



Fastmark M35 Series
Handheld Direct Thermal Barcode Printer
User's Guide



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	<p>EN 55032, Class B EN 55024 EN 55035 EN 62368-1</p>
	<p>FCC part 15B, Class B ICES-003, Class B</p> <p>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:</p> <ul style="list-style-type: none"> -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. <p>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.</p> <p>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</p>
	<p>AS/NZS CISPR 32, Class B</p>
	<p>GB 4943.1 GB/T9254 GB 17625.1</p>
	<p>IS 13252(Part 1)/ IEC 60950-1</p>



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Operational safety



CAUTION

- Refer to the product label (bottom of the printer) and verify your power source exactly meets those requirements.
- Do not use this product near heat or water while utilizing AC power outlet.
- Mechanical and electrical repairs should be conducted by qualified service personnel.
- Unplug this product from the power outlet before cleaning.

Cautions in setting up



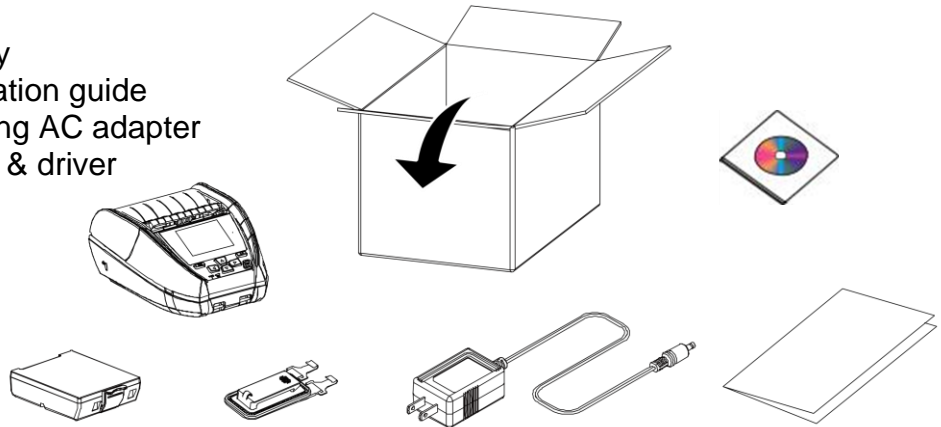
CAUTION

- Unpack the printer. Make sure that the printer body and all accessories are included in the package and no parts are damaged.
- Battery Safety:
DO NOT short circuit the contacts.
DO NOT disassemble the battery.
DO NOT throw the battery in municipal waste.
- Do not use the printer in any location subject to sudden changes in temperature, humidity or heat generating equipment.
- Refer to print adjustments in this manual before attempting alignments.
- Do not turn off the printer during printing, as this may lead to a malfunction.
- Battery charge takes 5~6 hours before the first-time usage. While charging the status LED color is solid amber, LED is OFF when fully charged.
- Before connecting or disconnecting the USB/Serial cable, be sure to turn off the printer.
- Do not connect the printer AC adaptor to a non-standard power source. Refer to safety label on adapter.
- If the case or cover becomes dirty, clean it with a soft cloth moistened with a small quantity of neutral detergent diluted with water. Never use a hard cloth or volatile solvent such as alcohol, thinner, or benzene.

Packaging

Unpacking the printer

- One printer unit
- One Li-ion battery
- One quick installation guide
- One auto-switching AC adapter
- CD with manuals & driver
- One belt clip



Removing protective material

- 1.** This printer has been specially packaged to withstand damage during shipping. Please carefully inspect the packaging and printer upon receipt. Open the carton and remove the printer from bubble wrap.
- 2.** If any parts are missing, please contact the Customer Service Department of your purchased reseller or distributor.
- 3.** It is recommended to keep packaging materials for future use if needed.

Introduction

Product

Thank you very much for purchasing your AMT Datasouth bar code printer.

The Fastmark M35 is a light-weight portable printer efficient for printing quick and trouble-free labels or receipts on demand. The Fastmark M35 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 six-foot fall and keep printing. These small and light printers can be worn comfortably for a full shift, without interfering with the user's tasks. The new mobile printers propel you into the next generation of smart, enhanced technology solutions for industrial-grade label printing applications.

Applications:

- | | |
|-----------------------------|-----------------------|
| ❖ Point of sale | ❖ Retail |
| ❖ Healthcare patient safety | ❖ Compliance labeling |
| ❖ Work in process | ❖ Order fulfillment |
| ❖ Distribution | ❖ Logistics receipts |
| ❖ Shipping / Receiving | ❖ Ticketing |

Key features

- ❖ IP54 rated protective case to resist dust and water
- ❖ Plastic design with rubber over-mold construction that withstands 6-foot drop
- ❖ Ready for EPL2, ZPL2, CPCL or PAL environments
- ❖ Wired & Wireless communications (USB 2.0, Bluetooth, and 802.11 b/g/n/ac)
- ❖ Linerless media ready
- ❖ High-speed processor and extensive memory for fast print speeds of up to 5-inches per second
- ❖ 2-year limited warranty

Product specifications

Item	Fastmark M35
Resolution	8 dots/mm (203 dpi)
Printing method	Direct thermal
Max. print speed	Up to 127mm (5")/second
Max. print width	72mm (2.83")
Max. print length	2,794mm (110")
Enclosure	<ul style="list-style-type: none"> ■ Plastic with rubber over molded ■ Disinfectant-ready plastic, designed with an easy-to-clean surface and a sealed button interface (for healthcare models only) ■ Antibacterial enclosure (for healthcare models only)
Physical dimension	117mm (W) x 173mm (H) x 79mm (D) 4.61" (W) x 6.81" (H) x 3.11" (D)
Weight (Including battery)	745g (1.64lbs)
Drop specification	1.8m (6ft), with protective case can be 2.5m (8.2ft)
IP rating	IP54 (without case, paper path is excluded)
Max. roll capacity	67mm (2.64") OD
Processor	32-bit RISC CPU
Memory	<ul style="list-style-type: none"> ■ 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
Interface	Either one selected <ul style="list-style-type: none"> ■ 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 5.0 + Passive NFC tag * Type C is for communication only.
Operation switch, button	7 buttons (Power, Feed/Enter, Menu, Navigation keys)
User interface	<ul style="list-style-type: none"> ■ 2 LED indicators (battery charging status, printer status) ■ 2.3" color LCD display, 320 x 240 pixels
Sensors	<ul style="list-style-type: none"> ■ Reflective sensor ■ Transmissive sensor ■ Peel sensor ■ Head open sensor
Real time clock	Standard
Internal font	<ul style="list-style-type: none"> ■ 8 alpha-numeric bitmap fonts ■ Monotype Imaging® true type font engine with one CG Triumvirate Bold Condensed scalable font
Bar code	<ul style="list-style-type: none"> ■ 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

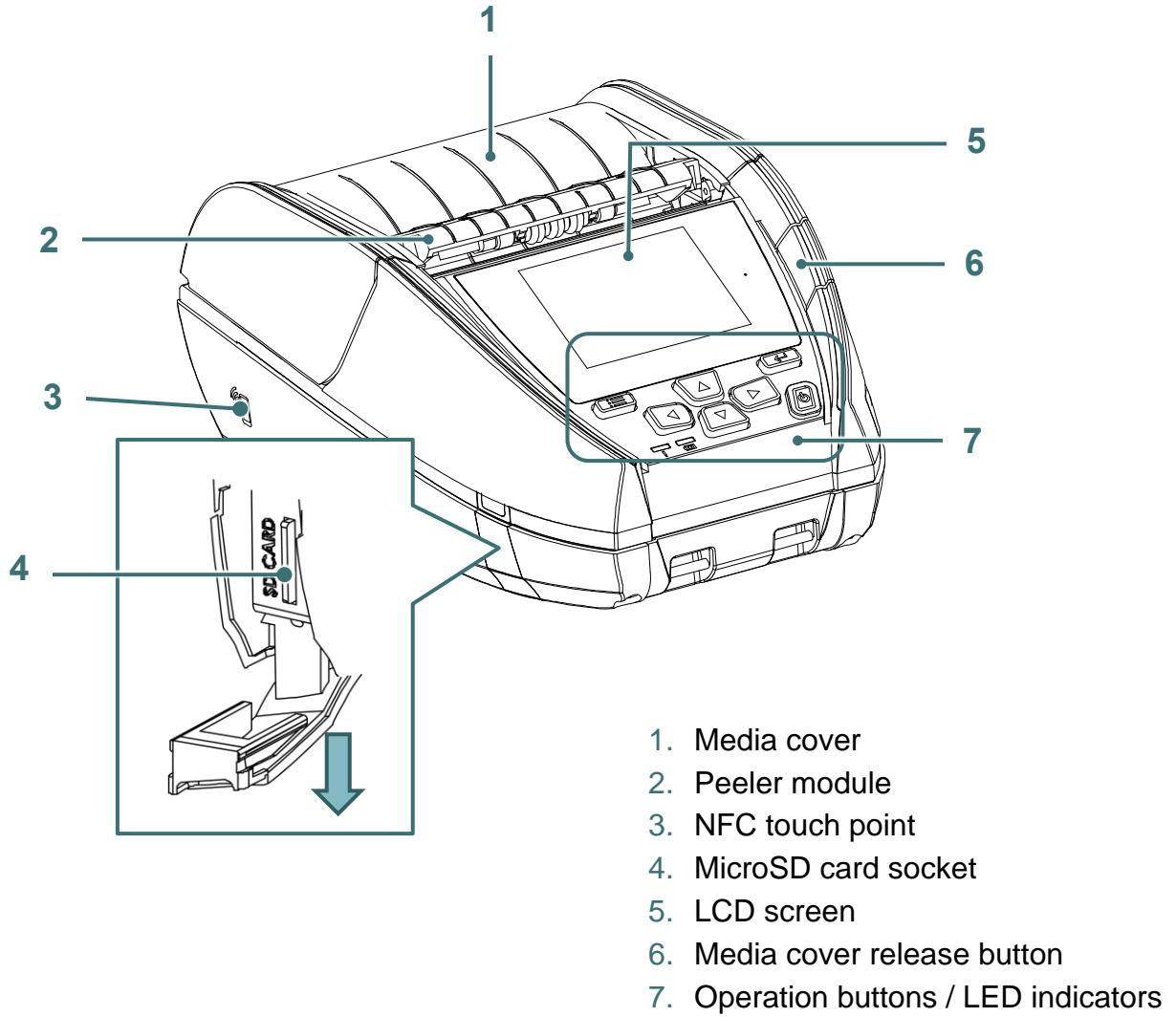
Item	Fastmark M35
Bar Code Cont.	post, ITF14, EAN14, Code11, TELEPEN, TELEPEN number, PLANET, Code49, Deutsche Post Identcode, Deutsche Post Leitcode, LOGMARS <ul style="list-style-type: none"> ■ 2D bar code: CODABLOCK F mode, GS1 DataBar, GS1 DataMatrix, Maxicode, AZTEC, PDF417, QR Code, Micro PDF417, 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	0.06mm - 0.16mm (2.36mil - 6.3mil)
Media width	25.4mm - 80mm (1" - 3.15") with liner
Media core diameter	Standard: 12.7mm (0.5") Optional: <ul style="list-style-type: none"> ◆ 19.1mm (0.75") ◆ 25.4mm + 38.1mm (1" + 1.5")
Label length	<ul style="list-style-type: none"> ■ 12.7 - 2,794mm (0.5" - 110") ■ 25.4 - 152.4mm (1" - 6") for peeler mode
Environment condition	<ul style="list-style-type: none"> ■ 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
Environmental concern	Comply with RoHS, WEEE, REACH, China RoHS
Factory option	<ul style="list-style-type: none"> ■ Media sensor position (default center, right, or left side) ■ Linerless kit
User option	<ul style="list-style-type: none"> ■ Type C USB 2.0 cable ■ 0.75" media core adaptor ■ 1" + 1.5" media core adaptor ■ 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 ■ 4-slot battery charger IEC 60601-1 certified power adaptor (for healthcare models) ■ 12-24V DC vehicle power adaptor ■ 12-60V DC vehicle power adaptor ■ 12-60V DC vehicle open end power supply ■ 12-48V DC power source with battery eliminator ■ 12-48V wire to wire battery eliminator with power supply ■ Wire to wire dummy battery pack ■ Vehicle mount adaptor can be used with RAM® MOUNTS ■ Quick release vehicle mount kit ■ External fanfold media holder with expansion kit ■ External fanfold media holder with quick release vehicle mount kit

