

# USER'S MANUAL



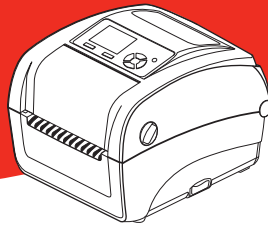
## Meto**PrintHybrid**

Direct thermal printing

Thermal transfer printing

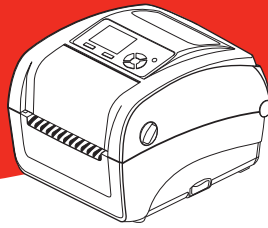
**METO**®

your retail label expert



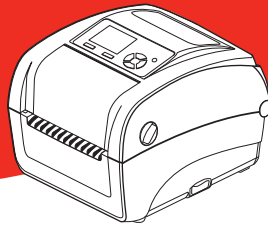
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## 1. AGENCY COMPLIANCE AND APPROVALS



EN 55022, Class B  
 EN 55024  
 EN 60950-1  
 EN 61000-3-2; EN 61000-3-3



EN 60950-1



Energy Star for Imaging Equipment Version 2.0

### 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 manufacturer.
8. Please refer to user manual for maximum operation ambient temperature.

### Caution (battery for RTC function: CR2032 [3V] Lithium):

Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

### Caution:

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



### Caution:

Risk of explosion if the battery is replaced improperly. Replace only with the same or a similar type recommended by the manufacturer. Disposal of used batteries according to manufacturer's instructions.

### Caution:

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

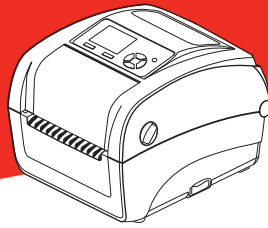
### Caution:

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

### Note:

Continuous printing will cause printer motor over-heat. Printer will stop printing automatically about 10-15 minutes until motor is cooling down. Please don't turn off power when printer pauses or the data transferred to printer buffer will be lost.

The maximum printing ratio per dot line is 15% for this printer. To print the full web black line, the maximum black line height is limited to 40 dots, which is 5 mm for 203 DPI resolution printer, otherwise this may damage the power supply.



## 2. INTRODUCTION

### 2.1 Product Introduction

Congratulations on your purchase of a Meto Print printer.

Buying this printer allows you access to other top-quality Meto Print products. All Meto Print components – labels, printing ribbons and templates – are fully compatible with each other. And of course, the comprehensive Meto Print service package is at your disposal.

You will also receive a 2-year warranty on your Meto Print printer – you can find all the details, as well as information about service, at [www.meto.com/metoprint](http://www.meto.com/metoprint).

Meto Print desktop printers are suitable for numerous applications and fields of work, for example retail, identification/labelling of products, stock-taking and inventory control, document printing, patient identification, labelling in the healthcare sector and logistics.

Meto Print printers are a popular choice thanks to their high print speeds, plenty of connection options, RTC functions, and a design that's both dependable and durable.

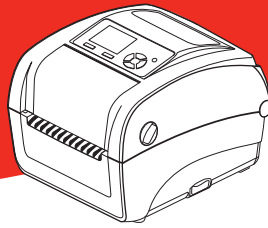
Meto Print printers use the TSPL-EZ™ printer language, which is fully compatible with printer languages including TSC and at the same time supports TPLE (Translation Printer Language Eltron®) as well as TPLZ (Translation Printer Language Zebra®).

To print labels, please refer to the instructions supplied with your label printing software.

For self-authored programs please refer to the TSPL/TSPL2 programming manual, which you can find at [www.meto.com/metoprint](http://www.meto.com/metoprint).

#### **Applications**

- Retail
- Point of Sale (POS)
- Identification / Labelling of products
- Stock-taking & inventory control
- Document printing
- Labelling within healthcare application
- Logistics



## 2.2 Product Features

The printer offers the following standard features.

### Product standard features

Thermal transfer / or direct thermal

6 operating buttons and 1 LED with 3 colors

320 x 240 TFT LCD (UI of operating menu)

32-bit RISC high performance processor (Atmel 9G25/400 MHz)

Center alignment holder with spiral spring

Gap transmissive sensor (Fixed, center of offset 4 from center)

Black mark reflective sensor (Position adjustable)

Ribbon encoder sensor

Head open sensor

Automatic media/ribbon sensor selecting

128 MB Flash memory

64 MB DDR2 DRAM

SD card reader for memory expansion, up to 32 GB

RS-232 interface (Max. 115,200 bps)

USB 2.0 interface (Hi speed mode)

Internal Ethernet print server (10/100 Mbps) interface

USB host

Standard industry emulations right out of the box including Eltron<sup>®</sup> and Zebra<sup>®</sup> language support

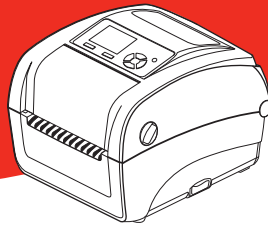
Internal 8 alpha-numeric bitmap fonts

Fonts and bar codes can be printed in any one of the four directions (0, 90, 180, 270 degree)

Internal Monotype Imaging<sup>®</sup> true type font engine with one CG Triumvirate Bold Condensed scalable font

Downloadable fonts from PC to printer memory

Unicode UTF8 support

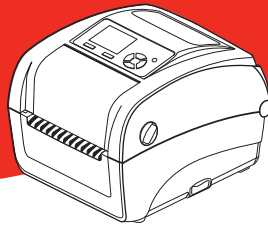


Bar code, graphics/image printing

Supported bar code		Supported image
<b>1D bar code</b>	<b>2D bar code</b>	BITMAP, BMP, PCX (Max. 256 colors graphics)
Code128 subsets A.B.C, Code128UCC, EAN128, Interleave 2 of 5, Code 39, Code 93, EAN-13, EAN-8, Codabar, POSTNET, UPC-A, UPC-E, EAN and UPC 2(5) digits, MSI, PLESSEY, China Post, ITF14, EAN14, Code 11, TELPEN, PLANET, Code 49, Deutsche Post Ident-code, Deutsche Post Leitcode, LOGMARS	CODABLOCK F mode, Data-Matrix, Maxicode, PDF-417, Aztec, MicroPDF417, QR code, RSS Barcode (GS1 Databar)	

Supported code page:

- Codepage 437 (English - US)
- Codepage 737 (Greek)
- Codepage 850 (Latin-1)
- Codepage 852 (Latin-2)
- Codepage 855 (Cyrillic)
- Codepage 857 (Turkish)
- Codepage 860 (Portuguese)
- Codepage 861 (Icelandic)
- Codepage 862 (Hebrew)
- Codepage 863 (French Canadian)
- Codepage 864 (Arabic)
- Codepage 865 (Nordic)
- Codepage 866 (Russian)
- Codepage 869 (Greek 2)
- Codepage 950 (Traditional Chinese)
- Codepage 936 (Simplified Chinese)
- Codepage 932 (Japanese)
- Codepage 949 (Korean)
- Codepage 1250 (Latin-2)
- Codepage 1251 (Cyrillic)
- Codepage 1252 (Latin-1)
- Codepage 1253 (Greek)
- Codepage 1254 (Turkish)
- Codepage 1255 (Hebrew)
- Codepage 1256 (Arabic)
- Codepage 1257 (Baltic)
- Codepage 1258 (Vietnam)
- ISO-8859-1: Latin-1 (Western European)
- ISO-8859-2: Latin-2 (Central European)
- ISO-8859-3: Latin-3 (South European)
- ISO-8859-4: Latin-4 (North European)
- ISO-8859-5: Cyrillic
- ISO-8859-6: Arabic
- ISO-8859-7: Greek
- ISO-8859-8: Hebrew
- ISO-8859-9: Turkish
- ISO-8859-10: Nordic
- ISO-8859-15: Latin-9
- UTF-8



## 2.3 General Specifications

General Specifications	
Physical dimensions	203 mm(W) x 191.5 mm(H) x 259.3 mm(D)
Mechanism	Clamshell with Double-walled plastic
Weight	2.3 kg
Power	External universal switching power supply Input: AC 100-240V/ 2.5A, 50-60 Hz Output: DC 24V/ 3.75A, 90W
Environmental condition	Operation: 5 ~ 40 °C (41 ~ 104 °F), 25 ~ 85 % non-condensing Storage: -40 ~ 60 °C (-40 ~ 140 °F), 10 ~ 90 % non-condensing
Environmental concern	Comply with RoHS, WEEE, REACH

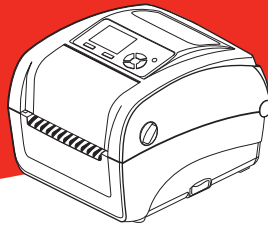
## 2.4 Print Specifications

Print Specifications	
Print head resolution (dots per inch/mm)	203 dots/inch (8 dots/mm)
Printing method	Thermal transfer / or direct thermal
Dot size (width x length)	0.125 x 0.125 mm (1 mm = 8 dots)
Print speed (inches per second)	Up to 6 IPS
Max. print width	108 mm (4.25")
Max. print length	25,400 mm (1000")
Printout bias	Vertical: 1 mm max. Horizontal: 1 mm max.

## 2.5 Ribbon Specifications

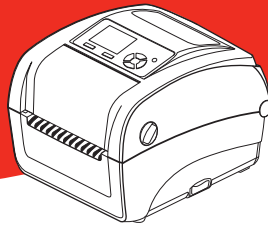
Ribbon Specifications	
Ribbon outside diameter	Max. 40 mm OD
Ribbon length	110 meter
Ribbon core inside diameter	0.5" ID core
Ribbon width	40 mm ~110 mm
Ribbon wound type	Ink coated outside wound





## 2.6 Media Specifications

Media Specifications	
Media roll capacity	Max. 5" OD
Media core diameter	1" & 1.5 ID core
Media type	Continuous, die-cut, black mark, external fan-fold, notch
Media wound type	Outside wound
Media width	20 mm ~ 112 mm
Media thickness	0.06 mm ~ 0.19 mm
Label length	10 mm ~ max. print length
Label length (peeler mode)	25.4 mm ~ 152.4 mm (1" ~ 6")
Label length (cutter mode)	25.4 ~ max. print length
Black mark	Min. 8 mm (W) x 2 mm (H)
Gap height	Min. 2 mm



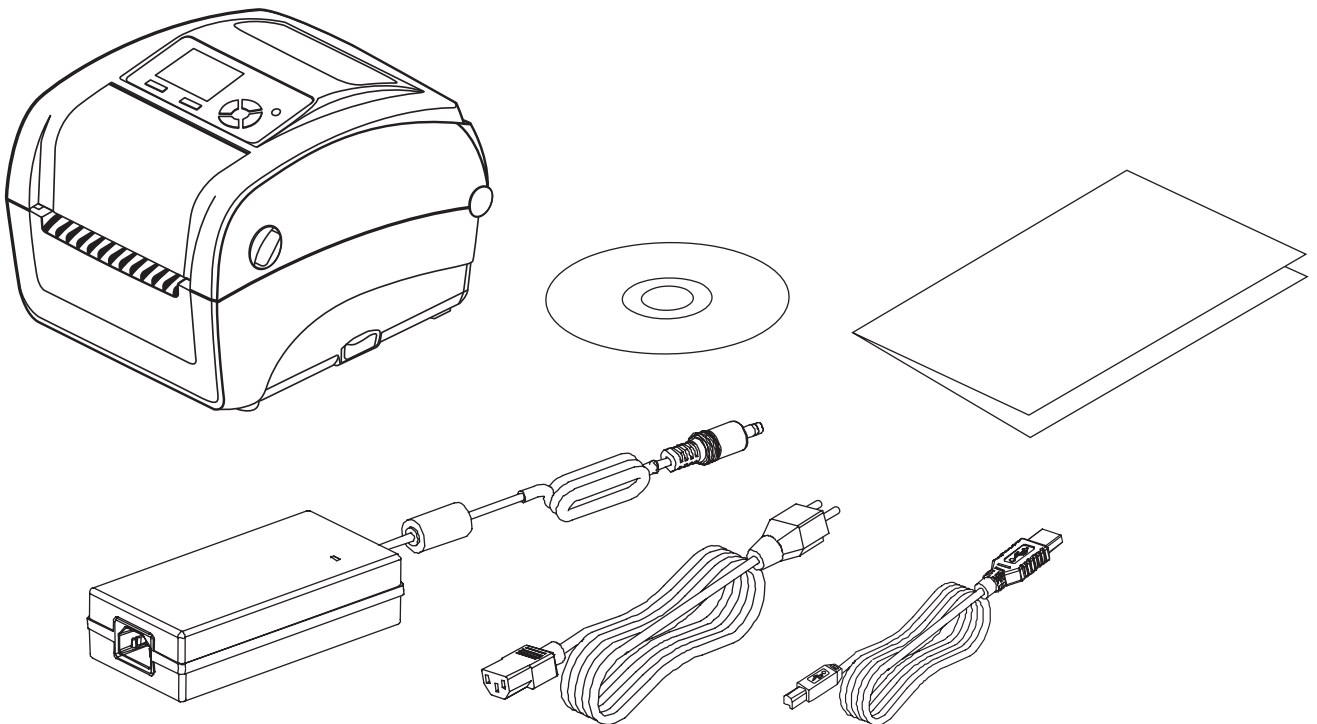
## 3. OPERATIONS OVERVIEW

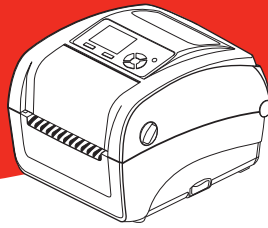
### 3.1 Unpacking and Inspection

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.

Unpacking the printer, the following items are included in the carton. If any parts are missing, please contact the Customer Service Department of your purchased reseller or distributor.

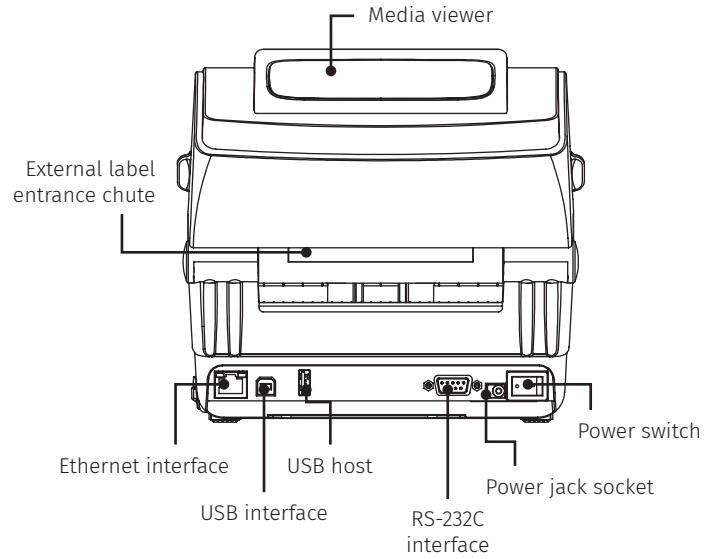
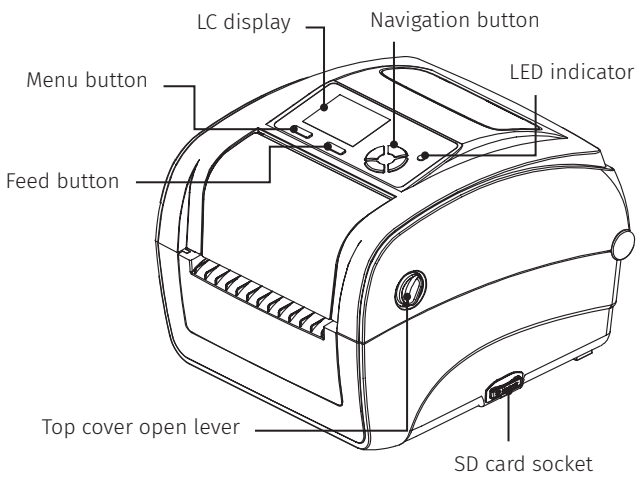
- Printer unit
- Windows labeling software/Windows driver CD disk
- Quick installation guide
- USB port cable
- Power cord
- Power supply



