Mobile Barcode Printer

RE310 Series

Direct Thermal

Series Models

RE310

User Manual

www.tscprinters.com

Copyright

Contents

1 Introduction

Thank you very much for purchasing TSC barcode printer.

The RE310 mobile barcode printer is excellent for daily receipt and label printing operations. The rugged RE310 printer features a rubber over-molded exterior, IP54 dust and water-resistant rating, and withstands a 1.5 meter drop. It is USB Type-C compatible for seamless and efficient fast charging, and its 3,080mAh battery ensures uninterrupted productivity. It supports media widths of 20mm to 80mm, black mark on the back or printing side, and accessories for flexible and convenient label printing.

The RE310 printer boasts advanced Bluetooth 5.3, NFC tap-to-pair, and dual-band Wi-Fi for fast roaming and uninterrupted connectivity. Printer language emulation, TSC Console software, the Software Development Kit (SDK), and professional technical support guarantee seamless system compatibility for smooth operations.

Its eco-friendly packaging reduces environmental impact and ensures sustainability.

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	RE310
Resolution	8 dots/mm (203 dpi)
Print Method	Direct Thermal
Max. Print Speed	up to 102 mm (4”)/second
Max. Print Width	72 mm (2.83")
Max. Print Length	2,794 mm (110”)
Enclosure	plastic with rubber over molded
Dimension	115 mm (W) x 125 mm (H) x 63 mm (D) 4.53” (W) x 4.92” (H) x 2.48” (D)
Weight (including battery)	440 g (0.97 lbs.)
Drop Specification	1.5 m (5 feet); up to 1.8 m (5.9 feet) with protective case
Tumble Test	500 free falls from 1 m (3.3 feet); up to 800 free falls from 1 m (3.3 feet) with protective case
IP Rating	IP54 (without case, paper path is excluded)
Max. Roll Capacity	outer diameter 51 mm (2”)
Processor	32-bit RISC processor
Memory	▪ 16 MB Flash memory ▪ 64 MB SDRAM
Connectivity	Either one of the two items below is available: ▪ Type C USB 2.0 + Bluetooth 5.3 + Passive NFC tag ▪ Type C USB 2.0 + 802.11 a/b/g/n Wi-Fi with Bluetooth 5.0 + Passive NFC tag
Power	7.4V DC, 3080 mAh Li-ion rechargeable battery

Model	RE310
Charging Method	▪ USB charge ▪ Supports 18W PD 3.0 (and above) **NOTE:** A power adapter which is compliant with the PD specifications is required.
User Interface	LCD (Resolution: 128 x 32 pixels)
Buttons	▪ Feed/ Pause button x 1 ▪ Power button x 1 ▪ Top cover open button x 1
Sensor	▪ Reflective sensor ▪ Transmissive sensor ▪ Head open sensor
Real Time Clock (RTC)	available on WLAN models
Built-in Fonts	▪ 8 alpha-numeric bitmap fonts ▪ Monotype Image® true type font engine with one CG Triumvirate Bold Condensed scalable font
Supported Barcode Formats	▪ 1D Barcodes: Code128UCC, Code128 subsets A, B, C, EAN128, Interleaved 2 of 5, Interleaved 2 of 5 with check digit, Standard 2 of 5, Industrial 2 of 5, Code39, Code39 with check digit, Code93, EAN13, EAN8, UPCA, UPCE, EAN and UPC 2 (5) digits add-on, Codabar, Postnet, MSI, MSI with check digit, PLESSEY, China post, ITF14, EAN14, Code11, TELEPEN, TELEPEN number, PLANET, Code49, Deutsche Post Identcode, Deutsche Post Leitcode, LOGMARS ▪ 2D Barcodes: CODABLOCK F mode, GS1 DataBar, GS1 DataMatrix, Maxicode, AZTEC, PDF417, QR Code, Micro PDF417, TLC39
Printer Language	TSPL-EZC (EPL2, ZPL2, CPCL), or ESC-POS
Media Type	Receipt paper / receipt paper with black mark on print side or backside / label
Media Width	20 mm - 80 mm (0.79” - 3.15”) with liner
Media Thickness	0.06 mm - 0.20 mm (2.36 mil - 7.87 mil)
Media Height	15 mm (0.59”)

Model	RE310
Media Core Diameter	▪ Standard: 12.7 mm (0.5”) ▪ Optional: 19.1 mm (0.75”)
Environment Condition	▪ Operation: -10˚C - 50˚C (14˚F - 122˚F), 10% - 85% non-condensing ▪ Storage: -20˚C - 60˚C (-4˚F - 140˚F), 5% - 90% non-condensing
Accessories	▪ Type C USB 2.0 cable x1 ▪ Quick start guide x1 ▪ USB-A power adapter x1 ▪ Belt clip x1 ▪ Li-ion battery x1
User Options	▪ Type C USB 2.0 cable ▪ USB-A power adapter ▪ IP54-rated protective case with shoulder strap ▪ Li-ion battery ▪ 1-slot battery charger ▪ 4-slot battery charger ▪ 12 - 48V DC power source with battery eliminator ▪ 12 - 48V wire to wire battery eliminator with power supply ▪ Wire to wire dummy battery pack