Battery information

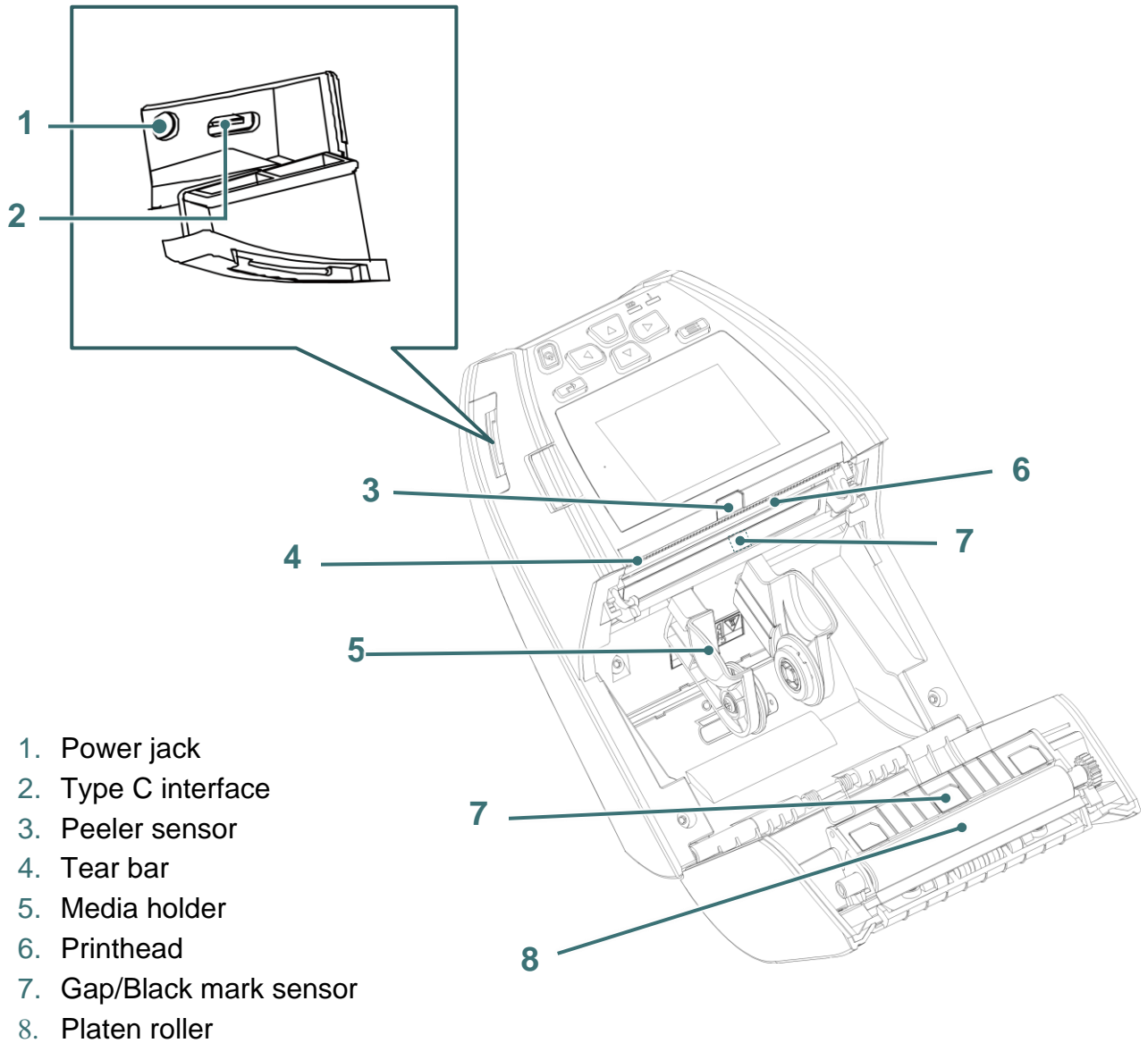
Model	Capacity	Cycle life	Warning conditions	Charging hours	Working hours
Fastmark M35	3030 mAh	500 times	<p>GOOD: Discharged count \leq 550 or absolute battery capacity \geq 70%.</p> <p>REPLACE: 550 < Discharged count \leq 600 or 67% \leq absolute battery capacity < 70%.</p> <p>UNUSABLE: 600 < Discharged count or absolute battery capacity < 67%.</p>	3.5 - 5 hrs	<p>23.5 hrs</p> <ul style="list-style-type: none"> - 12.5% printing ratio - 1 label per two minutes - Bluetooth

Printer Overview

Front view

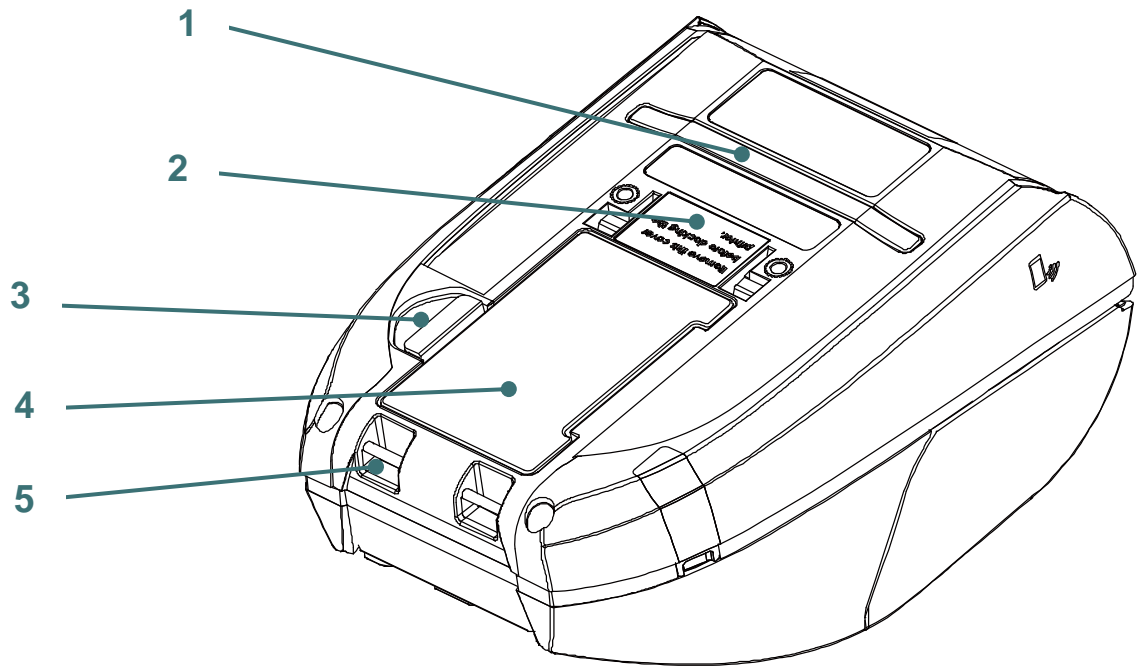


Interior view



**The media sensor position (#7) is selectable by factory adjustment (L/C/R). Default is the center position.*

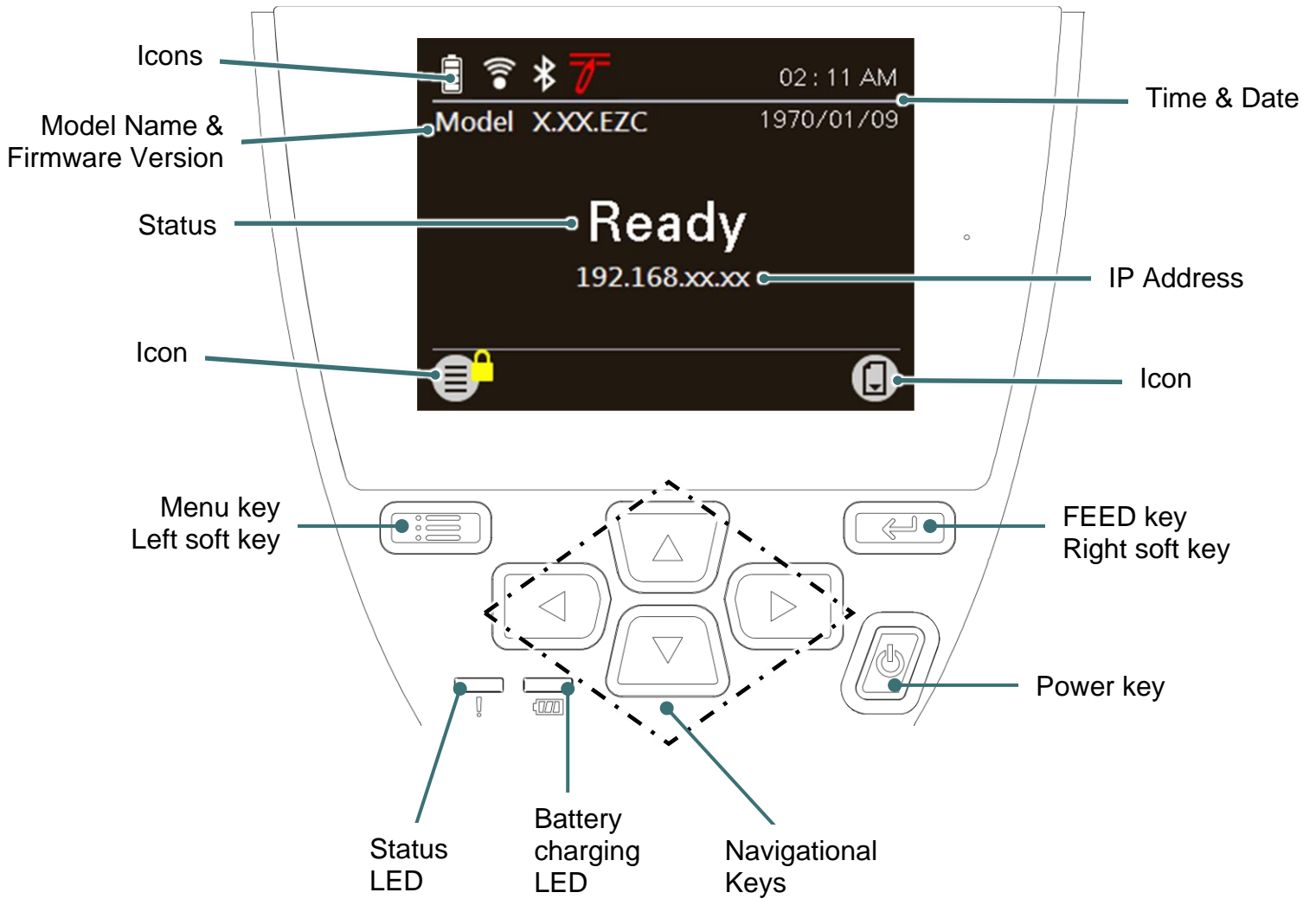
Bottom view



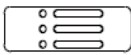
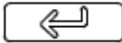

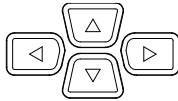
1. External label entrance chute
2. Charging position for docking cradle
3. Battery open clasp
4. LI-ion battery
5. Installation location for belt clip





Operator Controls







LED indication and keys









LED indication and keys for LCD

Keys	Function	
	<ul style="list-style-type: none"> ■ Menu key (Ready status) ■ Left soft key (Menu status) 	Enter the LCD menu list.
		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.
	<ul style="list-style-type: none"> ■ Feed key (Ready status) ■ Pause key (Printing status) ■ Right soft key (Menu status) 	Feed one label.
		Pause the print job.
		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.
	<ul style="list-style-type: none"> ■ 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.
	<ul style="list-style-type: none"> ■ Navigational keys 	Used to select items, menu selection, and navigation in the UI.