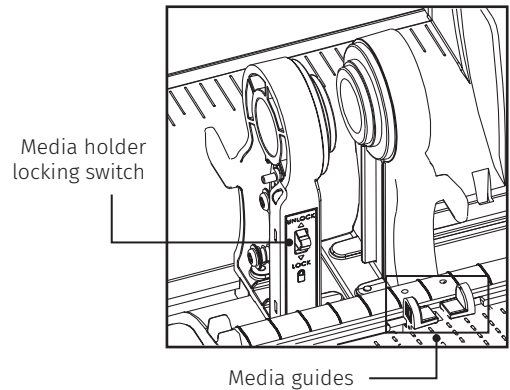
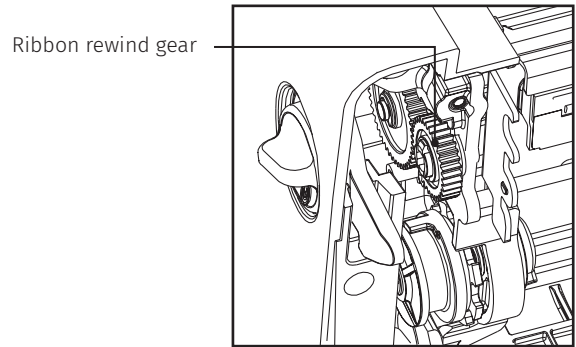
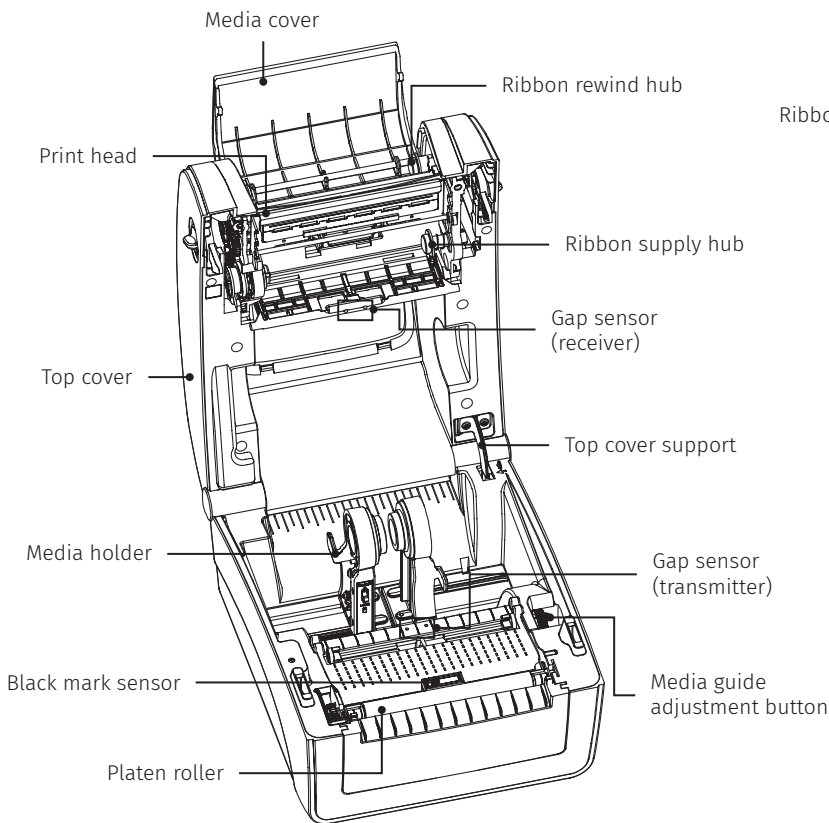


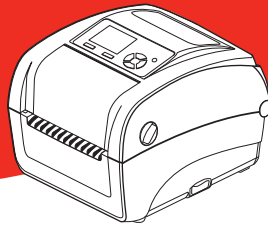
## 3.2 Printer Overview

### 3.2.1 Front and Rear View



### 3.2.2 Interior view

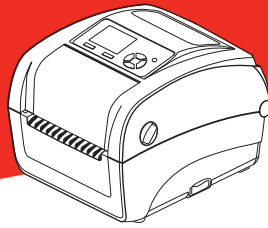




### 3.2.3 Recommended SD card specification

SD card spec	SD card capacity	Approved SD card manufacturer
V2.0 SDHC CLASS 4	2 GB	Transcend
V2.0 SDHC CLASS 4	8 GB	SanDisk
V3.0 CLASS 10 UHS	16 GB	SanDisk
V3.0 CLASS 10 UHS	32 MB	Transcend
V2.0 SDHC CLASS 4	microSD 4GB	Transcend
V2.0 SDHC CLASS 4	microSD 16 GB	SanDisk
V3.0 CLASS 10 UHS	microSD 16GB	Transcend, Kingston
V3.0 CLASS 10 UHS	microSD 32 GB	SanDisk

- The DOS FAT file system is supported for the SD card.
- Folders/files stored in the SD card should be in the 8.3 filename format
- The miniSD/microSD card to SD card slot adapter is required.



## 3.3 Operator Control

### 3.3.1 LED Indication

This printer has one three-color LED indicator.

LED Color	Description
Green/Solid	This illuminates that the power is on and the device is ready to use.
Green/Flash	This illuminates that the system is downloading data from PC to memory or the printer is paused.
Amber	This illuminates that the system is clearing data from printer.
Red/Solid	This illuminates printer head open, cutter error.
Red/Flash	This illuminates a printing error, such as head open, paper empty, paper jam, or memory error etc.

### 3.3.2 Button Function

#### Feed button

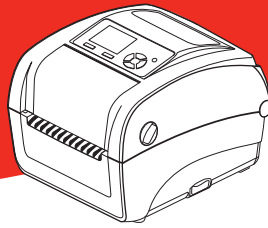
- When the printer is ready, press the button to feed one label to the beginning of next label
- When the printer is printing, press the button to pause a print job. When the printer is paused the power LED will blink green. Press the button again to continue the printing job
- When printer enter the menu, press the button to enter/select cursor located item

#### Menu button

- Enter the menu
- Exit from a menu or cancel a setting and return to the previous menu

#### Navigation button

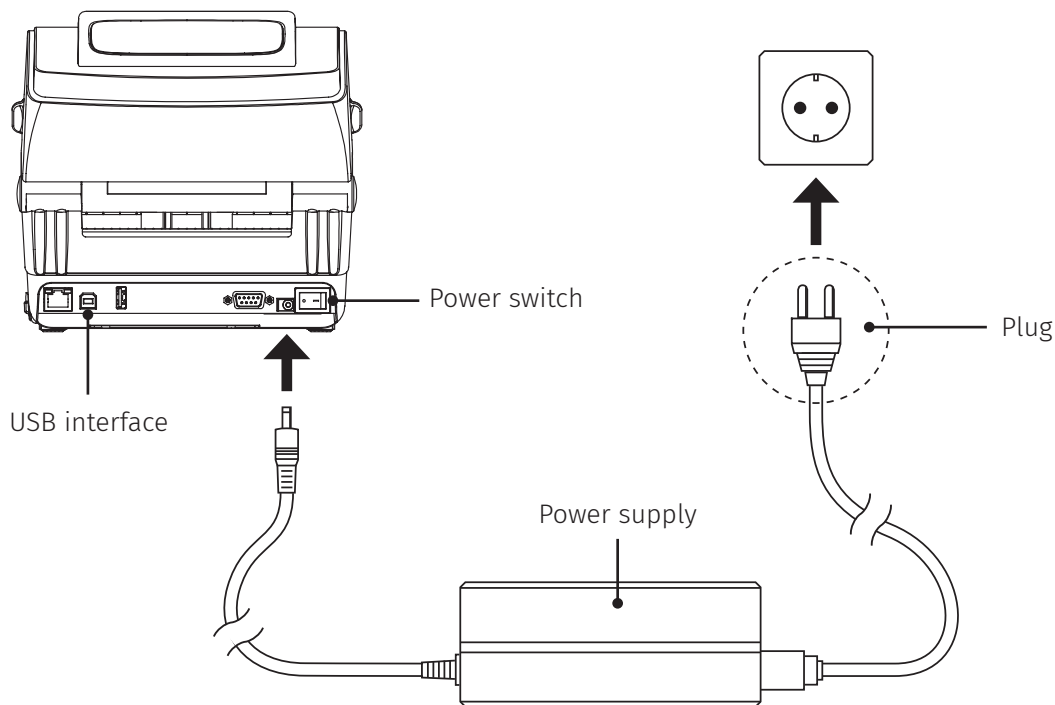
- Scroll the menu list



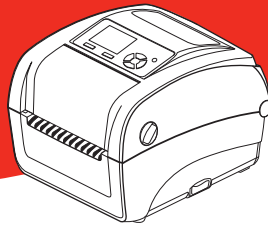
## 4. SETUP

### 4.1 Setting up the printer

- 1 Place the printer on a flat, secure surface.
- 2 Make sure the power switch is off.
- 3 Connect the printer to the computer with the provided USB cable.
- 4 Plug the power cord into the AC power cord socket at the rear of the printer, and then plug the power cord into a properly grounded power outlet.

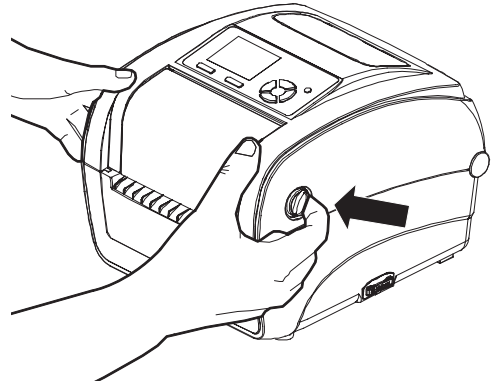
**Note:**

Please switch OFF printer power switch prior to plug in the power cord to printer power jack.

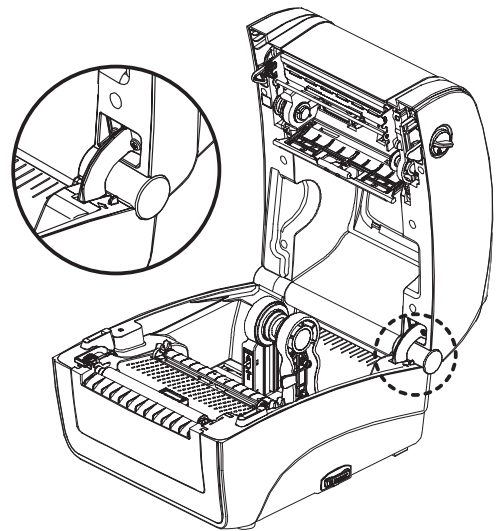


## 4.2 Opening/closing the upper cover

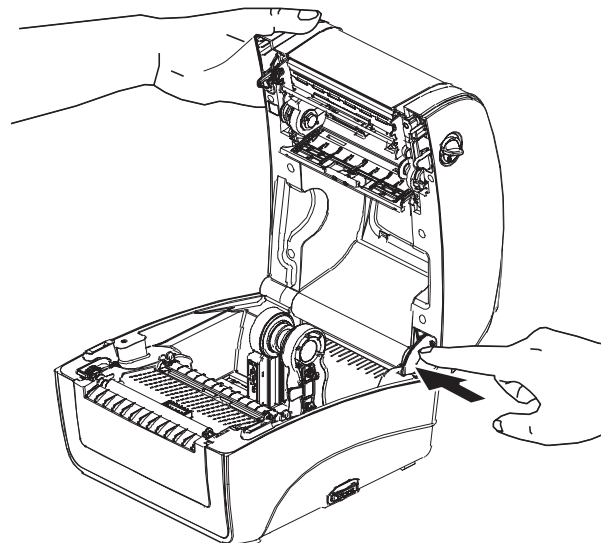
- 1 Open the upper printer cover by pulling the levers on each side forwards, then raise the cover as far as it will go.

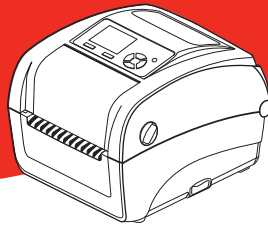


- 2 A lock located at the rear of the cover engages with the lower section, holding the cover open.



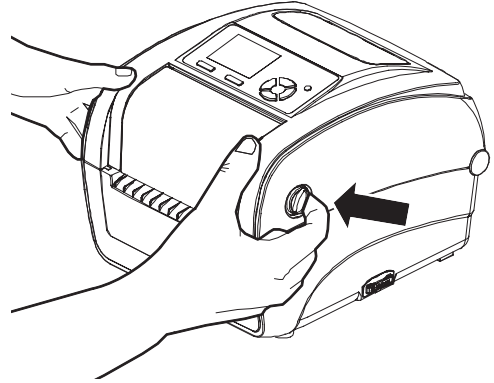
- 3 To close the cover, pull the upper cover slightly backwards and release the lock from the lower section. Gently close the cover.





## 4.3 Inserting ink ribbon

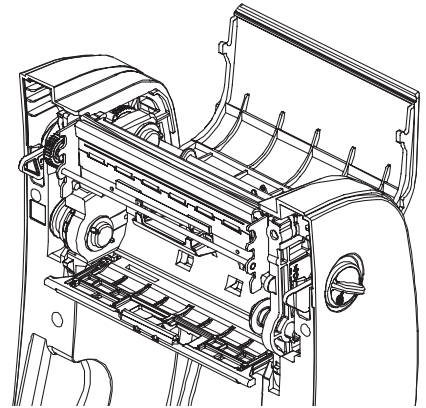
- 1 Open the upper printer cover by pulling the levers on each side forwards, then raise the cover as far as it will go.



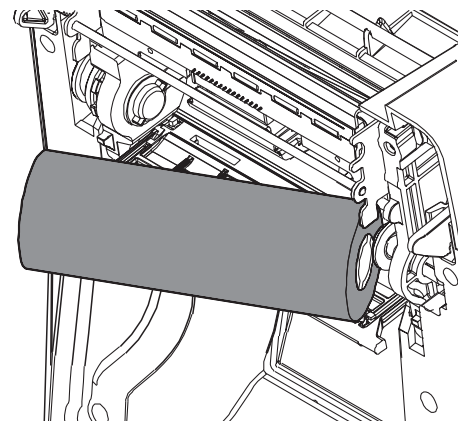
- 2 Open the ink ribbon cover.

**Note:**

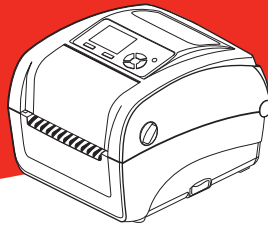
- In normal printing mode, ribbon access cover can be opened while opens the top cover. Ribbon access cover can be closed while top cover is open or close.
- In peeler and cutter mode, please open the top cover then the ribbon access cover can be opened or closed.



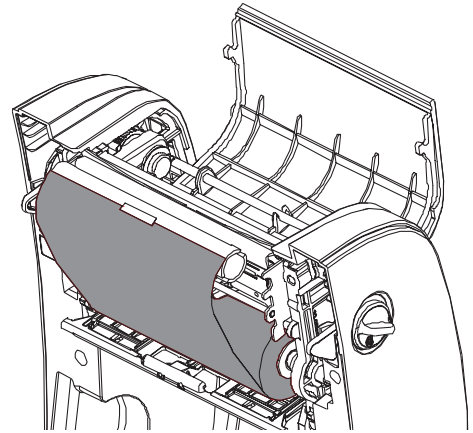
- 3 Insert the ink ribbon into the holder, right side first. Slot left hand side of the ribbon into the teeth on the left.



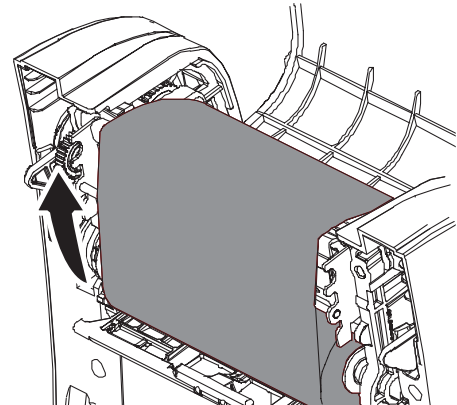




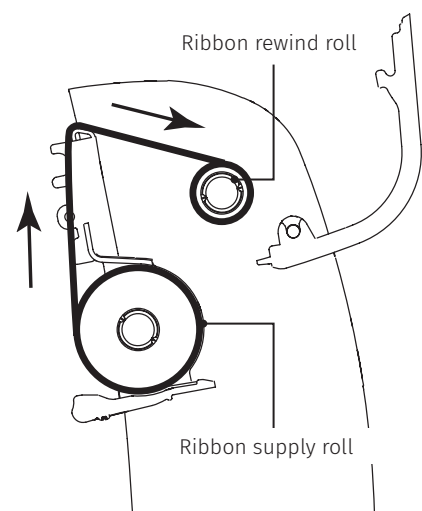
- 4 Use a piece of adhesive tape to attach the ribbon to the winding roller and insert the roller into the winding mount.

