TTP-244CE

■ Thermal Transfer ■ Direct Thermal

Desktop Barcode Printers

User Manual

Copyright information

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1. Introduction

Thank you very much for purchasing TSC bar code printer.

This printer provides both thermal transfer and direct thermal printing at user selectable speed of: 2.0, 3.0, 4.0 or 5.0 ips, for TTP-245C series; 2.0 or 3.0 ips for TTP-343C series. It accepts roll feed, die-cut, and fan-fold labels for both thermal transfer and direct thermal printing. All common bar codes formats are available. Fonts and bar codes can be printed in 4 directions, 8 different alphanumeric bitmap fonts and a build-in true type font capability. You will enjoy high throughput for printing labels with this printer.

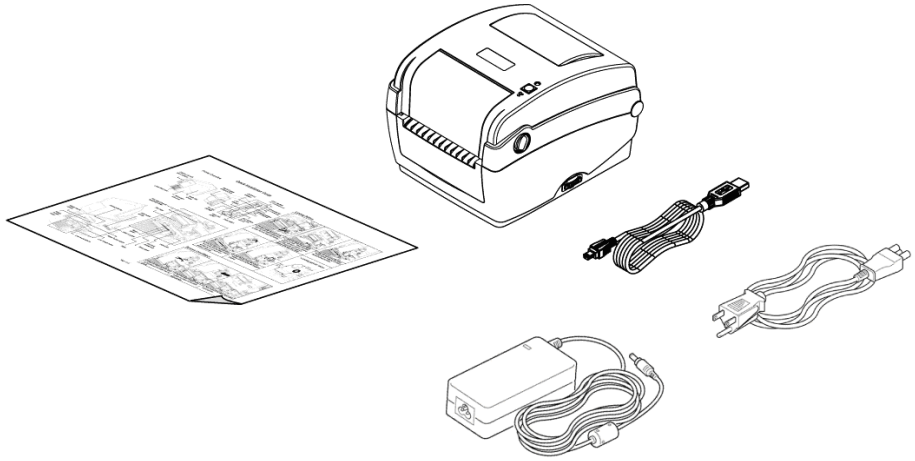
This document provides an easy reference for operating this printer. For system integration, the TSPL/TSPL2 printer programming manual or SDKs can be found on TSC website at: https://www.tscprinters.com.

2. Operation Overview

2.1 Unpacking and Inspection

This printer has been specially packaged to withstand damage during shipping. Please carefully inspect the packaging and printer upon receiving the bar code printer. Please retain the packaging materials in case you need to reship the printer.

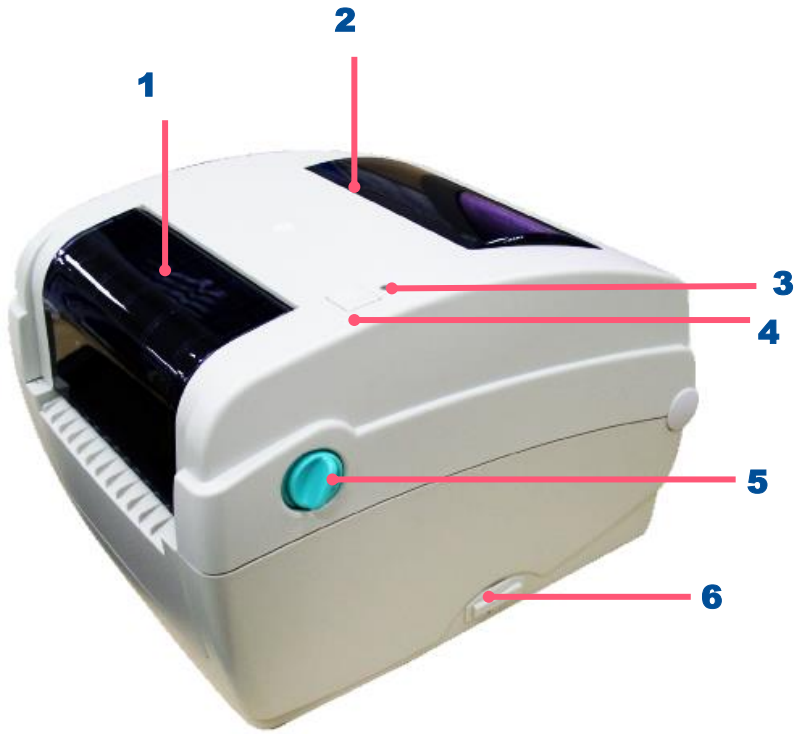
- One printer unit
- One quick installation guide
- One power cord
- One auto switching power supply
- One USB interface cable



If any parts are missing, please contact the Customer Service Department of your purchased reseller or distributor.