Icon	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

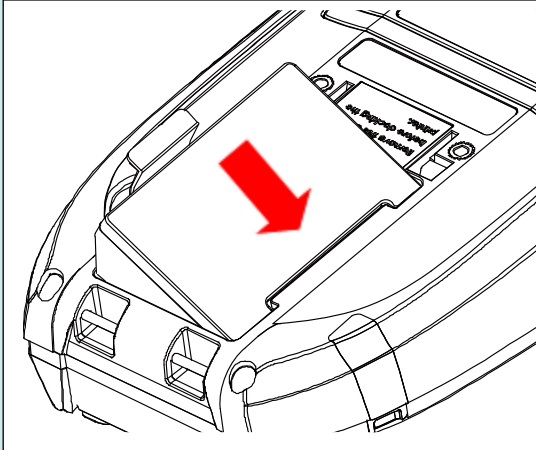
Icon	Function
	Enter the menu list ( the Menu is locked and a password is required.)
	Feed button (advance one label)
	Back button
	Enter cursor (be marked in green) located option
	Scroll down / up button

Color	Meaning
	<p>Off Printer is ready to use</p> <p> (Green) Flash: System is downloading data or printer is paused.</p> <p> (Amber) System is clearing data.</p> <p> (Red) Solid: Printer head open, cutter error. Flash: Printing error, such as paper empty, paper jam, ribbon empty, or memory error etc.</p>

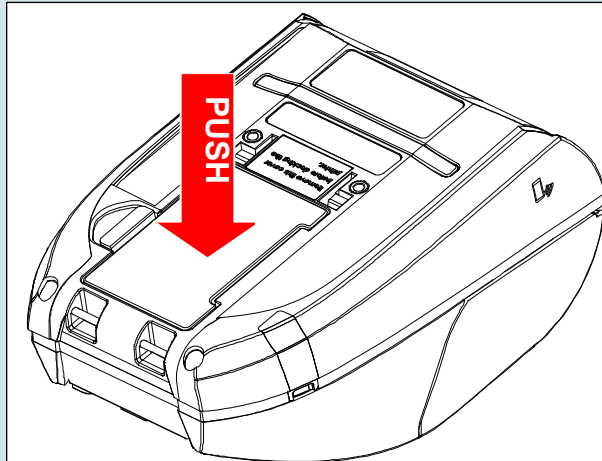
Color	Meaning
	<p>Off Printer is ready to use</p> <p> (Amber) Solid: Printer head open, cutter error. Charging is in progress Flash: Battery temperature is too hot or too cold; Battery overvoltage; Charge timeout; Battery absent</p>

Setup

Installing the battery



1. Open the printer's top cover 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.

Charging the Smart Battery

Smart Battery Charging Mode and Operation Instructions

In order to store the battery safely and increase battery storage life, the battery will be in shutdown mode for storage and shipping. When the smart battery is charged for the first time, shutdown mode will be unlocked.

- **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 the 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 optimum manner. At higher temperatures (e.g. approximately +40 °C (+104 °F) or charging when turning on the printers), the printer or battery charger may stop charging for a period of time to keep the battery at acceptable temperatures.

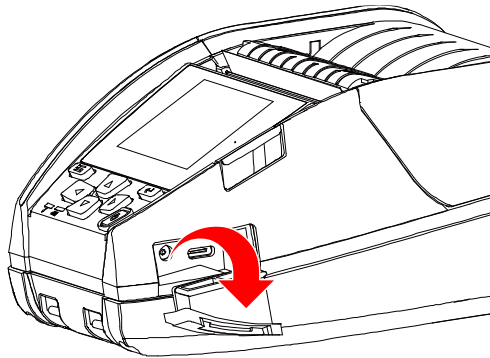


Battery safety warning:

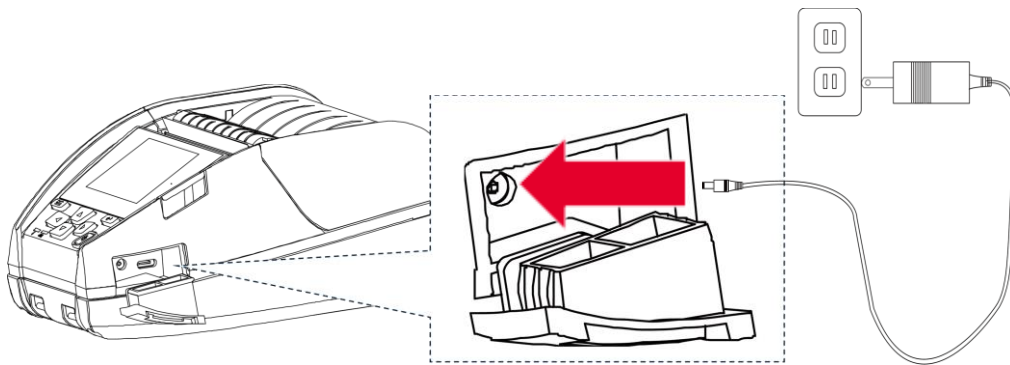
DO NOT throw the battery in fire. DO NOT short circuit the contacts.

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.

Charging the battery via printer



1. Open the interface cover.

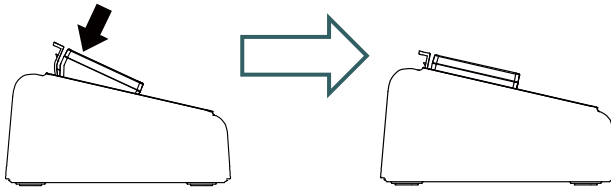


Please switch OFF printer power prior to plugging in the power cord to printer power jack.

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.

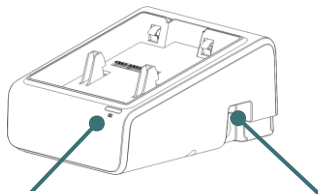
2. Plug the power cord to the power jack and power outlet.
3. When charging, the battery status LED indicator on the printer turns solid amber. After fully charged, the printer LED indicator turns off. It will stop charging automatically after the battery is fully charged.

Charging the battery by 1 or 4 bay chargers (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 to lock in by the latch as shown.

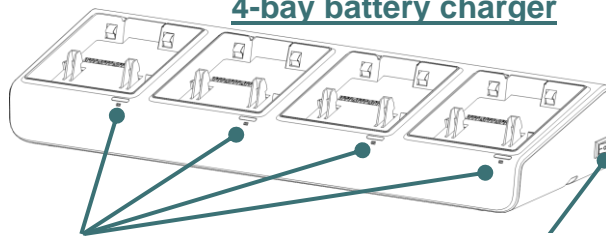
1-bay battery charger



Battery status LED

Adapter socket

4-bay battery charger

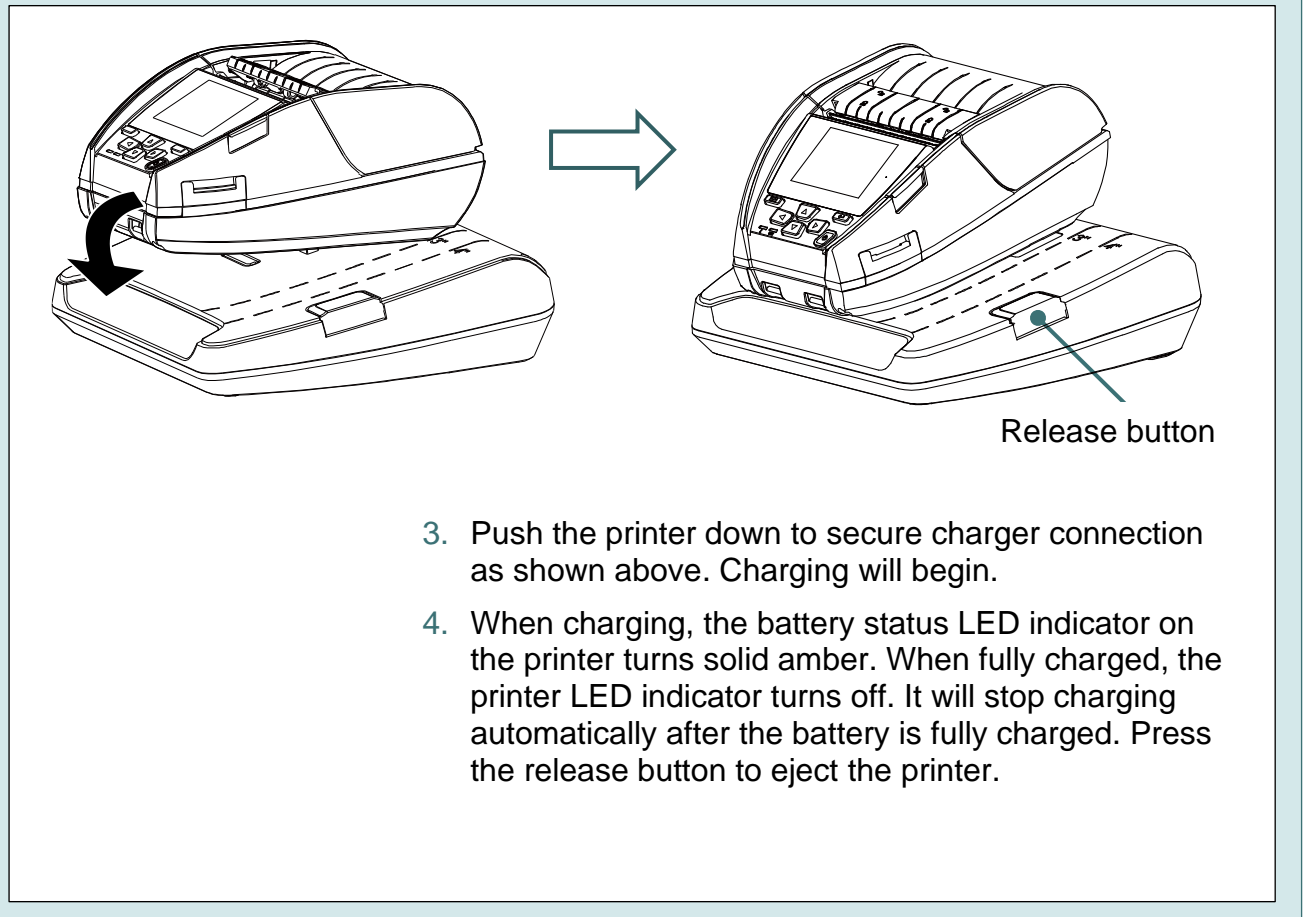
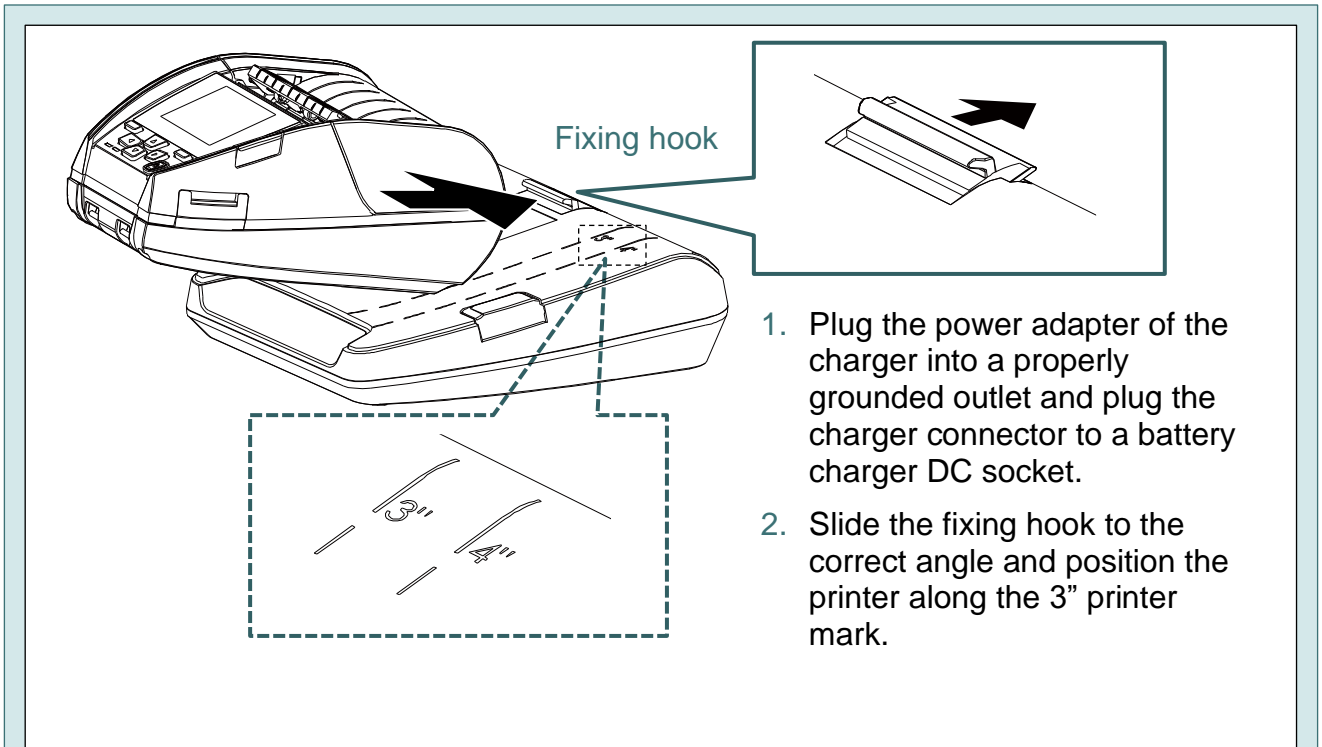