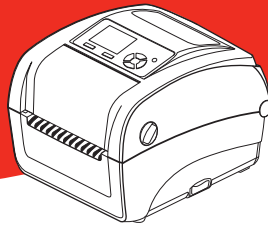


- 5 Rotate the winding gear until the plastic lead tape has been firmly wound and the black portion of the ribbon has reached the printer head. Close the ink ribbon cover and upper cover.



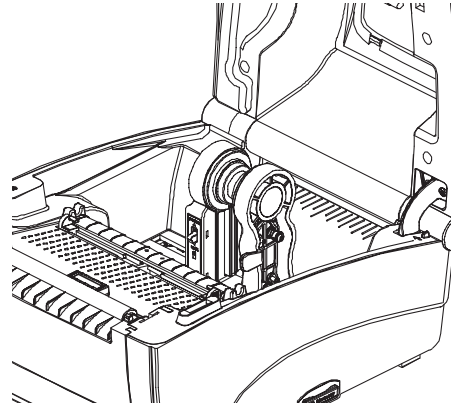
- 6 Ink ribbon path



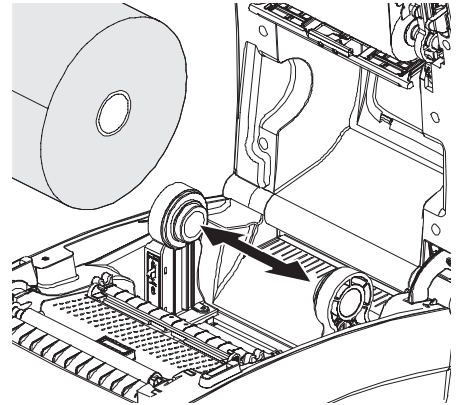


### 4.4 Inserting media

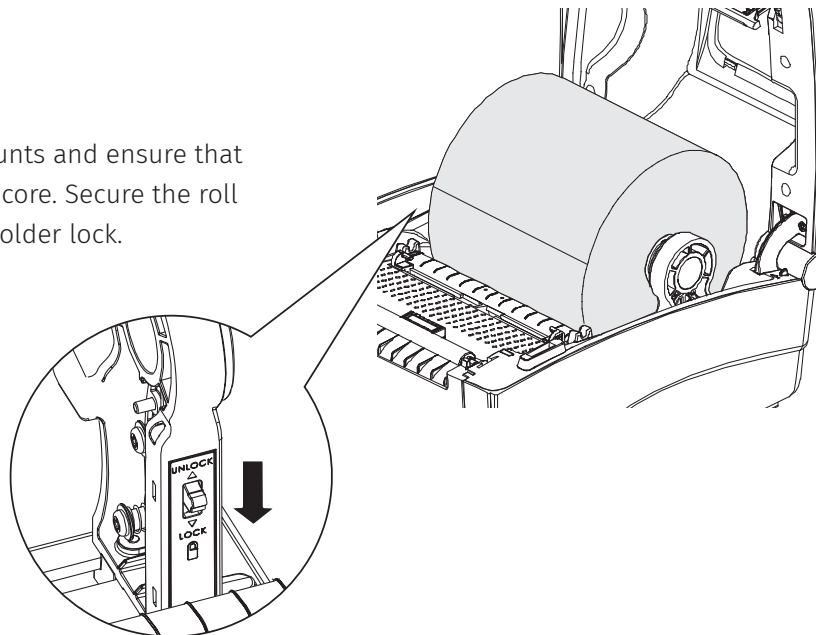
- 1 Open the upper printer cover by pulling the levers on each side forwards, then raise the cover as far as it will go.

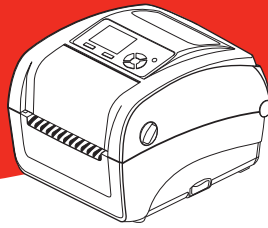


- 2 Pull the media holder apart.

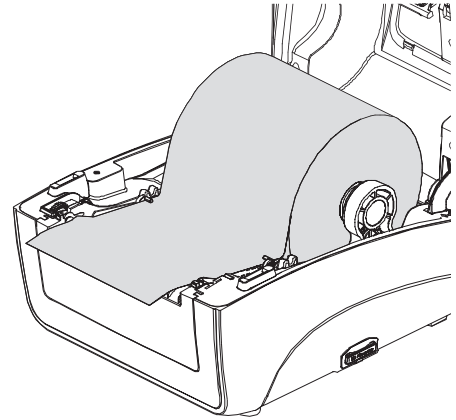


- 3 Position the roll between the mounts and ensure that the bearings engage with the roll core. Secure the roll by pressing down on the media holder lock.

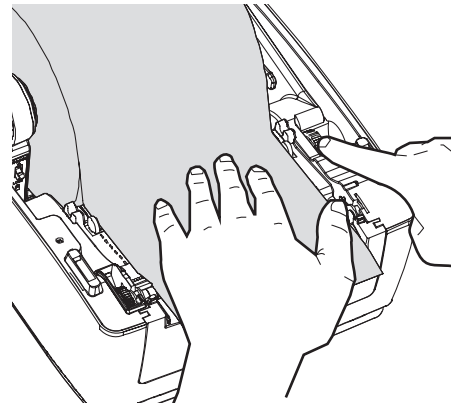




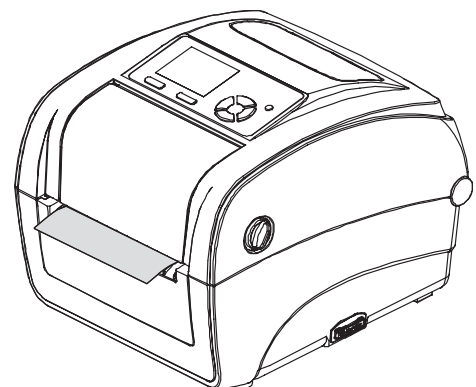
- 4 Take the paper, with the printable side facing up, and pull it up through the media sensor, then place the front edge onto the cylinder.

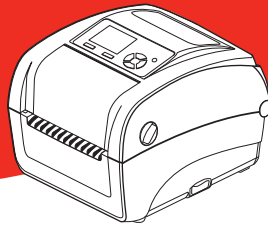


- 5 Adjust the media guide width by rotating the media guide adjustment knob.



- 6 Release the lock on the upper cover and gently close the cover.

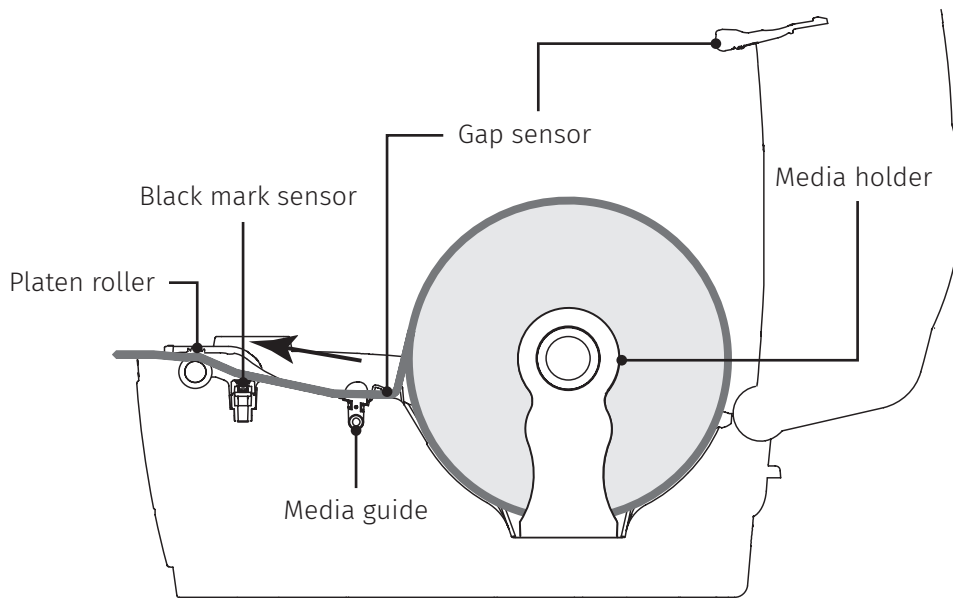


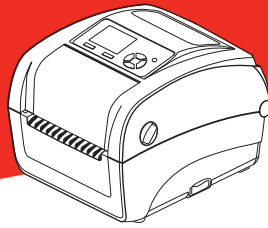


- 7 Use the “Menu” button or the “Diagnostic software” to set the media sensor type, then calibrate the sensor selected. Start “Diagnostic software” → “Printer configuration” register → Click on “Calibrate sensor”.

**Note:**

- Please calibrate the gap/black mark sensor when changing media.
- Please refer to the diagnostic utility quick start guide for more information. (Start the “Diagnostic tool” → Select the “Printer Configuration” tab → Click the “Calibrate Sensor” button )
- Please refer to the section 7 for LCD menu function.




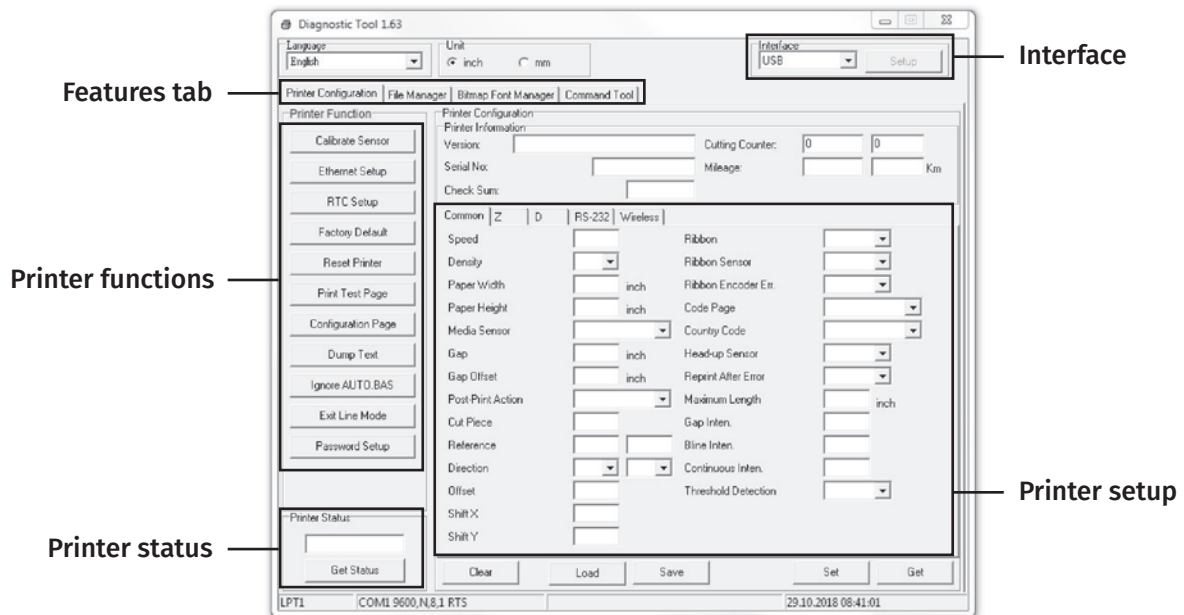


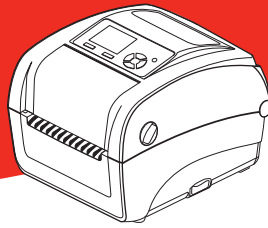
## 5. DIAGNOSTIC TOOL

The Diagnostic Utility is an integrated tool to explore the printer settings/status, change the printer settings, download graphics, fonts and firmware, create a printer bitmap font and send additional commands to the printer. With this tool, you can review the printer status and settings.

### 5.1 Start the Diagnostic Tool

1. Double click on the Diagnostic tool icon to start the software.  **DiagTool.exe**
2. There are four features (Printer Configuration, File Manager, Bitmap Font Manager, Command Tool) included in the Diagnostic utility.





## 5.2 Printer Function

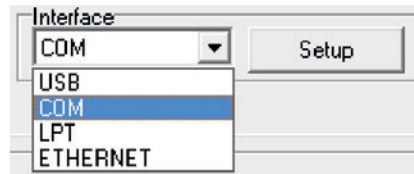
1. Connect the printer and computer with a cable.
2. Select the PC interface connected with bar code printer.

### USB interface



The default interface setting is USB interface. If USB interface is connected with printer, no other settings need to be changed in the interface field.

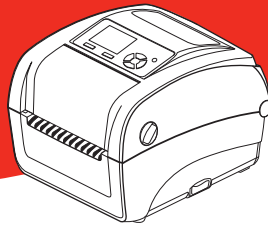
### Others interface



3. Click the “Printer Function” button to setup.
4. The detail functions in the Printer Function Group are listed as below.

Printer Function	Function	Description
Calibrate Sensor	Calibrate Sensor	Calibrate the sensor specified in the Printer Setup group media sensor field.
Ethernet Setup	Ethernet Setup	Setup the IP address, subnet mask, gateway for the on board Ethernet.
RTC Setup	RTC Setup	Synchronize printer Real Time Clock with PC.
Factory Default	Factory Default	Initialize the printer and restore the settings to factory default.
Reset Printer	Reset Printer	Reboot printer.
Print Test Page	Print Test Page	Print a test page.
Configuration Page	Configuration Page	Print printer configuration.
Dump Text	Dump Text	To activate the printer dump mode.
Ignore AUTO.BAS	Ignore AUTO.BAS	Ignore the downloaded AUTO.BAS program.
Exit Line Mode	Exit Line Mode	Exit line mode.
Password Setup	Password Setup	Set the password to protect the settings.


**For more information about Diagnostic Tool, please refer to the diagnostic utility quick start guide in the CD disk \ Utilities directory.**

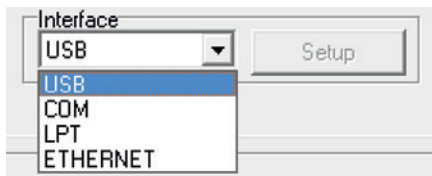


### 5.3 Setting Ethernet by Diagnostic Tool

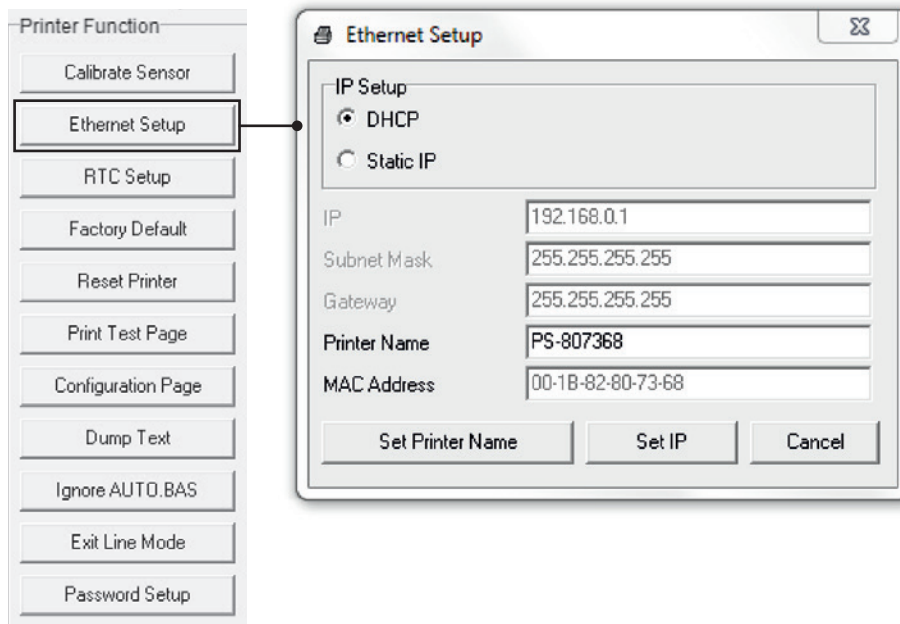
The Diagnostic Utility is enclosed in the CD disk \Utilities directory. Users can use Diagnostic Tool to setup the Ethernet by RS-232, USB and Ethernet interfaces. The following contents will instruct users how to configure the Ethernet by these interfaces.

