TSC

Mobile Barcode Printer

TDM-20/30 Series

Direct Thermal

Series Models

TDM-20 / TDM-30

User Manual

Copyright

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Contents

1 Introduction

TSC's new mobile barcode printer line, the TDM Series, is intelligently designed for on-the-go printing. Mobile printing is an excellent solution for any business that needs to print on demand. The TDM Series is equipped to operate across different platforms with multiple connectivity options. Its lightweight, durable and flexible design, coupled with ease of operation without sacrifice of functionality, is especially critical for retail and mobile point of sale (MPOS) applications.

The TDM Series' rugged palm-size design has passed extensive testing for consistent, long-lasting performance. And its real-time printer health status provides two important functions: 1) The self-diagnostic TPH Care Mechanism ensures stable, high-quality printouts every time, and 2) The TDM-30 Battery Management solution effectively monitors the charging status to maximize battery capacity. With the TDM-20 1130mAh and TDM-30 3080mAh battery, workers can use the printers for an entire shift without downtime.

The TDM Series has a wealth of tools that guarantees easy integration into your MPOS system: Bluetooth is MFi certified and can be connected with an NFC tag; ESC/POS language is supported and has an OPOS driver for POS systems; a smartphone application for both Android and iOS is available for browser-based applications; and Software Development Kits (SDKs) and printer languages are available for all your other software integration needs.

This document provides an easy reference for operating this printer. TSC printers include the Windows labeling software for creating your label template. For system integration, the TSPL/TSPL2 printer programming manual or SDKs can be found on TSC website at: https://www.tscprinters.com.

1.1 Specifications

| Model	TDM-30	TDM-20
Resolution	8 dots/mm (203 dpi)	
Printing Method	Direct Thermal	
Max. Print Speed	Up to 102 mm (4")/second	
Max. Print Width	72 mm (2.83")	48 mm (1.89")
Max. Print Length	2,794 mm (110")	
Enclosure	Plastic	
Physical Dimension	105.0 mm (W) x 116.0 mm (H) x 49.5 mm (D) 4.13" (W) x 4.57" (H) x 1.95" (D)	79.0 mm (W) x 116.0 mm (H) x 36.5 mm (D) 3.11" (W) x 4.57" (H) x 1.44" (D)
Weight (Including Battery)	375 g (0.83 lbs.)	215 g (0.47 lbs.)
Drop Specification	1.8 m (5.9 ft), with IP54 case can be 2.5 m (8.2 ft)	
IP Rating	IP42 (without case), IP54 (with case)	
Max. Roll Capacity	40 mm (1.6") OD	30 mm (1.2") OD
Processor	32-bit RISC CPU	
Memory	▪ 16 MB Flash memory ▪ 32 MB SDRAM	
Interface	▪ USB 2.0 + MFi Bluetooth 5.0 + Passive NFC tag ▪ USB 2.0 + 802.11 a/b/g/n wireless with Bluetooth 5.0 + Passive NFC tag **NOTE:** Either one of the two items above.	
Power	7.4V DC, 3080mAh Li-ion rechargeable battery	7.4V DC, 1130mAh Li-ion rechargeable battery
Operation Switch, Button	3 buttons (On/off, feed, and cover-open)	
User Interface	▪ 1 LED for printer status, 3 LEDs for battery status, 1 LED for wireless status ▪ 1 LCD, 1 LED for printer status, 1 LED for wireless status **NOTE:** Either one of the two items above.	1 LED for printer status, 3 LEDs for battery status, 1 LED for wireless status

Model	TDM-30	TDM-20
Sensors	▪ Head open sensor ▪ Reflective sensor mode ▪ Transmissive sensor mode (factory option)	▪ Head open sensor ▪ Reflective sensor
Internal Font	▪ 8 alpha-numeric bitmap fonts ▪ One Monotype Imaging® CG Triumvirate Bold Condensed scalable font	
Barcode	▪ 1D barcode Code 39, Code 93, Code128UCC, Code128 subsets A.B.C, Codabar, Interleave 2 of 5, EAN-8, EAN-13, EAN-128, UPC-A, UPC-E, EAN and UPC 2(5) digits add-on, MSI, PLESSEY, POSTNET, China POST, GS1 Data bar ▪ 2D barcode PDF-417, Maxicode, DataMatrix, QR code, Aztec	
Printer Language	TSPL-EZD (EPL2, ZPL2, DPL), ESC-POS or CPCL emulation	
Media Type	▪ Reflective sensor model: receipt paper, bline receipt paper (black mark in printing side) & selected label ▪ Transmissive sensor model: receipt paper, bline receipt paper (black mark in printing side or backside) & label with gap	Receipt paper, bline receipt paper (black mark in printing side) & selected label
Media Width	▪ Max. 80 mm (3.15") ▪ 20 mm - 70 mm (0.79" - 2.76") with media hanger (user option)	Max. 58 mm (2.28")
Media Thickness	0.06 mm - 0.16 mm (2.4 - 6.3 mil)	0.06 mm - 0.10 mm (2.4 - 3.9 mil)
Media Height	Label: Min. 25.4 mm (1")	
Environment Condition	▪ Operation: -15 to 50°C (5 to 122 °F), 10 - 90% non-condensing ▪ Storage: -30 to 70°C (-22 to 158 °F), 10 - 90% non-condensing	
Accessories	▪ Quick start guide ▪ Belt clip ▪ Li-ion battery ▪ Power adaptor	

Model	TDM-30	TDM-20
Factory Options	▪ 802.11 a/b/g/n with Bluetooth 5.0 ▪ Vehicle mount adaptor ▪ Printer ready for docking cradle ▪ Linerless kit ▪ Enhanced printhead	▪ 802.11 a/b/g/n with Bluetooth 5.0 ▪ Vehicle mount adaptor ▪ Printer ready for docking cradle ▪ Linerless kit
User Options	▪ Micro-B USB 2.0 cable ▪ IP54-rated protective case with shoulder strap ▪ Shoulder strap kit ▪ Belt clip ▪ 1-slot docking cradle ▪ 4-slot docking cradle ▪ 1-slot battery charger ▪ 4-slot battery charger ▪ Li-ion battery ▪ 12-24V DC vehicle power adaptor ▪ 12-60V DC vehicle power adaptor ▪ 12-60V DC vehicle open end power adaptor ▪ Media hanger kit ▪ Media spacer kit	

2 Unpacking and Inspecting

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

- Barcode printer x1 (The image for the printer is used for reference only. The product appearance is based on the model you purchase.)
- Li-ion battery x1
- Quick installation guide x1
- Auto-switching AC adapter x1
- Belt clip x1
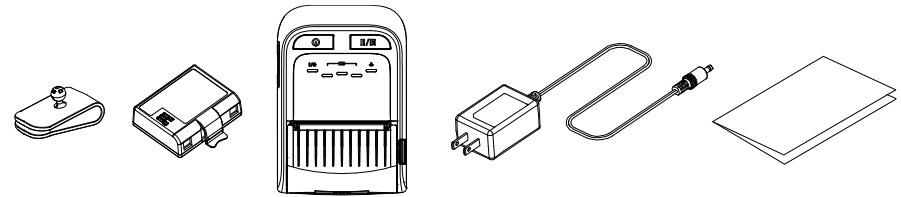
NOTE: If anything is missing or damaged, please contact the customer service department of your reseller or distributor.

3 Getting to Know Your Printer

3.1 Front View

TDM-20	TDM-30	TDM-30 (LCD)

TDM-20

1. Feed/stop button
2. Power on/off button
3. LED indicators
4. Media cover
5. Media view window
6. Media cover release button

TDM-30

1. Feed/stop button
2. Power on/off button
3. LED indicators
4. Media cover
5. Media view window
6. Media cover release button

TDM-30 (LCD)
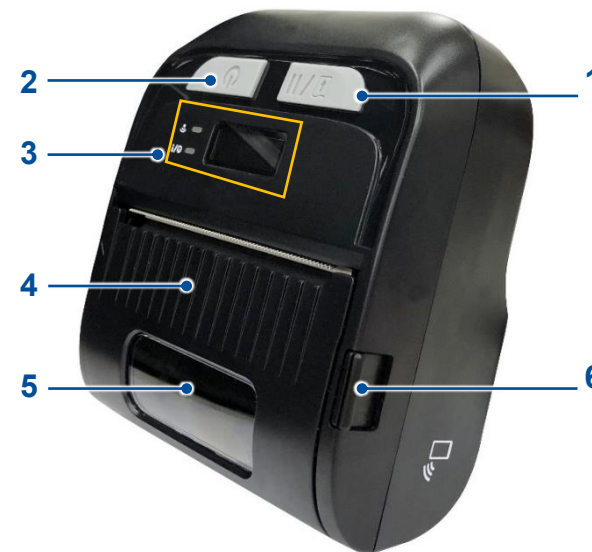
1. Feed/stop button
2. Power on/off button
3. LED indicators & LCD screen
4. Media cover
5. Media view window
6. Media cover release button