Battery status LED

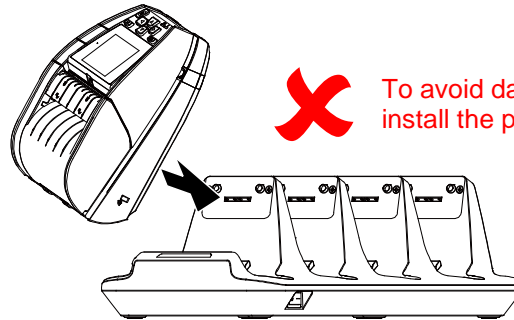
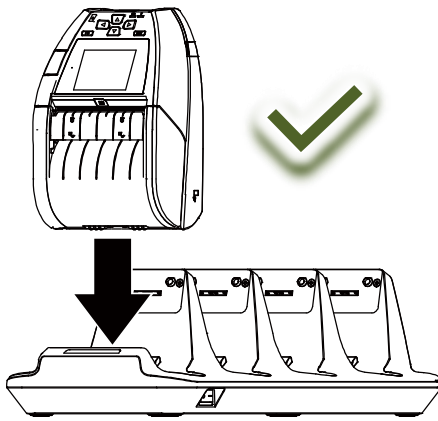
Power button

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.

Charging the printer with 1 bay charger (optional)

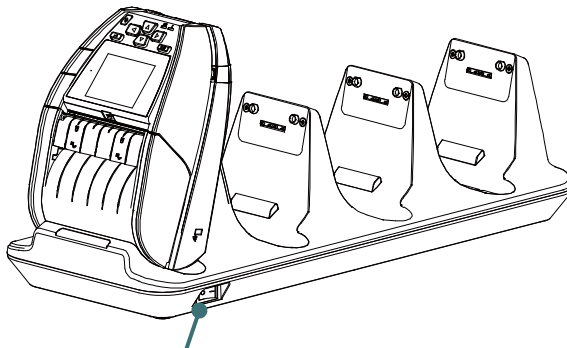


Charging the printer with 4 bay charger (optional)



To avoid damage, DO NOT install the printer at an angle.

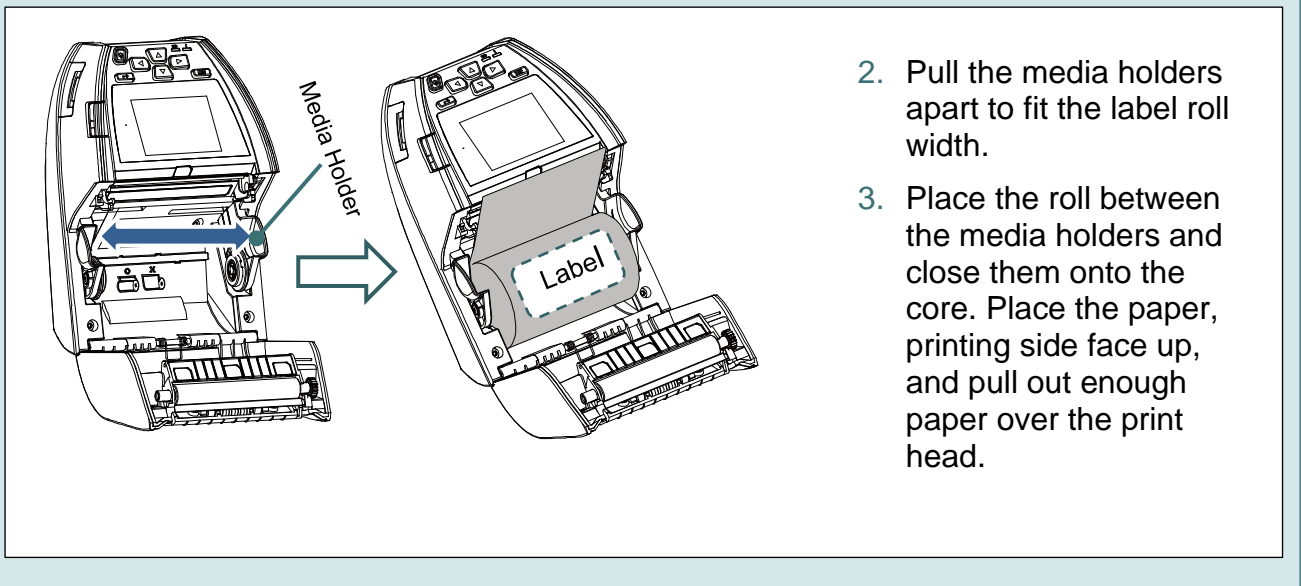
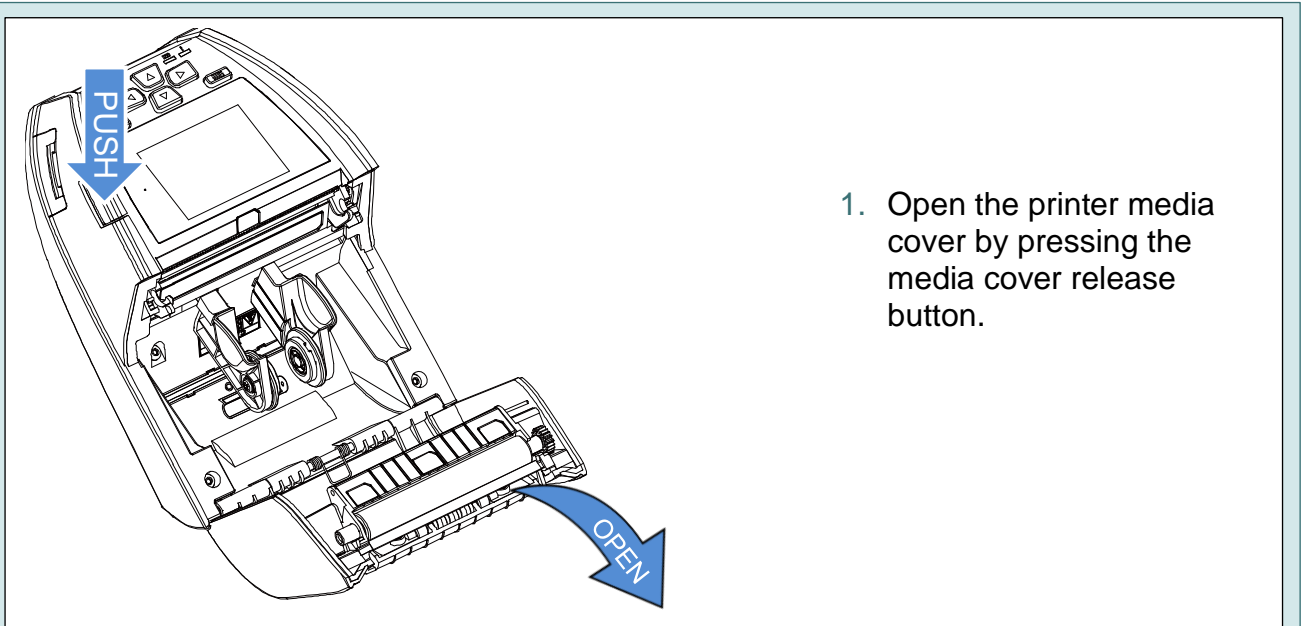
1. Plug the power adapter of the charger into a properly grounded outlet and plug the charger connector to a battery charger DC socket.
2. Install the printer onto the charger at the correct angle and direction as shown above.



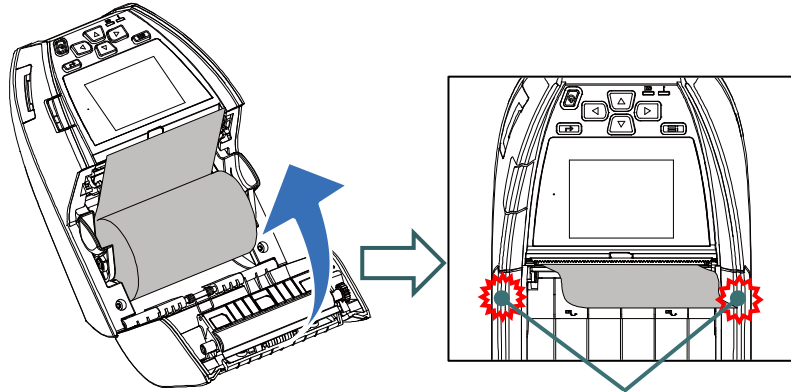
Power button

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.

Loading media

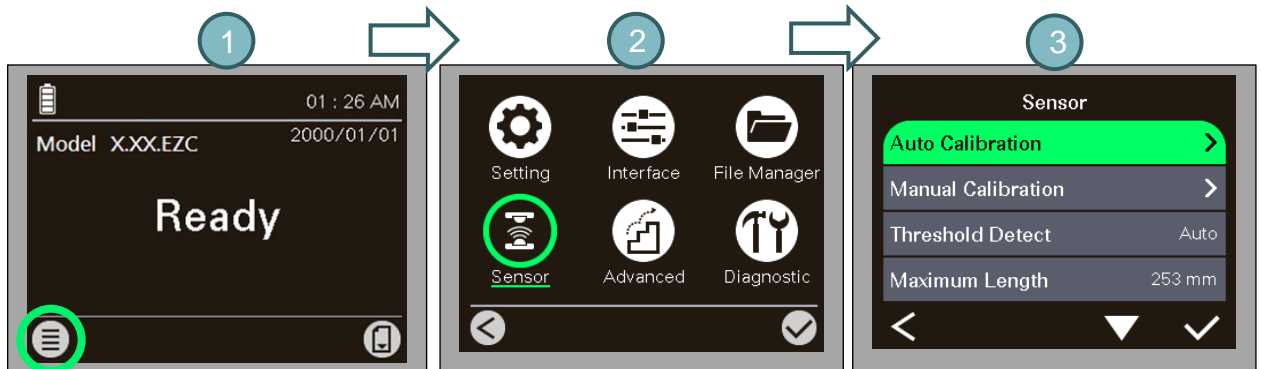


Loading media (cont.)



Press here to latch cover.