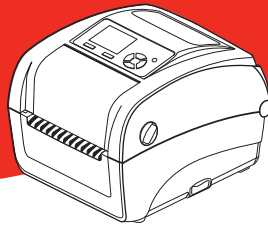
#### 5.3.1 Using USB interface to setup Ethernet interface

1. Connect the USB cable between the computer and the printer.
2. Turn on the printer power.
3. Start the Diagnostic Utility by double clicking on the icon.  **DiagTool.exe**
4. The Diagnostic Utility default interface setting is USB interface. If USB interface is connected with printer, no other settings need to be changed in the interface field.




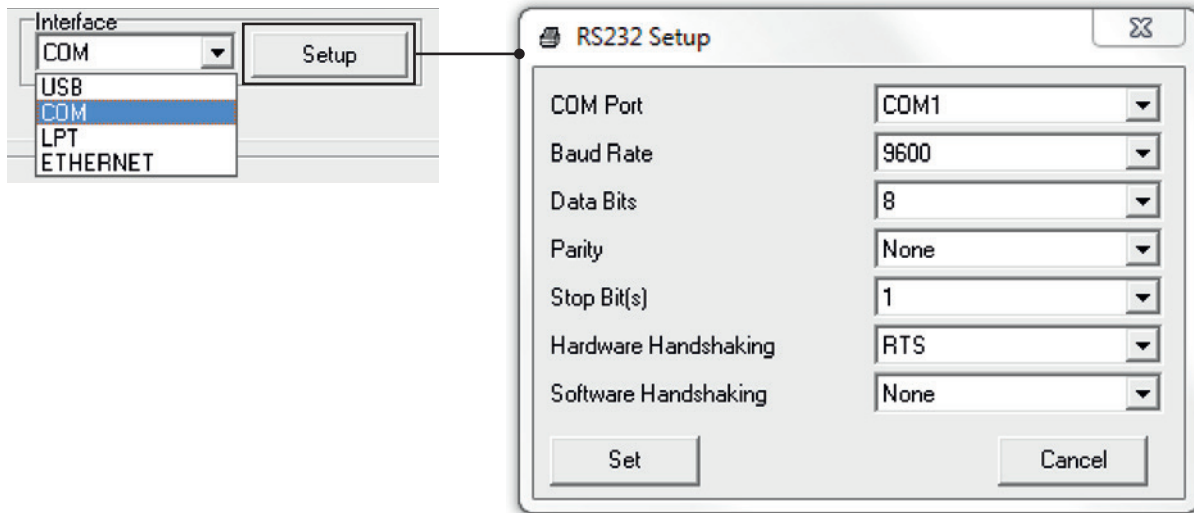
5. Click on the "Ethernet Setup" button from "Printer Function" group in Printer Configuration tab to setup the IP address, subnet mask and gateway for the on board Ethernet.



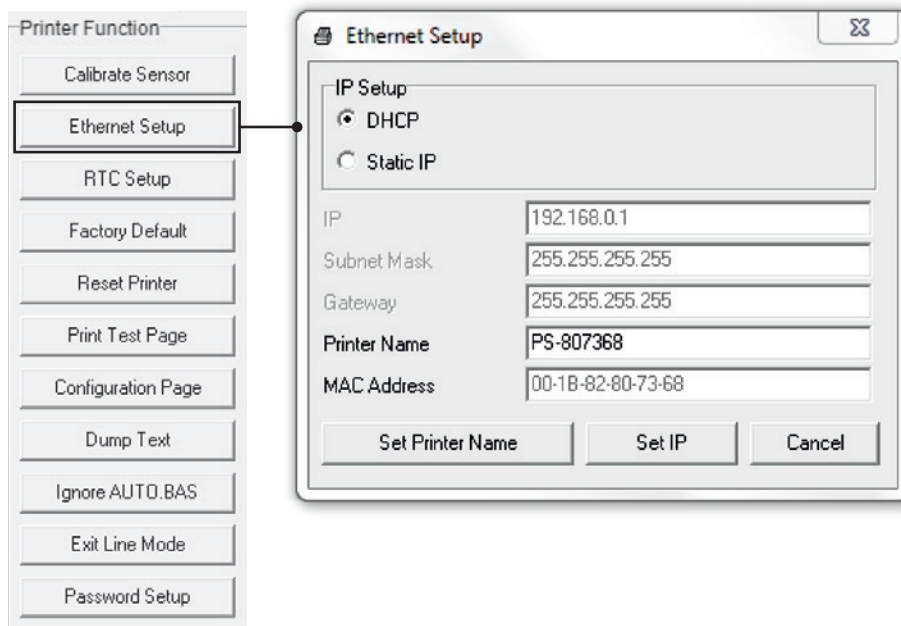


### 5.3.2 Using RS-232 interface to setup Ethernet interface

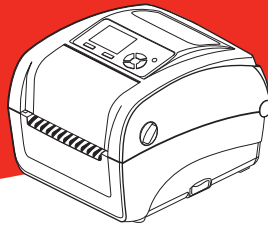
1. Connect the computer and the printer with a RS-232 cable.
2. Turn on the printer power.
3. Start the Diagnostic Utility by double clicking on the icon.  **DiagTool.exe**
4. Select “COM” as interface then click on the “Setup” button to setup the serial port baud rate, parity check, data bits, stop bit and flow control parameters.




5. Click on the “Ethernet Setup” button from printer function of Printer Configuration tab to setup the IP address, subnet mask and the gateway for the on board Ethernet.

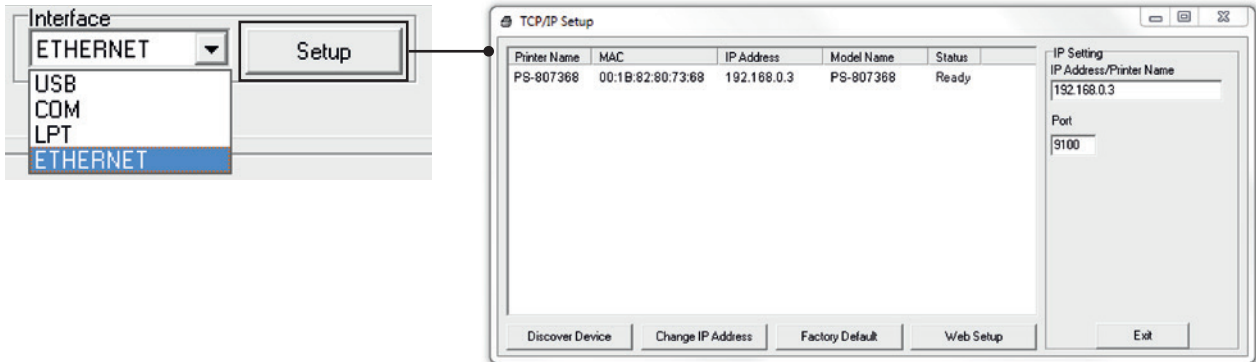






### 5.3.3 Using Ethernet interface to setup Ethernet interface

1. Connect the computer and the printer to the LAN.
2. Turn on the printer power.
3. Start the Diagnostic Utility by double clicking on the icon.  **DiagTool.exe**
4. Select “Ethernet” as the interface then click on the “Setup” button to setup the IP address, subnet mask and gateway for the on board Ethernet.

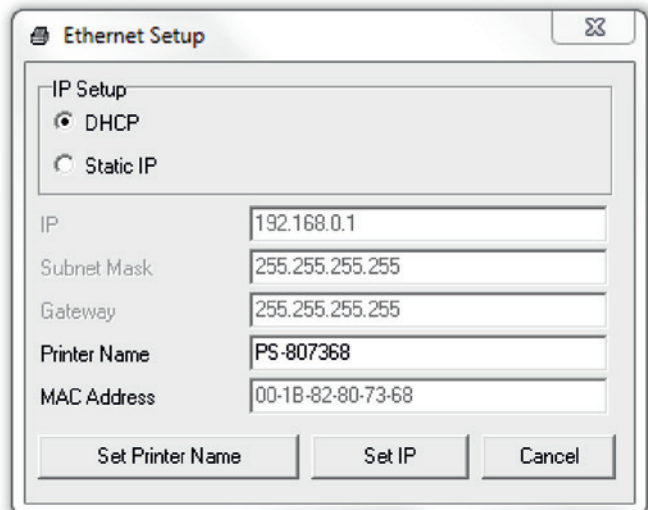


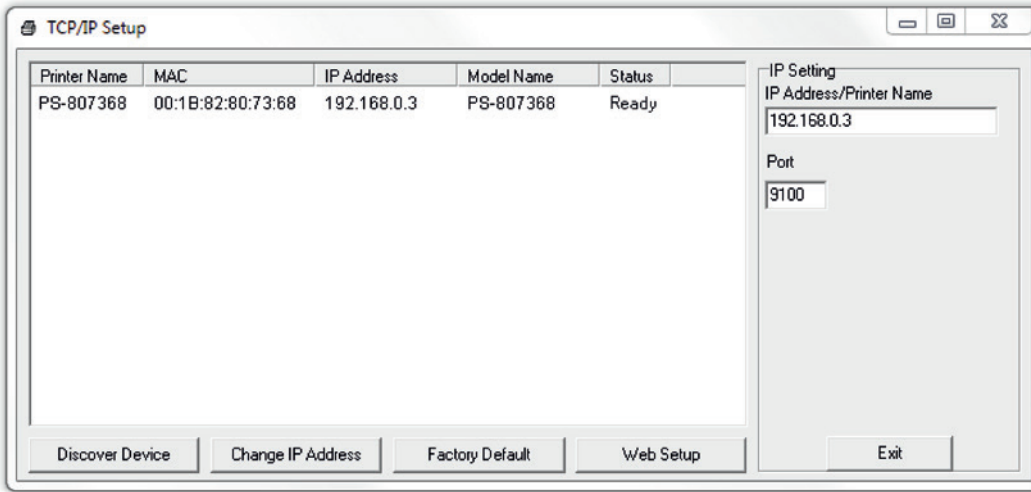
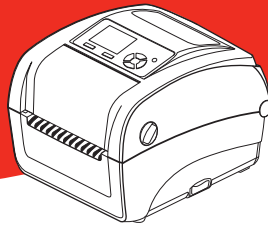
5. Click the “Discover Device” button to explore the printers that exist on the network.
6. Select the printer in the left side of listed printers, the correspondent IP address will be shown in the right side “IP address/Printer Name” field.
7. Click “Change IP Address” to configure the IP address obtained by DHCP or static.

The default IP address is obtained by DHCP. To change the setting to static IP address, click “Static IP” radio button then enter the IP address, subnet mask and gateway. Click “Set IP” to take effect the settings.

Users can also change the “Printer Name” by another model name in this fields then click “Set Printer Name” to take effect this change.

**Note:**  
**After clicking the “Set Printer Name” or “Set IP” button, printer will reset to take effect the settings.**





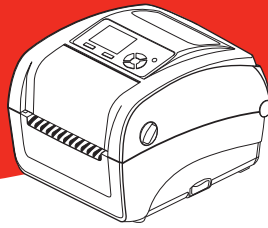
8. Click "Exit" button to exit the Ethernet interface setup and go back to Diagnostic Tool main screen.

**Factory Default button**

This function will reset the IP, subnet mask, gateway parameters obtained by DHCP and reset the printer name.

**Web setup button**

Except to use the Diagnostic Utility to setup the printer, you can also explore and configure the printer settings and status or update the firmware with the IE or Firefox web browser. This feature provides a user friendly setup interface and the capability to manage the printer remotely over a network.



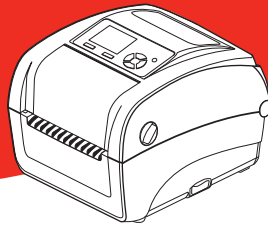
## 6. POWER-ON UTILITIES

There are six power-on utilities to set up and test printer hardware. These utilities are activated by pressing FEED button then turning on the printer power simultaneously and release the button at different color of LED.

**Please follow the steps below for different power-on utilities:**

1. Turn off the power switch.
2. Hold on the button then turn on the power switch.
3. Release the button when LED indicates with different color for different functions.

Power on utilities		The LED color will be changed as following pattern:						
LED color								
Functions	Green	Amber	Red (5 blinks)	Amber (5 blinks)	Green (5 blinks)	Green/Amber (5 blinks)	Red/Amber (5 blinks)	Green solid
1. Gap/black mark sensor calibration			Release					
2. Gap/black mark sensor calibration, Self-test and enter dump mode				Release				
3. Printer initialization					Release			
4. Set black mark sensor as media sensor and calibrate the black mark sensor						Release		
5. Set gap sensor as media sensor and calibrate the gap sensor							Release	
6. Skip AUTO.BAS								Release



## 6.1 Ribbon and Gap/Black Mark Sensor Calibration

Gap/black mark sensor sensitivity should be calibrated at the following conditions:

1. A brand new printer.
2. Change label stock.
3. Printer initialization.

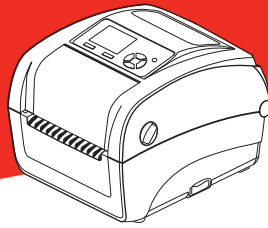
**Please follow the steps below to calibrate the ribbon an gap/black mark sensor.**

1. Turn off the power switch.
2. Hold on the button then turn on the power switch.
3. Release the button when LED becomes **red** and blinking. (Any red will do during the 5 blinks).
  - It will calibrate the ribbon sensor and gap/black mark sensor sensitivity.
  - The LED color will be changed as following order: Green → amber → **red (5 blinks)** → amber (5 blinks) → green (5 blinks) → green/amber (5 blinks) → red/amber (5 blinks) → solid green



**Note:**

- Sensor calibration can be done by Diagnostic Tool or by power on utility. Please refer to “Diagnostic Tool” section for more information.
- Please select gap or black mark sensor type prior to calibrate the sensor.

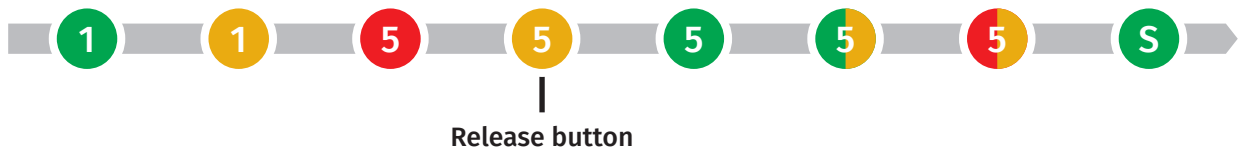


## 6.2 Gap/Black Mark Calibration, Self-test and Dump Mode

While calibrate the gap/black mark sensor, printer will measure the label length, print the internal configuration (self-test) on label and then enter the dump mode. To calibrate gap or black mark sensor, depends on the sensor setting in the last print job.

**Please follow the steps below to calibrate the sensor.**

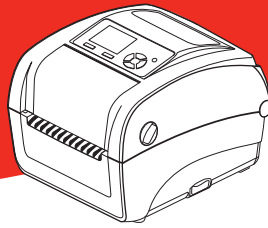
1. Turn off the power switch.
2. Hold on the button then turn on the power switch.
3. Release the button when LED becomes **amber** and blinking. (Any amber will do during the 5 blinks).
  - The LED color will be changed as following order: Green → amber → red (5 blinks) → **amber (5 blinks)** → green (5 blinks) → green/amber (5 blinks) → red/amber (5 blinks) → solid green



4. It calibrates the sensor and measures the label length and prints internal settings then enter the dump mode.

**Note:**

- Please select gap or black mark sensor by Diagnostic Tool or by GAP or BLINE command prior to calibrate the sensor.
- For more information about GAP and BLINE command, please refer to TSPL2 programming manual.



