PRINTRONIX®
AUTO ID

T400 Printer Administrator's Manual

Thermal Printer

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CE	EN 55022, Class A EN 55024 EN 60950-1 This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
FC	FCC part 15B, Class A ICES-003, Class A This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instruction manual, may cause harmful interference with radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case you will be required to correct the interference at your own expense. This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conform à la norme NMB-003 du Canada.

Energy Star for Imaging Equipment Version 2.0

Wichtige Sicherheits-Hinweise

1. Bitte lesen Sie diese Hinweis sorgfältig durch.
2. Heben Sie diese Anleitung fűr den späteren Gebrauch auf.
3. Vor jedem Reinigen ist das Gerät vom Stromentz zu trennen. Verwenden Sie keine Flüssig-oder Aerosolreiniger. Am besten eignet sich ein angefeuchtetes Tuch zur Reinigung.
4. Die Netzanschluß-Steckdose soll nahe dem Gerät angebracht und leicht zugänglich sein.
5. Das Gerät ist vor Feuchtigkeit zu schűtzen.
6. Bei der Aufstellung des Gerätes ist auf sicheren Stand zu achten. Ein Kippen oder Fallen könnte Beschädigungen hervorrufen.
7. Beachten Sie beim Anschluß ans Stromnetz die Anschlußwerte.
8. Dieses Gerät kann bis zu einer Außentemperatur von maximal 40℃ betrieben werden.

CAUTION :

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

Dispose of used batteries according to the instructions.

“VORSICHT”
Explosionsgefahr bei unsachgemäßen Austaush der Batterie. Ersatz nur durch denselben oder einem vom Hersteller empfohlenem ähnlichen Typ. Entsorgung gebrauchter Batterien nach Angabren des Herstellers.

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 FINGER AND OTHER BODY PARTS AWAY.

Contents

1. Introduction

1.1 Product Introduction

The T400 Series of direct thermal desktop printers are ideal for a wide variety of applications including product marking, point of sale, retail, small office, shipping labels, and other labeling and tag applications at the best price anywhere.

The T400 Series is a perfect combination of affordability with a durable and reliable design. With a cost that can't be beat, the T400 series offers both 203 and 300 dots per inch print resolution with printing speeds up to a fast 5 inches per second. The large 60 watt power supply produces high quality printed labels, even at its fastest print speeds.

For easy loading, the T400 employs a user-friendly double-wall clamshell design with a large five-inch (outside diameter) center-biased media bay. The spring-loaded label roll holder makes loading simple. Top-of-form sensing – by gap, black mark, or notch – is standard. The printer also comes with a head-open sensor.

The T400 has plenty of memory with 128 MB Flash & 64 MB SDRAM that can be used for easy storage of fonts, international character sets and graphics, and it supports, "right out of the box," a fully compatible set of standard industry emulations, including Line Mode, Eltron® and Zebra® languages, making it easy to replace old installed hardware.

- Applications
  - Small Parcel Shipping
  - Mail Room Address and Routing Labels
  - Shipping & Receiving
  - Entertainment and Transportation Ticketing
  - Retail Point-of-Sale
  - File-Folder Labeling

1.2 Product Features

1.2.1 Printer Standard Features

The printer offers the following standard features.

<table>
<tr><th>Product standard feature</th></tr>
<tr><td>Direct thermal printing</td></tr>
<tr><td>Gap transmissive sensor
(Fixed, center of offset to right 4 mm from center)</td></tr>
<tr><td>Black mark reflective sensor
(Fixed, center of offset to right 4 mm from center)</td></tr>
<tr><td>Head open sensor</td></tr>
<tr><td>1 operation button</td></tr>
<tr><td>Single LED (three colors: green, amber & red)</td></tr>
<tr><td>USB 2.0 (High speed mode) interface</td></tr>
<tr><td>32-bit RISC high performance processor</td></tr>
<tr><td>64 MB DDR2 SDRAM memory</td></tr>
<tr><td>128 MB Nand Flash memory</td></tr>
<tr><td>Real time clock</td></tr>
<tr><td>USB host, for scanner or PC keyboard</td></tr>
<tr><td>Internal Ethernet</td></tr>
<tr><td>RS-232 (Max. 115,200 bps)</td></tr>
<tr><td>Built-in Monotype True Type Font engine</td></tr>
<tr><td>Fonts and bar codes can be printed in any one of the four directions (0, 90,180, 270 degree)</td></tr>
<tr><td>Downloadable fonts from PC to printer memory</td></tr>
<tr><td>Downloadable firmware upgrades</td></tr>
<tr><td>Bar code, graphics/image printing
<table>
<tr><th colspan="2">Supported bar code</th><th>Supported image</th></tr>
<tr><td>1D bar code</td><td>2D bar code</td><td rowspan="2">BITMAP, BMP, PCX
(Max. 256 colors graphics)</td></tr>
<tr><td>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 Identcode, Deutsche Post Leitcode, LOGMARS</td><td>CODABLOCK F mode, DataMatrix, Maxicode, PDF-417, Aztec, MicroPDF417, QR code, RSS Barcode (GS1 Databar)</td></tr>
</table>
</td></tr>
</table>

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

1.2.2 Printer Optional Features

The printer offers the following optional features.

Product option feature
Peel-off module / Dealer option
Guillotine cutter (full cut or partial cut) / Dealer option

1.3 General Specifications

General Specifications	
Physical dimensions	195 mm x 172 mm x 165 mm **Note : 195 mm x 178.5 mm x 165 mm (incl. open lever)**
Mechanism	Plastic with double-walled clamshell design
Weight	1.5 kg
Power	External universal switching power supply Input: AC 100-240V, 50-60Hz Output: DC 24V, 2.5A, 60W
Environmental condition	Operation: 5 ~ 40˚C, 25~85% non-condensing **Note : Peeler mode: 40˚C/ 45%** Storage: -40 ~ 60 ˚C, 10~90% non-condensing
Environmental concern	Comply with RoHS, WEEE

1.4 Print Specifications

Print Specifications	203 dpi models	300 dpi models
Print head resolution (dots per inch/mm)	203 dots/inch (8 dots/mm)	300 dots/inch (12 dots/mm)
Printing method	Direct thermal	
Dot size (width x length)	0.125 x 0.125 mm (1 mm = 8 dots)	0.084 x 0.084 mm (1 mm = 11.8 dots)
Max. print speed (inches per second)	152.4 mm (6”)	102 mm (4”)
	2,3 ips for peeler mode	
Max. print width	108 mm	105.7 mm
Max. print length	90” (2286 mm)	
Printout bias	Vertical: max. 1 mm Horizontal: max. 1 mm	

