Alpha-30L/ Alpha-40L Series

**DIRECT THERMAL
BAR CODE PRINTER**

USER'S MANUAL

Copyright Information

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Agency Compliance and Approvals

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

CE	EN 55032, Class B EN 55024 EN 55035 EN 62368-1
FC	FCC part 15B, Class B ICES-003, Class B This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: -Reorient or relocate the receiving antenna. -Increase the separation between the equipment and receiver. -Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. -Consult the dealer or an experienced radio/ TV technician for help. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. **This Class B digital apparatus complies with Canadian ICES-003** Cet appareil numérique de la classe B est conforme à la norme NMB-**003 du Canada**
(RCM mark)	AS/NZS CISPR 32, Class B
CCC	GB 4943.1 GB/T9254 GB 17625.1
(BIS mark)	IS 13252(Part 1)/ IEC 60950-1
EAC	TP TC 004 TP TC 020

Important safety instructions:

1. Read all of these instructions and keep them for later use.

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

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

CAUTION:
Risk of explosion if battery is replaced by an incorrect type.
Dispose of used batteries according to the Instructions as below.
1. DO NOT throw the battery in fire.
2. DO NOT short circuit the contacts.
3. DO NOT disassemble the battery.
4. DO NOT throw the battery in municipal waste.
5. The symbol of the crossed out wheeled bin indicates that the battery should not be placed in municipal waste.

电池安全警告：

◎ 勿将电池扔于火中。

◎ 勿将电池接点短路。

◎ 不可拆解电池。

◎ 不乱将电池当成一般废弃物处理。

◎ 打叉的垃圾桶符号表示电池不应该被放置到一般废弃堆中。

注意:

◎ 更换不正确型号类型的电池, 将产生爆炸危险。

◎ 请根据使用说明处理用过的电池。

鋰電安全使用指南:

注意：電池若未正確更換，可能會爆炸。請用原廠建議之同款或同等級的電池來更換。

請依原廠指示處理廢棄電池。

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

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

CE Statement:

This equipment complies with EU radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

All operational modes:
2.4GHz: 802.11b, 802.11g, 802.11n (HT20), 802.11n (HT40)
5GHz: 802.11a,

The frequency, mode and the maximum transmitted power in EU are listed below:
2400 MHz – 2483.5 MHz: 19.88 dBm (EIRP)
5150 MHz – 5250 MHz: 17.51 dBm (EIRP)

5150-5350MHz for Only indoor use
5470-5725MHz for indoor/outdoor use

Restrictions In AZE
National restrictions information is provided below

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

Hereby, TSC Auto ID Technology Co., Ltd. declares that the radio equipment type [Wi-Fi] IEEE 802.11 a/b/g/n is in compliance with Directive 2014/53/EU
The full text of the EU declaration of conformity is available at the following internet address: http://www.tscprinters.com

RF exposure warning (Wi-Fi)

This equipment must be installed and operated in accordance with provided instructions and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be providing with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.
SAR Value: 0.736 W/kg

RF exposure warning (For Bluetooth)

The equipment complies with FCC RF exposure limits set forth for an uncontrolled environment.
The equipment must not be co-located or operating in conjunction with any other antenna or transmitter.

Canada, Industry Canada (IC) Notices

This Class B digital apparatus complies with Canadian ICES-003 and RSS-210.
Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Radio Frequency (RF) Exposure Information

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

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

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

Canada, avis de l'Industry Canada (IC)

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

Informations concernant l'exposition aux fréquences radio (RF)

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

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

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

NCC 警語:

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

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

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

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

備考 1.〝超出 0.1 wt %〞及〝超出 0.01 wt %〞係指限用物質之百分比含量超出百分比含量基準值。
Note 1："Exceeding 0.1 wt %" and "exceeding 0.01 wt %" indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.

備考 2.〝○〞係指該項限用物質之百分比含量未超出百分比含量基準值。
Note 2："○" indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.

備考 3.〝-〞係指該項限用物質為排除項目。
Note 3：The "-" indicates that the restricted substance corresponds to the exemption.

1. Introduction

1.1 Product Introduction

Thank you very much for purchasing TSC bar code printer.

Enjoy TSC's reputation for cost-efficient, high durability printers with the Alpha-30L/ Alpha-40L economical receipt printer. The Alpha series is a comfortable, light-weight printer capable of working with any mobile receipt printing application where you need quick, simple receipts on demand. Our Alpha series is designed for a rough life, inside the IP54-rated environmental case to resist dust and water and with its rubber over-mold design prepared to take up to a 1.8 meter fall and keep printing. These small and light printers can be worn comfortably for a full shift, without interfering with the user's tasks. Use Type C USB, Bluetooth or Wireless to connect to a mobile computer or even a smart phone and produce clear easy-to-read receipts hour after hour.

This document provides an easy reference for operating the Alpha-30L series. To print label formats, please refer to the instructions provided with your labeling software; if you need to write the custom programs, please refer to the TSPL/TSPL2 programming manual that can be found on TSC website at http://www.tscprinters.com.

1.2 Product Features

Model Item	Alpha-30L	Alpha-40L
Resolution	203 dpi, 8dots/mm	
Printing method	Direct thermal	
Max. print speed	5 ips	
Max. print width	72 mm	104 mm
Max. print length	2,794 mm (110")	
Enclosure	Plastic with rubber over molded	
Physical dimension (W x H x D)	117 mm x 173 mm x 79 mm	160 mm x 191mm x 79 mm
Weight	745g w/ battery, w/o media	985g w/ battery, w/o media
Drop specification	1.8 m (6 ft), 2.5 m (8.2 ft) with IP54-rated protective case	
Label roll capacity	67 mm OD	
Processor	32-bit RISC CPU	
Memory	▪ Standard: 128 MB SDRAM, 128 MB Flash, microSD card reader for Flash memory expansion, up to 32 GB ▪ Factory Option: 256 MB SDRAM, 512 MB Flash	
Power	7.4V DC, 3,030 mAh Li-ion rechargeable smart battery	7.4V DC, 6,200 mAh Li-ion rechargeable smart battery
Interface	Either one selected ▪ Type C USB 2.0 + MFi Bluetooth 5.0 + Passive NFC tag ▪ Type C USB 2.0 + 802.11 a/b/g/n/ac Wi-Fi with Bluetooth 4.2 + Passive NFC tag ＊ Type C is for communication only.	
Operation button	7 buttons (Power, Feed/Enter, Menu, Navigation keys)	
User interface	▪ 2 LED indicators (Battery charging status, Printer status) ▪ 2.3 " Color LCD display, 320 x 240 pixels	
Sensors	▪ Black mark reflective sensor ▪ Transmissive gap sensor ▪ Peel sensor ▪ Head open sensor	
Real time clock	Standard	
Internal font	▪ 8 alpha-numeric bitmap fonts ▪ Monotype Imaging® true type font engine with one CG Triumvirate Bold Condensed scalable font	
Bar code	▪ 1D bar code: Code128UCC, Code128 subsets A、B、C, EAN128, Interleaved 2 of 5, Interleaved 2 of 5 with check digit, Standard 2 of 5, Industrial 2 of 5, Code39, Code39 with check digit, Code93, EAN13, EAN8, UPCA, UPCE, EAN and UPC 2 (5) digits add-on, Codabar, Postnet, MSI, MSI with check digit, PLESSEY, China post, ITF14, EAN14, Code11, TELEPEN, TELEPEN number, PLANET, Code49, Deutsche Post Identcode, Deutsche Post Leitcode, LOGMARS ▪ 2D bar code: CODABLOCK F mode, GS1 DataBar, GS1 DataMatrix, Maxicode, AZTEC, PDF417, QR Code, Micro PDF417, TLC39	
Printer language	TSPL-EZC (EPL2, ZPL2, CPCL), or ESC-POS	

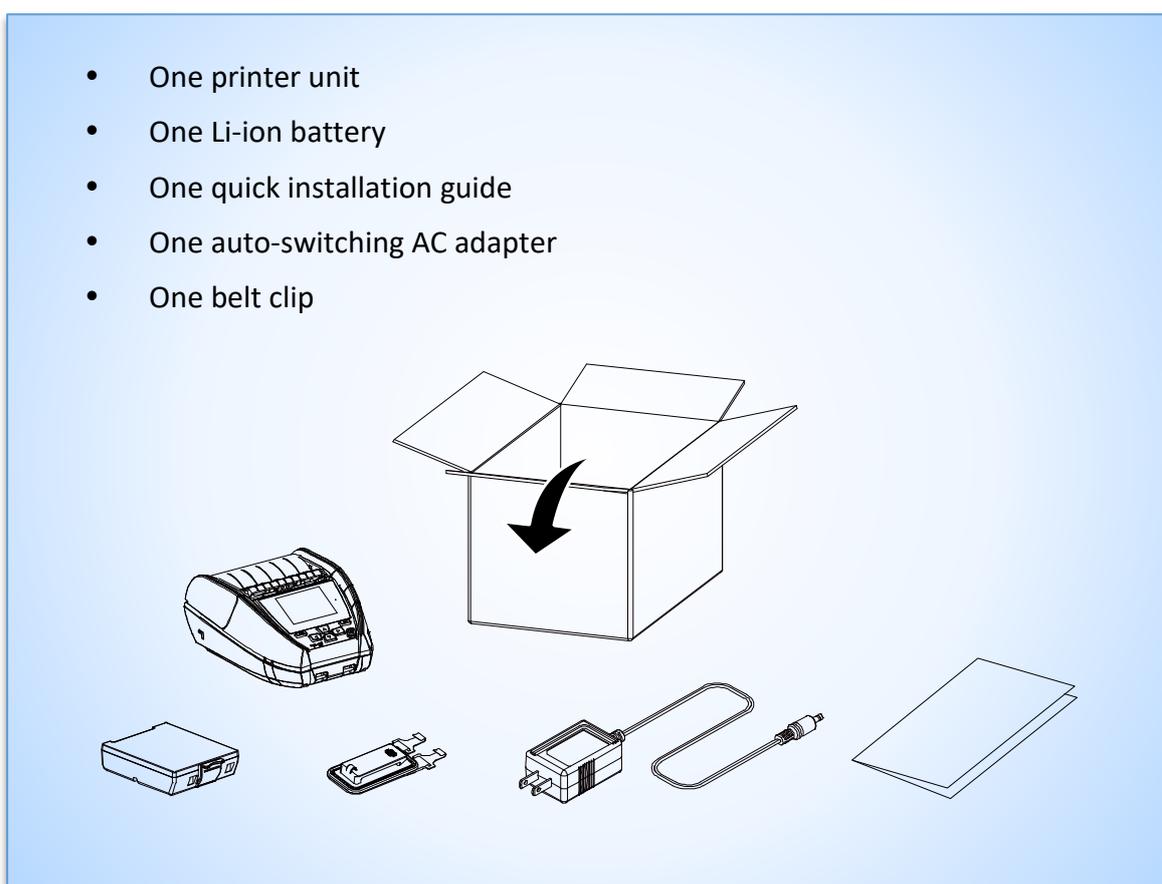| Media type	Die cut, black mark, receipt, fan-fold, linerless, continuous (outside wound)	
Media thickness	0.06 ~ 0.16 mm	
Media width	25.4 ~80 mm with liner	50.8~112mm with liner
Media core diameter	▪ 12.7 mm (0.5"), standard ▪ 19.1 mm (0.75"), with 0.75" ID adaptor	
Label length	▪ 12.7 ~ 2,794 mm (0.5" ~ 110") ▪ 25.4 ~ 152.4 mm (1" ~ 6") for peeler mode	
Environment condition	▪ Operation: -20 ~ 50˚C (-4 ~ 122˚F), 10~90% non-condensing ▪ Storage: -30 ~ 70˚C (-22 ~ 158˚F), 10~90% non-condensing ▪ Charging: 0 ~40˚C (32~ 104˚F), 10~90% non-condensing	
Factory option	▪ Media sensor position (default center, right, or left side) ▪ Linerless kit	
User option	▪ Type C USB 2.0 cable ▪ Protective case with shoulder strap ▪ Shoulder strap ▪ Li-ion smart battery ▪ 1-slot docking cradle ▪ 4-slot docking cradle ▪ 1-slot battery charger	▪ 4-slot battery charger ▪ 12-24VDC vehicle power adaptor ▪ 12-60VDC vehicle power adaptor ▪ 12-48VDC power source with battery eliminator ▪ Vehicle mount adapter can be used with RAM® MOUNTS

1.3 Battery Information

Model	Capacity	Cycle life	Warning conditions	Charging hours	Working hours
Alpha-30L	3030 mAh	500 times	GOOD: Discharged count <= 550 or absolute battery capacity >= 70%. REPLACE: 550 < Discharged count <= 600 or 67% =< absolute battery capacity < 70%. UNUSABLE: 600 < Discharged count or absolute battery capacity < 67%.	3.5~5 hrs	23.5 hrs - 12.5% printing ratio - 1 label per two minutes - Bluetooth
Alpha-40L	6200 mAh	500 times		4.5 ~ 6.5 hrs	45 hrs - 12.5% printing ratio - 1 label per two minutes - Bluetooth

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.

