



USER'S GUIDE

Thermal Printer

RP-B10 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.

RP-B10 SERIES THERMAL PRINTER USER'S GUIDE

Document Number: U00118121502
First Edition: January 2010
Second Edition: August 2010
Third Edition: May 2011

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For use in Turkey

Complies with Electrical and Electronic Equipment Directive.

Türkiye' deki Kullanıcılar için
EEE Yönetmeliğine Uygundur.

Applicable EC Directive and Standards

Product: Thermal Printer RP-B10 (with AC adapter PW-A2421-W1)

Directive: Title
2004/108/EC EC Electromagnetic Compatibility Directive
2006/95/EC EC Low Voltage Directive (with AC adapter only)

Standards
EN 55022
EN 61000-3-2
EN 61000-3-3
EN 55024
EN 60950-1 (with AC adapter only)

Product: AC adapter PW-A2421-W1

Directive: Title
2004/108/EC EC Electromagnetic Compatibility Directive
2006/95/EC EC Low Voltage Directive

Standards
EN 55022
EN 61000-3-2
EN 61000-3-3
EN 55024
EN 60950-1

Federal Communications Commission (FCC) compliance statement

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.

Industry Canada (IC) compliance statement

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.

INTRODUCTION

Thank you for purchasing the RP-B10 series thermal printer.

This USER'S GUIDE explains how to handle RP-B10 thermal printer (hereinafter referred to as printer), specified AC adapter and specified AC cable (hereinafter, omit "specified").

Read through the SAFETY PRECAUTIONS and OPERATING PRECAUTIONS carefully before using the printer.

Keep this user's guide in a place where it can be accessed quickly.

For more detailed technical information on this printer, see the RP-B10 SERIES THERMAL PRINTER TECHNICAL REFERENCE.



The User's Guide consists of the following sections.

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SAFETY PRECAUTIONS


The following symbols are used in this User's Guide in order to make use of the printer properly and prevent the printer from being damaged.

Follow the instructions marked with the symbol.


 WARNING	Failure to follow the guidelines marked with this symbol could result in severe personal injury or death.
 CAUTION	Failure to follow the guidelines marked with this symbol could result in minor personal injury or product and/or peripheral damage.

Symbol Examples




The symbol  indicates caution (including danger and warning).
The example on the left indicates warning or caution.



The symbol  indicates prohibition.
The example on the left means prohibition of disassembling.



The symbol  indicates requirement or what must be done.
The example on the left means "unplug the AC plug from the power outlet."

WARNING



DO NOT use the printer, the AC adapter and the AC cable in countries where these items do not comply with the regulations.

Doing so, we do not assure the safety of these products and you will be responsible for violation of regulations.



POWER the printer OFF, unplug the AC plug from the power outlet in any of the following cases:

- _ The printer does not recover from an error.
- _ Smoke, strange noise, overheat or smells erupt from the printer.
- _ A piece of metal or any liquid touches the internal parts or slot of the printer.
- _ Case is broken.

Doing so may cause fire or electric shock. Please contact your vender to repair the products.



DO NOT insert any foreign objects such as a piece of metal or any liquid in the internal parts or slot of the printer.

Doing so may cause fire or electric shock.



DO NOT disassemble or remodel the printer. DO NOT REPAIR THE PRINTER YOURSELF.

Doing so may cause fire, a failure or other accidents.



DO NOT use an AC adapter and AC cable other than that which is specified.

Doing so may cause explosion, overheating or fire leading to serious accidents.



DO NOT use any power supply of the AC adapter other than specified range of one.

Doing so may cause fire, a failure or other accidents.



DO NOT touch the output terminal or metallic area of the connector to avoid short-circuiting.

Doing so may cause fire, a failure or other accidents.



DO NOT put the printer into water in a place where it could get wet.

Doing so may cause fire, a failure or other accidents.



DO NOT touch the printer by wet hand.

Doing so may cause electric shock.



UNPLUG the AC plug from the power outlet if the AC adapter or the AC cable has been damaged.

If not, it might cause fire, a failure or electric shock.

Please contact your vender to repair the products.



Keep the AC adapter and the AC plug away from dust and metallic materials.
If not, it might cause fire or electric shock.



Plug the AC plug of the AC adapter completely.
If not, it might cause fire or electric shock.



DO NOT destroy the AC cable or plug of the AC adapter. Moreover, DO NOT bend, pull or twist the AC cable forcibly, or place heavy object on the cable.
Doing so may cause fire, a failure or electric shock.



When unplugging the AC cable of the AC adapter from the power outlet, do not pull on the cable but hold onto the plug.
Exposure or disconnection of the cable might cause fire or electric shock.



Keep the plastic bag for the printer package out of the reach of children.
If not, it may cause choke.

CAUTION



If the printer is not used for a long time, unplug the AC plug from the power outlet after turning the printer OFF.

If not, it might cause fire or electric shock.



When cleaning the printer, unplug the AC plug from the power outlet after turning the printer OFF.

If not, it might cause fire or electric shock.



Keep the printer out of the reach of children.

If not, it might cause injury.



DO NOT use and subject the printer to the following places as it may lead to fire, a failure, injury or negatively affect the product and peripheral system.

- _ Places of direct sunlight or high temperature.
- _ Places of extreme humidity or any place where it can possibly be splashed by any liquids.
- _ Places with strong vibration or is inclined.
- _ Places of staticky or ferromagnetic field.
- _ Places where there is a lot of iron or grease.
- _ Place of danger with electrical leakage and water leakage.
- _ Places where there is in corrosive gas and siloxane atmosphere.



DO NOT cover the printer with any clothes.

Doing so may cause fire or a failure.



NEVER touch the thermal head immediately after printing because it becomes very hot. Make sure that the thermal head is cool before clearing a paper jam or cleaning the thermal head.

Doing so may cause injury.



NEVER touch the portions such as the thermal head, the out-of-paper sensor or the platen roller directly while opening the paper cover to install the thermal paper for example.

Doing so may cause injury or other accidents.



DO NOT touch the cutter of the paper outlet.

Doing so may cause injury.



DO NOT touch directly the cutter in the upper cover.

Doing so may cause injury.



DO NOT make your hair, etc. which are easily entangled in the printer approach to the printer during the operation.
Doing so may cause injury.

OPERATING PRECAUTIONS

Follow the precautions below to deliver and maintain the full performance of the printer.

□ Using the Printer

- _ Be careful not to drop or bump the printer ON a hard surface.
- _ DO NOT install the printer in direct sunlight or such areas. Suitable environment for the use of the printer is as follows:
 - Ambient temperature: -5 to 45°C
 - Relative humidity: 10 to 90%RH (Paper thickness: 65 to 75µm, no condensation)
35 to 85%RH (Paper thickness: other than above, no condensation)Refer to the technical reference for the allowable humidity range at each temperature.
- _ DO NOT connect the AC cable or the AC adapter to the same outlet with devices that generate noise.
- _ DO NOT open the upper paper cover during printing.
- _ DO NOT connecting or disconnecting the interface cable during printing or transmission. DO NOT touch the connectors of the interface cable during printing.
- _ Turn the power off when not in use. Moreover, if the printer is not used for a long time, unplug the AC cable from the outlet and then set the thermal paper to the platen roller.
- _ Clean the printer case using soft, lint-free cloth. DO NOT use alcohol or other solvent.
- _ Before use, always clean the terminals using a dry, soft, lint-free cloth. If the terminals are dirty, it may not be possible to obtain proper contact.
- _ DO NOT touch to the thermal head directly. Doing so may result in poor quality due to the dirt or damage by the static electricity.
- _ DO NOT use the thermal head with getting wet. Doing so may cause the printer damaged.
- _ When cleaning the thermal head, wipe the thermal head with a cotton swab or other soft material.
- _ The AC adapter may become warm when in use. This is normal and is not a malfunction.
- _ High-print-rate printing or using the printer under low temperature condition might cause irregular printouts or generate loud sound. This is not a failure in the printer, but an inherent paper phenomenon.
- _ When handling the printer, be aware of static electricity. If the static electricity is discharged, this could case communication failure. When this problem occurs, disconnect the USB connector that is connected to the host device and wait few seconds before connect it again.
- _ DO NOT print without the thermal paper.
- _ DO NOT insert any foreign objects such as a clip, a pin or screw in the internal parts or slot of the printer.
- _ DO NOT drop any liquid or spray a solvent to the printer.
- _ DO NOT push the switch on the operation panel using sharp object such as pen tip.
- _ DO NOT use two papers or more which pasted the tape.
- _ Never pull out the thermal paper during the thermal paper setting.
- _ Make sure not to injure your body or other objects by the plate edge.

