products or be considered against regulations.
	Be sure to hold the plug when unplugging the AC cable, DC cable from an outlet.
	Make sure to turn off the printer before plugging the AC adapter. After plugging the DC plug of AC adapter, plug the AC plug to an outlet.
	Make sure to turn off the printer before plugging the car charger. After plugging the DC plug of the car charger, plug the cigar plug to a car accessory socket.
	Make sure to turn off the printer when installing / removing the battery pack.
	Make sure to unplug the AC plug from an outlet after using the battery charger. And make sure to remove the battery pack from the battery charger.
	Make sure to unplug the cigar plug from a car accessory socket after using the car charger.













## Procedures to take when in trouble

Follow the instructions in the following cases. Failure to follow the instructions may lead to fire, electric shock, or accident.	
	<p>Turn off the printer, and unplug the AC plug from an outlet in any of the following cases. (In case of using the car charger, unplug the cigar plug from a car accessory socket.) And then, remove the battery pack.</p> <ul style="list-style-type: none"> <li>◆ Abnormal status continues.</li> <li>◆ The products are giving off an unusual smell, smoke, excessive heat or unusual noise.</li> <li>◆ A piece of metal, water or other foreign objects get into the products.</li> <li>◆ Case is broken.</li> </ul>
	<p>When the AC adapter or AC cable is damaged, unplug the AC plug from an outlet. <b>DO NOT</b> use a damaged AC adapter or AC cable.</p> <p>When the cable of car charger is damaged, unplug the cigar plug from a car accessory socket. <b>DO NOT</b> use the car charger which has damaged cable.</p>
	<p>In any of the following cases, remove the battery pack from the printer or battery charger. Then, stop using the battery pack and never put it close to fire.</p> <ul style="list-style-type: none"> <li>◆ The battery pack is giving off an unusual smell, smoke or excessive heat.</li> <li>◆ Case is broken.</li> <li>◆ Liquid is leaking.</li> </ul>
	<p>When leaking liquid from battery pack gets into eyes, flush them immediately with clean water and see a doctor immediately.</p> <p>Otherwise it may cause vision loss.</p>

## For wireless communication

Observe the following instructions.	
	Always turn off the printer in the area or region where its use is prohibited such as on the airplane.
	This function may adversely affect medical and electronic devices. Consult the manufacturer or the dealer of the devices to determine when they are shielded adequately.



Observe the following instructions. Failure to follow the instructions may lead fire, electric shock, or accident.	
	Turn off the products and unplug the AC plug from an outlet when not in use for a long time or before maintenance. And remove the battery pack from the printer or battery charger.
	DO NOT use or store the products in the following locations: <ul style="list-style-type: none"> <li>◆ Locations exposed to direct sunlight or high temperature such as in a car.</li> <li>◆ Locations exposed to high humidity, a lot of dust, and liquid.</li> <li>◆ Locations subject to strong vibration or unstable locations.</li> </ul>
	DO NOT cover the products with cloth when in use.
	DO NOT touch the thermal head immediately after printing because it gets hot. Be sure to allow it to cool down before clearing a paper jam or cleaning its head.
	The printer has two paper cutters on the paper outlet: one is on the printer side, and the other is on the paper cover side. DO NOT touch the cutter. Especially, make sure not to touch the exposed cutter while the printer cover is open.
	Keep loose objects such as long hair away from the printer while the printer operates. When they fall into the printer, it may cause personal injury or damage the printer.
	To prevent the battery pack from dropping off, be sure to install and fix the battery pack securely to the printer or battery charger. Dropped battery pack may cause personal injury or malfunction.
	When using the belt clip, be sure to install the battery pack to the printer because the belt clip comes off too easily from the printer without installing the battery pack. Dropped printer may cause personal injury or malfunction.
	When using the shoulder strap, be sure to install the shoulder strap to the printer. Dropped printer may cause personal injury or malfunction.
	Avoid the direct skin contact with the battery pack while using the belt clip or shoulder strap. Prolonged skin contact may cause low-temperature burns.
	Keep the products away from the children.
	When leaking liquid from battery pack contacts your skin or clothing, flush them immediately with clean water.

# 3. OPERATING PRECAUTIONS

Be careful of the following precautions and use the products properly in order to deliver and maintain the full performance of the products.

## ■ Using the Products

### Precautions for using conditions

- ◆ Be careful not to drop or bump the products on a hard surface.
- ◆ DO NOT install the products in direct sunlight.
- ◆ Be careful about the ambient temperature and humidity.

Suitable environment for the use of the products is as follows:

	Range of the temperature	Range of the humidity
Print with battery pack	-4°F to 122°F (-20°C to 50°C)	10%RH to 90%RH (Non condensing)
Print with AC adapter	32°F to 104°F (0°C to 40°C)	20%RH to 80%RH (Non condensing)
Charge battery pack	32°F to 104°F (0°C to 40°C)	20%RH to 80%RH (Non condensing)

Refer to "MP-A40 SERIES THERMAL PRINTER TECHNICAL REFERENCE" for the certifiable humidity range at each temperature.

- ◆ DO NOT install the products near devices that generate strong electromagnetic fields such as a copy machine motor.
- ◆ DO NOT install the products in a location that is subject to corrosive gas or siloxane and so on.
- ◆ DO NOT connect the AC adapter or the AC cable to the same outlet with devices that generate noise.

### Precautions when using or driving

- ◆ DO NOT print without the thermal paper.
- ◆ DO NOT use two or more thermal papers which are taped together.
- ◆ NEVER pull out the thermal paper when the thermal paper is set.
- ◆ DO NOT open the paper cover during printing.
- ◆ DO NOT touch the thermal paper during printing. Covering the paper outlet or pulling out the thermal paper when ejecting may cause a paper jam, a line feed failure.
- ◆ DO NOT connect or disconnect the interface cable during printing or transmission.  
DO NOT touch the plug of the interface cable during printing.
- ◆ When handling the printer, be aware of static electricity. When the static electricity is discharged, this could cause a USB communication failure.  
When this problem occurs, disconnect the USB plug that is connected to the host device and wait a few seconds before connecting it again.
- ◆ DO NOT remove the battery pack or AC adapter during printing or transmission.

- ◆ Even if the printer connects with the AC adapter during printing or transmission powered by the battery pack, a power supply will be continued from the battery pack until its job is completed. If the printer suspends printing because the battery remaining capacity becomes low, connect AC adapter and restart printing or transmission.
- ◆ DO NOT use the thermal head when it is wet. Doing so may damage the printer.
- ◆ Using the printer under low temperature environment or printing at a high print rate might cause unclear printing or generate loud sound. This is not a failure in the printer, but an inherent paper phenomenon.
- ◆ Continuous printing with high print ratio might cause temporarily stop printing by temperature detection of the printer. Printing resumes when the printer's temperature cools down. When this error occurs and "Data discarding when error occurs" in the Function Setting is "Enabled", the transmitted printing data while this error occurs is discarded.
- ◆ When the battery pack is used at low temperature, the operating time of the printer can be used may be shortened.
- ◆ The indicator of battery remaining capacity displayed in POWER LED is for reference. The battery level may be changed depending on the printer operation, so charge the battery pack before the battery becomes low.
- ◆ The battery pack should be recharged at 32 to 104°F (0 to 40°C).
- ◆ The charging time depends on the ambient temperature and the voltage level of the battery pack. Normally, using the printer or the battery charger "PWC-A071-A1", it takes about 4 hours to charge after running down a battery pack.  
Using the quad battery charger "PWC-A074-A1", it takes about 5 hours.
- ◆ The battery pack, AC adapter and car charger may get hot when in use. This is normal and not a malfunction.
- ◆ After using the battery charger, unplug the AC plug from the outlet. And then, remove the battery pack from the battery charger.
- ◆ Set the paper width before using the printer for the first time. DO NOT change the paper width after starting to use the printer. Doing so may damage the printer.
- ◆ Always use the specified thermal paper. See "21 ACCESSORIES AND CONSUMABLE PARTS" for details.
- ◆ DO NOT touch the thermal head directly. Doing so may result in poor printing quality due to the dirt or damage by the static electricity.
- ◆ NEVER touch the portions such as the thermal head, the paper sensor or the platen roller directly while opening the paper cover to install the thermal paper. Doing so may cause injury or other accidents.
- ◆ The printer has two paper cutters on the paper outlet: one is on the printer side, and the other is on the paper cover side. DO NOT touch the cutter. Especially, make sure not to touch the exposed cutter while the printer cover is open.
- ◆ Be careful not to get your fingers or hands caught in the printer when opening or closing the paper cover.

- ◆ DO NOT cut except liner part of a label sheet with the paper cutter. This instruction may make the cutting edge dull due to label sheet adhesive sticking to the cutter.
- ◆ The car charger is only for charging. Even if the car charger is connected to the printer, the printer cannot print without the battery pack.
- ◆ Charging the battery pack by car charger is possible while the car engine is running or in accessory position. Check the car battery remaining capacity is sufficient before using the car charger in accessory position.
- ◆ After using the car charger, unplug the cigar plug from a car accessory socket.
- ◆ DO NOT print out during a vehicle driving. Ejected thermal paper may hinder a vehicle driving.
- ◆ DO NOT drop or insert any foreign objects such as a clip, a pin, or a screw in the internal parts or slot of the products.
- ◆ DO NOT drop any liquid or spray a solvent to the products.
- ◆ NEVER push the switch on the operation panel using sharp object such as pen tip.
- ◆ Make sure not to injure your body or other objects by the plate edge.
- ◆ Unplug the AC plug or cigar plug from an outlet or a car accessory socket when something goes wrong with the printer, and remove the battery pack.
- ◆ NEVER disassemble the printer without a serviceman.

### **Precautions for Wireless communication**

- ◆ When using Bluetooth interface, the communication may become unstable due to the influence from any external radio waves. This is the specification of Bluetooth for wireless communication standard.
- ◆ Bluetooth model uses 2.4GHz frequency range. Wireless LAN model IEEE802.11b/g/n uses 2.4GHz frequency range, and IEEE802.11a/n uses 5GHz frequency range. So if these models are used around any equipment with the same frequency range such as wireless LAN or microwave oven, radio frequency interference may occur and the communication may become unstable. When it happens, turn off the interfering equipment or increase the distance. In addition, shorten the distance between the host device and the printer.
- ◆ When using Wireless LAN model IEEE 802.11a/n, the communication may stop temporarily before outputting radio wave to the target channel not to affect the radar for weather, air traffic control or others. This is the reason to detect those radar waves during a certain period. If detect other radio wave during operation, it may change the target to other channel.

### **Precautions for maintenance**

- ◆ Clean the printer case using soft, lint-free cloth. DO NOT use alcohol or other solvent.
- ◆ Before using, always clean the terminals using a dry, soft, lint-free cloth. When the terminals are dirty, it may cause contact failure.
- ◆ When cleaning the thermal head, wipe the thermal head with a cotton swab or other soft material.

## **Precautions for storing**

- ◆ Turn off the power when not in use.  
In addition, when the printer is not used for a long time,
  - Unplug the AC plug from an outlet.
  - Remove the battery pack from the printer. If not, it may cause overdischarge, the battery pack is not available for use even if it is charged.
  - Set thermal paper to protect the platen.
- ◆ When the printer is not used for a long time, store the battery pack in cool place. Avoid storing the battery pack for long time with fully charged condition as much as possible because it may shorten life span of the battery pack.

## **■ Thermal Paper Handling**

- ◆ Store the thermal paper in a cool, dry, and dark place.
- ◆ DO NOT rub the thermal paper with hard objects.
- ◆ DO NOT leave the thermal paper near organic solvents.
- ◆ DO NOT allow plastic film, erasers, or adhesive tape to touch the thermal paper for long periods.
- ◆ DO NOT stack the thermal paper with diazo copies immediately after copying.
- ◆ DO NOT use chemical glue.

## **■ Precautions on Discarding**

When discarding used printers, discard them according to the disposal regulations and rules of each respective district.

## **■ Notations**

The following two types of notations are used throughout this manual to denote operating precautions and items to remember:

### NOTE

- ◆ Operating Precautions

This box contains items that, when not followed, may lead to a malfunction or to a deterioration of performance.

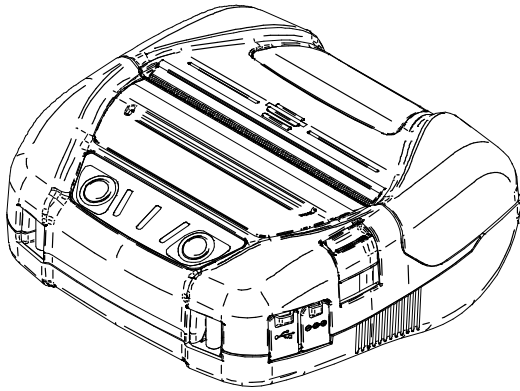
### HINT

- Items to Remember

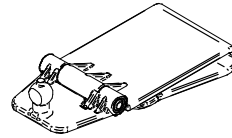
This box contains helpful hints to remember when using the printer.

## 4. PREPARATION

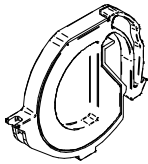
Make sure that the printer and its accessories are contained.  
Keep the package and packing materials for future transportation or long-term storage.



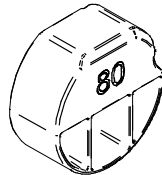
Printer



Belt Clip



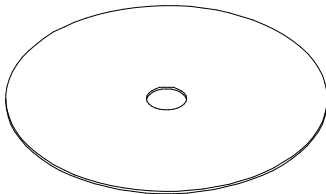
Partition Plate



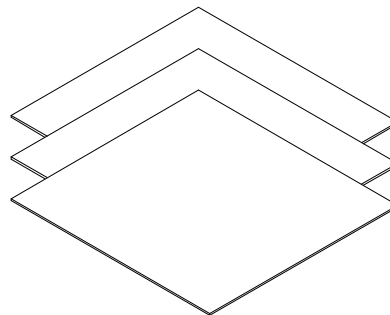
Partition Plate  
Attachment 80



Partition Plate  
Attachment 100

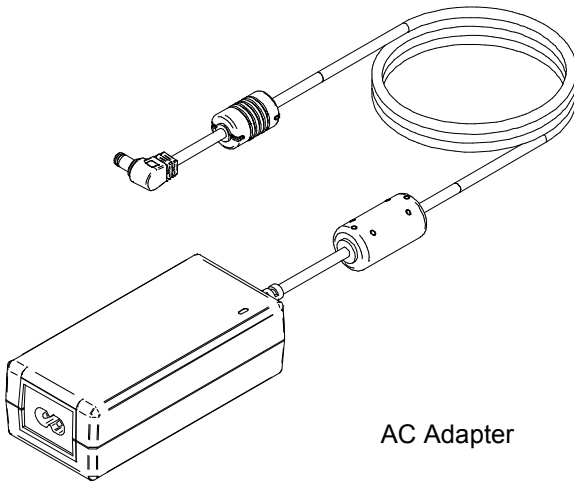


CD-ROM  
(User Guide / Related Software)

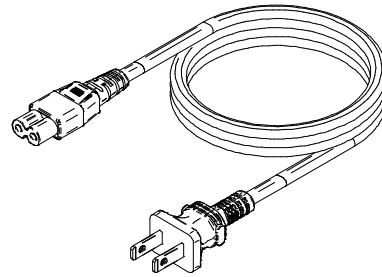


Safety Precautions: 1set  
(3 sheets)

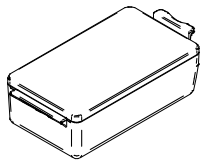
The available accessories are shown below.  
See "20 SPECIFICATION" and "21 ACCESSORIES AND CONSUMABLE PARTS", and be sure to purchase our specified products listed on these references.



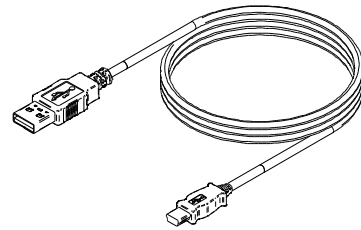
AC Adapter



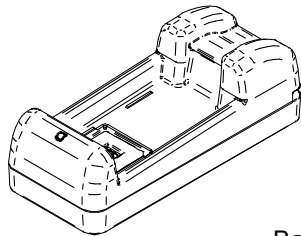
AC Cable



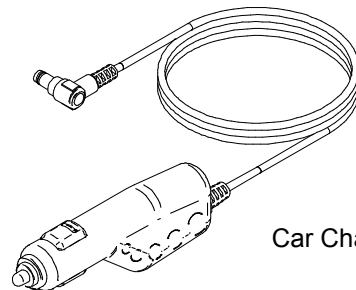
Battery Pack



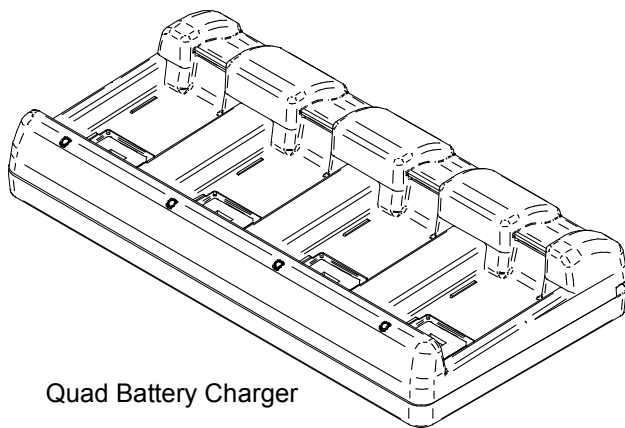
USB Interface Cable



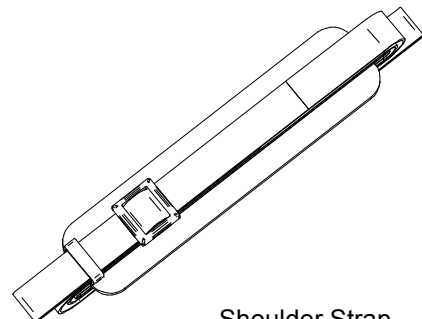
Battery Charger



Car Charger



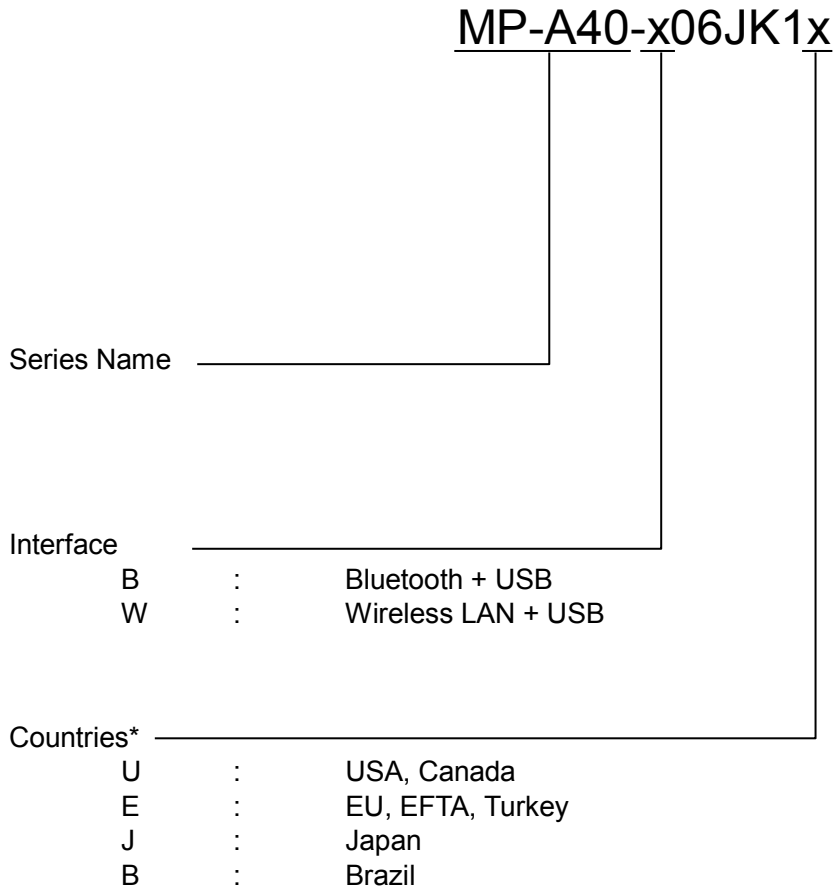
Quad Battery Charger



Shoulder Strap

## 5. IDENTIFYING THE MODEL TYPE

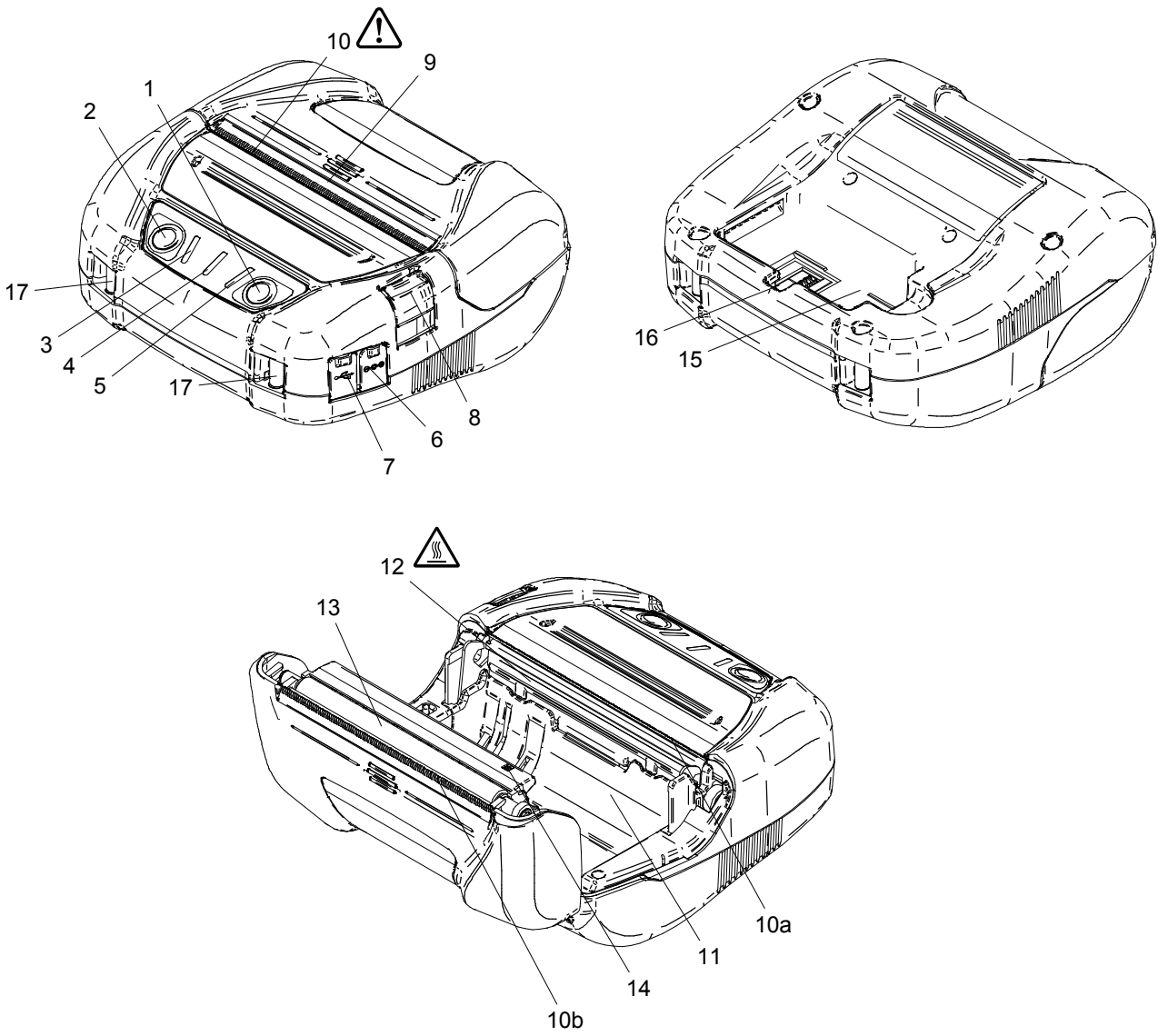
The printer model is identified as follows:



\*: Wireless LAN model only.



