

MP3-200
MOBILE PRINTERS
USER'S MANUAL



Ver. 1.2

ARGOX
a  company

Table of Contents

Proprietary Statement	4
Safety	7
Getting Started	8
Unpacking Printer	8
Package Contents	10
Printer Overview	11
Battery	12
Installing the Battery	12
Charging the Battery	14
Battery & Power Notifications.....	15
Loading Media	16
Wearing Belt Strap	19
Controls & Connections	24
Self-Test before Connecting.....	24
Printer Controls and Indicators	25
Smart Battery Power Management	27
Connecting the Printer	28
Drivers & Software	31
Troubleshooting	32
Printer Status Indications	32
Performing Calibration	34
Printing a Configuration Report.....	35

Printer Maintenance	38
Print Head Maintenance Guide.....	38
Cleaning the Media Sensor	39
Specifications	40
Interface Specifications.....	43
Serial Interface.....	43
USB Interface	44
Bluetooth Interface	44
Wi-Fi (802.11 b/g/n) Interface	45

Proprietary Statement

This manual contains proprietary information of Argox Information Co., Ltd. It is intended solely for the information and use of parties operating and maintaining the equipment described herein. Such proprietary information may not be used, reproduced, or disclosed to any other parties for any other purpose without the expressed written permission of Argox Information Co., Ltd.

Product Improvements

Continuous improvement of products is a policy of Argox Information Co., Ltd. All specifications and signs are subject to change without notice.

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

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.

CAUTION:

Prevent battery (P/N: 30BB00000423A0) misuse



Replacement of a battery with an incorrect type that can defeat a safeguard (for example, in the case of some lithium battery types).



Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery that can result in an explosion.



Leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas.



A battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

CAUTION:

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

This module is intended for OEM integrator. The OEM integrator is responsible for the compliance to all the rules that apply to the product into which this certified RF module is integrated. Additional testing and certification may be necessary when multiple modules are used.

USERS MANUAL OF THE END PRODUCT

In the user's manual of the end product, the end user has to be informed to keep at least 20 cm separation with the antenna while this end product is installed and operated.

The end user has to be informed that the FCC radio-frequency exposure guidelines for an uncontrolled environment can be satisfied.

The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

Liability Disclaimer

Argox Information Co., Ltd. takes steps to assure that the company's published engineering specifications and manuals are correct; however, errors do occur. Argox Information Co., Ltd. reserves the right to correct any such errors and disclaims any resulting liability. In no event shall Argox Information Co., Ltd. or anyone else involved in the creation, production, or delivery of the accompanying product (including hardware and software) be liable for any damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information, or other pecuniary loss) arising out of the use of or the results of use of or inability to use such product, even if Argox Information Co., Ltd. has been advised of the possibility of such damages.

RF exposure warning

The equipment complies with FCC RF exposure limits set forth for an uncontrolled environment.

The equipment must not be co-located or operated in conjunction with any other antenna or transmitter.

CAUTION:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Safety

The user is cautioned that any changes or modifications which are not recommended by Argox Information Co. Ltd. could result in the loss of the user's authority to operate the equipment. To ensure compliance, the users must use accessories and peripherals approved by Argox Information Co. Ltd.



Supplemental Information: This device complies with the requirement of FCC Part 15 Rules. Operation is subject to the following two Conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



The manufacturer declares under sole responsibility that this product conforms to the following standards or other normative documents:
EMC: EN 55022:2010 class A
EN 55024:2010



Argox Information Co., Ltd certifies that the following products and/or components are compliant with the current requirements of the European Union Restriction on the use of Hazardous Substances (RoHS) Directive, 2011/65/EC.

Getting Started

Congratulations on your choice of the MP3-200 mobile printer, manufactured by Argox Information, a global leader in the barcode industry. MP3-200 is ideally designed to bring more efficiency to your business. This manual will help you get to know your new printer and provide you with the required information.