1.5 Media Specifications

Media Specifications	
Media roll capacity	127 mm (5 “) OD
Media core diameter	1” ID core
Media type	Continuous, die-cut, black mark, External fan-fold, receipt
Media wound type	Outside wound
Media width	19 mm ~ 114 mm (0.7”~ 4.5”)
Media thickness	0.055 mm ~ 0.19 mm (2.16 ~ 7.48 mil)

Label length	10 mm ~ max. for normal printing 1” ~ 6” for peeler mode 1” ~ max. for cutter mode
Gap height	Min. 2 mm
Black mark height	Min. 2 mm
Black mark width	Min. 16 mm

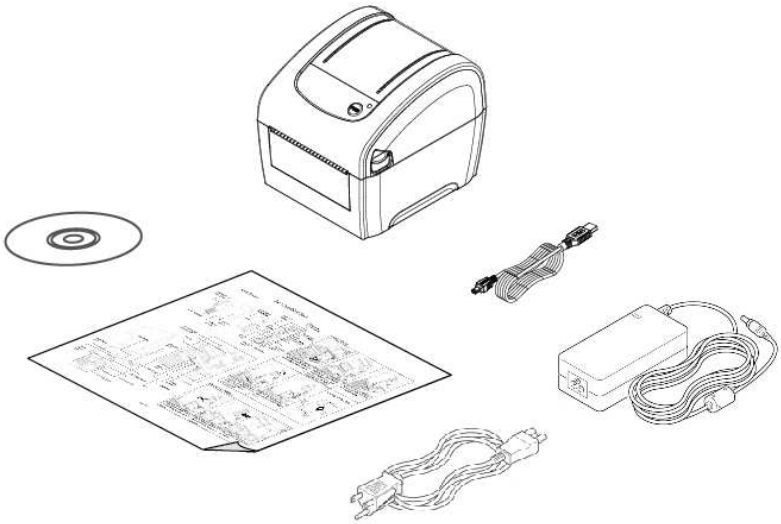
2. Operations Overview

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.

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.

- One printer unit
- One Starter Kit CD disk with Windows Drivers and Bartender Labeling Software
- One quick installation guide
- One USB port cable
- One power cord
- One power supply

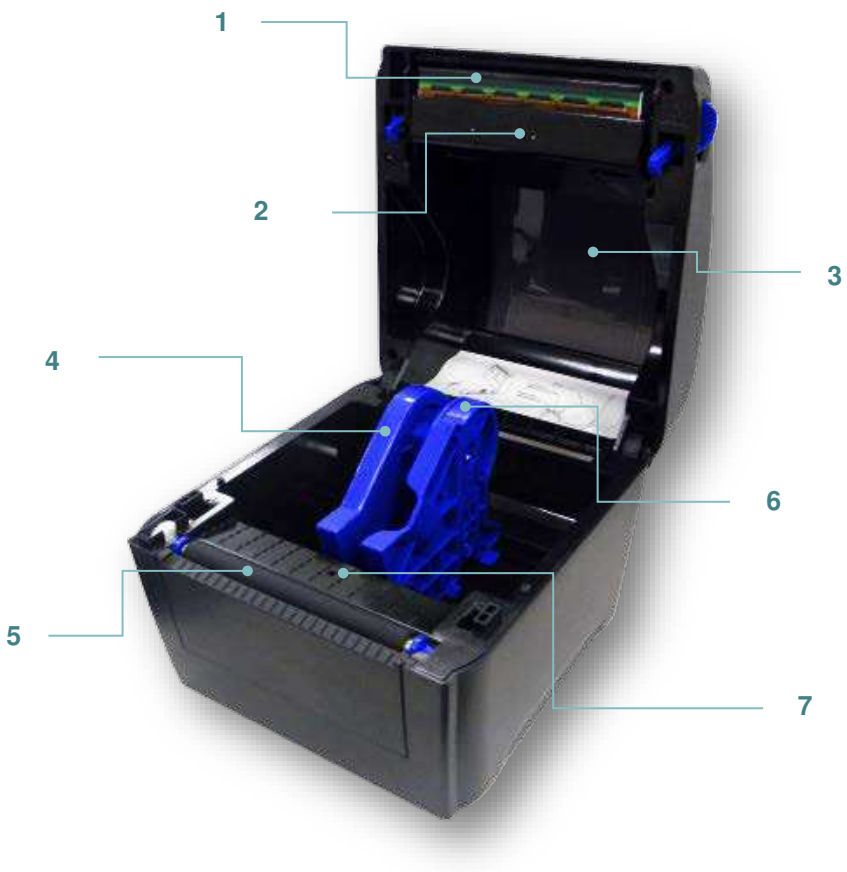


2.2 Printer Overview

2.2.1 Front & rear

1. Top cover open lever
2. LED indicators
3. Feed/Pause button
4. External label entrance chute
5. Power switch
6. Power jack socket
7. USB interface
8. USB host
9. Ethernet interface
10. RS-232 interface

2.2.2 Interior View



1. Print head
2. Gap sensor (transmitter)
3. Media viewer
4. Media holder
5. Platen roller
6. Media holder lock switch
7. Black mark sensor/ Gap sensor (receiver)

2.3 LED and Button Function

This printer has one button and one three-color LED indicator. By indicating the LED with different color and pressing the button, printer can feed labels, pause the printing job, select and calibrate the media sensor, print printer self-test report, reset printer to defaults (initialization). Please refer to the button operation below and “Power-on Utilities” section for different functions.

2.3.1 LED Indication

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.

2.3.2 Regular Button Function

1. Feed labels

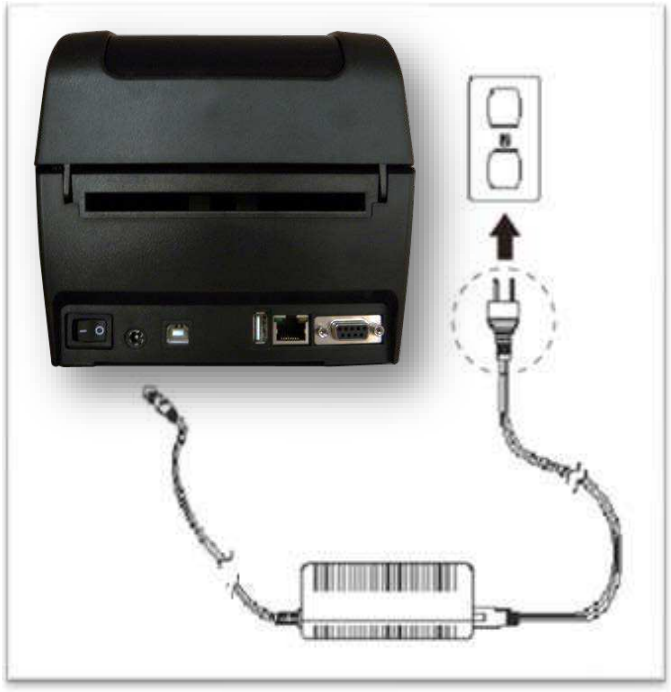
When the printer is at ready states (Green/ Solid), press the button to feed one label to the beginning of next.