- _ UNPLUG the DC jack or AC plug from the power outlet if the printer has been abnormal condition.
- _ Never disassemble the printer without a serviceman.
- _ Be careful not to shut your finger or hands in the printer when opening or closing the upper cover.
- _ DO NOT connect the RJ connector to the phone line. The RJ connector connects with the connector for drawer kick.
- _ The printer is using the plated sheet steel so the part might rust.

□ Thermal Paper Handling

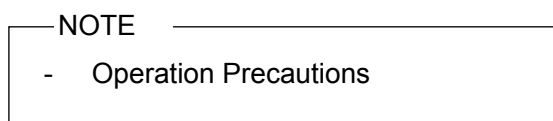
- _ Store the thermal paper in a cool, dry, and dark place.
- _ DO NOT rub the thermal paper with hard objects.
- _ DO NOT leave the thermal paper near organic solvents.
- _ DO NOT allow plastic film, erasers, or adhesive tape to touch the thermal paper for long periods.
- _ DO NOT stack the thermal paper with diazo copies immediately after copying or wet- type copies.
- _ DO NOT use chemical glue.
- _ Always use the specified thermal paper. See Section 15, Options and Consumable Parts, for details.

□ Precautions on Discarding

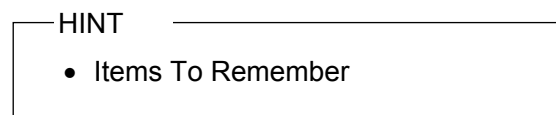
When discarding used printers, discard them according to the disposal regulations and rules of each respective district.

□ Notations Used in this User's Guide

The following two types of notations are used throughout this User's Guide to denote items of caution and items to remember:



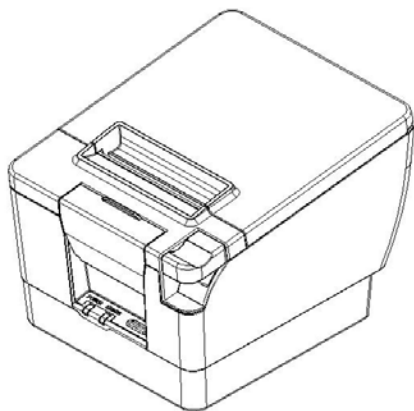
This box contains items that when not followed may lead to a malfunction or to a deterioration of performance.



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

1 PREPARATION

Once you have opened the carton, make sure it contains the printer and all accessories.



Printer



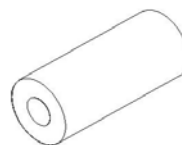
User's Guide/SAFETY PRECAUTIONS/
Various Software (CD-ROM) 1 (piece)



58mm paper width partition plate



Wiring clamp for USB
(USB model only)

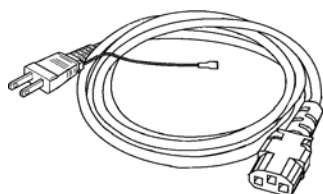


Sample thermal paper

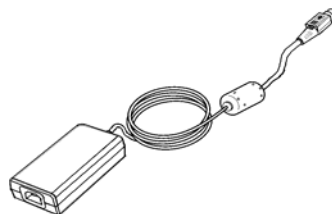
Moreover, the models included AC adapter and AC cable are also available. See Section 2 IDENTIFYING THE MODEL TYPE for the models.

Keep the package and packing materials for future transportation or long-term storage.

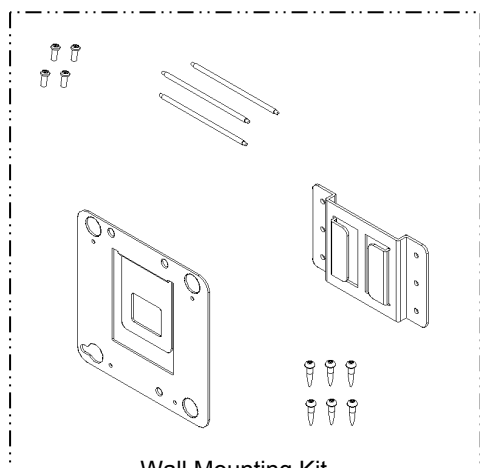
The following are available accessories:



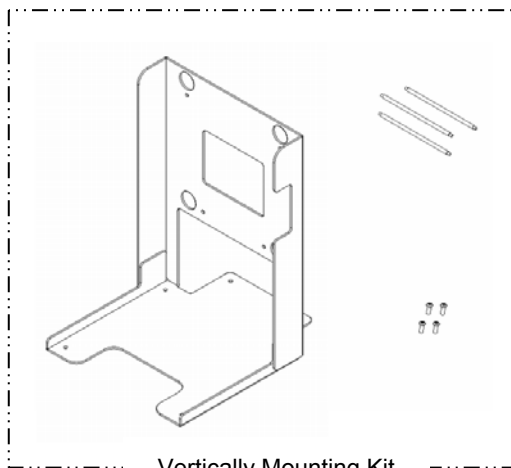
Specified AC cable



Specified AC adapter



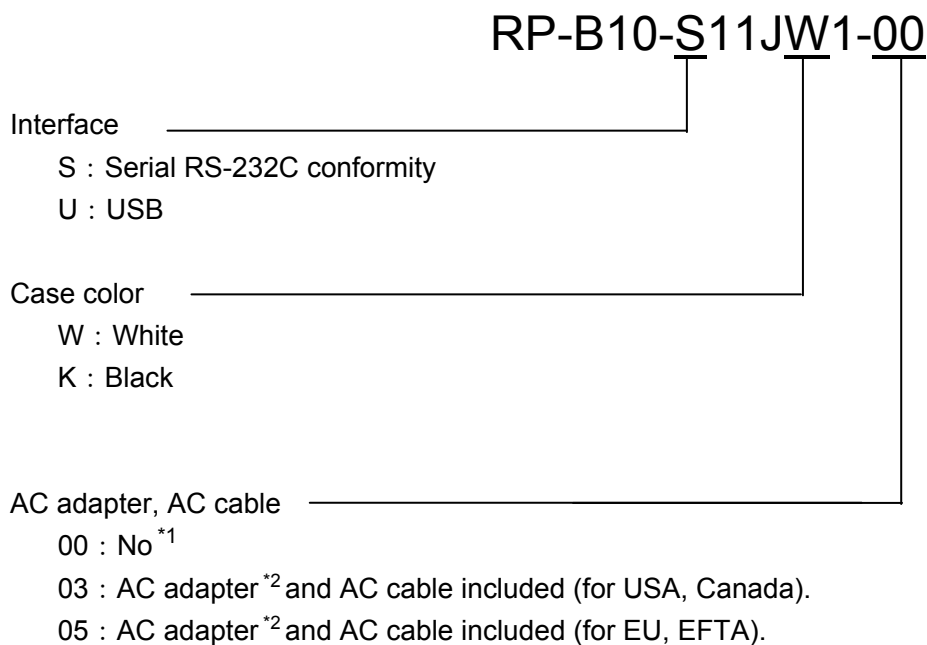
Wall Mounting Kit



Vertically Mounting Kit

2 IDENTIFYING THE MODEL TYPE

Identifying the types of the printer as follows

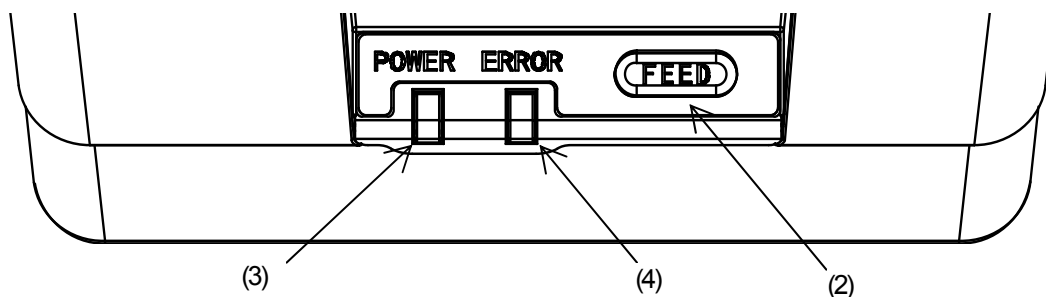
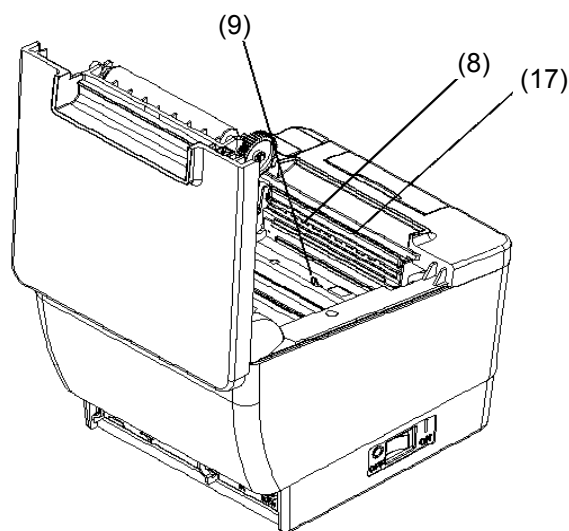
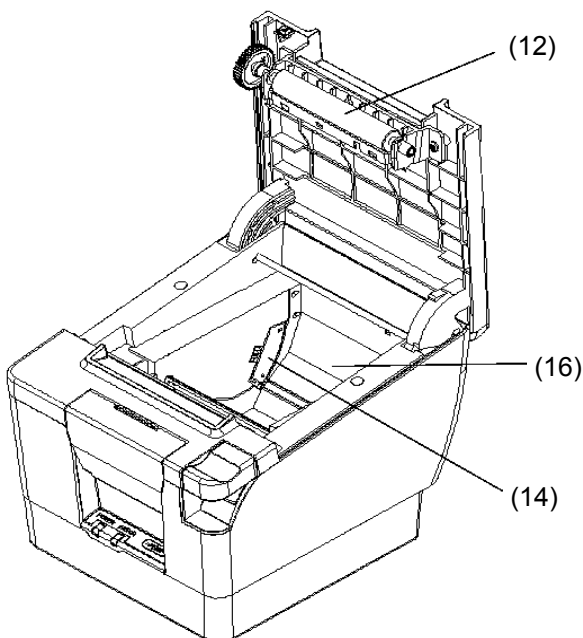
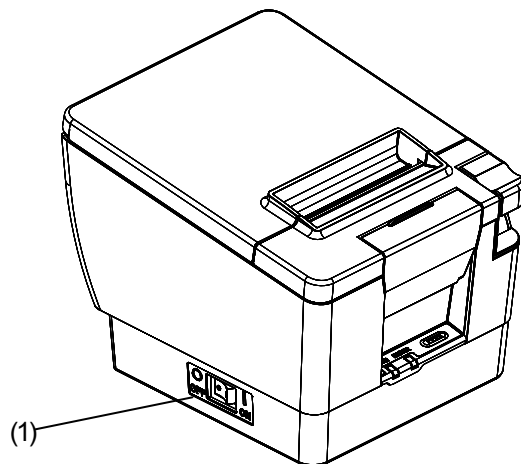
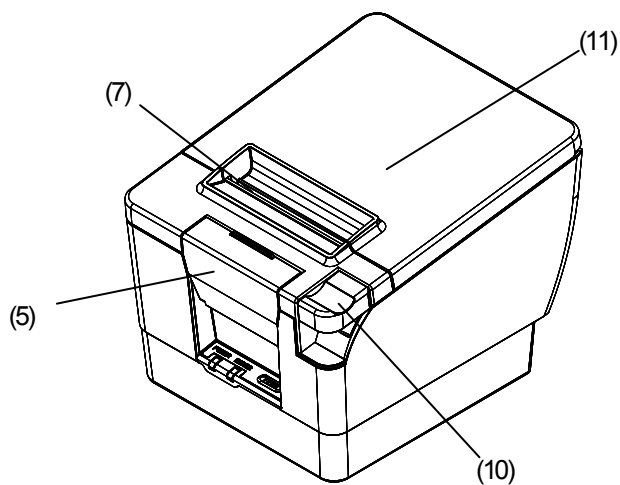


*1: When the printer is incorporated into your equipment and then supplied electric power from the equipment, follow the rated value of input voltage for PR-B10 described in the specifications of "Chapter 14 SPECIFICATIONS, [] Printer Specificaions" and "RP-B10 SERIES THERMAL PRINTER TECHNICAL REFERENCE, 2.4 POWER SUPPLY SPECIFICATIONS".

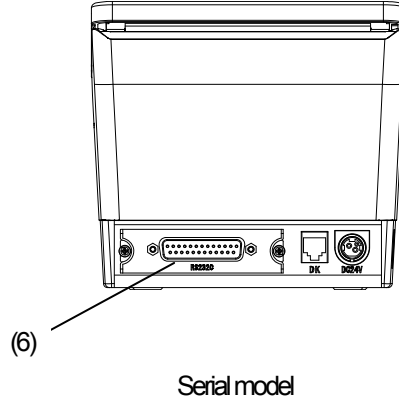
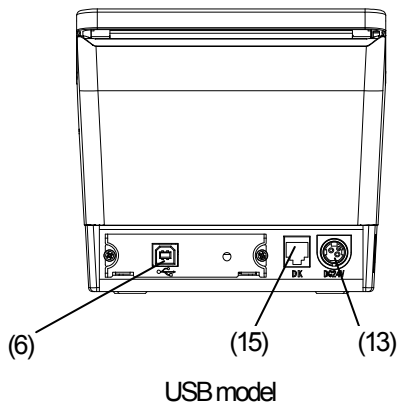
When using a power supply other than the specified AC adapter, use a power supply at your own risk under the safety standard and EMC regulations.

*2: AC adapter is a universal type.

3 EACH PART OF PRINTER



Operation Panel



(1) POWER switch

The POWER switch turns the printer ON or OFF. The power lamp lights after turning the power on.

(2) FEED switch

To feed the thermal paper forward. When holding down the feed switch for few seconds, the printer feeds the thermal paper continuously for the period of held.

(3) POWER lamp

The POWER lamp lights when the printer turns ON. See the Lamp Display on the next page for details.

(4) ERROR lamp

The ERROR lamp lights when something is wrong with the printer. See the Lamp Display on the next page for details.

(5) Cutter emergency cover

The cutter emergency cover is opened to clear cutter error when the autocutter is locked during paper cutting. Open the upper cover and rotate the gear in the printer to clear the locked motor.

(6) Interface connector

The interface connector connects with the interface cable.

(7) Paper outlet

Paper port with a paper cutter.

(8) Thermal head

The thermal head prints data on the thermal paper. Note that the thermal head is very hot immediately after printing.

(9) Paper sensor

The sensor that detects thermal paper existence.

(10) Platen open lever

The platen open lever is used to open the upper cover to set the thermal paper.

(11) Upper cover

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

(12) Platen roller

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

(13) Power connector

The power connector connects the AC adapter to this connector.

(14) Paper-near-end sensor

The paper-near-end sensor detects remaining paper amount to replace the thermal paper. Set the setting lever in accordance with the thermal paper diameter.

(15) RJ connector

The RJ connector connects with the connector for drawer kick. Do not connect the phone line.

(16) Paper holder

The paper holder holds the thermal paper.

(17) Autocutter

The autocutter cuts the thermal paper automatically after printing. Paper cut type is partial cutting.

Lamp Display

Lamp display	POWER lamp (Green)	ERROR lamp (Orange)
Power OFF	Off	Off
Power ON (Print-ready)	On	Off
Paper-near-end	On	Blink-1
Out-of-paper	On	On
Upper cover open	On	On
Thermal head temperature error	On	Blink-2
Cutter error / Black mark detection error	On	Blink-3