3.2 Inner View

TDM-20
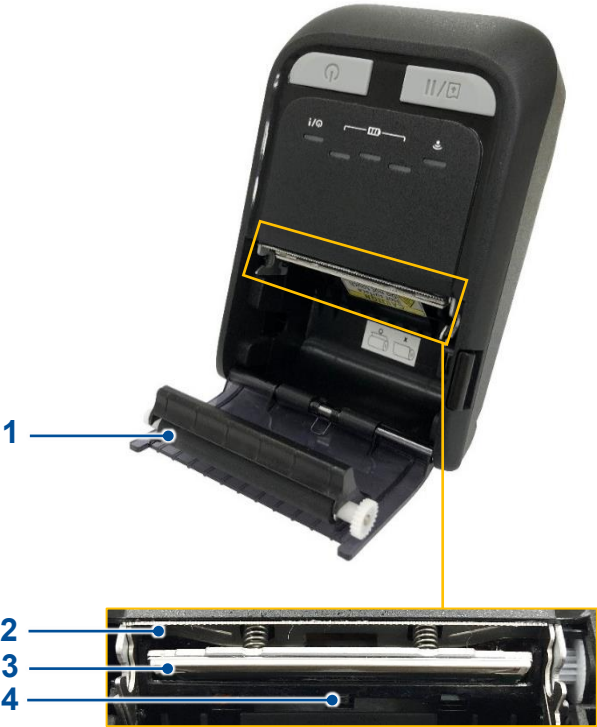
1. Platen roller
2. Tear edge
3. Print head
4. Black mark sensor

TDM-30

1. Platen roller
2. Tear edge
3. Printhead
4. Black mark sensor

3.3 Rear View

TDM-20

1. Li-ion battery
2. Battery open clasp
3. Interface cover
4. Power jack socket
5. USB interface

TDM-30

1. Li-ion battery
2. Battery open clasp
3. Interface cover
4. Power jack socket
5. USB interface

4 Setting up the Printer

The images used below show a TDM-20 printer. The same procedures are also applicable to the TDM-30 printer.

4.1 Installing the Battery

Install the battery into its compartment as indicated.
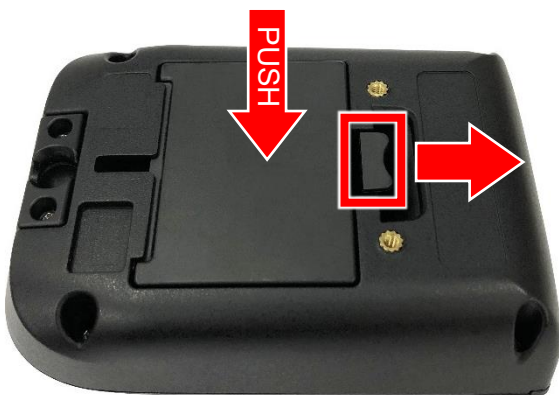
Push down the battery and then pull the battery latch to lock the battery in place as indicated.
WARNING: DO NOT throw the battery in fire. DO NOT short circuits the battery terminals. DO NOT disassemble the battery.
NOTE: Follow the regulations in your region/country when disposing the battery.

4.2 Charging the Battery / Smart Battery

Charging Temperature

The battery's normal working temperature is from 0°C to 40°C (32°F to 104°F). The device and battery charger are designed to charge battery in a safe and optimized manner. If charging the battery at high temperatures, e.g. approximately 40°C (104°F), or charging the battery with printer being turned on, the printer or battery charger may stop charging for a period of time to maintain the battery at acceptable temperatures.

Shutdown Mode

IMPORTANT: In order to store/ship the battery safely and increase the battery shelf life, the battery is set to the shutdown mode when manufactured. You need to release the smart battery (optional for TDM-30 only) from the shutdown mode when charging the battery for the first time.

Follow the steps below to release the battery from the shutdown state:

- When charging the printer with the battery installed
  No special process is required.

- When charging the battery using a 1-bay or 4-bay charger station
  1. Install the battery on the charger station.
  2. When the LED on the station illuminates blinking red, remove and re-install the battery to deactivate the shutdown mode.

4.2.1 Battery Installed in the Printer

1. Open the interface cover and then insert the supplied power connector into the power jack socket.

2. Insert the power plug into the power outlet socket.

4.2.2 Battery Installed on the 4-Bay Charger Station (optional)

1. Insert the power plug into the power outlet socket and insert the other end of the cable into the power jack socket on the 4-bay charger station.

2. Tilt to install the battery onto the charger station as indicated.

3. Perpendicularly press down the battery to secure it in place.
4. Turn on the power switch on the charger station. The battery will start charging automatically.

The LED indicator on the charger station will illuminate green when the battery is fully charged.

4.3 Loading the Media

1. Press the media cover release button to open the media cover.

2. Load the media as illustrated and then pull out the media until the media extends out of the tear edge.
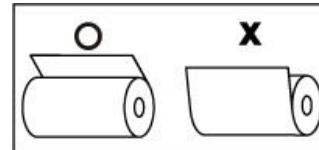
3. Press to close the media cover ensuring that the cover is firmly secured in place.

4.4 Setting up the Connection

4.4.1 Wired Connection

1. Open the printer's interface cover.
2. Insert the USB cable to the printer.
3. Insert the other end of the USB cable to your computer.

4.4.2 Connection via Bluetooth (optional)

Default	
Name	RF-BHS
PIN	0000

Refer to the section "**Setting up Bluetooth**" to configure Bluetooth for the printer.

5 Using Accessories

The images used below show a TDM-20 printer. The same procedures are also applicable to the TDM-30 printer.

5.1 Installing the Belt Clip

1. Align the ball on the belt clip with its corresponding hole on the rear side of the printer and then press the ball into the hole to lock the belt clip in place.

2. Complete.

5.2 Installing the Media Spacer Kit (optional)

1. Press the media cover release button to open the media cover.

Slot

2. Install the media spacers onto the printer as indicated.

1" width

1.5" width

2" width

NOTE: The media spacers enable you to quickly change among the 1", 1.5", or 2" wide labels. You need to install the same number of spacers for both sides.

5.3 Using the IP54 Case with Shoulder Strap (optional)

1. Slide the zipper to open the case.

2. Put the printer in the case ensuring that the print side of the label faces the transparent cover as demonstrated.

3. Flip over the transparent cover and then attach the cover on the case as demonstrated.

5.4 Installing the Shoulder Strap Kit (optional)

1. Remove the battery from the printer and then slide the shoulder strap to lock the strap in place inside the battery compartment.
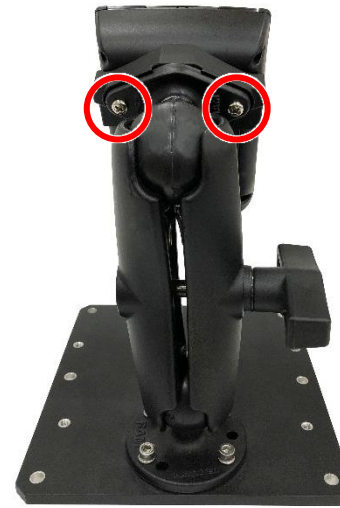

2. Re-install the battery.

5.5 Installing the Vehicle Holder Adapter for RAM Mount (optional)

1. Align the vehicle holder adapter with the rear side of the printer and then install the two screws to secure the adapter in place.
   NOTE: The vehicle holder adapter is only applicable to the models that feature the two copper screw nuts.

2. Install the two screws to secure the adapter on the RAM diamond ball base.

3. Rotate the knob counterclockwise to release the RAM double socket arm and then install the RAM diamond ball base as indicated.

4. Rotate the knob clockwise to secure the RAM diamond ball base in place.
   NOTE: The RAM mount components are not included in the vehicle holder adapter kit.

5.6 Charging the Battery with the 1-Bay Printer Charger Station

1. Insert the printer with the battery installed into the 1-bay printer charger station.

2. Insert the supplied power cable into the power jack socket on the charger station.

3. Insert the power plug into the power outlet socket.

5.7 Charging the Battery with the 4-Bay Printer Charger Station

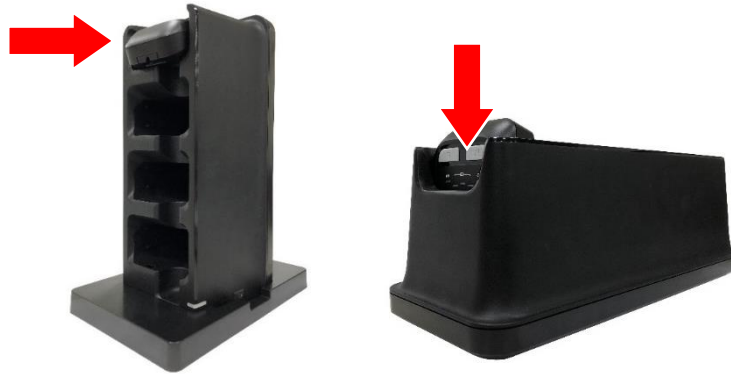1. Insert the printer with the battery installed into the 4-bay printer charger station.