Features

- Extensive memory up to 128M SDRAM and 128M Flash ROM
- Printing speed up to 5 ips
- Bluetooth/WIFI combo with roaming feature
- TPH middle aligned
- IP54 water and dust proof (with environmental case)
- Print anywhere with lightweight design

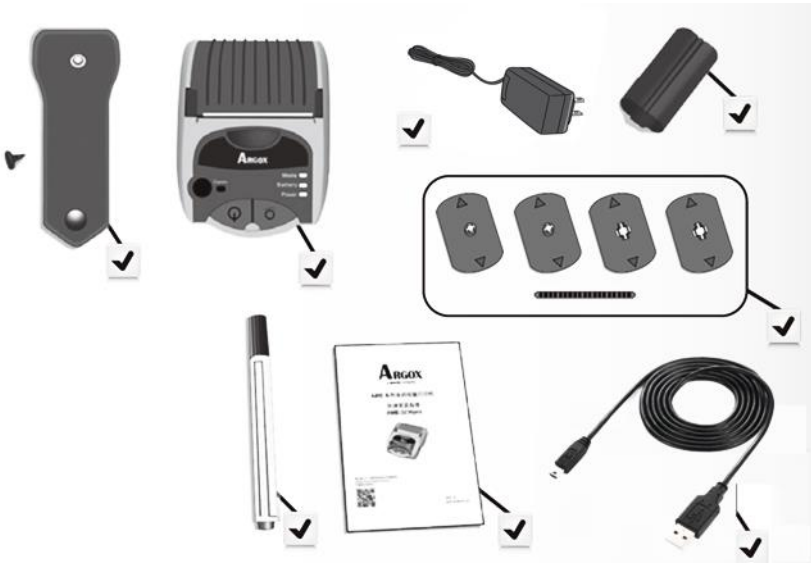
Unpacking Printer

On receipt of your printer, please check that it has not been damaged in transit. Inspect the outside of both the box and the printer for possible damage.

1. Open the top cover of the printer to check that the media compartments are in order.

Note: *If you discover any damage in transit, contact your carrier immediately to make a claim.*

