

BP-4000 Smart Battery Station

Applicable Series

DH240 / DH220 / DH220L

TH240 / TH220



User Manual

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1 Introduction

Thank you very much for purchasing the BP-4000 smart battery station.

The BP-4000 smart battery station enhances the mobility of TH and DH series desktop printers, delivering reliable power and smart management for on-the-spot printing.

Key Features

- Detachable battery station brings mobility to TH and DH series desktop printers
- High-capacity 4,000mAh battery powers printing of 40,000+ inches of media on a single charge
- Smart battery with Battery Management System (BMS) enables status monitoring via printers, TSC Console, and TSC Console Web
- Swappable battery design allows easy removal and charging with a printer power supply

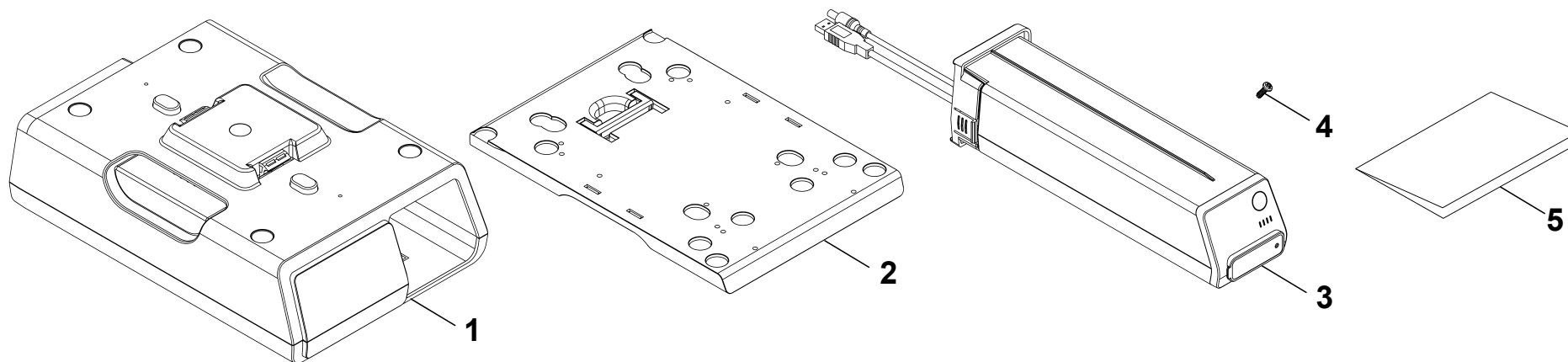
2 Specifications

Model	Description
Battery Type	Rechargeable Li-ion smart battery
Physical Dimension	- Battery Pack: 81mm (W) x 80mm (H) x 297mm (D); 3.19" (W) x 3.15" (H) x 11.69" (D) - Base Housing: 200mm (W) x 95mm (H) x 294mm (D); 7.87" (W) x 3.74" (H) x 11.57" (D) - Printer Quick Release Plate: 183mm (W) x 18mm (H) x 262mm (D); 7.20" (W) x 0.71" (H) x 10.31" (D)
Weight	- Battery Pack: 1.17kg; 2.58lbs - Base Housing: 0.79kg; 1.74lbs - Printer Quick Release Plate: 0.36kg; 0.79lbs
Nominal Capacity	4000mAh, 86Wh
Interface	1 DC-in port for battery charging 1 DC power plug cable for supplying power to the printer 1 USB-A cable for connecting to the printer for battery management 2 front USB host ports for storage devices or a USB keyboard/scanner
DC Input	24Vdc, 2.5A
DC Output	- DC power plug cable: 24Vdc, 1A - USB1: 5Vdc, 0.5A - USB2: 5Vdc, 0.5A
Charging Time	Less than 4 hours
Operation Button and LED	1 battery power button 4 LED indicators for battery status
Environment Condition	- Charging: 0°C to 40°C (32°F to 104°F), 45% - 85% non-condensing - Discharging: 0°C to 40°C (32°F to 104°F), 45% - 85% non-condensing - Storage: -20°C to 40°C (-4°F to 104°F), Less than 70% non-condensing
Battery Life Cycle	550 cycles at 80% capacity retention
Safety Regulation	CB, FCC, ICES-003, CE, UKCA, RCM, BSMI, CCC, BIS, UN38.3

Model	Description
Environmental Concern	Comply with RoHS, REACH, WEEE, China RoHS
Applicable Models	TH240 series, DH240 series, TH220 series, DH220 series, and DH220L series NOTE: DH220E series printers are not supported.