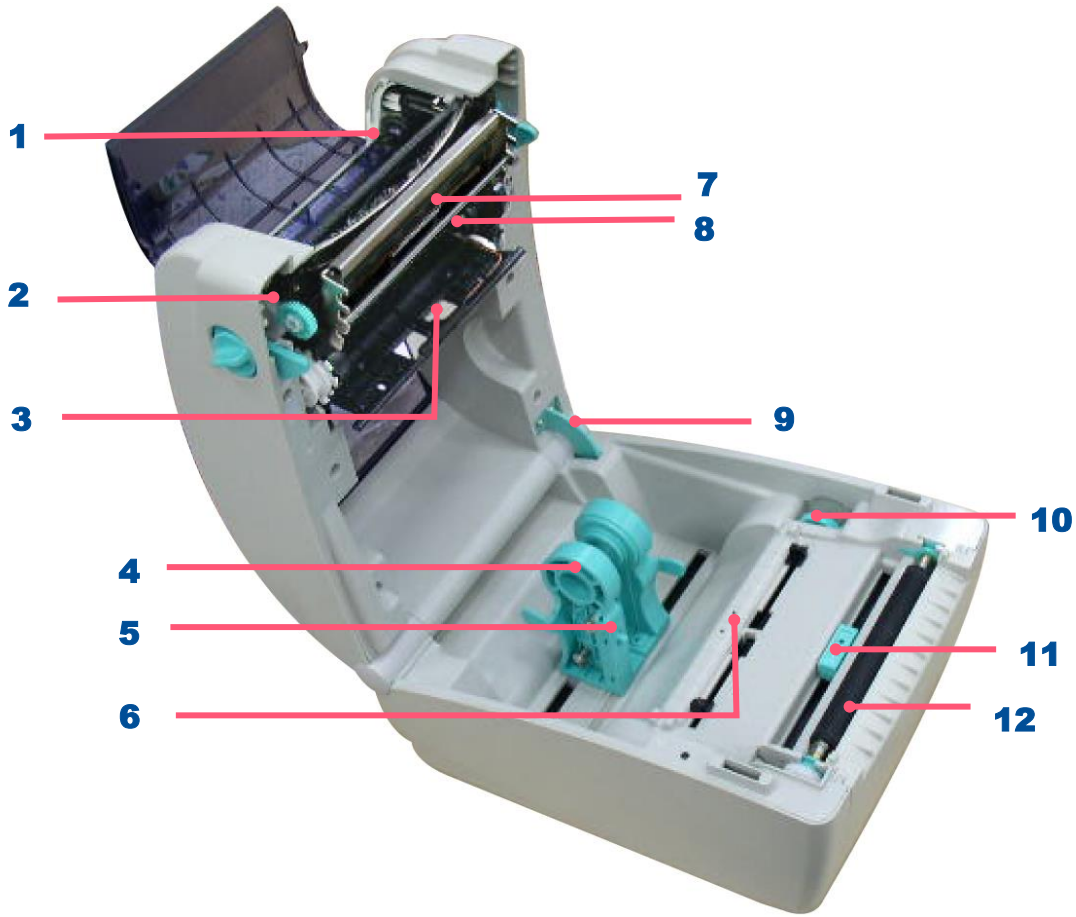
2.2 Printer Overview

2.2.1 Front View



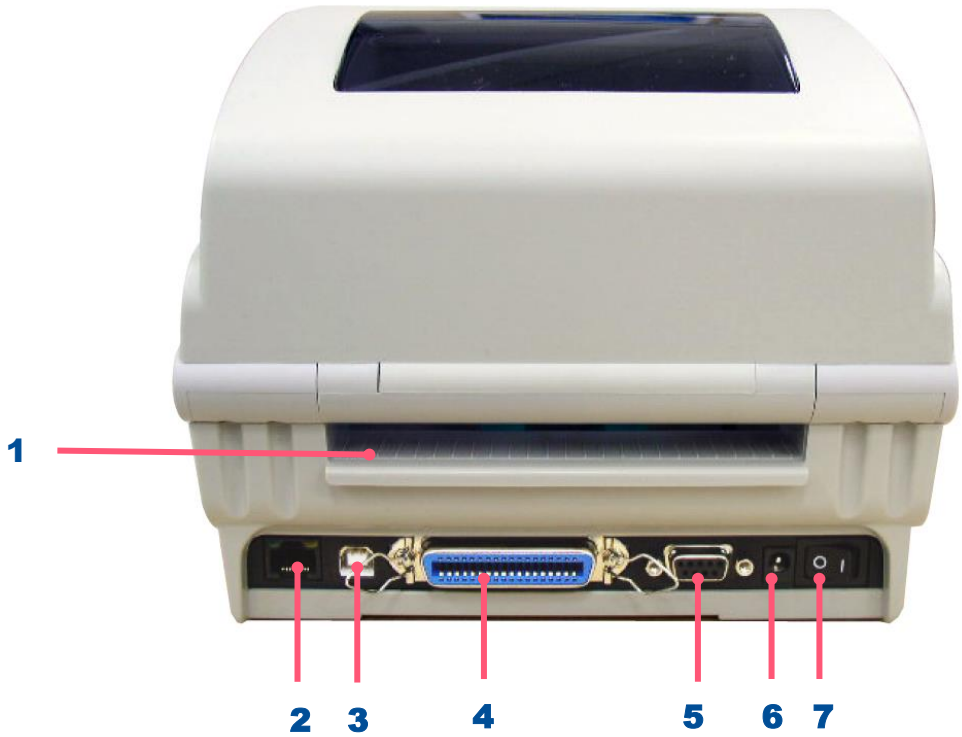
1. Ribbon access cover
2. Media view window
3. LED indicator
4. Feed button
5. Top cover open lever
6. SD card socket

2.2.2 Interior View



1. Ribbon rewind hub
2. Ribbon rewind gear
3. Gap sensor (receiver)
4. Media holder
5. Media holder lock switch
6. Gap sensor (transmitter)
7. Printhead
8. Ribbon supply hub
9. Top cover support
10. Media guide adjustment knob
11. Black mark sensor
12. Platen roller

2.2.3 Rear View

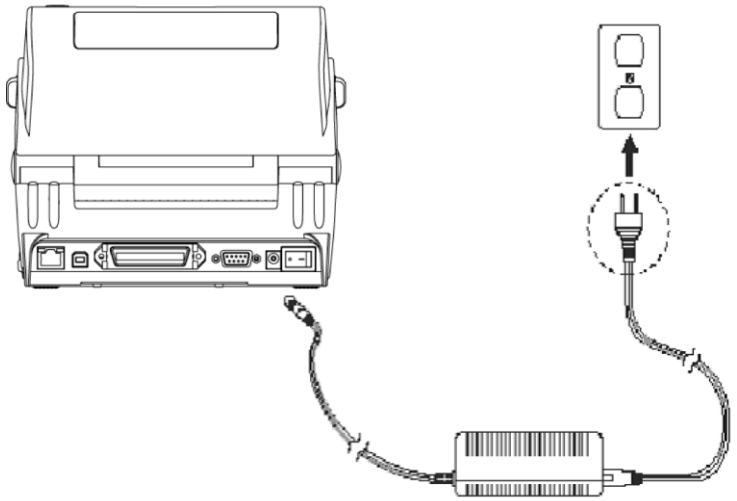


1. Fan-fold paper entrance chute
2. Ethernet interface
3. USB interface
4. Centronics interface
5. RS-232C interface
6. Power jack socket
7. Power switch

3. Setup

3.1 Setting up the Printer

1. Place the printer on flat surface.
2. Make sure the printer is power off.
3. Connect the printer to the computer with the provided USB cable.
4. Plug in the power cord.