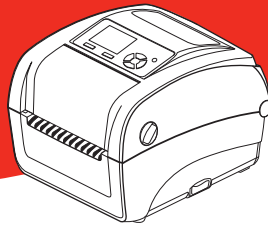
**6.2.1 Self-test**

Printer will print the printer configuration after gap/black mark sensor calibration. Self-test printout can be used to check if there is any dot damage on the heater element, printer configurations and available memory space.

**Self-test printout**

-----		
<b>SYSTEM INFORMATION</b>		<b>System information</b>
-----		
MODEL :	XXXXXX	Model name
FIRMWARE :	X.XX	F/W version
CHECKSUM :	XXXXXXXX	Firmware checksum
S/N :	XXXXXXXXXX	Printer S/N
TCF :	NO	Configuration file
DATE :	1970/01/01	System date
TIME :	00:04:18	System time
NON-RESET :	110	Printed mileage (meter)
RESET :	110	
NON-RESET :	0	Cutting counter
RESET :	0	
-----		
<b>PRINTING SETTING</b>		<b>Printer setting</b>
-----		
SPEED :	5 IPS	Print speed (inch/sec)
DENSITY :	8.0	Print darkness
WIDTH :	4.00 INCH	Label size (inch)
HEIGHT :	4.00 INCH	
GAP :	0.00 INCH	Gap distance (inch)
INTENSION :	5	Gap/black mark sensor intension
CODEPAGE :	850	Code page
COUNTRY :	001	Country code
-----		
<b>Z SETTING</b>		<b>ZPL setting information</b>
-----		
DARKNESS :	16.0	Print darkness
SPEED :	4 IPS	Print speed (inch/sec)
WIDTH :	4.00 INCH	Label size
TILDE :	7EH (~)	Control prefix
CARET :	5EH (^)	Format prefix
DELIMITER :	2CH (,)	Delimiter prefix
POWER UP :	NO MOTION	Printer power up motion
HEAD CLOSE :	NO MOTION	Printer head close motion
-----		

**Note: ZPL is emulating for Zebra<sup>®</sup> language.**



-----  
**RS232 SETTING**  
-----

BAUD: 9600  
PARITY: NONE  
DATA BIT: 8  
STOP BIT: 1  
-----

**RS232 setting**

RS232 serial port configuration

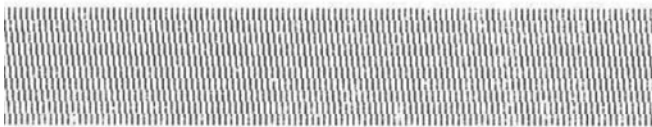
-----  
**DRAM FILE (0 FILES)**  
-----

PHYSICAL XXXX KBYTES  
AVAILABLE XXXX KBYTES  
-----

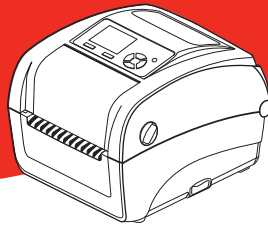
-----  
**FLASH FILE (0 FILES)**  
-----

PHYSICAL XXXX KBYTES  
AVAILABLE XXXX KBYTES  
-----

Numbers of download files  
Total & available memory space



Print head check pattern



## 6.2.2 Dump mode

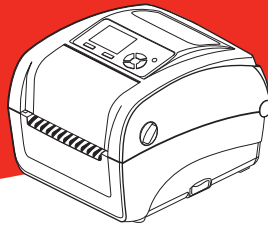
Printer will enter dump mode after printing printer configuration. In the dump mode, all characters will be printed in 2 columns as following. The left side characters are received from your system and right side data are the corresponding hexadecimal value of the characters. It allows users or engineers to verify and debug the program.

ASCII Data	→	<pre> SPEED 2.0 DENSITY 8 SET PEEL OFF DIRE CTION 0 G AP 3.00 mm .0.00 mm REFERENCE 0.0 SET C UTTER OFF SIZE 100. 02 mm,65.0 4 mm CLS BARCODE 1 44,149,"39 ",120,1,0, 2,6,"57114 38T" PRIN T 1,1 SPE ED 2.0 DE NSITY 8 S </pre>	→	Hex decimal data related to left column of ASCII data
		<pre> 53 50 45 45 44 20 32 2E 30 0D 0A 44 45 4E 53 49 54 59 20 38 0D 0A 53 45 54 20 50 45 45 4C 20 4F 46 46 0D 0A 44 49 52 45 43 54 49 4F 4E 20 30 0D 0A 47 41 50 20 33 2E 30 30 20 6D 6D 2C 30 2E 30 30 20 6D 6D 0D 0A 52 45 46 45 52 45 4E 43 45 20 30 2C 30 0D 0A 53 45 54 20 43 55 54 54 45 52 20 4F 46 46 0D 0A 53 49 5A 45 20 31 30 30 2E 30 32 20 6D 6D 2C 36 35 2E 30 34 20 6D 6D 0D 0A 43 4C 53 0D 0A 42 41 52 43 4F 44 45 20 31 34 34 2C 31 34 39 2C 22 33 39 22 2C 31 32 30 2C 31 2C 30 2C 32 2C 36 2C 22 35 37 31 31 34 33 38 54 22 0D 0A 50 52 49 4E 54 20 31 2C 31 0D 0A 53 50 45 45 44 20 32 2E 30 0D 0A 44 45 4E 53 49 54 59 20 38 0D 0A 53 </pre>		
		<pre> ET PEEL OF F DIRECTI ON 0 GAP 3.00 mm,0. 00 mm REF ERENCE 0.0 SET CUTT ER OFF SI ZE 100.02 mm,65.04 m m CLS BA RCODE 144. 149,"39",1 20,1,0,2,6 ,"5711438T " PRINT 1 ,1 </pre>		
		<pre> 45 54 20 50 45 45 4C 20 4F 46 46 0D 0A 44 49 52 45 43 54 49 4F 4E 20 30 0D 0A 47 41 50 20 33 2E 30 30 20 6D 6D 2C 30 2E 30 30 20 6D 6D 0D 0A 52 45 46 45 52 45 4E 43 45 20 30 2C 30 0D 0A 53 45 54 20 43 55 54 54 45 52 20 4F 46 46 0D 0A 53 49 5A 45 20 31 30 30 2E 30 32 20 6D 6D 2C 36 35 2E 30 34 20 6D 6D 0D 0A 43 4C 53 0D 0A 42 41 52 43 4F 44 45 20 31 34 34 2C 31 34 39 2C 22 33 39 22 2C 31 32 30 2C 31 2C 30 2C 32 2C 36 2C 22 35 37 31 31 34 33 38 54 22 0D 0A 50 52 49 4E 54 20 31 2C 31 0D 0A </pre>		

**Note:**

- Dump mode requires 4" wide paper width.
- Turn off / on the power to resume printer for normal printing.





### 6.3 Printer Initialization

Printer initialization is used to clear DRAM and restore printer settings to defaults. The only one exception is ribbon sensitivity, which will not be restored to default.

**Printer initialization is activated by the following procedures:**

1. Turn off the power switch.
2. Hold on the button then turn on the power switch.
3. Release the button when LED turns **green** after 5 amber blinks. (Any green will do during the 5 blinks).
  - The LED color will be changed as following: Green → amber → red (5 blinks) → amber (5 blinks) → **green (5 blinks)** → green/amber (5 blinks) → red/amber (5 blinks) → solid green

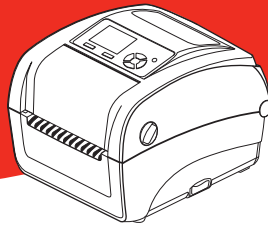


Printer configuration will be restored to defaults as below after initialization.

Parameter	Default setting
Speed	127 mm/sec (5 ips) (203 DPI)
Density	8
Label Width	4" (101.5 mm)
Label Height	4" (101.5 mm)
Sensor Type	Gap sensor
Gap Setting	0.12" (3.0 mm)
Print Direction	0
Reference Point	0,0 (upper left corner)
Offset	0
Tear Mode	On
Peel off Mode	Off
Cutter Mode	Off
Serial Port Settings	9600 bps, none parity, 8 data bits, 1 stop bit
Code Page	850
Country Code	001
Clear Flash Memory	No
IP Address	DHCP

**Note:**

**When printer initialization has done, please calibrate the gap or black mark sensor before printing.**



## 6.4 Set Black Mark Sensor as Media Sensor and Calibrate the Black Mark Sensor

Please follow the steps as below:

1. Turn off the power switch.
2. Hold on the button then turn on the power switch.
3. Release the button when LED turns **green/amber** after 5 green blinks.  
(Any green/amber will do during the 5 blinks).
  - The LED color will be changed as following: Green → amber → red (5 blinks) → amber (5 blinks) → green (5 blinks) → **green/amber (5 blinks)** → red/amber (5 blinks) → solid green

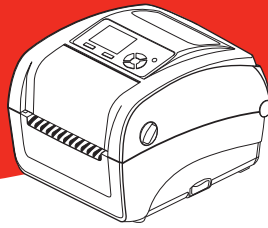


## 6.5 Set Gap Sensor as Media Sensor and Calibrate the Gap Sensor

Please follow the steps as below:

1. Turn off the power switch.
2. Hold on the button then turn on the power switch.
3. Release the button when LED turns **red/amber** after 5 green/amber blinks.  
(Any red/amber will do during the 5 blinks).
  - The LED color will be changed as following: Green → amber → red (5 blinks) → amber (5 blinks) → green (5 blinks) → green/amber (5 blinks) → **red/amber (5 blinks)** → solid green





## 6.6 Skip AUTO.BAS

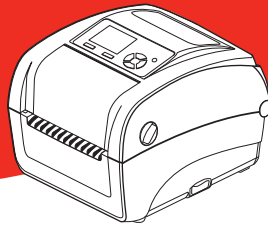
TSPL2 programming language allows user to download an auto execution file to flash memory. Printer will run the AUTO.BAS program immediately when turning on printer power. The AUTO.BAS program can be interrupted without running the program by the power-on utility.

**Please follow the procedures below to skip an AUTO.BAS program:**

1. Turn off the power switch.
2. Hold on the button then turn on the power switch.
3. Release the button when LED turns **solid green** after 5 red/amber blinks.
  - The LED color will be changed as following: Amber → red (5 blinks) → amber (5 blinks) → green (5 blinks) → green/amber (5 blinks) → red/amber (5 blinks) → **solid green**



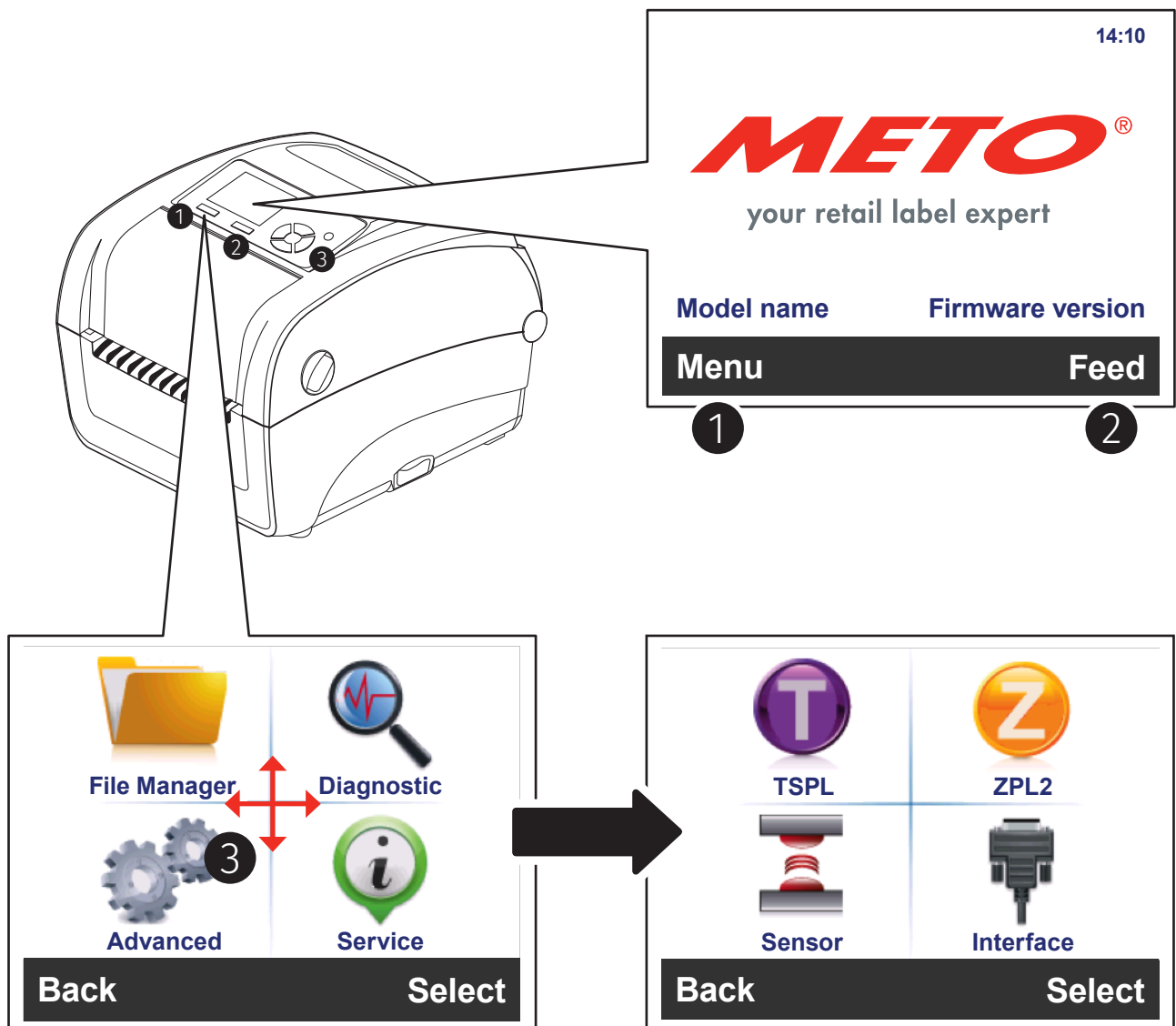
4. Printer will be interrupted to run the AUTO.BAS program.