4. Press each side of media cover to latch the cover and assure proper paper advancement.

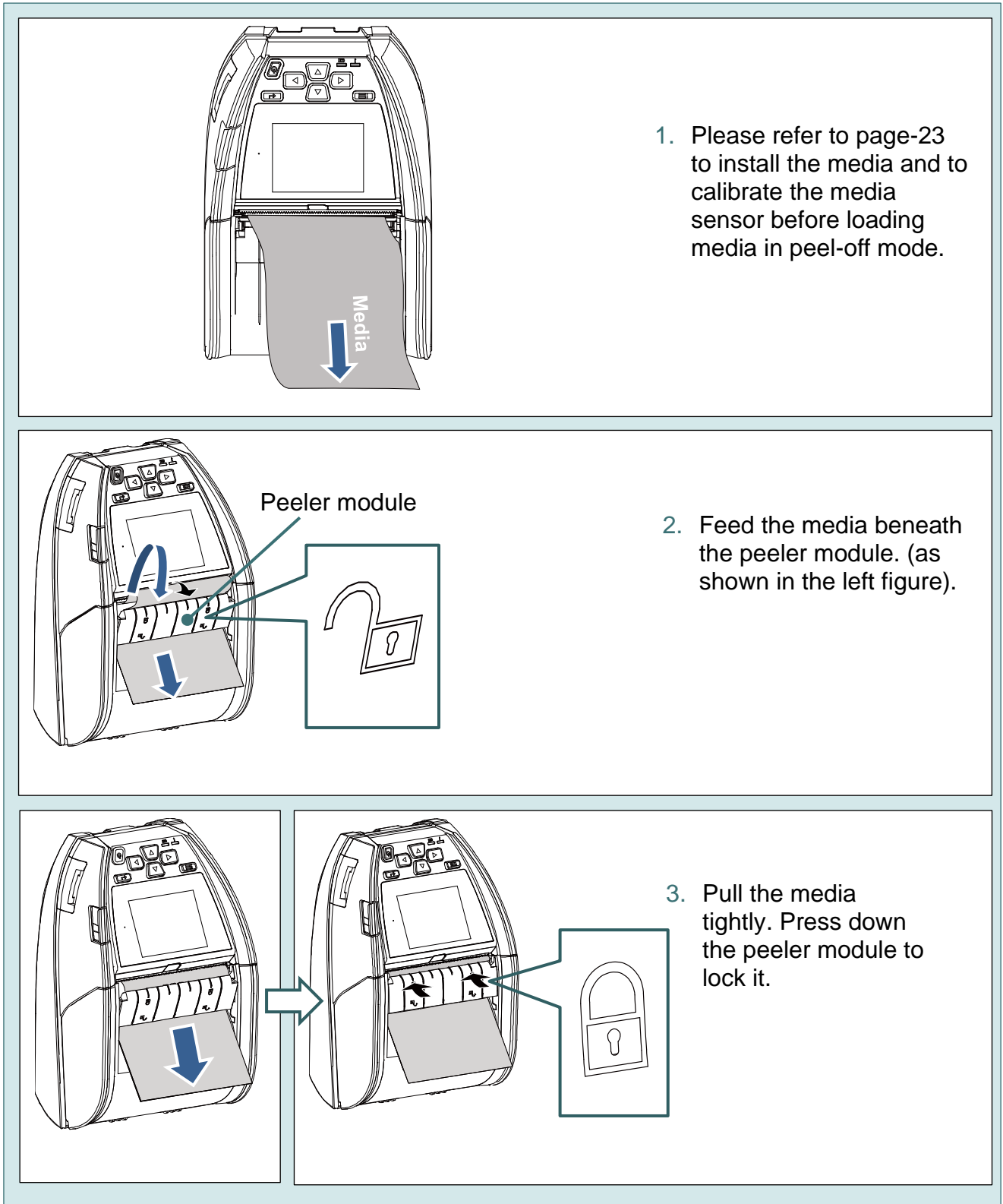


Media Calibration:

Calibrate the gap/black mark sensor when changing media. Turn ON the printer and open/close the media cover. The printer will automatically calibrate.

5. Press the **Menu** key to enter into the LCD menu list. Go to **[Sensor]** → **[Auto Calibration]** to calibrate the media sensor.

Loading the Media in Peel-off Mode



Loading the Media in Peel-off Mode (cont.)

1

01 : 26 AM
Model X.XX.EZC 2000/01/01
Ready

2

Setting Interface File Manager
Sensor Advanced Diagnostic

3

Setting
Density 1
Direction 0
Print Mode Peeler Mode
Offset 0 dot

Media Calibration:
Calibrate the gap/black mark sensor when changing media. Turn ON the printer and open/close the media cover. The printer will automatically calibrate.

4. Press the **Menu** key to enter into the LCD menu list. Go to **[Setting]** → **[Print Mode]** to set the print mode to **[Peeler Mode]**.

Loading external media



3. Flip printer to the backside and remove rubber cover.



1. Flip printer over and open media cover.
2. Install blank label roll to separate internal media holder.



4. Load the label/paper from the external entrance chute.



5. Flip printer over and close media cover.
6. Power ON printer and verify media calibration.



7. Print test label.

Installing the belt clips



1. Press belt clips onto shafts located on front of printer.



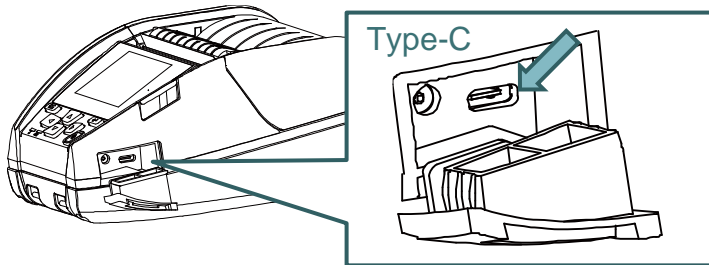
2. Verify clips are secure.

Connecting the printer interface

The printer must establish communication with a host terminal which sends the data to be printed. There are three ways to connect for Fastmark M35 printer.

- ❖ By a Type-C to USB cable between the printer and its host terminal
- ❖ By a Bluetooth short-range radio
- ❖ By a Wireless LAN per 802.11 a/b/g/n/ac (Optional)

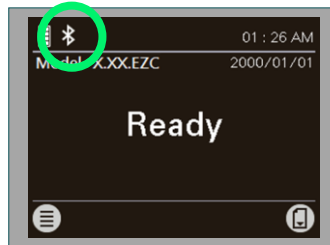
Cable communications



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

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



Printer Bluetooth default

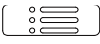
Address	You can find the printer address and by printing the configuration (self-test) page.
Name	BT-SPP (Use DiagTool to change NAME)
PIN	0000 (Use DiagTool to change PIN)

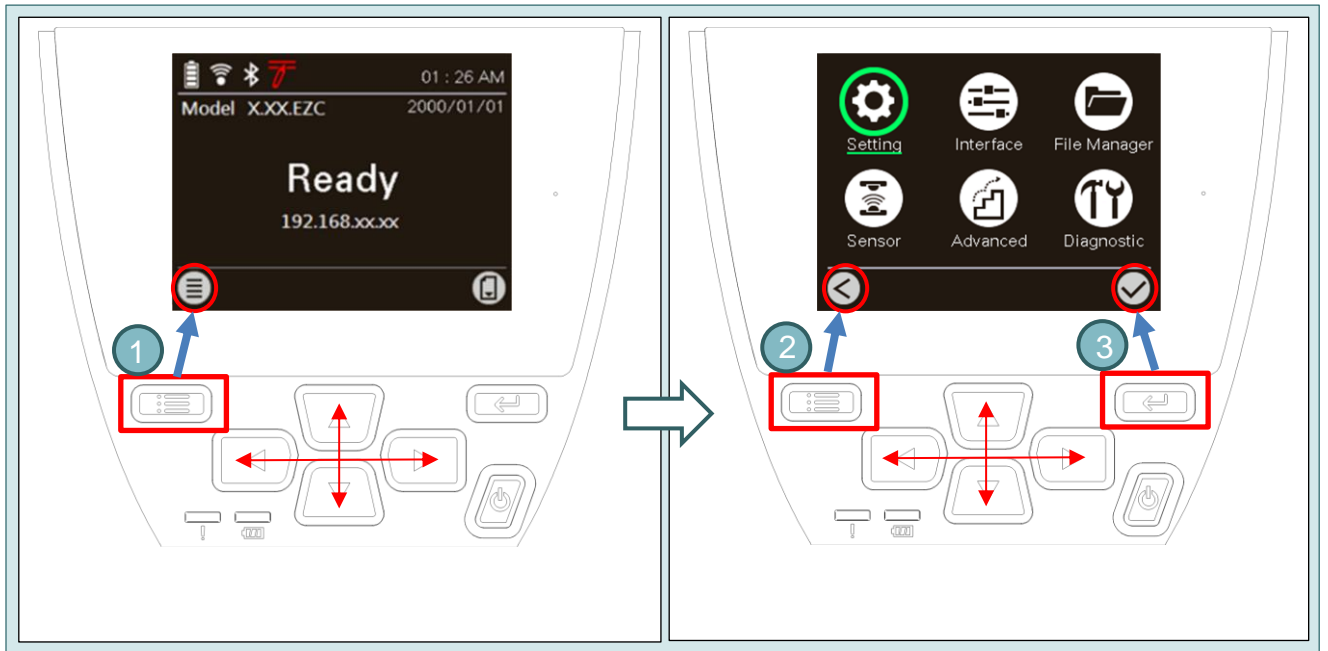
Wireless communications with WiFi (optional)

The printer can be set via utility software or control panel buttons. For control panel setup refer to the “LCD Menu Function” section.

LCD Menu Function

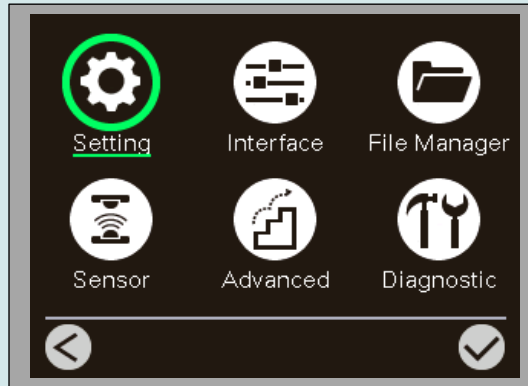
The Fastmark M35 offers an LCD panel to further enhance its capabilities to meet the demands of a wide range of printing solutions. This feature includes LCD control panel, 4 buttons and 2 LED display.

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



Main Menu Overview

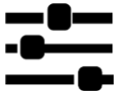
There are 6 categories on the menu. Users can easily set the settings of the printer without connecting the computer. Please refer to following sections for more details.



Setting: To set up the printer settings for TSPL & ZPL2.



Sensor: To calibrate the selected media sensor.



Interface: To set the printer interface settings.



Advanced: To set LCD, initialization, cutter type,...etc.