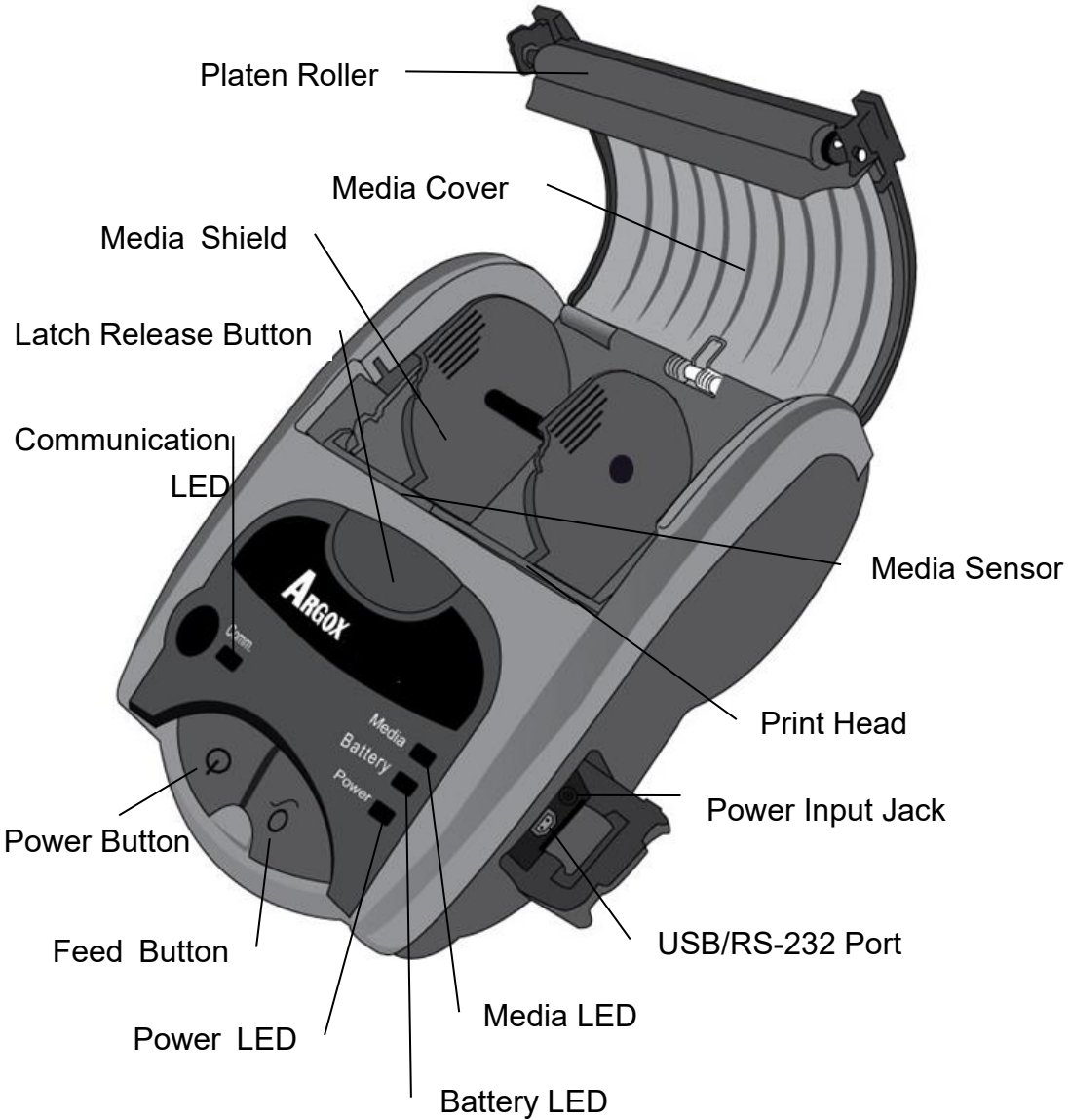
2. Check whether you have received the following accessories together with the printer. If there are any items missing, please contact your local dealer.



Package Contents

- ✓ Printer
- ✓ Power Supply
- ✓ Micro USB Cable
- ✓ Battery
- ✓ Belt Strap & Screw
- ✓ Media Shield
- ✓ Print head Cleaning Pen
- ✓ Quick Installation Guide

Printer Overview



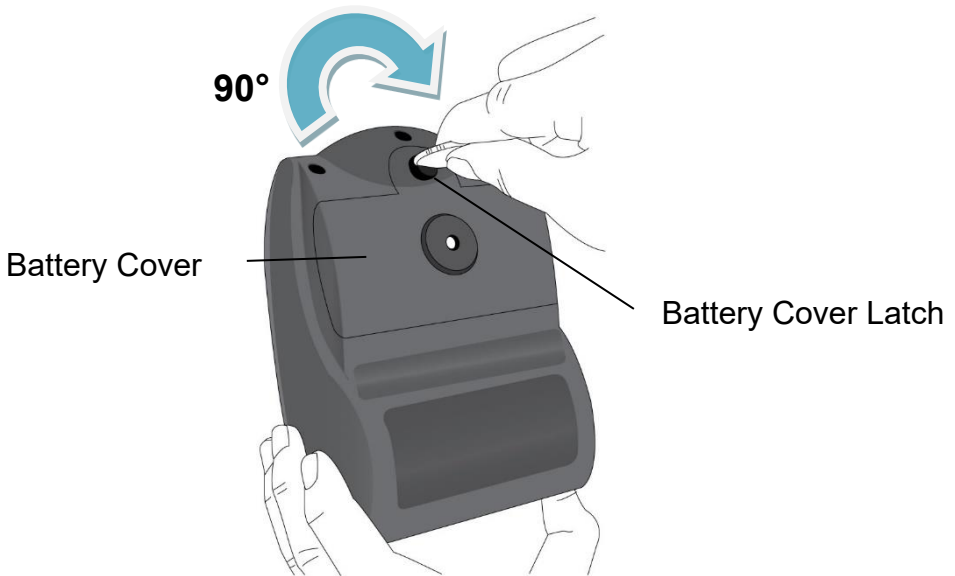
Battery

Each printer package contains one battery pack. The battery must be installed for the printer to work, even if the power supply is connected. You must fully charge the battery before using the printer for the first time.