# 6. EACH PART OF PRINTER



## 1 POWER Switch

---

The POWER Switch turns the power on or off. The POWER LED lights when turning on the power. To turn off the power, hold down the switch for longer than 1 second.

## 2 FEED Switch

---

The FEED Switch operates paper feed. When holding down the switch for a few seconds, the printer feeds the thermal paper continuously for the period of held.

In the mark mode, the printer feeds the thermal paper until paper mark detection by pressing this switch once.

## 3 ERROR LED

---

The ERROR LED lights when something is wrong with the printer. For more details, see "7 LED DISPLAY OF PRINTER".

## 4 POWER LED

---

The POWER LED lights when turning on the power. For more details, see "7 LED DISPLAY OF PRINTER".

## 5 WIRELESS LED

---

The WIRELESS LED displays the connection status of wireless communication (Bluetooth / Wireless LAN). For more details, see "7 LED DISPLAY OF PRINTER".

## 6 Power connector

---

The AC adapter or car charger is connected to here. Open the cover and insert the DC plug.

## 7 USB interface connector

---

USB interface connector is connected to here. Open the cover and insert the connector.

## 8 Paper cover open button

---

The button that is used as opening the paper cover.

## 9 Paper cover

---

The platen is released from the thermal paper when opening this cover. Open this cover to replace the thermal paper or to clean the thermal head.

## 10 Paper outlet

---

Thermal paper is ejected from here. Two paper cutters are installed: one is on the printer side, and the other is on the paper cover side (10a, 10b).

DO NOT touch these paper cutters.

## 11 Paper Holder

---

The paper holder holds the thermal paper.

## 12 Thermal Head

---

The thermal head prints data on the thermal paper. NEVER touch the thermal head immediately after printing because it may get hot.

## 13 Platen

---

The platen brings the thermal paper into contact with the thermal head. The platen is turned to feed the paper.

## 14 Paper sensor

---

The sensor that detects thermal paper existence or paper mark.

## 15 Battery pack installing portion

---

The optional battery pack is installed in this portion.

## 16 Belt clip installing portion

---

The belt clip is installed to this portion for carrying the printer.

## 17 Shoulder strap installing portion

---

The optional shoulder strap is installed to this portion for carrying the printer.

# 7. LED DISPLAY OF PRINTER

## ■ LED Display of Printer

The three LEDs of the printer show their status.

- ERROR LED and POWER LED : Table 7-1 Printer Status
- WIRELESS LED : Table 7-2 Bluetooth / Wireless LAN Status

**Table 7-1 Printer Status**

Description	Printer Status	ERROR LED		POWER LED		
		Color	Lighting Pattern	Color	Lighting Pattern	
Power / Battery status	Power off	-	Off	-	Off	
	Power on	Connected to AC adapter only <sup>*1</sup> / Battery level1 <sup>*2</sup>	Display "Error status" <sup>*3</sup>		Green	On
		Battery level2 <sup>*2</sup>			Green	Blink-1
		Battery level3 <sup>*2</sup>			Orange	Blink-3
		Battery level4 <sup>*2</sup>			Orange	Blink-4
		Battery level5 <sup>*2</sup>			Red	Blink-1
		Charging			Orange	On
		Charging battery temperature error			Red	Blink-3
Connected to car charger only <sup>*1</sup>	Green	Blink-4				
Error status	Out-of-paper error / Paper jam error while detecting mark / Paper cover open error	Red	On	Display "Power / Battery status"		
	Output buffer full	Red	Blink-1			
	Head temperature error / Battery temperature error	Red	Blink-2			
	Voltage error / Battery error	Red	Blink-3			
	Hardware error	Red	Blink-2	Red	Blink-2	
Operating mode	Initializing	Red	On	-	Off	
	Rewriting firmware mode	Red	Blink-3	-	Off	
	Rewriting firmware <sup>*4</sup>	Red	Blink-4		Off	
	Rewriting FLASH memory <sup>*5</sup>	Red	Blink-4	Display "Power / Battery status"		
	Function setting mode	-	Off	Red	On	

\*1: The printer is in a state where the battery pack is not installed.

\*2: POWER LED displays the battery remaining capacity regardless of connecting with the AC adapter.

\*3: Displays the error status excluding the hardware error.

\*4: Since rewriting firmware, do not power off while this mode is displayed.


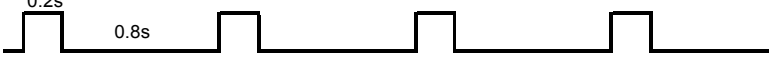
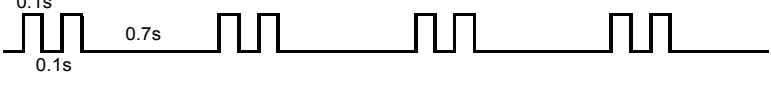

\*5: Since rewriting FLASH memory, do not power off while this mode is displayed.

**Table 7-2 Bluetooth / Wireless LAN Status**

Wireless Communication Status	WIRELESS LED	
	Color	Lighting Pattern
Wireless off	-	Off
Connecting	Blue	On
No-connecting	Blue	Blink-2
Initializing wireless communication	Blue	Blink-4
In pairing mode*	Blue	Blink-3

\*: Only Bluetooth model and when its Inquiry Response in the Function Setting is set to "Pairing Mode".

**Table 7-3 Blink Pattern**

Status	Pattern
Blink-1	
Blink-2	
Blink-3	
Blink-4	

**Table 7-4 Guide of Battery Remaining Capacity**

Battery Pack Status	Battery Remaining Capacity
Battery level 1	Approx. 80 %
Battery level 2	Approx. 40 %
Battery level 3	Approx. 10 %
Battery level 4	Need to charge*
Battery level 5	0% (Stop)

\*: Charge battery as soon as possible. If not so, printing may be stopped depending on print contents.

**HINT**

- The indicator of battery remaining capacity displayed in POWER LED is for reference. The battery level may be changed depending on the printer operation, so charge the battery pack before the battery becomes low.

## ■ Error and Recovery Procedure

When an error occurs, the printer stops printing operation. However, the data receiving is enabled. The table below lists errors and their recovery procedures.

**Table 7-5 Error and Recovery Procedure**

Error	Detail	Recovery Procedure	Priority <sup>*1</sup>
Charging battery temperature error <sup>*2</sup>	The printer suspends charging because the battery pack temperature becomes outside the range of operating temperature (charging).	The printer is automatically started charging when the battery temperature becomes inside operating temperature (charging). Wait for a while in the place where ambient temperature is 32°F to 104°F (0°C to 40°C).	-
Connected to car charger only <sup>*2</sup> (Battery pack is not installed)	The printer cannot print because the battery pack is not installed.	Install the battery pack to the printer when using the car charger. <sup>*3</sup>	-
Output buffer full	Output buffer of the printer is full.	Read response data from the host device.	1
Out-of-paper	No thermal paper.	Open the paper cover, set a thermal paper, and then close it.	2
Paper jam error while detecting mark	The mark cannot be detected.		
Paper cover open error	The paper cover is opened.	Close the paper cover.	3
Voltage error	The voltage of the AC adapter or car charger is out of the allowable range.	Change the AC adapter or car charger to a new one.	4
Head temperature error	The thermal head temperature becomes outside the range of operating temperature.	The printer is automatically recovered when thermal head temperature becomes inside operating temperature. Wait for a while in the place where ambient temperature is -4°F to 122°F (-20°C to 50°C).	5
Battery temperature error	The battery pack temperature becomes outside the range of operating temperature (printing).	The printer is automatically recovered when the battery temperature becomes inside the range of operating temperature (printing). Wait for a while in the place where ambient temperature is -4°F to 122°F (-20°C to 50°C).	6
Battery error	There is an abnormality in the battery.	Remove the battery pack from the battery charger and install again. When the terminals are dirty, clean the terminals using a dry, soft, lint-free cloth. If the problem is unsolved, change the battery pack.	7
Hardware error	Abnormality in the thermal head or the circuit board.	Recovery is not possible. Request for repair.	8

\*1: This indicates the priority when the multiple errors occur simultaneously. The bigger number indicates higher priority.  
For example, when "Output buffer full" and "Out-of-paper" occur simultaneously, the LED displays "Out-of-paper" based on the priority.

\*2: When "Charging battery temperature error" or "Connected to car charger only" occurs, these errors are displayed by the POWER LED.

If the error occurs simultaneously with other error, each error is displayed by POWER LED and ERROR LED.

\*3: The car charger is only for charging. See "Charging by Printer and Car Charger" of "16 CHARGING BY CAR CHARGER" for details.

## 8. POWER CONNECTION

There are two ways to supply power to the printer; from the battery pack or the AC adapter. While supplying power from the AC adapter, the printer can print without battery pack.

The AC cable is required for using the AC adapter.

The car charger is only for charging. Even if the car charger is connected to the printer, the printer cannot print without the battery pack.

Be sure to see "16 CHARGING BY CAR CHARGER" for connecting the car charger.

The battery pack, AC adapter, AC cable and car charger are optional accessories.

See "20 SPECIFICATION" and "21 ACCESSORIES AND CONSUMABLE PARTS", and be sure to purchase our specified products listed on these references.

### ■ Installing / Removing the Battery Pack

#### NOTE

- ◆ Make sure to turn off the printer when installing / removing the battery pack.
- ◆ If the battery pack is removed during saving the registration data by registration command or settings by function setting command, the data may be deleted.
- ◆ When the printer is not used for a long time, remove the battery pack from the printer.
- ◆ See "2 SAFETY PRECAUTIONS" and "3 OPERATING PRECAUTIONS" for the precautions of the battery.

#### Installing Battery Pack

The battery pack is installed to the printer in the direction as shown in the Figure 8-1. The battery pack cannot be inserted in the wrong direction.

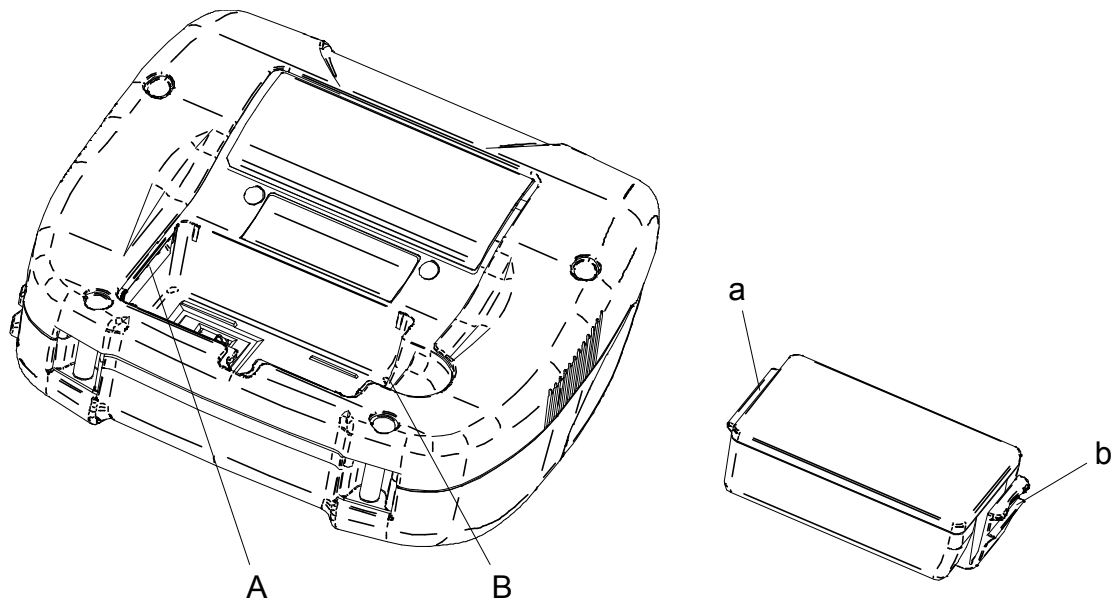
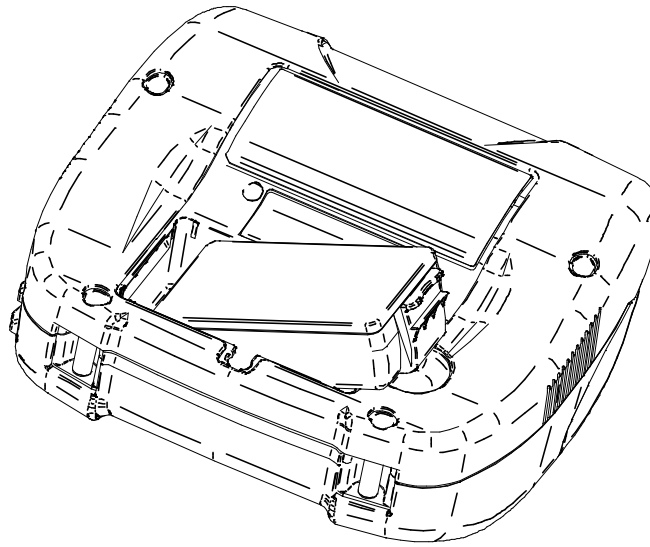


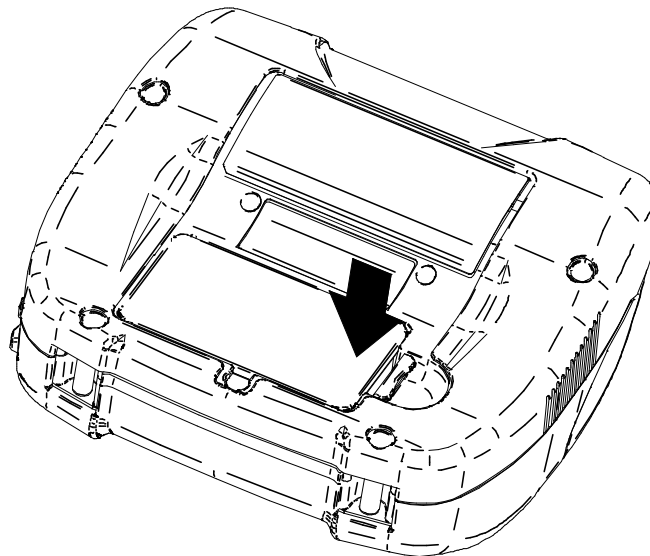
Figure 8-1 Installing the Battery Pack (1)

- (1) Verify that the power of the printer is off.
- (2) Install the tab of the battery pack "a" into the groove of the printer "A"



**Figure 8-2 Installing the Battery Pack (2)**

- (3) Press the tab of the battery pack "b" in the direction of the arrow in Figure 8-3 until it locks into the groove of the printer "B".

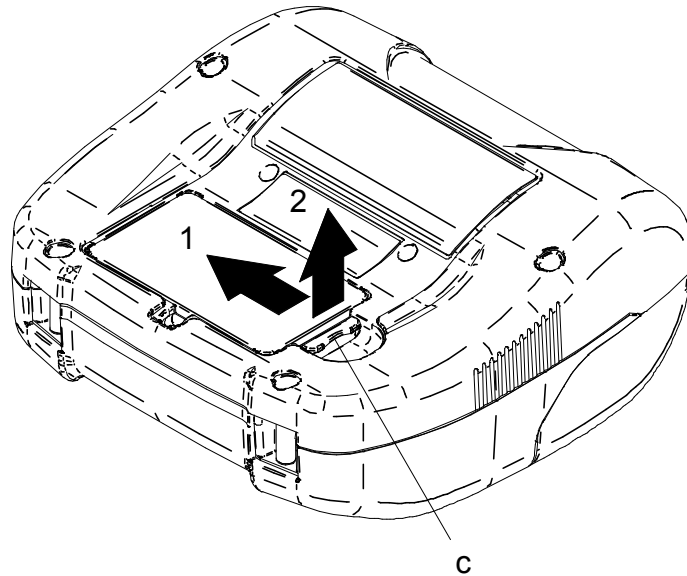


**Figure 8-3 Installing Battery Pack (3)**

- (4) Verify that the battery pack is installed to the printer correctly.
  - See the tab of the battery pack "a" is inserted under the groove of the printer "A".
  - See the tab of the battery pack "b" is locked into the groove of the printer "B".

## **Removing the Battery Pack**

- (1) Turn off the printer.
- (2) As shown in the Figure 8-4, pressing the lever of the battery pack "c" to the direction of the arrow 1, remove it by pulling up to the direction of the arrow 2.



**Figure 8-4 Removing the Battery Pack**

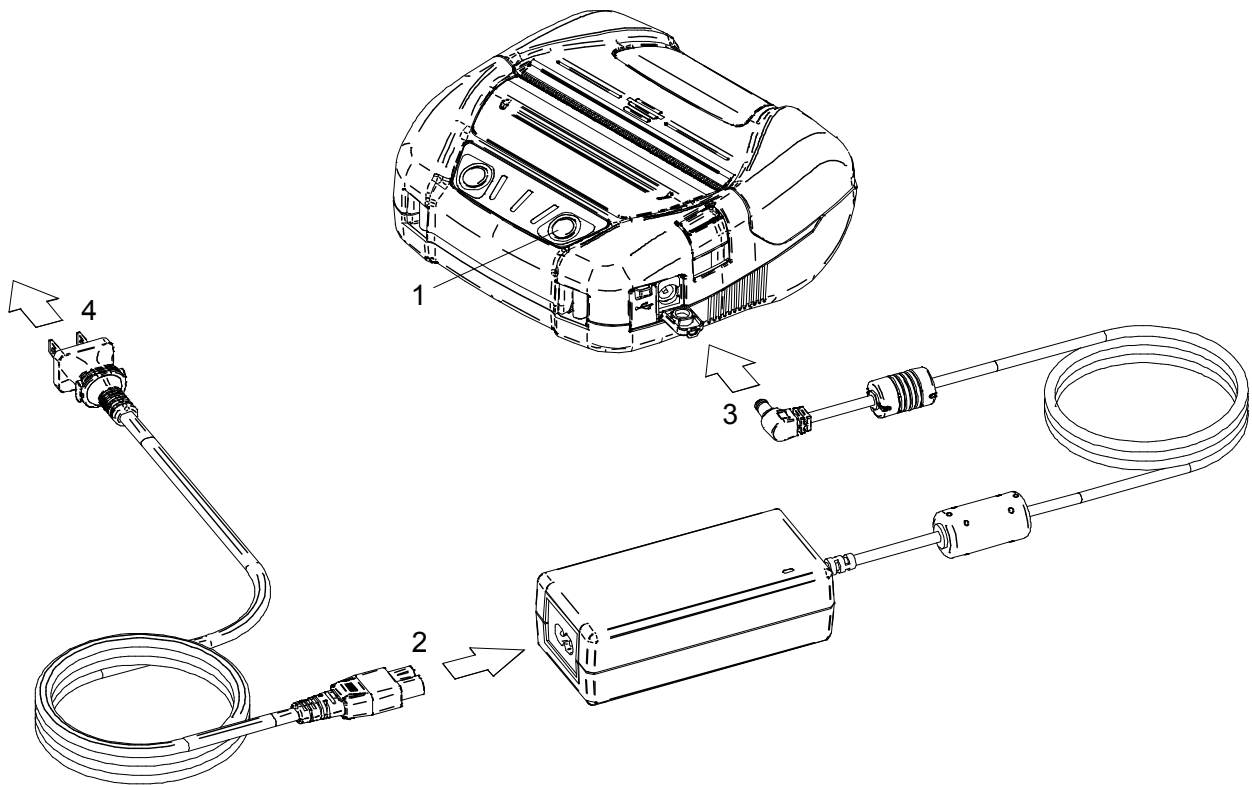
### **HINT**

- The battery pack may get hot when in use. This is normal and is not a malfunction.
- The usable time of the battery pack become shorter significantly, this is the end of battery lifetime. Need to purchase the new one.
- When the battery pack is used at low temperature, the operating time of the printer can be used may be shortened.
- The battery may deteriorate even if not used.
- When Auto Power Off Setting sets to Enable, the printer turns itself off after the set time is over, and this can be prevented the useless consumption of the battery. For further details, see "11 FUNCTION SETTING".
- Dispose the used batteries according to local regulations.