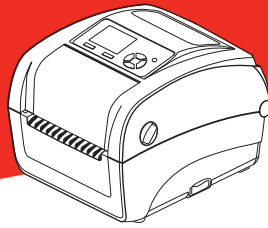


## 7. LCD MENU FUNCTION

### 7.1 Enter the Menu

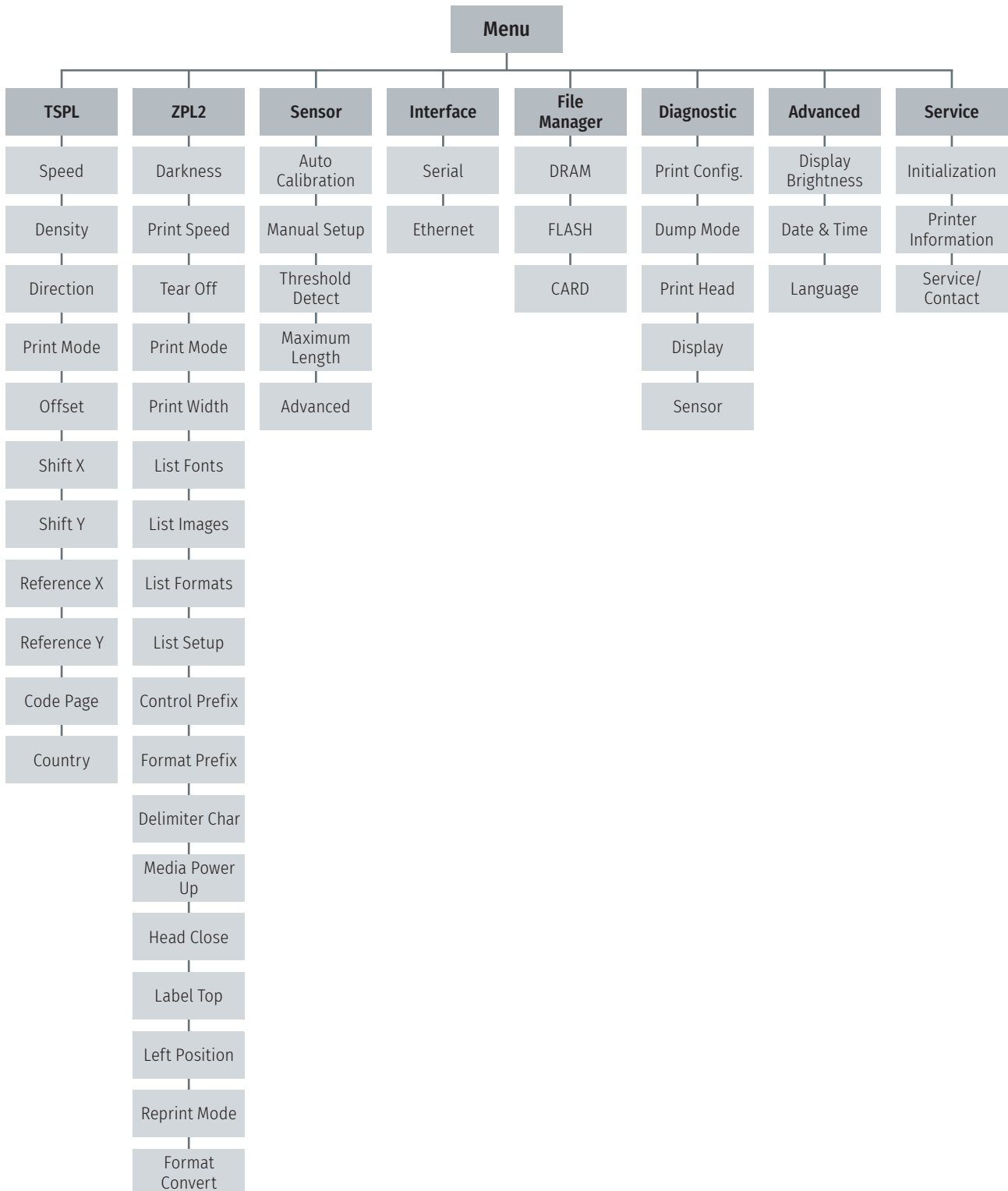
Press the “Menu” button to enter the main menu. Use the “Cross” button to select the item on main menu. The selected item will turn red. Press the “Feed” button to enter the setting list.

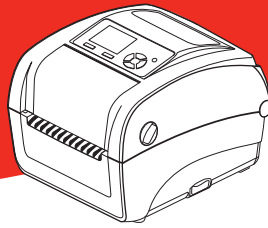




## 7.2 Main Menu Overview

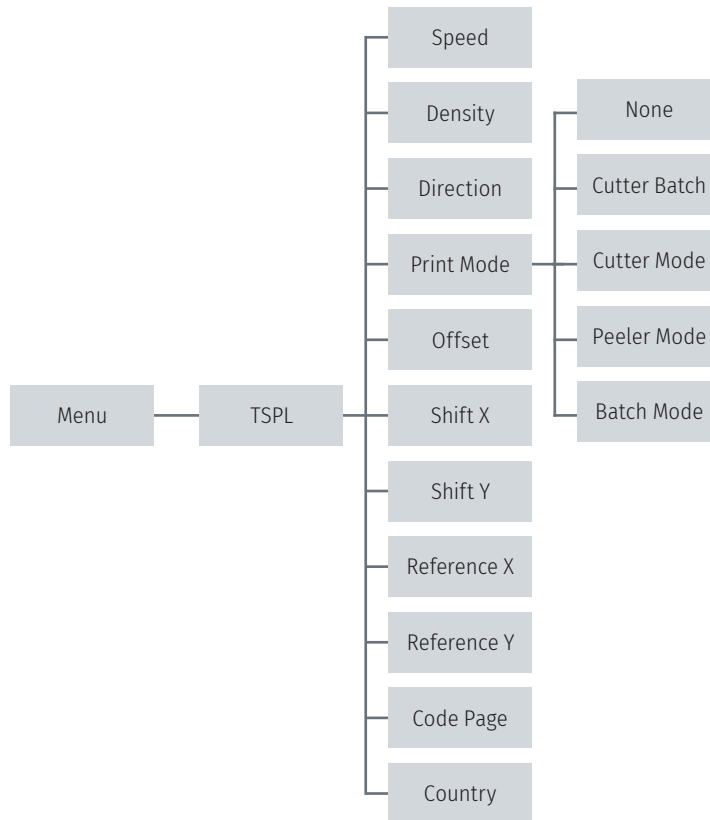
There are 8 categories for the main menu. You can easy to set the settings of printer without connecting the computer. Please refer to following sections for more details.





### 7.3 TSPL2

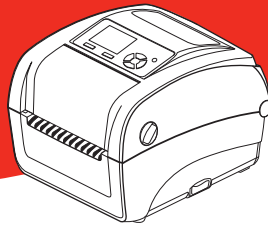
This “TSPL” category can set up the printer settings for TSPL2.



Item	Description	Default
Speed	Use this item to setup print speed.	N/A
Density	Use this option to setup printing darkness. The available setting is from 0 to 15, and the step is 1. You may need to adjust your density based on selected media.	8
Direction	The direction setting value is either 1 or 0. Use this item to setup the printout direction.	0

DIRECTION 0	DIRECTION 1
Direction	Direction

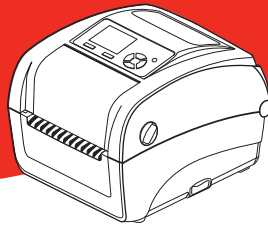
↓ FEED ↓



Item	Description	Default												
Print mode	This item is used to set the print mode. There are 5 modes as below.	Batch Mode												
<table border="1"> <thead> <tr> <th>Printer Mode</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>None</td> <td>Next label top of form is aligned to the print head burn line location. (Tear Off Mode)</td> </tr> <tr> <td>Batch Mode</td> <td>Once image is printed completely, label gap/black mark will be fed to the tear plate location for tear away.</td> </tr> <tr> <td>Peeler Mode</td> <td>Enable the label peel off mode.</td> </tr> <tr> <td>Cutter Mode</td> <td>Enable the label cutter mode.</td> </tr> <tr> <td>Cutter Batch</td> <td>Cut the label once at the end of the printing job.</td> </tr> </tbody> </table>			Printer Mode	Description	None	Next label top of form is aligned to the print head burn line location. (Tear Off Mode)	Batch Mode	Once image is printed completely, label gap/black mark will be fed to the tear plate location for tear away.	Peeler Mode	Enable the label peel off mode.	Cutter Mode	Enable the label cutter mode.	Cutter Batch	Cut the label once at the end of the printing job.
Printer Mode	Description													
None	Next label top of form is aligned to the print head burn line location. (Tear Off Mode)													
Batch Mode	Once image is printed completely, label gap/black mark will be fed to the tear plate location for tear away.													
Peeler Mode	Enable the label peel off mode.													
Cutter Mode	Enable the label cutter mode.													
Cutter Batch	Cut the label once at the end of the printing job.													
Offset	This item is used to fine tune media stop location. Available setting value is from "+" to "-" or "0" to "9".	+000												
Shift X	This item is used to fine tune print position. Available setting value is from "+" to "-" or "0" to "9".	+000												
Shift Y		+000												
Reference X	This item is used to set the origin of printer coordinate system horizontally and vertically. Available setting value is from "0" to "9".	000												
Reference Y		000												
Code page	Use this item to set the code page of international character set.	850												
Country	Use this option to set the country code.	001												

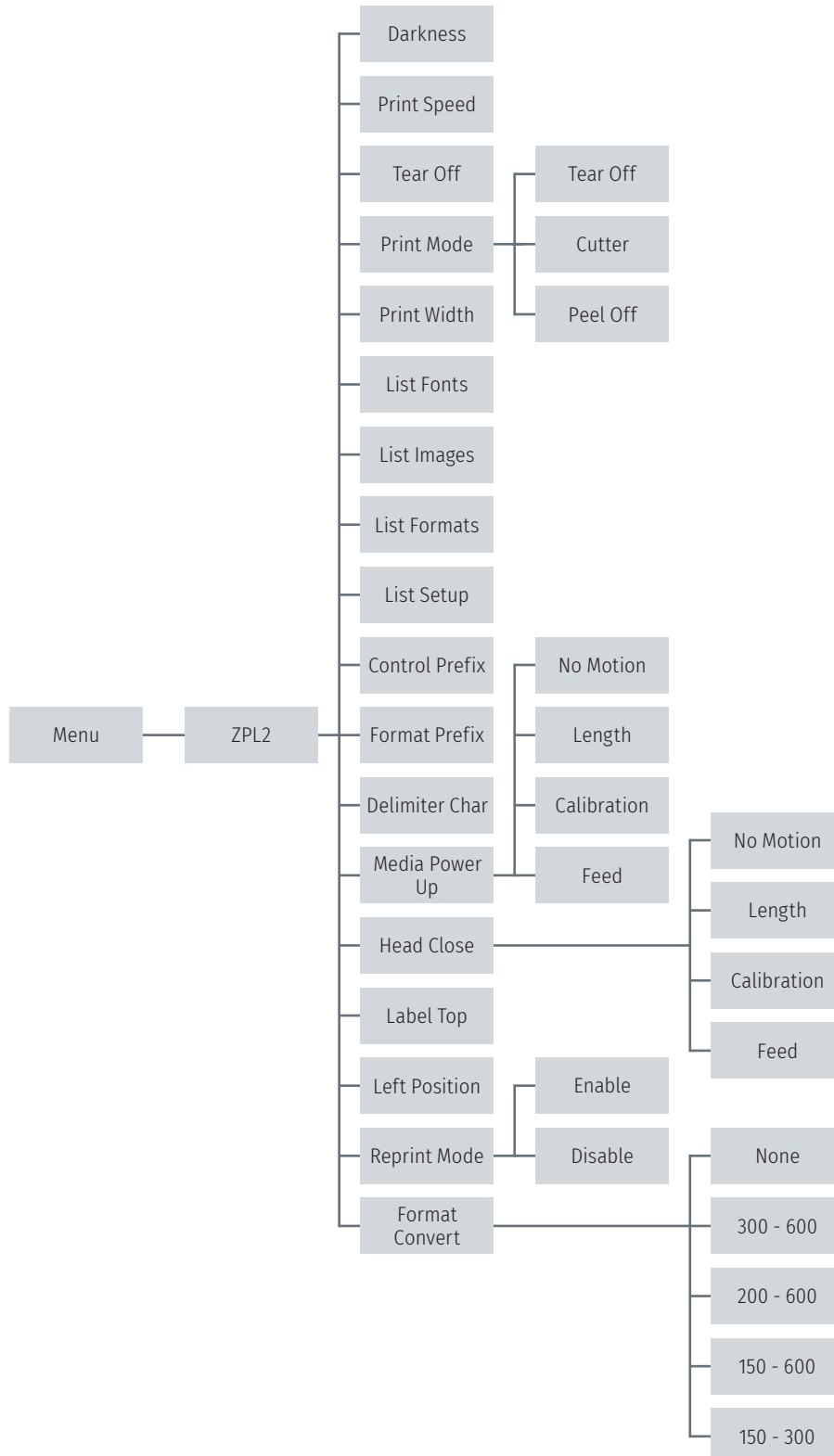
**Hinweis:**

**If printing from enclosed software/driver, the software/driver will send out the commands, which will overwrite the settings set from the panel.**

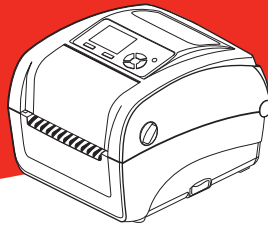


### 7.4 ZPL2

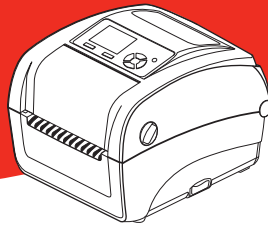
This “ZPL2” category can set up the printer settings for ZPL2.







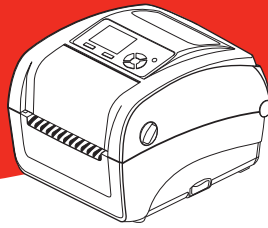
Item	Description	Default								
Darkness	Use this item to setup printing darkness. The available setting is from 0 to 30, and the step is 1. You may need to adjust your density based on selected media.	16								
Print Speed	Use this item to setup print speed. The each increase or decrease is 1 ips. Available setting is from 2 to 6.	6 (203 dpi) 4 (300 dpi) 3 (600 dpi)								
Tear Off	This item is used to fine tune media stop location. Available setting value is from "+" to "-" or "0" to "9".	+000								
Print mode	This item is used to set the print mode. There are 3 modes as below. <table border="1" data-bbox="408 734 1270 954"> <thead> <tr> <th>Printer Mode</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Tear Off</td> <td>Next label top of form is aligned to the print head burn line location.</td> </tr> <tr> <td>Peel Off</td> <td>Enable the label peel off mode.</td> </tr> <tr> <td>Cutter</td> <td>Enable the label cutter mode</td> </tr> </tbody> </table>	Printer Mode	Description	Tear Off	Next label top of form is aligned to the print head burn line location.	Peel Off	Enable the label peel off mode.	Cutter	Enable the label cutter mode	Tear Off
Printer Mode	Description									
Tear Off	Next label top of form is aligned to the print head burn line location.									
Peel Off	Enable the label peel off mode.									
Cutter	Enable the label cutter mode									
Print Width	This item is used to set print width. The available value is from "0" to "9".	N/A								
List Fonts	This feature is used to print current printer available fonts list to the label. The fonts stored in the printer's DRAM, Flash or optional memory card.	N/A								
List Images	This feature is used to print current printer available images list to the label. The images stored in the printer's DRAM, Flash or optional memory card.	N/A								
List Formats	This feature is used to print current printer available formats list to the label. The formats stored in the printer's DRAM, Flash or optional memory card.	N/A								
List Setup	This feature is used to print current printer configuration to the label.	N/A								
Control Prefix	This feature is used to set control prefix character.	N/A								
Format Prefix	This feature is used to set format prefix character.	N/A								
Delimiter Char	This feature is used to set delimiter character.	N/A								



Item	Description	Default										
Media Power Up	This option is used to set the action of the media when you turn on the printer.	No Motion										
<table border="1"> <thead> <tr> <th>Selections</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Feed</td> <td>Printer will advance one label</td> </tr> <tr> <td>Calibration</td> <td>Printer will calibration the sensor levels, determine length and feed label</td> </tr> <tr> <td>Length</td> <td>Printer determine length and feed label</td> </tr> <tr> <td>No Motion</td> <td>Printer will not move media</td> </tr> </tbody> </table>			Selections	Description	Feed	Printer will advance one label	Calibration	Printer will calibration the sensor levels, determine length and feed label	Length	Printer determine length and feed label	No Motion	Printer will not move media
Selections	Description											
Feed	Printer will advance one label											
Calibration	Printer will calibration the sensor levels, determine length and feed label											
Length	Printer determine length and feed label											
No Motion	Printer will not move media											
Head Close	This option is used to set the action of the media when you close the print head.	No Motion										
<table border="1"> <thead> <tr> <th>Selections</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Feed</td> <td>Printer will advance one label</td> </tr> <tr> <td>Calibration</td> <td>Printer will calibration the sensor levels, determine length and feed label</td> </tr> <tr> <td>Length</td> <td>Printer determine length and feed label</td> </tr> <tr> <td>No Motion</td> <td>Printer will not move media</td> </tr> </tbody> </table>			Selections	Description	Feed	Printer will advance one label	Calibration	Printer will calibration the sensor levels, determine length and feed label	Length	Printer determine length and feed label	No Motion	Printer will not move media
Selections	Description											
Feed	Printer will advance one label											
Calibration	Printer will calibration the sensor levels, determine length and feed label											
Length	Printer determine length and feed label											
No Motion	Printer will not move media											
Label Top	This option is used to adjust print position vertically on the label. The range is -120 to +120 dots.	0										
Left Position	This option is used to adjust print position horizontally on the label. The range is -9999 to +9999 dots.	+0000										
Reprint Mode	When reprint mode is enabled, you can reprint the last label printer by pressing "UP" button on printer's control panel.	Disabled										
Format Convert	Selects the bitmap scaling factor. The first number is the original dots per inch (dpi) value; the second, the dpi to which you would like to scale.	None										

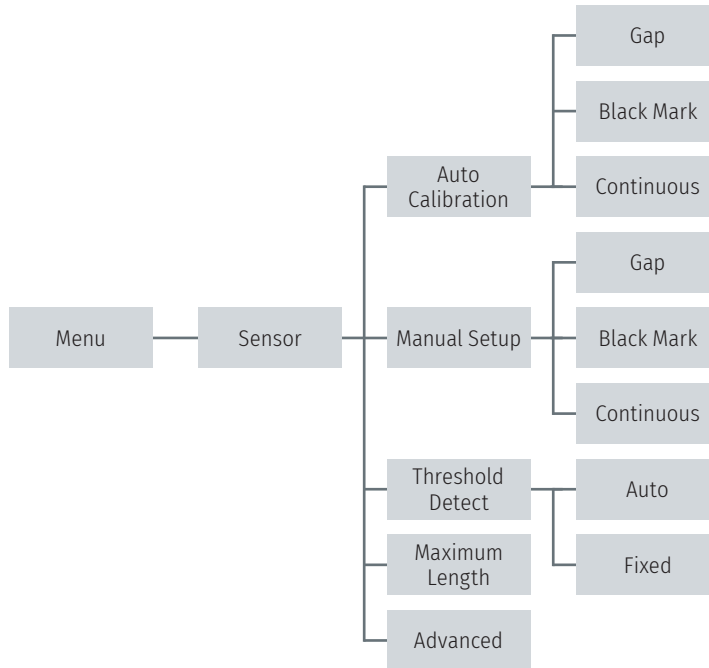
**Note:**

**If printing from enclosed software/driver, the software/driver will send out the commands, which will overwrite the settings set from the panel.**

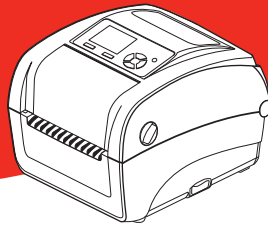


### 7.5 Sensor

This option is used to calibrate the selected sensor. We recommend calibrate the sensor before printing when changing the media.