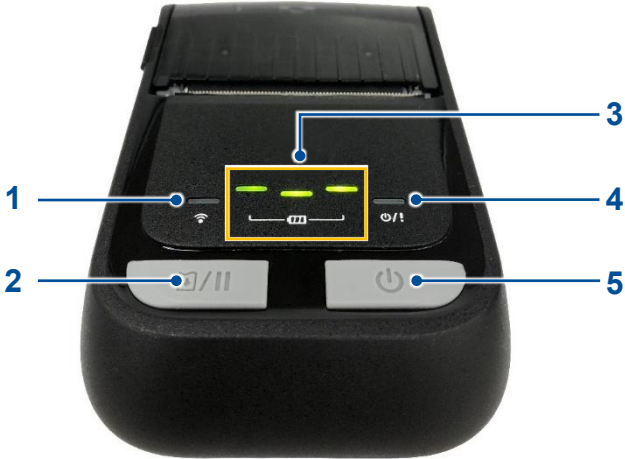2. Insert the supplied power cable into the power jack socket on the charger station.

3. Insert the power plug into the power outlet socket.

4. Turn on the power switch to charge the battery. The LED on the charger station indicates that the station is supplying the power. **NOTE:** When the battery is fully charged, the LED on the printer will illuminate solid green.

6 Operator Interface

6.1 TDM-20

No.	Name & Icon	Status	Description
1	Wi-Fi / Bluetooth Status LED	Blue (blinking)	The printer is communicating with an external device via the wireless network or Bluetooth.
		Blue (solid)	The Wi-Fi / Bluetooth device is ready.
2	Feed / Pause Button	• When the printer is ready, press to feed one label. • When the printer is printing, press to pause the print activities. When the printer is in the pause state, press to resume the print activities.	

No.	Name & Icon	Status	Description
3	Battery Status LED	Green (blinking)	The battery is charging.
		Green (solid)	The battery is fully charged.
4	Printer Status LED	Off	The printer is ready.
		Green (blinking)	The printer is paused.
		Green (blinking every two seconds)	The printer is in sleep mode. The printer enters the sleep mode after stopping the print activities for over two minutes. You are allowed to revise the command in order to change the interval time. Please refer to TSPL/TSPL2 Programming Manual on TSC's official website.)
		Red (solid)	The media cover is opened.
		Red (blinking)	The printer is encountering an error.
		Amber (blinking)	The battery is charging.
5	Power Button		• When the printer is turned off, press and hold for 2 - 3 seconds to turn on the printer. • When the printer is on, press and hold for 2 - 3 seconds to turn off the printer.

6.2 TDM-30 (LED Control Panel)

No.	Name & Icon	Status	Description
1	Wi-Fi / Bluetooth Status LED	Blue (blinking)	The printer is communicating with an external device via the wireless network or Bluetooth.
		Blue (solid)	The Wi-Fi / Bluetooth device is ready.
2	Feed / Pause Button	• When the printer is ready, press to feed one label. • When the printer is printing, press to pause the print activities. When the printer is in the pause state, press to resume the print activities.	

No.	Name & Icon	Status	Description
3	Battery Status LED	Green (blinking)	The battery is charging.
		Green (solid)	The battery is fully charged.
4	Printer Status LED	Off	The printer is ready.
		Green (blinking)	The printer is paused.
		Green (blinking every two seconds)	The printer is in sleep mode. The printer enters the sleep mode after stopping the print activities for over two minutes. You are allowed to revise the command in order to change the interval time. Please refer to TSPL/TSPL2 Programming Manual on TSC's official website.)
		Red (solid)	The media cover is opened.
		Red (blinking)	The printer is encountering an error.
		Amber (blinking)	The battery is charging.
5	Power Button	• When the printer is turned off, press and hold for 2 - 3 seconds to turn on the printer. • When the printer is on, press and hold for 2 - 3 seconds to turn off the printer.	

6.3 TDM-30 (LCD Control Panel)

No.	Name & Icon	Status	Description
1	LCD Monitor	Media Type — Cont. Bluetooth & Battery Status Firmware Version — B1.00 D148 — Bluetooth MAC Address / Wi-Fi IP address	
2	Feed / Pause Button	• When the printer is ready, press to feed one label. • When the printer is printing, press to pause the print activities. When the printer is in the pause state, press to resume the print activities.	

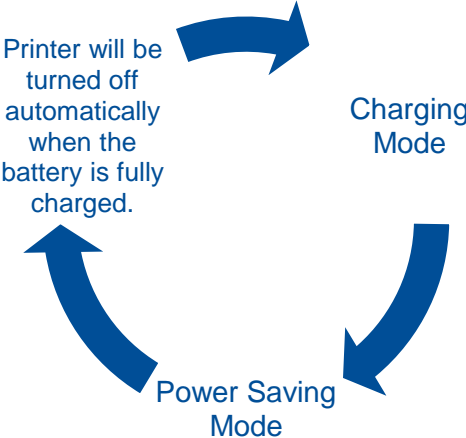| No.	Name & Icon	Status	Description
3	Printer Status LED ⏻/!	Off	The printer is ready.
		Green (blinking)	The printer is paused.
		Green (blinking every two seconds)	The printer is in sleep mode. The printer enters the sleep mode after stopping the print activities for over two minutes. You are allowed to revise the command in order to change the interval time. Please refer to TSPL/TSPL2 Programming Manual on TSC's official website.)
		Red (solid)	The media cover is opened.
		Red (blinking)	The printer is encountering an error.
		Amber (blinking)	The battery is charging.
4	Wi-Fi / Bluetooth Status LED 📶	Blue (blinking)	The printer is communicating with an external device via the wireless network or Bluetooth.
		Blue (solid)	The Wi-Fi / Bluetooth device is ready.
5	Power Button ⏻		• When the printer is turned off, press and hold for 2 - 3 seconds to turn on the printer. • When the printer is on, press and hold for 2 - 3 seconds to turn off the printer.

6.4 Battery Charging Cycle

TDM-20

- Charging the battery when the printer is turned on:

Printer will be turned off automatically when the battery is fully charged. → Charging Mode → Power Saving Mode →

#	Behavior	LED Status	Description
1	Charge the battery with the printer turned on		Charging level: 0 - 30%
			Charging level: 30 - 60%
			Charging level: 60 - 100%
			Charging level: 100%
2	Power saving mode	• Printer status LED blinks amber. • Press the power button when charging the battery, the printer will leave the power saving mode. • Removing the power supply from the printer will leave the power saving mode.	
3	The printer will be turned off automatically when the battery is fully charged.		

NOTE:

1. Printer status LED blinks amber when charging the battery.
2. Press power button when charging the battery, the LED lights will show the charging status.
3. When the battery is fully charged and there is no print activities in proceed, the printer will be automatically turned off.

- Charging the battery when the printer is turned off:

#	Behavior	LED Status	Description
1	Charge the battery with the printer turned on		Charging level: 0 - 30%
			Charging level: 30 - 60%
			Charging level: 60 - 100%
			Charging level: 100%

NOTE:

1. Printer status LED blinks amber when charging the battery.
2. Press power button when charging the battery, the LED lights will show the charging status.
3. When the battery is fully charged and there is no print activities in proceed, the printer will be automatically turned off.

TDM-30

- Charging the battery when the printer is turned on:

#	Behavior	LED Control Panel		LCD Display	
1	Charge the battery with the printer turned on		Charging level: 0 - 30%	1 block blinking	Charging level: 0 - 25%
			Charging level: 30 - 60%	2 blocks blinking	Charging level: 25 - 50%
			Charging level: 60 - 100%	3 blocks blinking	Charging level: 50 - 75%
			Charging level: 100%	4 blocks blinking	Charging level: 75 - 100%
				4 blocks solid	Charging level: 100%
2	Power saving mode	• Printer status LED blinks amber. • Press the power button when charging the battery, the printer will leave the power saving mode. • Removing the power supply from the printer will leave the power saving mode.			
3	The printer will be turned off automatically when the battery is fully charged.				

NOTE:

1. Printer status LED blinks amber when charging the battery.
2. Press power button when charging the battery, the LED lights / LCD display will show the charging status.
3. When the battery is fully charged and there is no print activities in proceed, the printer will be automatically turned off.

- Charging the battery when the printer is turned off:

#	Behavior	LED Control Panel		LCD Display	
1	Charge the battery with the printer turned off		Charging level: 0 - 30%	1 block blinking	Charging level: 0 - 25%
			Charging level: 30 - 60%	2 blocks blinking	Charging level: 25 - 50%
			Charging level: 60 - 100%	3 blocks blinking	Charging level: 50 - 75%
			Charging level: 100%	4 blocks blinking	Charging level: 75 - 100%
				4 blocks solid	Charging level: 100%

NOTE:

1. Printer status LED blinks amber when charging the battery.
2. Press power button when charging the battery, the LED lights / LCD display will show the charging status.
3. When the battery is fully charged and there is no print activities in proceed, the printer will be automatically turned off.

6.5 Power-on Utilities

The printer features a set of utilities which provides quick access to the printer's mostly used functions.

Follow the procedures below to launch the power-on utilities and select the function you need.

1. Turn off the printer.
2. Press and hold ▣/◫ and then press the power button to turn on the printer. Keep holding ▣/◫. The LED indicator on the control panel will start blinking in a sequence of patterns that indicates which function is going to be activated.
3. When the LED indicator blinks in the pattern which indicates the function you need, release ▣/◫. The Power-on Utilities will run the function you select.