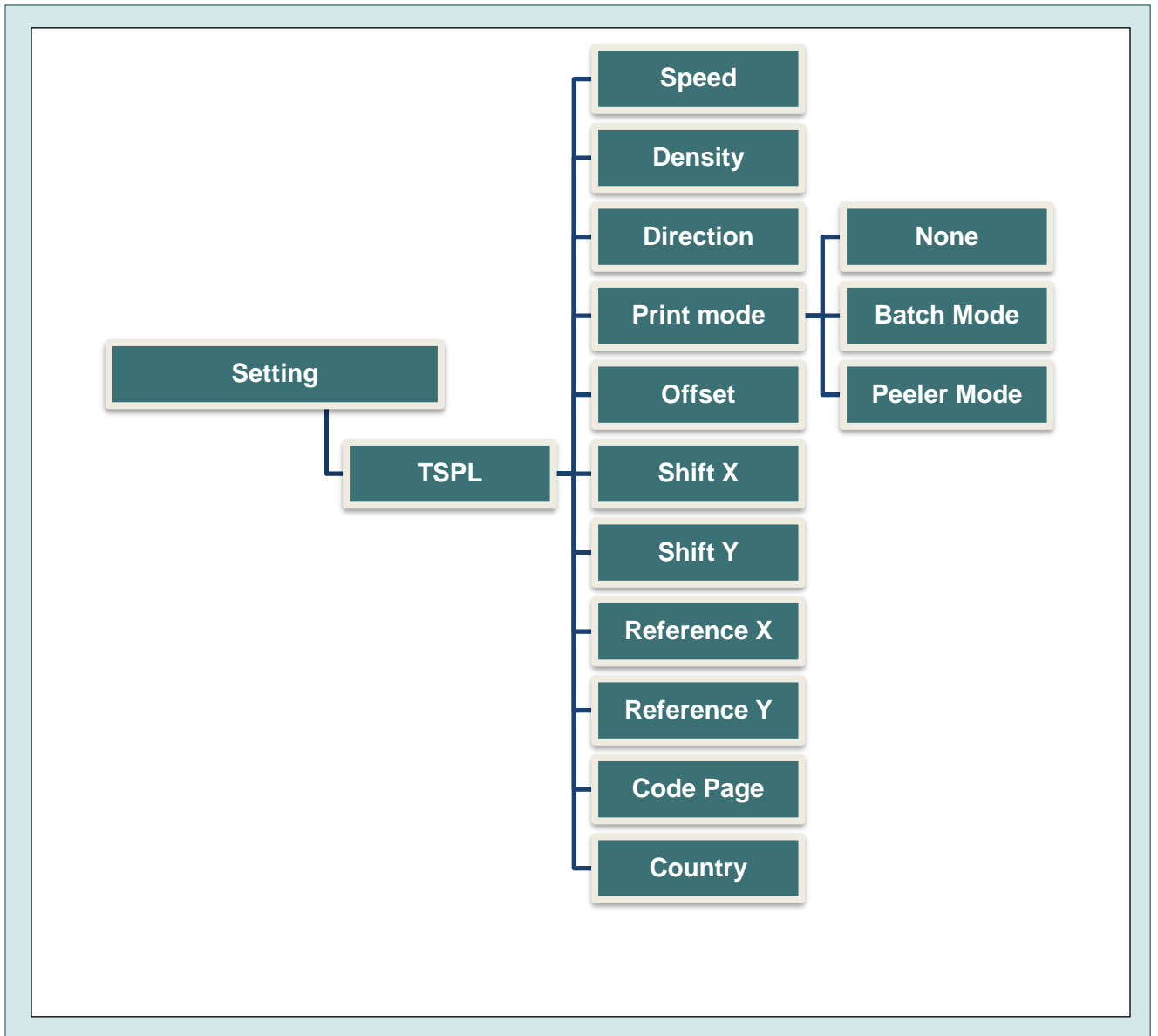
File Manager: To check and manage printer's memory storage.



Diagnostic: To check printer and help users to troubleshoot the problems.

Main Menu Overview

TSPH setup



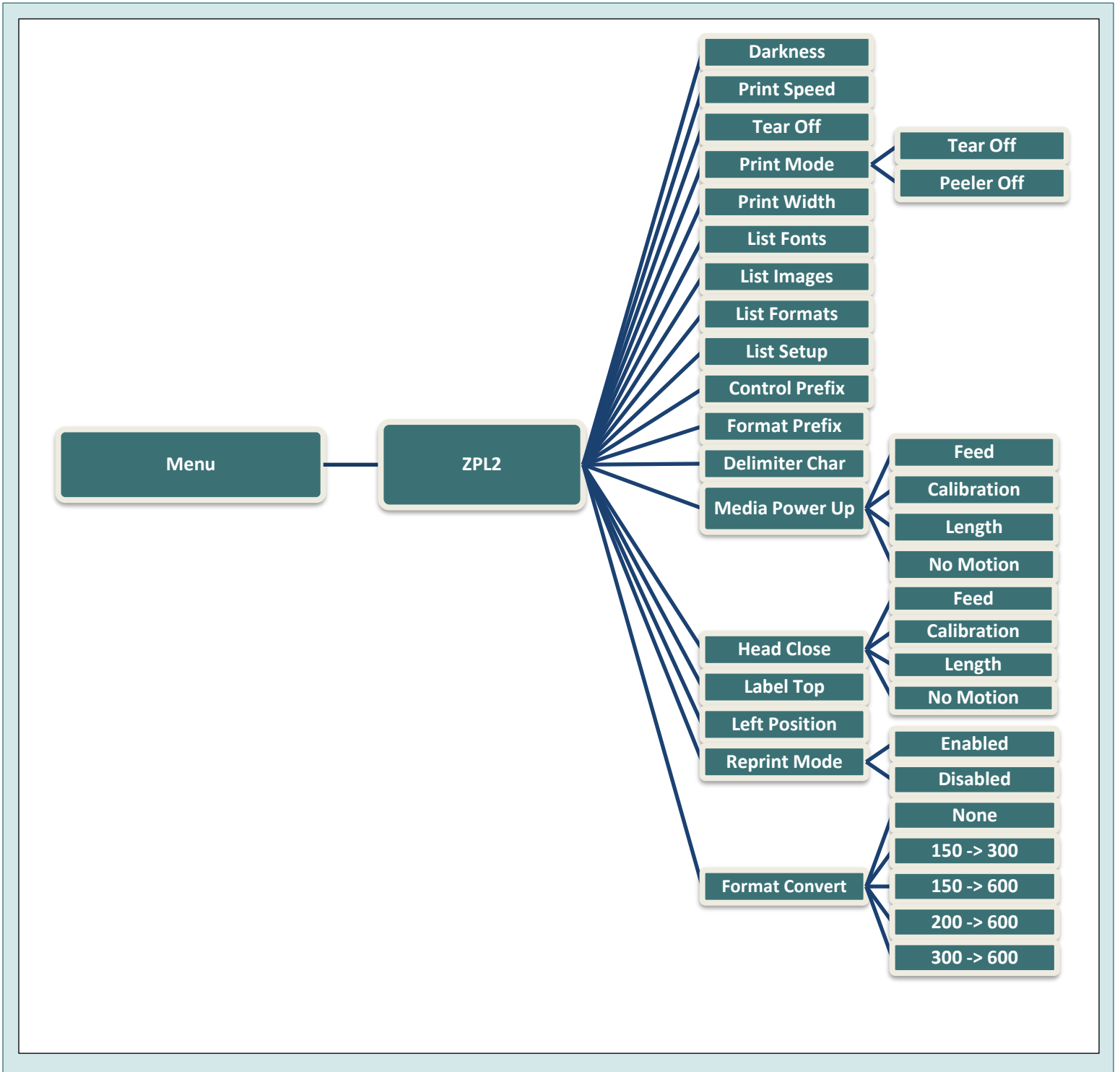
TSPL setup cont.

Item	Description	Default
Speed	Set the print speed.	N/A
Density	Set the printing darkness.	8
Direction	Set the printout direction. Setting Value: 0 and 1. Direction 0: <input type="text" value="Direction"/> Direction 1: <input type="text" value="Direction"/>	0
Print mode	Set the print mode. There are 5 modes in total: None: Next label top of form is aligned to the print head burn line location. (Tear Off Mode) Batch Mode: Once finishing the printing process, label will be fed to the tear plate location. Peeler Mode: Enable the label peel off mode.	Batch Mode
Offset	Adjust media stop location. Available value setting range: -999 dots to 999 dots.	0 dot
Shift X	Adjust print position. Available value setting range: -999 dots to 999 dots.	0 dot
Shift Y		0 dot
Reference X	Set the origin of printer coordinate system horizontally and vertically. Available setting range: 0 dot to 999 dots.	0 dot
Reference Y		0 dot
Code page	Set the code page of international character set.	850
Country	Set the country code. Available setting value range: 1 to 358.	001




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

ZPL2 setup



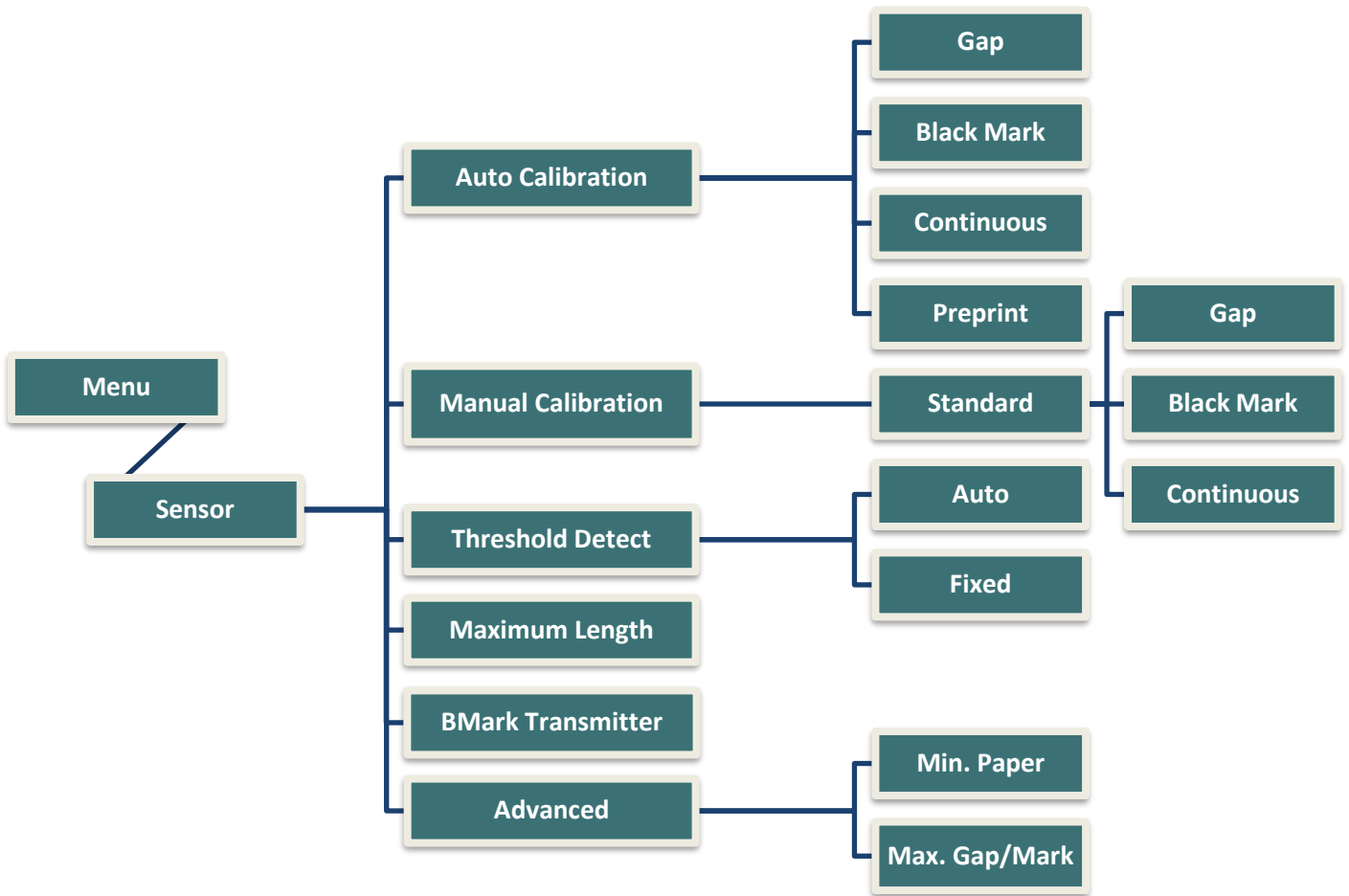
ZPL2 setup cont.