Display Pattern

Items	Pattern
Blink-1	<p>ON OFF</p>
Blink-2	<p>ON OFF</p>
Blink-3	<p>ON OFF</p>

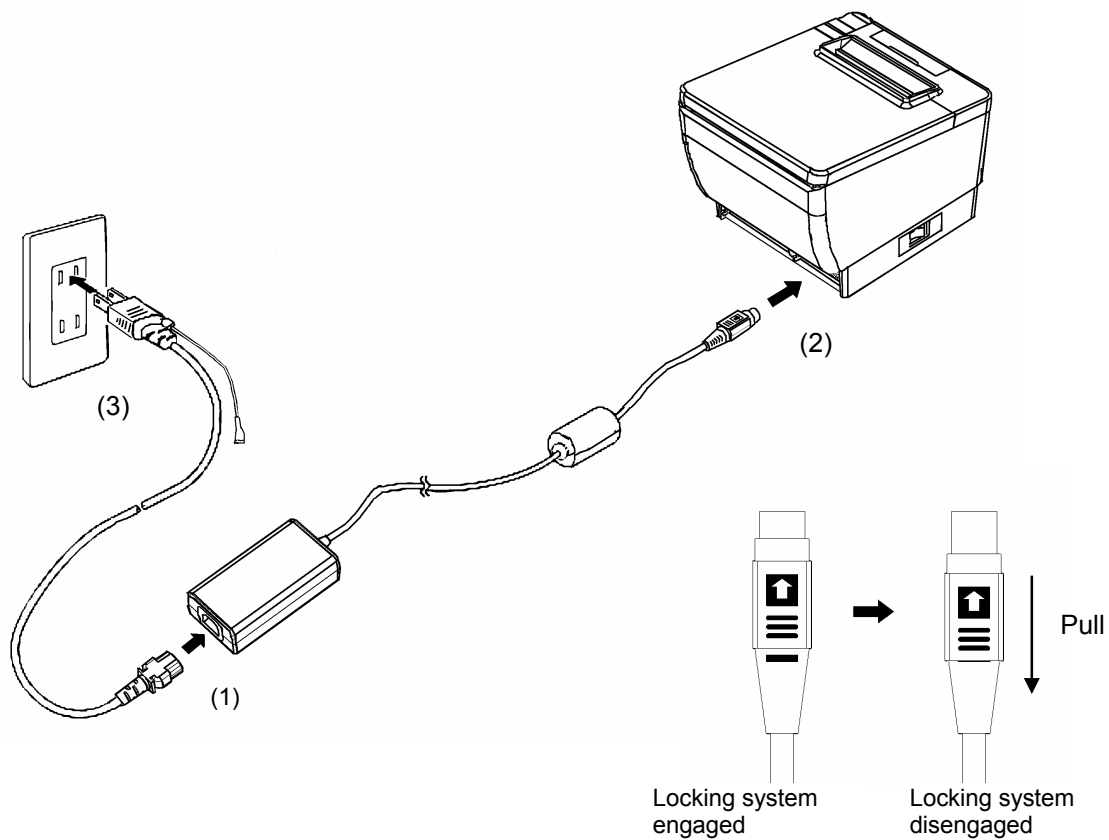
4 POWER CONNECTION

The printer can be powered with an AC adapter.

Always refer to Section 14 SPECIFICATIONS before using the AC adapter.

□ Connecting the AC Adapter

- (1) Connect the AC cable to the AC adapter.
- (2) Insert the DC jack of the AC adapter to the power connector of the printer.
- (3) Insert the AC plug of the AC cable to an electric outlet.



NOTE

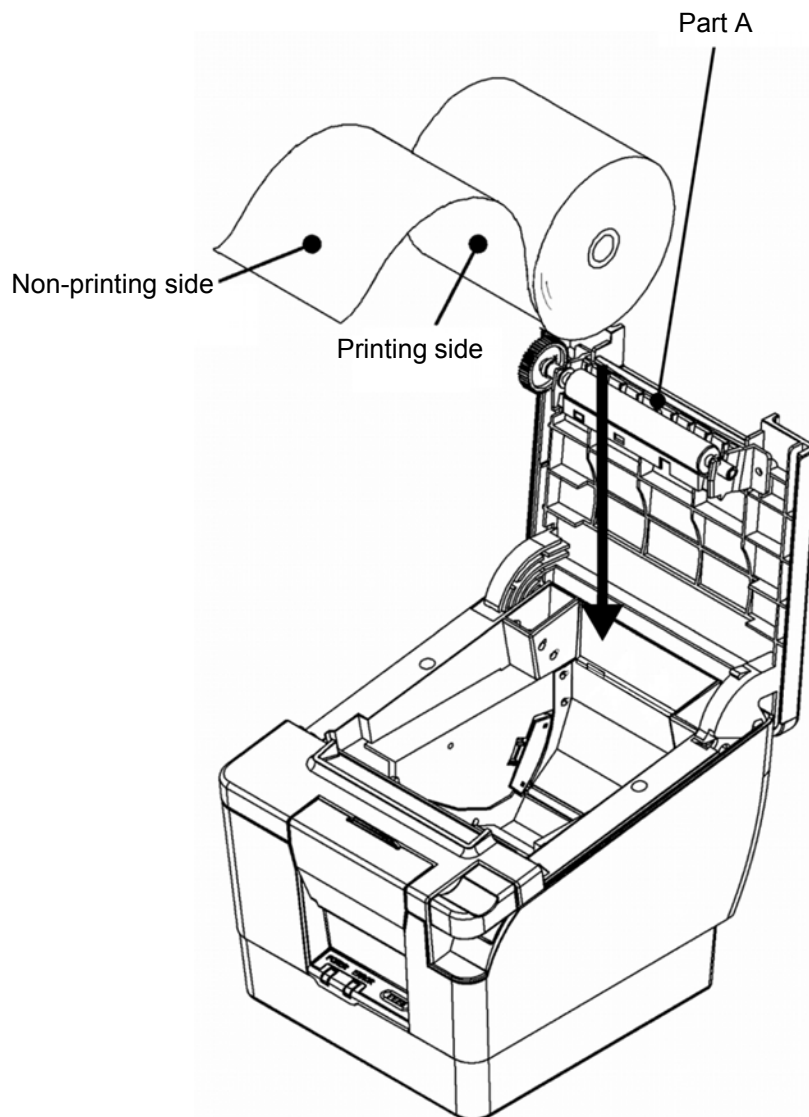
- To disengage the locking system, pull the DC jack contrary to the arrow in figure above. Note that disengaged the locking system before connecting or disconnecting the DC jack
- Turn the printer OFF before installing or removing the AC adapter.
- If the printer is not used for a long time, unplug the AC cable from the outlet.

5 PAPER SETTING

This printer uses the paper roll (hereinafter referred to as thermal paper). The printer function setting is different from that for thermal paper used. See Section 9 Function Setting for details.

□ Setting the Thermal Paper

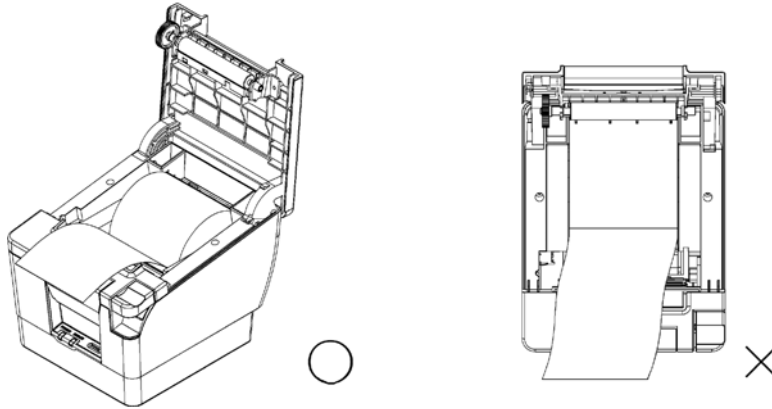
- (1) Push the platen open lever to open the upper cover.
- (2) Take the paper end from the paper roll.
- (3) Set the thermal paper directly above the paper holder certainly as the direction shown in the figure.



NOTE

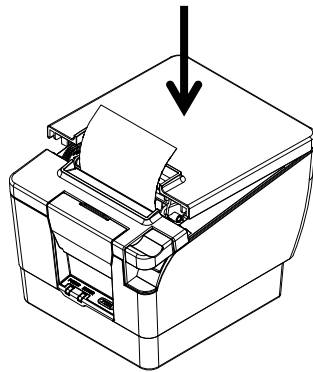
- Be careful not to cut your fingers by the cutter blade (Part A).

(4) Pull the thermal paper straightly and then push the center of upper cover certainly to avoid one side lock defect.



NOTE

- Pull the thermal paper straightly.



NOTE

- Push the center of upper cover certainly to avoid one side lock defect.

(5) After closing the upper cover, paper feed and paper cutting are performed automatically.

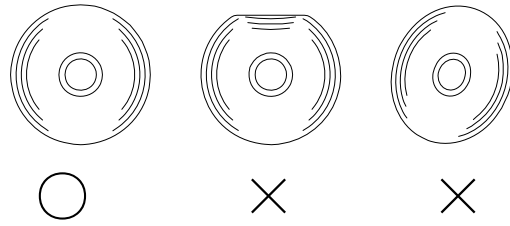
NOTE

- Be sure to push the platen open cover to the end. If not, the upper cover may not open.
- DO NOT cover the paper outlet or the thermal paper. Doing so may cause paper jam.
- DO NOT touch the gear of the platen roller. Doing so may cause loss of printing quality or a failure.
- Always use the paper roll which core is inside diameter 12mm and outside diameter 18mm. Moreover, DO NOT use the paper roll with glued end.

HINT

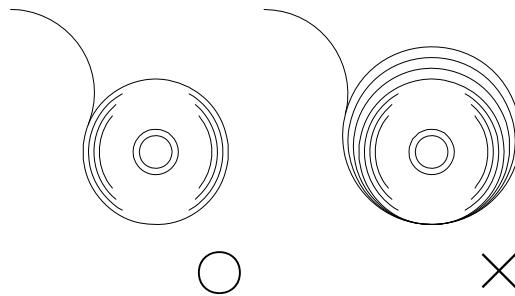
- Leaving the printer with the thermal paper that is in the thermal head and platen roller for a long time, which may cause paper feeding error. In that case, open the paper cover to release the thermal head and the thermal paper before using, and then close the paper cover.