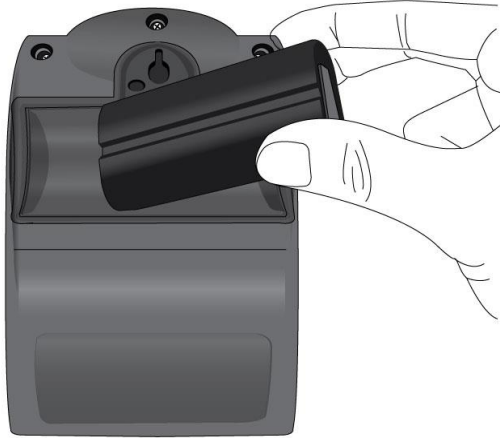
Installing the Battery

1. To release the battery cover, turn the battery cover latch 90° to the right as shown below.

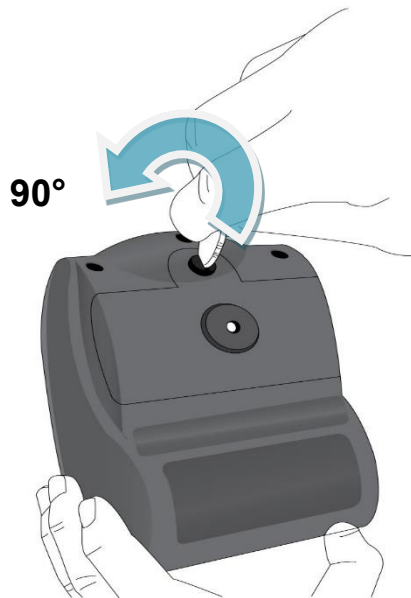
Note: We recommend using a coin to turn the latch.



2. Remove the battery cover and install the battery pack into the printer.

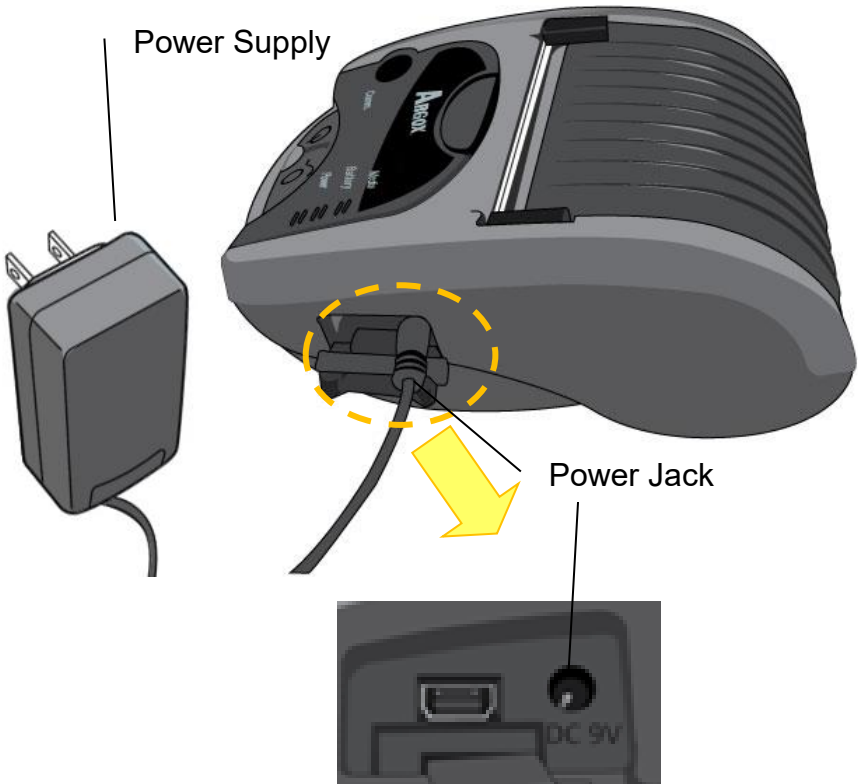
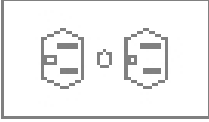