- One printer unit
- One Li-ion battery
- One quick installation guide
- One auto-switching AC adapter
- One belt clip

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

Note:
Check the production date
Serial NO.: XXX 17 22 XXXX

| YEAR | WEEK |
| Год | Неделю |

2.2 Printer Overview

2.2.1 Front View
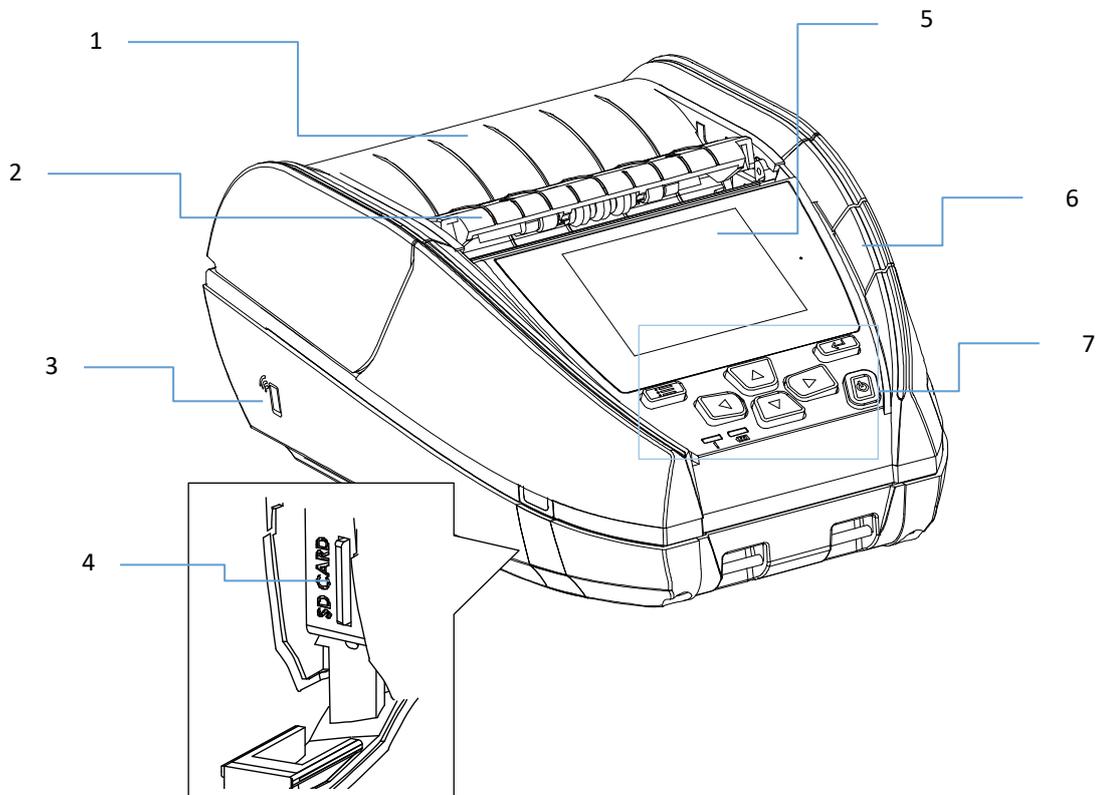
1. Media cover
2. Peeler module
3. NFC touch point
4. MicroSD card socket
5. LCD screen
6. Media cover release button
7. Buttons / LED indicators
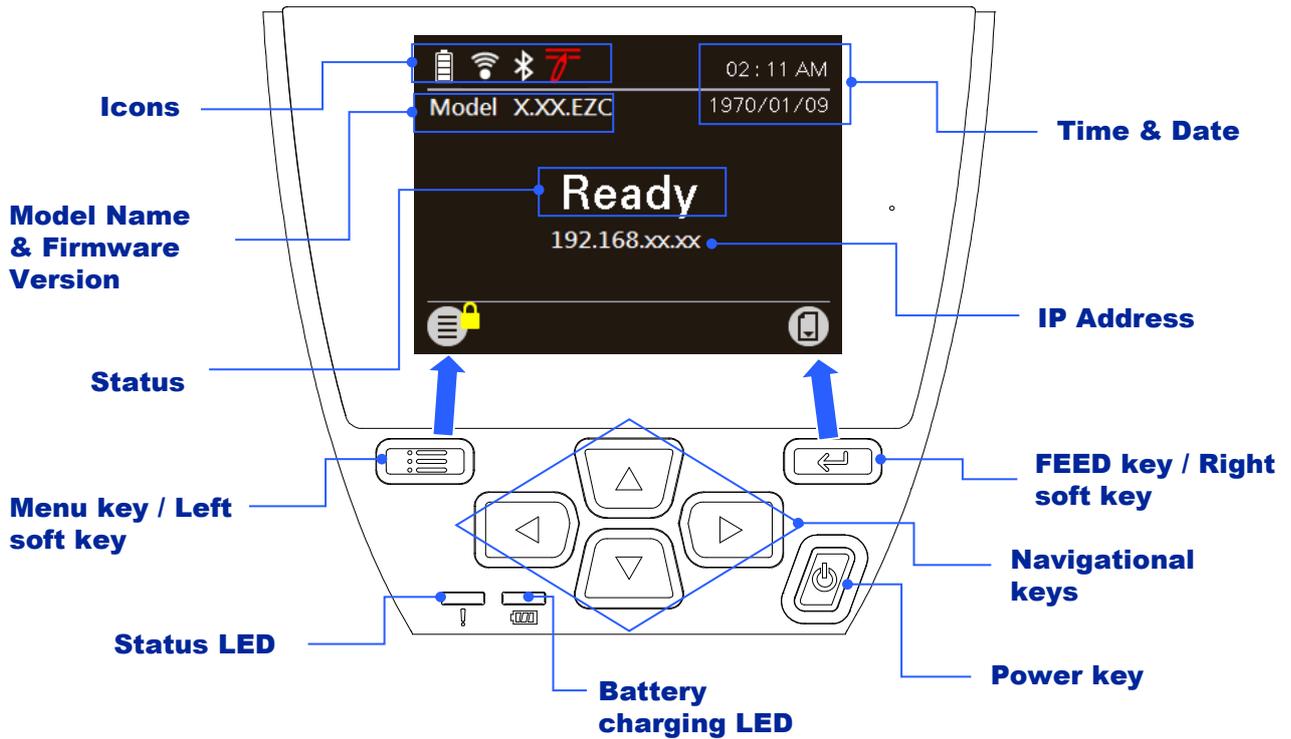
2.2.2 Interior View
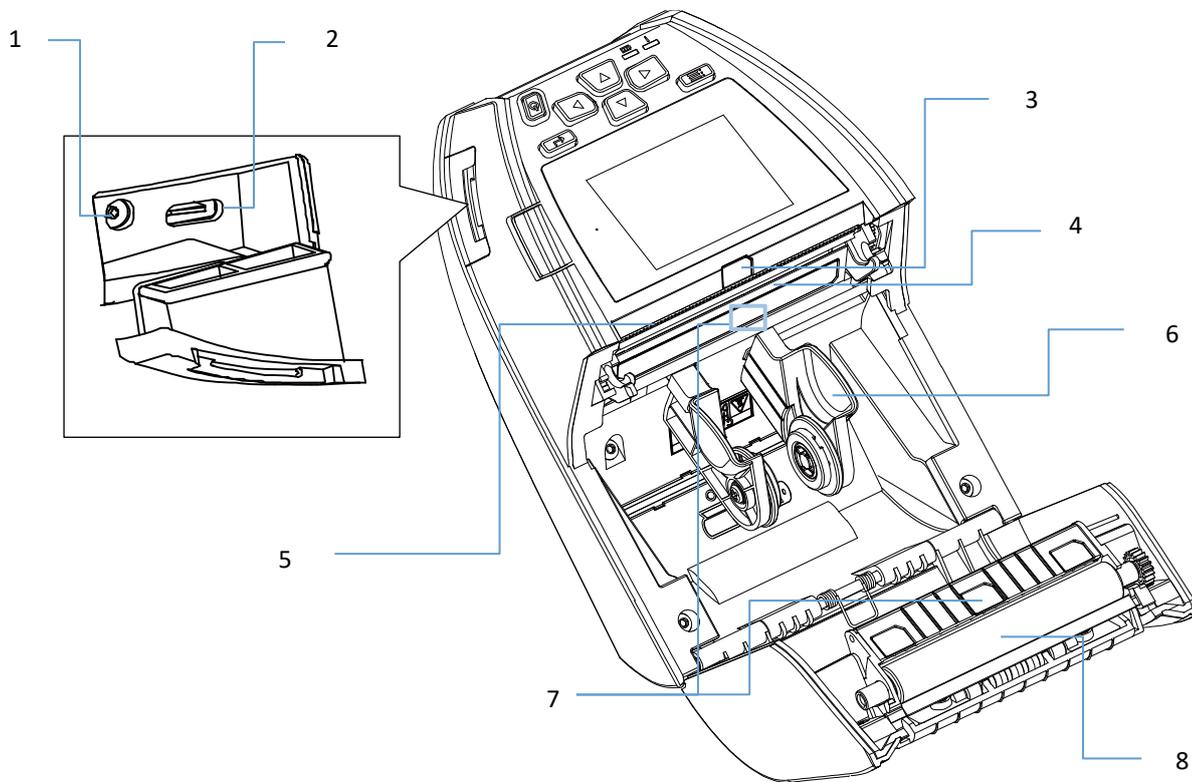
1. Power jack
2. Type C interface
3. Peeler sensor
4. Print head
5. Tear bar
6. Media holder
7. Gap/Black mark sensors
8. Platen roller

2.2.3 Rear View
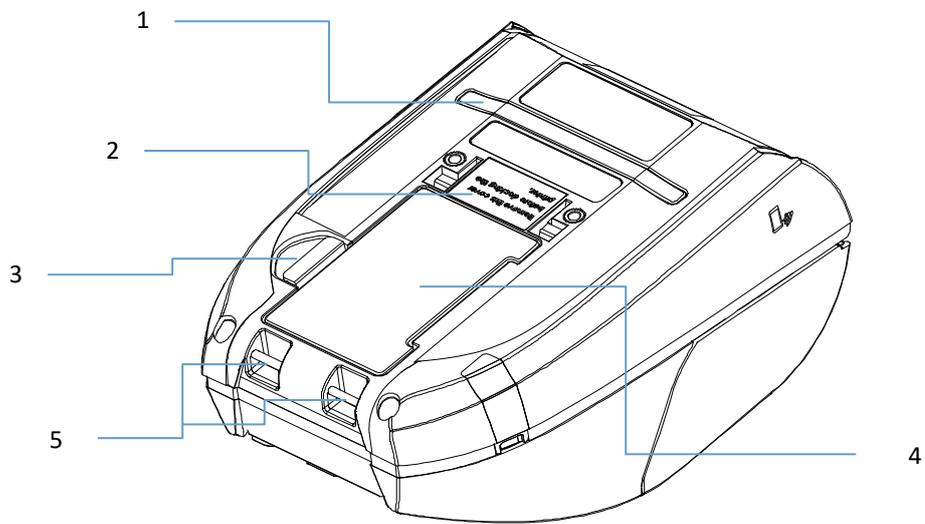
1. External label entrance chute

2. Charging position for docking cradle

3. Battery open clasp

4. Li-ion battery

5. Installation location for belt clip

2.3 Controls and Indicators

Icons

Model Name & Firmware Version

Status

Menu key / Left soft key

Status LED

Battery charging LED

Time & Date

IP Address

FEED key / Right soft key

Navigational keys

Power key

2.3.1 Status LED indication

	LED Color / Status	Indication
	Off	▪ Printer is ready to use
	Green/ Blinking	▪ Printer is paused ▪ Printer is downloading data from PC to memory
	Amber/ Solid	▪ Printer is clearing data ▪ Printer is busy
	Red / Solid	▪ Media cover is open ▪ Memory error (out of memory)
	Red / Blinking	▪ No paper ▪ Paper jam ▪ Printing error

2.3.2 Battery charging LED indication

	LED Color / Status	Indication
	Off	▪ Charging is complete
	Amber/ Solid	▪ Charging is in progress
	Amber/ Blinking	▪ Battery temperature is too hot or too cold ▪ Battery overvoltage ▪ Charge timeout ▪ Battery absent

2.3.3 Keys

Keys		Function
	Menu key (Ready status)	Enter the LCD menu list.
	Left soft key (Menu status)	The label on the left footer of the UI will explain the function for left soft key. Check the label on the footer of the UI screen. The meaning of the select keys will vary.
	Feed key (Ready status)	Feed one label.
	Pause key (Printing status)	Pause the print job.
	Right soft key (Menu status)	The label on the right footer of the UI will explain the function for right soft key. Check the label on the footer of the UI screen. The meaning of the select keys will vary.
	Power-on key	Press and hold for 2-3 seconds to turn on the printer. Press and hold for 2-3 seconds to turn off the printer.
	Navigational keys	Used to select items, menu selection, and navigation in the UI.
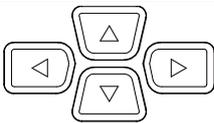
2.3.4 LCD control panel icon indication

Icons	Indication
	1/4 charging level: 0~25% 2/4 charging level: 25~50% 3/4 charging level: 50~75% 4/4 charging level: 75~100%
	Wi-Fi device is ready
	Bluetooth device is ready
	Print head cleaning notice
Button	**Indication**
	Enter the menu list (the Menu is locked and a password is required.)
	Feed button (advance one label)
	Back button
	Enter cursor (be marked in green) located option
	Scroll down button
	Scroll up button

3. Setup

Alpha-30L and Alpha-40L operate in the same way, this manual uses Alpha-30L as an example.