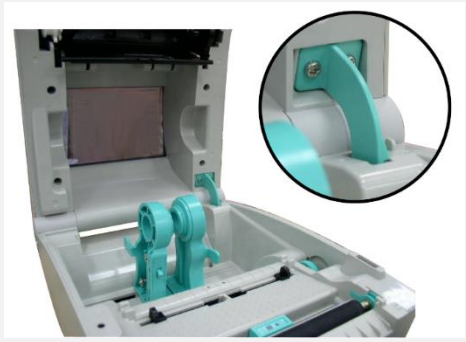


◆ **Note: Please switch OFF the printer before plugging in the power cord to printer power jack.**

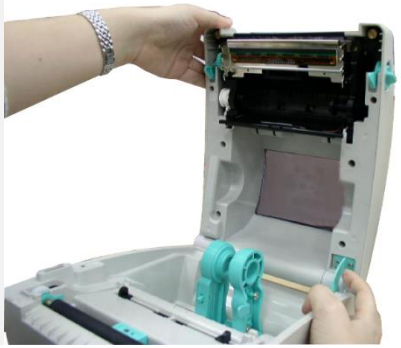
3.2 Instructions to Top Cover Operation

1. Open the printer top cover.

2. Pull the tabs located on each side towards the front of the printer, then lift the top cover to the maximum open angle.



3. A top cover support at the rear of the printer will engage with lower inner cover to hold the printer top cover open.



4. Hold the top cover and press the top cover support to disengage the top cover support with lower inner cover. Gently close the top cover.

3.3 Loading the Ribbon

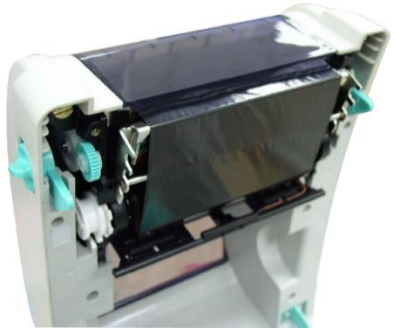
1. Open the printer top cover and the ribbon access cover.

2. Insert the ribbon right side onto the supply hub. Align the notches on the left side and mount onto the spokes.

3. Insert the paper core right side onto the rewind hub. Align the notches on the left side and mount onto the spokes.

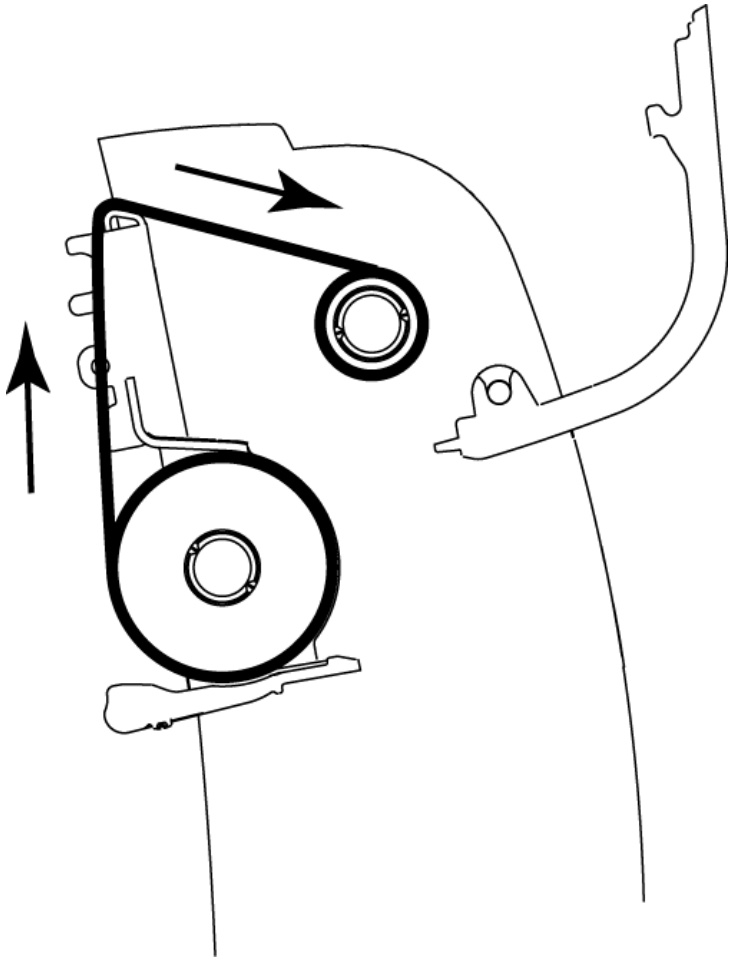
4. Stick the ribbon onto the ribbon rewind paper core.

5. Turn the ribbon rewind gear until the ribbon plastic leader is thoroughly wound and the black section of the ribbon covers the print head.

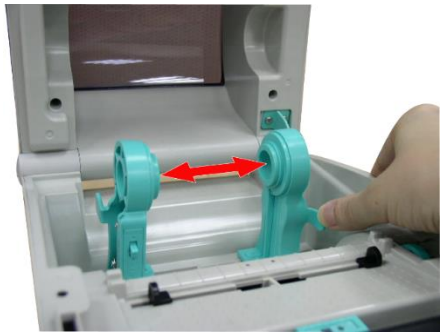


6. Close the ribbon access cover and the top cover.

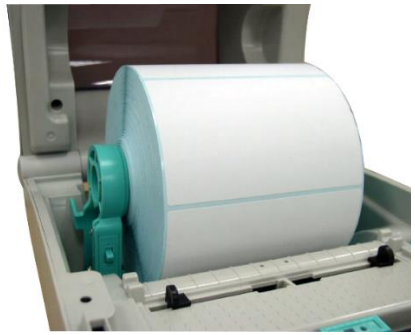
Loading Path for Ribbon



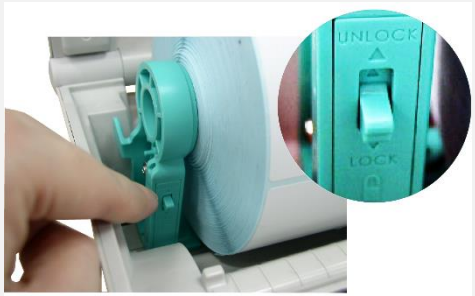
3.4 Loading the Media



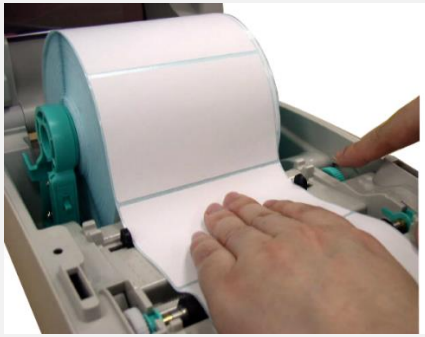
1. Open the printer top cover and separate the media holders.