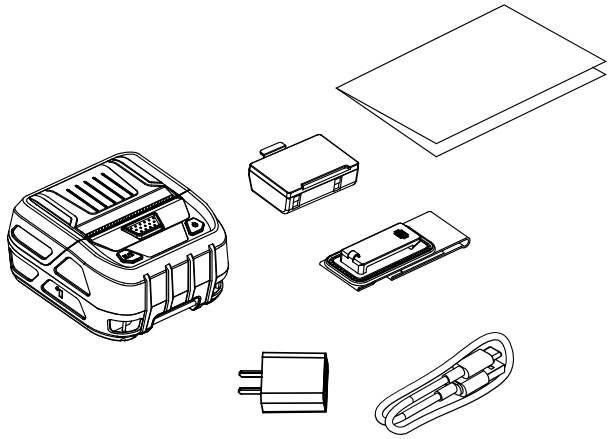
1.2 Battery Information

Capacity	Life Cycle	Warning Conditions	Charging Hours	Working Hours
3,080 mAh	500 times	**GOOD** discharged count <= 550, or absolute battery capacity >= 70% **REPLACE** 550 < discharged count <= 600, or 67% <= absolute battery capacity < 70% **UNUSABLE** 600 < discharged count, or absolute battery capacity < 67%	• Normal charge: 3 to 5 hours • Fast charge: 2 to 4 hours (An adapter which complies with the 18W PD 3.0 specifications is required.) **NOTE:** Charging time may vary based on battery health, environmental factors, user operation, and charger type.	26 hours - 12.5% printing ratio - 1 label per two minutes - Bluetooth

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
- Li-ion battery x1
- Quick installation guide x1
- USB cable x1
- USB power adapter x1
- Media spacer x2



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

1. Feed/Pause button
2. LCD screen (indicates battery status / media type / firmware version / Bluetooth MAC address / error messages)
3. Media cover
4. Media cover release button
5. Power button
6. Type C USB interface / Power jack
7. Interface / power jack cover

3.2 Interior View

1. Tear edge
2. Printhead
3. Media sensor (printhead side)
4. Media sensor (roller side)
5. Media holder
6. Platen roller

3.3 Rear View

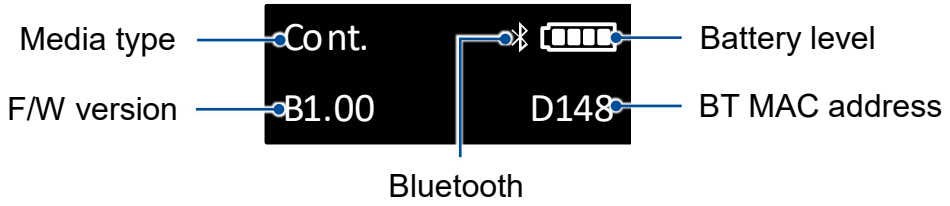
1. Battery open clasp
2. Battery pack
3. Belt clip installation bar

3.4 Operator control

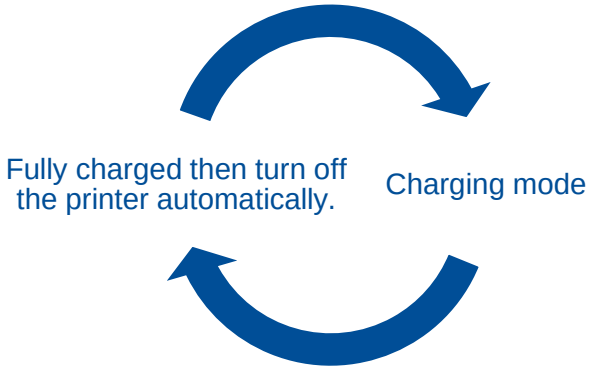
1. Feed/Pause button
2. LCD monitor (indicates battery status / media type / firmware version / Bluetooth MAC address / error messages)
3. Power on/off button

Key	Function
	▪ Press and hold for 2-3 seconds to turn on the printer. ▪ Press and hold for 2-3 seconds to turn off the printer.
	▪ Ready status: Feeds one label. ▪ Active status: Pauses the print activities.

LCD Monitor



3.5 Battery Charging Cycle



- Charging the battery when the printer is turned on.

Charging Cycle	Battery Level	
Charging the battery when the printer is turned off. 	1 block blinking	Charging level: 0-25%
	2 blocks blinking	Charging level: 25-50%
	3 blocks blinking	Charging level: 50-75%
	4 blocks blinking	Charging level: 75-100%
	Solid 4 blocks	Charging level: 100%
2. Fully charged then turn off the printer automatically.		

NOTE: When the battery is fully charged and the printer is idle for a while, the printer will power off automatically.

- Charging the battery when the printer is turned off.

Charging Cycle	Battery Level	
Charging the battery when the printer is turned off. 	1 block blinking	Charging level: 0-25%
	2 blocks blinking	Charging level: 25-50%
	3 blocks blinking	Charging level: 50-75%
	4 blocks blinking	Charging level: 75-100%
	Solid 4 blocks	Charging level: 100%

NOTE: When the battery is fully charged and the printer is idle for a while, the printer will power off automatically.

4 Setting up the Printer

4.1 Installing the Battery

<table>
<tr>
<td>1. Insert the battery into its compartment.
  </td>
<td>2. Press down to secure the battery in place.
  </td>
</tr>
<tr>
<td>3. Pull the battery latch to lock the battery in place.
  </td>
<td>WARNIING:

DO NOT throw the battery in fire. DO NOT short circuit the contacts. DO NOT disassemble the battery. DO NOT throw the battery in municipal waste.

