

# THERMAL PRINTER BL2-58 INSTRUCTION MANUAL

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

## Introduction

Thank you very much for purchasing the BL2-58 thermal printer. Read the 'Safety Instructions' and '1. Operating Precautions' carefully before using this printer for safe handling of it. Save these instructions for future reference.

## Safety instructions

To use this equipment safely, or to protect damage to the equipment, the following symbols are used throughout this manual to highlight safety information.

	<b>Warning</b>	The symbol indicates that failure to observe these instructions or mishandling of this equipment could lead to severe injury or death.
	<b>Caution</b>	The symbol indicates that failure to observe these instructions or mishandling of this equipment could lead to injury or only property damage.

## Examples of Symbols

The symbol indicates caution (including DANGER or WARNING). The example in the left column indicates that caution or warning conditions exist.

The symbol indicates the action is prohibited. The example in the left column indicates disassembly is prohibited.

The symbol indicates a required operation that must be performed or an obligatory instruction. The example in the left column indicates unplugging is required.

## Warning

	Do not use any battery pack, AC adapter and AC power cord. Failure to follow this instruction may result in overheating or inflammation, which may lead to fire or accidents.
	Do not bend the power cord forcibly, or place heavy objectives on the power cord. Doing so may damage the power cord and cause fire or electric shock. If the power cord is damaged, discontinue using it.
	Never disassemble the printer, the AC adapter, the AC power cord, the battery pack or the battery charger. Failure to follow this instruction may result in overheating or inflammation, which may lead to fire or accidents.

## Caution

	Do not drop any metallic objects nor spill coffee, soft drinks, water and any other liquid.
	As the thermal head may be very hot immediately after printing, do not touch it. Be sure that the thermal head is cool before removing the paper jam or cleaning the thermal head.
	Do not plug or unplug the AC adapter and batteries with wet hand. It may result in electric shock, burn and failure.
	Do not use the printer in place where it will be exposed to excess moisture and where it is watered. It may result in electric shock, burn and failure.
	Remove the interface cable or AC adapter from the connector or the receptacle by holding the connector or the AC plug. Never pull the cable itself. Doing so may damage the cable or adapter.
	For following case, turn the printer power OFF, unplug the AC power cord from outlet, and remove the battery. Continuous use may occur the printer failure, fire and electric shock. <ul style="list-style-type: none"> <li>◆ In case the problem is not cleared and fixed</li> <li>◆ Emitting smoke, making unusual noise and odd smell from the printer</li> <li>◆ The metallic object dropped or spilled liquid into the printer</li> </ul>

## 1. Operating Precautions

Observe the following for safe and proper operation.

### Notes on use

- ◆ Do not subject the printer to strong shocks by dropping or hitting it.
- ◆ Turn off the power switch and keep the AC plug removed from the outlet when the unit is not used.
- ◆ Do not pull the paper from the exit. It may cause the damage or failure of the printer mechanism.

### Notes on treatment of thermal paper

- ◆ Store the paper in a dry, cool and dark place.
- ◆ Do not rub the paper with hard substance.
- ◆ Keep the paper away from organic solvent.
- ◆ Do not let the paper touched with vinyl chloride film, eraser or adhesive tapes for hours.
- ◆ Do not put the paper on diazo print or wet copy that has just been copied.

### Notes on installation

- ◆ Install the printer on a level or upright and stable surface.
- ◆ Avoid such places with: Slanted surface, strong vibration, direct sunlight, full of dust, excessively high or low temperature, electromagnetic noise, corrosive gas

## 2. Preparation

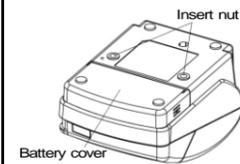
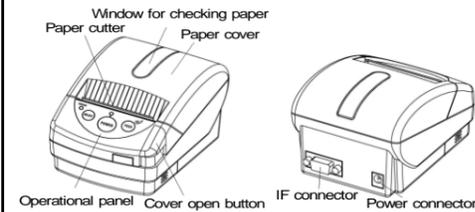
### 2.1 Unpacking

When unpacking the printer, make sure the following components are provided.