□ Recommended Thermal Paper Shape



NOTE

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



NOTE

- DO NOT use loosened paper roll. In case of using such paper roll, rewind the paper roll before using the thermal paper.

6 ADJUSTMENT OF REMAINING PAPER

The printer detects remaining amount of the thermal paper by the paper-near-end sensor. Detecting the paper-near-end requires to replace the thermal paper with new one.

□ Removing Remaining Paper

- (1) Push the platen open lever to open the upper cover.
- (2) Remove the thermal paper from the paper holder.

□ Adjustment of Paper-near-end

The detected value of paper-near-end can be changed as shown below:

Set the paper-near-end sensor in accordance with the location of the printer.

The default setting is 22 ± 2 mm approx. in diameter (Position A).

NOTE

- Printing speed is fast, when using small diameter (24mm approx. in diameter), the sensor may not detect the paper-near-end.
- Use paper-near-end as reference.

- (1) Turn the printer OFF (O side: hereinafter omitted), and then unplug the DC jack.

NOTE

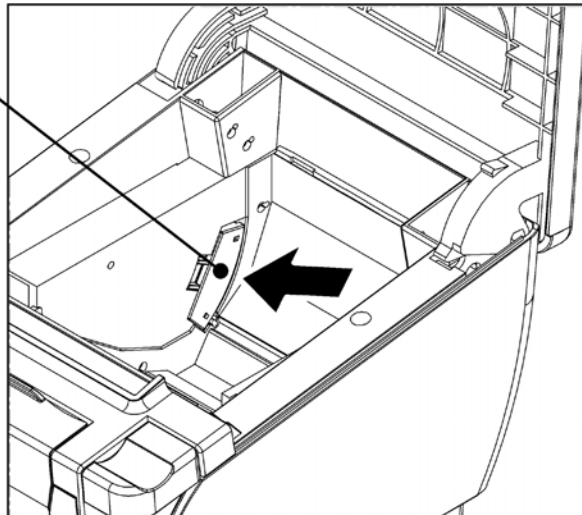
- Do not touch the under cover of the printer when unplugging the DC jack.

- (2) Move the paper-near-end sensor to the position of A-D while pressing the paper-near-end sensor to the arrow in the figure. Be sure to move the paper-near-end sensor to the correct position until it clicks.

NOTE

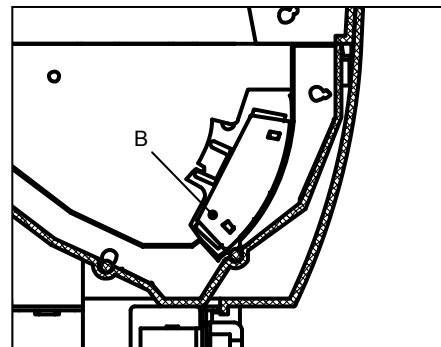
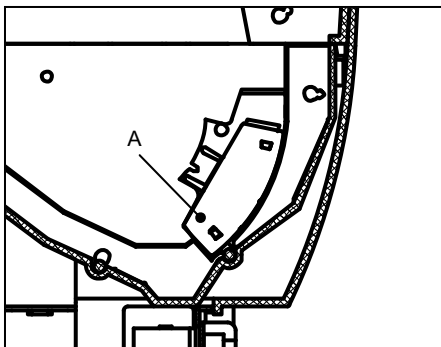
- Be sure that the setting lever is set on same level with the side of paper holder.
- Remaining amount of the thermal paper is depending on the paper using. Note that the paper-near-end sensor uses as a reference of the detection.
- Detection value is different in paper width and the individual difference.

Paper-near-end sensor

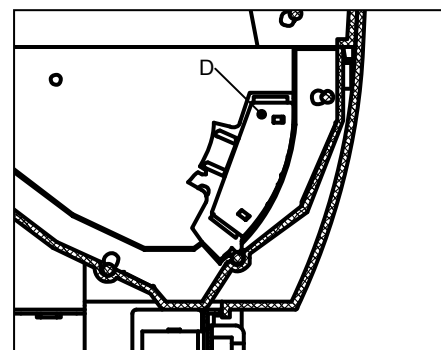
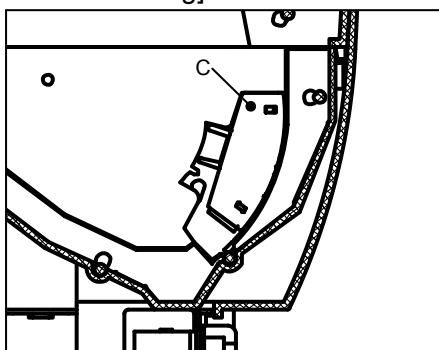


Move the paper-near-end sensor to the position of A-D while pressing the paper-near-end sensor to the arrow in the figure.

- Paper-near-end sensor position
[Horizontal]



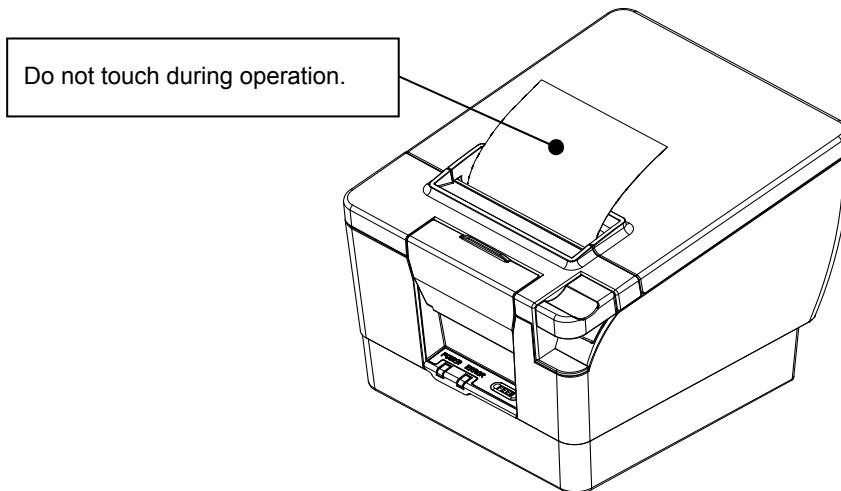
[Vertical and Wall mounting]



Paper-near-end Sensor Position	Outside Diameter for Paper-near-end Detection
A	$\phi 22 \pm 2\text{mm}$ (Horizontal)
B	$\phi 25 \pm 2\text{mm}$ (Horizontal)
C	$\phi 22 \pm 2\text{mm}$ (Vertical and Wall mounting)
D	$\phi 25 \pm 2\text{mm}$ (Vertical and Wall mounting)

7 PREVENTION AND TREATMENT OF PAPER JAM

Do not touch the paper outlet during paper feeding or before paper cutting. It may cause a paper jam, a cut failure or carriage return malfunction. Do not open the upper cover during paper cutting.



□ Removing Paper Jam

When a paper jam occurs, remove the thermal paper according to the following procedure.

- (1) Turn the printer OFF.
- (2) Push the platen open lever to open the upper cover.

HINT

- If the upper cover does not open, the cutter error may occur. See Cutter Error Treatment.

- (3) Remove the thermal paper.

NOTE

- Do not damage the printer when removing the paper jam. Especially, do not touch the thermal head because it is subject to breakage.

- (4) Set the thermal paper straightly and then push the center of upper cover certainly.
- (5) Turn the printer ON (| side: hereinafter omitted).
- (6) When the printer is recovered, the ERROR lamp does not light.

NOTE

- NEVER touch the thermal head immediately after printing because it becomes very hot.

□ Cutter Error Treatment

When the autocutter is locked during paper cutting due to a cutter error and the upper cover does not open, recover the printer according to the following procedure.

NOTE

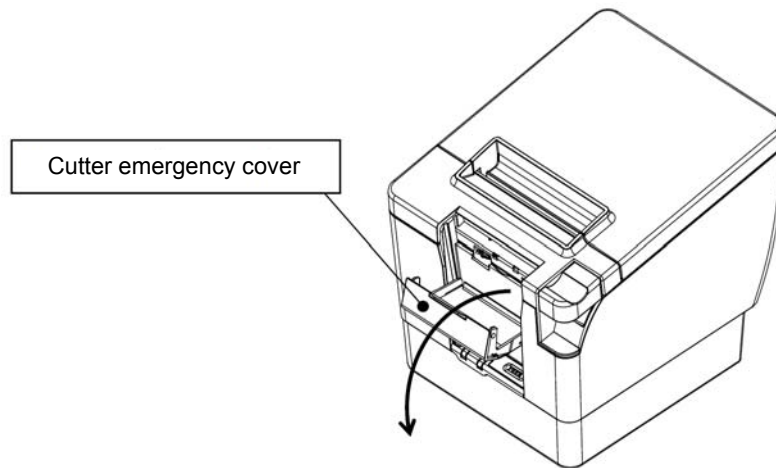
- Upper cover does not open when the movable blade is not in the home position. If the upper cover is forced open at that time, the autocutter may be damaged.