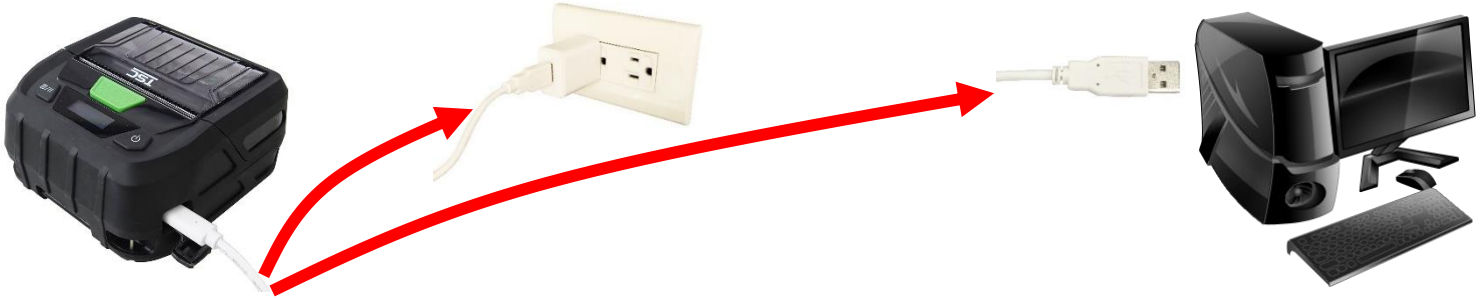
The symbol of the crossed out wheeled bin () indicates that the battery should not be placed in municipal waste.</td>
</tr>
</table>

4.2 Charging the Battery

It takes 1.5 to 2 hours to fully charge the battery before the first time usage. The lifetime of the battery is 300 times for charge/discharge cycles.

1. Install the battery into its compartment on the bottom side of the printer.
2. Open the interface cover and plug the power cord to the power jack.

3. Plug the power cord into a properly power outlet. Alternatively, you can plug the power cord into the USB connector on your computer.



WARNING:

Do NOT use the printer (discharge) while the battery is charging. Otherwise, it will harm the battery life and cause other adverse effects. The battery normal working condition is from 0°C to 40°C (32 °F to 104 °F). The device or battery charger always perform battery charging in a safe and optimum manner. At higher temperatures, e.g., approximately +40 °C (+104 °F) or charging when turning on the printers, the printer or battery charger may stop charging for a period of time to keep the battery at acceptable temperatures.

4.3 Communication

Communication via the USB Cable

Open the interface cover and connect the printer to the computer via the supplied USB cable.

Communication via Bluetooth

Turn on the printer and make sure the Bluetooth device opened.

The default setting:

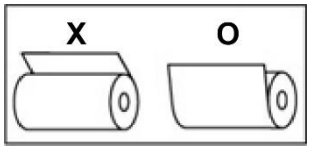
Name	Printer's model name + the last 4 digits of Bluetooth MAC address
PIN	0000

NOTE: If you want to change the Bluetooth name and PIN code, please refer to Setting Bluetooth by TSC Console.

4.4 Loading the Media

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

2. Orient the media roll as illustrated and then load the media roll.



3. Press the indicated location to close the media cover ensuring that the leading edge of the media roll extends out of the tear bar.

4. Perform a media calibration for the media in use. For how to perform a media calibration, please refer to Calibrating Media Sensor by TSC Console.

The media holder for RE310 can be adaptable to 0.5-inch or 0.75-inch core through easy adjustment. Follow the steps below to adjust the media holder for the media you want to use.

1. Carefully pull to remove the wheel from the media holder.

2. Flip the wheel to the side which fits with the media core.

For 0.5-inch media core

For 0.75-inch media core

3. Install the wheel back to the media holder ensuring that the core you want to use faces outside. Repeat the same procedures to install the wheel for the other media holder.

For 0.5-inch media core

For 0.75-inch media core

4.5 Installing the Belt Clip

1. Thread the belt clip through under the metal bar on the rear side of the printer.

2. Fold back to adhere the adhesive hook to the loop tape.

3. Use the clip to secure the printer to your belt.

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 the Feed button (/) and then press power button (). The LCD panel will start blinking indicating which function is going to be activated.
3. When function you need appear on the screen, release the Feed button (/). The Power-on Utilities will run the function you select.

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

	Corresponding Images			
LCD monitor / Sequence & Function	Calib rate.....	Self Test.....	Initiali ze.....	Cont. B1.00 D148
	(5 blinks)	(5 blinks)	(5 blinks)	(Ready)
1. Media sensor calibration	Release			
2. Self-test and enter dump mode		Release		
3. Printer initialization			Release	

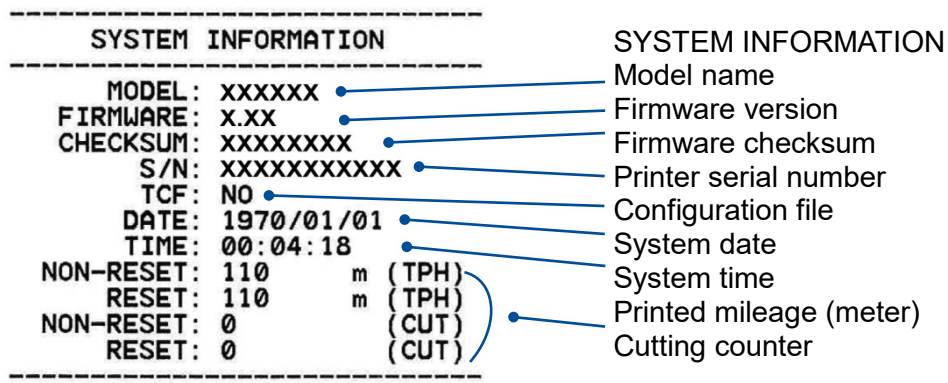
Media Sensor Calibration

It allows you to calibrate a media sensor’s sensitivity.