3.1 Installing the Battery
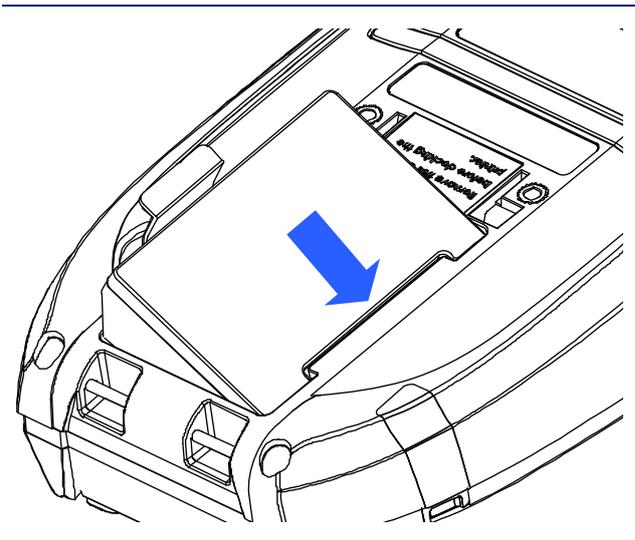
	1. Insert the right side to install the battery at the rear of the printer.
	2. Push the left side of the battery.
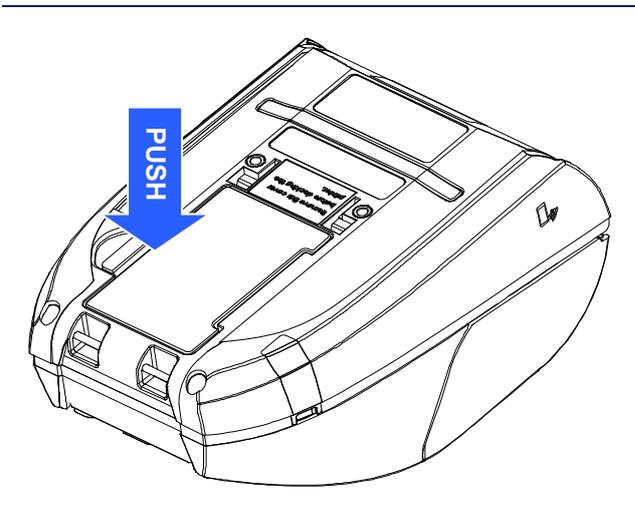
Battery safety warning:
DO NOT throw the battery in fire. DO NOT short circuit the contacts.
DO NOT disassemble the battery. DO NOT throw the battery in municipal waste.
The symbol of the crossed out wheeled bin indicates that the battery should not be placed in municipal waste.

3.2 Charging the Smart Battery

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<u>**Smart Battery Charging Mode and Operation Instructions**</u>

In order to battery storage safety and increase battery storage time, the battery will be in shutdown mode for storage and shipping. The smart battery is charged for the first time, it needs to unlock this shutdown mode.

- **For charging via printer:**

  No steps are required.

- **For 1-bay or 4-bay battery charger charging:**

  The LED indicator on the charger will flash red when the battery is charged for the first time. Please remove the smart battery and reinstall it to unlock this shutdown mode.

Charging Temperature

The battery normal working condition is from 0°C to 40°C (32 °F to 104 °F). The device or battery charger always perform battery charging in a safe and optimummanner. At higher temperatures (e.g. approximately +40 °C (+104 °F) or charging when turning on the printers), the printer or battery charger may stop charging for a period of time to keep the battery at acceptable temperatures.

3.2.1 Charging the Battery
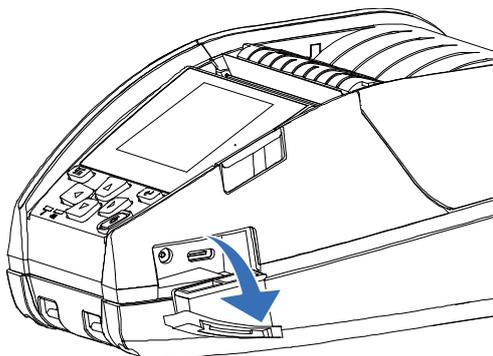
	1. Open the interface cover.

2. Plug the power cord to the power jack and plug the power cord into a properly power outlet.
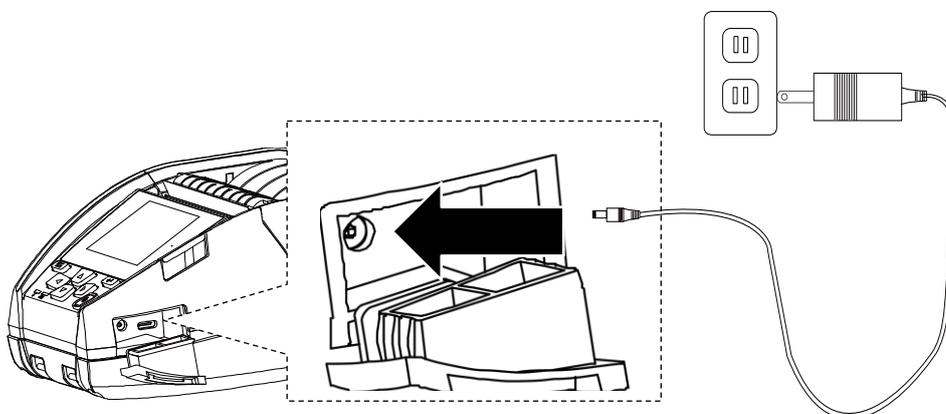
3. When charging, the battery status LED indicator on the printer turns solid amber. After fully charged, the printer LED indicator turns off. It will stop charging automatically after the battery is fully charged.

> **Note:**
> **Please switch OFF printer power prior to plug in the power cord to printer power jack.**
> **When the battery is charging, please do not remove the battery from the printer, otherwise, please re-plug the power cord into a power outlet.**

3.2.2 Charging the Battery by 1-bay/4-bay Battery Charger (Optional)

1. Plug the power adapter of the charger into a properly grounded outlet and plug the charger connector to a battery charger DC socket.
2. Push the battery down and locked by the latch as shown below.

The battery for 3" printer:
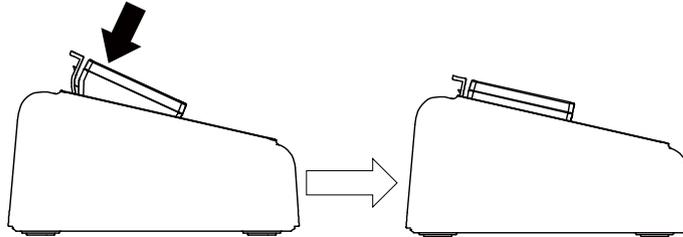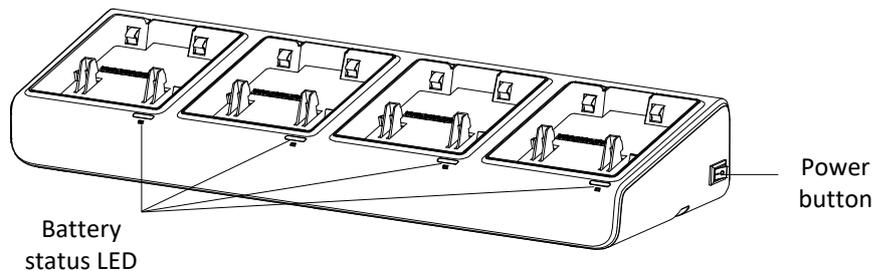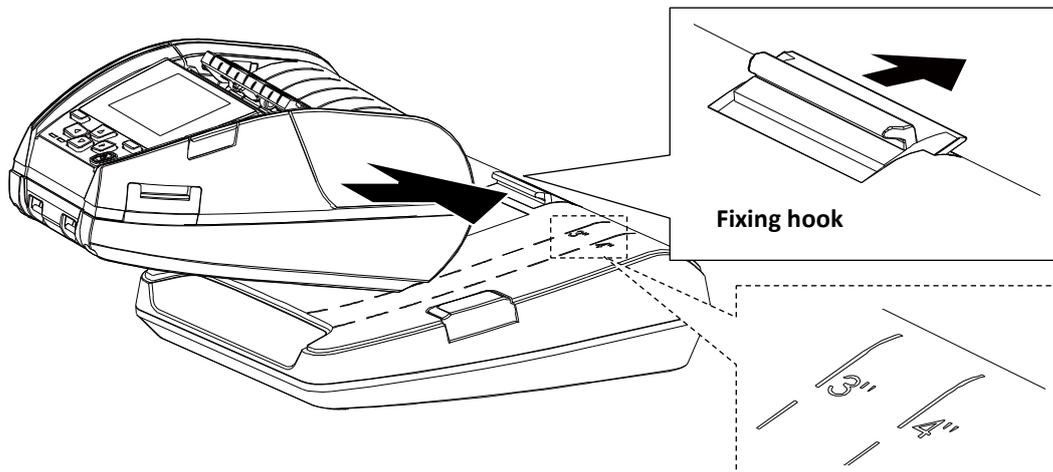
The battery for 4" printer
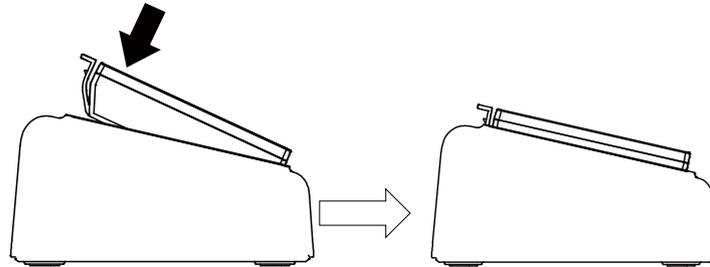
3. For 4-bay battery charger, turn on the power button of charger. It will start charging.
4. When charging, the status LED turns solid amber. When fully charged, the battery status LED turns off. It will stop charging automatically after the battery is fully charged.

1-bay battery charger

Battery status LED

Socket for adapter

4-bay battery charger

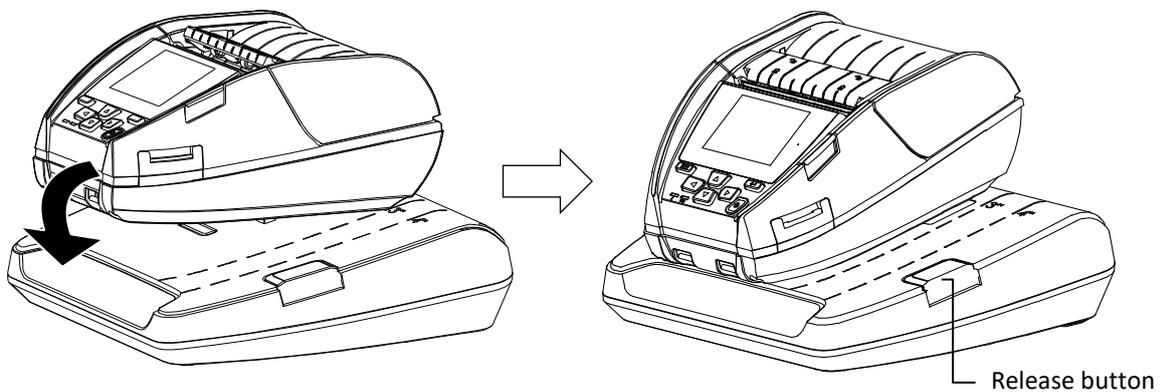Power button

Battery status LED
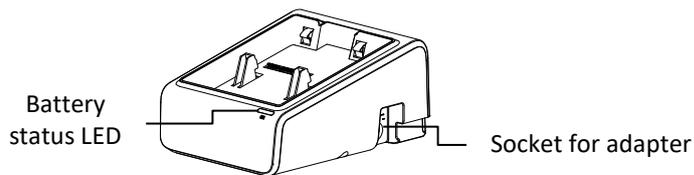
3.2.3 Charging the Battery by 1-bay Printer Charger (Optional)

1. Plug the power adapter of the charger into a properly grounded outlet and plug the charger connector to a charger DC socket.
2. Push up the fixing hook with the correct angle and direction along the corresponding printer inch mark.
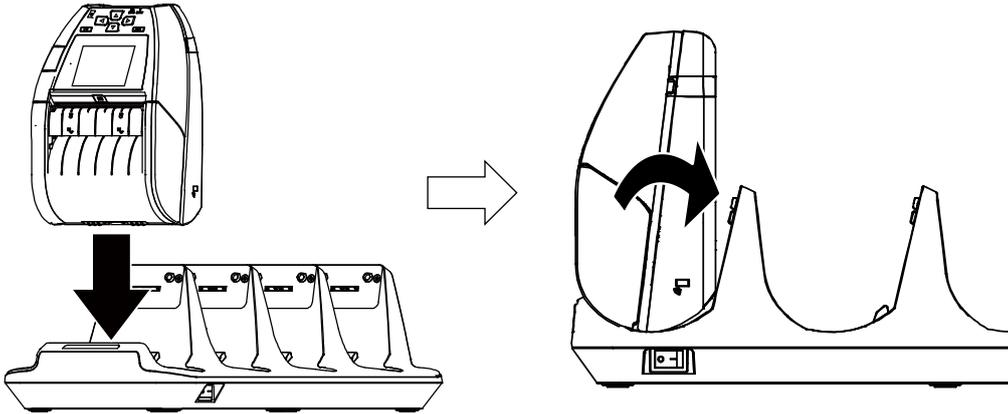

Fixing hook

3. Push the printer down and fixed by the charger as shown below, it can start charging.
4. When charging, the battery status LED indicator on the printer turns solid amber. When fully charged, the printer LED indicator turns off. It will stop charging automatically after the battery is fully charged. Press the button to release the printer.
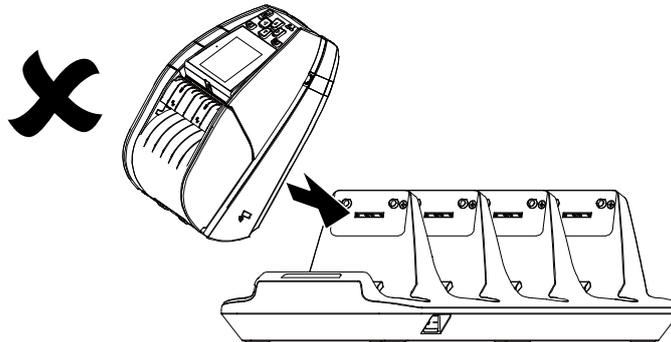

Release button

### 3.2.4 Charging the Battery by 4-bay Printer Charger (Optional)

1. Plug the power adapter of the charger into a properly grounded outlet and plug the charger connector to a charger DC socket.
2. Install the printer onto the charger at the correct angle and direction as shown below.