Item	Description	Default
Density	Set the printing darkness. Available setting range: 0 to 30.	16
Print Speed	Set the print speed.	6 (203dpi) 4 (300dpi) 3 (600dpi)
Tear Off	Adjust media stop location. Available setting value range: -120 - 120 dots.	0 dot
Print mode	Set the print mode. There are 4 modes: Tear Off: Next label top of form is aligned to the print head heating line location. Peeler Off: Enable the label peel off mode.	Tear Off
Print Width	Set the print width. Available setting range: 2 - 999 dots.	812
List Fonts	Print the current fonts list from the memory devices to the label.	N/A
List Images	Print current printer available images list stored at the memory device to the label.	N/A
List Formats	Print current printer available formats list from the memory devices to the label.	N/A
List Setup	Print current printer configuration to the label.	N/A
Control Prefix	Set control prefix character.	N/A
Format Prefix	Set format prefix character.	N/A
Delimiter Char	Set delimiter character.	N/A
Media Power Up	Set the action of the media when turning on the printer. Feed: Printer will advance one label. Calibration: Printer will make calibration. Length: Printer determine length and feed label. No Motion: Printer will not move media.	No Motion
Head Close	Set the action of the media when closing the print head. Feed: Printer will advance one label. Calibration: Printer will make calibration. Length: Printer determine length and feed label. No Motion: Printer will not move media.	No Motion
Label Top	Adjust print position vertically on the label. Value range: -120 to +120 dots.	0
Left Position	Adjust print position horizontally on the label. Value range: -9999 to +9999 dots.	0
Reprint Mode	Reprint the last label by pressing  button on printer's control panel.	Disabled
Format Convert	Select the bitmap scaling factor. The first number is the original dots per inch (dpi) value; the second the dpi which you would like to scale.	None



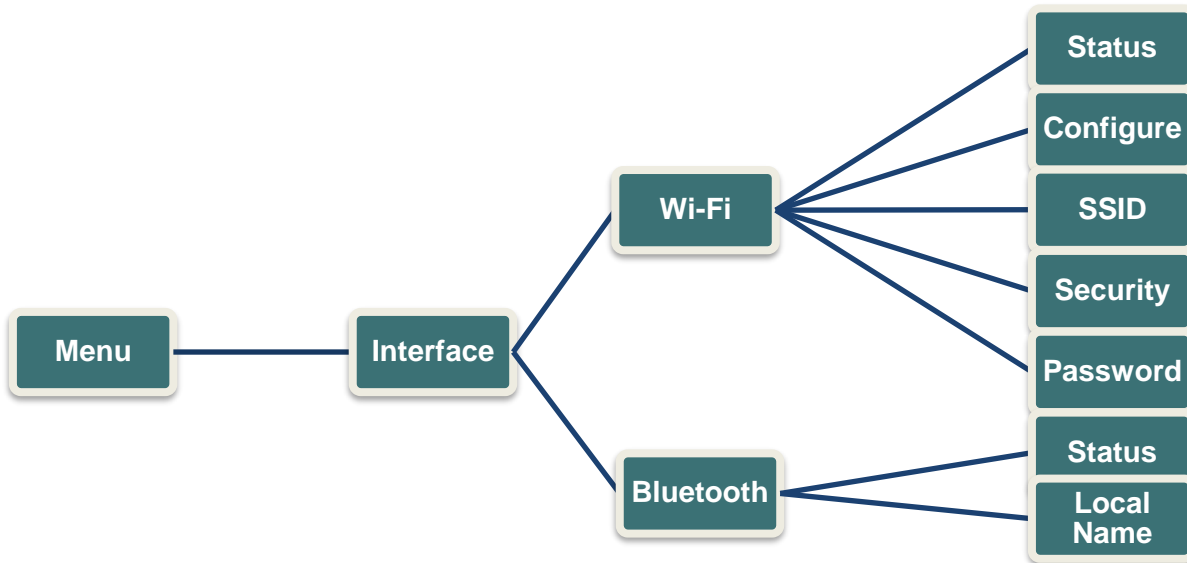
Note: If printing from enclosed software/driver, the software/driver will send out the commands, which will overwrite the settings set from the panel.

Sensor setup



Item	Description	Default
Auto Calibration	Set the media sensor type and calibrate the selected sensor automatically.	N/A
Manual Calibration	In case Auto Calibration does not work, please use “Manual” function to set the paper length and gap/bline size to complete the calibration setting.	N/A
Threshold Detect	Set sensor sensitivity in fixed or auto.	Auto
Maximum Length	Set the maximum length for label calibration.	152 mm
BMark Transmitter	This option is used to set upper or lower black mark sensor as the main transmitter.	Back side
Advanced	Set the minimum paper length and maximum gap/bline length for auto-calibration.	0 mm

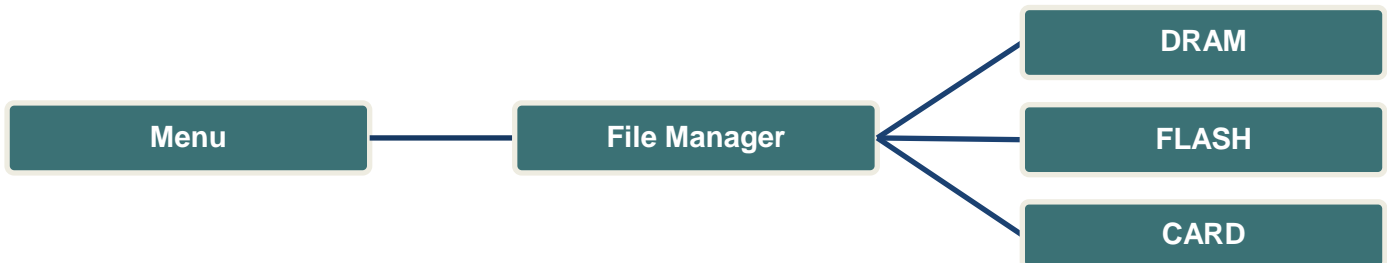
Interface setup



	Item	Description	Default
Wi-Fi	Status	Check the Wi-Fi status	N/A
	Configure	Set the Wi-Fi configure	DHCP
	SSID	Set the SSID	N/A
	Security	Set the security	Open
	Password	Set the security key	N/A
Bluetooth	Status	Check the Bluetooth status	N/A
	Local Name	Set the local name for Bluetooth	N/A

File Manager setup

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

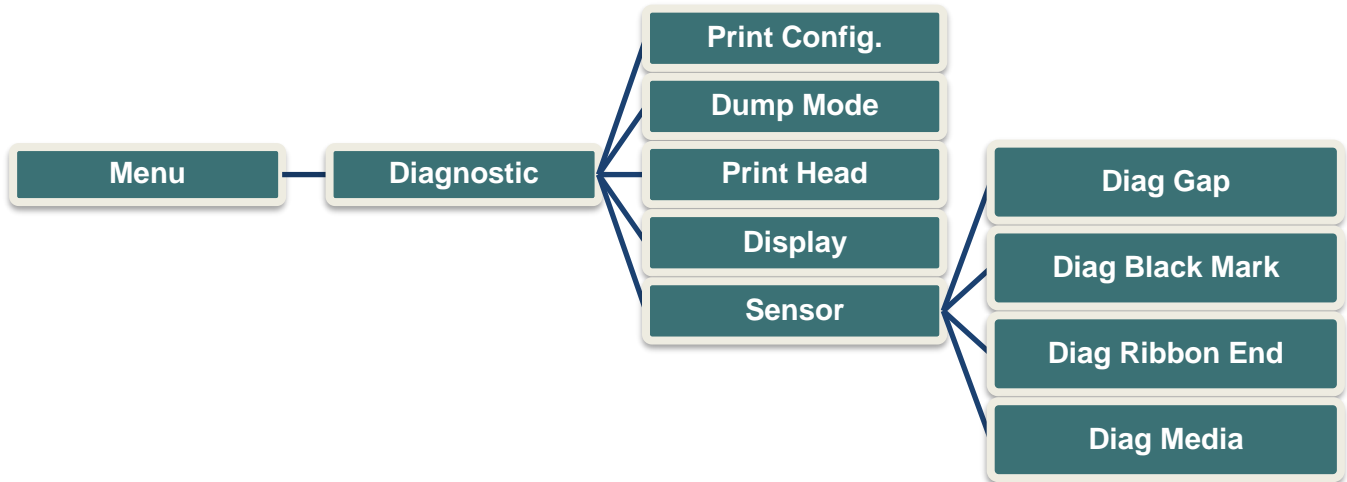


Item	Description
DRAM	Use this menu to show, delete and run (.BAS) the files saved in the printer DRAM memory.
FLASH	Use this menu to show, delete and run (.BAS) the files saved in the printer Flash memory.
CARD	Use this menu to show, delete and run (.BAS) the files saved in the SD card on printer.



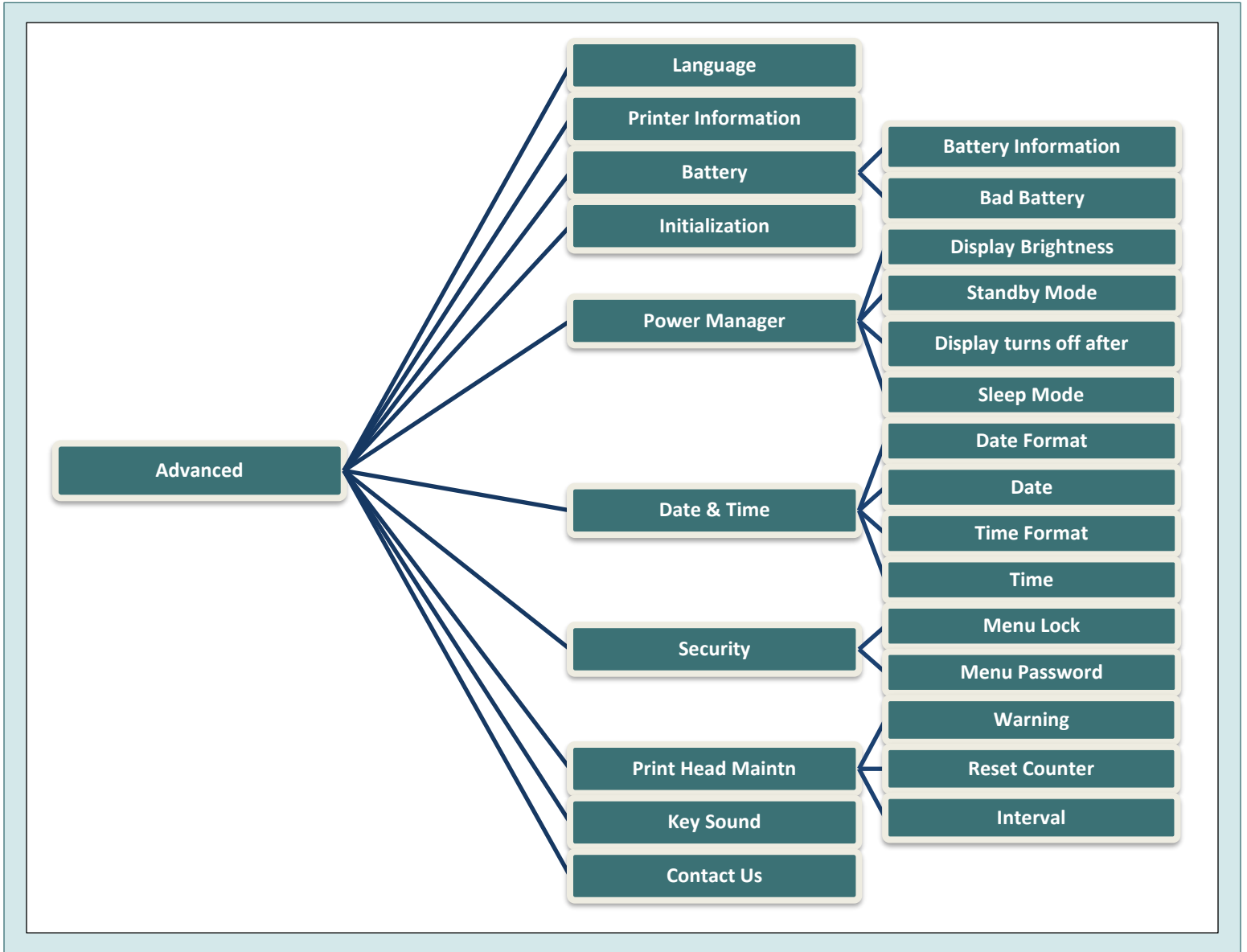
Note: This subsection will only be visible when the SD card is installed.

Diagnostic setup



Item	Description
Print Config.	Print current printer configuration to the label. The configuration printout contains print head test pattern, which is useful for checking the dot damage on the print head heater.
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 the right-side data are the corresponding hexadecimal value of the characters. It allows users or engineers to verify and debug the program.
Print Head	Check print head's temperature and bad dots.
Display	Check LCD's color state.
Sensor	Check sensors intensity and reading state.

Advanced setup



Advanced setup cont.