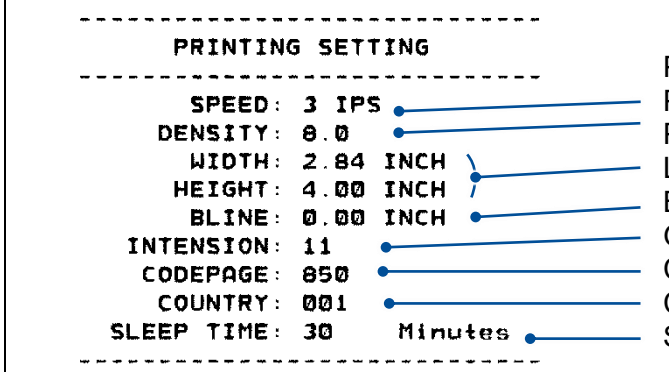
Self-Test

When entering the self-test stage, the printer will sequentially calibrate all media sensors, measure the media length, print out the printer’s configuration, and then enter the dump mode. You can use the self-test printout to check if there is any dot damage on the heater element

Self-test Printout

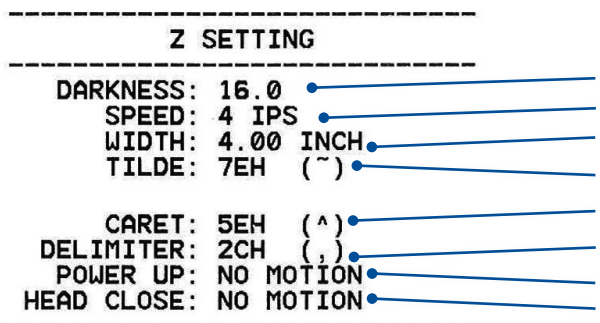


Self-test Printout



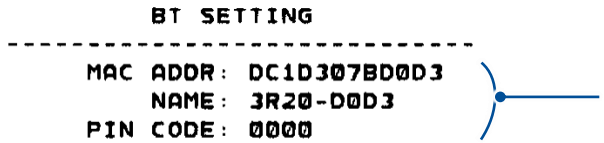
PRINTING SETTING
- Print speed (inch/sec)
- Print darkness
- Label size (inch)
- Black mark height (inch)
- Gap/black mark sensor intension
- Code page
- Country code
- Sleep time

NOTE: If the printer is idle for more than 120 seconds, the printer will enter standby mode. You can press any button to wake up the printer.

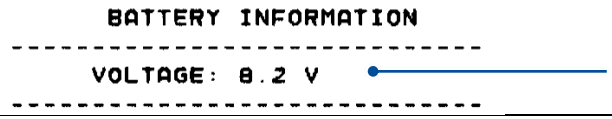


ZPL SETTING
- Print darkness
- Print speed (inch/sec)
- Label size
- Control prefix
- Format prefix
- Delimiter prefix
- Printer power up motion
- Printer head close motion

Note: ZPL emulates Zebra® language.

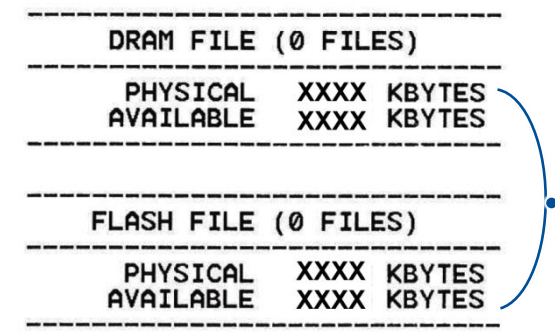


Bluetooth Information

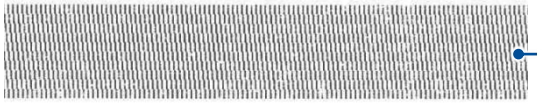


Battery voltage

Self-test Printout



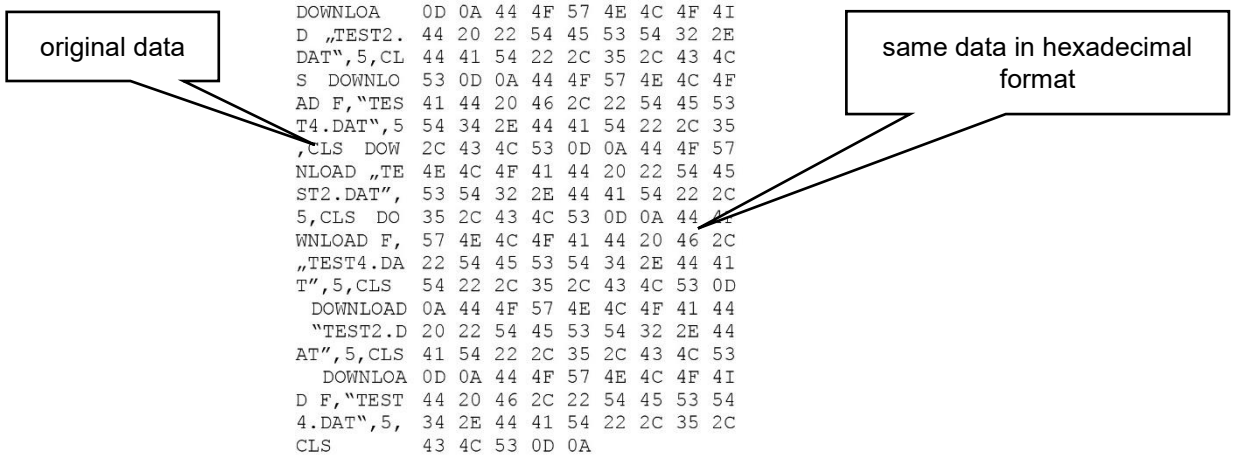
Numbers of files saved in the memory
Total & available memory space