3 Unpacking and Inspecting

The battery station has been specially packaged to withstand damage during shipment. Retaining the packaging materials is recommended in case you need to ship the battery station. When unpacking, ensure that you have received all the following items:



1. Base housing x1
2. Printer quick release plate x1
3. Battery pack with its cables x1

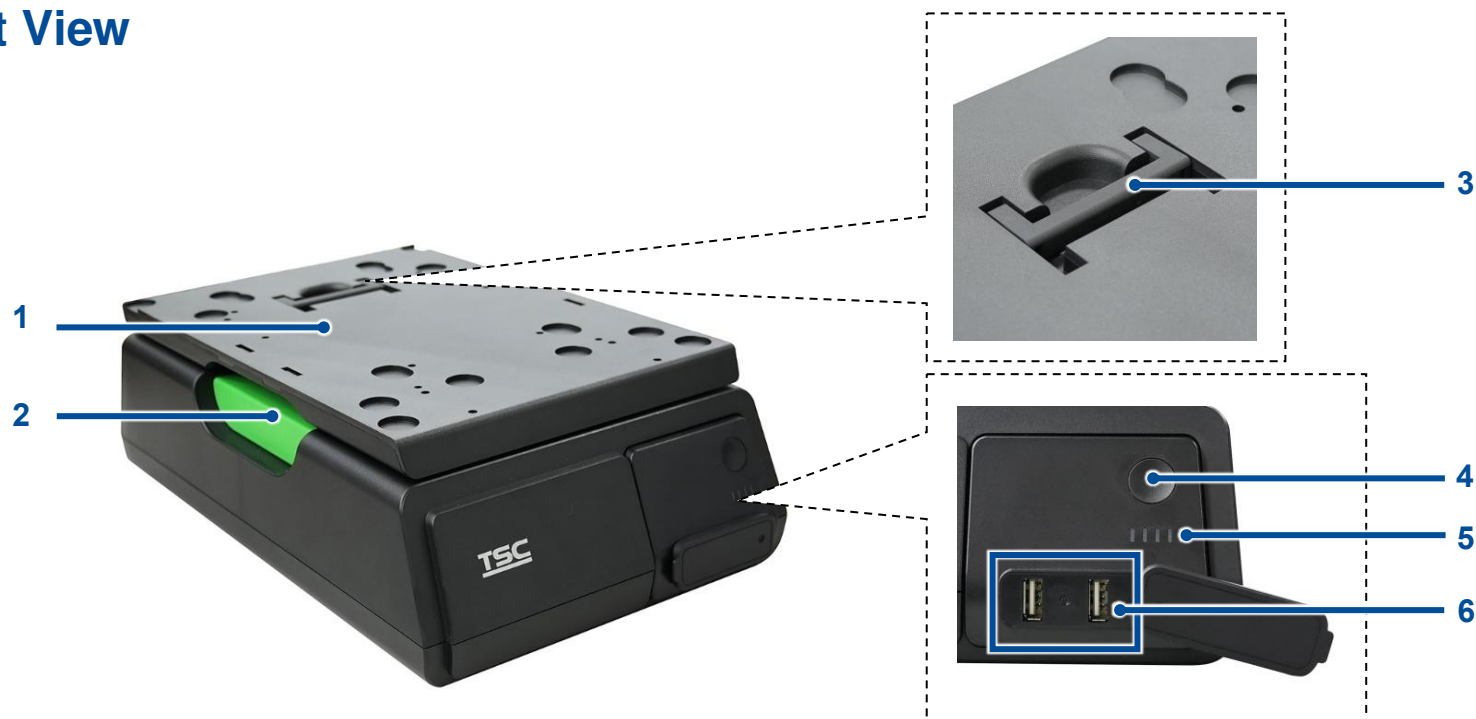
NOTE: The cables on the rear side of the battery pack are not removable.