3. Replace the battery cover and turn the battery cover latch 90° to lock in place.



Charging the Battery

1. After installing the battery pack, connect the power supply into the printer's power jack.
2. Then plug the power supply into the AC wall receptacle. The printer's battery LED will remain yellow during charging.



3. It takes approximately 4 hours to fully charge the battery, and the Battery LED will turn off, signifying that the battery is fully charged and ready for use.

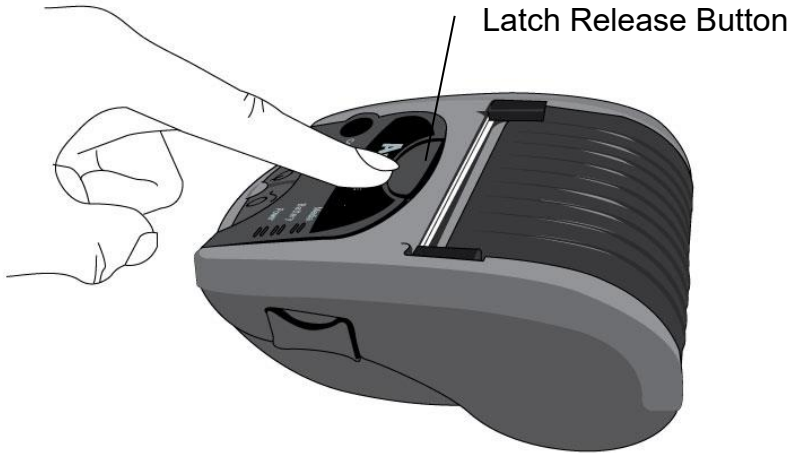
Note: *Operating the printer while being charged will increase the charging time. Wait until the battery is fully charged before operating the printer.*

Battery & Power Notifications

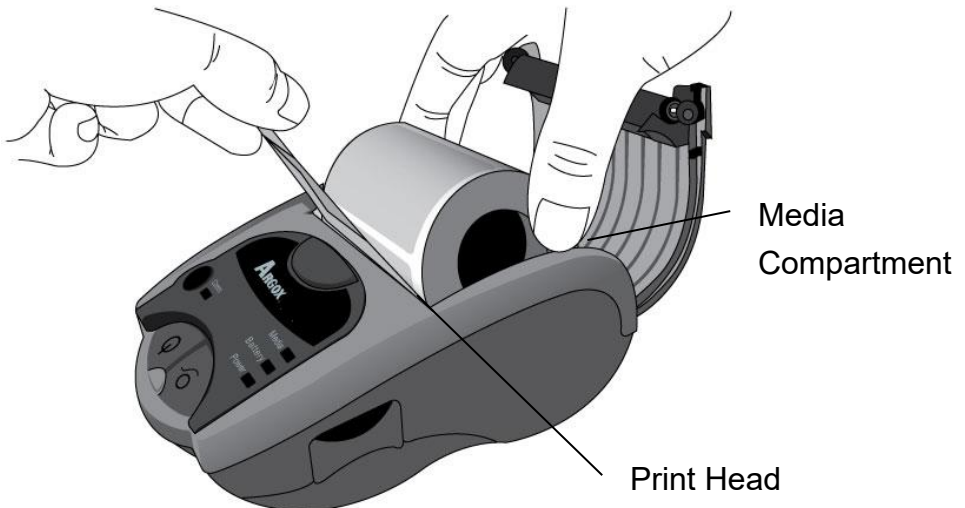
1. Do not disassemble the battery pack in case of malfunction.
2. Keep the battery pack and printer away from fire, liquids, and conductive materials, for your own safety and to avoid possible damage.
3. Be sure only to use the power supply and battery pack provided or approved by Argox.
4. Any damage caused by abnormal use will void the warranty.
5. When the battery is not used for a long time, please keep it at 50% charge and store it in a -20~25°C environment.
6. MP3-200 has a protection mechanism for the new battery and the charging system when it reaches from 0 to 50°C in high-low temperature. When the ambient temperature is detected to be 0 or 50°C, the battery will be disconnected and prohibit the charging.