2. Pause the printing job

When the printer is at printing states, press the button to pause a print job. When the printer is paused the LED will be green blinking. Press the button again to continue the printing job.

3. Setup

3.1 Setting up the Printer

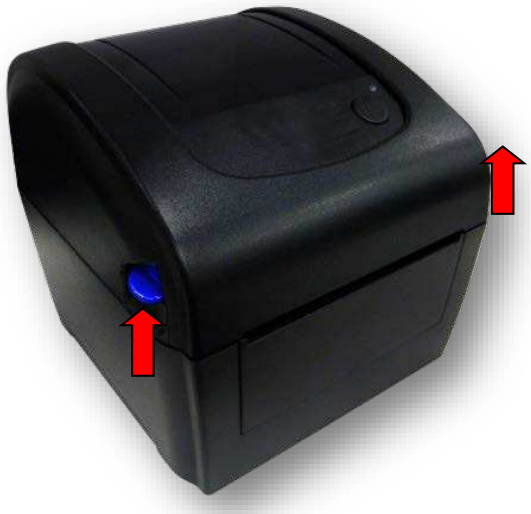
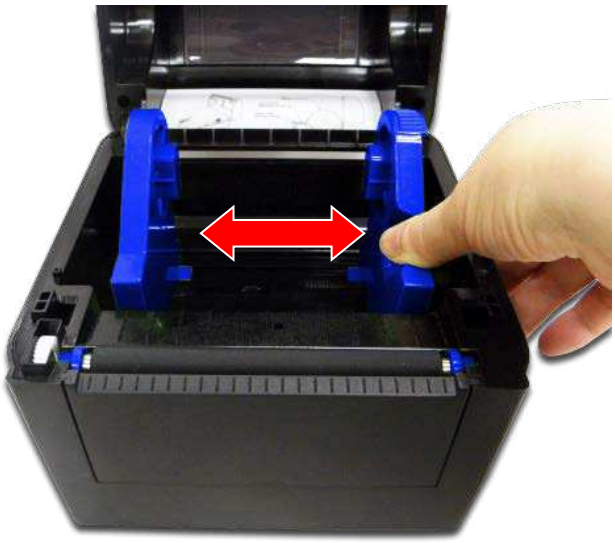


1. Place the printer on a flat, secure surface.
2. Make sure the power switch is off.
3. Connect the printer to the computer with the provided USB cable.
4. Plug the power cord into the AC power cord socket at the rear of the printer, and then plug the power cord into a properly grounded power outlet.

Note:
*** Please switch OFF (O) printer power switch prior to plug in the power cord to printer power jack.**

3.2 Loading the Media

3.2.1 Loading the Roll Labels

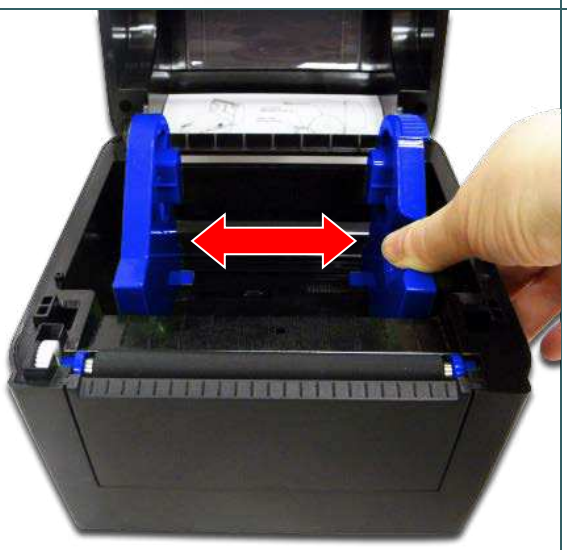
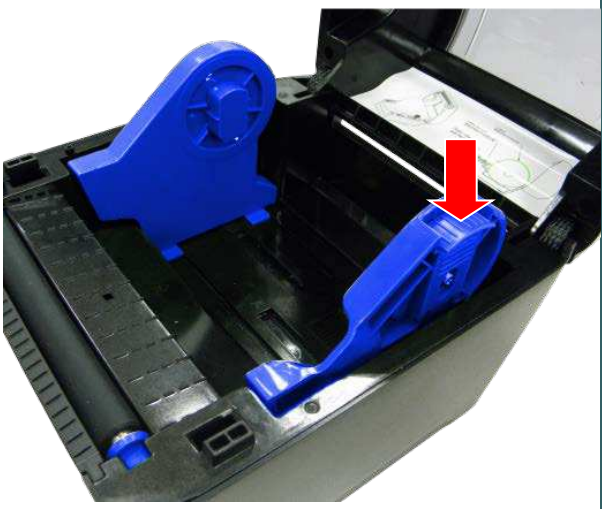
	1. Open the printer top cover by pressing up the top cover open tabs located on each side of the printer.
	2. Separate the media holders to the label roll width.
	3. Place the roll between the holders and close them onto the core.

4. Place the label leading edge onto the platen roller. (printing side face up)

5. Close the top cover gently and make sure the cover latches securely.
6. Use “Configuration Utility” to set the media sensor type and calibrate the selected sensor. (Start the “Configuration Utility” → Select the “Printer Configuration” tab → Click the “Calibrate Sensor” button)

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

3.2.2 Loading External Media

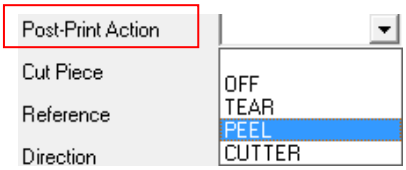
	1. Open the printer top cover by pressing up the top cover open tabs located on each side of the printer.
	2. Separate the media holders to the label width.
	3. Press down the media holder lock switch to fix the media holder.

4. Feed the media through the rear external label entrance chute. (printing side face up) Place the label leading edge onto the platen roller.
5. Close the top cover gently and make sure the cover latches securely.
6. Use “Configuration Utility” to set the media sensor type and calibrate the selected sensor. (Start the “Configuration Utility” → Select the “Printer Configuration” tab → Click the “Calibrate Sensor” button)

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

3.2.3 Loading Media in Peel-off Mode (Option)

1. Please refer to section 3.2.1 to load the media. Place the label leading edge onto the platen roller.
2. Close the top cover gently. Use “Configuration Utility” to set the media sensor type, calibrate the selected sensor and set the post-print action to “PEEL”.