4. Round-headed self-tapping screw (TP3*L15) x5
5. Quick Installation Guide x1

If anything is missing or damaged, please contact the customer service department of your reseller or distributor.

4 Getting to Know the Battery Station

4.1 Front View



No.	Item	Description
1	Printer quick release plate	Secures the printer to the base housing.
2	Quick release button	Releases the printer quick release plate from the base housing.
3	Printer hooks	Secures the printer to the printer quick release plate.
4	Battery power button	Press the button to turn on the battery LEDs that indicate the battery remaining capacity when the battery pack is not connected to AC power.
5	Battery LEDs	Refer to Battery LEDs for more information.
6	USB host	Connects external keyboard, scanner, or USB storage device.

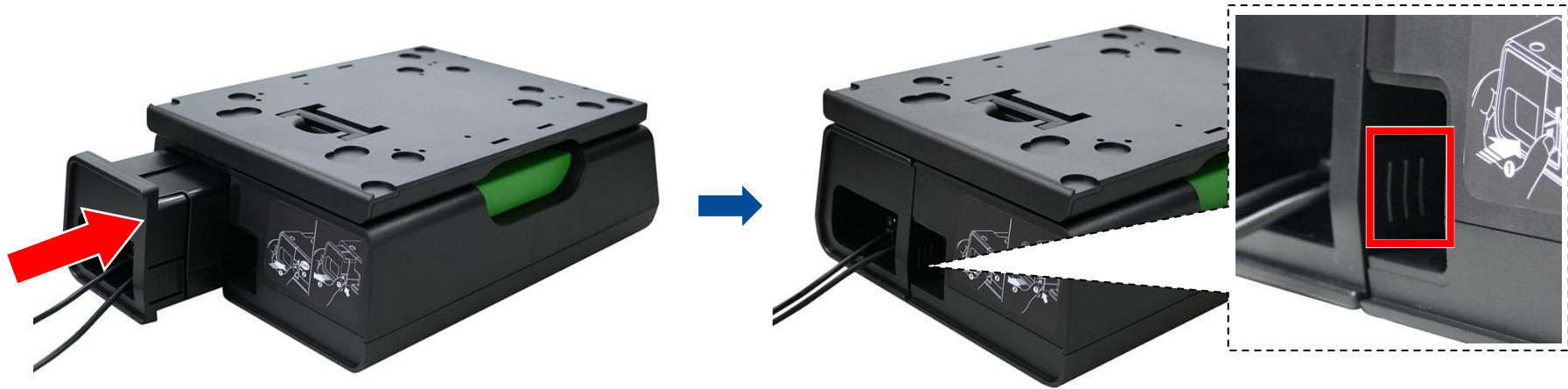
4.2 Rear View



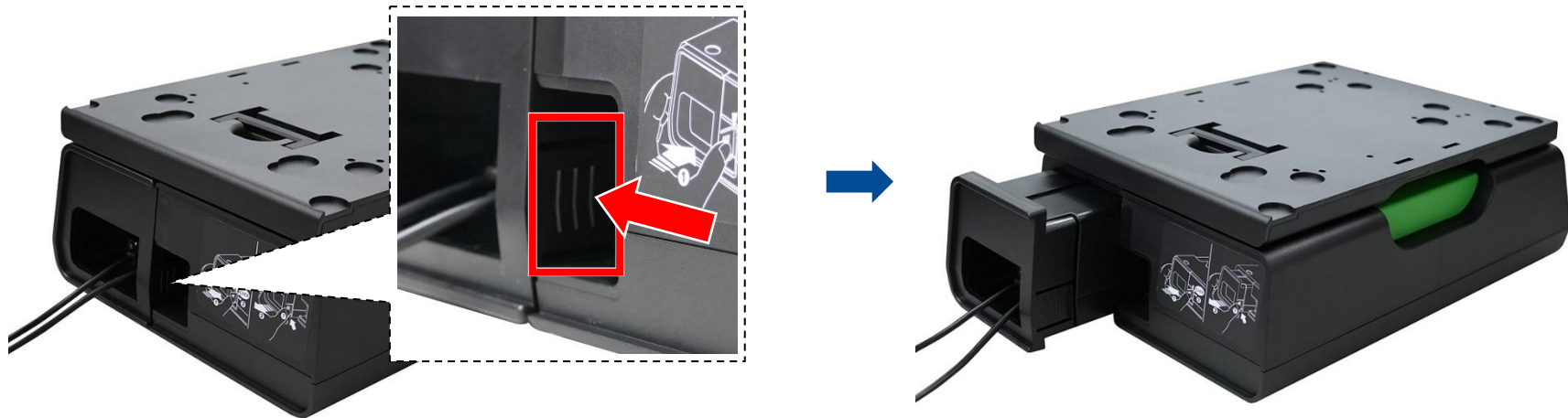
No.	Item	Description
1	DC-in port	Connects to an AC adapter. The DC-in port is used for charging the battery pack.
2	DC power plug cable	Connects to the DC-in port on the rear side of the printer.
3	USB-A cable	Connects to the USB host on the rear side of the printer.
4	Battery pack release latch	Press it to release the battery pack from the base housing.