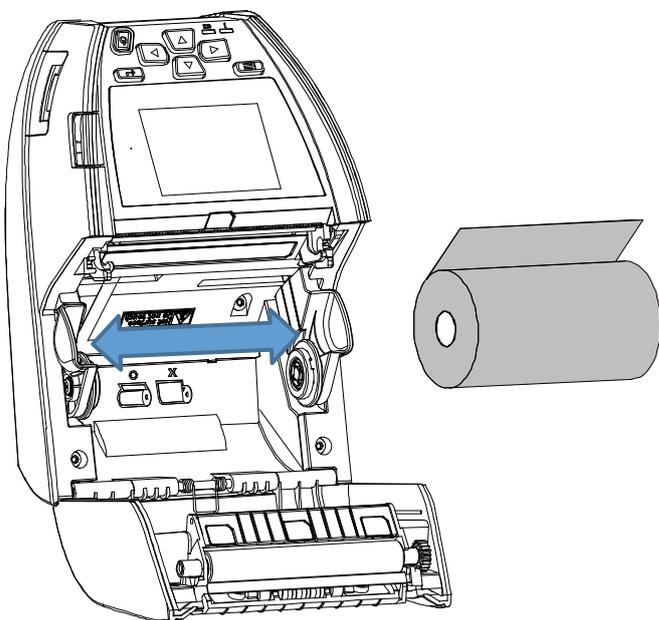**Note: To avoid damage, DO NOT install the printer at the angle shown below.**

3. Turn on the power button of charger. It will start charging. (The LED on charger will turn on.)
4. When charging, the battery status LED indicator on the printer turns solid amber. When fully charged, the printer LED indicator turns off. It will stop charging automatically after the battery is fully charged.

Power button
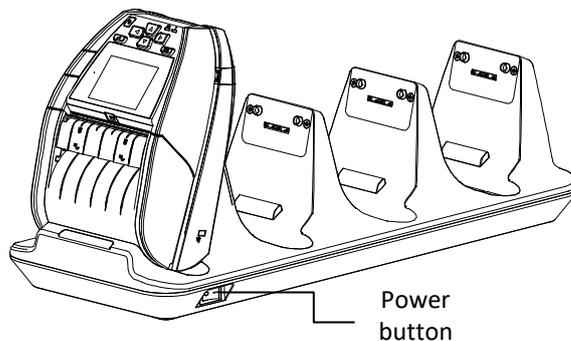
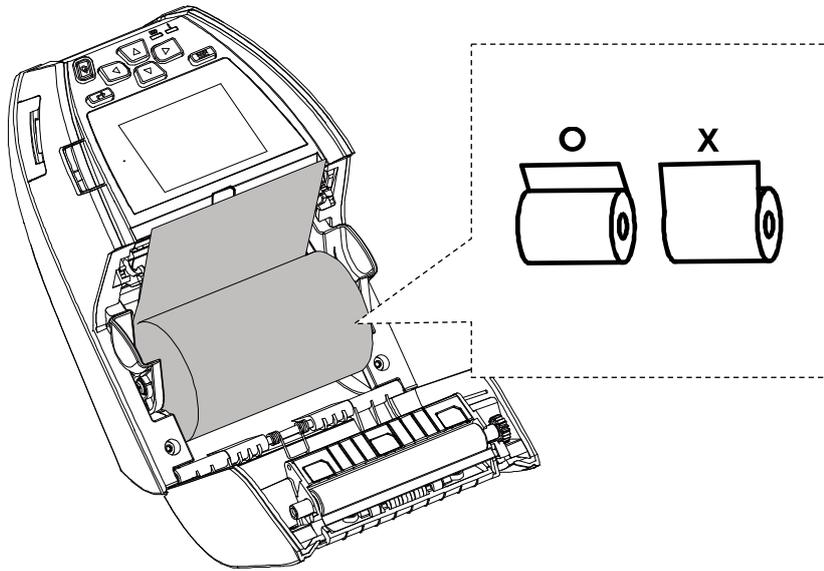## 3.3 Loading the Media
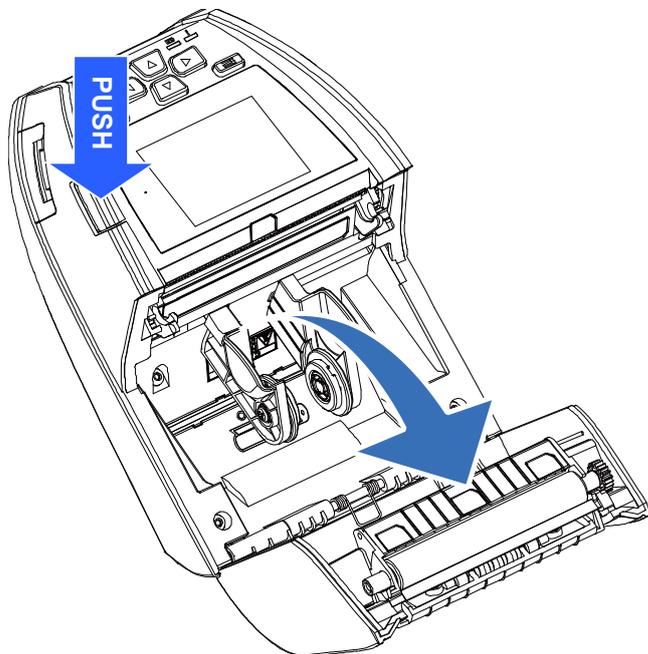
|	
	1. Open the printer media cover by pressing the media cover release button.
	2. Pull the media holders apart to fit the label roll width.

3. Place the roll between the media holders and close them onto the core. Place the paper, printing side face up, and pull out enough paper over the print head.

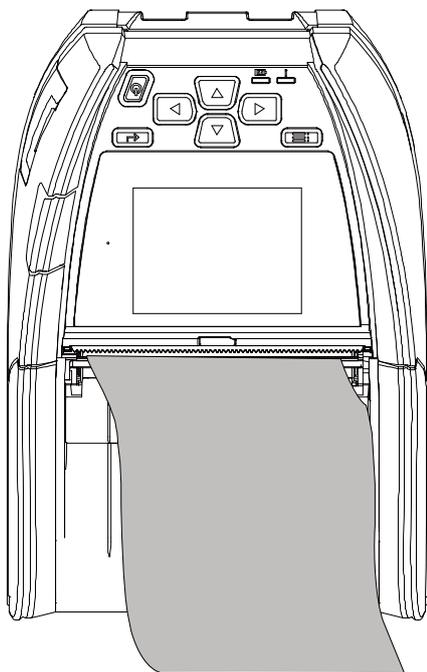4. Press each side of media cover to close the media cover and make sure the media cover closed correctly.
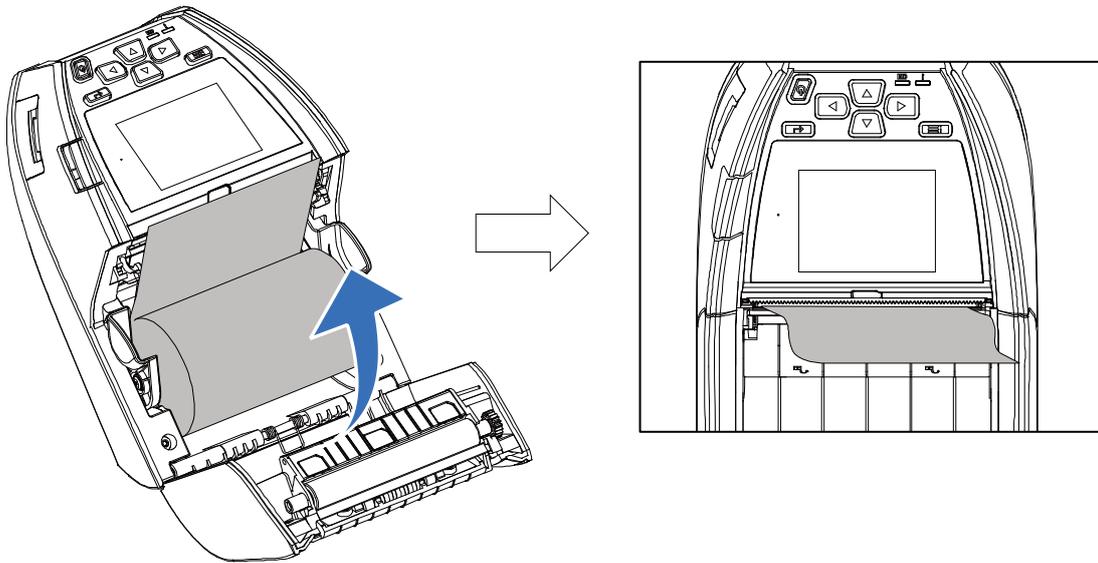
5. Press the Menu key to enter the LCD menu list. Go to [Sensor] → [Auto Calibration] to calibrate the media sensor.
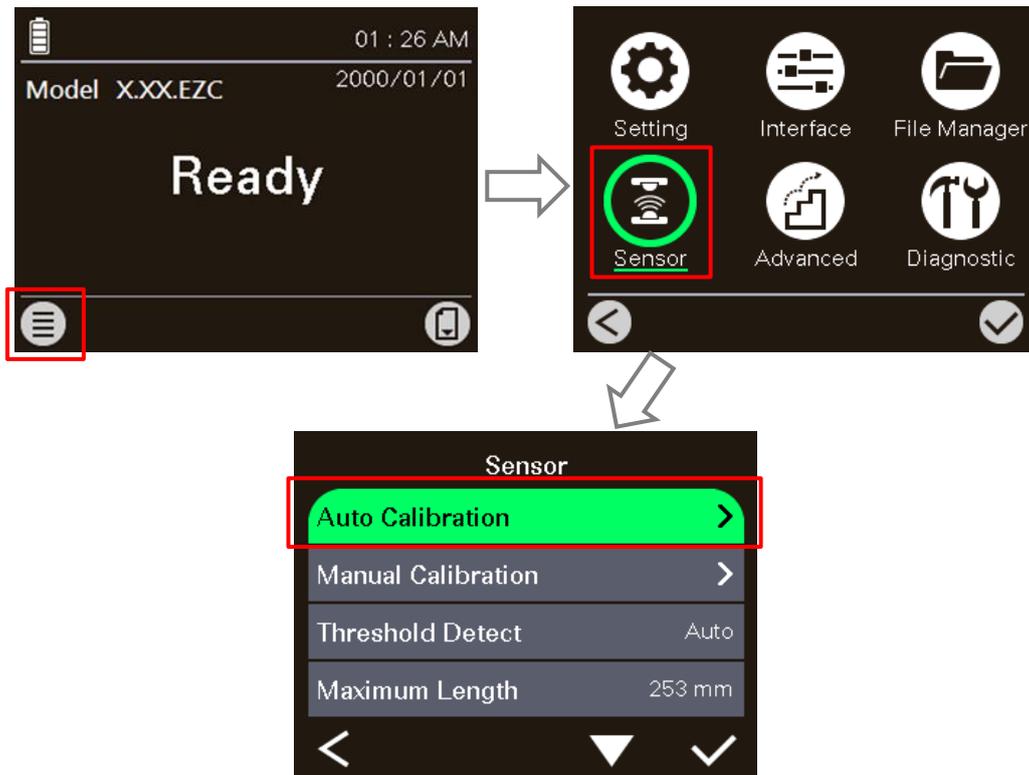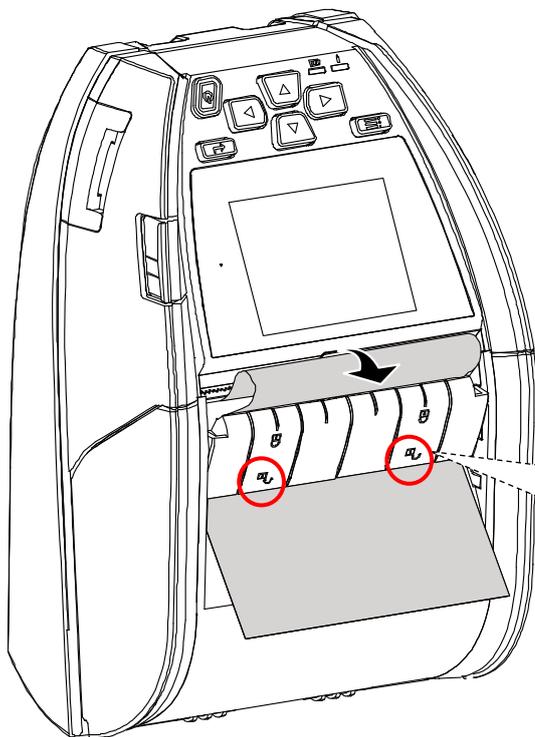