Printhead check pattern

Dump Mode

The printer will enter the dump mode after the self-test and printout of the printer's configuration. In the dump mode, all received characters will be printed in a two-column format. The left column displays the data which is sent from your computer while the right column shows the same data in the hexadecimal format. This function helps engineers troubleshoot a specific problem.



NOTE:

1. Paper that is at least 2 inches wide is required for the dump mode.
2. To leave the dump mode, turn off and then turn on the printer. The printer will automatically enter the normal status.

Printer Initialization

When entering the Printer Initialization stage, all data saved on the printer and all printer configurations will be cleared and the printer will be reset to its default settings.

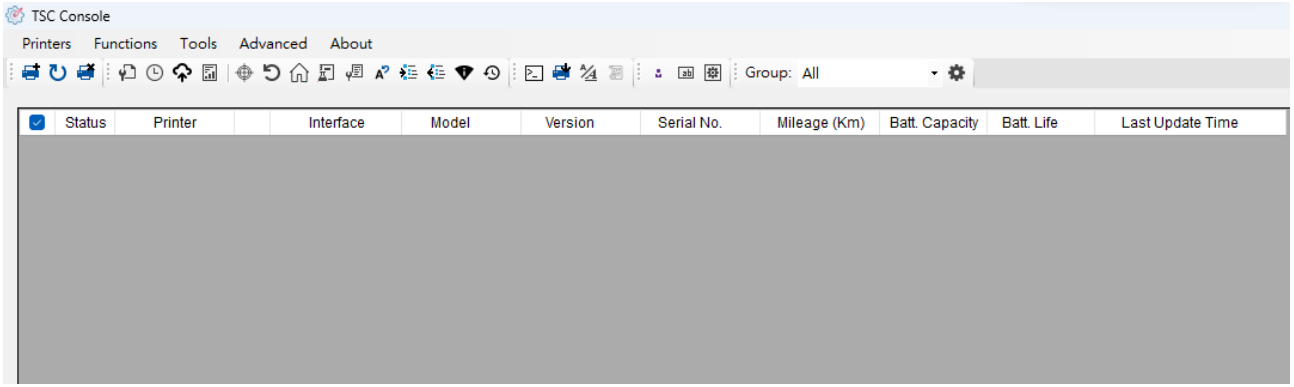
6 TSC Console

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.

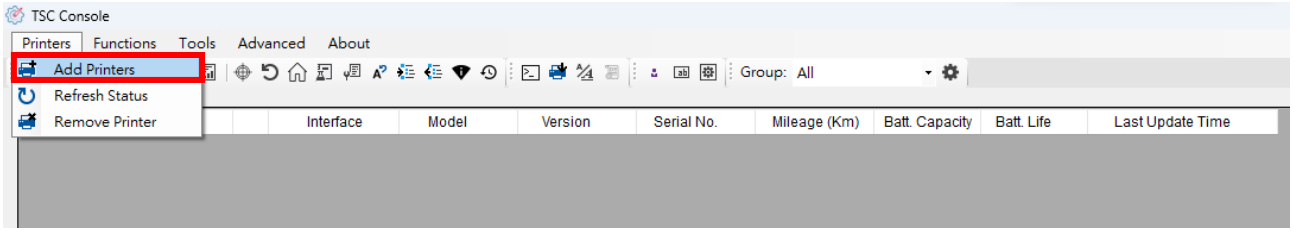
6.1 Launching TSC Console

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

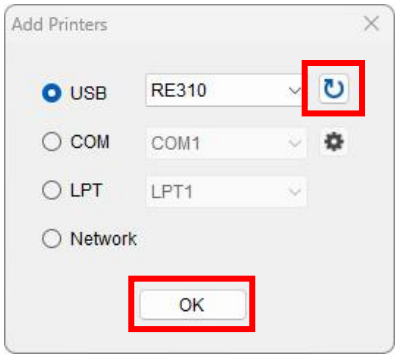
1. Connect the USC cable with PC and printer. Turn on the printer.
2. Double click the **TSC Console** icon on the desktop of your computer to launch **TSC Console**. After launching **TSC Console**, the following screen will appear.



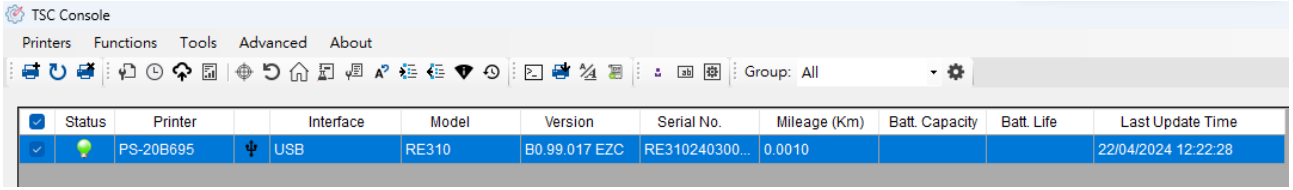
3. Select **Printers > Add Printers** to add the new printer to the **TSC Console** main page.