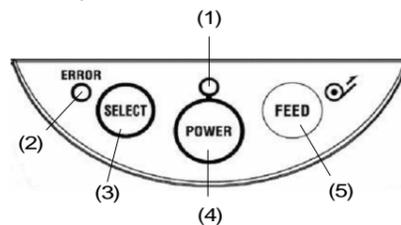
- Printer unit 1 unit
- Thermal paper (paper length 15m) 1 roll
- Instruction manual 1 volume
- AC adapter 1 piece
- AC power cord 1 piece

★ For ordering the thermal paper, contact our sales office or local distributors.

### 2.2 Components / parts



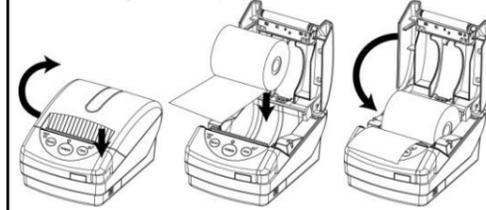
Operational panel



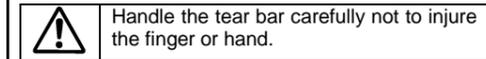
- (1) POWER LED : Indicates the status of the power.
- (2) ERROR LED : Indicates printer errors..
- (3) SELECT button : Selects the printer mode.
- (4) POWER button : Turns the power ON/OFF.
- (5) FEED button : Feeds the thermal paper while pressing this button.

## 3. Handling

### 3.1 Setting thermal paper

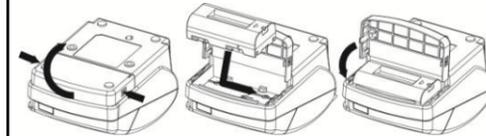


- ① Press the cover open button to open the paper cover.
- ② Set the paper roll as shown in the picture (Make sure the printing surface is correct, or it does not print properly)
- ③ Close the paper with the tip end emerging from the tear bar.



### 3.2 Battery pack

#### ● Installing battery pack



- ① Place the printer upside down. Press both sides of the battery cover and lift it up.
- ② Place the battery pack in the case and slide it in the direction shown by the arrow until locked
- ③ Close the battery cover.

#### ● Remove battery pack

Perform installation steps in reverse.

#### ● Battery charge (Models with built in charger)

- ① Turn the power ON with connecting AC adapter.
- ② Press SELECT button on the operational panel for 3 sec, then POWER LED and ERROR LED blinking indicates charging.
- ③ When the battery charging completes, the printer status becomes standby and POWER LED on.
- ④ It takes an average of 3 hours (UR-250), and for Ave. 2.5 hours (UR-121) to charge. (Max. 4 hours)

▼ With a new full charged battery, the printer prints 210m in case of UR-250, and prints 140m in case of UR-121. (Continuous printing, Printing density 100%, Printing ratio 30%)

▼ Keep the battery pack removed from the battery case when the printer is not used for long periods.

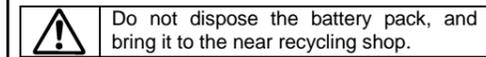
▼ After full charging of the battery pack, the printer cuts off charging automatically and the printer does not recharge again. Be sure the battery voltage is reduced after charging and discharging continuously because of memory effect.

▼ The battery pack is worn out after charging and discharging. The battery capacity is reduced to 80% of a new battery after 300 cycles of charging.

▼ The battery works shorter time at low temperature area.

▼ When the working time becomes noticeably shorter than normal, replace the battery pack.

▼ The printer can not print while charging.



### 3.3 How to set to upright wall

Please ready two screws (M3x3mm), and set the printer to upright wall not sideling in the vicinity and from side to side, keeping power connector side down, using the insert nut in back side.