> **Note:**
> **Please calibrate the gap/black mark sensor when changing media.**
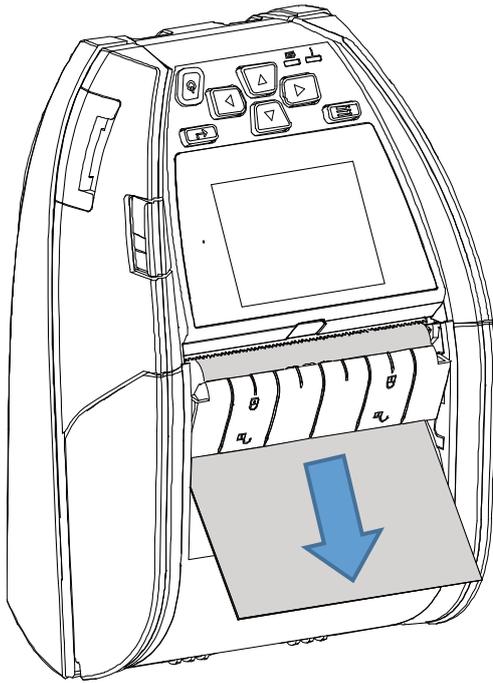
3.4 Loading the Media in Peel-off Mode

1. Please refer to section 3.3 to install the media and to calibrate the media sensor before loading media in peel-off mode.
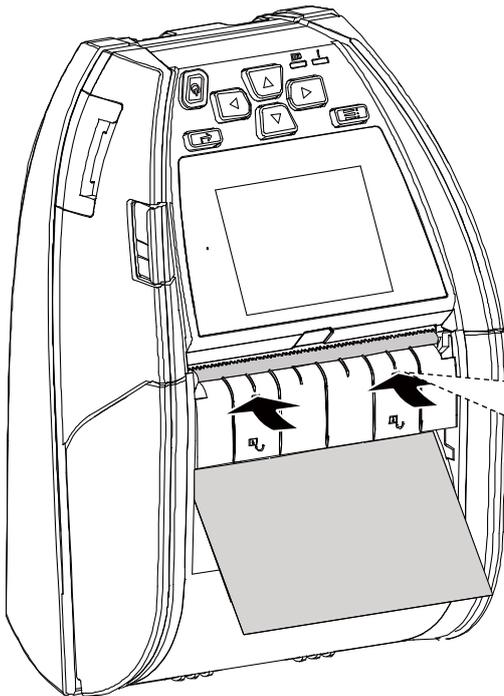

2. Feed the media go through the peeler module. (as figure shown)

   Note:
   Making sure the peeler module is not locked.

	3. Pull the media tightly.
	4. Press down the peeler module to lock it.
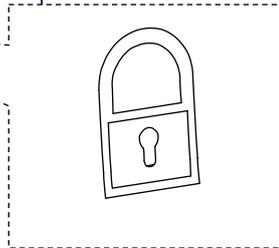
5. Press the Menu key to enter the LCD menu list. Go to [Setting] → [Print Mode] to set the print mode to [Peeler Mode].

3.5 Loading the External Media

	1. Flip printer to the back side.
	2. Take off the rubber bar.
	3. Release the lever.
	4. Install the label roll to stuck the media holder ◆ **The recommended label roll's inside diameter is 0.5~0.75" inch.**

	5. Load the paper from the external entrance chute.
	6. Pull the label out and make it face toward the print head.
	7. Close the lever and make calibration.

3.6 Installing the Belt Clip

	8. Lock the belt clip on lower of the printer.
	9. Press the hook of belt clip into the bars on the lower printer as pictured. The printer can be hung on the belt.

3.7 Installing the IP54-rated environmental case with shoulder strap (Optional)

1. Zip up the case cover.

2. Place the printer in the case.

3. Close the case cover.

4. Zip up the outside cover to check. The outside cover should be opened and fixed while printing.

3.8   Connecting the Printer

The printer must establish communication with a host terminal which sends the data to be printed. There are three ways to connect for Alpha-30L series,
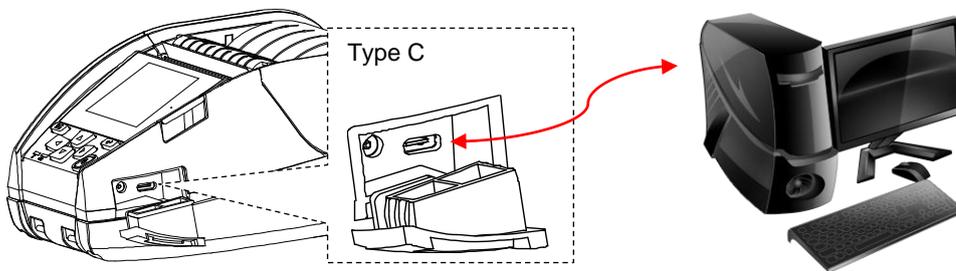
      * By a cable between the printer and its host terminal
      * By a Bluetooth short-range radio
      * By a Wireless LAN (Option)

3.8.1 Cable Communication

1. Open the interface cover
2. Connect the printer to the computer/smart phone (host terminal) with Type C cable. (Type C to USB)

Type C connector (Printer)

USB connector (PC)

Type C

3.8.2 Wireless Communication with Bluetooth

1. Turn on the printer.
2. Enable the Bluetooth for mobile device to search (local name) and to connect the printer's Bluetooth module.

    Note:
    **Use the menu (or self-test printout) to check the Bluetooth local name. (Menu →
    Interface → Bluetooth → Local Name)**

3. Once the Bluetooth module is connected with the mobile device, the Bluetooth logo will be displayed on the LCD control panel.

3.8.3 Wireless Communication with Wi-Fi (Option)

You should set the WLAN settings via the cable for first using.

1. Open the interface cover.
2. Connect the printer to the computer with Type C cable. (Type C to USB)
3. Turn on the printer.
4. Start the "TSC Console" by double clicking on the icon.
5. Go to [Printers→Add Printer] to add this printer on the "TSC Console".
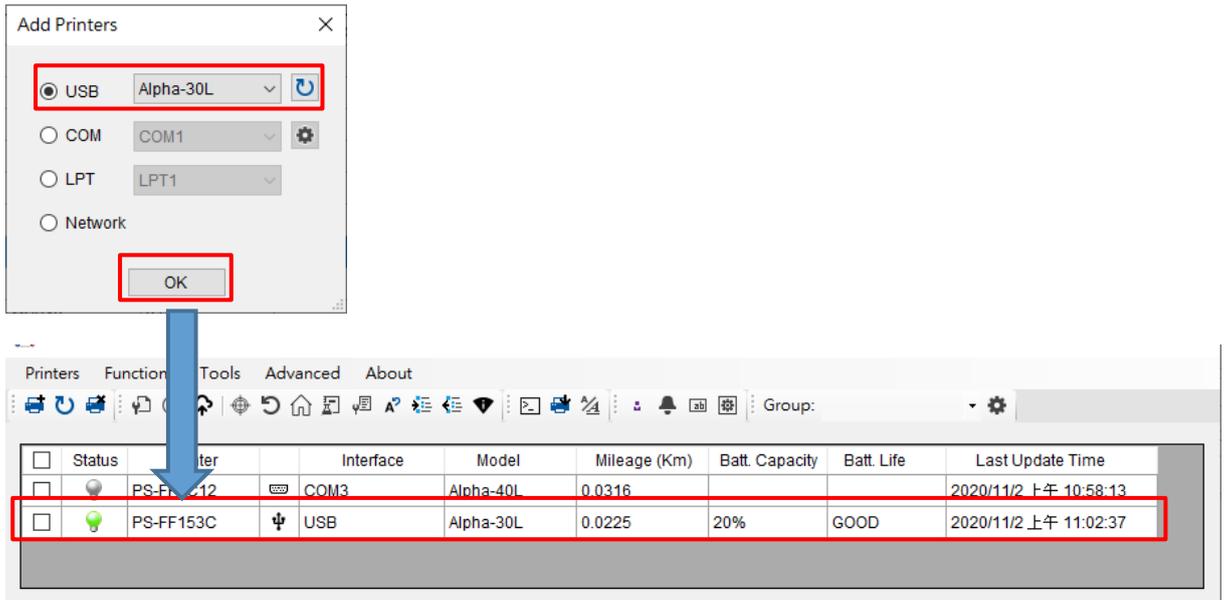
6. Select this printer and enter the setting page by double clicking on the printer.
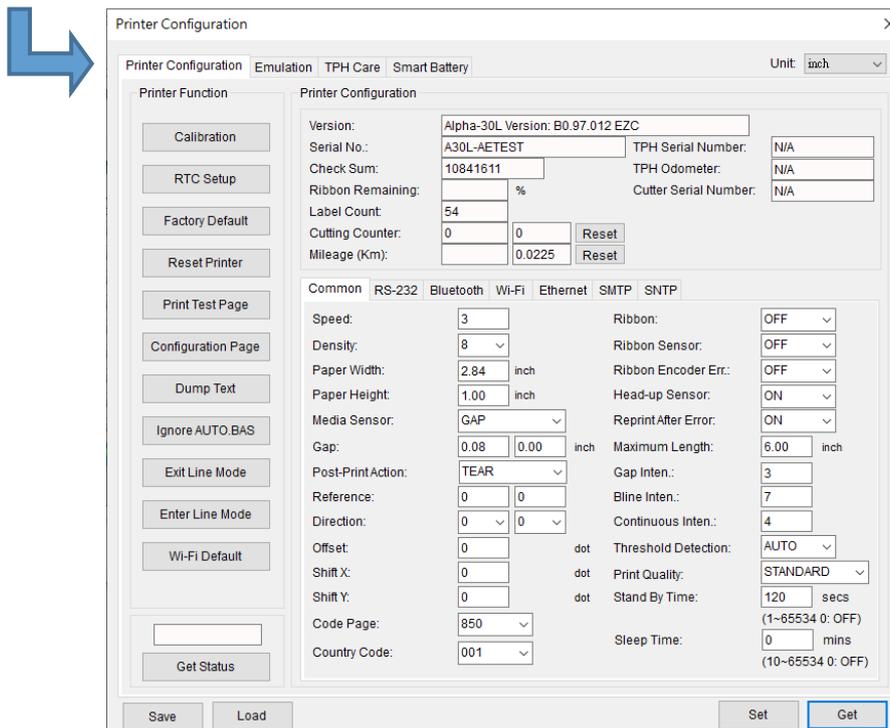
7. Select the "Wi-Fi" tab to setup the wireless module.

- **For WPA-Personal**
    a. Select the "Wi-Fi" tab.
    b. Fill-in the SSID.
    c. Select the Encryption option to WPA-Personal.
    d. Fill-in the Key.
    e. Select DHCP to "ON". (For "OFF" option, please fill-in the IP Address, Subnet Mask and Gateway)
    f. After setting, click the "Set" button.

Note:
* Before setting, the entered field will be shown in yellow for reminding.
* On DHCP, user can change the printer name by another model name in "Printer Name" field.
* User also can change the raw port in "Raw Port" field.

- **For WPA-Enterprise**
    a. Select the "Wi-Fi" tab.
    b. Fill-in the SSID.
    c. Select the Encryption option to WPA2-Enterprise.
    d. Select DHCP to "ON". (For "OFF" option, please fill-in the IP Address, Subnet Mask and Gateway)
    e. Select the EAP type option. (For "EAP-TLS" option, please upload the CA and Key for mutual authentication, integrity-protected cipher suite negotiation, and key exchange between two endpoints.)
    f. After setting, click the "Set" button.

Note:
* Before setting, the entered field will be shown in yellow for reminding.
* On DHCP, user can change the printer name by another model name in "Printer Name" field.
* User also can change the raw port in "Raw Port" field.

8. After clicking "Set" button, it'll pop-up the window tip as below shown.

9. IP address will be shown in the "IP address" field and the Wi-Fi logo and IP address will be displayed on the LCD control panel as shown below. The Wi-Fi module has been connected.

Note:
IP address should be shown within about 5~15 seconds after printer turn on. If not, please refer to steps below to initialize the printer Wi-Fi module settings then to setup it again.

10. Remove the Type C cable between the computer and the printer.
11. Go to [Printers → Add Printer] to add this printer via Network.
12. Select this printer and enter the setting page by double clicking on the printer.
13. Click the "Print Test Page" button to print the test page via Wi-Fi interface.