The table below describes the sequence of the patterns and their corresponding functions.

| LED Color & Pattern / Sequence & Function	(Solid)	(5 blinks)	(5 blinks)	(5 blinks)	(solid)
1	Media Sensor Calibration		release			
2	Self-Test and enters Dump Mode.			release		
3	Factory Default				release	

7 TSC Console

Designed especially for the TSC printers, **TSC Console** enables users to deploy, manage, monitor, and troubleshoot both wired or wireless connections to one or a group of printers. **TSC Console** lowers IT costs and increases printer uptime with convenient out-of-the-box installation and a simplified Windows graphical user interface. It enhances robustness through integrated management capabilities and ensures that printers are available, reliable, and serviceable at all times.
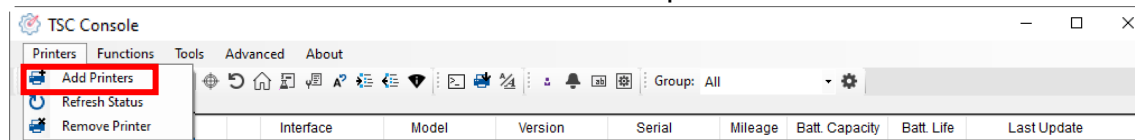
7.1 Launching TSC Console

Follow the steps below to launch **TSC Console**:

1. Double click the **TSC Console** icon on the desktop of your computer to launch **TSC Console**. After launching **TSC Console**, the following screen will appear.
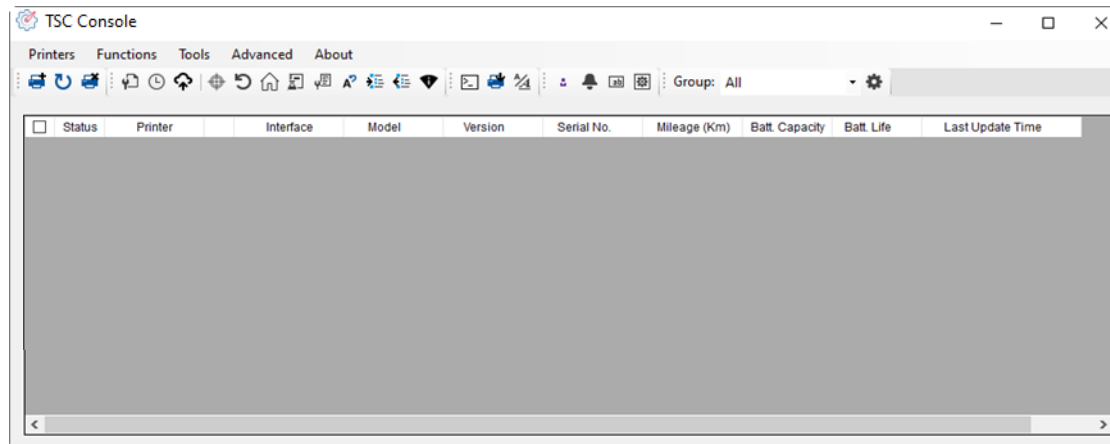
2. Select **Printers > Add Printers** to add the new printer to the **TSC Console** main page.

3. Select the connection based on how the printer is connected to your computer and then select **OK** to add the printer.
   NOTE: The image below shows that the printer is connected to a computer via the USB cable.
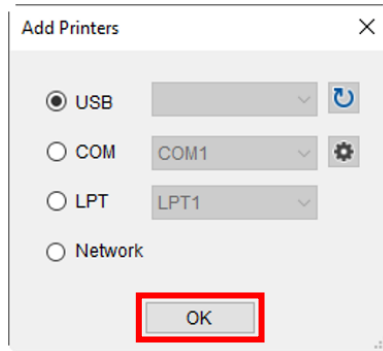
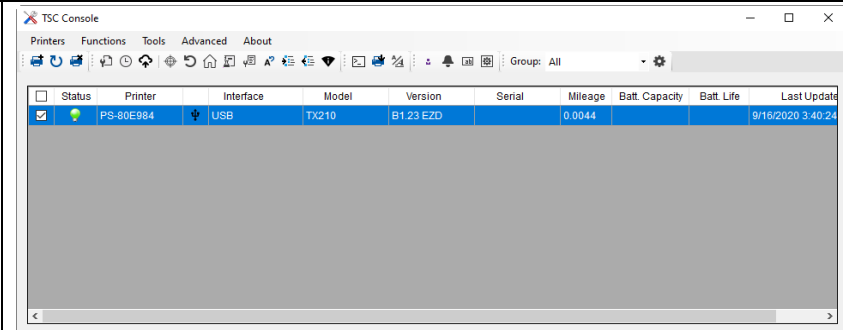4. Select and start configuring the printer.
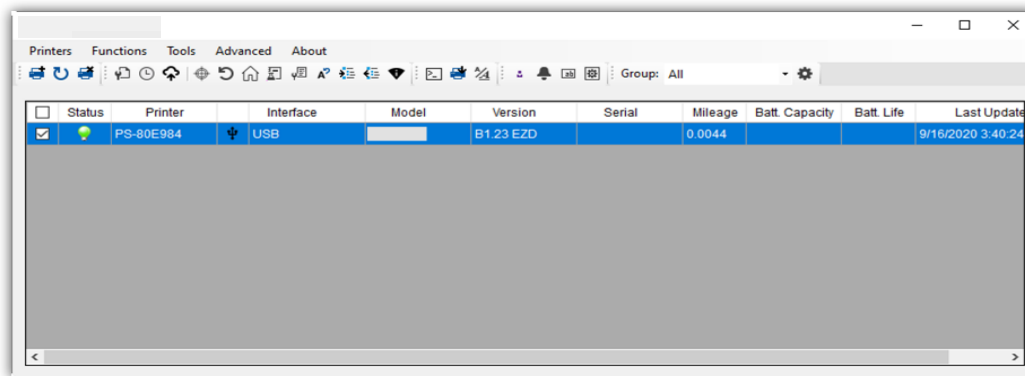
NOTE: You may refer to **TSC Console Programming Manual** for further information.

7.2 Adding Wi-Fi Interface

It allows users to add Wi-Fi interface to the **TSC Console** main page and enables users to control the printer through a wireless network. Follow the steps below to add Wi-Fi interface to the **TSC Console** main page:

1. Add the printer to the **TSC Console** main page via the USB port or COM port. For how to add the printer to the **TSC Console** main page, please refer to Launching TSC Console. 2. Double click the printer you want to configure to open the **Printer Configuration** page.	
3. When the **Printer Configuration** page appear, select **Get** to retrieve the printer's information. 4. Select the **Wi-Fi** tab to open the configuration menu for Wi-Fi.	
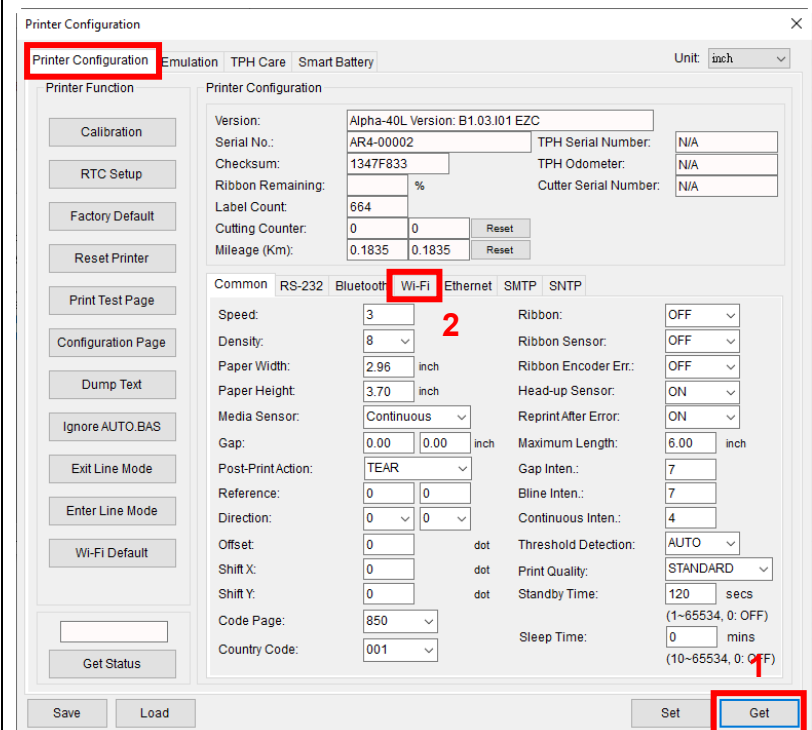
When using the WPA-Personal encryption:

(1) Enter the network name in the **SSID** field.
(2) Select **WPA-Personal** in the **WLAN Encryption** field.
(3) Enter the Wi-Fi network password in the **Key** field.
(4) Set **DHCP** to **ON**. If **DHCP** is set to **OFF**, you need to specify information for the **IP Address**, **Subnet Mask**, and **Gateway** fields.
(5) Select **Set** to finish the configuration.

NOTE: The fields marked in yellow indicate that information in the fields have been changed before selecting **Set** to finish the configuration.