## ■ Connecting the AC Adapter to the printer

- (1) Turn off the printer.
- (2) Connect the AC cable to the AC adapter.
- (3) Insert the DC plug of the AC adapter to the power connector of the printer.
- (4) Insert the AC plug of the AC cable to an outlet. Then, the LED of AC adapter lights up green.



**Figure 8-5 Connecting the AC adapter to the Printer**

### NOTE

- ◆ Turn off the printer before installing / removing the AC adapter.
- ◆ When the printer is not used for a long time, unplug the AC cable from an outlet.

### HINT

- When Auto Activation by AC is enabled, the printer turns itself on after inserting the AC plug of AC cable into an outlet. For details, see "11 FUNCTION SETTING".
- The AC adapter may get hot when in use. This is normal and is not a malfunction.

## 9. THERMAL PAPER SETTING

The printer uses the thermal paper roll (hereinafter referred to as thermal paper).

Use the thermal paper with printable surface rolled outwards.

4 types of the thermal paper width can be used in the printer. For changing the paper width, see "13 PAPER WIDTH SETTING".

And, the function setting of the printer differs depending on the thermal paper.

See "11 FUNCTION SETTING" for details.

### ■ Thermal Paper Setting

- (1) Press the paper cover open button to the direction of the arrow shown in the Figure 9-1, and open the paper cover.

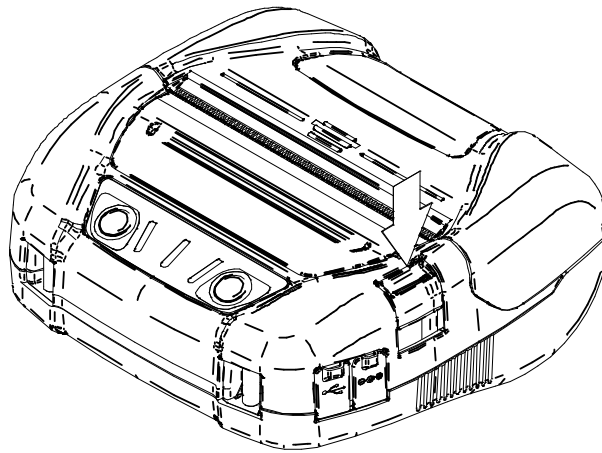
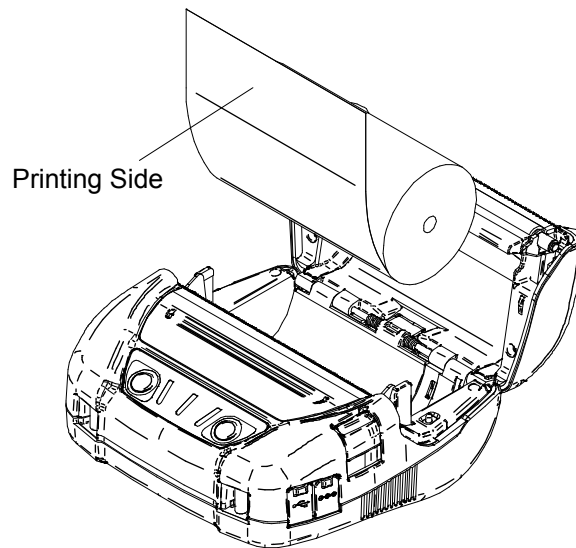


Figure 9-1 Paper Cover Open Button

#### NOTE

- ◆ Press the paper cover open button to the end.  
If not, the paper cover may be not opened.

- (2) Set the thermal paper into the paper holder with its printable surface facing to the thermal head. If the setting direction is wrong, the printer cannot print.

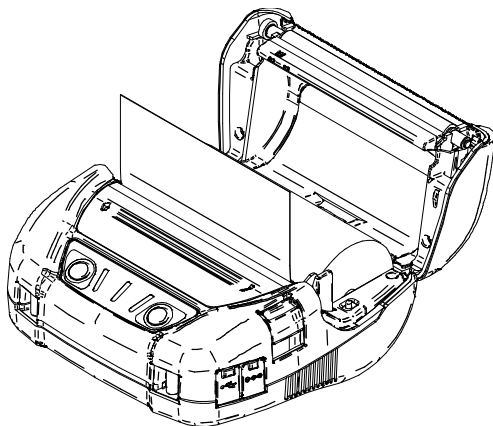


**Figure 9-2 Thermal Paper Setting Direction**

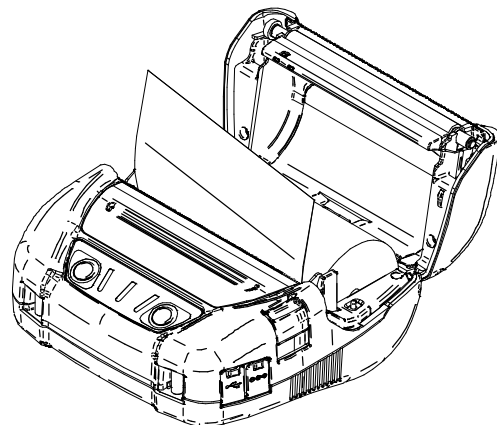
**NOTE**

- ◆ The printer has two paper cutters on the paper outlet: one is on the printer side, and the other is on the paper cover side. Be careful not to cut your fingers by the paper cutter.
- ◆ NEVER touch the thermal head immediately after printing because it may get hot.
- ◆ DO NOT touch the platen and gears in the printer. Doing so may cause loss of printing quality or damage.

- (3) Pull the thermal paper straightly until the tip of the thermal paper 5 cm or longer appears from the paper outlet. Make sure that the thermal paper does not slant.



**CORRECT**



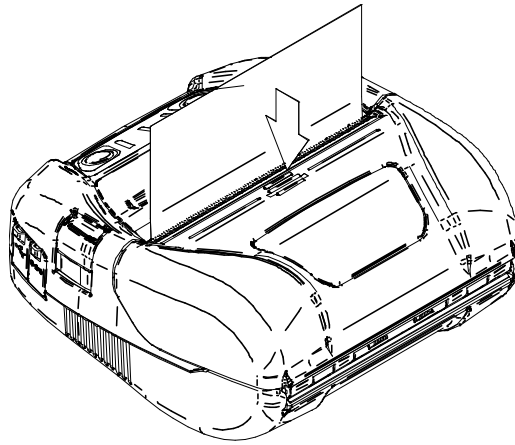
**INCORRECT**

**Figure 9-3 Thermal Paper Setting Direction Example**

**NOTE**

- ◆ If the thermal paper set into the paper holder slant, the thermal paper cannot eject straightly. If so, set the thermal paper correctly.

- (4) Push firmly the center of the paper cover (the arrow in the Figure 9-4) to close the paper cover.



**Figure 9-4 Paper Cover**

**NOTE**

- ◆ In case of the one side lock, the ERROR LED lights to show "Paper cover open error" when turning on the printer. When it happens, open and push the paper cover again.
- ◆ When the paper cover is pushed, the top of thermal paper may be colored because of the friction with a portion of the printer. When it happens, feed the thermal paper a few centimeters and cut the top of the thermal paper before starting printing.

- (5) If using the marked thermal paper, press the FEED Switch once for feeding to home position. When using it, the mark mode setting is needed.  
See "2.1.6 Mark (Paper) Sensor Specification" in "MP-A40 SEREIS THERMAL PRINTER TECHNICAL REFERENCE" for details of the mark mode setting, paper position or specifications.

**NOTE**

- ◆ DO NOT cover the paper outlet or hold down the thermal paper ejected. Doing so may cause paper jam.

**HINT**

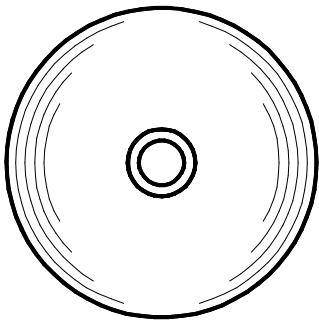
- Leaving the printer with the thermal paper for a long time may cause a paper-feeding problem because the surface of the thermal paper sticks to the thermal head due to the environmental changes. In that case, open the paper cover to separate the thermal paper from the thermal head, and then close the paper cover to use it.

## ■ Thermal Paper Shape

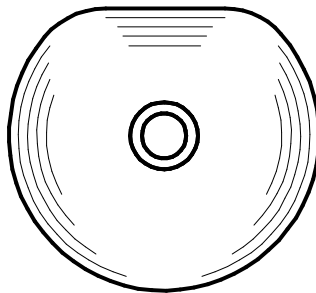
Always use the specified thermal paper. See "21 ACCESSORIES AND CONSUMABLE PARTS" for details.

### NOTE

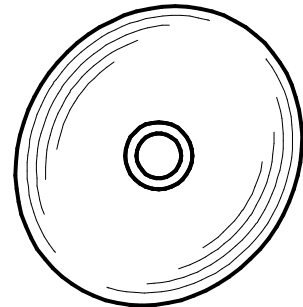
- ◆ Use the thermal paper whose maximum diameter is 58mm or less.
- ◆ Use the thermal paper that the maximum width is equal or less than the each paper width +0.5mm including winding deviation.
- ◆ DO NOT use the thermal paper with glued or taped end.
- ◆ Use the thermal paper whose core inside diameter is 12mm or more for a receipt sheet and 18mm or more for label sheet.



CORRECT



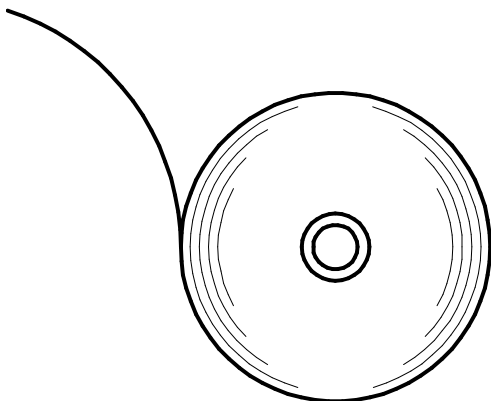
INCORRECT



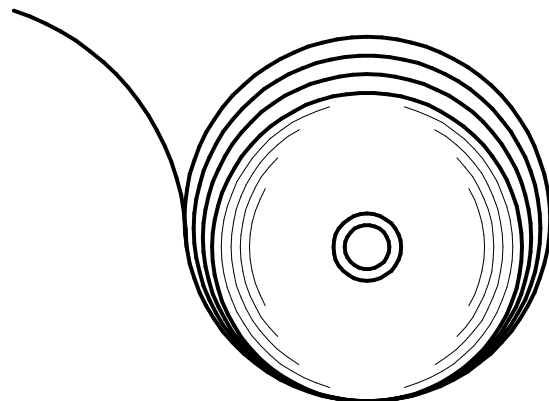
INCORRECT

### NOTE

- ◆ DO NOT use deformed thermal paper. Doing so may cause the printer damaged.



CORRECT



INCORRECT

### NOTE

- ◆ In case of using loosened thermal paper roll, rewind the roll before using it.

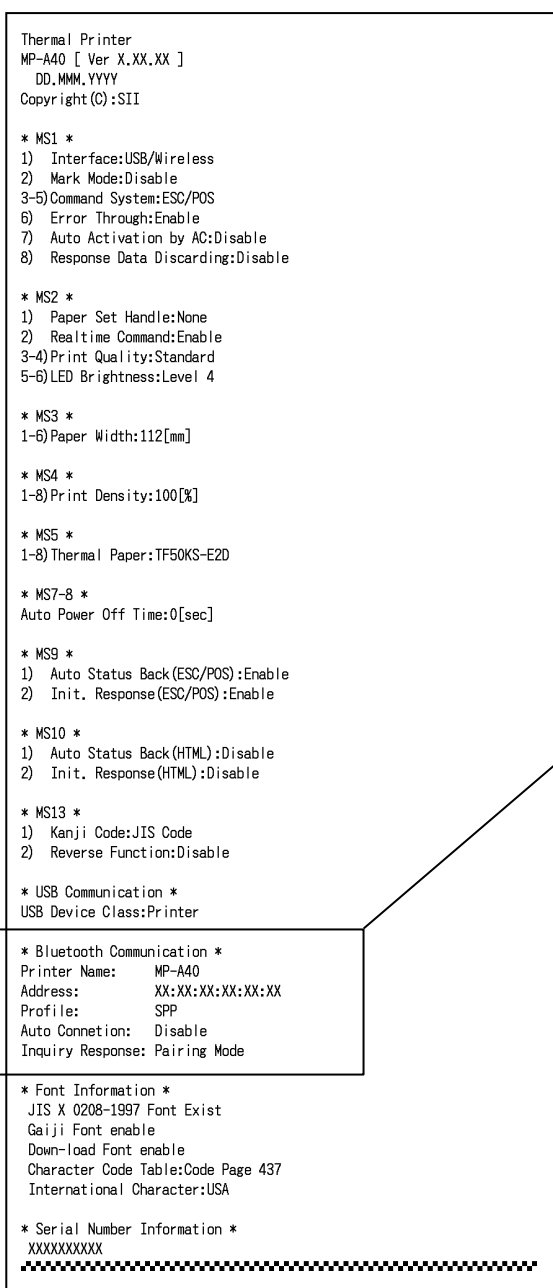
# 10. TEST PRINT

The printer has a test print function.

In test printing, firmware version and setting value of function setting, etc. are printed.

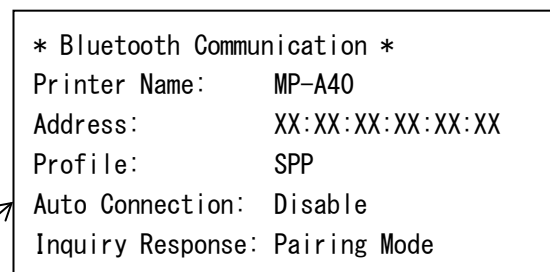
### ■ Test Print Procedure : Bluetooth Model

- (1) Set the thermal paper in the printer as instructed in "9 THERMAL PAPER SETTING". Check that no error occurs, and then turn off the printer.
- (2) Press the POWER Switch on while holding down the FEED Switch. Release the POWER Switch firstly. Test print starts, then release the FEED Switch.



**Figure 10-1**

**Test Print Sample (Bluetooth Model)**



**Figure 10-2**

**Bluetooth Information Printing Sample**

**Table 10-1  
Bluetooth Communication Information**

Item	Function
Printer Name	Bluetooth Device Name
Address	Bluetooth Address
Profile	Selected Profile
Auto Connection	iOS Auto Connection
Inquiry Response	Selected Searching Mode

- (3) After test printing, the mode selection message is printed as shown in the Figure 10-3.  
For returning to print-ready status, select "0 : Normal Mode". (Press the POWER Switch without pressing the FEED Switch.)  
For selecting other mode, press the FEED Switch for the number of times corresponding to the selected mode, and then press the POWER Switch.

```
[Mode Select]
0 : Normal Mode
1 : Setting Mode
2 : Wireless ON/OFF Mode
3 : Hex Dump Mode
Press the FEED switch an equal
number of times to the selected number.
After that, press the POWER SW.
```

**Figure 10-3 Mode Selection Message (Bluetooth Model)**

## ■ Test Print Procedure: Wireless LAN Model

- (1) Set the thermal paper in the printer as instructed in "9 THERMAL PAPER SETTING". Check that no error occurs, and then turn off the printer.
- (2) Press the POWER Switch on while holding down the FEED Switch. Release the POWER Switch firstly.  
Test print starts, then release the FEED Switch.

```
Thermal Printer
MP-A40 [ Ver X.XX.XX ]
  DD.MMM.YYYY
Copyright (C):SII

* MS1 *
1) Interface:USB/Wireless
2) Mark Mode:Disable
3-5) Command System:ESC/POS
6) Error Through:Enable
7) Auto Activation by AC:Disable
8) Response Data Discarding:Disable

* MS2 *
1) Paper Set Handle:None
2) Realtime Command:Enable
3-4) Print Quality:Standard
5-6) LED Brightness:Level 4

* MS3 *
1-6) Paper Width:112[mm]

* MS4 *
1-8) Print Density:100[%]

* MS5 *
1-8) Thermal Paper:TF50KS-E2D

* MS7-8 *
Auto Power Off Time:0[sec]

* MS9 *
1) Auto Status Back(ESC/POS):Enable
2) Init. Response(ESC/POS):Enable

* MS10 *
1) Auto Status Back(HTML):Disable
2) Init. Response(HTML):Disable

* MS13 *
1) Kanji Code:JIS Code
2) Reverse Function:Disable

* USB Communication *
USB Device Class:Printer

* Font Information *
JIS X 0208-1997 Font Exist
Gaiji Font enable
Down-load Font enable
Character Code Table:Code Page 437
International Character:USA

* Serial Number Information *
XXXXXXXXXX
XXXXXXXXXX
```

Figure 10-4 Test Print Sample (Wireless LAN Model)



- (3) After test printing, the mode selection message is printed as shown in the Figure 10-5. For printing Wireless LAN information, select "4 : Print WLAN Information". (Press the FEED Switch 4 times, after that press the POWER Switch.) Starts a preparation for printing Wireless LAN information.

```
[Mode Select]
0 : Normal Mode
1 : Setting Mode
2 : Wireless ON/OFF Mode
3 : Hex Dump Mode
4 : Print WLAN Information
Press the FEED switch an equal
number of times to the selected number.
After that, press the POWER SW.
```

**Figure 10-5 Mode Selection Message (Wireless LAN Model)**

- (4) It takes about 15 to 30 seconds to start printing Wireless LAN information. During this process, the Getting Wireless LAN information message is printed, wait for a while.

```
Getting WLAN information. Please wait...
```

**Figure 10-6 Getting Wireless LAN Information Message**

After getting Wireless LAN information, Wireless LAN information is printed as shown in the Figure 10-7 example.

```

* WLAN Communication *
Mode:           Simple AP
Radio:          802.11b/g/n
Country:        JP
Channle:        Auto
SSID:           SII-Printer
Security:       None
DHCP Server:   Enable
MAC Address:    XX:XX:XX:XX:XX:XX
IP Address:     192.168.0.1
Subnet Mask:    255.255.255.0
Gateway Addresss: 0.0.0.0
Module Ver. :   01.00.00
  
```

**Figure 10-7 Wireless LAN Information Sample**

**Table 10-2 Wireless LAN Communication Information**

Item	Function
Mode	Selected Wireless LAN Operation Mode
Radio	Selected Wireless LAN Standard
Country	US: USA, Canada JP: Japan EU: EU, EFTA, Turkey BR: Brazil
Channel	Selected Channel
SSID	SSID Setting
Security	Selected Security
DHCP Server	Selected DHCP Server (in Simple AP Mode)
DHCP Client	Selected DHCP Client Mode (in Client Mode)
MAC Address	MAC Address
IP Address	IP Address*
Subnet Mask	Subnet Mask*
Gateway Address	Gateway Address*

\*: When Wireless LAN Mode is set to Client Mode Setting, IP address, Subnet Mask and Gateway Address getting from DHCP Server is printed. While waiting for getting information from DHCP server, the information is printed like "---,---,---,---". In case of DHCP timeout, the Setting value is used and printed.

- (5) After the Wireless LAN information printing, the mode selection message is printed as shown in the Figure 10-5.  
For returning to print-ready status, select "0 : Normal Mode". (Press the POWER Switch without pressing the FEED Switch.)  
For selecting other mode, press the FEED Switch for the number of times corresponding to the selected mode, and then press the POWER Switch.

# 11. FUNCTION SETTING

It is possible to set various functions according to a use conditions and intended use.

The Function Setting of the printer is stored to the Memory Switch (hereinafter referred to as MS) in the FLASH memory which mounts in the printer, and it is possible to set by using the switch operation and command input.

In this section, the switch operation procedure is described below.  
See "22 MS SETTINGS LIST" for MS setting list.