(1) Turn the printer OFF.

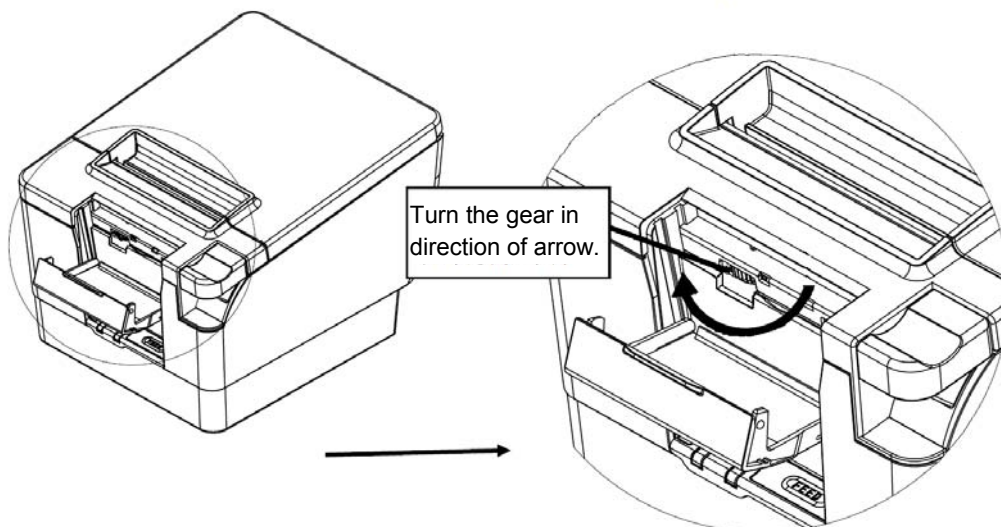
NOTE

- Be sure to turn the printer OFF before handling the cutter.

(2) Pull the cutter emergency cover in direction of arrow to open it.



(3) See the movable blade from the paper outlet and turn the gear with your fingers until the movable blade backs to its home position.



(4) Close the cutter emergency cover and then push the platen open lever to open the upper cover. After that, remove the paper jam.

(5) Set the thermal paper straightly and then push the center of upper cover certainly.

(6) Turn the printer ON.

(7) When the printer is recovered, the ERROR lamp does not light.

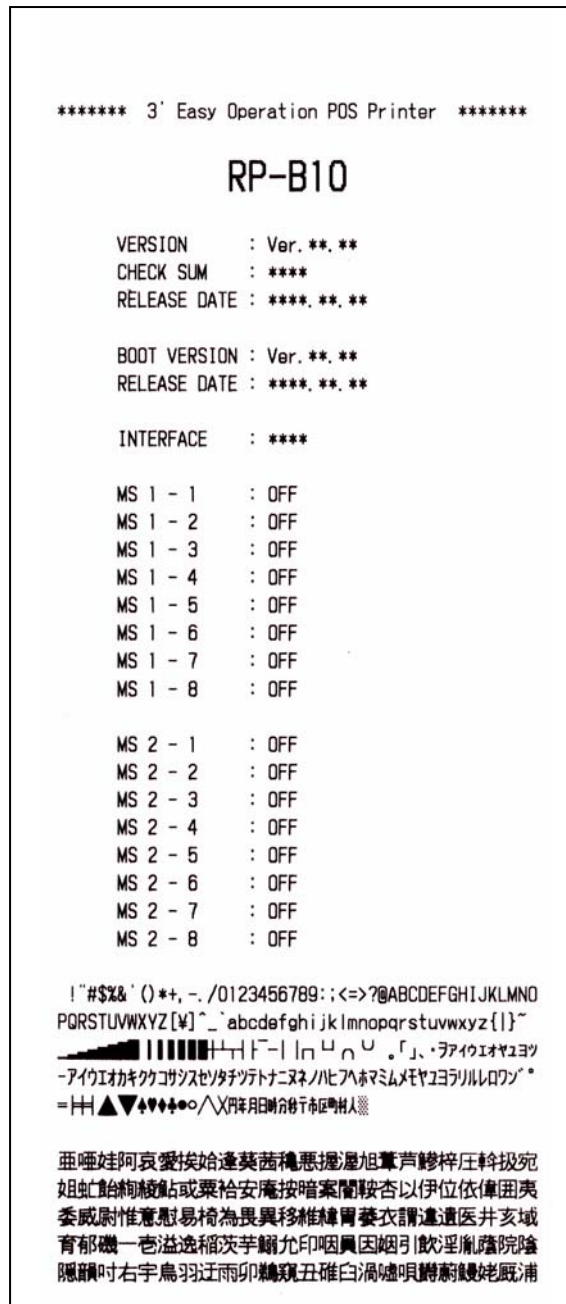
NOTE

- Do not damage the printer when removing the paper jam. Especially, do not touch the thermal head because it is subject to breakage.
- Be careful not to cut your fingers or have been injured by the autocutter.
- DO NOT apply more than enough force.
- Upper cover does not open when the movable blade is not in the home position. If the upper cover is forced open at that time, the autocutter may be damaged.

8 TEST PRINT

The printer can print the test printing. In test printing, the printer's function setting and character strings for testing are printed.

- (1) Make sure that the thermal paper is set in the printer and the printer is turned off. If the thermal paper is not set, set the thermal paper as instructed in Section 4, Paper Setting, and turn the printer OFF.
- (2) Turn the POWER switch on while the FEED switch is pressing. Release the FEED switch after initializing (POWER lamp is turned on and ERROR lamp is turned off) the printer.
- (3) Test printing is started.



- (4) After test printing, the printer cuts the thermal paper and goes into print-ready mode.

9 FUNCTION SETTING

This printer can be set various function according to operating conditions or uses. Preset these functions before using the printer. Details for settings of the software switches are described below.

The settings other than the serial communication settings are stored in the software switches (hereinafter referred to as "MS") in the FLASH memory of printer. They can be set by using MS1 to 2.

The serial model printer mounts a DIP swith (hereinafter referred to as "DS") on the serial interface board. The part of communication settings can be set by the DS swith.

Moreover, the printer can preset the functions below. See the technical reference for the settings.

- Mark Sensing and Paper Feed Correction
- Home Feed Operation after Paper Setting
- USB Serial ID Setting

□ MS Setting

The settings are stored in the FLASH memory of printer. They can be set by using switches or by entering commands.

This manual describes how to set functions by using switches.

NOTE

- Be sure to set the directed value as "Fixed" according to 0 or 1 in list so that the printer works correctly.

HINT

- See the Technical Reference for details on function setting with commands.

□ Function Setting Mode

The printer must be in the function setting mode to set functions with switches.

To enter the function setting mode, do as follows:

- (1) Make sure that the upper cover is closed, and turn the printer ON while pressing the FEED switch. After the printer initialization, open the upper cover and close it and then release the FEED switch.
- (2) When shifting to the functions setting mode is completed, the ERROR lamp blinks and the following message is printed.

**** MEMORY SW SETTING MODE ****

□ Changing Settings

In the function setting mode, change the function settings. To set the settings to defaults, perform operation (1). To change settings, perform operation (2).

(1) Set the MS1-1 from the least significant bit (MS1-1) to the most significant bit (MS1-8) and then from MS2-1 to MS2-8.

Operation 1: MS ON setting

To set the setting ON, push the FEED switch while the lighting period of the blinking ERROR lamp (red).

Operation 2: MS OFF setting

To set the setting ON, push the FEED switch while the lights-out period of the blinking ERROR lamp (red).

Printer prints the contents ON/OFF at each time of the function setting operations.

(2) Repeat the above operation 16 times to set MS1 to MS2. The printer prints new settings and resets itself to store new settings into the FLASH memory (changing default settings).

HINT

- When the changing settings is not required in progress, turn the printer OFF so these are not stored in the FLASH memory.

□ MS Setting List

: Default settings

MS1

MS	Function	Setting	
		ON(=1)	OFF(=0)
1-8	Reserved	Fixed to OFF	
1-7	Autocutter Function	Disable	Enable
1-6	Data Control	Xon/Xoff	DTR/DSR
1-5	Bit Length	7 bits	8 bits
1-4	Codepage	Codepage 437 ^{*1}	Katakana Character set ^{*2}
1-3	Paper Select	See table below	
1-2			
1-1			

*1: Default setting for RP-B10-*11J*1-03, or 05.