NOTE: Users are also allowed to change the name for the printer and raw port in the **Printer Name** field and **Raw Port** field.

When using the WPA-Enterprise encryption:

(1) Enter the network name in the **SSID** field.
(2) Select **WPA-Enterprise** in the **WLAN Encryption** field.
(3) Set **DHCP** to **ON**. If **DHCP** is set to **OFF**, you need to specify information for the **IP Address**, **Subnet Mask**, and **Gateway** fields.
(4) Select EAP type in the **EAP Type** field.
(5) Upload certificate and key for the **CA Certificate**, **Client Certificate**, and **Private Key** field respectively.
(6) Select **Set** to finish the configuration.

NOTE: The fields marked in yellow indicate that information in the fields have been changed before selecting **Set** to finish the configuration.

NOTE: Users are also allowed to change the name for the printer and raw port in the **Printer Name** field and **Raw Port** field.

5. After selecting **Set** to finish the configuration, the message will appear on the screen and the printer will re-start automatically.	**Please Wait** Please wait as this may take a few seconds...
6. After the printer re-starts, the printer's IP address, the Wi-Fi icon, and the Wi-Fi's address will appear on the printer's display. **NOTE:** The printer's IP address should appear on the printer's display in from 5 to 15 seconds after the printer re-starts. If the IP address does not appear, follow the steps described in 7.3 Setting up Bluetooth Follow the steps below to configure Bluetooth for your printer: 1. Add the printer to the **TSC Console** main page via the USB port or COM port. For how to add the printer to the **TSC Console** main page, please refer to Launching TSC Console. 2. Double click the printer you want to configure to open the **Printer Configuration** page. Status Printer Functions Tools Advanced Printer Configuration RTC Setup 3. Select the **Bluetooth** tab. Press the **Get** button to read the Bluetooth configuration.	

4. Enter the new Bluetooth local name or Bluetooth PIN code in the field. The field will be marked in yellow when the value is revised.

5. Press the **Set** button to set the new Bluetooth name or Bluetooth PIN code.
Press the **Get** button to confirm that the new settings have been correctly written into the printer.
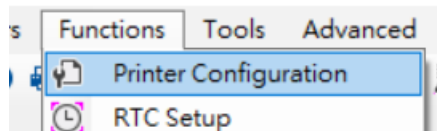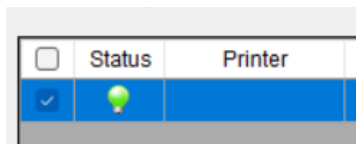
Common | RS-232 | Bluetooth | Wi-Fi | Ethernet | 802.1X | SMTP | SNTP

Built-in Bluetooth Information

7.   Remove the interface cable.

8. Go to the **TSC Console** main page, select **Printers > Add Printers** and then select **Network** to add the printer.

Add Printers

- ○ USB
- ○ COM COM1 ⚙
- ○ LPT LPT1
- ● Network **1**

OK **2**

3

4

Add Network Printers

- ○ Broadcast:
- ● IP Address: 0.0.0.0 ?
- ○ Subnet:

First IP Address	Last IP Address	
10.0.10.1	10.0.10.10	

Discover

Printer firmware version before A.12 and Alpha-2R/3R/4L, TDM series can only be discovered through "IP Address" option.

9. Go to the **TSC Console** main page.
10. Select **Functions > Print Test Page** to check if you can control the printer via the Wi-Fi connection.

Functions | Tools   Advanced
- Printer Configuration
- RTC Setup
- SOTI Setup
- Calibration
- Reset Printer
- Factory Default
- Print Test Page
- Configuration Page
- Ignore AUTO.BAS
- Enter Line Mode
- Exit Line Mode
- Wi-Fi Default
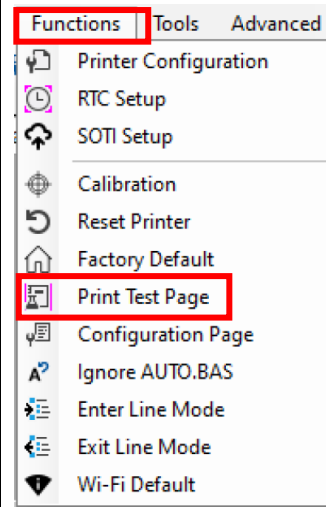
7.3 Setting up Bluetooth

Follow the steps below to configure Bluetooth for your printer:

6. Add the printer to the **TSC Console** main page via the USB port or COM port. For how to add the printer to the **TSC Console** main page, please refer to Launching TSC Console.

7. Double click the printer you want to configure to open the **Printer Configuration** page.

8. Select the **Bluetooth** tab. Press the **Get** button to read the Bluetooth configuration.
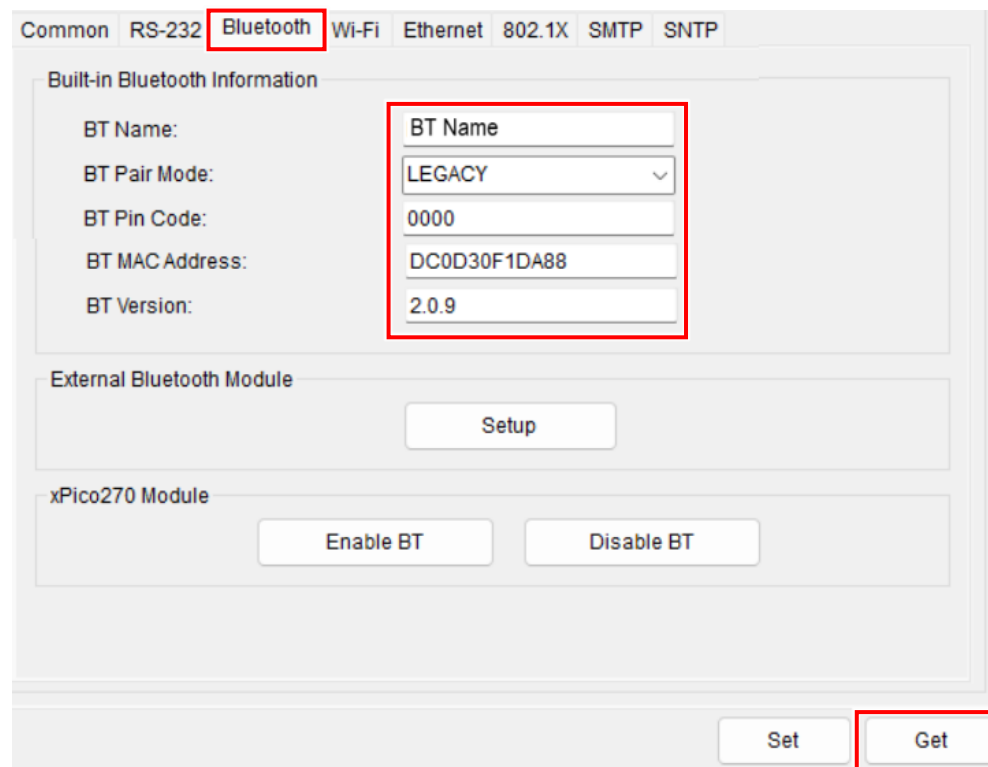
9. Enter the new Bluetooth local name or Bluetooth PIN code in the field. The field will be marked in yellow when the value is revised.

10. Press the **Set** button to set the new Bluetooth name or Bluetooth PIN code.

    Press the **Get** button to confirm that the new settings have been correctly written into the printer.
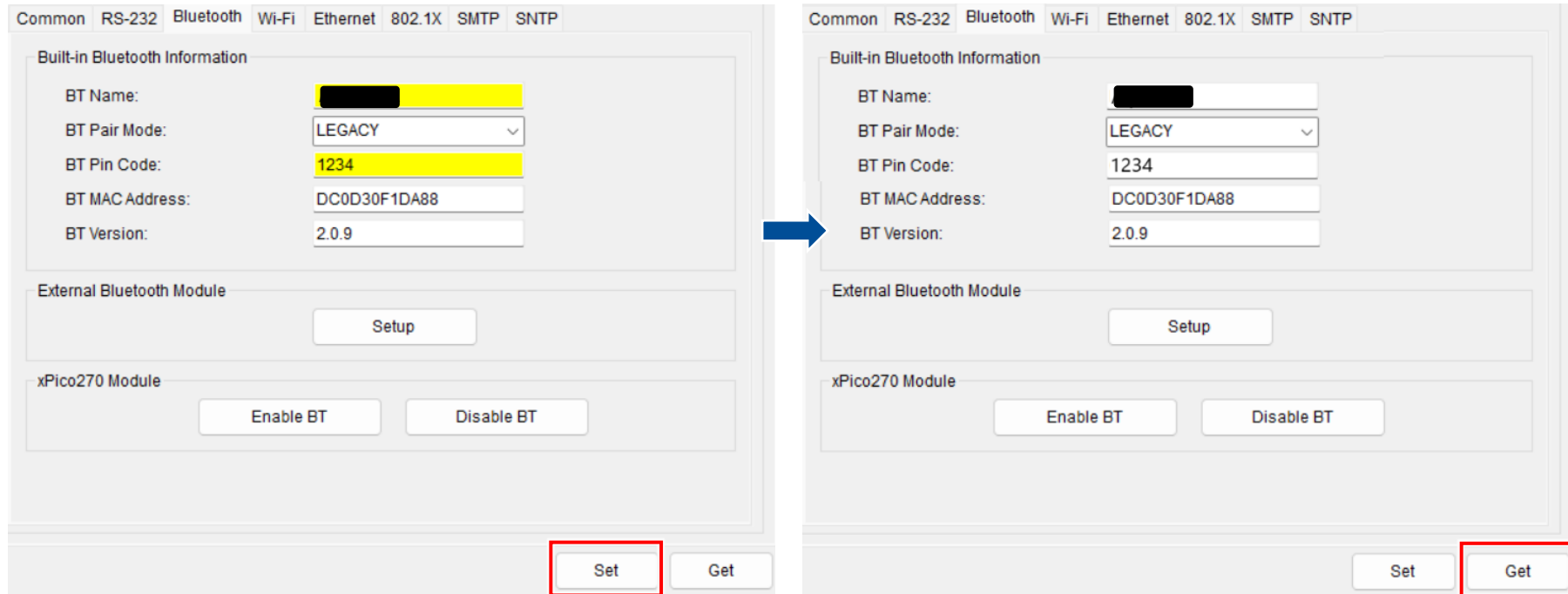
7.4 Initializing Printer's Wi-Fi Settings