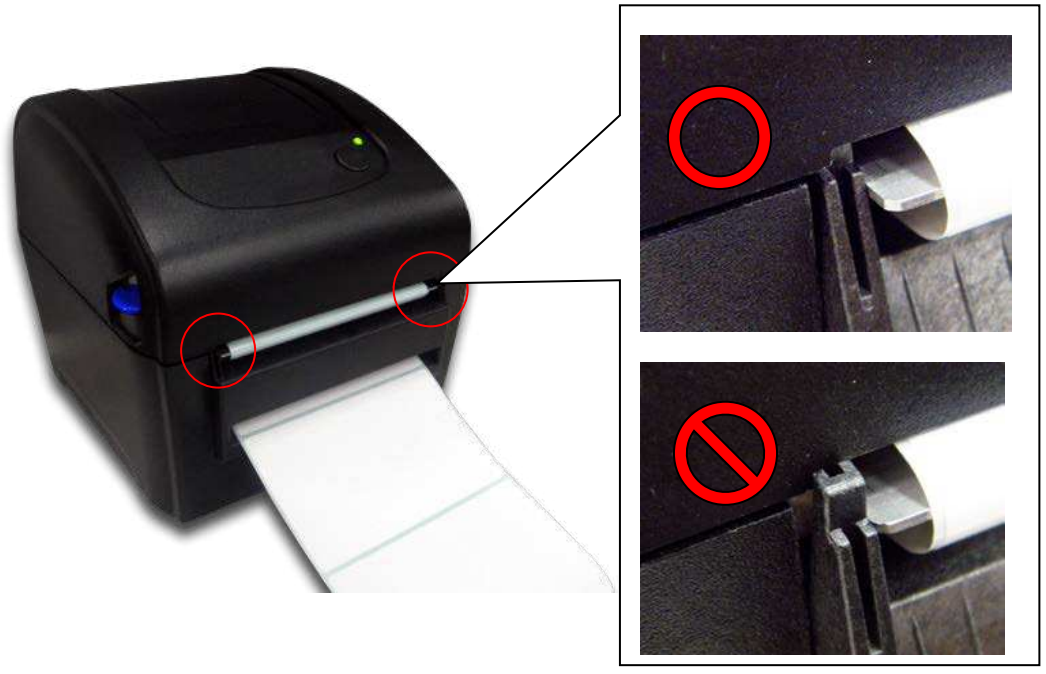


Note:
Please calibrate the sensor before loading media into the peel-off module for avoiding paper jam.

3. Open the top cover and peel-off cover. Feed the media into peel-off cover slot.

4. Close the peel-off cover and printer cover.

Note:
Make sure the latches of peel-off cover are engaged securely by printer cover.



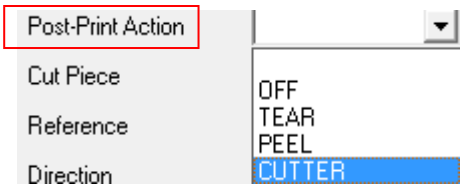
	5. Printer is ready for peel-off mode. Print a label for test.

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

3.2.4 Loading Media in Cutter Mode (Option)

1. Please refer to section 3.2.1 to load the media. Lead the paper through the cutter paper opening.

2. Close the top cover gently.
3. Use “Configuration Utility” to set the media sensor type, calibrate the selected sensor and set the post-print action to “CUTTER”.



4. 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***	Amber	Red (5 blinks)	Amber (5 blinks)	Green (5 blinks)	Green/Amber (5 blinks)	Red/Amber (5 blinks)	Solid green
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*

4.1 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 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 gap/black mark sensor sensitivity.
- The LED color will be changed as following order：

  Amber → **red (5 blinks)** → amber (5 blinks) → green (5 blinks) → green/amber (5 blinks) → red/amber (5 blinks) → solid green

Note:

1. **Sensor calibration can be done by Configuration Utility or by power on utility. Please refer to "Configuration Utility" section for more information.**
2. **Please select gap or black mark sensor type prior to calibrate the sensor.**

4.2 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.
  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.

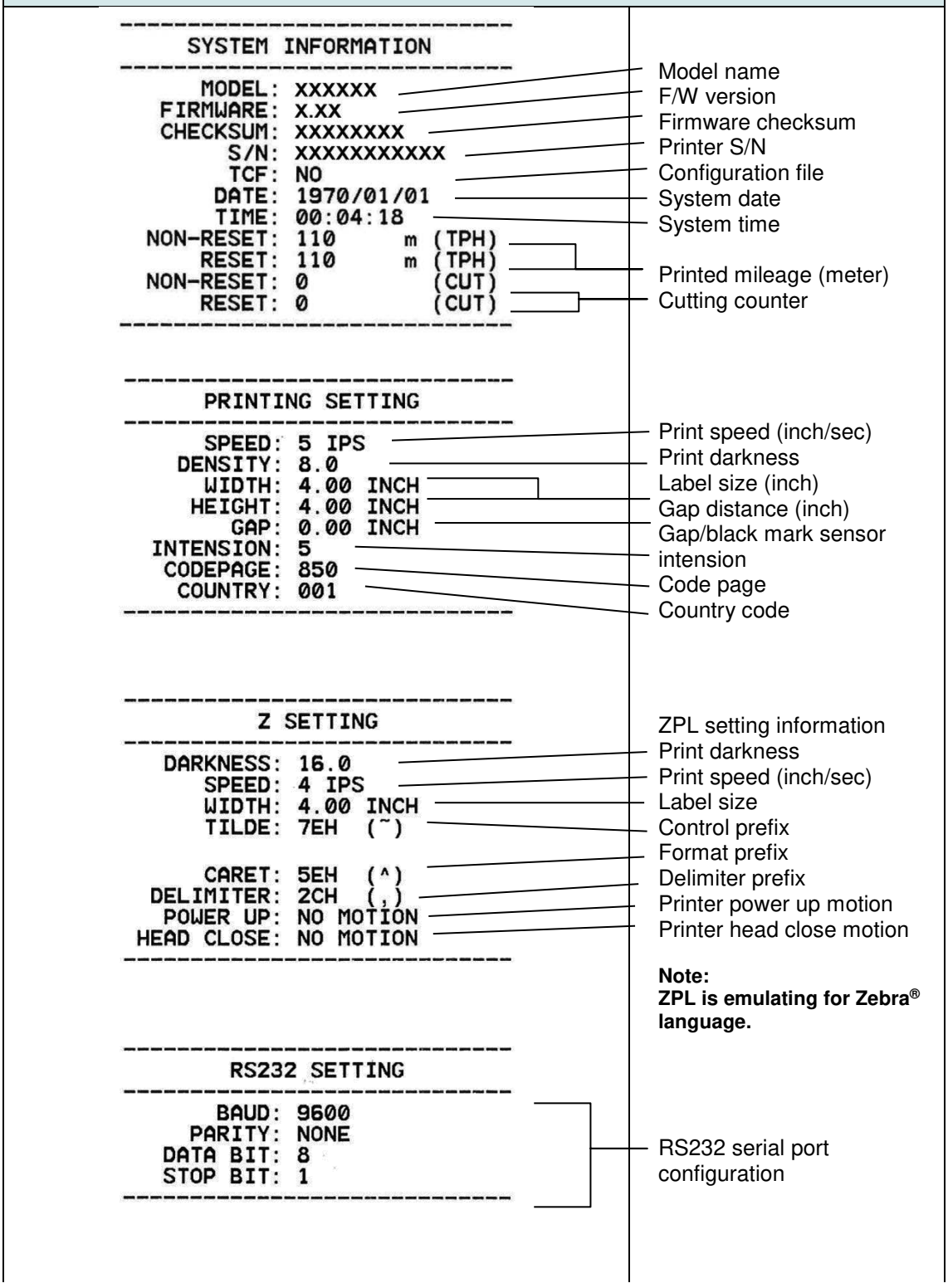
Note:

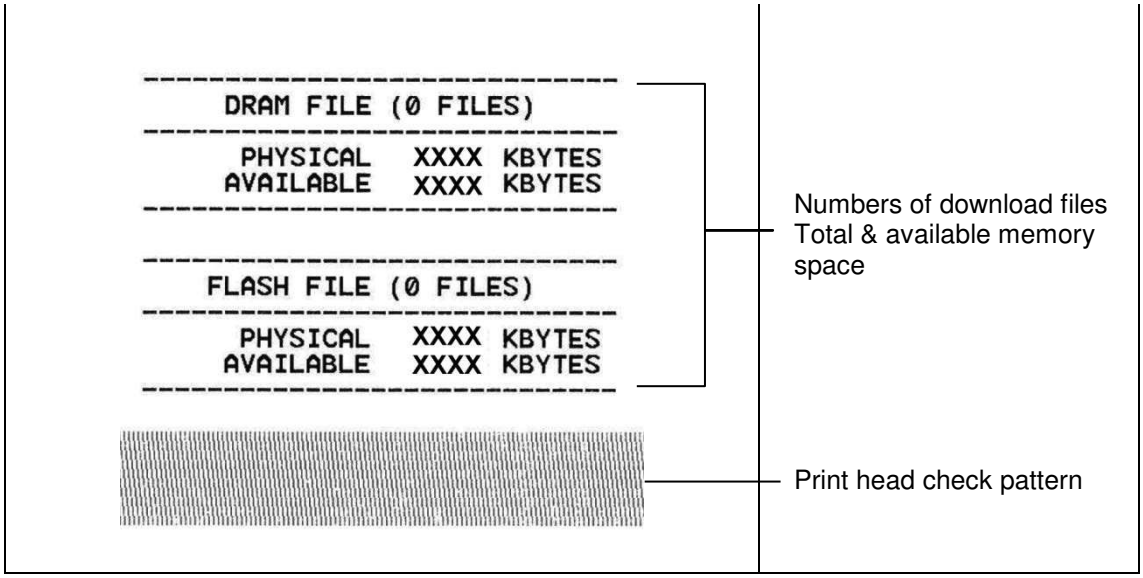
1. **Sensor calibration can be done by Configuration Utility or by power on utility. Please refer to "Configuration Utility" section for more information.**
2. **Please select gap or black mark sensor type prior to calibrate the sensor.**

4.2.1 Self-test

Printer will print the printer configuration after media 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




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

4.2.2 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 →

```
SPEED 2.0    53 50 45 45 44 20 32 2E 30 0D
 DENSITY 8   0A 44 45 4E 53 49 54 59 20 38
  SET PEEL   0D 0A 53 45 54 20 50 45 45 4C
 OFF  DIRE   20 4F 46 46 0D 0A 44 49 52 45
CTION 0  G   43 54 49 4F 4E 20 30 0D 0A 47
AP 3.00 mm   41 50 20 33 2E 30 30 20 6D 6D
,0.00 mm     2C 30 2E 30 30 20 6D 6D 0D 0A
REFERENCE    52 45 46 45 52 45 4E 43 45 20
0,0  SET C   30 2C 30 0D 0A 53 45 54 20 43
UTTER OFF    55 54 54 45 52 20 4F 46 46 0D
 SIZE 100.   0A 53 49 5A 45 20 31 30 30 2E
02 mm,65.0   30 32 20 6D 6D 2C 36 35 2E 30
4 mm  CLS    34 20 6D 6D 0D 0A 43 4C 53 0D
 BARCODE 1   0A 42 41 52 43 4F 44 45 20 31
44,149,"39   34 34 2C 31 34 39 2C 22 33 39
",120,1,0,   22 2C 31 32 30 2C 31 2C 30 2C
2,6,"57114   32 2C 36 2C 22 35 37 31 31 34
38T"  PRIN   33 38 54 22 0D 0A 50 52 49 4E
T 1,1  SPE   54 20 31 2C 31 0D 0A 53 50 45
ED 2.0  DE   45 44 20 32 2E 30 0D 0A 44 45
NSITY 8  S   4E 53 49 54 59 20 38 0D 0A 53

ET PEEL OF   45 54 20 50 45 45 4C 20 4F 46
F  DIRECTI   46 0D 0A 44 49 52 45 43 54 49
ON 0  GAP    4F 4E 20 30 0D 0A 47 41 50 20
3.00 mm,0.   33 2E 30 30 20 6D 6D 2C 30 2E
00 mm  REF   30 30 20 6D 6D 0D 0A 52 45 46
ERENCE 0,0   45 52 45 4E 43 45 20 30 2C 30
  SET CUTT   0D 0A 53 45 54 20 43 55 54 54
ER OFF  SI   45 52 20 4F 46 46 0D 0A 53 49
ZE 100.02    5A 45 20 31 30 30 2E 30 32 20
mm,65.04 m   6D 6D 2C 36 35 2E 30 34 20 6D
m  CLS  BA   6D 0D 0A 43 4C 53 0D 0A 42 41
RCODE 144,   52 43 4F 44 45 20 31 34 34 2C
149,"39",1   31 34 39 2C 22 33 39 22 2C 31
20,1,0,2,6   32 30 2C 31 2C 30 2C 32 2C 36
,"5711438T   2C 22 35 37 31 31 34 33 38 54
"  PRINT 1   22 0D 0A 50 52 49 4E 54 20 31
,1           2C 31 0D 0A
```

← Hex decimal data related to left column of ASCII data

Note:
1. Dump mode requires 4” wide paper width.
2. Turn off / on the power or press FEED button to resume printer for normal printing. (Ready mode)

4.3 Printer Initialization

Printer initialization is used to clear DRAM and restore printer settings to defaults.