2. Place the roll between the holders then put it onto the core.

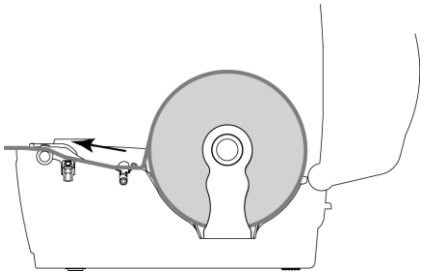


3. Press down the media holder lock switch to hold the label roll firmly.



4. Place the paper and make sure the printing side is facing up. Move the media guides to fit the label width.

5. Disengage the top cover support and close the top cover gently. Use software or hardware to make the calibration. (Please refer to chapter 4&5)



6. Loading path for roll label.

3.5 External Label Roll Mount Installation (Option)

1. Attach an external paper roll mount on the bottom of the printer.

2. Insert a 3” label spindle into a paper roll. And install it on the external paper roll mount.

3. Open the printer’s top cover and separate the media holders. Then feeds the media from the rear external label entrance chute.

4. Disengage the top cover support and close the top cover gently. Use software to make calibration (Please refer to chapter 4 and 5.)

3.6 Loading Fan-fold Media

1. Open the printer top cover.

2. Insert the fan-fold media through the external label entrance chute.

3. Separate and hold open the media holders.

4. Press down the media holder lock switch to hold the media firmly.

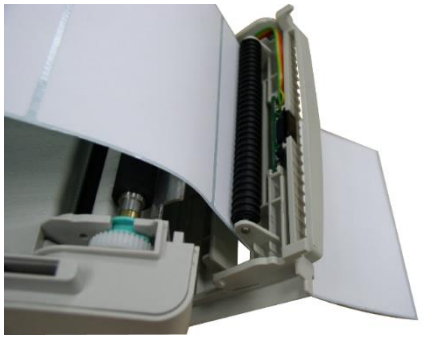
5. Place the paper, printing side face up. Move the media guides to fit the media width by turning the guide adjuster knob.

6. Complete the installation of fan-fold media..

3.7 Loading Label in Peel-Off Mode (Option)

1. Open the printer top cover. Refer to section 3.4. to load the media then feed the paper.
2. Use software to set the media sensor type and calibrate the selected sensor.(Please refer to chapter 4 and 5)

3. Open the peel-off panel by pulling it out.



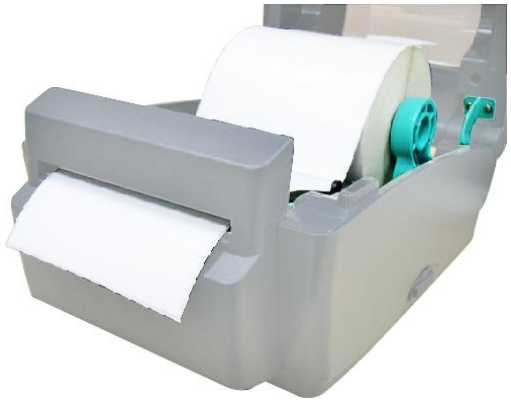
4. Lead the media through the backing paper opening and beneath the peel-off roller.

5. Push the peel-off panel back to the printer

6. Disengage the top cover support and close the top cover gently. Press the FEED button to test.

3.8 Loading Label in Cutter Mode (Option)

1. Open the printer top cover. Refer to section 3.4. to load the media then feed the paper.
2. Lead the media through the cutter paper opening.



3. Move the media guides to fit the label width by turning the guide adjuster knob.
4. Disengage the top cover support and close the top cover gently.
5. Use software to set the media sensor type and calibrate the selected sensor.(Please refer to chapter 4 and 5)

Note:

Please calibrate the gap/black mark sensor when changing media.

Regular cutter specification:

Full cut: Media thickness: 0.06~ 0.19mm

Media type: receipt and label liner w/o glue

Partial cut: Media thickness: 0.06~0.12mm

Media type: receipt and label liner w/o glue

Label length: 25.4 mm ~ max. print length

*Except for the linerless cutter, all regular/heavy duty/care label cutters DO NOT cut on media with glue.

4. LED and Button Functions

4.1 LED Indicator

Color	Meaning
 **(Green)**	**Solid:** Power is on and ready to be used. **Flash :**System is downloading data or printer is paused.
 **(Amber)**	System is clearing data.
 **(Red)**	**Solid** - Printer head open, cutter error. **Flash** - Printing error, such as paper empty, paper jam, ribbon empty, or memory error etc.

4.2 Regular Button Function

1. **Feed labels**
   When the printer is ready, press the button to feed one label to the beginning of next label.

2. **Pause the printing job**
   When the printer is printing, press the button to pause a printing job. When the printer is paused, the LED will be green blinking. Press the button again to continue the printing job.

4.3 Power-on Utilities

Power-on Utilities provides the basic functions and can be activated by below procedures:
Turn off the power > **Hold** the Feed button > **Open** the power > **Release** the button depending on the color of the LED.