## NOTE

- ◆ Be sure to set the directed value as "Fixed" according to 0 or 1 in the table.  
Otherwise, the printer may not work correctly or may crash.

## HINT

- See "MP-A40 SERIES THERMAL PRINTER TECHNICAL REFERENCE" for details of the function settings by the switch operation and other methods.
- When neither switch is pressed within 30 seconds, the printer exits the Function Setting mode, and returns to print-ready status.

## ■ Procedure of Function Setting using Switch Operation

The function setting using the switch operation the printer enters the Function Setting mode.  
To enter the Function Setting mode, follow the procedures below.

- (1) Set the thermal paper in the printer as instructed in "9 THERMAL PAPER SETTING".  
And check that no error occurs, and then turn off the printer.  
See "7 LED DISPLAY OF PRINTER" for error conditions.
- (2) Turn the POWER Switch on while holding down the FEED Switch. Release the POWER Switch firstly.  
Test print starts, then release the FEED Switch.
- (3) After test printing, the mode selection message is printed as shown in the Figure 11-1.  
To enter the Function Setting mode, select "1 : Setting Mode". (Press the FEED Switch 1 time, and then press the POWER Switch.)

```
[Mode Select]
0 : Normal Mode
1 : Setting Mode
2 : Wireless ON/OFF Mode
3 : Hex Dump Mode
4 : Print WLAN Information
Press the FEED switch an equal
number of times to the selected number.
After that, press the POWER SW.
```

- "4 : Print WLAN Information" is printed only for Wireless LAN model.
- When pressing the FEED Switch 1 time, "1 : Setting Mode" is selected.
- When pressing the POWER Switch without pressing the FEED Switch, "0 : Normal Mode" is selected.

**Figure 11-1 Mode Selection Message**

- (4) When the printer enters the Function Setting mode, a message for selecting MS to be set is printed as shown in the Figure 11-2.  
Press the FEED Switch for the number of times corresponding to the selected MS number, and then press the POWER Switch.

```
[MS Selection]
0 : Exit
1 : MS1
2 : MS2
3 : MS3
4 : MS4
5 : MS5
6 : MS7, 8
7 : MS9
8 : MS10
9 : MS13
10: I/F Setting
11: USB Setting
12: International Character
13: Character Code Table
14: Default Setting
Press the FEED switch an equal number of times to the selected
number. After that, press the POWER SW.
```

- When pressing the FEED Switch 1 time, "1 : MS1" is selected.
- When pressing the POWER Switch without pressing the FEED Switch, "0: Exit" is selected.
- "10: I/F Setting" is printed only for Bluetooth model. When setting Bluetooth connection, select this.

**Figure 11-2 MS Selection Message**

- (5) A message for selecting the functions allocated to the selected MS is printed as a sample shown in the Figure 11-3.  
Press the FEED Switch for the number of times corresponding to the selected function number, and then press the POWER Switch.

```
[Function selection of MS1]
0 : Return to MS selection
1 : Interface
2 : Mark Mode
3 : Command System
4 : Error Through
5 : Auto Activation by AC
6 : Response Data Discarding
Press the FEED switch an equal number of times to the selected
number. After that, press the POWER SW.
```

- When pressing the FEED Switch 3 times, "3 : Command System" is selected.
- When pressing the POWER Switch without pressing the FEED Switch, "0 : Return to MS Selection" is selected.

**Figure 11-3 Function Selection Message  
(Example: selected MS1)**

- (6) A message for selecting the setting value of the selected function is printed as a sample shown in the Figure 11-4.  
Press the FEED Switch for the number of times corresponding to the selected setting value number, and then press the POWER Switch.

```
[Command System]
0 : Return to function selection
1 : ESC/POS
2 : HTML
3 : CPCL
Press the FEED switch an equal number of times to the selected
number. After that, press the POWER SW.
```

- When pressing the FEED Switch 1 time, "1 : ESC/POS" is selected.

**Figure 11-4 Setting Value Selection Message  
(Example: Selected Command System)**

- (7) A message for confirming the selected setting value is printed as a sample shown in the Figure 11-5.

```
[Command System]
Set ESC/POS
Save setting : Feed SW
Discard setting : Power SW
```

**Figure 11-5 Setting Value Confirmation Message Sample  
(Example: Selected ESC/POS)**

To write the setting value to the memory, press the FEED Switch. MS Selection Message is printed as shown in the Figure 11-2.

To discard the selected item, press the POWER Switch. Function Selection Message is printed as a sample shown in the Figure 11-3. If select "0 Return to MS Selection", Function Selection is not performed, and Figure 11-2 MS Selection Message is printed. (Press the POWER Switch without pressing the FEED Switch.)

To continue to set functions, return to (4).

- (8) To exit the Function Setting mode, select "0 : Exit" in the Figure 11-2 MS Selection Message. (Press the POWER Switch without pressing the FEED Switch.)  
Test print and Figure 11-1 Mode Selection Message printing starts again. Verify that the function is set.

To return to the print-ready status, select "0 : Normal Mode" in Mode Selection Message. (Press the POWER Switch without pressing the FEED Switch.)

To set functions again, return to (3).

## 12. CONNECTING TO THE HOST DEVICE

The printer supports the USB and Bluetooth communication or Wireless LAN communication. Select Bluetooth model or Wireless model depending on the communication method.

- Bluetooth model (MP-A40-Bxxxxxx) : Bluetooth + USB
- Wireless LAN model (MP-A40-Wxxxxxx) : Wireless LAN + USB

The function setting of the printer differs depending on the communication method. See "MP-A40 SERIES THERMAL PRINTER TECHNICAL REFERENCE" for detail.

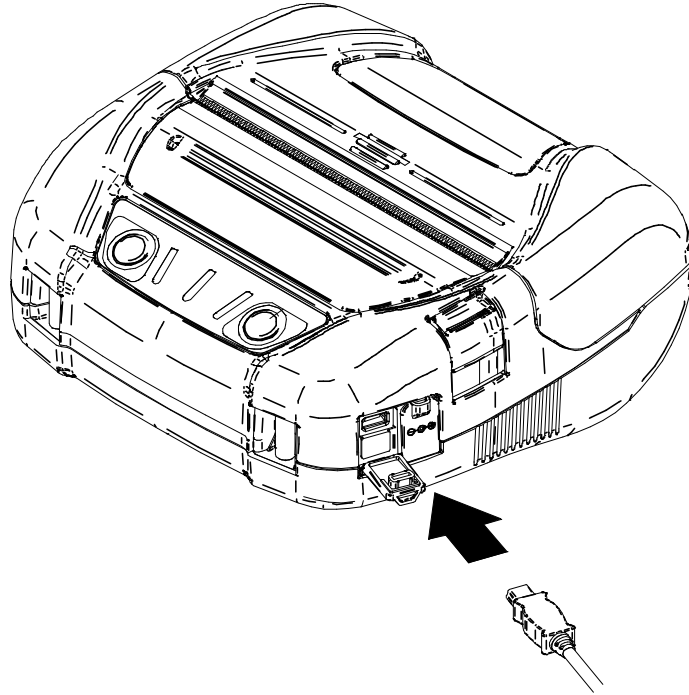
An optional USB interface cable is required to perform USB communication. See Section "20 SPECIFICATION" for details of the interface specifications.

The communication speed may be decreased depending on processing by software as well as print contents.

The wireless communication should be set to disable where it use is prohibited. For switching wireless on/off, press POWER Switch 3 times in 3 seconds when the power is on. The WIRELESS LED lights or blinks when the wireless communication is enabled. The WIRELESS LED turns off when the wireless communication is disabled.

## ■ USB Communication

- (1) Verify that the power of the printer is off.
- (2) Connect the USB interface cable to the USB interface connector of the printer.
- (3) Turn on the printer, and send data from the host device to the printer.
- (4) Verify that the data is printed correctly.



**Figure 12-1 Interface Cable for USB Communication**

### NOTE

- ◆ When connecting an USB interface cable to the USB interface connector, push the plug to the end.
- ◆ When connecting or disconnecting the interface cable, hold the connector, not the cable.



## ■ Bluetooth Communication

- (1) When the USB interface cable is connected to the printer, disconnect it from the printer.
- (2) Turn on the printer and pair with the host device.  
At the factory shipment, the printer becomes pairing mode for 60 seconds by pushing the power switch of the printer for 5 seconds or more. And then, WIRELESS LED blinks twice per one second. During this process, pair with the host device.  
The pairing is conducted by SSP (Simple Secure Pairing), however, PIN code is used when the host device does not support SSP. The default value of PIN code is "0000".
- (3) Conduct Bluetooth connection with the host device.  
After the Bluetooth connection is established, the WIRELESS LED lights.
- (4) Check the communication status from the host device.
- (5) Send data from the host device, and verify that the data is printed correctly.



### WARNING

- ◆ The printer may affect medical or other electronic devices. Obtain information and data concerning influence due to radio interference from the respective manufacturers or dealers.
- ◆ When using the printer in medical institutions, follow their guidelines.
- ◆ DO NOT use the printer in any area or district where its use is prohibited.

### HINT

- The distance of communication is approx. 10 m. However, the distance may differ depending on the radio interference and environment.
- When send data from iPhone or iPad by Bluetooth communication, "Profile" should be set to "iAP". When send data from Android or PC, "Profile" should be set to "SPP".
- The default setting is "SPP".
- For switching SPP / iAP, press the POWER Switch 5 times in 3 seconds when the power is on.

## ■ Wireless LAN Communication

- (1) When the USB interface cable is connected to the printer, disconnect it from the printer.
- (2) Turn on the printer and connect with the host device by wireless communication.  
At the factory shipment, the function settings are as follows:

Mode	: Simple AP (simple access point)
Communication Standard	: 802.11b/g/n (2.4GHz frequency range)
SSID	: SII-Printer
Security	: None
DHCP Server	: Enable
Printer IP address	: 192.168.0.1
- (3) View the page "http://192.168.0.1" from the Web browser.  
The printer setting screen is displayed, and set these values.  
These values are enabled after rebooting.
- (4) Check the communication status from the host device.
- (5) Send data from the host device, and verify that the data is printed correctly.



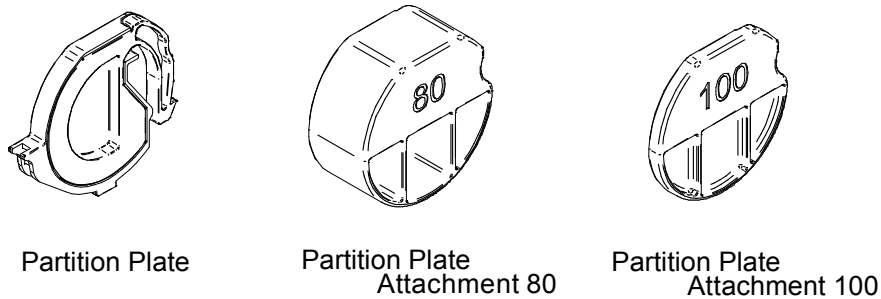
### WARNING

- ◆ The printer may affect medical or other electronic devices. Obtain information and data concerning influence due to radio interference from the respective manufacturers or dealers.
- ◆ When using the printer in medical institutions, follow their guidelines.
- ◆ DO NOT use the printer in any area or district where its use is prohibited.

# 13. PAPER WIDTH SETTING

This printer can be use 105mm, 100mm and 80mm thermal paper width by installing the attached partition plate and partition plate attachment.

The partition plate attachment (hereinafter referred to as attachment) has two types.

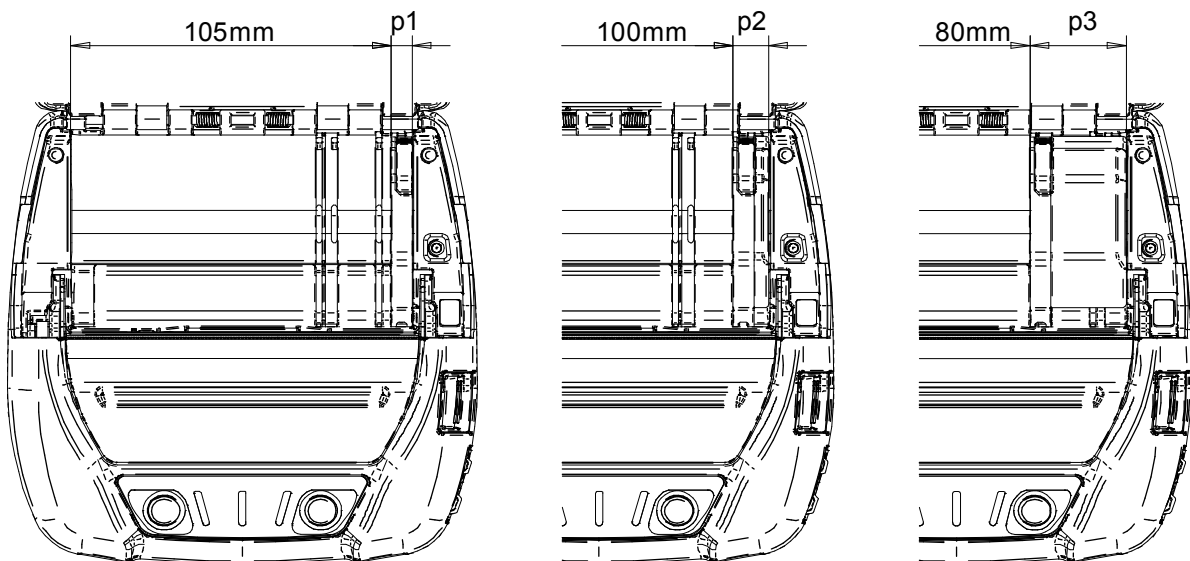


**Figure 13-1 Partition Plate and Attachments**

In accordance with the using thermal paper width, install the partition plate and each attachment to the printer. The Table 13-1 below shows the combination of the partition and attachment. Refer to the Figure 13-2 for confirm the partition plate and attachment installing position of each paper width.

**Table 13-1 Partition Plate and Attachment Combination List**

	Thermal Paper Width			
	112 mm	105 mm	100 mm	80 mm
Partition Plate	-	✓	✓	✓
Partition Plate Attachment 100	-	-	✓	-
Partition Plate Attachment 80	-	-	-	✓
Partition Plate Position (Figure 13-2)	-	p1	p2	p3

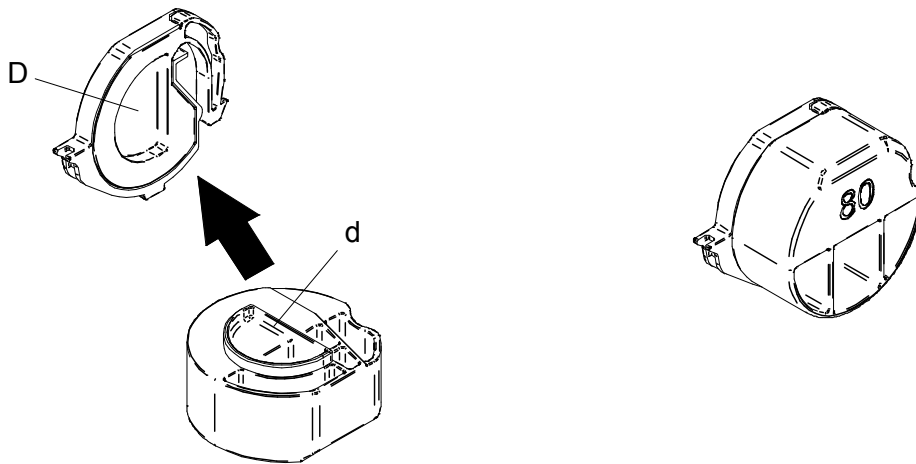


**Figure 13-2 Partition Plate and Attachment Position**

## ■ Installing Partition Plate

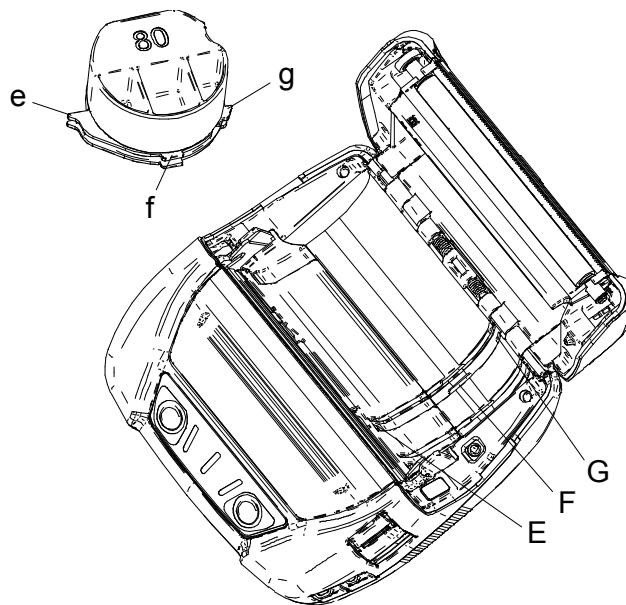
This section describes how to install the partition plate and attachment for using 80mm paper width.

- (1) Turn off the printer.
- (2) Remove the battery pack from the printer. When the AC adapter is connected, unplug the AC plug of the AC cable from an outlet.
- (3) Press the paper cover open button to open the paper cover.
- (4) Combine the portion of partition plate "D" with the portion of Attachment 80 "d" as shown in the Figure 13-3.



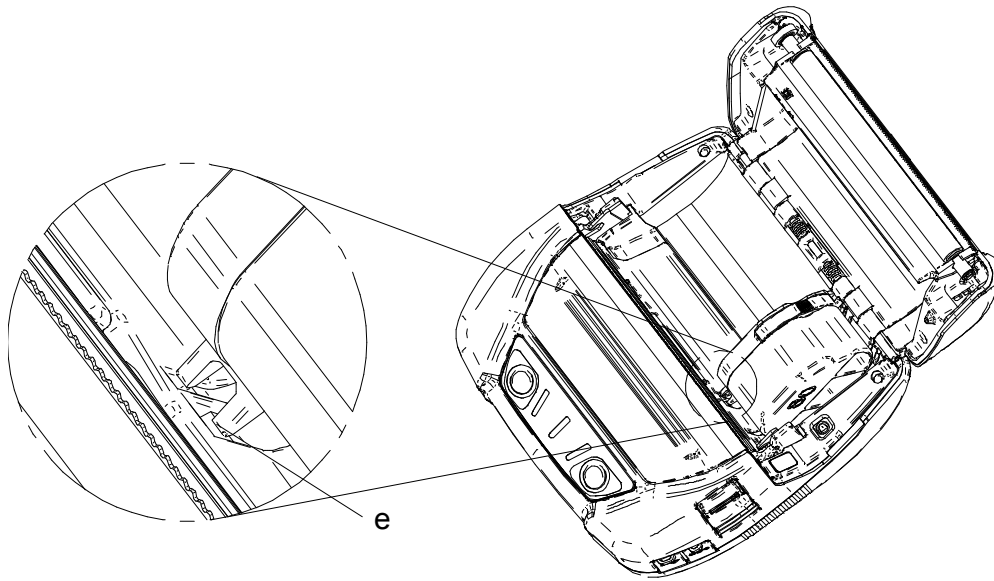
**Figure 13-3 Combining Partition Plate with Attachment**

- (5) Fix the tab of the partition plate "e", "f" and "g" to the groove of the printer "E", "F", and "G" by the following procedure 1 to 3.  
The printer has same-shaped grooves by each of the paper width.



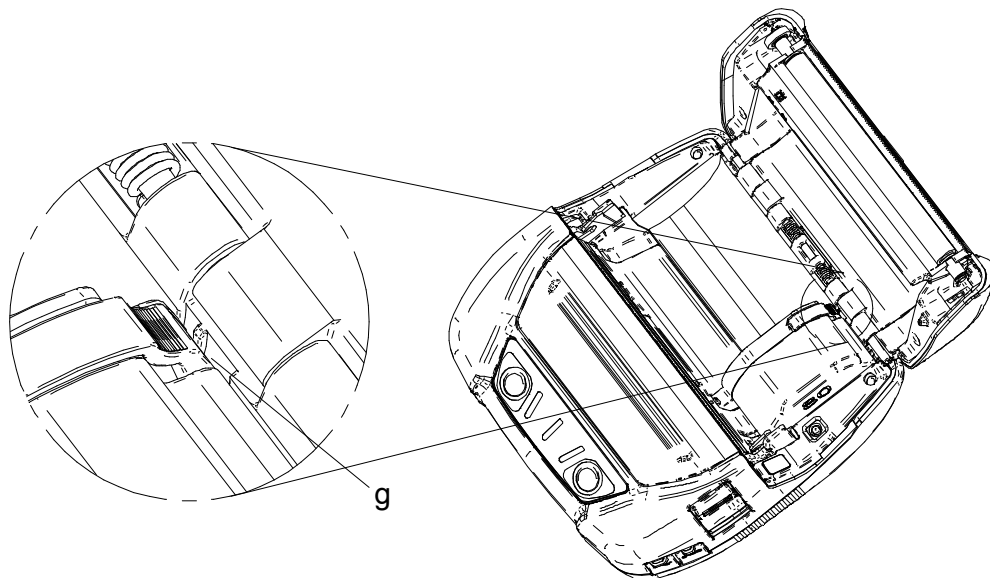
**Figure 13-4 Partition Plate Installation (1)**

1. Align the tab of the partition plate "e" to the groove of the printer "E" as shown in the Figure 13-5.



**Figure 13-5 Partition Plate Installation (2)**

2. Rotate the partition plate clockwise with the tab "e" as a supporting point, and set the tab "f" into the groove of the printer "F".
3. Push the tab of the partition plate "g" into the groove of the printer "G" until the partition plate has been locked as shown in the Figure 13-6.