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:

  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) (203DPI) 76.2 mm/sec (3 ips) (300 DPI)
Density	8
Media Width	4” (101.5 mm)
Media Height	4” (101.5 mm)
Sensor Type	Gap sensor
Print Direction	0
Reference Point	0,0 (upper left corner)
Gap Offset	0
Post-Print Action	Tear mode
Serial Port Settings	9600 bps, none parity, 8 data bits, 1 stop bit
Code Page	850
Country Code	001
Clear Flash Memory	No

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

4.4 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:
  Amber → red (5 blinks) → amber (5 blinks) → green (5 blinks) → **green**/**amber (5 blinks)** → red/amber (5 blinks) → solid green

4.5 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:
  Amber → red (5 blinks) → amber (5 blinks) → green (5 blinks) → green/amber (5 blinks) → **red**/**amber (5 blinks)** → solid green

4.6 Skip AUTO.BAS

TSPL 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 printer power.

2. Press the FEED button and then turn on power.

3. Release the FEED button when LED becomes **solid green**.

- 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**

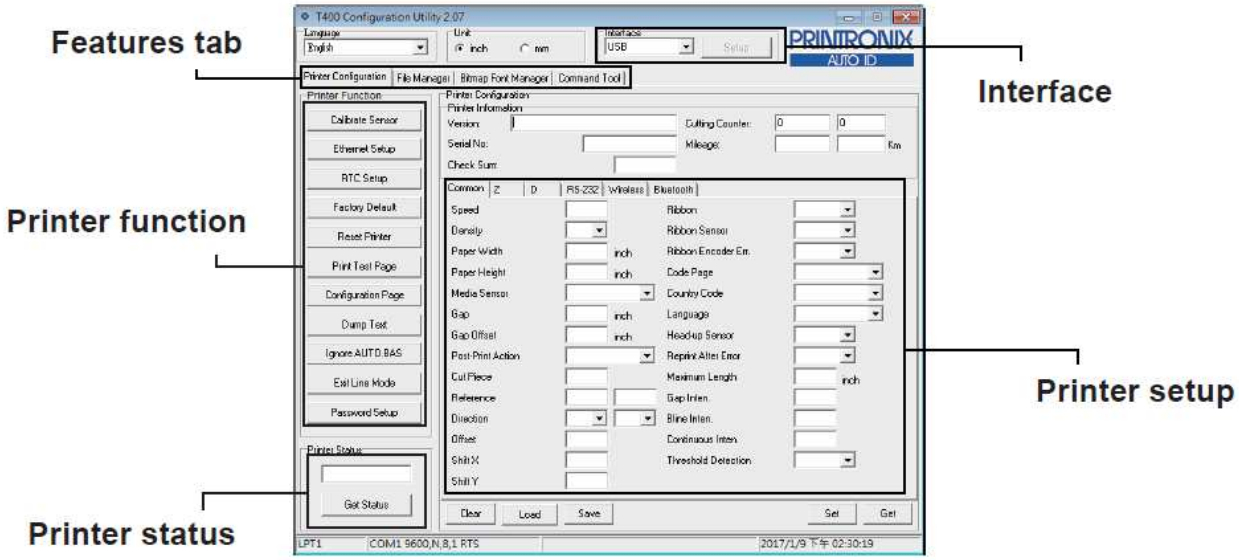
4. Printer will be interrupted to run the AUTO.BAS program.

5. Configuration Utility

Configuration Utility is an integrated tool incorporating features that enable you to explore a printer's settings/status; change a printer's settings; download graphics, fonts and firmware; create a printer bitmap font; and send additional commands to a printer. With the aid of this powerful tool, you can review printer status and setting in an instant, which makes it much easier to troubleshoot problems and other issues.

5.1 Start the Configuration Utility

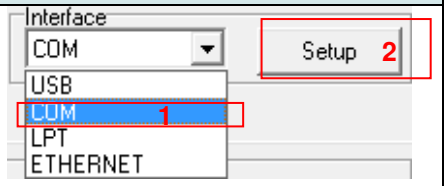
There are four features (Printer Configuration, File Manager, Bitmap Font Manager, Command Tool) included in the Configuration Utility.



1. Connect the printer and computer with a USB cable.
2. Double click on the Configuration Utility icon  to start the software.
3. Select the printer interface connected with printer.

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

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

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

5.3 Setting Ethernet by Configuration Utility

The Configuration Utility is enclosed in the CD disk \Config_Utility directory. Users can setup the Ethernet by using RS-232, USB and Ethernet interfaces. The following steps instruct users on configuring the Ethernet interface.

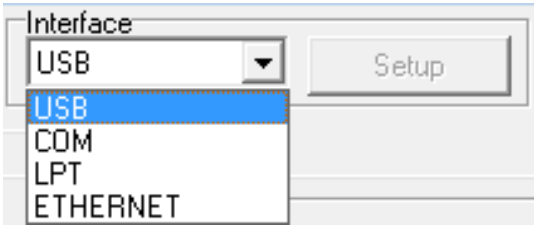
5.3.1 Using USB interface to setup Ethernet interface

(1) Connect the USB cable between the computer and the printer.

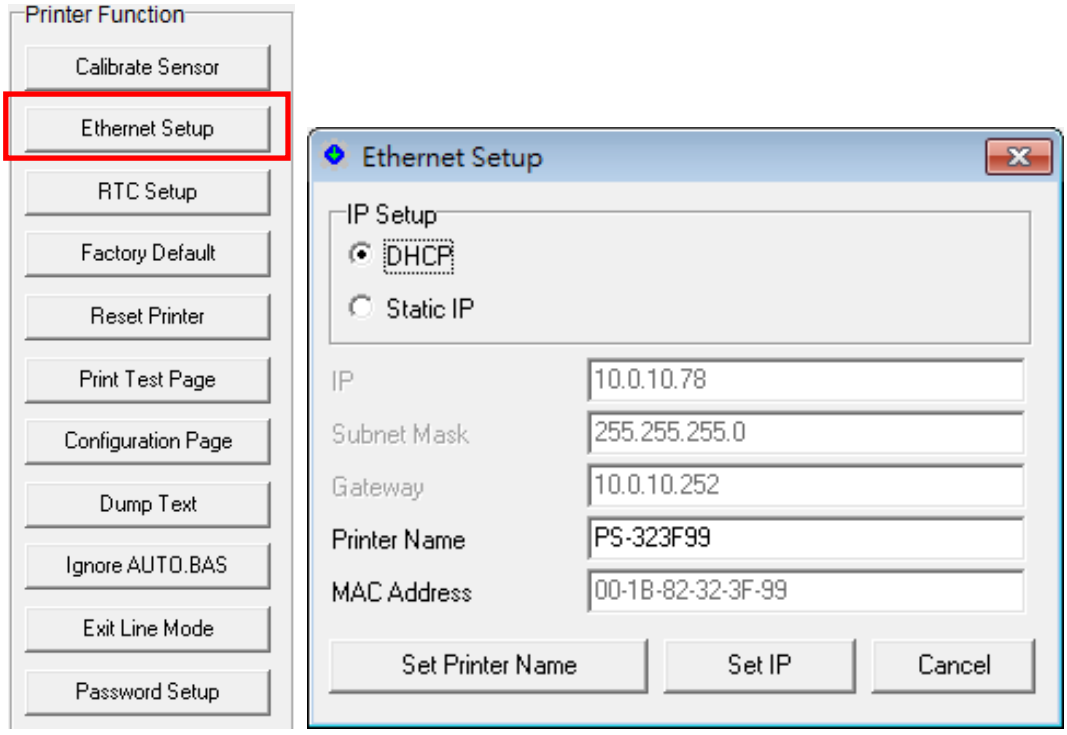
(2) Turn on the printer power.