1. Go to the **TSC Console** main page.
2. Select the **Functions** tab.
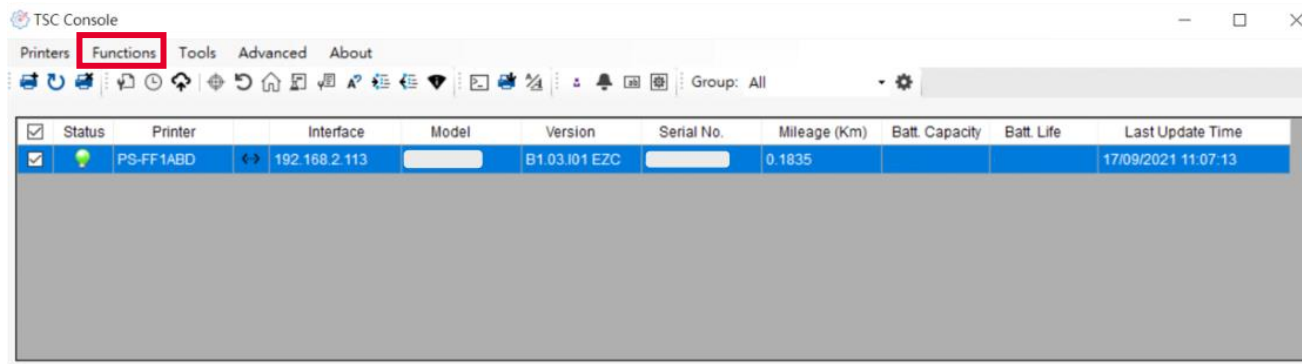
3. Select **Wi-Fi Default** to restore the Wi-Fi settings to factory default values.
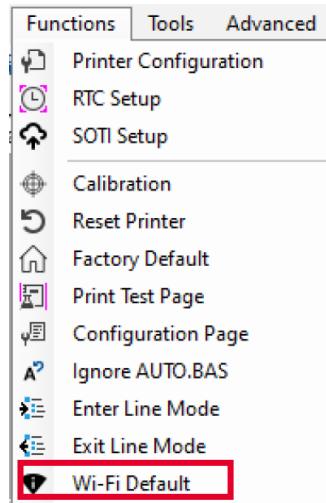
7.5 TPH Care

Self-Diagnostic TPH Care allows users to scan and detect defective dots on the printhead during the printing process. It helps reduce downtime, prevent faulty labels, and avoid barcodes of poor quality on mission critical tasks.
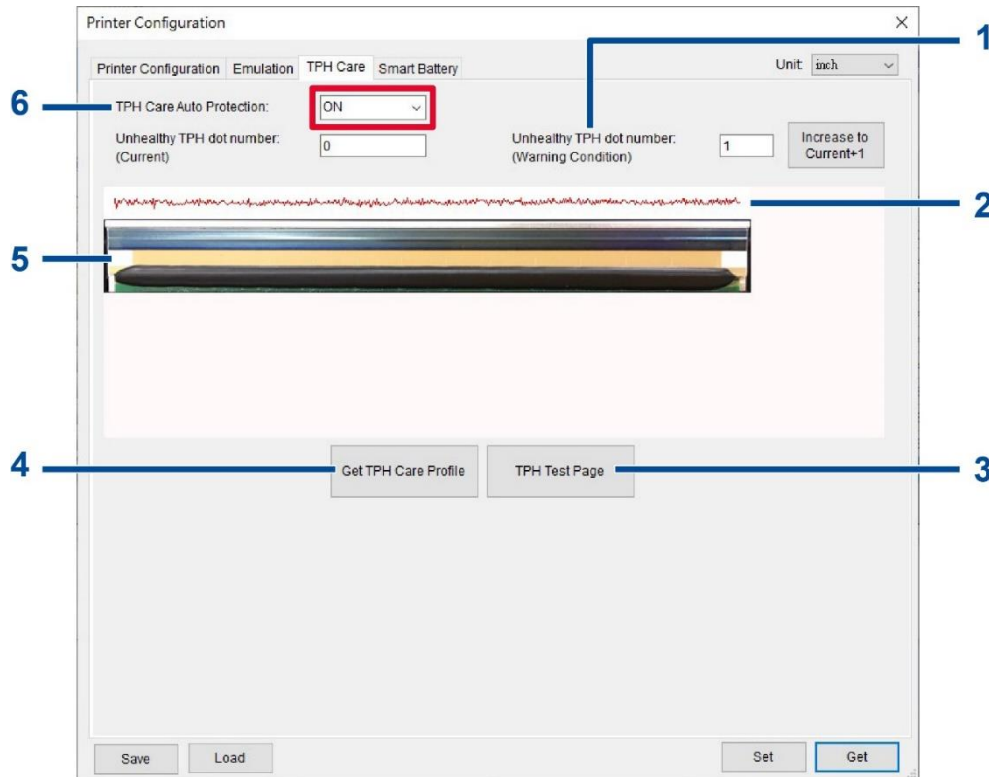
1. Sets the reminder that the defective dots have reached the configured numbers.
2. Shows the difference between the defective dots and the average of all other good dots in the series. The surge indicates that it is very likely that the dots in the corresponding area on the printhead are defective.
3. Prints the test page so that users can check the health status of the printhead.
4. Detects the defective dots on the printhead.
5. Allows users to check if there are defective dots on the printhead.
6. Enables/Disables **TPH Care Auto Protection**.

Follow the steps below to open the **TPH Care** page:

1. Double click the printer you want to configure on the **TSC Console** main page to open the **Printer Configuration** menu.

2. Select the **TPH Care** tab to enter the **TPH Care** page.
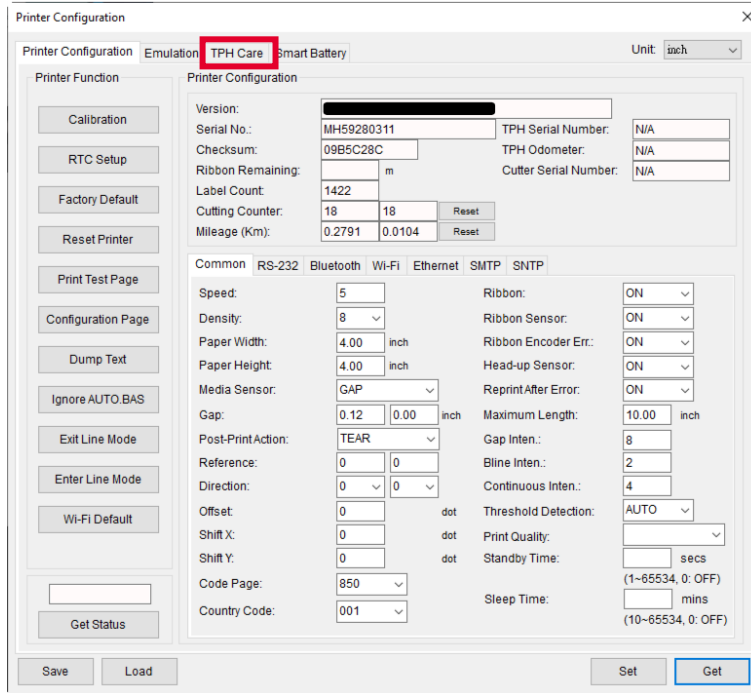
3. Enable the **TPH Care Auto Protection** function (Default: **OFF**).
4. Select **Get TPH Care Profile** to check the health status of the printhead.
   If the pattern extends flat roughly, it means the status of the printhead is good. Alternatively, you can check the **Unhealthy TPH dot number** field. If the unhealth dot number is 0, it means that the status of the printhead is good.
   If surges or spikes appear as the following image, it is very likely that there are defective dots in the corresponding area on the printhead. The printer will stop printing.
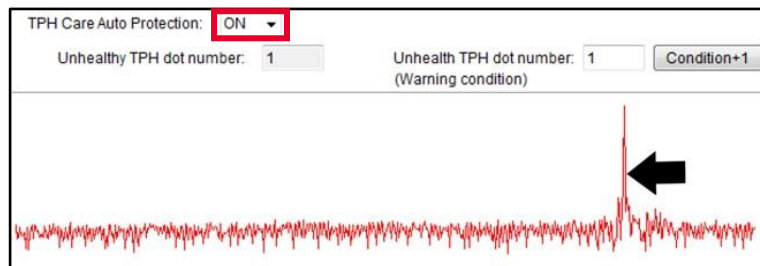
7.6 Printer's Main Functions