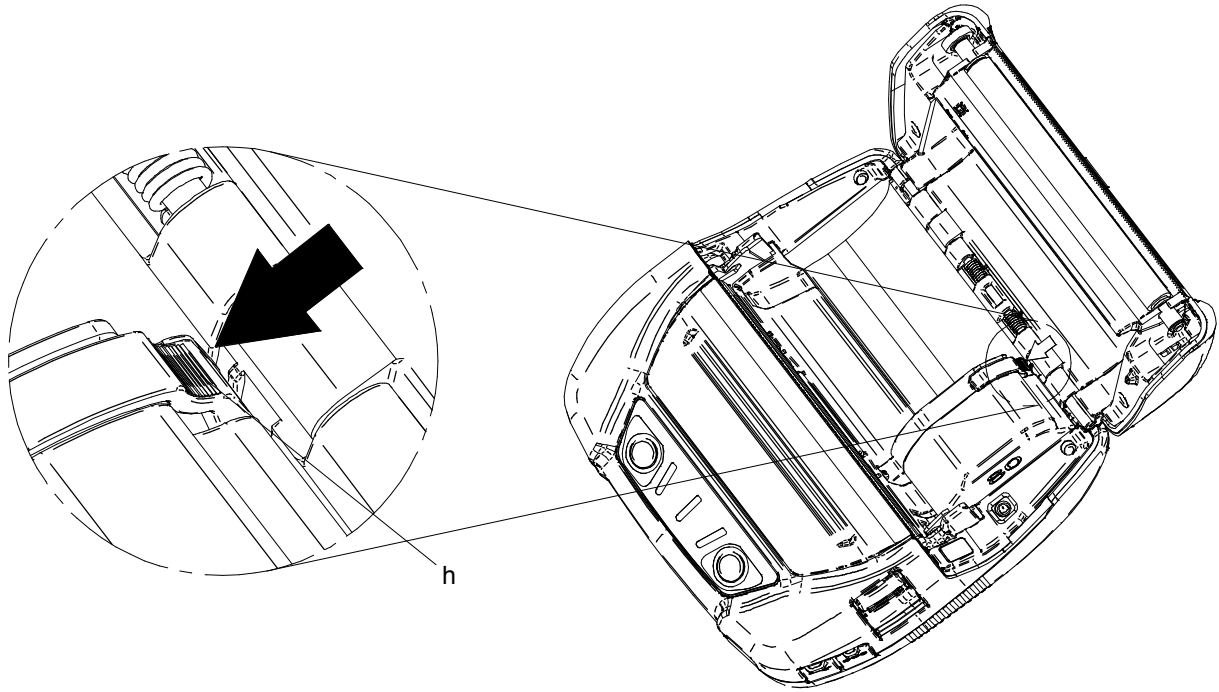
**Figure 13-6 Partition Plate Installation (3)**

- (6) Make sure that the partition plate is installed securely into the printer.
  - See the tab "e" fixed to the groove "E"
  - See the tab "f" fixed the groove "F"
  - See the tab "g" fixed to the groove "G"
- (7) When change paper width size by the partition plate, set the General Setting 3 (MS3) in the Function Setting to select the paper width size.  
See "4.2 Details of MS Function" in "MP-A40 SERIES THERMAL PRINTER TECHNICAL REFERENCE" for details.

## ■ Removing Partition Plate

Follow the below procedure to remove the partition plate from the printer.

- (1) Pull up the portion of the partition plate "h" with pressing in the direction of the arrow as shown in the figure below.



**Figure 13-7 Partition Plate Removing**

### NOTE

- ◆ The printer has two paper cutters on the paper outlet: one is on the printer side, and the other is on the paper cover side. When installing / removing the partition plate, be careful not to cut your fingers by the paper cutter.
- ◆ Set the paper width before using the printer for the first time. DO NOT change the paper width after starting to use the printer. Doing so may damage the printer.
- ◆ When the smaller than 112mm width thermal paper is used with the partition plate, rubber crumbs of the platen may be generated because the platen contacts with the thermal head. Remove rubber crumbs regularly to maintain printing quality.

## 14. INSTALLING BELT CLIP/SHOULDER STRAP

This printer can attach the belt clip and shoulder strap for useful for mobile.

The belt clip is included with the printer.

The shoulder strap is optional accessories. See "21 ACCESSORIES AND CONSUMABLE PARTS", and be sure to purchase our specified product listed on these references.

### ■ Installing Belt Clip

- (1) Turn off the printer.
- (2) Remove the battery pack from the printer.  
When the AC adapter is connected, disconnect the AC plug of AC cable from an outlet.
- (3) Install the portion of the belt clip "j" to the portion of the printer "J" in the direction of the arrow as shown in the Figure 14-1.  
The belt clip cannot be installed in wrong direction.

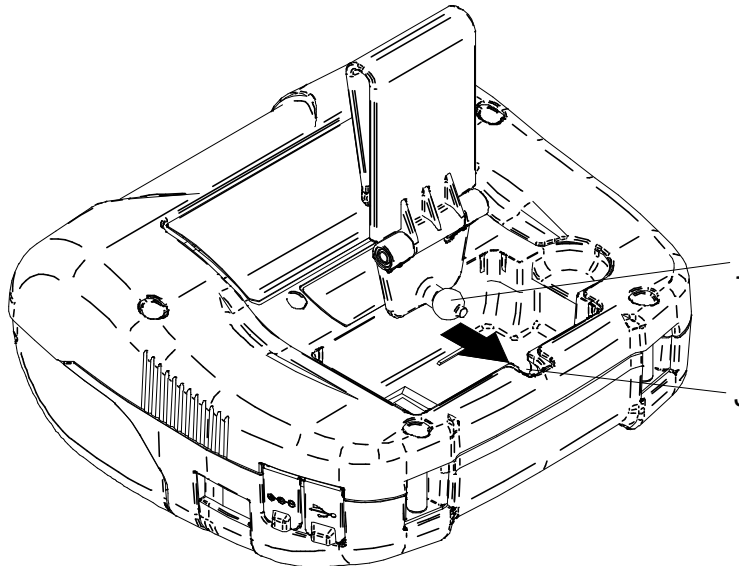
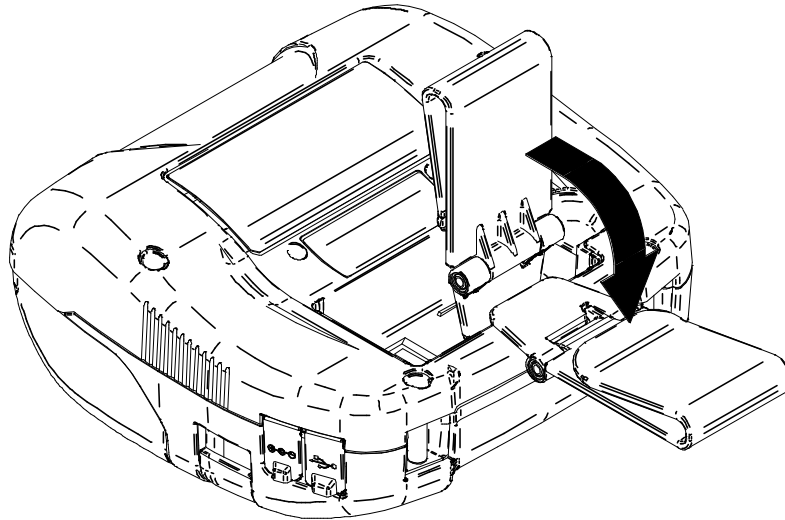


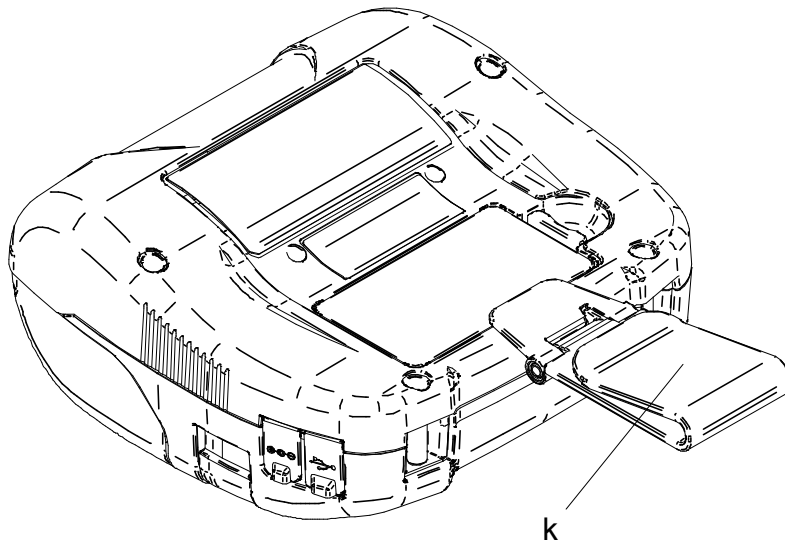
Figure 14-1 Belt Clip Installation (1)

- (4) Rotate the belt clip 90 degrees to the right.



**Figure 14-2 Belt Clip Installation (2)**

- (5) Insert the battery pack in the printer.  
(6) Hook the portion of the belt clip "k" as shown in the Figure 14-3 to your belt.



**Figure 14-3 Belt Clip Installation (3)**

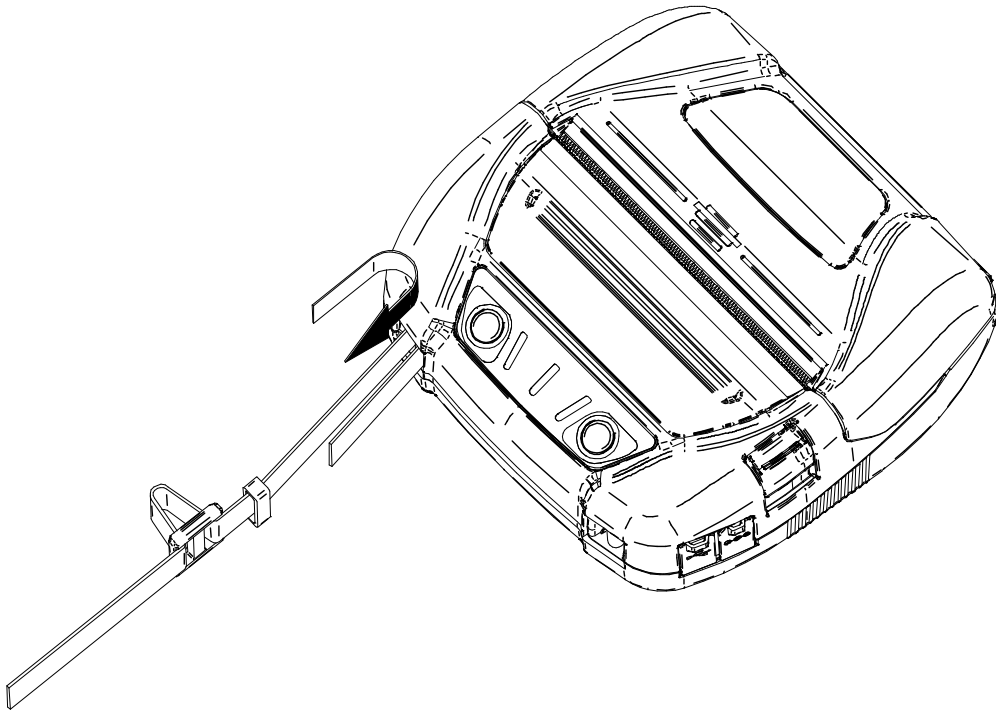
**NOTE**

- ◆ Be sure to install the battery pack to the printer when using the belt clip because the belt clip comes off too easily from the printer without installing the battery pack. Dropped printer may cause personal injury or malfunction.
- ◆ Avoid the direct skin contact with the battery pack while using the belt clip. Prolonged skin contact may cause low-temperature burns.



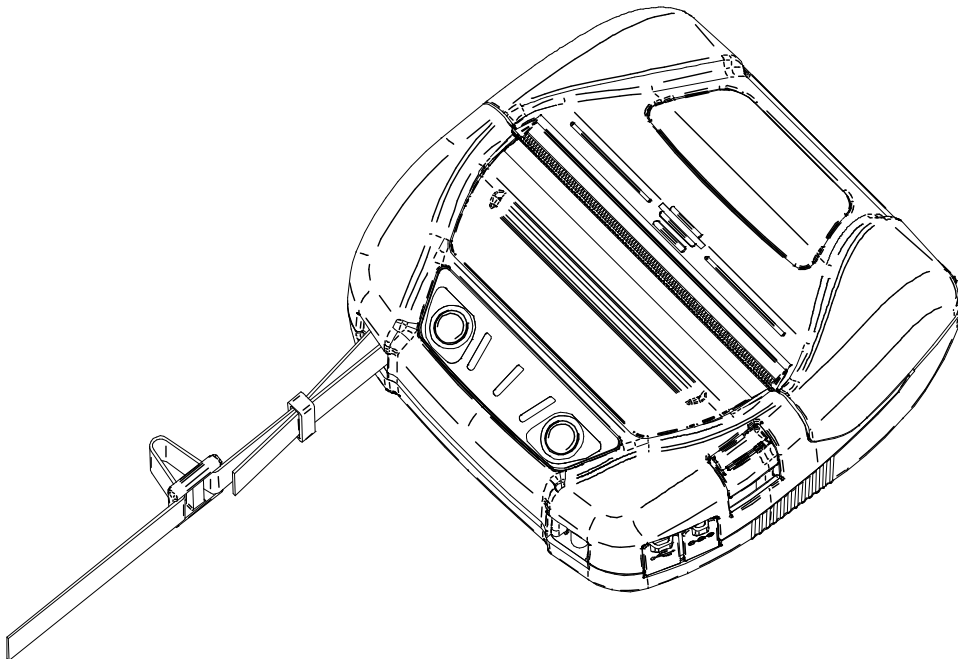
## ■ Installing Shoulder Strap

- (1) Pass the tip of shoulder strap through its installing portion of the printer as shown in the Figure 14-4. Loosen the shoulder strap of adjuster part.



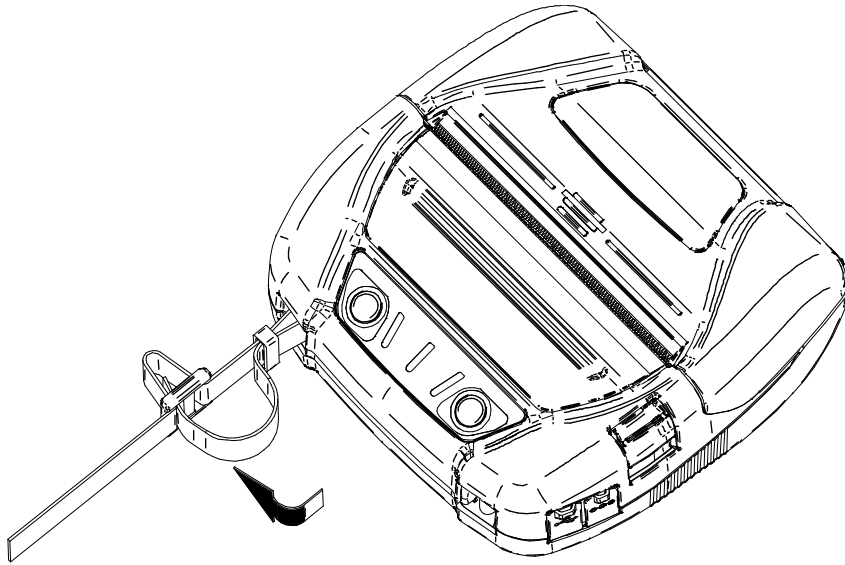
**Figure 14-4 Shoulder Strap Installation (1)**

- (2) Pass the tip of folded shoulder strap through the ring as shown in the Figure 14-5.



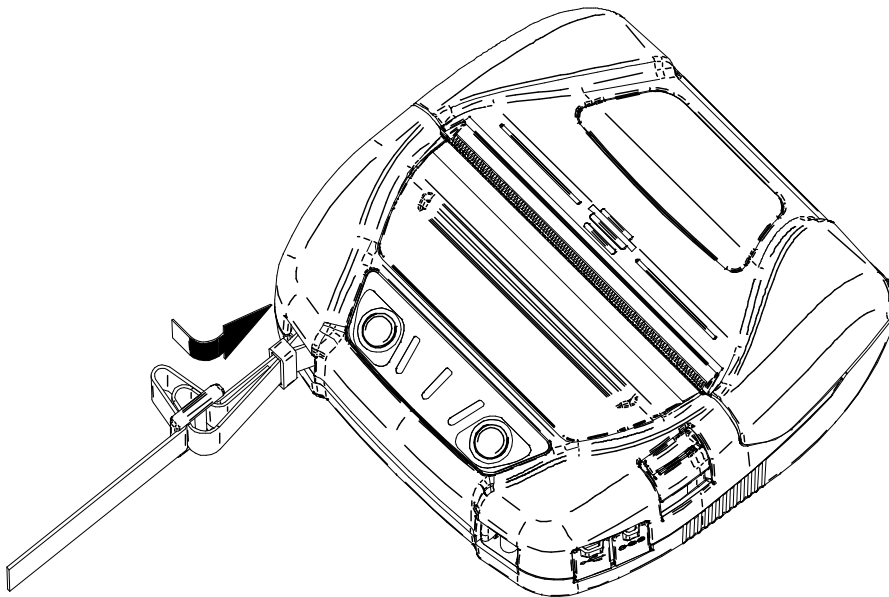
**Figure 14-5 Shoulder Strap Installation (2)**

- (3) As shown in the Figure 14-6, pass the tip of shoulder strap through the adjuster hole on farther side from the printer.



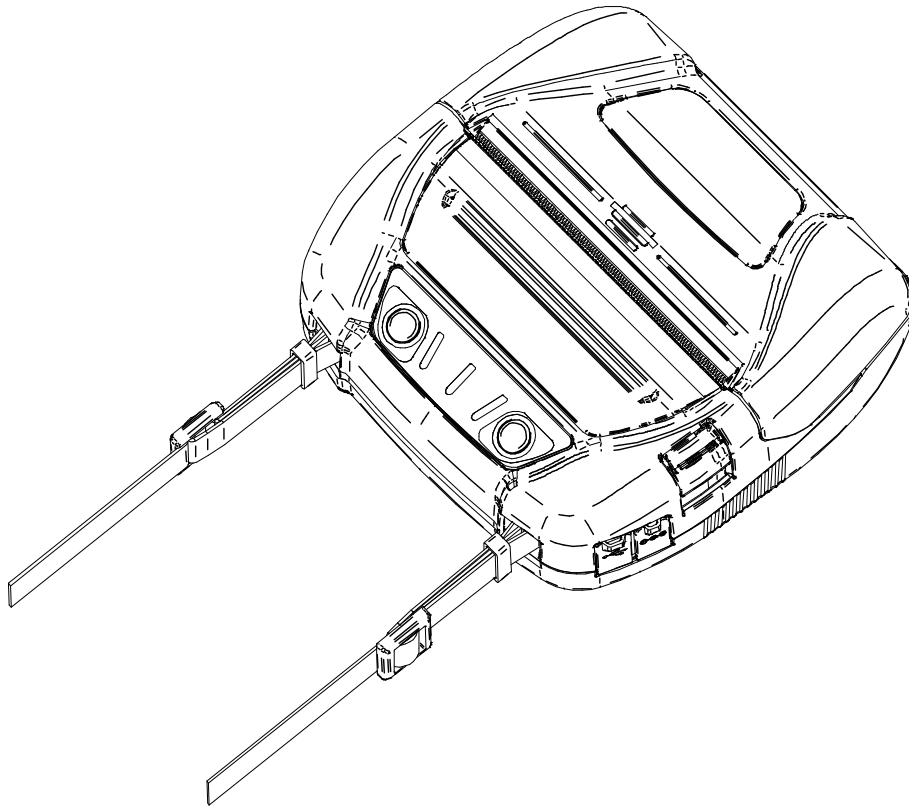
**Figure 14-6 Shoulder Strap Installation (3)**

- (4) As shown in the Figure 14-7, pass the tip of shoulder strap through the adjuster hole on closer side from the printer.  
And then, pass the tip of shoulder strap through the ring again.



**Figure 14-7 Shoulder Strap Installation (4)**

- (5) As shown in the Figure 17-8, install the other side of shoulder strap by the same procedures described (1) to (4).  
And tighten the looseness of adjuster part and adjust the length of the shoulder strap.



**Figure 14-8 Shoulder Strap Installation (5)**

**NOTE**

- ◆ Be sure to hold the shoulder strap to the printer when using the shoulder strap. Dropped printer may cause personal injury or malfunction.
- ◆ Avoid the direct skin contact with the battery pack while using the shoulder strap. Prolonged skin contact may cause low-temperature burns.

# 15. CHARGING BATTERY PACK

The battery pack can be charged using the printer or battery charger.

## **By the Printer**

1. Charged from an AC power supply using the AC adapter.
2. Charged from an accessory socket of a car using the car charger.