5 Installing and Removing the Battery Pack

To install the battery pack, slide the battery pack into the base housing until the battery pack clicks into place.



To remove the battery pack, press and hold the latch to release the battery pack and then pull out the battery pack.



6 Installing Your Printer onto the Battery Station

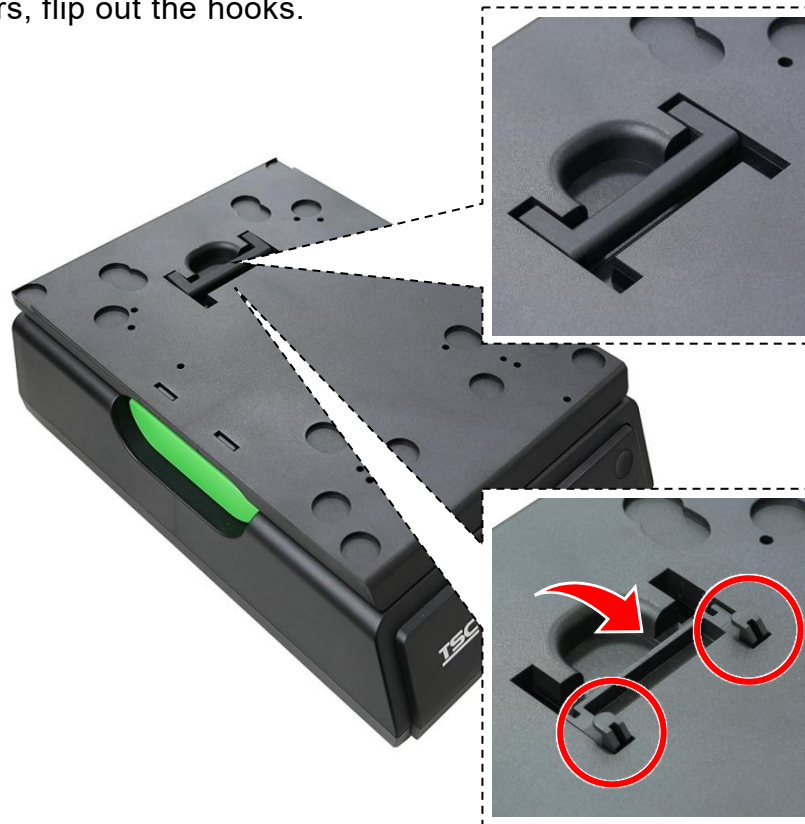
6.1 Information on the Printer Quick Release Plate

Hooks on the top side

The top side of the quick release plate features two hooks used for securing the printer in place.

When installing the DH240, TH220, or TH240 series printers, close the hooks.

When installing the DH220 series printers, flip out the hooks.



Close the hooks when installing the DH240, TH220, or TH240 series printers.

Flip open the hooks when installing the DH220 series printers.

Annotation on the bottom side

The annotation on the bottom side of the printer quick release plate indicates where the screws should be installed to secure the printer in place.