*2: Default setting for RP-B10-*11J*1-00.

Paper Select

Paper Select	MS1-1	MS1-2	MS1-3
Prohibition	ON	ON	ON
Prohibition	OFF	ON	ON
PDC85	ON	OFF	ON
Alpha400-2.1	OFF	OFF	ON
F5041	ON	ON	OFF
TF60KS-E	OFF	ON	OFF
P220VBB-1	ON	OFF	OFF
PD160R	OFF	OFF	OFF

MS2

MS	Function	Setting	
		ON(=1)	OFF(=0)
2-8	Reserved	Fixed to OFF	
2-7	Number of Effective Dots	512/360 dots ^{*1}	576/432 dots ^{*1}
2-6	Paper Width	58mm	80mm
2-5	Remaining Receive Buffer Capacity Response (USB)	Disable	Enable
2-4	Paper-near-end Detection	Disable	Enable
2-3	Auto Status Output	Disable	Enable
2-2	Black Mark Sensor	Enable	Disable
2-1	Kanji Code	Shift-JIS Code	JIS Code

*1: Paper Width: 80mm / Paper Width: 58mm

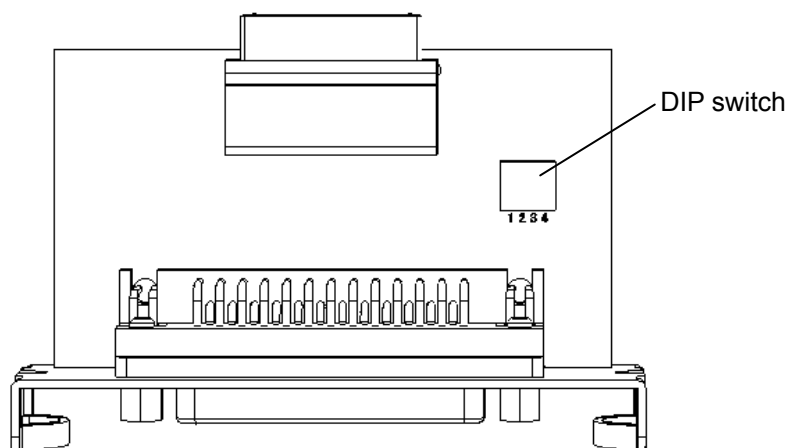
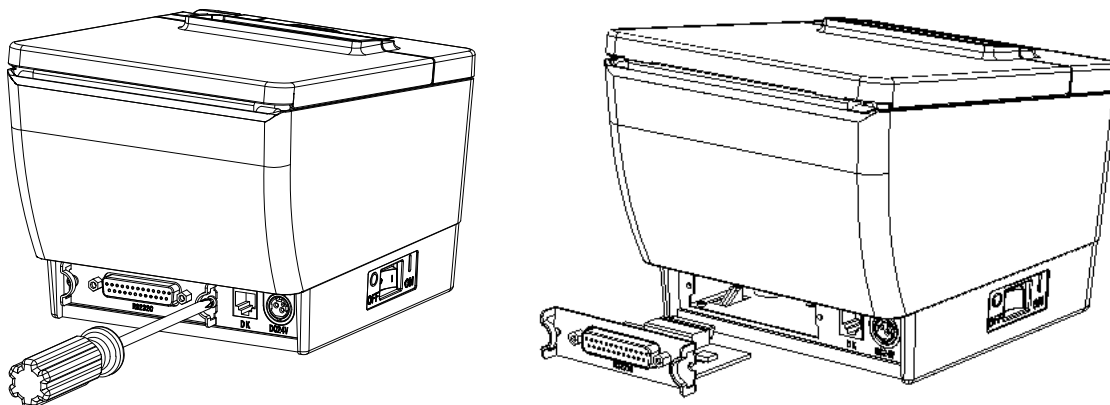
NOTE

- When Remaining Receive Buffer Capacity Response (USB) (MS2-5) is set to ON (Enable), do not transmit the large data to prevent the character being garbled. Remaining Receive Buffer Capacity Response (USB) (MS2-5) is valid for USB communication.

□ DS Setting (Serial Model)

Serial model can set the communication settings by the DS.
DS mounts on the interface board.

(1) Remove two fixing screws from the printer and take the serial interface board.



(2) See DS Setting List for the communication settings.

□ DS Setting List

 : Default settings

Serial Interface Board DS

DS	Function	Setting	
		ON(=1)	OFF(=0)
1-4	Baud Rate	See table below	
1-3			
1-2	Parity	See table below	
1-1			

Baud Rate

Baud Rate	DS1-3	DS1-4
9600	ON	ON
19200	OFF	ON
38400	ON	OFF
115200	OFF	OFF

Parity

Parity	DS1-1	DS1-2
None	OFF	OFF
Odd	ON	OFF
None	OFF	ON
Even	ON	ON

10 CONNECTING TO THE HOST DEVICE

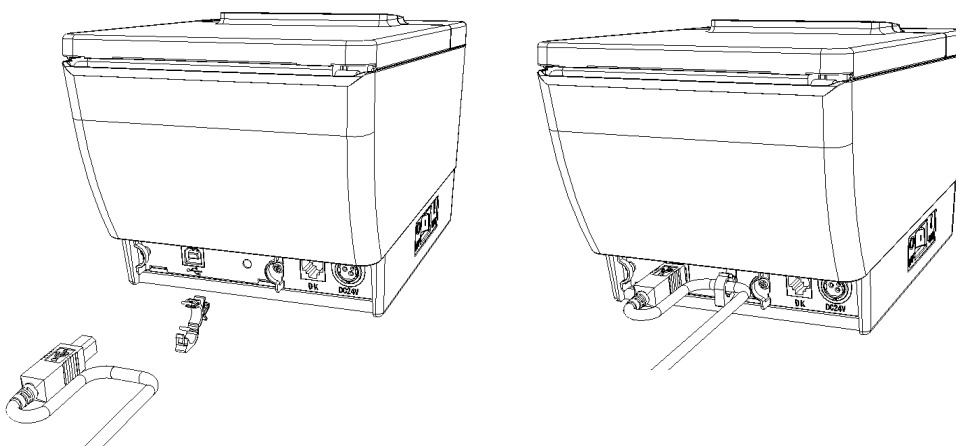
This printer supports serial and USB communication through an interface cable. The printer function setting differs depending on the printer model and the communication method which shall be used. See Section 9 FUNCTION SETTINGS for details.

An interface cable is required to perform serial or USB communication. See Section 14 SPECIFICATIONS for details of interface specifications.

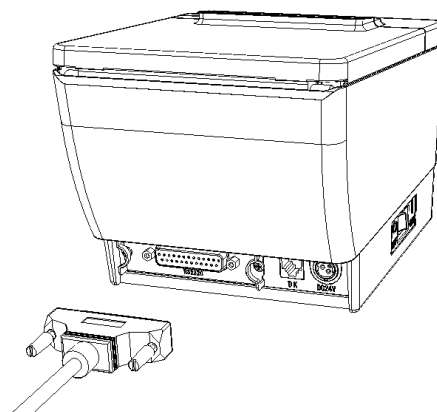
The communication speed might be reduced depending on data processing by software as well as print type and size.

□ Serial/USB Communication with an Interface Cable

- (1) Turn the printer OFF.
- (2) Connect the interface cable to use on the back side of printer.
- (3) Turn the printer ON and send data from the host device to the printer.
- (4) Verify that the data is printed correctly.



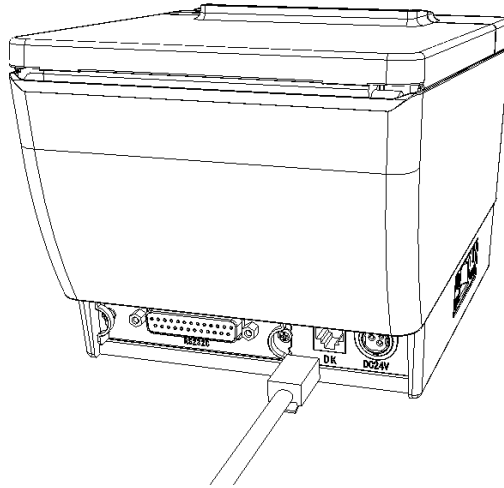
USB interface cable and Wiring clamp for USB



Serial interface cable

□ Connecting to the Drawer

- (1) Turn the printer OFF.
- (2) Connect the drawer cable to the drawer kick connector on the back side of printer. Be careful with the connection direction of the cable top and bottom.
- (3) Turn the printer ON.