## **By the Battery Charger**

3. Charged from an AC power supply using the AC adapter.

This chapter describes the charging method using AC adapter from an AC power supply by the printer. The AC adapter requires the specified AC cable.

Be sure to see "16 CHARGING BY CAR CHARGER" for charging method by using the car charger.

And be sure to see "17 CHARGING BY BATTERY CHARGER" for charging method by using the battery charger.

The battery pack is partially charged prior to shipping, and provides sufficient power to check the printer operation. To use the printer for an extended time, fully charge the battery pack.

This battery pack does not need to be used up or discharged before charging.

The battery pack, AC adapter and AC cable are optional accessories.

See "20 SPECIFICATION" and "21 ACCESSORIES AND CONSUMABLE PARTS", and be sure to purchase our specified products listed on these references.

### NOTE

- ◆ DO NOT remove the battery during recharging.
- ◆ The battery pack should be recharged at 32 to 104°F (0 to 40°C).

## ■ Charging by Printer and AC Adapter

There are two methods for charging the battery pack using the printer and AC adapter.

- Normal charging : Start to charge regardless a battery remaining capacity.
- Long life charging : Repeating to charge and discharge the battery pack with enough battery remaining capacity may accelerate the battery pack deterioration.  
To prevent this, start to charge when a battery remaining capacity falls down battery level 2 or less.

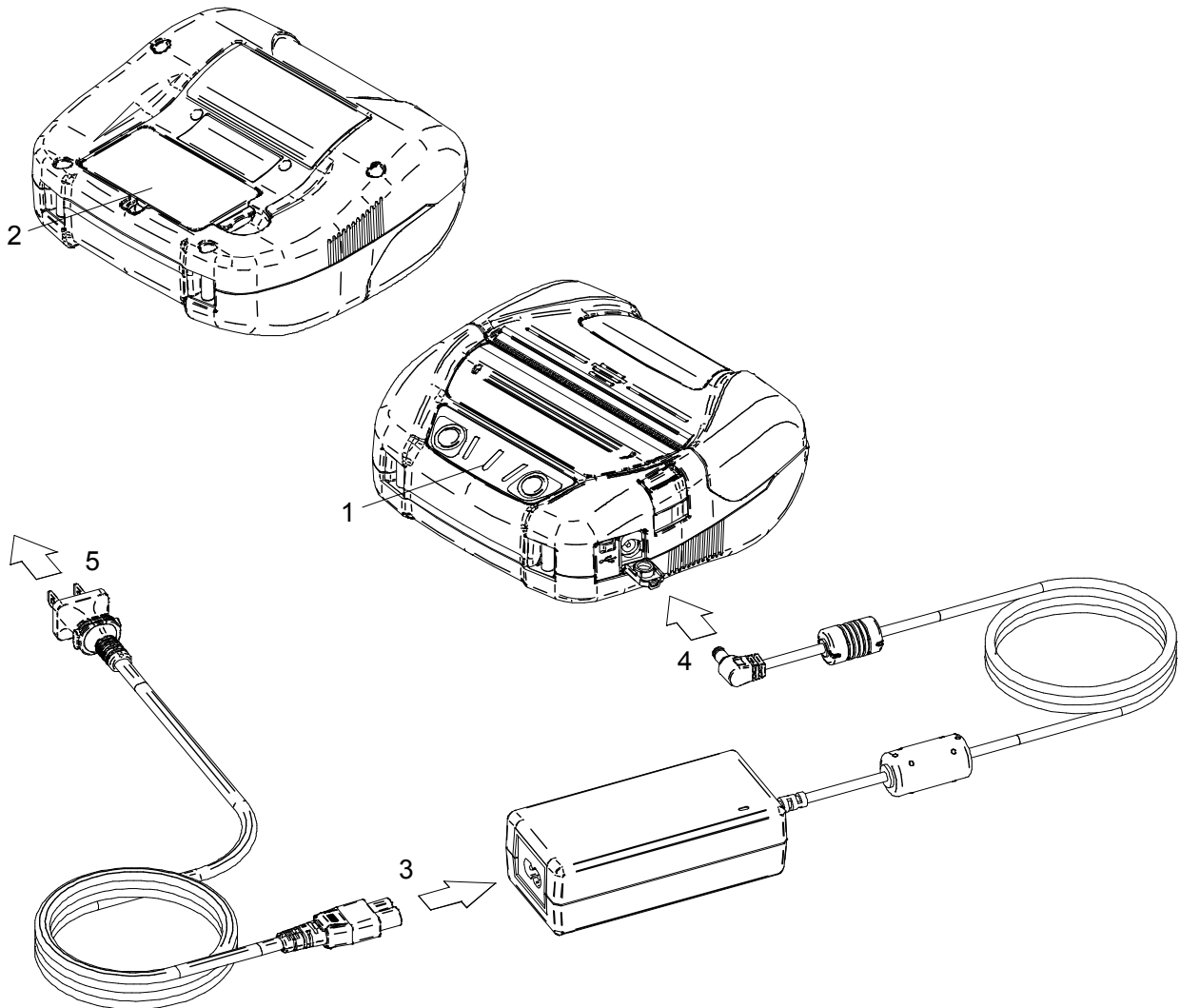
For the battery remaining capacity and the error status, see "7 LED DISPLAY OF PRINTER".

Select the charging method depending on the procedure.

## **Normal Charging**

Before connecting to the AC adapter, install the battery pack to the printer.

- (1) Verify that the printer power is off.
- (2) Install the battery pack to the printer.
- (3) Connect the AC adapter to the AC cable.
- (4) Plug the DC plug of the AC adapter to the power connector of the printer.
- (5) Plug the AC plug of the AC cable to an outlet.
- (6) The printer turns on automatically.  
After POWER LED displays the battery remaining capacity for approximate 3 seconds, POWER LED changes to orange, and then charging starts.  
During charging, POWER LED lights on orange.
- (7) When the charging is successfully complete to full charge, the power is shut off automatically.  
In case that the battery error occurs during charging, ERROR LED displays the error status.  
When it happens, the power is not shut off automatically.

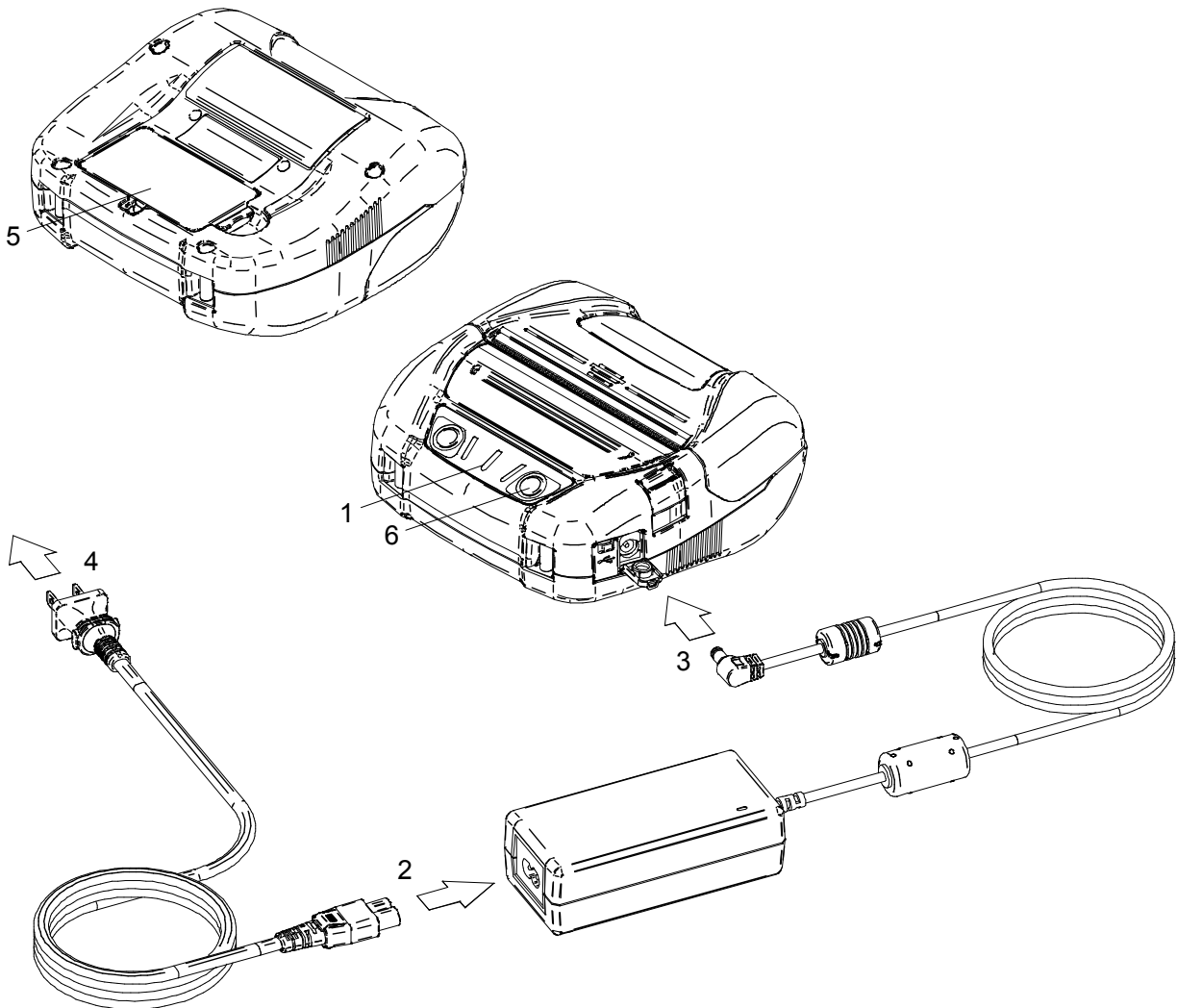


**Figure 15-1 Normal Charging by AC adapter**

## **Long Life Charging**

After connecting to the AC adapter, install the battery pack to the printer.  
When the battery pack has installed already, remove it from the printer.

- (1) Verify that the printer power is off.
- (2) Connect the AC adapter to the AC cable.
- (3) Plug the DC plug of the AC adapter to the power connector of the printer.
- (4) Plug the AC plug of the AC cable to an outlet.
- (5) Install the battery pack to the printer.
- (6) Turn on the printer.  
After POWER LED displays the battery remaining capacity for approximate 3 seconds, POWER LED turns orange and charging starts when the battery remaining capacity is battery level 2 or less.  
When the battery remaining capacity is battery level 1, POWER LED stays to display the battery remaining capacity, and charging does not start.  
During charging, POWER LED lights on orange.
- (7) When the charging is successfully complete to full charge, POWER LED turns to green.  
The power is not shut off automatically.  
In case that the battery error occurs during charging, ERROR LED displays the error status.



**Figure 15-2 Long Life Charging by AC adapter**

## HINT

- The printer can print or receive data while charging by the printer and AC adapter. During printing, POWER LED displays the battery remaining capacity continuously and the printer pauses to charge. After printing is completed, the printer restarts charging, and the light of POWER LED changes to orange. In case that the printer performs printing or receiving data during the normal charging, the power is not shut off automatically.
- To stop charging, press the power switch. To charge the battery pack again, press the power switch again. In case of the long life charging, when the battery remaining capacity is recovered to battery level 1 at the time of restart of charging, the charging is stopped.
- In case of restarting charging the above procedure during the normal charging, the charging method is changed to the long life charging, and therefore the power is not shut off automatically. To restart the normal charging, turn off the printer, unplug the AC plug of the AC adapter from an outlet, and plug it again.
- The charging time depends on the ambient temperature and the voltage level of the battery pack. Normally, it takes about 4 hours to charge after running down a battery pack.
- The AC adapter may get hot when in use. This is normal and not a malfunction.

## 16. CHARGING BY CAR CHARGER

Using the car charger, a car accessory socket can be connected with the printer, and the battery pack can be charged.

The car charger is only for charging. Even if the car charger is connected to the printer, the printer cannot print without the battery pack.

Charging the battery pack by the car charger is possible while a car engine is running or in accessory position. Check the car battery remaining capacity is sufficient before using the car charger in accessory position.

The battery pack and the car charger are optional accessories. See "20 SPECIFICATION" and "21 ACCESSORIES AND CONSUMABLE PARTS", and be sure to purchase our specified products listed on these references.

### NOTE

- ◆ DO NOT remove the battery pack during recharging.
- ◆ DO NOT connect the battery charger to the car charger.
- ◆ The battery pack should be recharged at 32 to 104°F (0 to 40°C).
- ◆ After using the car charger, unplug the cigar plug from a car accessory socket.
- ◆ DO NOT print out during a vehicle driving. Ejected thermal paper may hinder a vehicle driving.



## ■ Each Part of Car Charger

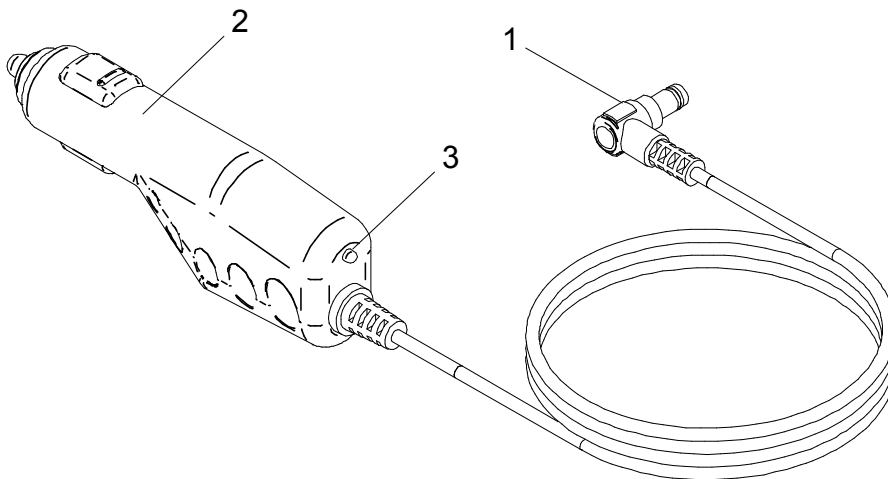


Figure 16-1 Each Part of Car Charger (CC-A12-A1)

### 1 DC Plug

---

The DC plug connects to the power connector.

### 2 Cigar Plug

---

The cigar plug connects to a car accessory socket.

### 3 LED

---

The LED displays activate state.

The LED lights on green when a car engine is running or in accessory position.

## ■ Charging by Printer and Car Charger

There are two methods for charging the battery pack using the printer and the car charger.

- Normal charging : Start to charge regardless a battery remaining capacity.
- Long life charging : Repeating to charge and discharge the battery pack with enough battery remaining capacity may accelerate the battery pack deterioration.  
To prevent this, start to charge when a battery remaining capacity falls down battery level 2 or less.

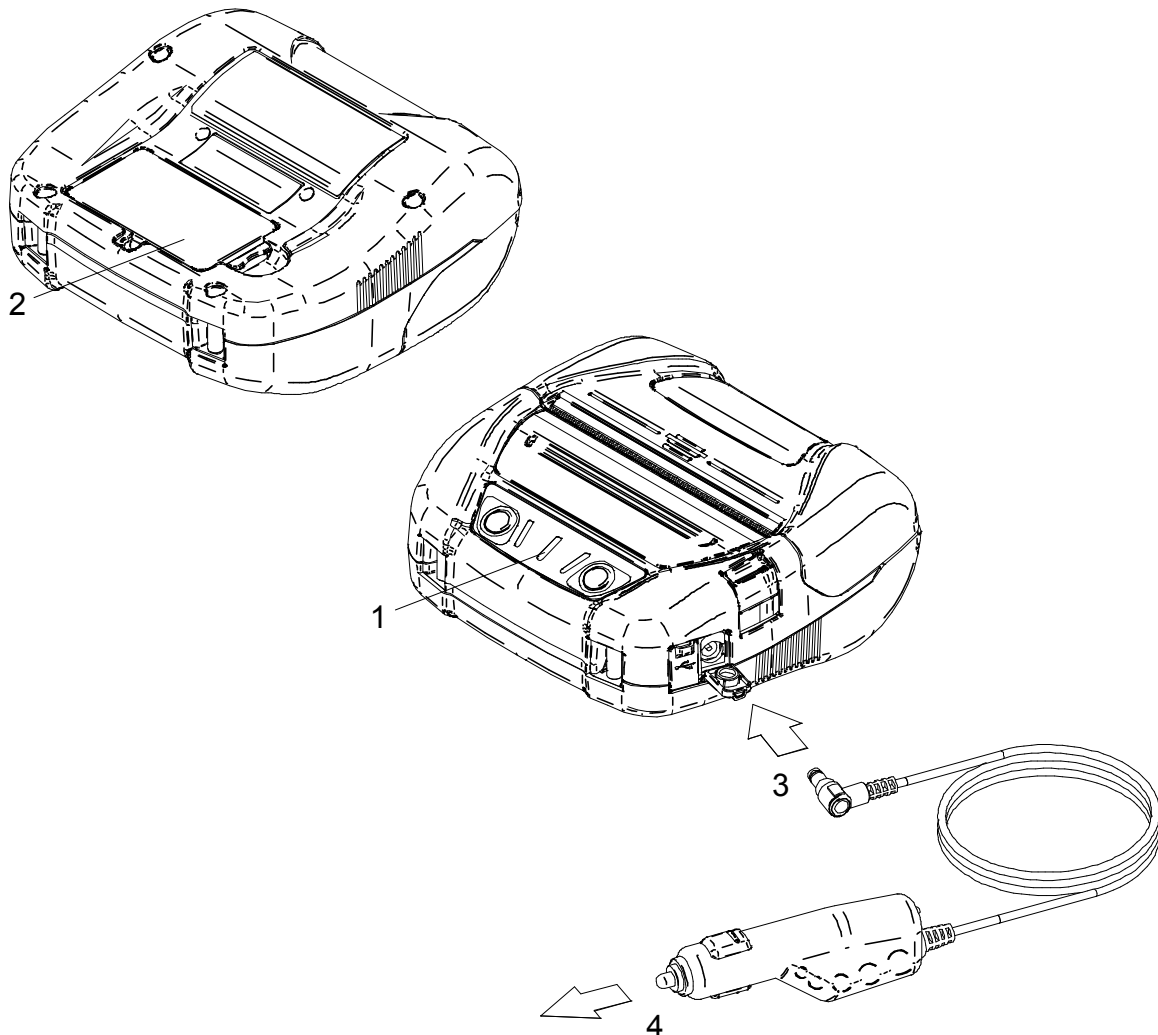
For the battery remaining capacity and the error status, see "7 LED DISPLAY OF PRINTER".

Select the charging method depending on the procedure.

## **Normal Charging**

Before connecting to the car charger, install the battery pack to the printer.  
Verify that a car engine is running or in an accessory position.

- (1) Verify that the printer power is off.
- (2) Install the battery pack to the printer.
- (3) Connect the power connector of the printer to the DC plug of the car charger.
- (4) Plug the cigar plug of the car charger to a car accessory socket.
- (5) The printer turns on automatically.  
After POWER LED displays the battery remaining capacity for approximate 3 seconds, POWER LED changes to orange, and then charging starts.  
During charging, POWER LED lights on orange.
- (6) When the charging is successfully complete to full charge, the power is shut off automatically.  
In case that the battery error occurs during charging, ERROR LED displays the error status.  
When it happens, the power is not shut off automatically.