6.2 Installation Sequence for DH220L / DH240 / TH220 / TH240 Series Printers

NOTE: This section demonstrates how to install the TH220 printer onto the battery station. The same process is also applicable to the DH220L, DH240 and TH240 series printers.

1. Press the button to release the printer quick release plate from base housing.



2. Lay the printer upside down ensuring that the front side of the printer faces the user as indicated.



3. Place the quick release plate on the bottom of the printer ensuring that the cushions on the bottom of the printer are aligned with its corresponding circular dents on the holder.



4. Install the supplied screws to the corresponding locations on the quick release plate to secure the plate on the bottom side of the printer. In this demonstration, the screws should be installed on the locations marked with **TH220**.



5. Press the printer with the quick release plate together perpendicularly and evenly as demonstrated until it clicks into place.



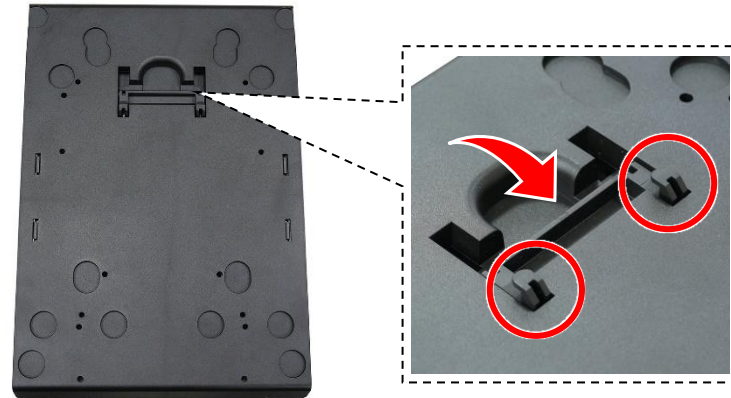
6.3 Installation Sequence for DH220 Series Printers

NOTE: The same process is also applicable to all DH220 series printers. For how to install the DH220L series printers please refer to [Installation Sequence for DH220L / DH240 / TH220 / TH240 Series Printers](#).

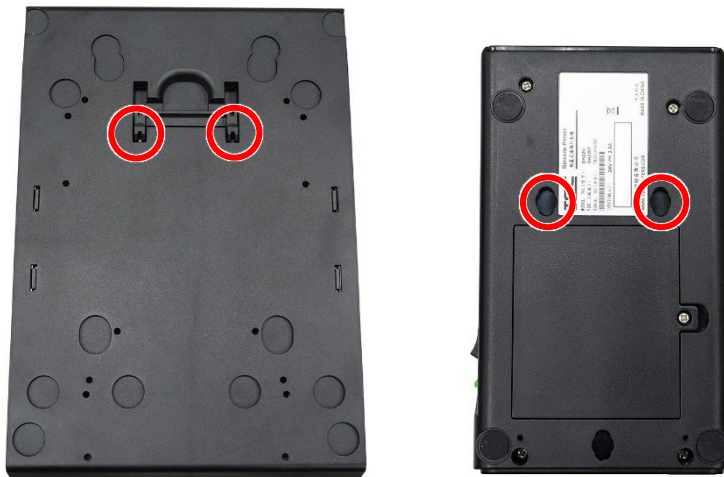
1. Press the button to release the printer quick release plate from base housing.



2. Flip out the hooks on the top side of the printer quick release plate.



3. Align the hooks with the holes on the bottom of the printer.



4. Slide the printer in the indicated direction to secure the printer on the quick release plate.



5. Flip over the printer and the quick release plate together.



6. Install the supplied screws to the corresponding locations on the quick release plate to secure the plate on the bottom side of the printer. In this demonstration, the screws should be installed on the locations marked with **DH220**.



7. Press the printer with the quick release plate together perpendicularly and evenly as demonstrated until it clicks into place.



7 Turning on Your Printer



All batteries are preset to shutdown mode before shipment. To exit shutdown mode, connect the battery to an external power source for approximately three seconds. When connecting to an external power source, please use the original TSC printer power adapter.