Sequences of the settings:

LED Colors / Functions	Amber	Red (5 blinks)	Amber (5 blinks)	Green (5 blinks)	Green / Amber (5 blinks)	Red / Amber (5 blinks)	Solid green
1. Sensor Calibration (Gap / black mark sensor)		Release					
2. Self-Test (And enter dump mode)			Release				
3. Factory Default				Release			
4. Bline Calibration					Release		
5. Gap Calibration						Release	
6. READY (Skip AUTO.BAS)							Release

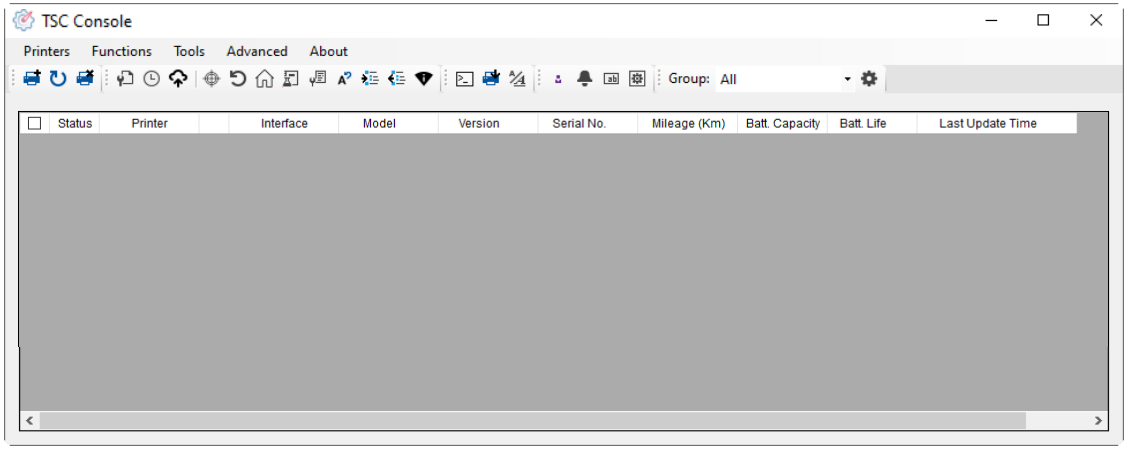
5. TSC Console

TSC Console is a management tool combining the Printer Management, Diagnostic Tool, CommTool and Printer Webpage settings, which enables you to adjust printer's settings/status; change printers' settings; download graphics, deploy fonts, graphics, label templates or upgrade the firmware to the group of printers, and send additional commands to printers at the same time.

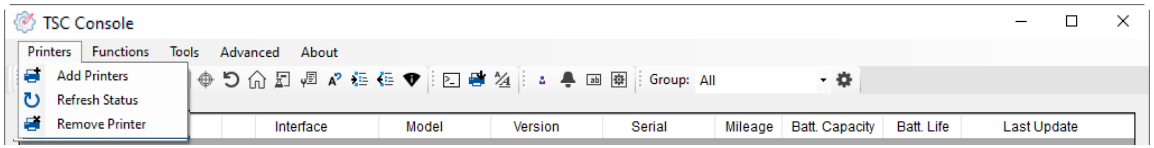
※ **Printer firmware version before A2.12 will only use 9100 Port as command port; Printer firmware after A2.12 will use 6101 Port as command port.**

5.1 Start TSC Console

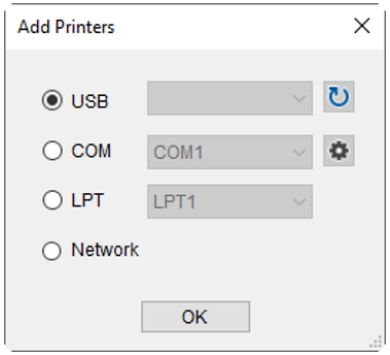
1. Double click TSC Console icon to start the software.



2. Manually add the devices by clicking **Printer > Add Printers**.

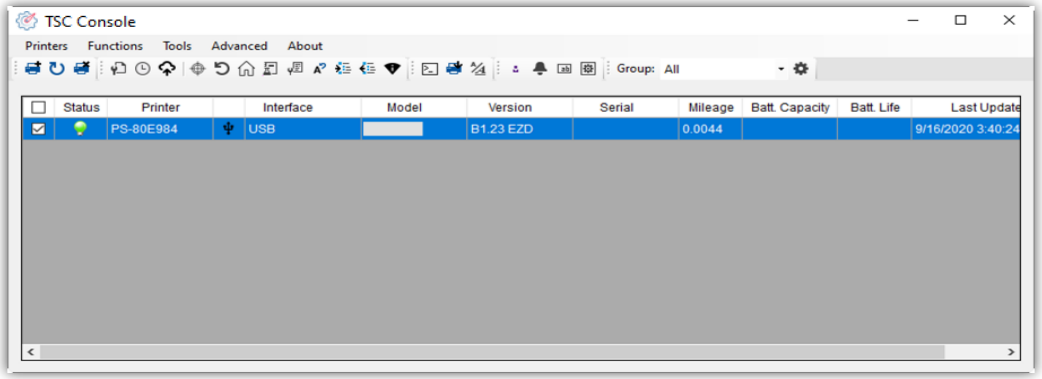


3. Select the current interface of the printer.



4. The printer will be added to **TSC Console**'s interface.

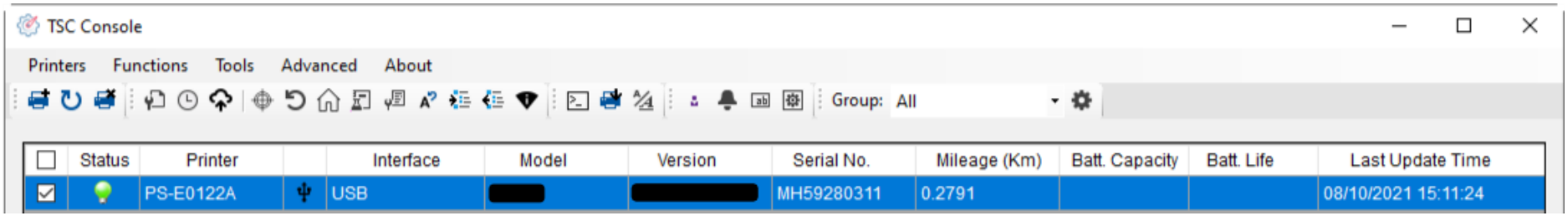
5. Select the printer and set the settings.