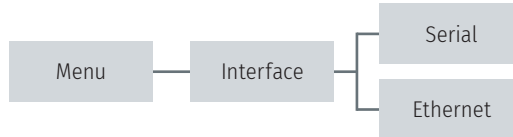


Item	Description	Default
Auto Calibration	Printer will feed 2 to 3 gap labels to calibrate the sensor sensitivity automatically.	N/A
Manual Setup	In case “Auto calibration” cannot apply to the media, please use “Manual setup” function to calibrate the sensor sensitivity.	N/A
Threshold Detect	This option is used to set sensor sensitivity in fixed or auto.	Auto
Maximum Length	This option is used to set the maximum length for label calibration.	254 mm
Advanced	This function can set the minimum paper length and maximum gap/line length for auto-calibrate the sensor sensitivity.	OFF



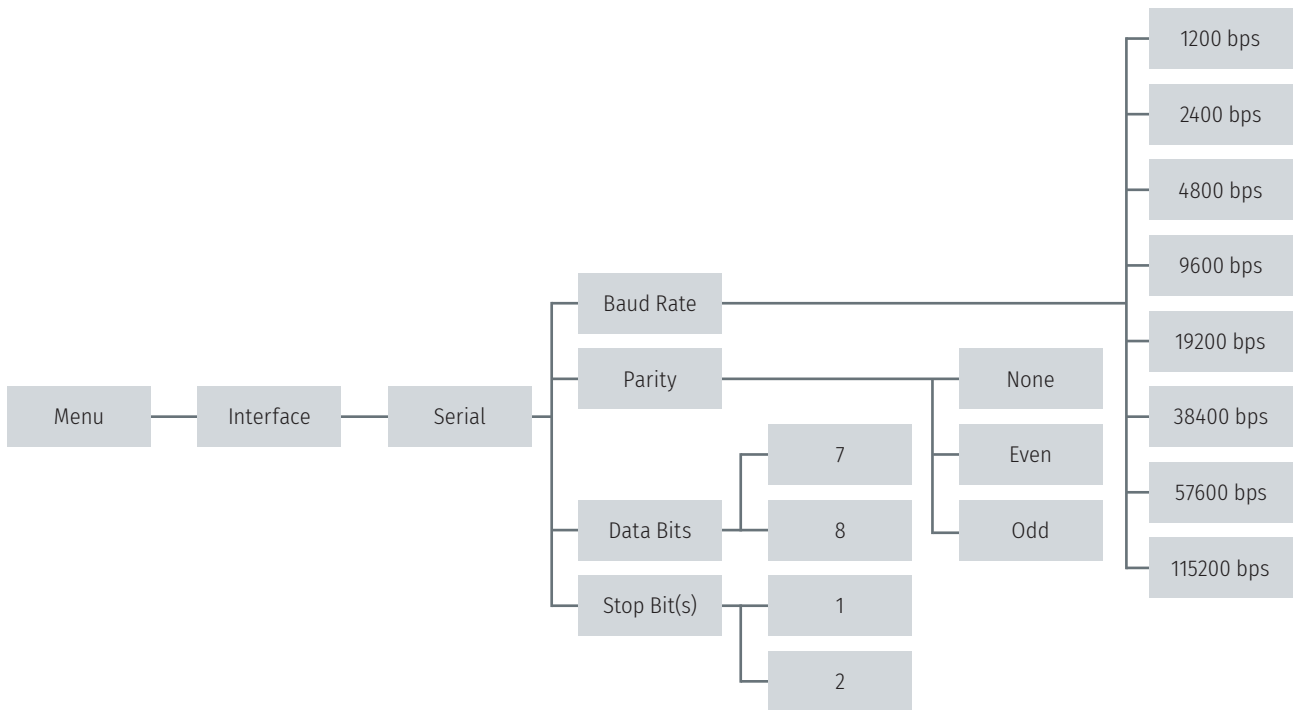
## 7.6 Interface

This option is used to set the printer interface settings.

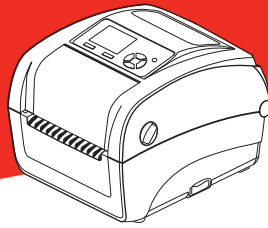


### 7.6.1 Serial Comm.

This option is used to set the printer RS-232 settings.

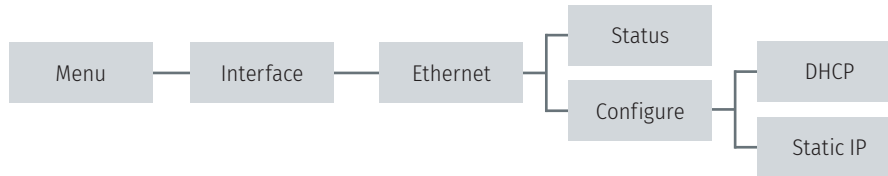


Item	Description	Default
Baud Rate	This item is used to set the RS-232 baud rate.	9600
Parity	This item is used to set the RS-232 parity.	None
Data Bits	This item is used to set the RS-232 Data Bits.	8
Stop Bit(s)	This item is used to set the RS-232 Stop Bits.	1

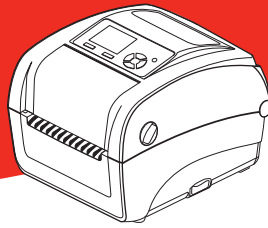


### 7.6.2 Ethernet

Use this menu to configure internal Ethernet configuration check the printer’s Ethernet module status, and reset the Ethernet module.

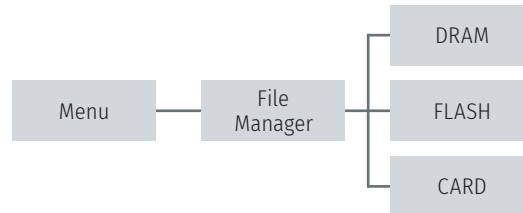


Item	Description	Default
Status	Use this menu to check the Ethernet IP address and MAC setting status.	N/A
DHCP	This item is used to ON or OFF the DHCP (Dynamic Host Configuration Protocol) network protocol.	N/A
Static IP	Use this menu to set the printer’s IP address, subnet mask and gateway.	ON

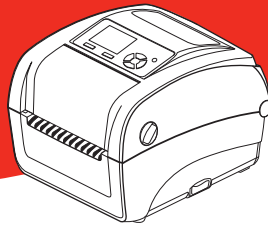


## 7.7 File Manager

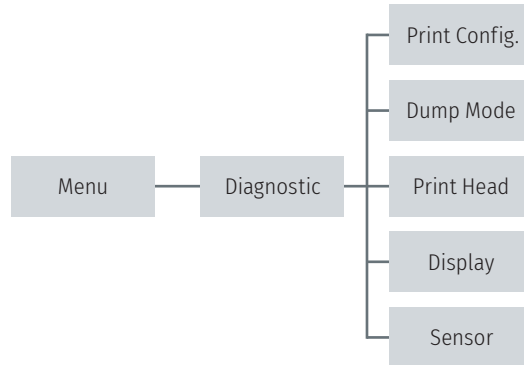
This feature is used to check the printer available memory and file list.



Item	Description
DRAM	Use this menu to show, delete and run (.BAS) the files saved in the printer DRAM memory.
FLASH	Use this menu to show, delete and run (.BAS) the files saved in the printer Flash memory.
CARD	Use this menu to show, delete and run (.BAS) the files saved in the printer Card memory.

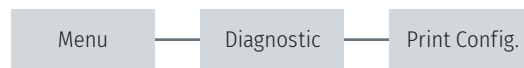


## 7.8 Diagnostics



### 7.8.1 Print Config.

This feature is used to print current printer configuration to the label. On the configuration printout, there is a print head test pattern, which is useful for checking if there is any dot damage on the print head heater element.

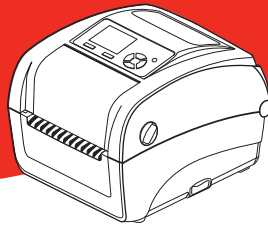


### Selbsttest-Ausdruck

SYSTEM INFORMATION	System information
MODEL : XXXXXX	Model name
FIRMWARE : X.XX	F/W version
CHECKSUM : XXXXXXXX	Firmware checksum
S/N : XXXXXXXXXXXX	Printer S/N
TCF : NO	Configuration file
DATE : 1970/01/01	System date
TIME : 00:04:18	System time
NON-RESET : 110 m (TPH)	Printed mileage (meter)
RESET : 110 m (TPH)	
NON-RESET : 0 (CUT)	Cutting counter
RESET : 0 (CUT)	

PRINTING SETTING	Printer setting
SPEED : 5 IPS	Print speed (inch/sec)
DENSITY : 8.0	Print darkness
WIDTH : 4.00 INCH	Label size (inch)
HEIGHT : 4.00 INCH	
GAP : 0.00 INCH	Gap distance (inch)
INTENSION : 5	Gap/black mark sensor intension
CODEPAGE : 850	Code page
COUNTRY : 001	Country code



```

-----
                Z SETTING
-----
DARKNESS: 16.0
SPEED: 4 IPS
WIDTH: 4.00 INCH
TILDE: 7EH (~)

CARET: 5EH (^)
DELIMITER: 2CH (,)
POWER UP: NO MOTION
HEAD CLOSE: NO MOTION
-----
    
```

**ZPL setting information**

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

**Note: ZPL is emulating for Zebra<sup>®</sup> language.**

```

-----
                RS232 SETTING
-----
BAUD: 9600
PARITY: NONE
DATA BIT: 8
STOP BIT: 1
-----
    
```

**RS232 setting**

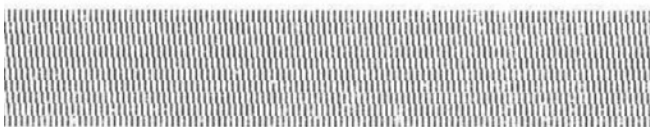
RS232 serial port configuration

```

-----
DRAM FILE (0 FILES)
-----
PHYSICAL   XXXX KBYTES
AVAILABLE  XXXX KBYTES
-----

FLASH FILE (0 FILES)
-----
PHYSICAL   XXXX KBYTES
AVAILABLE  XXXX KBYTES
-----
    
```

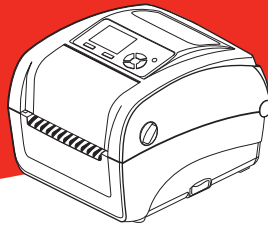
Numbers of download files  
Total & available memory space



Print head check pattern

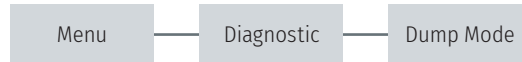
**Note:**  
Checking dot damage requires 4" wide paper width.





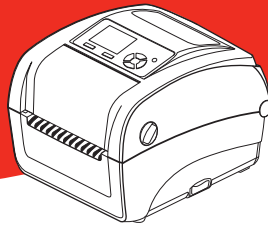
**7.8.2 Dump Mode**

Captures the data from the communications port and prints out the data received by printer. In the dump mode, all characters will be printed in 2 columns. The left side characters are received from your system and right side data are the corresponding hexadecimal value of the characters. It allows users or engineers to verify and debug the program.



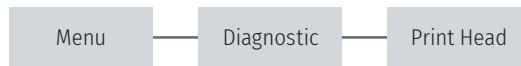
	DOWNLOA	0D 0A 44 4F 57 4E 4C 4F 4I	
	D „TEST2.	44 20 22 54 45 53 54 32 2E	
	DAT“, 5, CL	44 41 54 22 2C 35 2C 43 4C	
	S DOWNLO	53 0D 0A 44 4F 57 4E 4C 4F	
	AD F, „TES	41 44 20 46 2C 22 54 45 53	
ASCII Data	T4.DAT“, 5	54 34 2E 44 41 54 22 2C 35	Hexadecimal data
	,CLS DOW	2C 43 4C 53 0D 0A 44 4F 57	related to left column
	NLOAD „TE	4E 4C 4F 41 44 20 22 54 45	of ASCII data
	ST2.DAT“,	53 54 32 2E 44 41 54 22 2C	
	5,CLS DO	35 2C 43 4C 53 0D 0A 44 4F	
	WNLOAD F,	57 4E 4C 4F 41 44 20 46 2C	
	„TEST4.DA	22 54 45 53 54 34 2E 44 41	
	T“, 5, CLS	54 22 2C 35 2C 43 4C 53 0D	
	DOWNLOAD	0A 44 4F 57 4E 4C 4F 41 44	
	“TEST2.D	20 22 54 45 53 54 32 2E 44	
	AT“, 5, CLS	41 54 22 2C 35 2C 43 4C 53	
	DOWNLOA	0D 0A 44 4F 57 4E 4C 4F 4I	
	D F, „TEST	44 20 46 2C 22 54 45 53 54	
	4.DAT“, 5,	34 2E 44 41 54 22 2C 35 2C	
	CLS	43 4C 53 0D 0A	

**Note:**  
**Dump mode requires 4” wide paper width.**



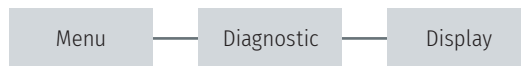
### 7.8.3 Print Head

This feature is used to check print head's temperature, resistance and bad dots.



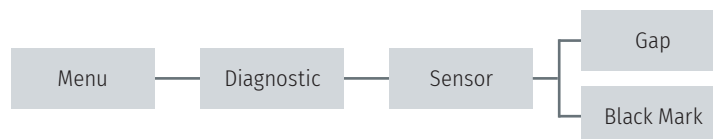
### 7.8.4 Display

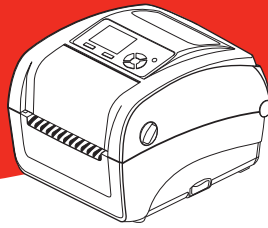
This feature is used to check LCD's color state.



### 7.8.5 Sensor

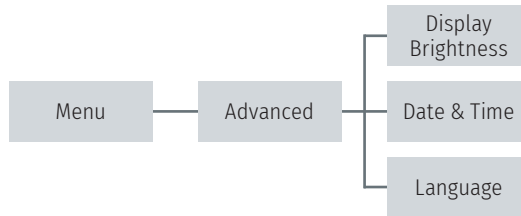
This feature is used to check the condition of the media sensor. It can in- or decrease the intensity, in order to analyze the measured value for diagnostic purposes.