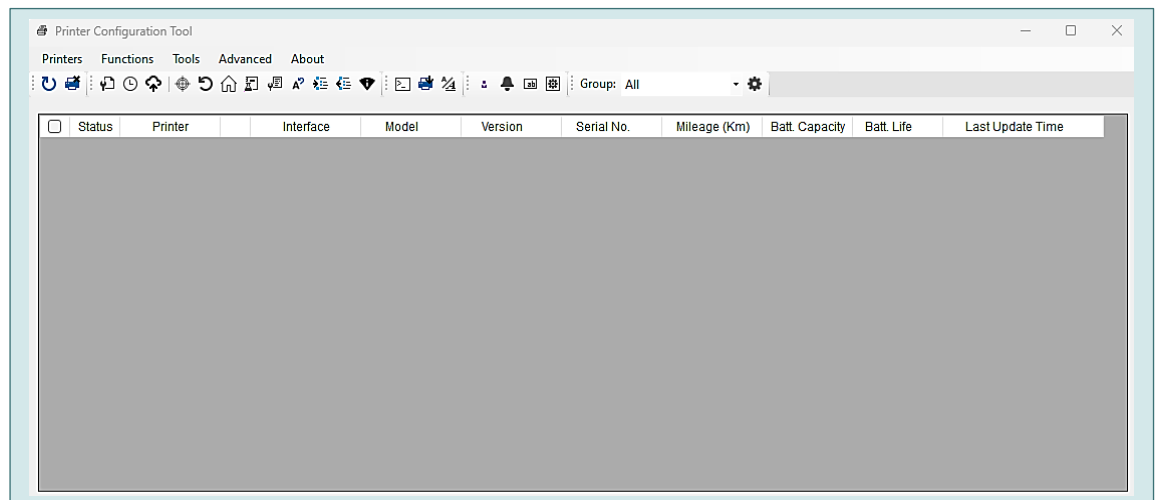
Item	Description	Default
Language	Setup the language on display.	English
Printer Information	Check the printer serial number, printed mileage (m), printed labels (pcs), etc.	N/A
Battery	Check the battery information and to set the warning for discharge times.	550 times
Initialization	Restore printer settings to defaults.	N/A
Power Manager	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	Setup the date and time on display.	N/A
Security	Set the password for locking the menu. The default password is 8888.	Disable
Printer Head Maintenance	Check print head status and to set the settings for print head care.	
	Item	Description
	Warning	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.
	Reset Counter	To reset the print head clean warning mileage after cleaned print head.
	Interval	To set the expected mileage for reminding user to clean the print head. Enable the "TPH warning lock" for this function. The default setting is 1 km.
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

Printer Configuration Tool

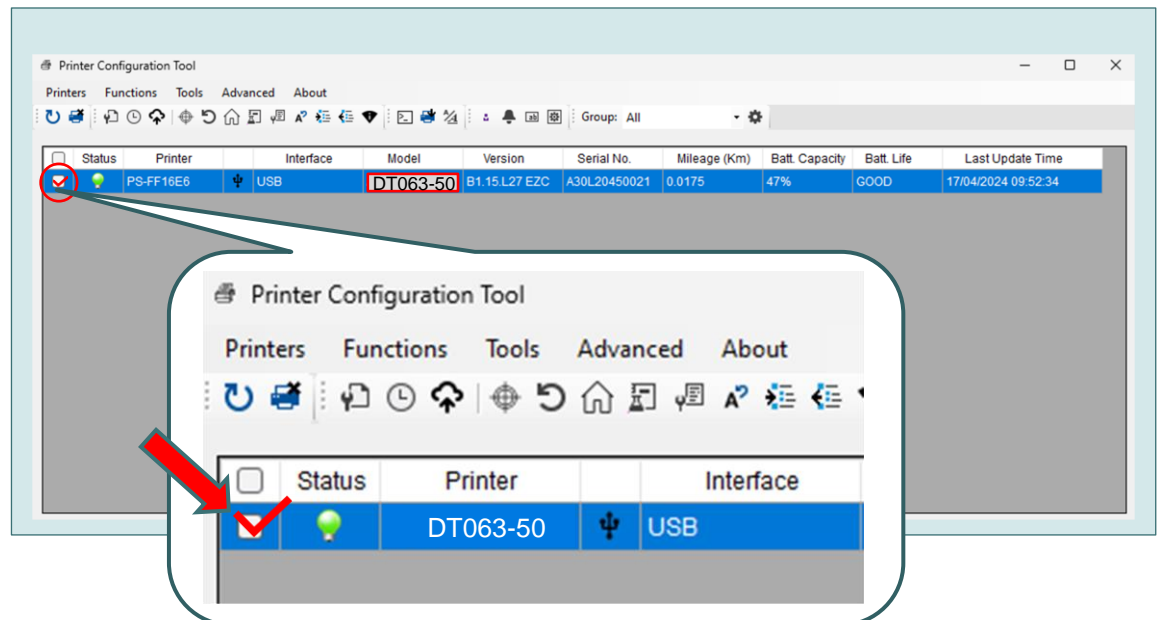
Printer Configuration Tool is a printer utility software combining Printer Management, Diagnostic Tool, CommTool and Printer Webpage settings, which enables you to adjust printer's settings/status; change printers' settings; download graphics, deploy fonts, graphics, or upgrade the firmware to the group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

Printer configuration setup:

1. Connect printer to computer via USB Cable. Open/start "Printer Configuration Tool" software.



2. Select printer model to configure.



3. Click on “GET” to display current printer configuration.
4. Select and adjust printer parameters as desired.

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

5. After adjusting parameters, click on “SET” to save

Wi-Fi network parameter setup

1. Click on “FUNCTIONS” then “Printer Configuration”.
2. Click on “Wi-Fi” to adjust network parameters.



The screenshot shows the 'Printer Configuration Tool' interface. In the top navigation bar, the 'Functions' tab is highlighted with a red circle and labeled '1a'. Below it, the 'Printer Configuration' sub-tab is also highlighted with a red circle and labeled '1b'. The main configuration area is divided into several sections. On the left, there is a 'Printer Function' sidebar with buttons for 'Calibration', 'RTC Setup', 'Factory Default', 'Reset Printer', 'Print Test Page', 'Configuration Page', 'Dump Text', 'Ignore AUTO.BAS', 'Exit Line Mode', 'Enter Line Mode', and 'Wi-Fi Default'. The 'Printer Configuration' section on the right contains fields for 'Version', 'Serial No.', 'Checksum', 'Ribbon Remaining', 'Label Count', 'Cutting Counter', and 'Mileage (Km)'. Below these are tabs for 'Common', 'RS-232', 'Bluetooth', and 'Wi-Fi', with 'Wi-Fi' selected and highlighted with a red box and labeled '2'. A callout box points to the 'Wi-Fi' tab with the text 'Select Wi-Fi to adjust network parameters.' The 'Wi-Fi Module' section contains various network settings: SSID (EQ2AP2), WLAN Encryption (WPA-Personal), Key (masked), DHCP (ON), IP Address (192.168.111.214), Subnet Mask (255.255.255.0), Gateway (192.168.111.1), Primary DNS IP (24.25.5.60), Secondary DNS IP (24.25.5.61), Raw Port (9100), Printer Name (PS-FF16E6), and MAC Address (00:1B:82:FF:16:E6). Other fields include EAP Type, Username, Password, CA Certificate, Client Certificate, Private Key, EAP-FAST PAC, Fast BSS Transition (802.11r) (OFF), Wi-Fi Version (5.2.1.0R5), and RSSI (46). At the bottom right, the 'Set' button is highlighted with a red box and labeled '3'. There are also 'Save' and 'Load' buttons at the bottom left.

3. After adjusting WiFi parameters, click on “SET” to save.

4. Verify the Wi-Fi logo and IP address are displayed on the LCD control panel as shown.







Power-ON Utilities

There are five power-ON utilities to set up and test printer hardware. These utilities are activated by pressing the FEED () and the printer power () buttons simultaneously.

Procedure

Follow the steps below to execute manual: Sensor Calibration, Self-test, Factory Default, Blind Calibration and Gap Calibration functions.

- 1.** Turn off the printer power.
- 2.** Hold on the FEED button () then press and hold the power () button.
- 3.** Release the power button () when LCD indicates desired calibration/test function, continue pressing the FEED button.
- 4.** The printer will beep twice, then release the FEED () button.
- 5.** The printer will perform utility function.

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	<ul style="list-style-type: none"> * The battery is not properly installed. * Battery out of power. * Battery damage. 	<ul style="list-style-type: none"> * Reinstall the battery. * Switch the printer on. * Charge the battery. * Replace a new battery.
Not Printing	<ul style="list-style-type: none"> * 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. 	<ul style="list-style-type: none"> * 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	<ul style="list-style-type: none"> * Label loaded not correctly * Use wrong type paper 	<ul style="list-style-type: none"> * Follow the instructions in loading the media. * Use thermal type paper
The printer status from LCD shows "Carriage Open".	<ul style="list-style-type: none"> * The printer carriage is open. 	<ul style="list-style-type: none"> * Please close the print carriage.
The printer status from LCD shows "No Paper".	<ul style="list-style-type: none"> * Running out of media roll. * The media is installed incorrectly. * Media sensor is not calibrated. 	<ul style="list-style-type: none"> * 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".	<ul style="list-style-type: none"> * Media sensor is not set properly. * The media size is set incorrectly. * Label may be stuck inside the printer mechanism. 	<ul style="list-style-type: none"> * Calibrate the media sensor. (Select the correct sensor) * Set media size correctly. * Remove the stuck label inside the printer mechanism.
Take Label	<ul style="list-style-type: none"> * Peel function is enabled. 	<ul style="list-style-type: none"> * If use peel-off mode, please remove the label.
Can't downloading the file to memory (FLASH / DRAM/ CARD)	<ul style="list-style-type: none"> * The space of memory is full. 	<ul style="list-style-type: none"> * Delete unused files in the memory.

Troubleshooting Cont.

Problem	Possible Cause	Recovery Procedure
SD card is unable to use	<ul style="list-style-type: none"> * SD card is damaged. * SD card doesn't insert correctly. 	<ul style="list-style-type: none"> * Use the supported capacity SD card. * Insert the SD card again.
Poor Print Quality	<ul style="list-style-type: none"> * 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. 	<ul style="list-style-type: none"> * 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	<ul style="list-style-type: none"> * Wrong label size setup. 	<ul style="list-style-type: none"> * Set the correct label size.
Irregular printing	<ul style="list-style-type: none"> * The printer is in Hex Dump mode. 	<ul style="list-style-type: none"> * Turn off and on the printer to skip the dump mode.
Skip labels when printing	<ul style="list-style-type: none"> * Label size is not specified properly. * Sensor sensitivity is not set properly. * The media sensor is covered with dust. 	<ul style="list-style-type: none"> * 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	<ul style="list-style-type: none"> * The battery has run down. 	<ul style="list-style-type: none"> * Check if there is a battery on the main board.

Maintenance

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

■ For Cleaning

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

■ For Disinfecting

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

■ Important

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

Maintenance Cleaning Tools

- Printhead cleaning pen
- 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)

Printer Part	Method	Interval
Print Head	<ol style="list-style-type: none"> I. Always turn off the printer before cleaning the printhead. II. Allow the printhead to cool for at least one minute. III. Use a cotton swab and 99% Isopropyl Alcohol or genuine print head cleaning pen to clean the print head surface. 	Clean the print head when changing a new label roll.
Platen Roller	<ol style="list-style-type: none"> I. Turn off the printer. II. Rotate the platen roller and wipe it thoroughly with the lint-free 99% Isopropyl Alcohol. 	Clean the platen roller when changing a new label roll
Peel Bar	Use the lint-free cloth with 99% Isopropyl Alcohol to wipe it.	As needed
Sensor	Use brush with soft non-metallic bristles or a vacuum cleaner, to remove paper dust. Clean upper and lower media sensors to ensure reliable Top of Form and Paper Out sensing.	Monthly
Exterior	Clean the exterior surfaces with a clean, lint-free cloth (water-dampened cloth). If necessary, use a mild detergent or desktop cleaning solution then use the 75% Ethanol to wipe it.	As needed
Interior	Clean the interior of the printer by removing any dirt and lint with a vacuum cleaner, as described above, or use a brush with soft non-metallic bristles then use the 75% Ethanol to wipe it.	As needed



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