3.8.4 Initialize the printer Wi-Fi module (Option)

1. Start the TSC Console by double clicking on the icon.

2. Select the printer in the list then click the "Printer Function" button to enter the setting page. (Refer to ch.3.53 to add the printer for first using TSC Console.)

3. Go to [Functions → Wi-Fi Default] to initialize the printer Wi-Fi module settings to factory default.
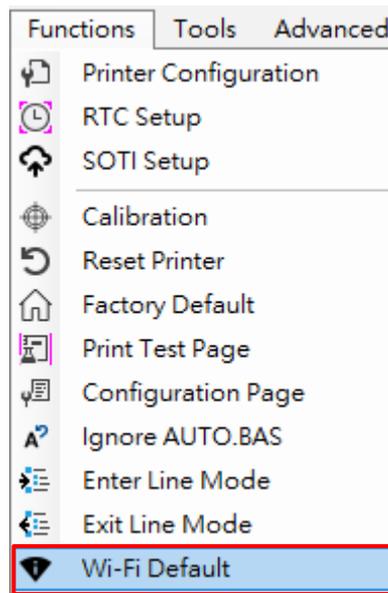
4. LCD Menu Function

The Alpha-30L/ Alpha-40L series offer the LCD panel to further enhance its capabilities to meet the demands of a wide range of printing solutions. This feature includes LCD control panel, 4 buttons and 2 LED display. Please press the "Menu" button to enter the setting menu.
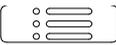
4.1 How to Use the LCD to Set the Printer

Press the ⊟ key to enter the menu list as following shown. You can use this 4 navigational keys and soft keys to scroll, select, enter or return the menu.

Keys		Function
⊟	**Menu key (Ready status)**	Enter the LCD menu list.
	Left soft key (Menu status)	The label on the header of the UI will explain the function for left soft key.
↵	**Right soft key (Menu status)**	The label on the header of the UI will explain the function for right soft key.
◁△▽▷	**Navigational keys (Menu status)**	Used to select items, menu selection, and navigation in the UI.
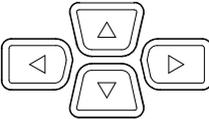
Icons on LCD	Indication
☰	Enter the menu list (🔒☰ the Menu is locked and a password is required.)
<	Back button
✓	Enter cursor (be marked in green) located option
▽ ▲	Scroll down button/ Scroll up button

4.2 Main Menu Overview

There are 6 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.
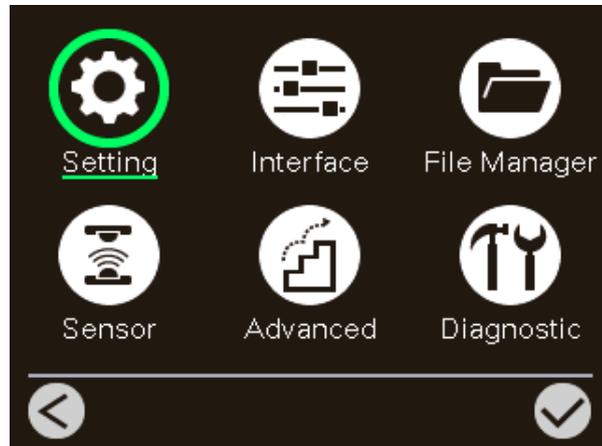
This "Setting" category can set up the printer settings for TSPL & ZPL2.

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

This "Interface" option is used to set the printer interface settings.

This "Advanced" option is used to set the printer language, initialization, battery information, LCD display setting %...etc.

This "File Manager" option is used to check/ manager the printer available memory.

This "Diagnostic" optin is used to review printer to troubleshoot problems and other issues.

Menu

- **Setting**
  - Command Set
    - **TSPL**
      - Speed
      - Density
      - Direction
      - Print Mode
      - Offset
      - Shift X/Y
      - Reference X/Y
      - Code Page
      - Country
    - **ZPL2**
      - Darkness
      - Print Speed
      - Tear Off
      - Print Mode
      - Print Width
      - List Fonts
      - List Images
      - List Formats
      - List setup
      - Control Prefix
      - Format Prefix
      - Delimiter Char
      - Media Power Up
      - Head Close
      - Label Top
      - Left Position
      - Reprint Mode
      - Format Convert

- **Sensor**
  - Auto Calibration
  - Manual Calibration
  - Threshold Detect
  - Maximum Length
  - Advanced

- **Interface**
  - Bluetooth
  - Wi-Fi

- **Advanced**
  - Language
  - Printer Information
  - Battery
  - Initialization
  - Display Brightness
  - Date & Time
  - Security
  - Print Head Maintn
  - Key Sound
  - Contact Us

- **File Manager**
  - DRAM
  - FLASH
  - CARD

- **Diagnostic**
  - Print Config.
  - Dump Mode
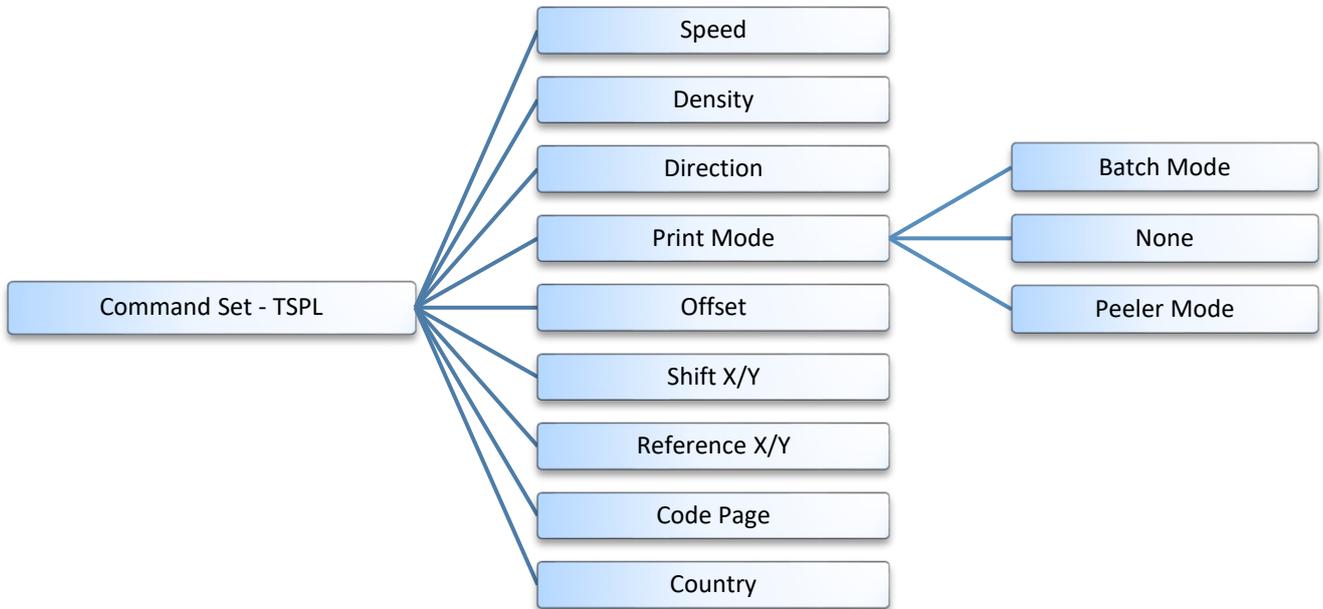 - Print Head
  - Display
  - Sensor

4.3 Setting

This "Setting" category can set up the printer settings for TSPL & ZPL2. Press right soft key to switch the TSPL & the ZPL2.
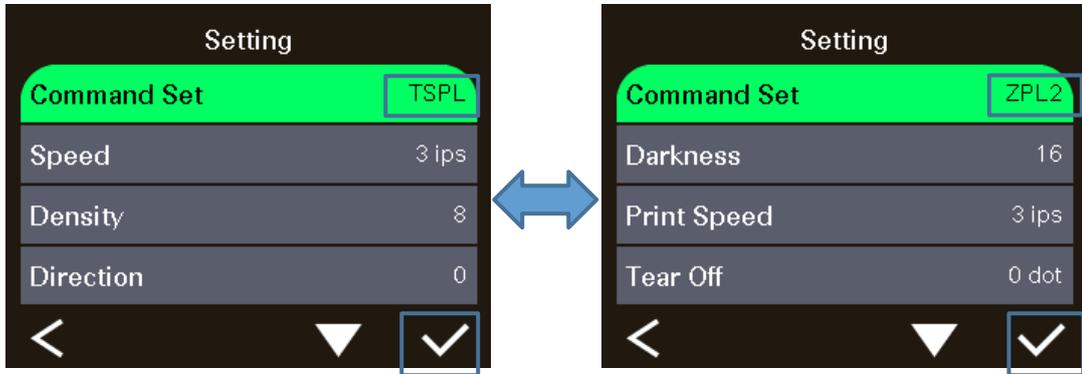
4.3.1 TSPL

Item	Description	Default
Speed	Use this item to setup print speed. The each increase or decrease is 0.5 ips. Available setting is from 1 to 6.	**3 ips**
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**

Print mode	This item is used to set the print mode. There are 3 modes as below,	Batch Mode
	<table><tr><td>Printer Mode</td><td>Description</td></tr><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></table>	
Offset	This item is used to fine tune media stop location. Available setting value is from "+" to "-" or "0" to "9".	0 dot
Shift X	This item is used to fine tune print position. Available setting value is from "+" to "-" or "0" to "9".	0 dot
Shift Y		0 dot
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".	0 dot
Reference Y		0 dot
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