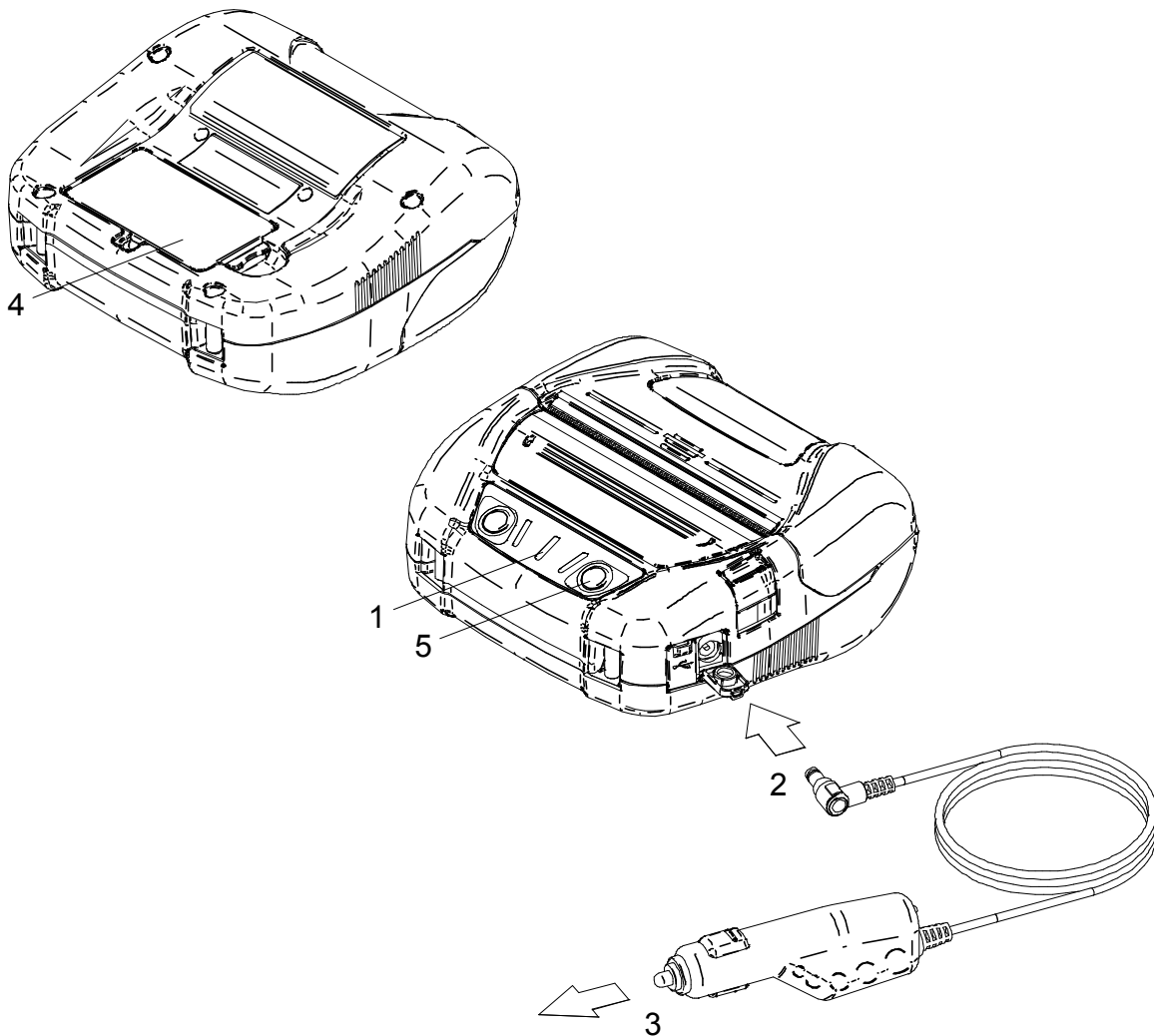


**Figure 16-2 Normal Charging by Car Charger**

## **Long Life Charging**

After connecting to the car charger, install the battery pack to the printer.  
When the battery pack has already installed, remove it from the printer.  
Verify that a car engine is running or in an accessory position.

- (1) Verify that the printer power is off.
- (2) Connect the power connector of the printer to the DC plug of the car charger.
- (3) Plug the cigar plug of the car charger to a car accessory socket.
- (4) Install the battery pack to the printer.
- (5) Turn on the printer.  
After POWER LED displays the battery remaining capacity for approximate 3 seconds, POWER LED turns orange and charging starts when the battery remaining capacity is battery level 2 or less.  
When the battery remaining capacity is battery level 1, POWER LED stays to display the battery remaining capacity, and charging does not start.  
During charging, POWER LED lights on orange.
- (6) When the charging is successfully complete to full charge, the light of POWER LED turns to green.  
The power is not shut off automatically.  
In case that the battery error occurs during charging, ERROR LED displays the error status.



**Figure 16-3 Long Life Charging by Car Charger**

## HINT

- The printer can print or receive data while charging by the printer and car charger. But note that the power for operating the printer is supplied from the battery. During printing, POWER LED displays the battery remaining capacity continuously and the printer pauses to charge. After printing is completed, the printer restarts charging, the light of POWER LED changes to orange. In case that the printer performs printing or receiving data during normal charging, the power is not shut off automatically.
- To stop charging, press the power switch. To charge the battery pack again, press the power switch again. In case of the long life charging, when the battery remaining capacity is recovered to battery level 1 at the time of restart of charging, the charging is stopped.
- In case of restarting charging the above procedure during the normal charging, the charging method is changed to the long life charging, and therefore the power is not shut off automatically. To restart the normal charging, turn off the printer, unplug the cigar plug from a car accessory socket, and plug it again.
- The charging time depends on the ambient temperature and the voltage level of the battery pack. Normally, it takes about 4 hours to charge after running down a battery pack.
- The car charger may get hot when in use. This is normal and not a malfunction.

# 17. CHARGING BY BATTERY CHARGER

Using the battery charger, the battery pack can be charged.

To use the battery charger, the AC adapter and AC cable are required.

The battery pack, the AC adapter, the AC cable and the battery charger are optional accessories. See "20 SPECIFICATION" and "21 ACCESSORIES AND CONSUMABLE PARTS", and be sure to purchase our specified products listed on these references.

There are two specified battery charger; one is "PWC-A071-A1" that can charge 1 battery pack, and the other is quad battery charger "PWC-A074-A1" that can charge maximum 4 battery packs.

## NOTE

- ◆ The battery pack should be recharged at 32 to 104°F (0 to 40°C).
- ◆ Keep the terminal of the battery charger away from dust and metal objects.
- ◆ DO NOT install the battery pack when installing / removing the AC adapter.
- ◆ After using the battery charger, unplug the AC cable from an outlet.
- ◆ Remove the battery pack after charging.
- ◆ DO NOT connect the car charger to the battery charger.

## ■ Each Part of Battery Charger

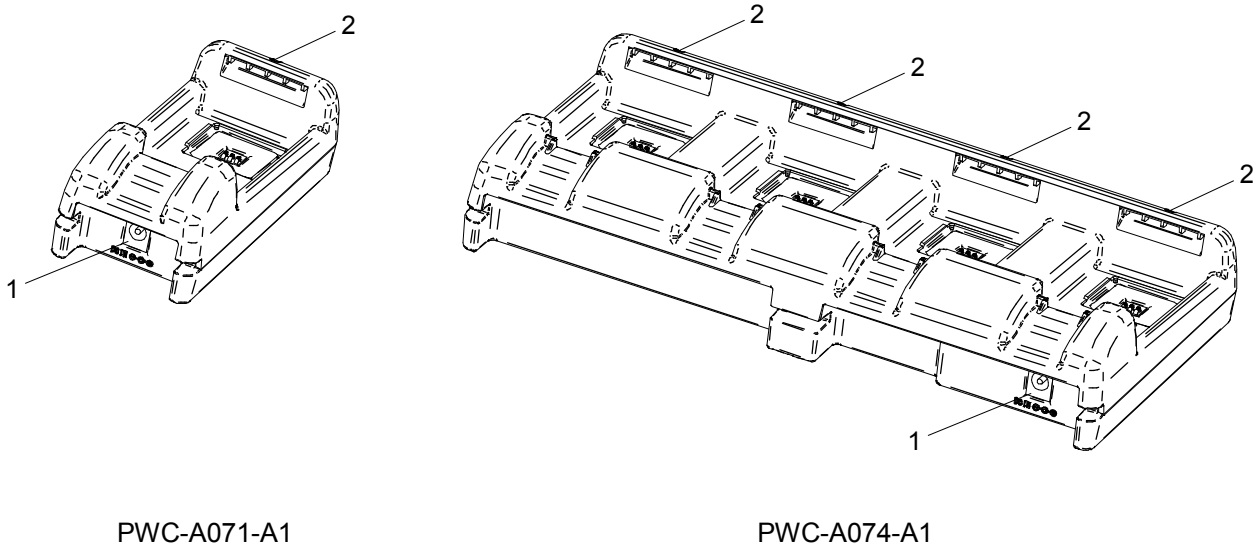


Figure 17-1 Each Part of Battery Charger

### 1 Power Connector

The power connector connects to the DC plug of AC adapter.

### 2 LED

The LED displays activate state.

## ■ LED Display of Battery Charger

**Table 17-1 Battery Pack Status**

Battery Pack Status	LED	
	Color	Lighting Pattern
Not installed	Green	On
Charging completed	Green	On
Charging	Orange	On
Charging battery temperature error	Red	Blink-2
Battery installation error	Red	Blink-3
Battery error	Red	Blink-4
Hardware error	Red	On

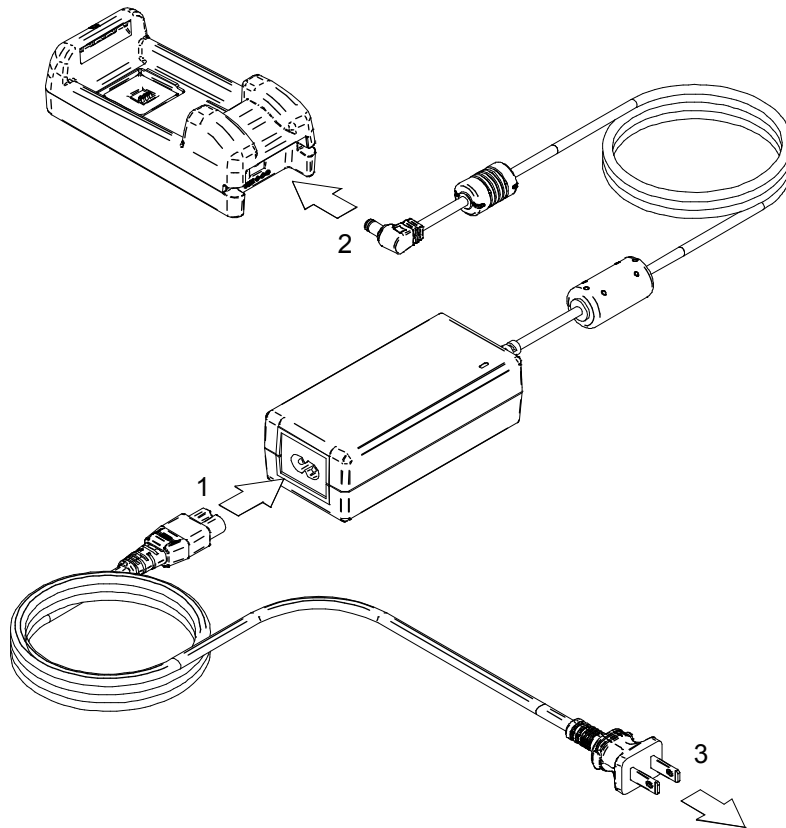
**Table 17-2 Blink Pattern**

Status	Pattern
Blink-2	
Blink-3	
Blink-4	

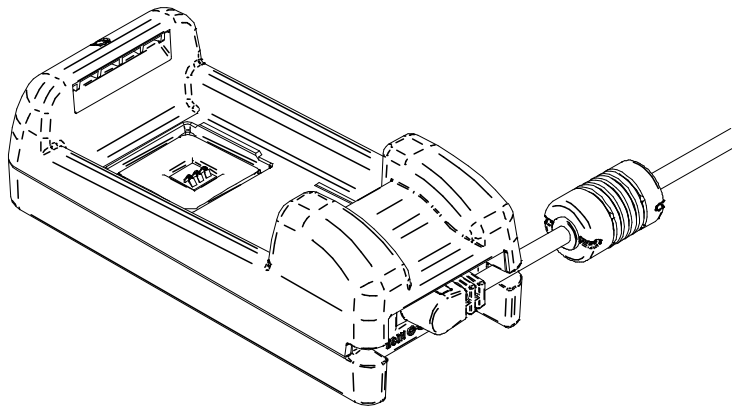
## ■ Connecting the Battery Charger to the AC adapter

This section describes how to connect the battery charger PWC-A071-A1 to the AC adapter. When the battery pack has already installed, remove it from the battery charger.

- (1) Connect the AC cable to the AC adapter.
- (2) Plug the DC plug of AC adapter to the power connector of the battery charger.  
Fix the cable of the AC adapter to the groove of the battery charger as shown in the Figure 17-3.  
(The cable can be fixed on either the left or right groove.)
- (3) Plug the AC plug of the AC cable to an outlet.  
The LED of the battery charger changes from off to green.



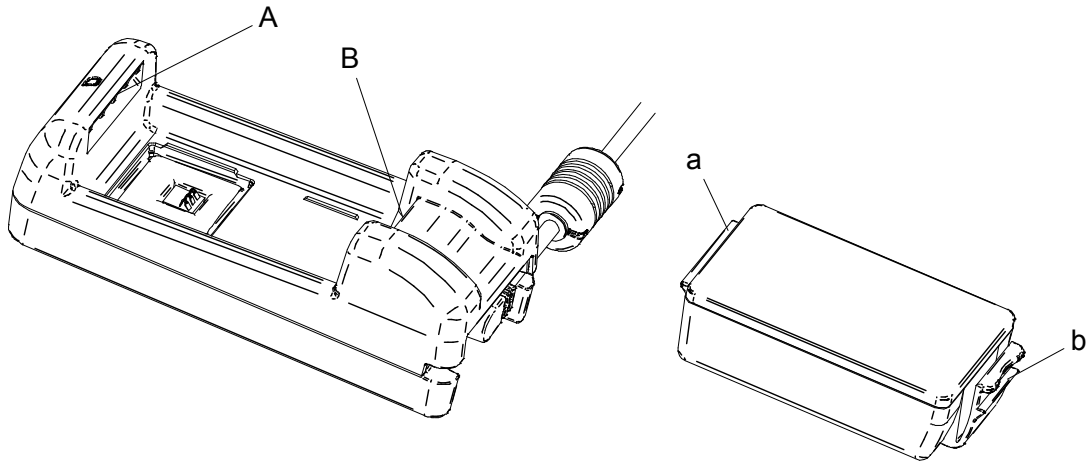
**Figure 17-2 Battery Charger and AC Adapter Connection**



**Figure 17-3 Fixing AC Cable**

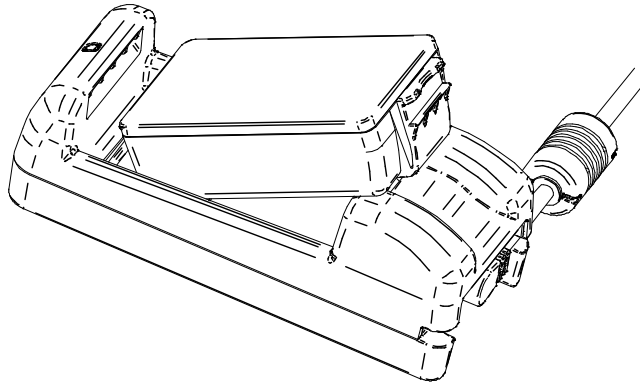
## ■ Charging Battery Pack by Battery Charger

This section describes how to charge the battery pack by the battery charger PWC-A071-A1. The battery pack is installed to the battery charger in the direction as shown in the Figure 17-4. The battery pack cannot be inserted in the wrong direction.



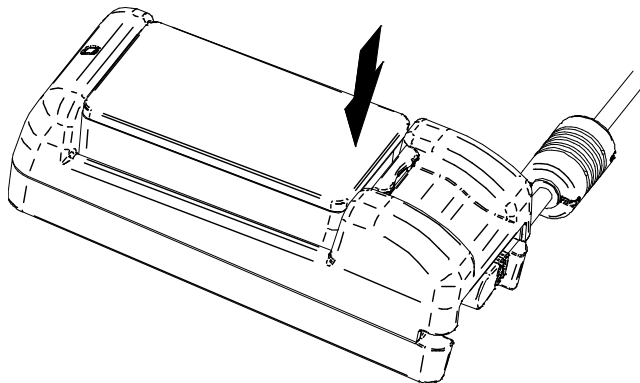
**Figure 17-4 Battery Pack Direction**

- (1) Insert the tab of battery pack "a" under the groove of battery charger "A"



**Figure 17-5 Battery Pack Installation (1)**

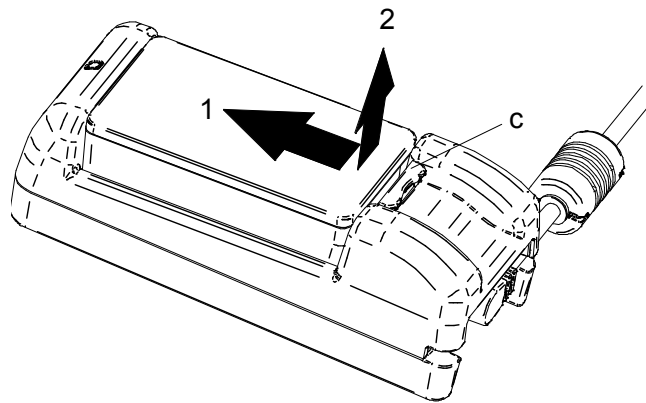
- (2) Press the battery pack until the tab of the battery pack "b" locks into the groove of the battery charger "B" as shown by arrow in the Figure 17-6.



**Figure 17-6 Battery Pack Installation (2)**



- (3) Verify that the battery pack is installed to the battery charger correctly.
- See the tab of the battery pack "a" is inserted under the groove of the battery charger "A".
  - See the tab of the battery pack "b" is locked into the groove of the battery charger "B".
- (4) The LED of battery charger changes to orange, and then charging starts.  
During charging, POWER LED lights on orange.  
When LED doesn't turn orange, install the battery pack again.  
In case LED doesn't turn to orange even if the battery pack is installed again, take action in accordance with "■Error Handling Procedures".
- (5) When charging is completed, the LED of battery charger changes to green.  
Press the lever of the battery pack "c" to the direction of the arrow 1 in the Figure 17-7, and remove it by pulling up to the direction of the arrow 2.  
It is not a problem to remove the battery pack during charging.  
In case that the battery installation error or the battery error occurs during charging, LED starts to blink in red.  
When it happens, take action in accordance with "■Error Handling Procedures".



**Figure 17-7 Battery Pack Removing from Battery Charger**

**HINT**

- The charging time depends on the ambient temperature and the voltage level of the battery pack. Normally, using the battery charger "PWC-A071-A1", it takes about 4 hours to charge after running down a battery pack. Using the quad battery charger "PWC-A074-A1", it takes about 5 hours.
- The battery charger and AC adapter may get hot when in use. This is normal and is not a malfunction.

## ■ Error Handling Procedure

**Table 17-3 Error Handling Procedure**

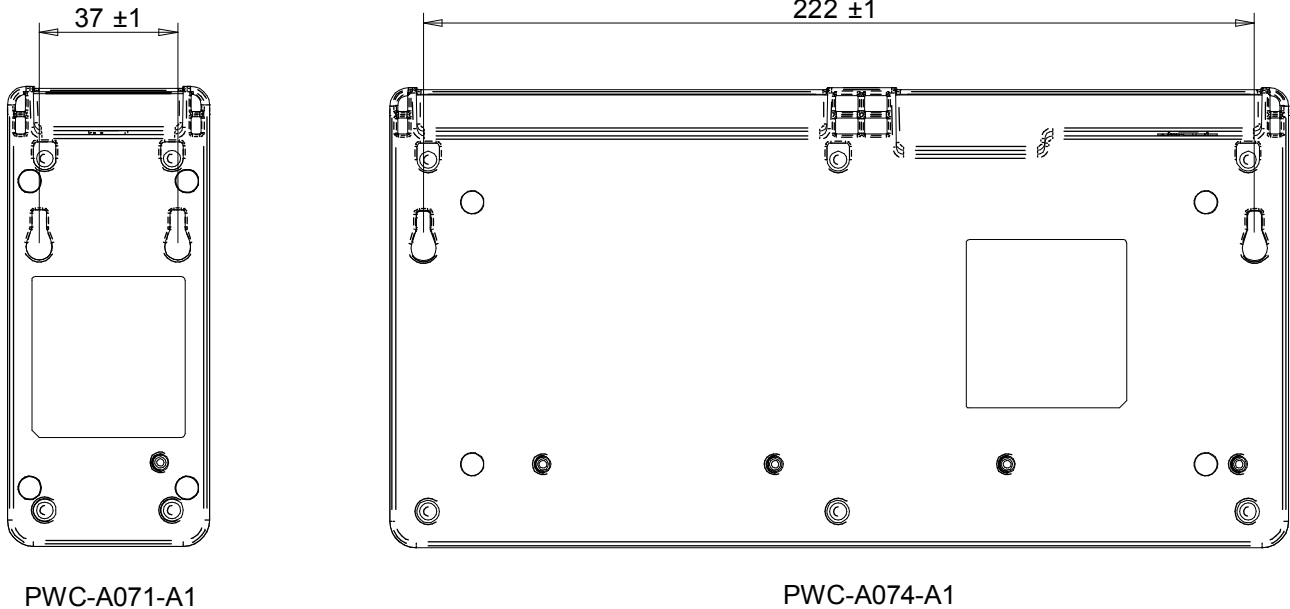
Phenomenon	Possible Cause	Corrective Action
LED doesn't light	The battery charger doesn't connect to the power supply	Certainly connect the battery charger to the AC adapter and AC cable to receive the power.
	The AC adapter is failed or AC cable is broken.	Change the AC adapter or AC cable to a new one.
	The battery charger is failed	Change the battery charger to new one.
LED displays other than green lighting without the battery pack	The battery charger is failed	Change the battery charger to new one.
LED displays charging battery temperature error	The battery pack temperature becomes outside the range of operating temperature (charging).	The printer is automatically started charging when the battery temperature becomes inside operating temperature (charging). Wait for a while in the place where ambient temperature is 32°F to 104°F (0°C to 40°C).
LED displays battery installation error	The battery pack is installed in the wrong direction	Install the battery pack again.
	Contact failure of a terminal of battery pack	Remove the battery pack from the battery charger, clean the terminal, and install again.
	Battery pack is failed	Change the battery pack to a new one.
LED displays battery error	Battery pack is failed	Change the battery pack to a new one.
LED displays hardware error	The battery charger or AC adapter is failed	Change the battery charger or AC adapter to a new one.

## ■ Mounting to Wall

This battery charger can be mounted to a wall with using the bottom hole as shown in the Figure 17-8.