After exiting shutdown mode, power on the printer in the following order:

1. Connect the USB-A cable to the USB host on the rear side of the printer.
2. Connect the battery cable to the DC-in jack on the rear side of the printer.
3. Press the battery power button.
4. Turn on the printer.

8 Charging the Battery Pack



To charge the battery pack, connect the printer's adapter to the rear side of the battery pack and connect the power cable to an AC power.

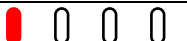
NOTE: If the battery will not be used for an extended period due to storage or other reasons, it is recommended to recharge it at least once every 30 days.

9 Battery Pack LEDs

When the battery pack is connected to AC power, the LEDs indicate the battery charge status.

LEDs Status	Remaining Battery Power Level
	75% to 100%
	50% to 75%
	25% to 50%
	under 25%

When the battery pack is not connected to AC power, you can press the battery power button to turn on the battery pack LEDs and see the remaining battery power level.

LEDs Status	Remaining Battery Power Level
	75% to 100%
	50% to 75%
	25% to 50%
	under 25%
	almost 0

10 Agency Compliance and Approvals

	EN 55032:2015+A11:2020 Class B EN IEC 61000-3-2:2019+A1:2021 EN 61000-3-3:2013+A2:2021 EN 55035:2017+A11:2020
	CFR Title 47 Part 15 Subpart B:Section 15.107 and 15.109 This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: - Reorient or relocate the receiving antenna. - Increase the separation between the equipment and receiver. - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. - Consult the dealer or an experienced radio/ TV technician for help. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This Class B digital apparatus complies with Canadian ICES-003 Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada
NOTE: This is a Canadian EMC, no logo available.	ICES-003 Issue 7:2020
	AS/NZS CISPR 32, Class B

	GB31241-2022
	IS 16046:Part 2 (2018)/IEC 62133-2
	CNS 13438 (2006) CNS 14336-1 (2010) CNS 15364 (2013)

重要安全說明：

- 請閱讀所有說明並保存以供日後使用。
- 請遵守產品上的所有警告和說明。
- 清潔前或發生故障時，請從電源插座拔除電源。請勿使用液態或噴霧清潔劑。請使用適合清潔的濕布。
- 電源插座應安裝在設備附近並易於觸及。
- 必須防止裝置受潮。
- 安裝裝置時請確保穩定性，傾斜或掉落可能造成損壞。
- 務必遵守製造商提供的標籤上所示的正確額定功率和電源類型。
- 關於最高工作環境溫度，請參閱使用手冊。



警告：

可動部位。請讓手指或身體遠離可動部位。

注意：

如果更換不正確的電池類型，會有爆炸的風險。

請依照下述指示處置用過的電池。

- 請勿將電池投入火中。
- 請勿使觸點短路。
- 請勿拆解電池。
- 請勿將電池丟入都市廢棄物。
- 垃圾桶畫叉圖案表示電池不應該放置在都市廢棄物中。

電池安全警告：

- ◎ 勿將電池扔于火中。
- ◎ 勿將電池接點短路。
- ◎ 不可拆解電池。
- ◎ 不亂將電池當成一般廢棄物處理。
- ◎ 打叉的垃圾桶符號表示電池不應該被放置到一般廢棄堆中。

注意：

- ◎ 更換不正確型號類型的電池，將產生爆炸危險。
- ◎ 請根據使用說明處理用過的電池。

鋰電安全使用指南：

注意：電池若未正確更換，可能會爆炸。請用原廠建議之同款或同等級的電池來更換。請依原廠指示處理廢棄電池。



注意：

列印頭的高溫表面。降溫之前，請勿觸碰列印頭。

警告：

打開掀蓋以清潔或修復故障之前，請從電源插座拔除電源。清潔或修復故障之後，請先關上掀蓋再將電源連接至電源插座。

CE Statement:

This equipment complies with EU radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

The full text of the EU declaration of conformity is available at the following internet address: <http://www.tscprinters.com>

Canada, Industry Canada (IC) Notices

This Class B digital apparatus complies with Canadian ICES-003 and RSS-210.

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.

Revision History

Date	Description	Editor
2026/02/23	Official release.	Peter Yao



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