### 3.4 LED indication

When an error occurs, the POWER/ERROR LED lights or blinks depending on the type of errors.  
○: Turn ON for 0.1sec ●: Turn OFF for 0.1sec

Status	POWER (Green)	ERROR (Red)	Recovery
Standby printing	ON	OFF	***
Initializing	ON	○●○●	Complete initialization
Recharging	○●○●	●○●○	Complete charging
Temperature error	ON	○●●●	Cooling down
Paper empty	ON	ON	Put paper
Paper cover open	ON	ON	Close the cover
Low battery	○●○●	OFF	Recharge battery
Excess recharge	○●●●	ON	Contact Sanei
Upper limit voltage error	OFF	OFF	Contact Sanei
Lower limit voltage error	○●●●	OFF	Contact Sanei

### 3.5 Self test print

Turning the power switch ON while pushing the FEED button starts self test print. The printer prints character sets and barcode.

### 3.6 HEX dump print

Data entered from the computer is printed in hexadecimal numbers. While pressing SELECT button, turn ON the power switch. When the mode selecting is printed, press the SELECT button, then starts the HEX dump mode.

### 3.7 Function set (Soft switch)

Sets the printer function by Soft switch.

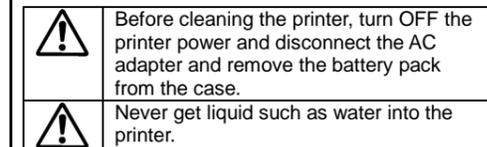
- ① While pressing the SELECT button, turn ON the power switch.
- ② After printing the mode selecting, push the FEED button to enter the function setting mode.
- ③ When a message is printed, press the FEED button for YES and the SELECT for NO.
- ④ The printer prints 'SETTING MODE END' when ending.

#### Setting items

- Classified setting items are as follows.
    - COMMON SETTING : Common information
    - MODE-B SETTING : BL-58 compatible
    - INTERFACE SETTING : Interfaces
- For further information, please refer to the BL2-58 Technical Guide.

### 3.8 Maintenance

Clean the thermal head, the platen roller and Sensors periodically. The details show in the Technical Guide.



## 4. Specifications

### 4.1 General specifications

Command systems:	ESC/POS, BL-58
Print method:	Direct line thermal
Interface	
BL2-58S	Serial (RS-232C) Connector : D-sub 9pin Male
BL2-58P	Parallel (Centronics) Connector : D-sub 25pin F-male
BL2-58U	USB ver.2.0 Connector : B type round 4-PIN

Printing speed Max.80mm/sec  
(Dedicated AC adapter, Printing ratio 12.5% or less)

Printing width/paper width 48mm/58mm  
Barcode UPC-A/E, JAN13/8, CODE39, ITF, CODABAR, CODE128

Option 2D barcode QR, MaxiCode, PDF417, MicroPDF417, DataMatrix

### Power source

**Battery pack: Li-ion battery (option)**

Part No. : UR-250, UR-121

Dedicated AC adapter

Part No. : BLS-120W

Input : AC100V~240V, 50/60Hz

Output : DC9.0V 3.0A

### AC power cord

Part No. : ACS-120A (Japan)

ACS-100G (Europe)

ACS-100U (USA)

Dimensions (WxDxH, No protruding parts)  
93mmx125mmx70mm

Weight approx.265g  
(without thermal paper and battery pack)

### Operating environment

Temperature When battery is used  
-10°C to +50°C  
When AC adapter is used  
0°C to +40°C  
While recharging battery  
0°C to +35°C  
Printing quality guarantee  
+5°C to +40°C

Humidity 20%RH to 85%RH  
(No condensation)

### Storage environment

Temperature -20°C to +60°C  
Humidity 10%RH to 90%RH  
(No condensation)

Thermal paper Part No. : P-58-30  
Paper width : 58mm  
Length : approx.30m  
Outer diameter. : 50mm

**EMC regulations**  
VCCI CLASS B, FCC CLASS B, CE marking

Input buffer 8k bytes

- © The printer models are listed in Technical Guide. ( B L 2 - 5 8 □ □ □ □ □ C )
- © Updated printer drivers, specifications, and Technical Guide are listed in the Website.
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