- Recommended screw: pan head screw 3mm  
(head shape:  $\phi$  5.5mm, head size: 2mm)

### **Mounting Size**



**Figure 17-8 Bottom of Battery Charger**

#### NOTE

- ◆ Check the place and the material/structure of the wall, and then install the printer securely. Injury or destruction of property might occur by dropping off.

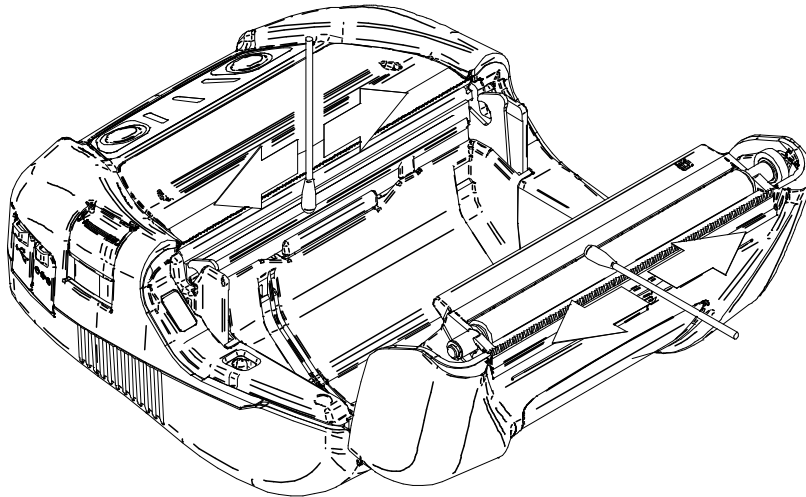
## 18. PRINTER MAINTENANCE

The thermal head of the printer does not require user maintenance.

When paper powder accumulates, clean the thermal head to maintain maximum print quality for an extended period of time.

### ■ Cleaning Thermal Head/Platen

- (1) Turn off the printer.
- (2) Remove the battery pack from the printer.  
When the AC adapter is connected, unplug the AC plug of the AC cable from an outlet.
- (3) Open the paper cover.
- (4) Clean the thermal head, the platen, or the rubber feet with a cotton swab moistened with a small amount of ethyl alcohol. (See the Figure 18-1.)



**Figure 18-1 Thermal Head / Platen Cleaning**

- (5) Wait until any ethyl alcohol remaining on the thermal head and the platen evaporates completely, and then close the paper cover.

#### NOTE

- ◆ Clean the thermal head after it cools down.
- ◆ Wipe the thermal head with a cotton swab or other soft material.
- ◆ The printer has two paper cutters on the paper outlet: one is on the printer side, and the other is on the paper cover side. Be careful not to cut your fingers by the paper cutter.
- ◆ DO NOT touch the gear of the platen. Doing so may cause loss of printing quality or damage.

## 19. TROUBLESHOOTING

Check the following points before requesting for repair:

### ■ The power does not turn on

- Is specified battery pack or AC adapter being used?
- Is the battery pack sufficiently charged?
- Is the battery pack installed correctly?
- Are the AC cable and AC adapter connected correctly?
- Is the AC adapter connected to the printer correctly?

### ■ The printer does not print or connect

- Is the interface cable connected correctly?
- Is the specifications of interface cable conformed to its specifications of this manual being used?
- Are used communication method and the function setting of the printer correct?
- Is Bluetooth / Wireless LAN communication status normal?
- Is the communication condition between the printer and the host device correct?
- Is specified thermal paper being used? Is the paper orientation (surface/back) correct?

### ■ An error is displayed

- See "7 LED DISPLAY OF PRINTER".
- Is the Function Setting of the printer correct?

### ■ The battery pack does not installed

- Is the battery pack correctly oriented?
- Is the specified battery pack being used?

### ■ The battery runs out soon even if charged

- Has the battery been charged correctly?
- If the battery pack is charged correctly, but does not last for a long time, it is almost dead. Replace it with a new one.

## 20. SPECIFICATION

### ■ Printer Specifications

Item	Specification																								
Model	MP-A40-B06JK1 (Bluetooth Model) MP-A40-W06JK1 (Wireless LAN Model)																								
Printing method	Thermal printing																								
Dot density	8 dots/mm																								
Paper width/Printing width (Number of effective dots)	80 mm / 72 mm (576 dots) 100 mm / 92 mm (736 dots) 105 mm / 97 mm (776 dots) 112 mm / 104 mm (832 dots)																								
Number of characters per line <sup>*1</sup>	<table border="0"> <tr> <td>Paper width 80 mm:</td> <td>24 dots × 12 dots</td> <td>48 digits</td> </tr> <tr> <td></td> <td>16 dots × 8 dots</td> <td>72 digits</td> </tr> <tr> <td>Paper width 100 mm:</td> <td>24 dots × 12 dots</td> <td>61 digits</td> </tr> <tr> <td></td> <td>16 dots × 8 dots</td> <td>92 digits</td> </tr> <tr> <td>Paper width 105 mm:</td> <td>24 dots × 12 dots</td> <td>64 digits</td> </tr> <tr> <td></td> <td>16 dots × 8 dots</td> <td>97 digits</td> </tr> <tr> <td>Paper width 112 mm:</td> <td>24 dots × 12 dots</td> <td>69 digits</td> </tr> <tr> <td></td> <td>16 dots × 8 dots</td> <td>104 digits</td> </tr> </table>	Paper width 80 mm:	24 dots × 12 dots	48 digits		16 dots × 8 dots	72 digits	Paper width 100 mm:	24 dots × 12 dots	61 digits		16 dots × 8 dots	92 digits	Paper width 105 mm:	24 dots × 12 dots	64 digits		16 dots × 8 dots	97 digits	Paper width 112 mm:	24 dots × 12 dots	69 digits		16 dots × 8 dots	104 digits
Paper width 80 mm:	24 dots × 12 dots	48 digits																							
	16 dots × 8 dots	72 digits																							
Paper width 100 mm:	24 dots × 12 dots	61 digits																							
	16 dots × 8 dots	92 digits																							
Paper width 105 mm:	24 dots × 12 dots	64 digits																							
	16 dots × 8 dots	97 digits																							
Paper width 112 mm:	24 dots × 12 dots	69 digits																							
	16 dots × 8 dots	104 digits																							
Character size (H × W)	1-byte: H 24 dots × W 12 dots, H 16 dots × W 8 dots 2-byte: H 24 dots × W 24 dots, H 16 dots × W 16 dots																								
Printing speed	105 mm/s max.																								
Operating temperature	-4°F to 122°F (-20°C to 50°C)																								
Relative humidity <sup>*2</sup>	10%RH to 90%RH																								
Dimensions (W × D × H)	156 × 152 × 71 mm																								
Mass	Approx. 760 g (including the battery pack, excluding the thermal paper)																								
Falling resistance	2 m (6.6 feet) <sup>*3</sup>																								
Dust and drip proof	IP54 <sup>*3</sup>																								

\*1: 1-byte character, character spacing is 0 dots.

\*2: Refer to the "MP-A40 SERIES THERMAL PRINTER TECHNICAL REFERENCE" for the allowable humidity range at each temperature.

\*3: This number is test result based on SII procedures, not guaranteed value.

### ■ Specified AC Adapter Specifications

(Accessories)

Item	Specification
Model	PW-D0940-W2
Input voltage	AC100 V to 240 V, 50/60 Hz
Rated output	DC 9.0 V, 4 A
Operating temperature	32°F to 104°F (0°C to 40°C)
Dimensions (W × D × H)	53 × 114 × 37 mm*
Mass	Approx. 318 g

\*: Excluding cable.

**■ Specified Battery Pack Specifications****(Accessories)**

Item	Specification
Model	BP-A0720-A1
Battery	Lithium ion
Rated voltage	DC 7.4 V
Rated capacity	1950 mAh
Operating temperature	-4°F to 122°F (-20°C to 50°C) (printing) 32°F to 104°F ( 0°C to 40°C) (charging)
Mass	Approx. 119 g

**■ Specified Battery Charger Specifications****(Accessories)**

Item	Specification
Model	PWC-A071-A1
Input voltage	DC 9.0 V
Specified battery	BP-A0720-A1
Operating temperature	32°F to 104°F (0°C to 40°C)
Dimensions (W × D × H)	54 × 123 × 41.3 mm
Mass	Approx. 82 g

**■ Specified Quad Battery Charger Specifications****(Accessories)**

Item	Specification
Model	PWC-A074-A1
Input voltage	DC 9.0 V
Specified battery	BP-A0720-A1
Operating temperature	32°F to 104°F (0°C to 40°C)
Dimensions (W × D × H)	240 × 123 × 41.3 mm
Mass	Approx. 304 g

**■ Specified Car Charger Specifications****(Accessories)**

Item	Specification
Model	CC-A12-A1
Input voltage	DC 12.0 V, DC 24.0 V
Rated output	DC 12.0 V, 1.5 A
Operating temperature	32°F to 104°F (0°C to 40°C)
Dimensions (W × D × H)	107 × 38 × 20.4 mm*
Mass	Approx. 70 g

\*: Excluding cable.

## ■ Interface Specifications

### USB interface specifications

Item	Specification
Version	Ver. 2.0
Printer data transmission mode	Bulk transfer (12 Mbps)

### Bluetooth interface specifications

Item	Specification
Version	Ver. 4.1
Transmission power class	Class 2
Profile	SPP, iAP2

### Wireless LAN interface specifications

Item	Specification
Communication Standard	802.11b/g/n, 802.11a/n
Network Configuration	Infrastructure
Station type	Access Point (Simple AP mode), Client (Client mode)
Certification/ encryption	Open, WEP, WPA-PSK, WPA2-PSK, EAP-TTLS*, PEAP*

\*: Client mode only



## ■ Countries in Which the Product Is Intended to Be Sold

The printer is intended to be sold in the countries listed below.

Countries <sup>*1</sup>	MP-A40 (Bluetooth model)	MP-A40 <sup>*2</sup> (Wireless LAN model)
Japan	MP-A40-B06JK1	MP-A40-W06JK1J
USA, Canada		MP-A40-W06JK1U
EU, EFTA		MP-A40-W06JK1E
Turkey		
Brazil		MP-A40-W06JK1B

\*1: Ask your SII sales representative when you want to operate the products in other countries than listed above.

\*2: The model differs from country to country.

These specified accessories are intended to be sold in the countries listed below.

✓: Countries in which the product is intended to be sold

Countries <sup>*1</sup>	BP-A0720-A1 (Battery pack)	PW-D0940-W2 <sup>*2</sup> (AC adapter)	PWC-A071-A1 PWC-A074-A1 (Battery charger)	CC-A12-A1 (Car charger)
Japan	✓	✓	✓	✓
USA, Canada	✓	✓	✓	✓
EU, EFTA	✓	✓	✓	✓
Turkey	✓	✓	✓	✓
Brazil	✓	✓	✓	✓

\*1: Ask your SII sales representative when you want to operate the products in other countries than listed above.

\*2: The compliant AC cable differs from country to country. See the Specified AC Cable Table below.

## ■ Specified AC Cable Table

(Accessories)

Countries	Model <sup>*1</sup>
Japan	CB-JP04-18A-E
USA, Canada	CB-US04-18A-E
EU (except United Kingdom), EFTA, Turkey	CB-CE01-18B-E
United Kingdom	CB-UK01-20A-E
Brazil	*2

\*1: It is impossible to use each model in other countries than listed.

\*2: Use the AC cable of 2.0 meters long that complies with Brazil safety standards.

## 21. ACCESSORIES AND CONSUMABLE PARTS

### ■ Specified Accessories

(Optional)

Name	Model
Battery pack	BP-A0720-A1
AC adapter	PW-D0940-W2
AC cable*	CB-JP04-18A-E CB-US04-18A-E CB-CE01-18B-E CB-UK01-20A-E
Battery charger	PWC-A071-A1 PWC-A074-A1
Car charger	CC-A12-A1
Shoulder strap	STR-A03-1
USB interface cable	IFC-U01-1-E

\*: The shape of an outlet differs in countries. Confirm it before using.

### ■ Specified Thermal Paper<sup>\*1 \*2 \*3</sup>

Paper Type	Model	Manufacturer
Receipt sheet	TF50KS-E2D	Nippon Paper
	PD160R	Oji Paper
	P220VBB-1	Mitsubishi Paper Mills.
	Alpha400-2.1 <sup>*4</sup>	Appvion
	KT48PF	Papierfabrik August Koehler
Label sheet <sup>*5</sup>	F5041	Mitsubishi HiTec Paper
	HW76MW	Lintec
	KIP370 <sup>*6</sup>	KSP
	KLS46 <sup>*6</sup>	KANZAN

\*1: We do not offer thermal paper.

\*2: Use the thermal paper whose maximum diameter is 58mm or less.  
Use the thermal paper whose paper width is 112mm, 105mm, 100mm and 80mm.

Use the thermal paper that the maximum width is equal or less than the each paper width + 0.5mm including winding deviation.

\*3: See "MP-A40 SEREIS THERMAL PRINTER TECHNICAL REFERENCE" for details of the mark mode setting, specifications, or size of label sheet.

\*4: Printing at a high print rate might cause unclear printing.

\*5: Printing under low temperature environment (32°F / 0°C or lower) might cause unclear printing. Make sure to confirm the printing quality on the printer.

\*6: This means the model number using as a label sheet. The printing quality may not be fulfilled depending on the liner type of label sheet. Make sure to confirm the printing quality using the liner type of label in advance.

When using different thermal paper from the one specified, the printing quality or specified life of the thermal head would not be guaranteed.

## 22. MS SETTINGS LIST

: Default value

### General Setting 1

MS	Function	Value	
		0	1
1-1	Interface Selection (Interface)	USB	<b>USB/Wireless</b>
1-2	Mark Mode Selection (Mark Mode)	Enable	<b>Disable</b>
1-3 to 5	Command System Selection (Command System)	<b>000B : ESC/POS</b> 011B : HTML 100B : CPCL Other than those above: Prohibition	
1-6	Data Discard Selection When an Error Occurs (Error Through)	<b>Enable</b>	Disable
1-7	Auto Activation by AC Selection (Auto Activation by AC)	Enable	<b>Disable</b>
1-8	Data Discard Selection When Output Buffer Full Occurs (Response Data Discarding)	Enable	<b>Disable</b>

### General Setting 2

MS	Function	Value	
		0	1
2-1	Initialization Performance Selection After Paper Setting (Paper Set Handle)	Form Feed	<b>None</b>
2-2	Realtime Command Selection (Realtime Command)	<b>Enable</b>	Disable
2-3 to 4	Print Quality Selection* (Print Quality)	01B : Quality 2 10B : Quality 1 <b>11B : Standard</b> Other than those above: Prohibition	
2-5 to 6	LED Brightness Selection (LED Brightness)	00B : Level 1 Minimum 01B : Level 2 10B : Level 3 <b>11B : Level 4 Maximum</b>	
2-7	Reserved	-	<b>Fixed</b>
2-8	Reserved	-	<b>Fixed</b>

\*: Standard : The printing speed is highest out of all three options. The printing quality is normal.

Quality 1 : The printing speed is lower than "Standard", but the printing quality is appropriate for printing an image or barcode.

Quality 2 : The printing speed is lowest, but the printing quality is highest out of all three options.

General Setting 3

MS	Function	Value	
		0	1
3-1 to 6	Paper Width Selection (Paper Width)	011000B : 80 mm / 576 dots 101100B : 100 mm / 736 dots 110001B : 105 mm / 776 dots <b>111000B : 112 mm / 832 dots</b> Other than those above : Prohibition (Setting value = (number of dots - 384) / 8 )	
3-7	Reserved	-	<b>Fixed</b>
3-8	Reserved	-	<b>Fixed</b>

General Setting 4

MS	Function	Value	
		0	1
4-1 to 8	Print Density Selection (Print Density)	70 to 130% (Unit : 1%) <b>(Default setting : 100%)</b>	

General Setting 5

MS	Function	Value	
		0	1
5-1 to 8	Thermal Paper Selection (Thermal Paper)	<b>00000000B : TF50KS-E2D</b> 00000001B : PD160R 00000010B : P220VBB-1 00000011B : Alpha400-2.1 00000100B : KT48PF 00000101B : F5041 00000110B : HW76MW 00000111B : KIP370 00001000B : KLS46 Other than those above : Prohibition	

Auto Power Off time Setting (Lower 8 bits)

MS	Function	Value	
		0	1
7-1 to 8	Auto Power Off time Setting (Auto Power Off time) Lower 8 bits	Set in seconds (Total of higher 8 bits and lower 8 bits : 0 to 65535 seconds, <b>0 : Disable</b> )	

Auto Power Off time Setting (Higher 8 bits)

MS	Function	Value	
		0	1
8-1 to 8	Auto Power Off time Setting (Auto Power Off time) Higher 8 bits	Set in seconds (Total of higher 8 bits and lower 8 bits : 0 to 65535 seconds, <b>0 : Disable</b> )	

ESC/POS Setting

MS	Function	Value	
		0	1
9-1	Automatic Status Response Selection <ESC/POS> (Auto Status Back <ESC/POS>)	<b>Enable</b>	Disable
9-2	Initialized Response Selection <ESC/POS> (Init. Response <ESC/POS>)	<b>Enable</b>	Disable
9-3 to 8	Reserved	-	<b>Fixed</b>
	Reserved	-	<b>Fixed</b>
	Reserved	-	<b>Fixed</b>
	Reserved	-	<b>Fixed</b>
	Reserved	-	<b>Fixed</b>
	Reserved	-	<b>Fixed</b>

HTML Setting

MS	Function	Value	
		0	1
10-1	Automatic Status Response Selection <HTML> (Auto Status Back <HTML>)	Enable	<b>Disable</b>
10-2	Initialized Response Selection <HTML> (Init. Response <HTML>)	Enable	<b>Disable</b>
10-3 to 8	Reserved	-	<b>Fixed</b>
	Reserved	-	<b>Fixed</b>
	Reserved	-	<b>Fixed</b>
	Reserved	-	<b>Fixed</b>
	Reserved	-	<b>Fixed</b>
	Reserved	-	<b>Fixed</b>

Command Setting

MS	Function	Value	
		0	1
13-1	Kanji Code System (Kanji Code)	Shift-JIS Code	JIS Code
13-2	180° Reverse Function Selection (Reverse Function)	Enable	Disable
13-3 to 8	Reserved	-	Fixed
	Reserved	-	Fixed
	Reserved	-	Fixed
	Reserved	-	Fixed
	Reserved	-	Fixed
	Reserved	-	Fixed

International Character Setting

MS	Function	Value	
		0	1
15	International Character Selection (International Character Select)	<b>00000000B : USA</b> 00000001B : France 00000010B : Germany 00000011B : United Kingdom 0000100B : Denmark I 0000101B : Sweden 0000110B : Italy 0000111B : Spain I 0001000B : Japan 0001001B : Norway 0001010B : Denmark II 0001011B : Spain II 0001100B : Latin America 0001101B : Prohibition 0001110B : Prohibition 0001111B : Prohibition 0010000B : Prohibition 0010001B : Arabia Other than those above : Prohibition	

Character Code Table Setting

MS	Function	Value	
		0	1
16	Character Code Table Setting (Character Code Table Select)	<b>0000000B : Codepage 437(USA, Standard Europe)</b> 00000001B : Katakana character set 00000010B : Codepage 850 (Multilingual) 00000011B : Codepage 860 (Portuguese) 0000100B : Codepage 863 (Canadian-French) 0000101B : Codepage 865 (Nordic) 00001101B : Codepage 857 (Turkish) 00001110B : Codepage 737 (Greek) 00010000B : Codepage 1252 (Latin) 00010001B : Codepage 866 (Russian) 00010010B : Codepage 852 (Eastern Europe) 00010011B : Codepage 858 (Euro) 00100010B : Codepage 855 (Cyrillic) 00100101B : Codepage 864 (Arabic) 00101101B : Codepage 1250 (Central European) 00101110B : Codepage 1251 (Cyrillic) 00101111B : Codepage 1253 (Greek) 00110000B : Codepage 1254 (Turkish) 11111111B : User Page Other than those above : Prohibition	

Mark Position Compensation (Lower 8 bits)

MS	Function	Value	
		0	1
21-1 to 8	Mark Position Correction Lower 8 bits	Total of higher 8 bits and lower 8 bits : -48 to 2400 dots <b>(Default : 0)</b>	

Mark Position Compensation (Higher 8 bits)

MS	Function	Value	
		0	1
22-1 to 8	Mark Position Correction Higher 8 bits	Total of higher 8 bits and lower 8 bits : -48 to 2400 dots <b>(Default : 0)</b>	

Setting of Paper Feed Length for Mark Detection (1)

MS	Function	Value	
		0	1
23-1 to 8	Mark Detection Maximum Feeding Length Setting Lower 8 bits	Total of higher 8 bits and lower 8 bits : 1 to 2400 dots <b>(Default : 2400)</b>	

Setting of Paper Feed Length for Mark Detection (2)

MS	Function	Value	
		0	1
24-1 to 8	Mark Detection Maximum Feeding Length Setting Higher 8 bits	Total of higher 8 bits and lower 8 bits : 1 to 2400 dots <b>(Default : 2400)</b>	

Mark Detection Threshold Value

MS	Function	Value	
		0	1
25-1 to 8	Mark Detection Threshold Value	01H to FEH <b>(Default : 18H)</b>	





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(Spezifikationen können ohne Ankündigung geändert werden.)