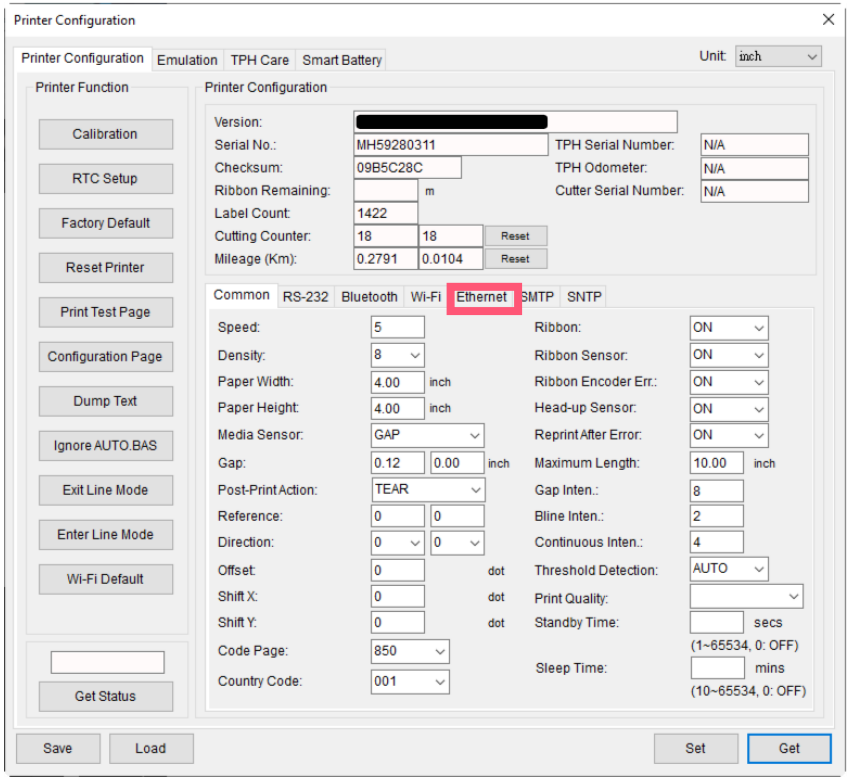
- For more information, please refer to **TSC Console User Manual**.

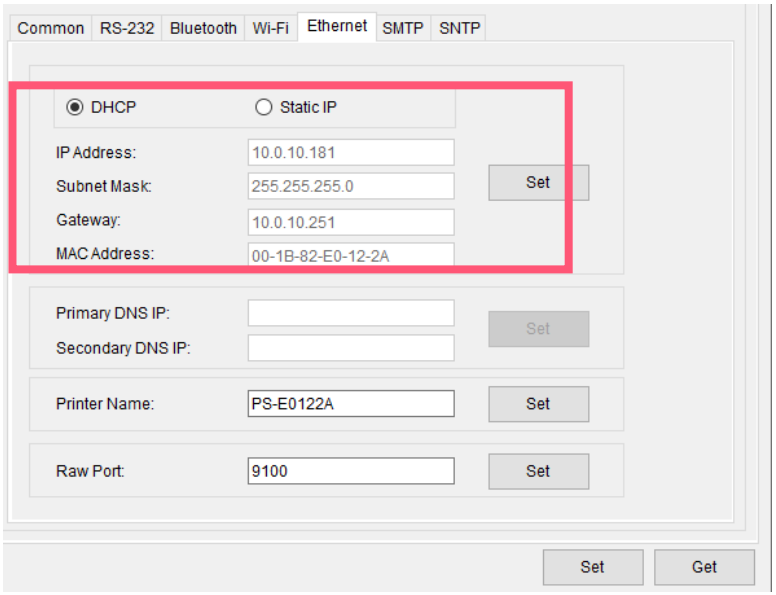
5.2 Setup Ethernet Interface

- Use **USB** or **COM** to establish the interface on **TSC Console**.

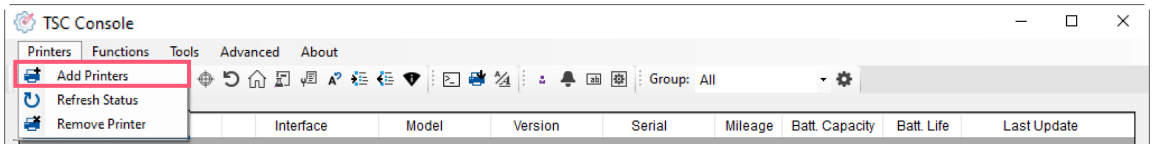


- Double click to enter the **Printer Configuration Page** > Click **Ethernet** tab > Check the **IP Address.**

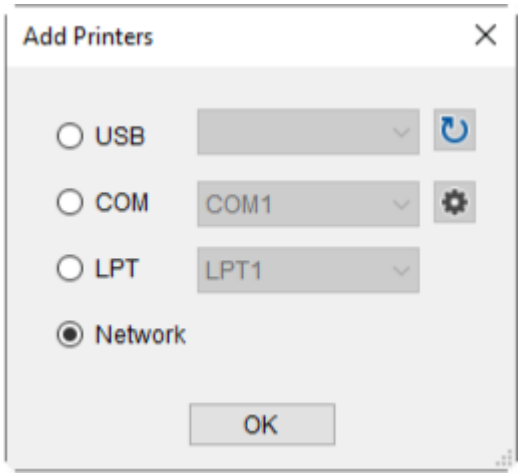


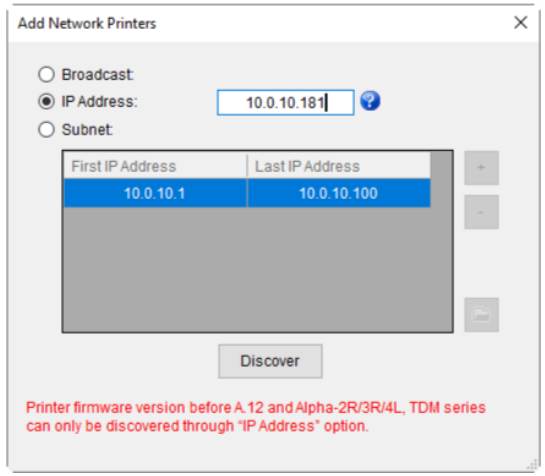


- Return to **TSC Console** main page > Click **Add Printer** on the top left of the window.