4.3.2 ZPL2

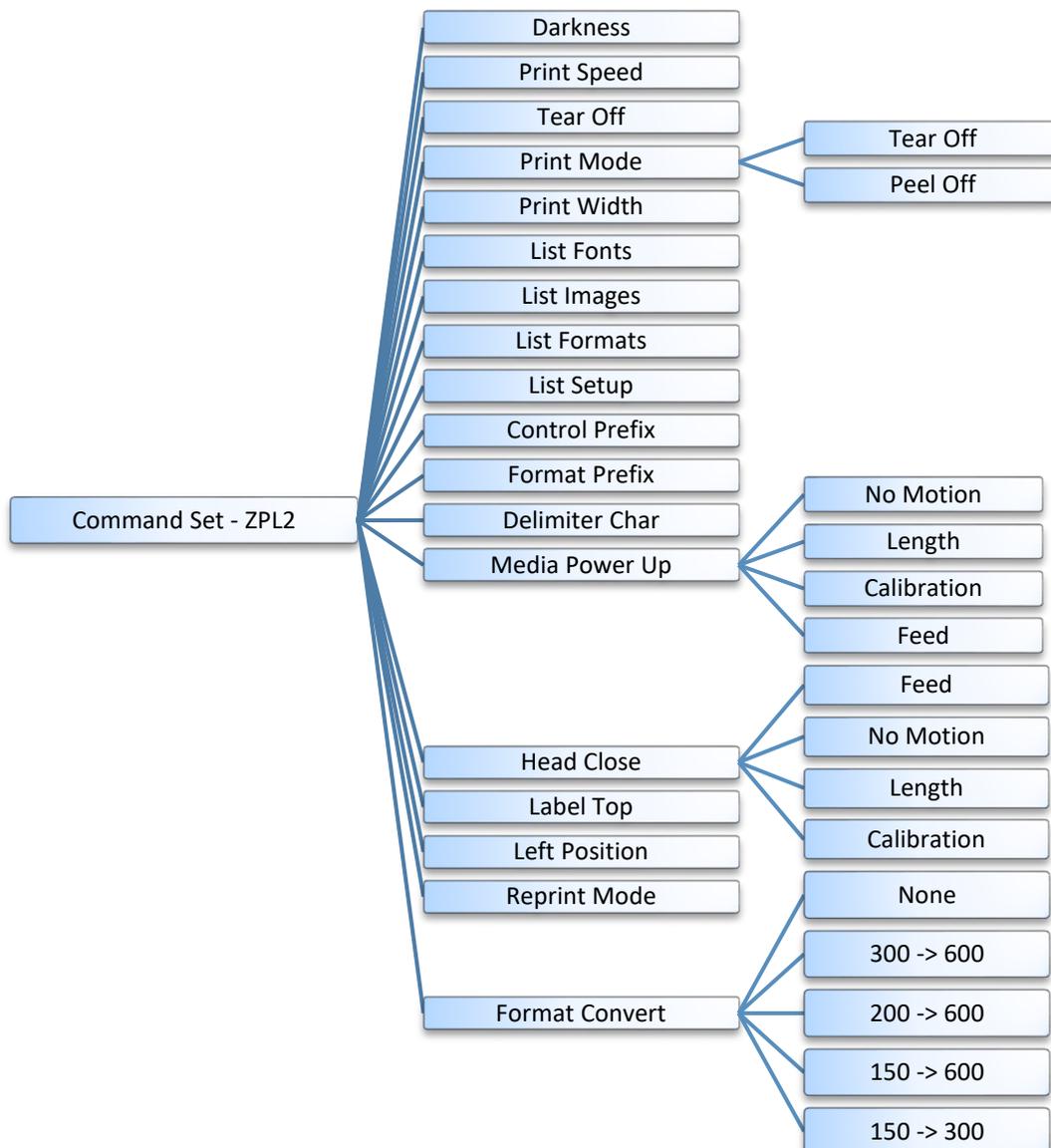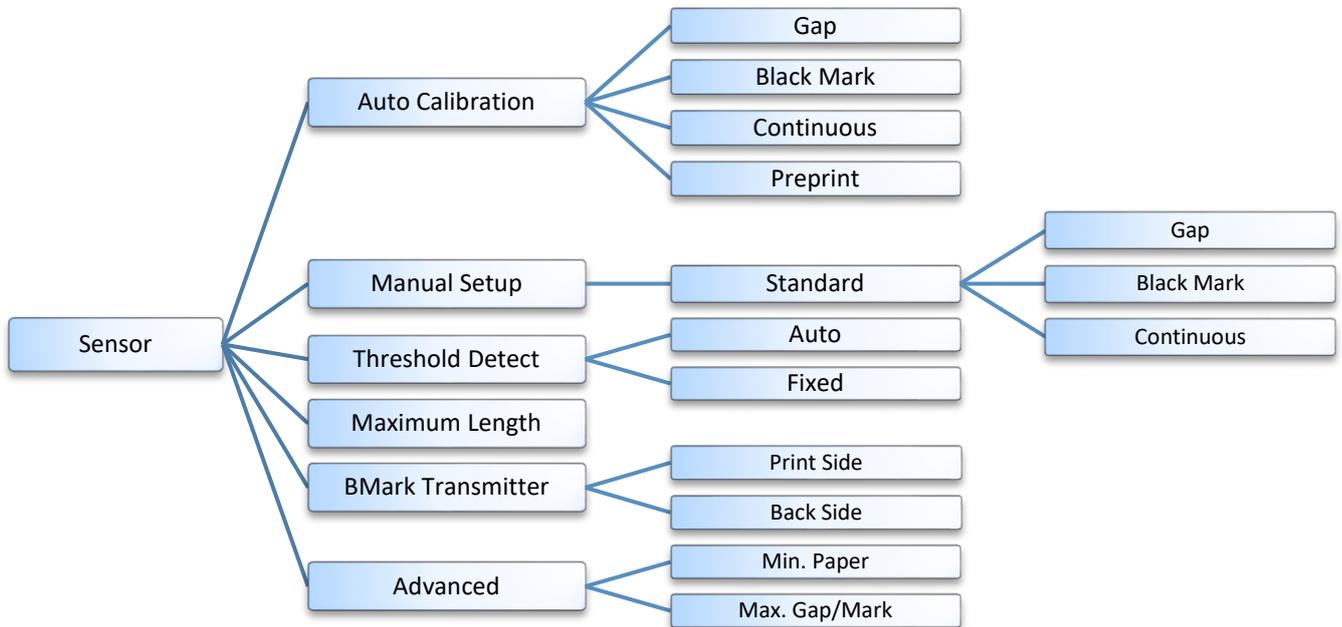| Item	Description	Default
Darkness	Use this item to setup printing darkness. The available setting is from 0 to 30, and the step is 1. You may need to adjust your density based on selected media.	**16**
Print Speed	Use this item to setup print speed. The each increase or decrease is 1 ips. Available setting is from 1 to 6.	**3 ips**
Tear Off	This item is used to fine tune media stop location. Available setting value is from "+" to "-" or "0" to "9".	**0 dot**
Print mode	This item is used to set the print mode. There are 2 modes as below, <table><tr><td>Printer Mode</td><td>Description</td></tr><tr><td>Tear Off</td><td>Next label top of form is aligned to the print head burn line location.</td></tr><tr><td>Peeler Off</td><td>Enable the label peel off mode.</td></tr></table>	**Tear Off**
Print Width	This item is used to set print width. The available value is from "0" to "9".	**832 dot**
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.	**7E(~)**
Format Prefix	This feature is used to set format prefix character.	**5E(^)**
Delimiter Char	This feature is used to set delimiter character.	**2C(,)**
Media Power Up	This option is used to set the action of the media when you turn on the printer. <table><tr><td>Selections</td><td>Description</td></tr><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></table>	**No Motion**
Head Close	This option is used to set the action of the media when you close the print head. <table><tr><td>Selections</td><td>Description</td></tr><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></table>	**Feed**
Label Top	This option is used to adjust print position vertically on the label. The range is -120 to +120 dots.	**0 dot**
Left Position	This option is used to adjust print position horizontally on the label. The range is -9999 to +9999 dots.	**0**
Reprint Mode	When reprint mode is enabled, you can reprint the last label printer by pressing [UP] button on printer's control panel.	**Disable**
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**

4.4 Sensor

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

Item	Description	Default
Auto Calibration	This option is used to set the media sensor type and calibrate the selected sensor automatically. Printer will feed 2 to 3 gap labels to calibrate the sensor sensitivity automatically.	**N/A**
Manual setup	In case "Automatic" cannot apply to the media, please use "Manual" function to set the paper length and gap/bline size then scan the backing/mark 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.	**152 mm**
BMark Transmitter	This option is used to set the sensor to detect the black mark on the printed side of the paper or the black mark on the back side of the paper.	**Print Side**
Advanced	This function can set the minimum paper length and maximum gap/bline length for auto-calibrate the sensor sensitivity.	**Min. Paper: 0 mm Max. Gap/Mark: 0mm**

4.5 Interface

This "Interface" option is used to set the printer interface settings.

Note: This subsection will only be visible when the option installed.
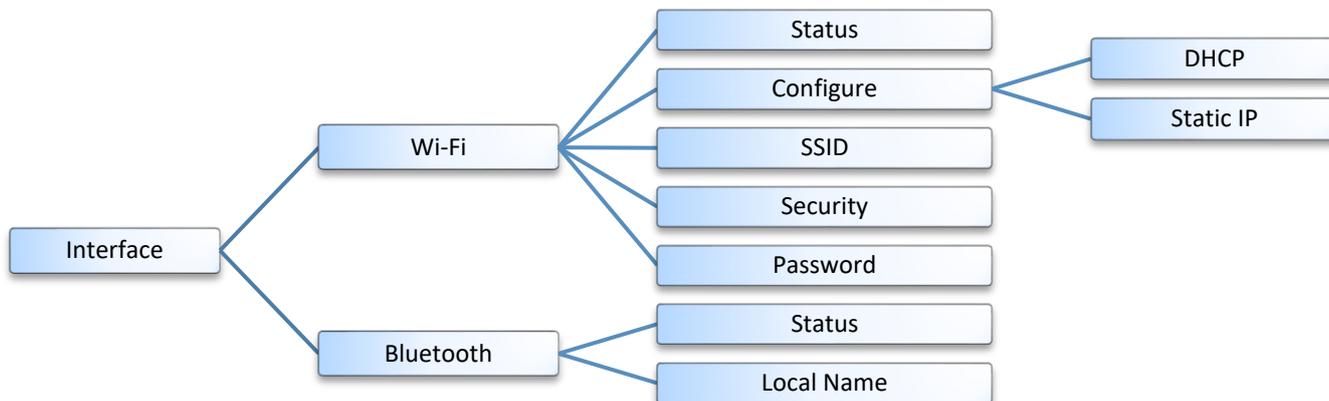
Item		Description	Default
Wi-Fi	**Status**	This item is used to check the Wi-Fi status	**N/A**
	Configure	This item is used to set the Wi-Fi configure	**DHCP**
	SSID	This item is used to set the SSID	**N/A**
	Security	This item is used to set the security	**Open**
	Password	This item is used to set the security key	**N/A**
Bluetooth	**Status**	This item is used to check the Bluetooth status	**N/A**
	Local Name	This item is used to set the local name for Bluetooth	**N/A**

4.6 Advanced

This "Advanced" option is used to set the printer language, initialization, battery information, LCD display setting %...etc.
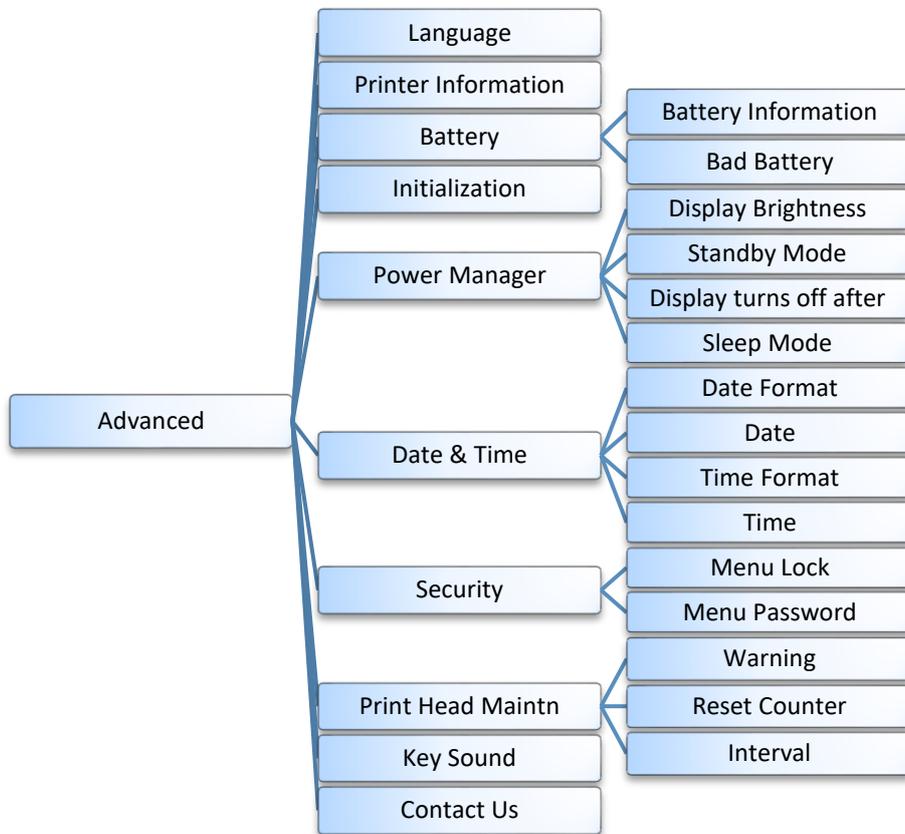
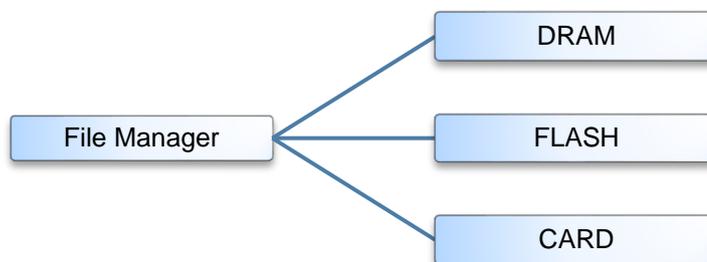| Item	Description	Default
Language	This item is used to setup the language on display.	**English**
Printer Information	This feature is used to check the printer serial number, printed mileage (m), printed labels (pcs), etc.	**N/A**
Battery	This item is used to check the battery information and to set the warning for discharge times.	**550 times**
Initialization	This feature is used to restore printer settings to defaults.	**N/A**
Power Manager	This item is used to setup the brightness for display, standby mode, display turns off time and sleep mode.	**Brightness: 50 Standby Mode: ON Display turns off after: 120 sec. Sleep Mode: OFF**
Date & Time	This item is used to setup the date and time on display.	**N/A**
Security	This feature is used to set the password for locking the menu. The default password is 8888.	**Disable**

	This item is used to check print head status and to set the settings for print head care.	Disable
Printer Head Maintn	<table><tr><th>Item</th><th>Description</th></tr><tr><td>Warning</td><td>This item is used to enable/disable the print head clean warning. If enable this feature, once print head has been reached the setting mileage then the warning icon will be shown on printer UI for reminding user to clean the print head. The default setting is disable.</td></tr><tr><td>Reset Counter</td><td>This item is used to reset the print head clean warning mileage after cleaned print head.</td></tr><tr><td>Interval</td><td>This item is used to set the expected mileage for reminding user to clean the print head. You have to enable the "TPH warning lock" for use. The default setting is 1 km.</td></tr></table>	
Key Sound	This feature is used to ON/OFF the printer key sound	ON
Contact us	This feature is used to check the contact information for tech support service	N/A

4.7 File Manager

This feature is used to check the printer available memory, show the files list, delete the files or run the files that saved in the printer DRAM/Flash/Card memory.

```
                                    ┌─────────────────┐
                                    │      DRAM       │
                                    └─────────────────┘
    ┌─────────────────┐             ┌─────────────────┐
    │  File Manager   │─────────────│     FLASH       │
    └─────────────────┘             └─────────────────┘
                                    ┌─────────────────┐
                                    │      CARD       │
                                    └─────────────────┘
```

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 SD card on printer. **Note:** **This subsection will only be visible when the SD card installed.**

4.8 Diagnostic

Item	Description
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.