(3) Start the Configuration Utility by double clicking on the  icon.

(4) The Configuration Utility is default to USB interface. If USB interface is already connected to the 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 printer Ethernet.



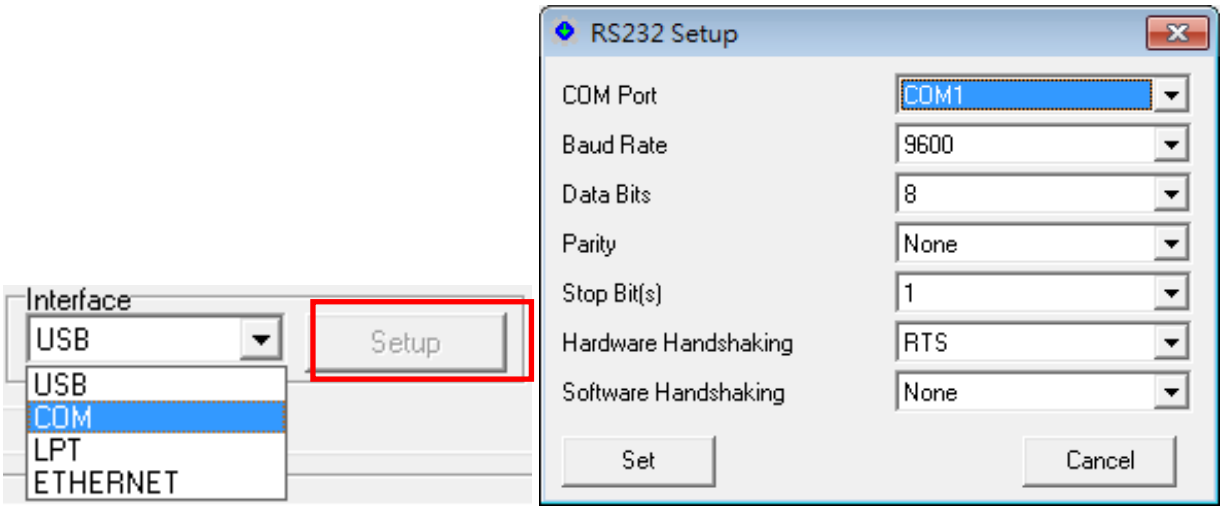
5.3.2 Using RS-232 interface to setup Ethernet interface

(1) Connect the computer and the printer with a RS-232 cable.

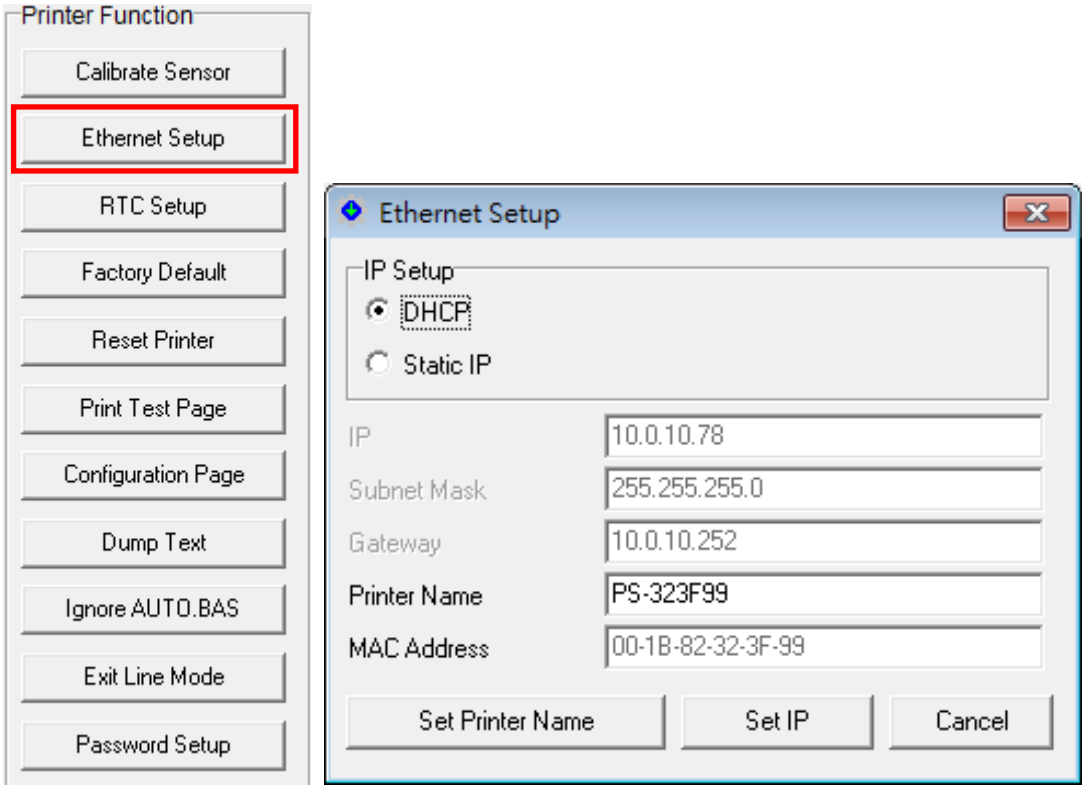
(2) Turn on the printer power.

(3) Start the Configuration Utility by double clicking on the  icon.

(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 printer Ethernet.