The function buttons are located on the left side of the **Printer Configuration** page. You can use the function buttons to manage and configure the printer.
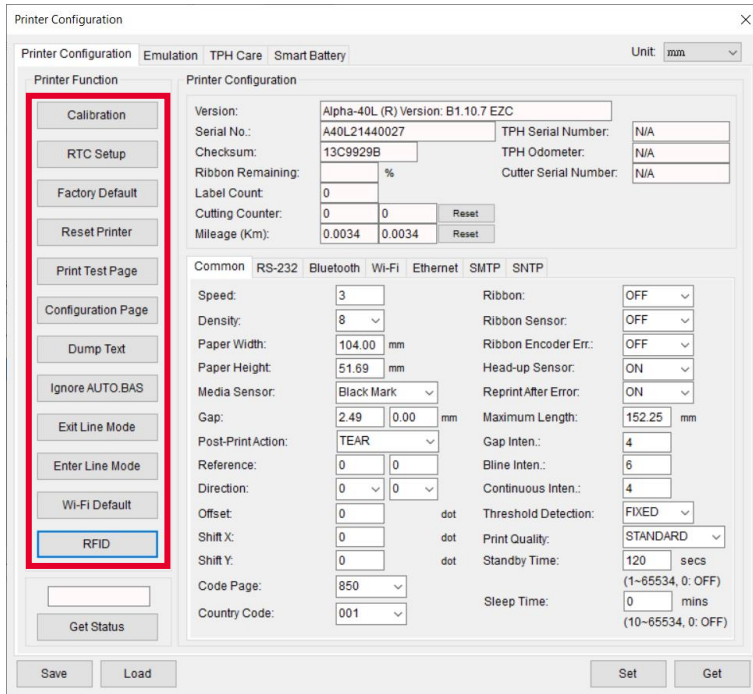
Item	Description
Calibration	Detects the media type and label size.
RTC Setup	Synchronizes the printer with the real time clock on the computer.
Factory Default	Restores the printer's settings to factory default values.
Reset Printer	Re-starts the printer.
Print Test Page	Prints test page based on the specified label size and sensor type.
Configuration Page	Prints the printer's configurations.
Dump Text	Activates Dump Mode.
Ignore AUTO BAS	Ignores the AUTO BAS file when the printer boots up.
Exit Line Mode	The printer will leave line mode and enter page mode.
Enter Line Mode	The printer will leave page mode and enter line mode.
Wi-Fi Default	Restores the Wi-Fi settings to factory default values.

7.7 Configuring Optional Kits

If you install an optional kit on the printer, such as cutter, peeler, or media rewinder, you need to configure the kit after finishing the calibration so that the kit works properly.

To configure the kit:

1. Add the printer to the **TSC Console** main page via the USB port or COM port. For how to add the printer to the **TSC Console** main page, please refer to 7.1 Launching TSC Console.
2. Set up the wired or wireless connection between the printer and your computer. For how to connect the printer to your computer via the wired or wireless network, please refer to **Error! R eference source not found.** and Adding Wi-Fi Interface.
3. Double click the printer you want to configure on the **TSC Console** main page to enter the **Printer Configuration** page.
4. Select **Get** to get printer's information.
5. Select the **Common** tab.
6. In the drop-down list for the **Post-Print Action** field, select the corresponding item based on what kind of kit you have installed on the printer.
7. Select **Set** to finish the configuration.

8 Troubleshooting

Problem	Possible Cause	Recovery Procedure
Power indicator or display does not illuminate.	▪ The battery is not properly installed. ▪ No power.	▪ Re-install the battery. ▪ Recharge or replace battery as necessary.
"Carriage Open" appears on the display.	The media cover is open.	Close the media cover.
"Out of Paper" appears on the display.	▪ Media is used up. ▪ The media roll is not properly installed. ▪ Black mark sensor is not calibrated.	▪ Install a new media roll. ▪ Re-install the media roll. ▪ Calibrate the black mark sensor.
"Paper Jam" appears on the display.	▪ Gap sensor or black mark sensor is not correctly configured. ▪ Media size is not correct. ▪ Labels may be stuck in the printhead mechanism.	▪ Calibrate the black mark sensor. ▪ Check if the media in use is applicable. ▪ Check if the printhead mechanism is clear of labels.
I cannot download files to printer's memory (FLASH / SD card).	▪ The FLASH memory or SD card is full. ▪ The SD card is damaged. ▪ SD card is not correctly inserted.	▪ Delete files you do not need from the FLASH memory or SD card. ▪ Eject and insert the SD card again. ▪ Try another SD card. ▪ Check if the SD card is in supported format and capacity.
Poor Print Quality	▪ Media is not loaded correctly. ▪ Dust or adhesive accumulation on the printhead. ▪ Print density is not properly configured. ▪ Media type is not compatible. ▪ Printhead element is damaged.	▪ Reload the media. ▪ Clean the printhead and platen roller. ▪ Adjust the print density and print speed. ▪ Run printer self-test and check the printhead test pattern if there is dot missing in the pattern. ▪ Use proper media type.
Missing printing on the left or right side of label	Wrong label size configuration	Set the correct label size.
Gray line on the blank label	▪ The printhead is dirty. ▪ The platen roller is dirty.	▪ Clean the printhead. ▪ Clean the platen roller.

Problem	Possible Cause	Recovery Procedure
Irregular printing	The printer is in Hex Dump mode.	Turn off and on the printer to skip the dump mode.

9 Maintenance

This section provides cleaning and maintenance procedures.

Cleaning:

Depending on the media used, the printer may accumulate residues (media dust, adhesives, etc.) as a by-product of normal printing. To maintain the best printing quality, you should remove these residues by cleaning the printer periodically. Regularly clean the print head and supply sensors once change a new media to keep the printer at the optimized performance and extend printer life.

Disinfecting:

Disinfecting the printer helps protect yourself and other users and helps prevent virus from spreading.

IMPORTANT:

- Set the printer power switch to O (Off) prior to performing any cleaning or disinfecting tasks. Leave the power cord connected to keep the printer grounded and to reduce the risk of electrostatic damage.
- Do not wear rings or other metallic objects while cleaning any interior area of the printer.
- Use only the cleaning agents recommended in this document. Use of other agents may damage the printer and void its warranty.
- Do not spray or drip liquid cleaning solutions directly into the printer. Apply the solution on a clean lint-free cloth and then apply the dampened cloth to the printer.
- Do not use canned air in the interior of the printer as it can blow dust and debris onto sensors and other critical components.
- Only use a vacuum cleaner with a nozzle and hose that are conductive and grounded to drain off static build up.
- All reference in these procedures for use of isopropyl alcohol requires that a 99% or greater isopropyl alcohol content be used to reduce the risk of moisture corrosion to the printhead.
- Do not touch printhead by hand. If you touch it careless, please use 99% Isopropyl alcohol to clean it.
- Always taking personal precaution when using any cleaning agent.

9.1 Cleaning Supplies

The following supplies are recommended for cleaning the printer:

- Cotton swab
- Lint-free cloth
- Brush with soft and non-metallic bristles
- Vacuum cleaner
- 75% Ethanol used for disinfection
- 99% Isopropyl alcohol used for cleaning the printhead and platen roller
- Genuine printhead cleaning pens
- Chlorine free detergents

9.2 Cleaning Procedures

Component	Method	Recommended Cleaning Schedule
Printhead	1. Power off the printer before cleaning the printhead. 2. Leave the printhead to cool down for at least one minute. 3. Wet a cotton swab with the 99% Isopropyl alcohol and then wipe across the printhead head. You can also use the genuine printhead cleaning pen to clean the printhead.	Clean the printhead when you load new media.
Platen Roller	1. Power off the printer. 2. Use a piece of 99% Isopropyl alcohol saturated lint-free cloth to wipe the platen roller while rotating the platen roller.	Clean the platen roller when you load new media.
Peel Bar	Use a piece of 99% Isopropyl alcohol saturated lint-free cloth to wipe the peel bar.	Clean as needed.
Sensor	Use the brush with soft and non-metallic bristles or vacuum cleaner to remove the dust or particles in order to optimize the print quality or sensor calibration.	Clean the sensor monthly.
Exterior	Use a piece of water-dampened lint-free cloth to wipe the surface. If necessary, you can apply the chlorine free detergent. After finishing cleaning, use the 75% ethanol to disinfect the surface.	Clean as needed.
Interior	Use the brush with soft and non-metallic bristles or vacuum cleaner to remove the dust or particles. After finishing cleaning, use the 75% ethanol to disinfect the interior.	Clean as needed.