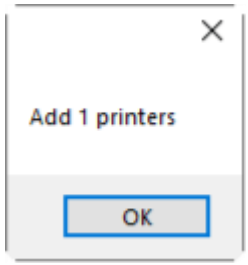


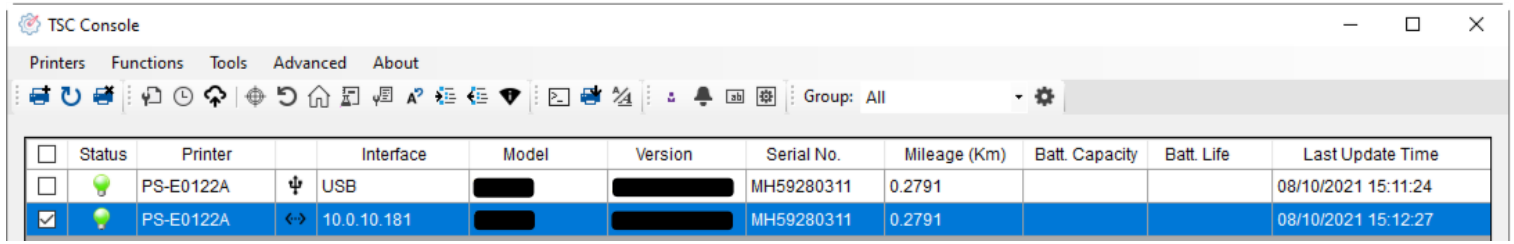
- Choose **Network** > Key in the **IP Address** > Click **Discover** to establish the Ethernet interface.





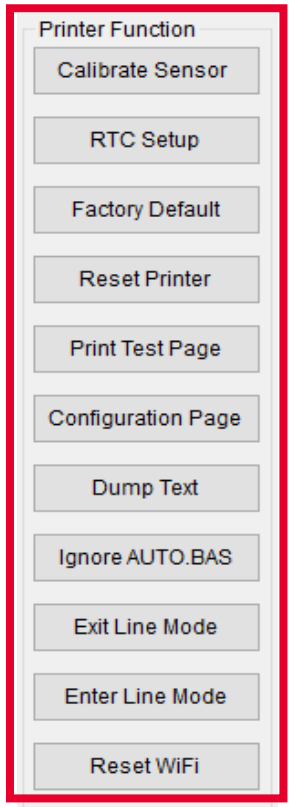
- The notification will pop up > Click **OK** to close the window > The Ethernet interface will be shown on **TSC Console**.





5.3 Printer Function

Printer Function could be found in **Printer Configuration**. “**Printer Function**” will be shown on the left side of the window.



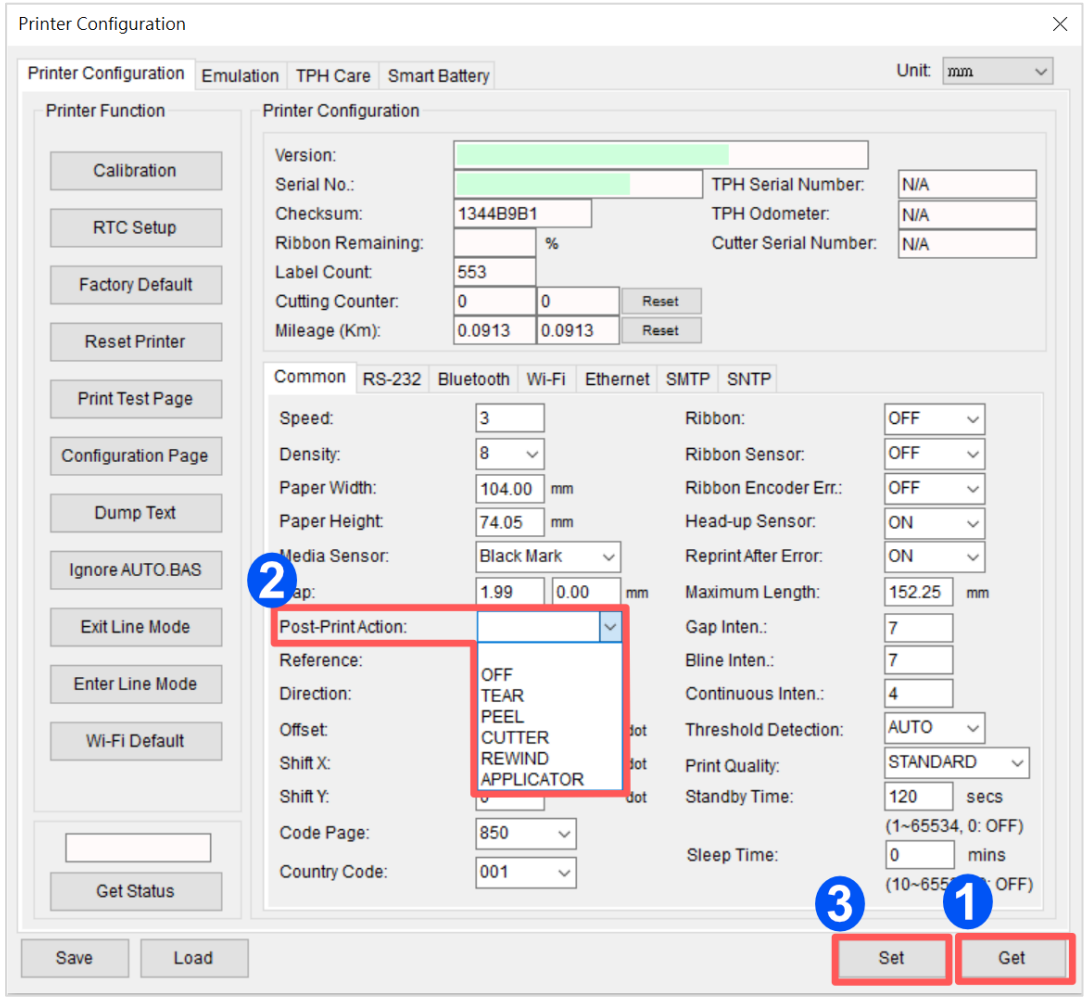
Functions	Description
Calibrate Sensor	Detect media types and the size of the label
RTC Setup	Synchronize printer with Real Time Clock on PC
Factory Default	Initialize the printer to default settings
Reset Printer	Reboot printer
Print Test Page	Print test page according to the specified label size and sensor type.
Configuration Page	Print printer configurations
Dump Text	Activate the printer to dump mode
Ignore AUTO.BAS	Ignore AUTO.BAS file when printer boot up.
Exit Line Mode	Exit the line mode to page mode
Enter Line Mode	Leave page mode and enter line mode
Reset WiFi	Restore the WiFi settings to defaults.