### 7.9 Advanced

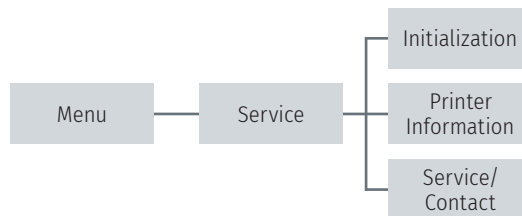
This feature is used to set the printer LCD settings.



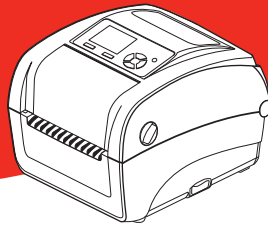
Item	Description
Display Brightness	This item is used to setup the brightness for display.
Date & Time	This item is used to setup the date and time on display.
Language	This item is used to setup the language on display.

### 7.10 Service

This feature is used to restore printer settings to defaults and checking information for printer.



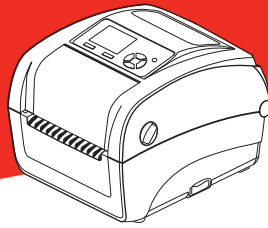
Item	Description
Initialization	This feature is used to restore printer settings to defaults.
Printer Information	This feature is used to check the printer's serial number, printed mileage (m), printed labels (pcs.) and cutting counter.
Service/Contact	This feature is used to check the contact information for tech support service.



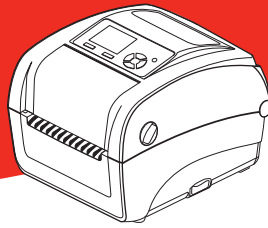
## 8. TROUBLESHOOTING

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 tech support service of your purchased reseller or distributor for assistance.

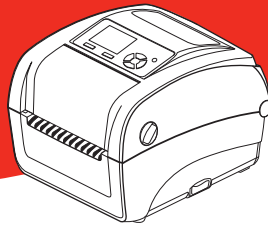
Problem	Possible Cause	Recovery Procedure
<p><b>Power indicator does not illuminate</b></p>	<ul style="list-style-type: none"> <li>The power cord is not properly connected.</li> </ul>	<ul style="list-style-type: none"> <li>Plug the power cord in printer and outlet.</li> <li>Switch the printer on.</li> </ul>
<ul style="list-style-type: none"> <li>The printer status from DiagTool shows <b>“Head Open”</b>.</li> <li>The LCD shows <b>“Carriage Open”</b>.</li> </ul>	<ul style="list-style-type: none"> <li>The printer head is open.</li> </ul>	<ul style="list-style-type: none"> <li>Please close the print carriages.</li> </ul>
<ul style="list-style-type: none"> <li>The printer status from DiagTool shows <b>“Ribbon Encoder Err.”</b>.</li> <li>The LCD shows <b>“No Ribbon”</b>.</li> </ul>	<ul style="list-style-type: none"> <li>Running out of ribbon.</li> <li>The ribbon is installed incorrectly.</li> </ul>	<ul style="list-style-type: none"> <li>Supply a new ribbon roll.</li> <li>Please refer to the steps on section 4.3 to re-install the ribbon.</li> </ul>
<ul style="list-style-type: none"> <li>The printer status from DiagTool shows <b>“Out of Paper”</b>.</li> <li>The LCD shows <b>“No Paper”</b>.</li> </ul>	<ul style="list-style-type: none"> <li>Running out of label.</li> <li>The label is installed incorrectly.</li> <li>Gap/black mark sensor is not calibrated.</li> </ul>	<ul style="list-style-type: none"> <li>Supply a new label roll.</li> <li>Please refer to the steps on section 4.4 to reinstall the label roll.</li> <li>Calibrate the gap/black mark sensor.</li> </ul>
<ul style="list-style-type: none"> <li>The printer status from DiagTool shows <b>“Paper Jam”</b>.</li> <li>The LCD shows <b>“Paper Jam”</b>.</li> </ul>	<ul style="list-style-type: none"> <li>Gap/black mark sensor is not set properly.</li> <li>Make sure label size is set properly.</li> <li>Labels may be stuck inside the printer mechanism.</li> </ul>	<ul style="list-style-type: none"> <li>Calibrate the media sensor.</li> <li>Set media size correctly.</li> <li>Remove the stuck label inside the printer mechanism.</li> </ul>
<p>The LCD shows <b>“Take Label”</b>.</p>	<ul style="list-style-type: none"> <li>Peel-off function is enabled.</li> </ul>	<ul style="list-style-type: none"> <li>If the peel-off module is installed, please remove the label.</li> <li>If there is no peel-off module in front of the printer, please switch off the printer and install it.</li> <li>Check if the connector is plugging correctly.</li> </ul>



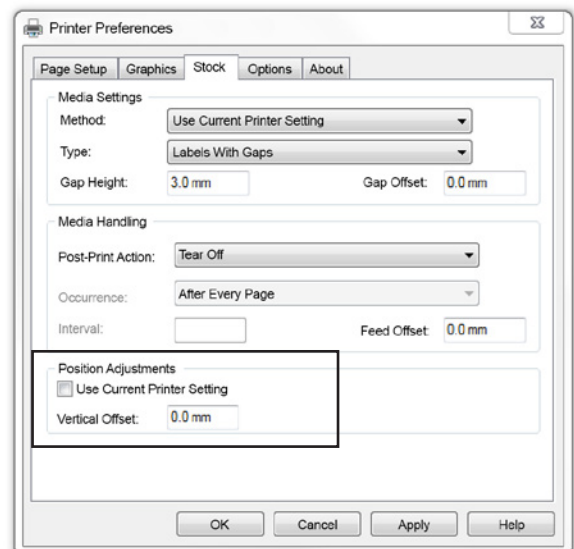
Problem	Possible Cause	Recovery Procedure
<b>Not Printing</b>	<ul style="list-style-type: none"> <li>• Check if interface cable is well connected to the interface connector.</li> <li>• Check if wireless or Bluetooth device is well connected between host and printer.</li> <li>• The port specified in the Windows driver is not correct.</li> </ul>	<ul style="list-style-type: none"> <li>• Re-connect cable to interface or change a new cable.</li> <li>• If using serial cable,               <ul style="list-style-type: none"> <li>– Please replace the cable with pin to pin connected.</li> <li>– Check the baud rate setting. The default baud rate setting of printer is 9600,n,8,1.</li> </ul> </li> <li>• If using the Ethernet cable,               <ul style="list-style-type: none"> <li>– Check if the Ethernet RJ-45 connector green LED is lit on.</li> <li>– Check if the Ethernet RJ-45 connector amber LED is blinking.</li> <li>– Check if the printer gets the IP address when using DHCP mode.</li> <li>– Check if the IP address is correct when using the static IP address.</li> <li>– Wait a few seconds let the printer get the communication with the server then check the IP address setting again.</li> </ul> </li> <li>• Please reset the wireless device setting.</li> <li>• Select the correct printer port in the driver.</li> <li>• Print head’s harness connector is not well connected with printhead. Turn off the printer and plug the connector again.</li> <li>• Check your program if there is a command PRINT at the end of the file and there must have CRLF at the end of each command line.</li> </ul>

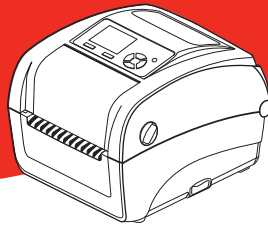


<b>Problem</b>	<b>Possible Cause</b>	<b>Recovery Procedure</b>
<b>No print on the label</b>	<ul style="list-style-type: none"> <li>• Label or ribbon is loaded not correctly.</li> <li>• Use wrong type paper or ribbon</li> </ul>	<ul style="list-style-type: none"> <li>• Follow the instructions in loading the media and ribbon.</li> <li>• Ribbon and media are not compatible.</li> <li>• Verify the ribbon-inked side.</li> <li>• The print density setting is incorrect.</li> <li>• Clean the print head.</li> </ul>
<b>Poor Print Quality</b>	<ul style="list-style-type: none"> <li>• Ribbon and media is loaded incorrectly</li> <li>• Dust or adhesive accumulation on the print head.</li> <li>• Print density is not set properly.</li> <li>• Print head element is damaged.</li> <li>• Ribbon and media are incompatible.</li> <li>• The print head pressure is not set properly.</li> </ul>	<ul style="list-style-type: none"> <li>• Reload the supply.</li> <li>• Clean the print head.</li> <li>• Clean the platen roller.</li> <li>• Adjust the print density and print speed.</li> <li>• Run printer self-test and check the print head test pattern if there is dot missing in the pattern.</li> <li>• Change proper ribbon or proper label media.</li> <li>• The release lever does not latch the print head properly.</li> </ul>
<b>Cutter is not working</b>	<ul style="list-style-type: none"> <li>• The connector is loose.</li> <li>• Cutter jam.</li> <li>• Cutter PCB is damaged.</li> </ul>	<ul style="list-style-type: none"> <li>• Plug in the connect cable correctly.</li> <li>• Remove the label.</li> <li>• Make sure the thickness of label is less than 0.19 mm.</li> <li>• Replace a cutter driver IC board.</li> </ul>
<b>Can't download the file to memory (FLASH/DRAM/CARD)</b>	<ul style="list-style-type: none"> <li>• The space of memory is full.</li> </ul>	<ul style="list-style-type: none"> <li>• Delete unused files in the memory.</li> </ul>
<b>SD card is unable to use</b>	<ul style="list-style-type: none"> <li>• SD card is damaged.</li> <li>• SD card doesn't insert correctly.</li> </ul>	<ul style="list-style-type: none"> <li>• Use the supported capacity SD card. Please refer to section 3.2.1</li> <li>• Insert the SD card again.</li> </ul>
<b>Missing printing on the left or right side of label</b>	<ul style="list-style-type: none"> <li>• Wrong label size setup.</li> </ul>	<ul style="list-style-type: none"> <li>• Set the correct label size.</li> </ul>
<b>Gray line on the blank label</b>	<ul style="list-style-type: none"> <li>• The print head is dirty.</li> <li>• The platen roller is dirty.</li> </ul>	<ul style="list-style-type: none"> <li>• Clean the print head.</li> <li>• Clean the platen roller.</li> </ul>
<b>Irregular printing</b>	<ul style="list-style-type: none"> <li>• The printer is in Hex Dump mode.</li> <li>• The RS-232 setting is incorrect.</li> </ul>	<ul style="list-style-type: none"> <li>• Turn off and on the printer to skip the dump mode.</li> <li>• Re-set the RS-232 setting.</li> </ul>



Problem	Possible Cause	Recovery Procedure
<b>Label feeding is not stable (skew) when printing</b>	<ul style="list-style-type: none"> <li>The media guides do not touch the edge of the media.</li> </ul>	<ul style="list-style-type: none"> <li>If the label is moving to the right side, please move the label guide to left.</li> <li>If the label is moving to the left side, please move the label guide to right.</li> </ul>
<b>Skip labels when printing</b>	<ul style="list-style-type: none"> <li>Label size is not specified properly.</li> <li>Sensor sensitivity is not set properly.</li> <li>The media sensor is covered with dust.</li> </ul>	<ul style="list-style-type: none"> <li>Check if label size is setup correctly.</li> <li>Calibrate the sensor by Auto Gap or Manual Gap options.</li> <li>Clear the GAP/Black mark sensor by blower.</li> </ul>
<b>Wrinkle Problem</b>	<ul style="list-style-type: none"> <li>Printhead pressure is incorrect.</li> <li>Ribbon installation is incorrect.</li> <li>Media installation is incorrect.</li> <li>Print density is incorrect.</li> <li>Media feeding is incorrect.</li> </ul>	<ul style="list-style-type: none"> <li>Please set the suitable density to have good print quality.</li> <li>Make sure the label guides touch the edge of the media guide.</li> </ul>
<b>RTC time is incorrect when reboot the printer</b>	<ul style="list-style-type: none"> <li>The battery has run down.</li> </ul>	<ul style="list-style-type: none"> <li>Check if there is a battery on the main board.</li> </ul>
<b>The printing position of small label is incorrect</b>	<ul style="list-style-type: none"> <li>Media sensor sensitivity is not set properly.</li> <li>Label size is incorrect.</li> <li>The parameter Shift Y is incorrect.</li> <li>The vertical offset setting in the driver is incorrect.</li> </ul>	<ul style="list-style-type: none"> <li>Calibrate the sensor sensitivity again.</li> <li>Set the correct label size and gap size.</li> <li>Use DiagTool to fine tune the parameter of Shift Y.</li> <li>If using the software BarTender, please set the vertical offset in the driver.</li> </ul>





## 9. MAINTENANCE

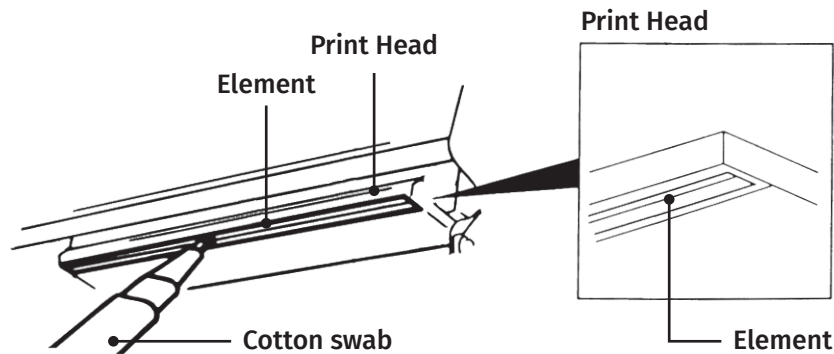
This session presents the clean tools and methods to maintain your printer.

1. Please use one of following material to clean the printer.

- Cotton swab
- Lint-free cloth
- Vacuum / Blower brush
- 100% Ethanol or Isopropyl Alcohol

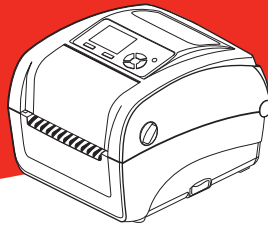
2. The cleaning process is described as following

Printer Part	Method	Interval
<b>Print Head</b>	1. Always turn off the printer before cleaning the print head. 2. Allow the print head to cool for a minimum of one minute. 3. Use a cotton swab and 100% Ethanol or Isopropyl Alcohol to clean the print head surface.	Clean the print head when changing a new label roll.

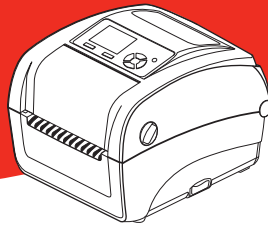


<b>Platen Roller</b>	1. Turn the power off. 2. Rotate the platen roller and wipe it thoroughly with water.	Clean the platen roller when changing a new label roll.
<b>Peel Bar</b>	Use the lint-free cloth with 100% ethanol to wipe it.	As needed
<b>Sensor</b>	Compressed air or vacuum	Monthly
<b>Exterior</b>	Wipe it with water-dampened cloth.	As needed
<b>Interior</b>	Brush or vacuum	As needed



**Note:**

- Do not touch printer head by hand. If you touch it careless, please use ethanol to clean it.
- Please use 100% Ethenol or Isopropyl Alcohol. DO NOT use medical alcohol, which may damage the printer head.
- Regularly clean the print head and supply sensors once change a new media to keep printer performance and extend printer life.
- Continuous printing will cause printer motor overheat. Printer will stop printing automatically about 10~15 minutes until motor is cooling down. Please don't turn off power when printer pauses or the data transferred to printer buffer will be lost.
- The maximum printing ratio per dot line is 15% for this printer. To print the full web black line, the maximum black line height is limited to 40 dots, which is 5 mm for 203 DPI resolution printer, otherwise this may damage the power supply.



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# METO PRINT SERVICE:

## Contact and technical support:

You can find all valid contact data concerning service, hotline and technical support under [www.meto.com/metoprint](http://www.meto.com/metoprint)

Or you may send an e-mail to [metoprint@meto.com](mailto:metoprint@meto.com)



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