10 Agency Compliance and Approvals

CE

2014/30/EU(EMC), 2014/35/EU(LVD), 2011/65/EU(RoHS 2.0)

EN 55032 Class B

EN 55024

EN61000-3-2:2014

EN61000-3-3:2013

EN 60950-1

FCC part 15B, Class B

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:

FC

-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.

	AS/NZS CISPR 22 Class B AS/NZS CISPR 32 Class B
	NOM-019-SCFI-1998
	10 C.F.R. Section 430.23(aa) (Appendix Y to Subpart B of part 430)
	TP TC 004/2011 TP TC 020/2011
	LP0002

備註：不同型號可能會有不同認證，一切以產品上的認證標籤為準。

Important safety instructions:

1. Read all of these instructions and keep them for later use.
2. Follow all warnings and instructions on the product.
3. Disconnect the power plug from the AC outlet before cleaning or if fault happened.
   Do not use liquid or aerosol cleaners. Using a damp cloth is suitable for cleaning.
4. The mains socket shall be installed near the equipment and easily accessible.
5. The unit must be protected against moisture.
6. Ensure the stability when installing the device, Tipping or dropping could cause damage.
7. Make sure to follow the correct power rating and power type indicated on marking label provided by manufacture.
8. Please refer to user manual for maximum operation ambient temperature.

重要安全說明：

1. 閱讀所有這些說明，並保留以備未來使用。

2. 按照產品上的所有警告和說明進行操作。

3. 在清潔前或發生故障時，拔除電源插頭與交流電源插座的連接。不要使用液體或噴霧清潔劑。建議使用濕布清潔。

4. 電源插座應安裝在設備附近及方便使用處。

5. 本機器必須防止潮濕。

6. 確保安裝設備時的穩定性，翻倒或跌落可能會導致設備損壞。

7. 確保按照製造商提供的標籤上標明之正確的額定功率和電源類型進行設定。

8. 請參考使用手冊以確認環境溫度的最大值。

WARNING:

Hazardous moving parts, keep fingers and other body parts away.

CAUTION:

(For equipment with RTC (CR2032) battery or rechargeable battery pack)

Risk of explosion if battery is replaced by an incorrect type.

Dispose of used batteries according to the Instructions as below.

1.   DO NOT throw the battery in fire.
2.   DO NOT short circuit the contacts.
3.   DO NOT disassemble the battery.
4.   DO NOT throw the battery in municipal waste.
5.   The symbol of the crossed out wheeled bin indicates that the battery should not be placed in municipal waste.

警告：

（對於帶有 RTC（CR2032）電池或可充電電池組的設備）

如果更換不正確的電池類型，會有爆炸的危險。

請按照以下說明處理廢電池：

1. 請勿將電池投入火中。

2. 請勿使觸點短路。

3. 請勿拆卸電池。

4. 請勿將電池丟入都市廢棄物。

5. 垃圾桶畫叉圖案表示電池不應放置在都市廢棄物中。

Caution: The printhead may be hot and could cause severe burns. Allow the printhead to cool.

CAUTION:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

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.

RF exposure warning (For Bluetooth)

The equipment complies with FCC RF exposure limits set forth for an uncontrolled environment.

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

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.

Radio Frequency (RF) Exposure Information

The radiated output power of the Wireless Device is below the Industry Canada (IC) radio frequency exposure limits. The Wireless Device should be used in such a manner such that the potential for human contact during normal operation is minimized.

This device has also been evaluated and shown compliant with the IC RF Exposure limits under portable exposure conditions. (Antennas are less than 20 cm of a person's body). **(For Bluetooth)**

Canada, avis de l'Industry Canada (IC)

Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003 et RSS-210.
Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement.

Informations concernant l'exposition aux fréquences radio (RF)

La puissance de sortie émise par l'appareil sans fil est inférieure à la limite d'exposition aux fréquences radio de l'Industry Canada (IC). Utilisez l'appareil sans fil de façon à minimiser les contacts humains lors du fonctionnement normal.

Ce périphérique a également été évalué et démontré conforme aux limites d'exposition radio-fréquence par l'IC pour des utilisations par des opérateurs mobiles (les antennes sont à moins de 20 cm du corps d'une personne). **(Pour le Bluetooth)**

NCC 警語:

經型式認證合格之低功率射頻電機,非經許可,公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。(即低功率電波輻射性電機管理辦法第十二條)

低功率射頻電機之使用不得影響飛航安全及干擾合法通信;經發現有干擾現象時,應立即停用,並改善至無干擾時方得繼續使用。

前項合法通信,指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。(即低功率電波輻射性電機管理辦法第十四條)

警告:

本電池如果更換不正確會有爆炸的危險,請依製造商說明書處理用過之電池。**NBTC SDoC**

MFi for Bluetooth

Use of the Made for Apple badge means that an accessory has been designed to connect specifically to the Apple product(s) identified in the badge, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.

For US Model

Made for iPhone®XS Max, iPhone XS, iPhone XR, iPhone X, iPhone 8, iPhone 8 Plus,

iPhone 7, iPhone 7 Plus, iPhone SE, iPhone 6s, iPhone 6s Plus, iPhone 6, iPhone 6 Plus, iPhone 5s, iPad Pro® 12.9-inch (2nd generation), iPad Pro 10.5-inch, iPad® (6th generation),

iPad (5th generation), iPad Pro 9.7-inch, iPad Pro 12.9-inch (1st generation), iPad Air® 2,

iPad mini™ 4, iPad mini 3, iPad Air, iPad mini 2, iPod touch® (6th generation)

iPad, iPad Air, iPad Pro, iPhone are trademarks of Apple Inc., registered in the U.S. and other countries.

For JP Model

Made for iPhone XS Max, iPhone XS, iPhone XR, iPhone X, iPhone 8, iPhone 8 Plus,

iPhone 7, iPhone 7 Plus, iPhone SE, iPhone 6s, iPhone 6s Plus, iPhone 6, iPhone 6 Plus, iPhone 5s, iPad Pro 12.9-inch (2nd generation), iPad Pro 10.5-inch, iPad (6th generation), iPad (5th generation), iPad Pro 9.7-inch, iPad Pro 12.9-inch (1st generation), iPad Air 2,

iPad mini 4, iPad mini 3, iPad Air, iPad mini 2, iPod touch (6th generation)

iPad, iPad Air, iPad Pro, iPhone are trademarks of Apple Inc., registered in the U.S. and other countries. The trademark "iPhone" is used in Japan with a license from Aiphone K.K.

Except for US, JP Model

Made for iPhone XS Max, iPhone XS, iPhone XR, iPhone X, iPhone 8, iPhone 8 Plus,

iPhone 7, iPhone 7 Plus, iPhone SE, iPhone 6s, iPhone 6s Plus, iPhone 6, iPhone 6 Plus, iPhone 5s, iPad Pro 12.9-inch (2nd generation), iPad Pro 10.5-inch, iPad (6th generation), iPad (5th generation),

iPad Pro 9.7-inch, iPad Pro 12.9-inch (1st generation), iPad Air 2, iPad mini 4, iPad mini 3, iPad Air,

iPad mini 2, iPod touch (6th generation)

iPad, iPad Air, iPad Pro, iPhone are trademarks of Apple Inc., registered in the U.S. and other countries.

California Perchlorate Material Notice

Perchlorate material - special handling may apply. See: http://www.dtsc.ca.gov/hazardouswaste/perchlorate/

This product's coin cell battery may contain perchlorate and may require special handling when recycled or disposed of in California.

單元Unit	限用物質及其化學符號 Restricted substances and its chemical symbols					
	鉛Lead (Pb)	汞Mercury (Hg)	鎘Cadmium (Cd)	六價鉻 Hexavalent chromium (Cr^{+6})	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)
內外塑膠件	○	○	○	○	○	○
內外鐵件	-	○	○	○	○	○
滾輪	○	○	○	○	○	○
銘版	○	○	○	○	○	○
電路板	-	○	○	○	○	○
晶片電阻	-	○	○	○	○	○
積層陶瓷表面黏著電容	○	○	○	○	○	○
集成電路-IC	-	○	○	○	○	○
電源供應器	○	○	○	○	○	○
印字頭	-	○	○	○	○	○
馬達	-	○	○	○	○	○
液晶顯示器	-	○	○	○	○	○
插座	-	○	○	○	○	○
線材	-	○	○	○	○	○

備考 1. 〝超出 0.1 wt %〞及 〝超出 0.01 wt %〞係指限用物質之百分比含量超出百分比含量基準值。

Note 1："Exceeding 0.1 wt %" and "exceeding 0.01 wt %" indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.

備考 2. 〝○〞係指該項限用物質之百分比含量未超出百分比含量基準值。

Note 2："○" indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.

備考 3. 〝－〞係指該項限用物質為排除項目。

Note 3：The "−" indicates that the restricted substance corresponds to the exemption.

Revision History

Date	Description	Technical Writer
2023/11/15	Official release.	Peter Yao
2024/01/18	▪ Revised format and layout, ▪ Updated the specifications from page 5 to 7.	Peter Yao