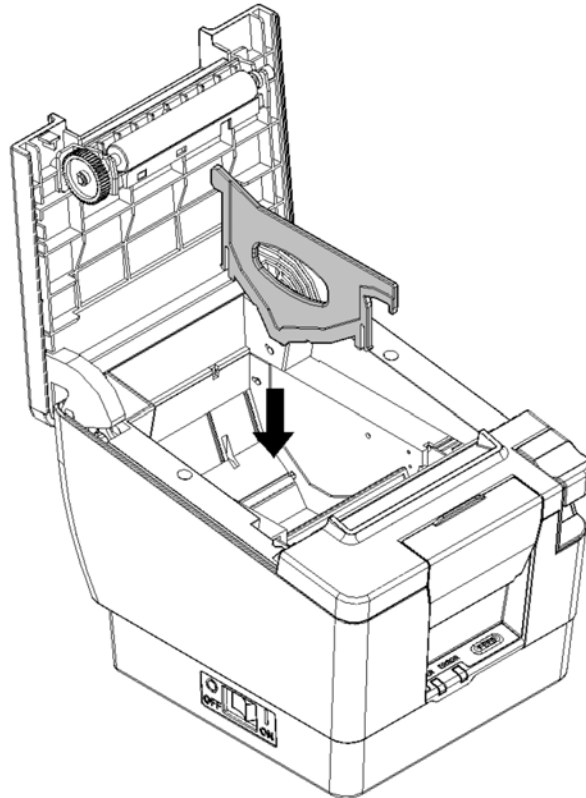


NOTE

- When connecting or disconnecting the interface cable, hold the connector and do not pull the cable certainly.
- Do not connect the connector other than the drawer. Do not connect the phone line.

11 58 mm PAPER WIDTH PARTITION PLATE SETTING

- (1) Turn the printer OFF.
- (2) Push the platen open lever to open the upper cover.
- (3) Set the partition plate as shown in the figure.
- (4) Set the Paper Width (MS2-6) as 58mm. See MS Setting List for the function setting.



NOTE

- When using the thermal paper 58mm width, the printer should be used as 58mm exclusive use.

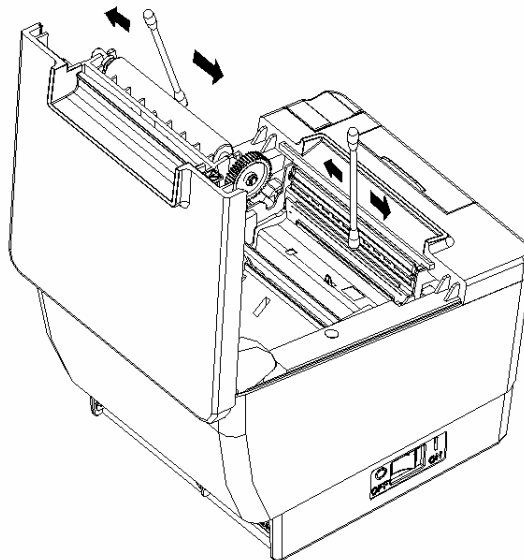
12 THERMAL HEAD MAINTENANCE

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

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

□ **Cleaning the Thermal Head**

- (1) Turn the printer OFF.
- (2) Unplug the AC plug of the AC cable to the outlet.
- (3) Open the upper cover.
- (4) Clean the thermal head or the platen roller with a cotton swab moistened with a small amount of ethyl alcohol.
- (5) Wait until any ethyl alcohol remaining on the thermal head and the platen roller evaporates completely, then close the upper cover.



NOTE

- Clean the thermal head after it cools.
- Wipe the thermal head with a cotton swab or other soft material.
- DO NOT touch the gear of the platen roller. Doing so may cause loss of printing quality or a failure.

13 TROUBLESHOOTING

Check the following points before request for repair.

□ **The power does not turn ON.**

- Is specified AC adapter being used?
- Are the AC cable and AC adapter connected correctly?
- Is the AC adapter connected to the printer correctly?

□ **The printer does not print.**

- Is the interface cable connected correctly?
- Is the specifications of interface cable conformed to its specifications of the User's Guide being used?
- Are the communication method and the function setting of the printer correct?
- Is specified paper being used? Is the paper orientation (surface/back) correct?

□ **The ERROR lamp lights or the POWER lamp blinks.**

- See the Lamp Display on page 14.
- Is the printer function setting correct?

14 SPECIFICATIONS

□ Printer Specifications

Item	Specification
Model	RP-B10
Printing method	Thermal
Characters per line ^{*1}	Paper Width 80mm: H24 dots × W12 dots 48 (42 ^{*2}) H16 dots × W8 dots 72 (64 ^{*2}) Paper Width 58mm: H24 dots × W12 dots 36 (30 ^{*2}) H16 dots × W8 dots 54 (45 ^{*2})
Character size	1-byte character H24 dots × W12 dots, H16 dots × W8 dots 2-byte character H24 dots × W24 dots, H16 dots × W16 dots
Number of effective dots	Paper Width 80mm: 576 dots (512 dots ^{*2}) Paper Width 58mm: 432 dots (360 dots ^{*2})
Dot density	8 dots/mm
Paper width/Printing width	80mm/72mm (80mm/64mm ^{*2}) 58mm/54mm (58mm/45mm ^{*2})
Printing speed	200 mm/s max.
Paper cutting method	Slide cutting
Paper cutting type	Partial cut: a tab left at the center
Operating temperature	5 to 45°C
Operating humidity ^{*3}	10 to 90%RH (Paper thickness: 65 to 75 μm, no condensation) 35 to 85%RH (Paper thickness: other than above, no condensation)
Dimensions	W150 × D185 × H139.5mm ^{*4}
Mass	Approx. 1.3kg (exclude the thermal paper)
Input voltage	24.0VDC ±5%

*1: 1-byte character, character spacing is 0 dot.

*2: When selecting 512/360 dots by MS2-7.

*3: Refer to the technical reference for the allowable humidity range at each temperature.

*4: Excluding projections.

□ Specified AC Adapter Specifications (Option)

Item	Specification
Model	PW-A2421-W1
Input voltage	100-240 VAC, 50/60 Hz
Rated output	24.0 VDC, 2.15A
Operating temperature	0 to 50°C
Dimensions	W135 × D70 × H34.5mm ^{*1}
Mass	Approx. 400 g

*1: Excluding cable

□ Interface Specifications

· Serial interface

Item	Specification
Synchronous	Asynchronous
Baud rate	9600, 19200, 38400 or 115200bps
Data length	7 or 8 bits
Parity	None, Even or Odd
Data control	Busy or Xon/Xoff

Connector signals

Pin	Signal	I/O
1	FG	-
2	TxD	O
3	RxD	I
4	RTS	O
6	DSR	I
7	GND	-
20	DTR	O

· USB interface

Item	Specification
Version	Ver 2.0 conformity
Printer data transmission mode	Bulk transfer (12M bps)

Connector signals

Pin	Signal
1	Vbus
2	D-
3	D+
4	GND

□ List of Compliance with Regulation

Check the list below to see if the printer and its accessories can be operated in destination countries and comply with the regulations.

○: Compliance with regulation

Regulation under countries ^{*1}	RP-B10	PW-A2421-W1 ^{*2}
Japan	○	○
USA	○	○
Canada	○	○
EU, EFTA	○	○

*1: Please ask your SII sales representative if you want to operate the products in other countries than listed above.

*2: The compliant AC cable differs from country to country.

Please see the list below to find out which cable you need to connect in destination countries.

□ List of Specified AC cable

For Specified AC Adapter (PW-A2421-W1)

Countries	Model ^{*1}	Manufacturer
Japan	CB-JP03-20A	SII
USA, Canada	CB-US03-20A	SII
EU, EFTA	CB-CE03-20A	SII
United Kingdom	CB-UK02-20A	SII

* 1: Use the model only in countries in the list.

15 OPTIONS AND CONSUMABLE PARTS

□ Options

Name	Model
Specified AC adapter	PW-A2421-W1
Specified AC cable	
For Japan	CB-JP03-20A
For USA, Canada	CB-US03-20A
For EU, EFTA	CB-CE03-20A
For United Kingdom	CB-UK02-20A
Mounting kit	
Wall Mounting kit	WLK-A01-1
Vertically Mounting kit	VTK-A01-1

*: The shape of the power outlet differs in countries. Please confirm it before using.

□ Specified Thermal Paper line ^{*1}

Model	Manufacturer
TF60KS-E	Nippon Paper Industries Co.
PD160R	Oji Paper Co., Ltd.
PDC85	Oji Paper Co., Ltd.
P220VBB-1	Mitsubishi Paper Mills., Ltd.
F5041	Mitsubishi Hi-Tech Paper
Alpha400-2.1	Appleton

*1: We do not offer these models.

If using the thermal paper that is not specified, quality of printing or specified life span of the thermal head would not be guaranteed.



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(Specifications are subject to change without notice.)