7. Loading Media

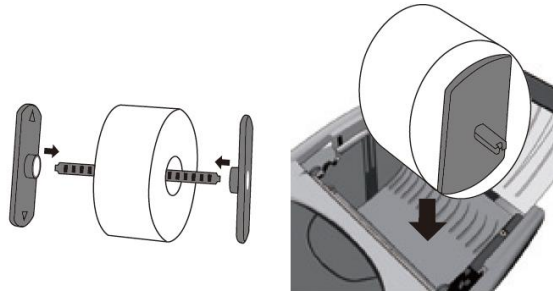
1. Press the latch release button on the printer to automatically open the Media Cover.



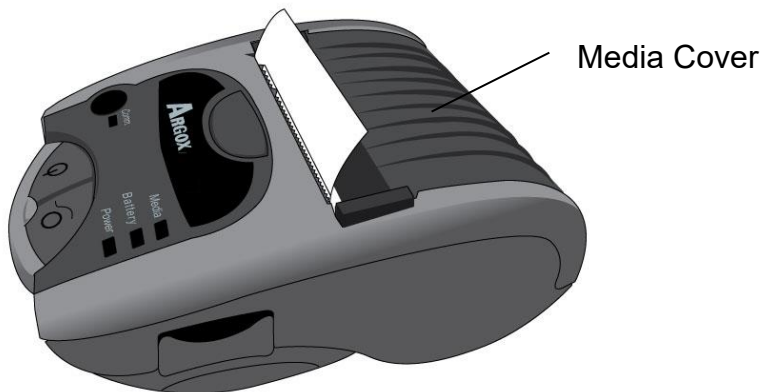
2. Place the media supply roll in the media compartment. Make sure the media supply unwinds near the print head as shown below.



* If the media supply roll is small, use the media shield to hold the media supply roll. For media supply rolls less than 3 inches wide, align media supply roll to slightly middle left for correct detection of media sensor. Place the media shield in the media compartment and lean it closely against the media supply roller.



3. Pull a short length of media out of the printer. Close the media cover and press until you hear a click sound to lock it properly:



4. Tearing Media:

To tear the media, pull the edge of the media against the tear bar as shown below.