5.4 Setting Post-Print Action

When the printer is equipped with other option kits, ex: cutter, peeler, rewinder, please select the mode after finishing the calibration.

Follow below procedure to set the post action for the printing:

Refer Ch. 5.1 to Connect the printer with TSC Console > Double click the printer > The Printer Configuration Page will pop up > Click Get to load information > Go to Common Tab > Find Post-Print Action > Select the mode depending on users' application > Click Set.



6. Troubleshooting

This section lists the common problems that according to the LED status and other problems you may encounter when operating the printer. Also, it provides solutions.

LED Status

LED Status / Color	Printer Status	Possible Cause	Recovery Procedure
OFF	No response	No power	* Turn on the power switch. * Check if the green LED is lit on power supply. If it is not lit on, power supply is broken. * Check both power connections from the power cord to the power supply and from the power supply to the printer power jack if they are connected securely.
Solid Green	ON	The printer is ready to use	* No action necessary.
Green with blinking	Pause	The printer is paused	* Press the FEED button to resume for printing.
Red with blinking	Error	The out of label or the printer setting is not correct	1. Out of label * Load a roll of label and follow the instructions in loading the media then press the FEED button to resume for printing. 2. Printer setting is not correct * Initialize the printer

Print Problem

Problem	Possible Cause	Recovery Procedure
Not Printing	Check if interface cable is well connected to the interface connector.	Re-connect cable to interface.
	The serial port cable pin configuration is not pin to pin connected.	Please replace the cable with pin to pin connected.
	The serial port setting is not consistent between host and printer.	Please reset the serial port setting.
	The port specified in the Windows driver is not correct.	Select the correct printer port in the driver.
	The Ethernet IP, subnet mask, gateway is not configured properly.	Configure the IP, subnet mask and gateway.
No print on the label	Label loaded not correctly.	Follow the instructions in loading the media.
Continuous feeding labels	The printer setting may go wrong.	Please do the initialization and gap/black mark calibration.
Paper Jam	Gap/black mark sensor sensitivity is not set properly (sensor sensitivity is not enough)	Calibrate the gap/black mark sensor.
	Make sure label size is set properly.	Set label size exactly as installed paper in the labeling software or program.
	Labels may be stuck inside the printer mechanism near the sensor area.	Remove the stuck label.
Poor Print Quality	Top cover is not closed properly.	Close the top cover completely and make sure the right side and left side levers are latched properly.
	Wrong power supply is connected with printer.	Check if 24V DC output is supplied by the power supply.
	Check if supply is loaded correctly.	Reload the supply.
	Check if dust or adhesives are accumulated on the print head.	Clean the print head.

	Check if print density is set properly.	Adjust the print density and print speed.
	Check print head test pattern if head element is damaged.	Run printer self-test and check the print head test pattern if there is dot missing in the pattern.

7. Maintenance

This session presents the clean tools and methods to maintain the printer.

- **For 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.

- **For Disinfecting**

  Sanitize your printer to protect yourself and others and can help prevent the spread of viruses.

- **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 Tools

- Cotton swab
- Lint-free cloth
- Brush with soft non-metallic bristles
- Vacuum cleaner
- 75% Ethanol (for disinfecting)
- 99% Isopropyl alcohol (for printhead and platen roller cleaning)
- Genuine printhead cleaning pen
- Mild detergent (without chlorine)

Cleaning Process:

Printer Part	Method	Interval
Print Head	I. Always turn off the printer before cleaning the printhead. II. Allow the printhead to cool for at least one minute. III. Use a cotton swab and 99% Isopropyl Alcohol or genuine print head cleaning pen to clean the print head surface.	Clean the print head when changing a new label roll.
Platen Roller	I. Turn off the printer. II. Rotate the platen roller and wipe it thoroughly with the lint-free 99% Isopropyl Alcohol.	Clean the platen roller when changing a new label roll
Peel Bar	Use the lint-free cloth with 99% Isopropyl Alcohol to wipe it.	As needed
Sensor	Use brush with soft non-metallic bristles or a vacuum cleaner, to remove paper dust. Clean upper and lower media sensors to ensure reliable Top of Form and Paper Out sensing.	Monthly
Exterior	Clean the exterior surfaces with a clean, lint-free cloth (water-dampened cloth). If necessary, use a mild detergent or desktop cleaning solution then use the 75% Ethanol to wipe it.	As needed
Interior	Clean the interior of the printer by removing any dirt and lint with a vacuum cleaner, as described above, or use a brush with soft non-metallic bristles then use the 75% Ethanol to wipe it.	As needed

8. Agency Compliance and Approvals

EN 55032, Class B
EN 55024
EN 60950-1; EN 61000-3-2; EN 61000-3-3
FCC part 15B, Class B
ICES-003, 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:

-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 conform à la norme NMB-003 du Canada.

AS/NZS CISPR 32, Class B

	UL 60950-1(2nd Edition) CSA C22.2 No. 60950-1-07(2nd Edition)
	EN 60950-1
	GB 4943.1 GB 9254, Class B GB 17625.1
	Energy Star for Imaging Equipment Version 2.0
	TP TC 004/2011 TP TC 020/2011
	IS 13252(Part 1)/ IEC 60950-1
	KN 22 KN 24

Note: There may have certification differences in the series models, please refer to product label for accuracy.

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:

(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.

 **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.

9. Revision History

Date	Content	Editor
2023/8/10	Modify 2.1 Unpacking and Inspection section	Camille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