4. Select the **USB** and press the button to find the printer, then select **OK** to add the printer.



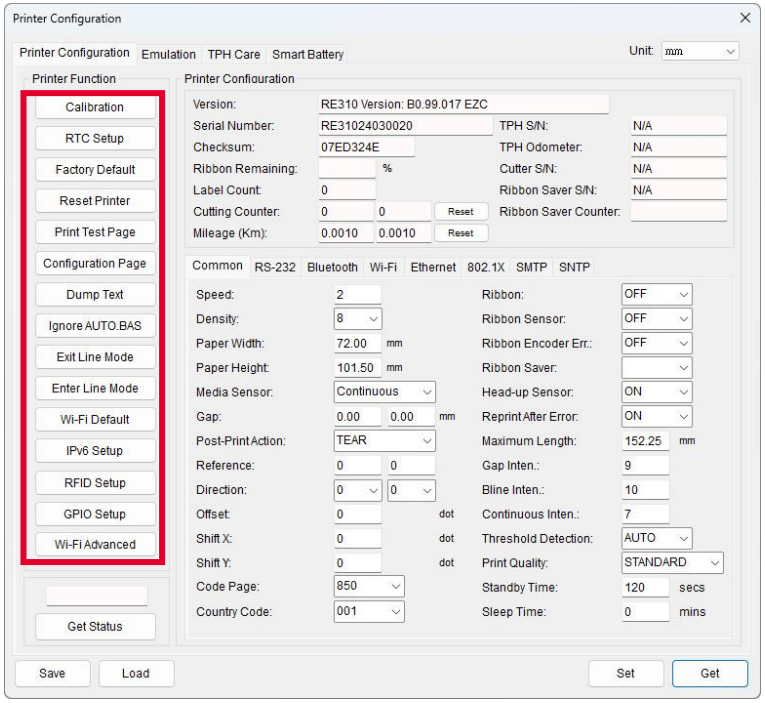
5. Select and start configuring the printer.



NOTE: You may refer to **TSC Console Manual** for further information.

6.2 Printer's Main Functions

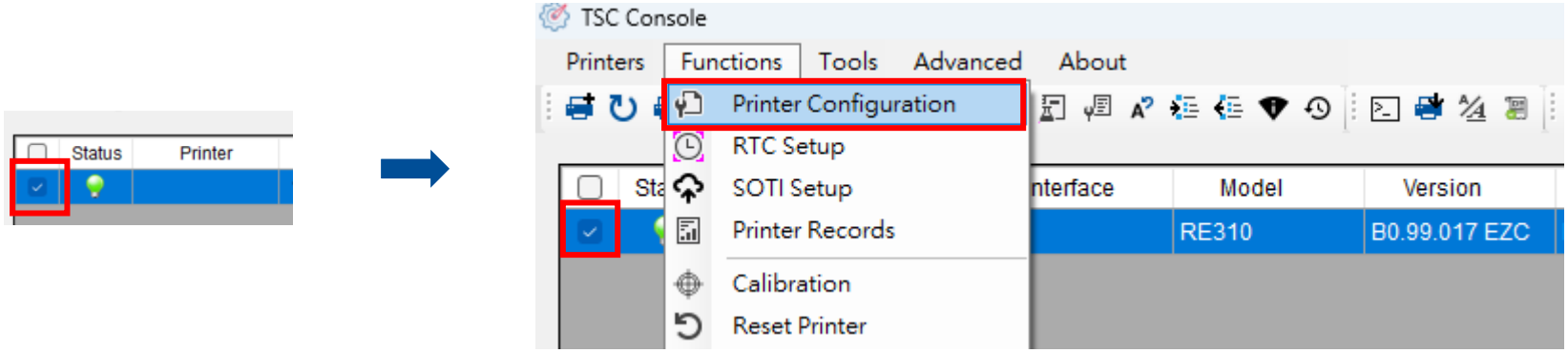
The function buttons are located on the left side of the **Printer Configuration** page. You can use the function buttons to manage and configure the printer.