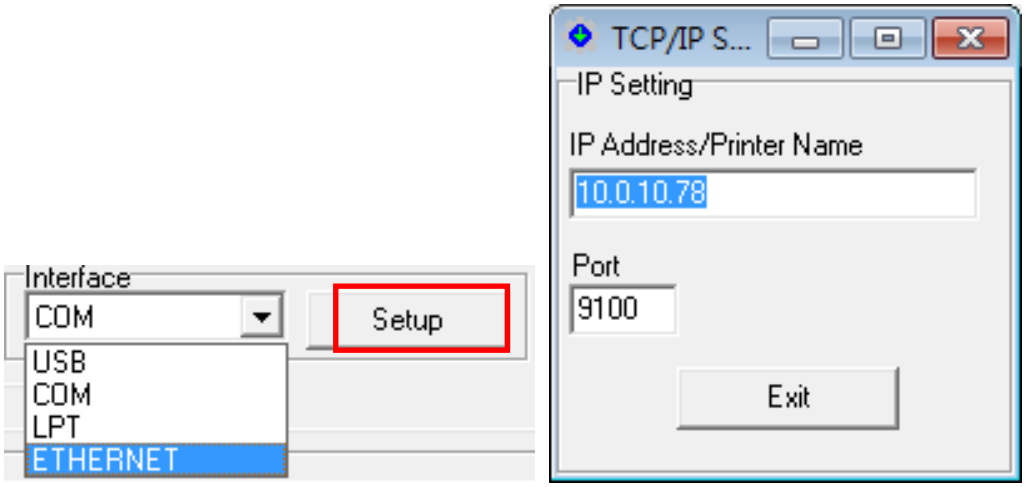
5.3.3 Using Ethernet interface to setup Ethernet interface

(1) Connect the computer and the printer to the LAN.

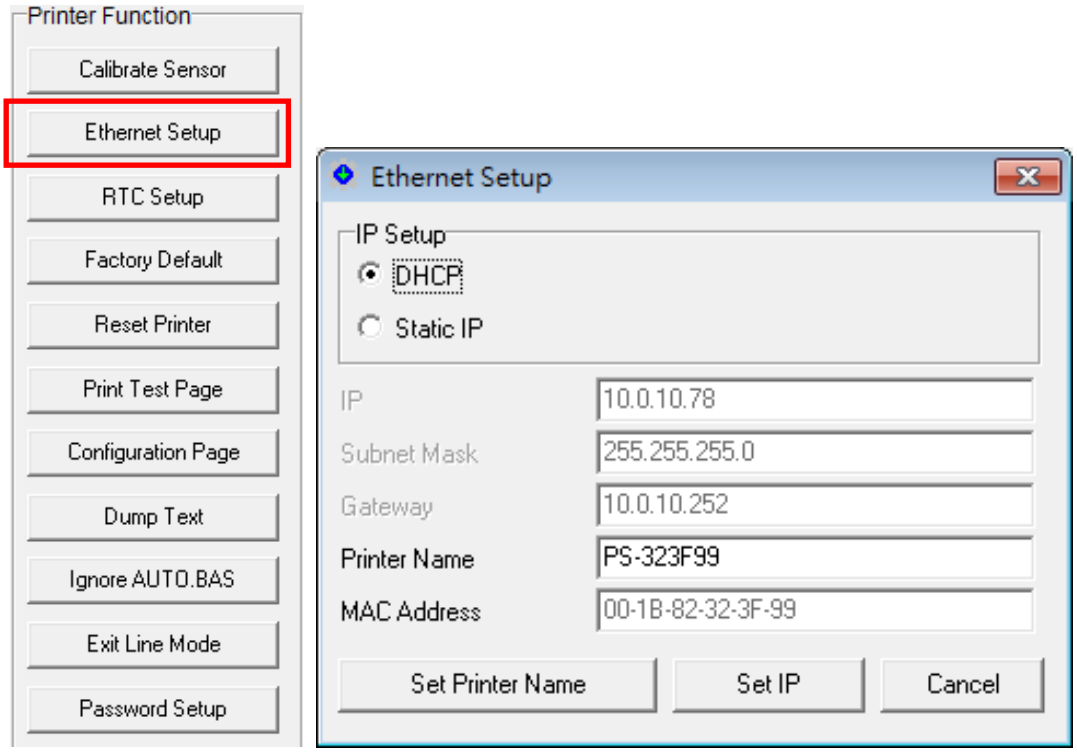
(2) Turn on the printer power.

(3) Start the Configuration Utility by double clicking on the  icon.

(4) Select “Ethernet” as the interface then click on the “Setup” button to setup the IP address and port for the current printer's Ethernet. Click “Exit” button to exit the Ethernet interface setup and go back to Configuration Utility main screen.



(5) Click on the “Ethernet Setup” button from printer function of Printer Configuration tab to configure the IP address to be either using DHCP or static.



A printer's IP address is assigned by DHCP server. 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" for the settings to take effect.

Users can also change the "Printer Name" by entering the new name in the box, then click "Set Printer Name" for the change to take effect.

Note: After clicking the "Set Printer Name" or "Set IP" button, printer will reset in order for the new setting to take effect.

6. Troubleshooting

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

6.1 LED Status

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 / 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 by instructions in “Power on Utility” or “Configuration Utility”.

Note:

Printer status can be easily shown on the Configuration Utility.

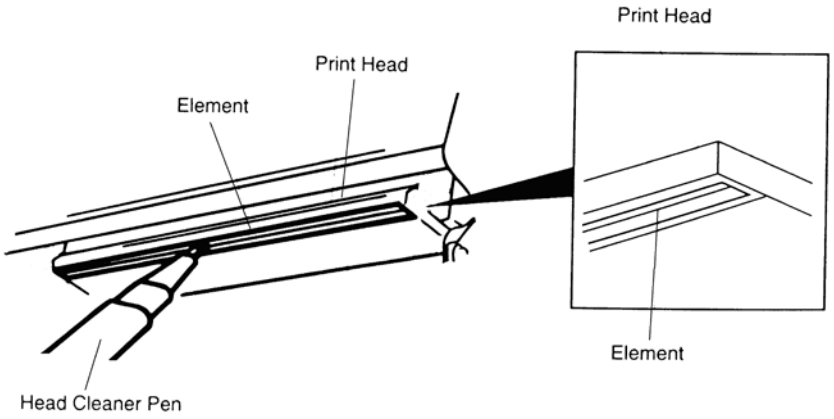
6.2 Print Problem

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 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
Print Head	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.
		
Platen Roller	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
Peel Bar	Use the lint-free cloth with 100% ethanol to wipe it.	As needed
Sensor	Compressed air or vacuum	Monthly
Exterior	Wipe it with water-dampened cloth	As needed
Interior	Brush or vacuum	As needed

Note:

- Do not touch printer head by hand. If you touch it accidently, 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.

Revision History

Date	Revision	Content
2017/1/9	B	Modify Config Utility from V2.04 to V2.07
2017/3/2	C	Revise Diagnostic Tool to Configuration Utility, careless to accidentally