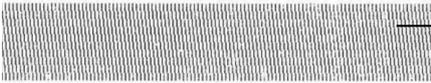**Self-test printout**

```
--------------------------------
       SYSTEM INFORMATION
--------------------------------
       MODEL: XXXXXX                Model name
    FIRMWARE: X.XX                  F/W version
    CHECKSUM: XXXXXXXX              Firmware checksum
         S/N: XXXXXXXXXXX           Printer S/N
         TCF: NO                    TSC 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)
       RESET: 0        (CUT)
     BAD DOT: 0                     Print head bad dot
--------------------------------


--------------------------------
       PRINTING 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
STANDBY TIME: 150    SEC            Standby time
  SLEEP TIME: 50     MIN            Sleep time
--------------------------------


--------------------------------
          Z SETTING
--------------------------------
    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
--------------------------------
```
|

```
--------------------------------
      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 the media with max. paper width.

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.

ASCII Data →

```
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
T4.DAT",5  54 34 2E 44 41 54 22 2C 35
,CLS  DOW  2C 43 4C 53 0D 0A 44 4F 57
NLOAD „TE  4E 4C 4F 41 44 20 22 54 45
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
```

Hexdecimal data related to left column of ASCII data

Note:
Dump mode requires the media with max. paper width. |
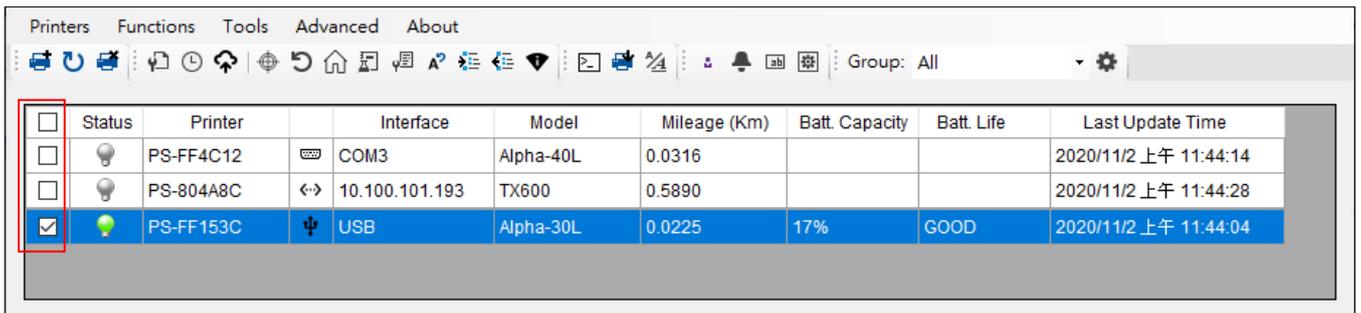| **Print Head** | This feature is used to check print head's temperature and bad dots. |
| **Display** | This feature is used to check LCD's color state. |
| **Sensor** | This feature is used to check sensors intensity and reading state. |

5. TSC Console

TSC Console Combine the Printer Management and Diagnostic Tool, providing users the more friendly interface and using experience. TSC Console is a pro version for integrated tool incorporating features that enable you to explore more than one printer's settings/status; change printers' settings; download graphics, fonts and firmware; create a printer bitmap font; and send additional commands to printers at the same time.

5.1 Start the TSC Console

1. Double click on the "TSC Console" icon to start the tool.

2. Go to [Printers → Add Printer] to add the printer onto the "TSC Console". Select the printer interface to add the printer onto the TSC Console.

3. Select this printer and enter the setting page by double clicking on the printer.
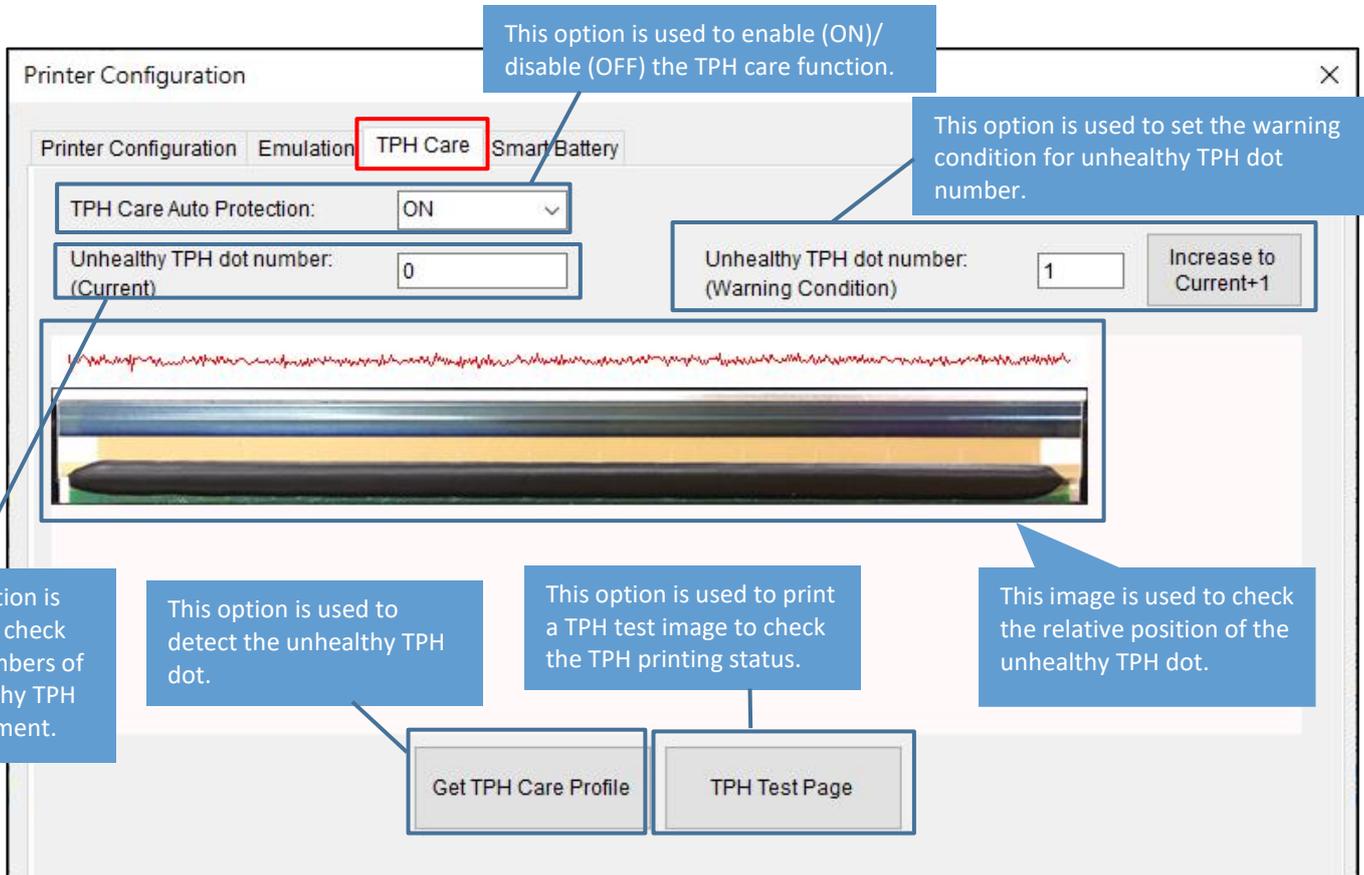

4. Select the tab for setting.


Note:
Please refer to "TSC Console Users' Manual" for more information.

5.2 TPH Care

User can use this tab to check the condition of the print head. Users can set the dot failure threshold. The printer will indicate an error when the numbers of failure dot threshold is reached.

1. Enable the TPH Care function. (Note: The default is disabled/OFF.) Then click "Get TPH care profile" button and a diagram will show in the area above. In TPH Care, you can see the print head profile about each dot.
2. If the profile is flat, it means that the print head is good. Check out where it states "Unhealthy TPH dot number". If the result is zero (0), that means the print head is good.
3. If there is a spike, you'll know that bad dots are presented. The arrow in the image below indicates the presence of potentially damaged dots and printer will stop printing.
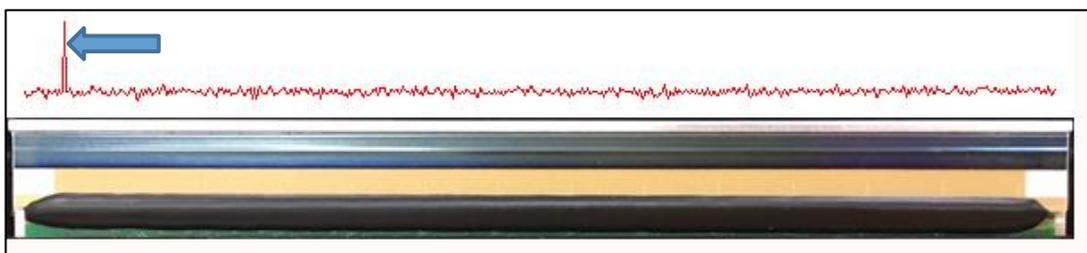
6. Troubleshooting

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.

Problem	Possible Cause	Recovery Procedure
No Power	* The battery is not properly installed. * Battery out of power. * Battery damage.	* Reinstall the battery. * Switch the printer on. * Charge the battery. * Replace a new battery.
Not Printing	* Check if interface cable is well connected to the interface connector. * Check if wireless or Bluetooth device is well connected between host and printer. * The port specified in the Windows driver is not correct.	* Re-connect cable to interface change a new cable. * Please reset the wireless device setting. * Select the correct printer port in the driver. * 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.
No print on the label	* Label loaded not correctly * Use wrong type paper	* Follow the instructions in loading the media. * Use thermal type paper
The printer status from LCD shows "**Carriage Open**".	* The printer carriage is open.	* Please close the print carriage.
The printer status from LCD shows "**No Paper**".	* Running out of media roll. * The media is installed incorrectly. * Media sensor is not calibrated.	* Supply a new media roll. * Follow the instructions in loading the media to reinstall the media roll. * Calibrate the media sensor.
The printer status from LCD shows "**Paper Jam**".	* Media sensor is not set properly. * The media size is set incorrectly. * Label may be stuck inside the printer mechanism.	* Calibrate the media sensor. (Select the correct sensor) * Set media size correctly. * Remove the stuck label inside the printer mechanism.
Take Label	* Peel function is enabled.	* If use peel-off mode, please remove the label.
Can't downloading the file to memory (FLASH / DRAM/ CARD)	* The space of memory is full.	* Delete unused files in the memory.

SD card is unable to use	* SD card is damaged. * SD card doesn't insert correctly.	* Use the supported capacity SD card. * Insert the SD card again.
Poor Print Quality	* Media is loaded incorrectly * Dust or adhesive accumulation on the print head. * Print density is not set properly. * Print speed is not set properly. * Print head element is damaged.	* Reload the supply. * Clean the print head. * Clean the platen roller. * Adjust the print density and print speed. * Run printer self-test and check the print head test pattern if there is dot missing in the pattern. * Change proper media roll. * Make sure the print carriage is closed properly.
Missing printing on the left or right side of label	* Wrong label size setup.	* Set the correct label size.
Irregular printing	* The printer is in Hex Dump mode.	* Turn off and on the printer to skip the dump mode.
Skip labels when printing	* Label size is not specified properly. * Sensor sensitivity is not set properly. * The media sensor is covered with dust.	* Check if label size is setup correctly. * Calibrate the sensor by Auto Gap or Manual Gap options. * Clear the sensor by blower.
RTC time is incorrect when reboot the printer	* The battery has run down.	* Check if there is a battery on the main board.

7. Maintenance

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

- **For Cleaning**

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

- **For Disinfecting**

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

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

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

- **Cleaning Process**

Printer Part	Method	Interval
Print Head	1. Always turn off the printer before cleaning the printhead. 2. Allow the printhead to cool for a minimum of one minute. 3. Use a cotton swab and 99% Isopropyl Alcohol or genuine print head cleaning pen to clean the print head surface.	Clean the print head when changing a new label roll.
Platen Roller	1. Turn off the printer. 2. Rotate the platen roller and wipe it thoroughly with the lint-free 99% Isopropyl Alcohol.	Clean the platen roller when changing a new label roll
Sensor	Use a brush with soft non-metallic bristles or a vacuum cleaner, described above, to remove paper dust. The upper and lower media sensors should be cleaned to ensure reliable Top of Form and Paper Out sensing.	Monthly
Exterior	Clean the exterior surfaces with a clean, lint-free cloth (water-dampened cloth). If necessary, use a mild detergent or desktop cleaning solution then use the 75% Ethanol to wipe it.	As needed
Interior	Clean the interior of the printer by removing any dirt and lint with a vacuum cleaner, as described above, or use a brush with soft non-metallic bristles then use the 75% Ethanol to wipe it.	As needed

Change History

Date	Content	Editor
2020/8/26	Add the menu lock function	Camille
2020/10/28	• Add the Charging the Battery by 1-bay/4-bay Battery Charger (Optional) section • Add Charging the Battery by 1-bay Printer Charger (Optional) section • Add Charging the Battery by 4-bay Printer Charger (Optional) section • Add Installing the Belt Clip section • Add Installing the IP54-rated environmental case with shoulder strap (Optional) section	Camille
2020/11/2	• Add TSC Console • Add Smart Battery Charging Mode and Operation Instructions	Camille
2021/1/5	• Add Battery information (ch.1.3)	Camille
2021/1/6	• Modify the ch.1.2 & ch.2.2	Camille
2021/1/8	• Add media thickness SPEC	Camille
2021/1/25	• Add chapter 3.5 Loading the external media	Linda

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