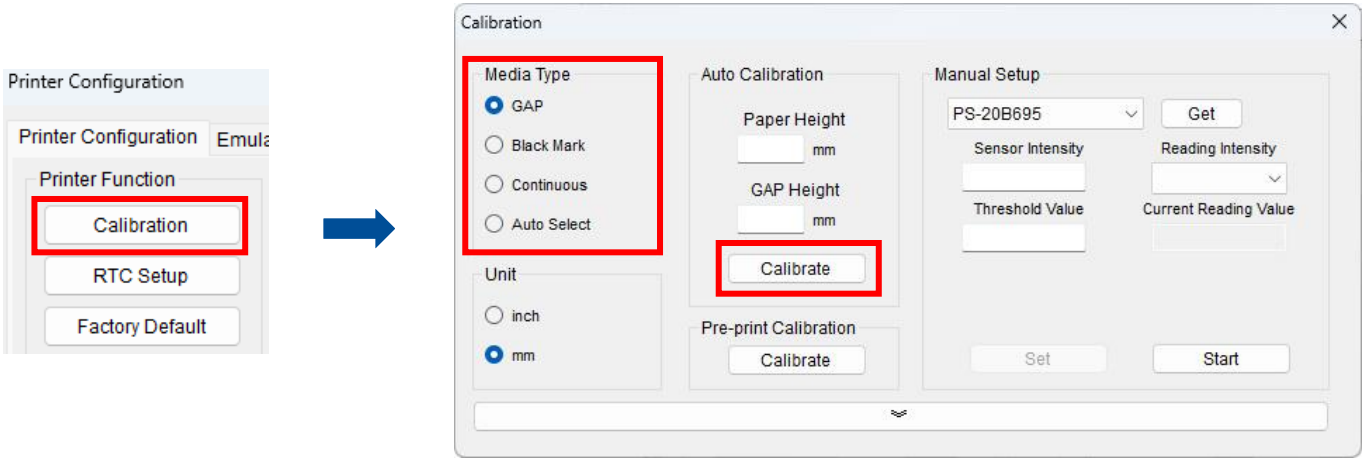
Item	Description
Calibration	Detects the media type and label size.
RTC Setup	Synchronizes the printer with the real time clock on the computer.
Factory Default	Restores the printer's settings to factory default values.
Reset Printer	Re-starts the printer.
Print Test Page	Prints test page based on the specified label size and sensor type.
Configuration Page	Prints the printer's configurations.
Dump Text	Activates the 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	Removes the wireless connection between the printer and your computer.
IPv6 Setup	Configures IPv6 settings.
RFID Setup	Configures RFID settings.
GPIO Setup	Configures GPIO pin.
Wi-Fi Advanced	Opens menu for more Wi-Fi setting options.

6.3 Calibrating Media Sensor by TSC Console

1. Make sure the media is already installed and media cover is closed.
2. Launch the **TSC Console** and add the new printer to the **TSC Console** main page**.** Select the printer you want to configure and then select **Functions > Printer Configuration**.

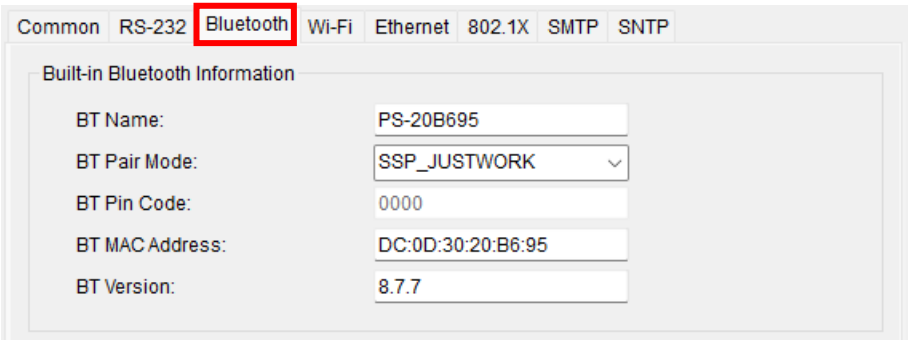


3. Select **Calibration** for more setting options. Select the media type and then select **Calibrate** to run the auto calibration.



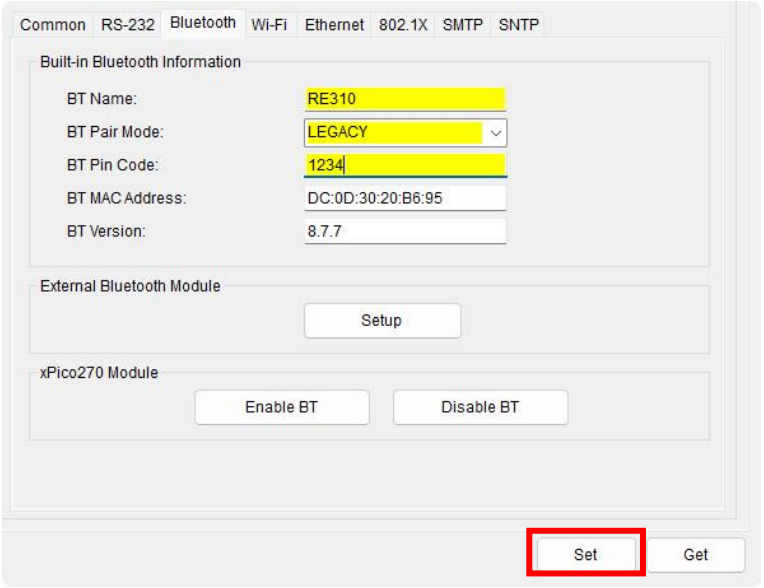
6.4 Setting Bluetooth by TSC Console

1. Launch the **TSC Console** and add the new printer to the **TSC Console** main page**.** Select and start configuring the printer.
2. Select the **Bluetooth** tab.



3. Enter a name and PIN code in the **BT Name** and **BT PIN Code** field.
4. Press **Set** to confirm the new Bluetooth name and PIN code. You can press **Get** to retrieve the values to double check if the Bluetooth name and PIN code are set correctly.

   NOTE: You are not allowed to configure the PIN code in the **SSP_JUSTWORK** mode or **SSP_USERCONFIRM** mode.



7 Troubleshooting

The following guide lists the most common problems that may be encountered when operating this bar code printer. If the printer still does not function after all suggested solutions have been invoked, please contact the Customer Service Department of your purchased reseller or distributor for assistance.

Problem	Possible Cause	Recommended Solution
LCD screen does not illuminate	• The battery is not properly installed. • The battery metal contacts pins are with dirt. • The battery is dead.	• Clean the battery metal contacts. • Reinstall the battery. • Switch the printer on. • Charge the battery.
“Carriage Open” appears on the screen.	The media cover is open.	Please close the media cover.
“Out of Paper” appears on the screen.	• Running out of media roll. • The media is installed incorrectly. • Black mark sensor is not calibrated.	• Supply a new media roll. • Re-install the media roll. • Calibrate the black mark sensor.
“Paper Jam” appears on the screen.	• Black mark sensor is not properly calibrated. • Make sure media size is set properly. • Media may be stuck inside the printer mechanism.	• Calibrate the black mark sensor. • Set media size correctly. • Clean the printer mechanism.
Memory full (FLASH / DRAM)	The space of FLASH/DRAM is full.	• Delete unused files in the FLASH/DRAM. • Run printer self-test and check the available memory space for DRAM or FLASH. • Check the available memory space for DRAM or FLASH.
Poor Print Quality	• Media cover is not fully latched. • Dust or adhesive accumulation on the printhead. • Print density is not set properly. • Printhead element is damaged.	• Make sure the right/ left side of media cover is fully latched. • Clean the printhead. • Clean the 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. • Change proper media roll.

Problem	Possible Cause	Recommended Solution
Missing printing on the left or right side of label	Wrong label size setup	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.
Irregular printing	The printer is in Hex Dump mode.	Turn off and on the printer to exit the dump mode.

8 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 printhead 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.

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

Cleaning Procedures

Component	Method	Recommended Frequency
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.
Tear 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.

Component	Method	Recommended Frequency
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.

9 Agency Compliance and Approvals

CE	EN 55032:2015+A1: 2020 EN 55035:2017+A11:2020 EN IEC 61000-3-2: 2019/A1:2021 EN 61000-3-3: 2013/A2:2021 EN IEC 62368-1:2020+A11:2020 EN 50663: 2017 ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4 ETSI EN 300 328 V2.2.2 EN 50665: 2017 ETSI EN 301893 V2.1.1 ETSI EN 300 440 V2.2.1
UK CA	BS EN 55032:2015+A1: 2020 BS EN 55035:2017+A11:2020 BS EN IEC 61000-3-2: 2019+A1:2021 BS EN 61000-3-3: 2013+A2:2021 ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4 BS EN 50663: 2017 ETSI EN 300 328 V2.2.2 BS EN 50665: 2017 ETSI EN 301893 V2.1.1 ETSI EN 300 440 V2.2.1 BS EN IEC 62368-1: 2020+A11:2020

	FCC part 15 Subpart B FCC 47 CFR Part 2.1093 FCC KDB 447498; KDB 248227; KDB 865664 ICES-003, Issue 7 ,October 15,2020 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
	GB 4943.1-2022 GB/T 9254.1-2021 GB 17625.1-2022
	IS 13252(Part 1)/ IEC 60950-1

WPC	45 (E) Dated 28-01-2005
EAC	TP TC 004 TP TC 020
KC	KS C 9832: 2023 KS C 9835: 2019 KS X 3124: 2020 KS X 3126: 2020
CNS	CNS 15936 CNS 15598-1
	LP0002
SDPPI	99778/SDPPI/2024 12529

NBTC	

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.

WARNING:

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

CAUTION:

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.

电池安全警告：

- 勿将电池扔于火中。
- 勿将电池接点短路。
- 不可拆解电池。
- 不乱将电池当成一般废弃物处理。
- 打叉的垃圾桶 符号表示电池不应该被放置到一般废弃堆中。

注意:

- 更换不正确型号类型的电池, 将产生爆炸危险。
- 请根据使用说明处理用过的电池。

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。

 **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.

All operational modes:

2.4GHz: 802.11b, 802.11g, 802.11n (HT20), 802.11n (HT40)

5GHz: 802.11a, 802.11n

The frequency, mode and the maximum transmitted power in EU are listed below:

2400 MHz – 2483.5 MHz: 19.88 dBm (EIRP)

5150 MHz – 5250 MHz: 17.51 dBm (EIRP)

5150-5350MHz for Only indoor use

5470-5725MHz for indoor/outdoor use

Restrictions In AZE

National restrictions information is provided below

Frequency Band	Country	Remark
5150-5350MHz	**Azerbaijan**	**No license needed if used indoor and power not exceeding 30mW**
5470-5725MHz		

Hereby, TSC Auto ID Technology Co., Ltd. declares that the radio equipment type [Wi-Fi] IEEE 802.11 a/b/g/n is in compliance with Directive 2014/53/EU

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

RF exposure warning (Wi-Fi)

This equipment must be installed and operated in accordance with provided instructions and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be providing with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

SAR Value: 0.736 W/kg

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 been evaluated for and shown compliant with the IC Specific Absorption Rate (“SAR”) limits when installed in specific host products operated in portable exposure conditions. **(For Wi-Fi)**

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 été évalué et démontré conforme aux limites SAR (Specific Absorption Rate – Taux d'absorption spécifique) par l'IC lorsqu'il est connecté à des dispositifs hôtes spécifiques opérant dans des conditions d'utilisation mobile. **(Pour le Wi-Fi)**

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)

限用物質含有情況標示聲明書 / Declaration of the Presence Condition of the Restricted Substances Marking

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	Editor
2024/06/07	Official release.	Peter Yao
2024/11/26	Added 802.11n mode for 5GHz, page 42.	Peter Yao

www.tscprinters.com