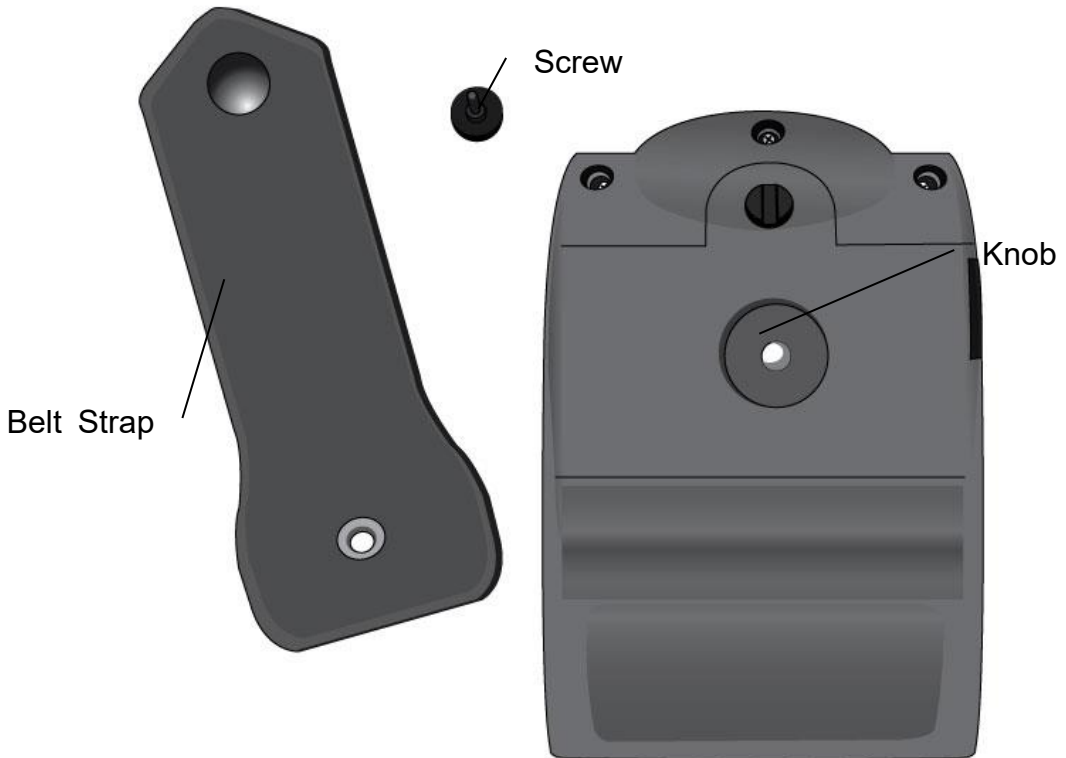


Wearing Belt Strap

The Argox MP3-200's convenient belt strap design is easy to use and quick to install.

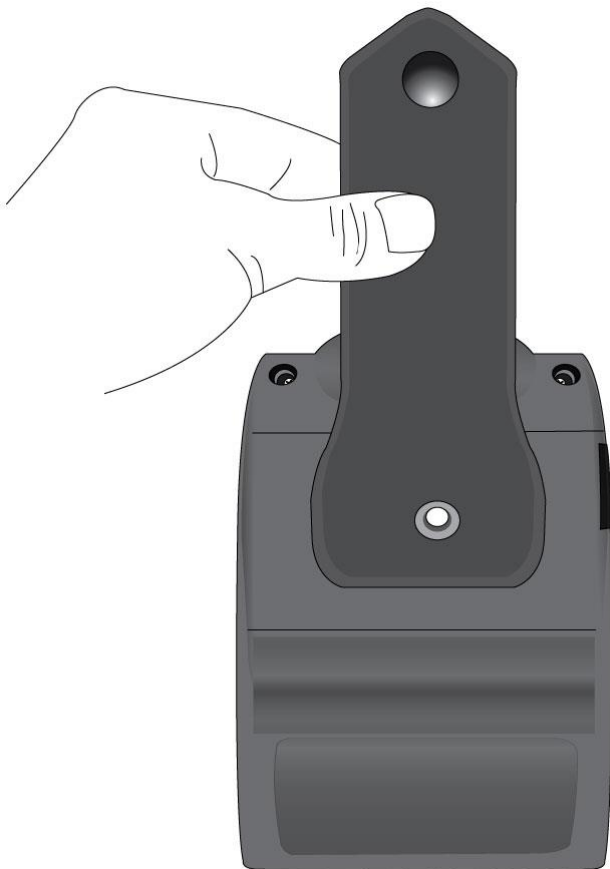
1. Prepare the belt strap and the screw.

Locate the knob on the underside of the printer, right above the battery cover.

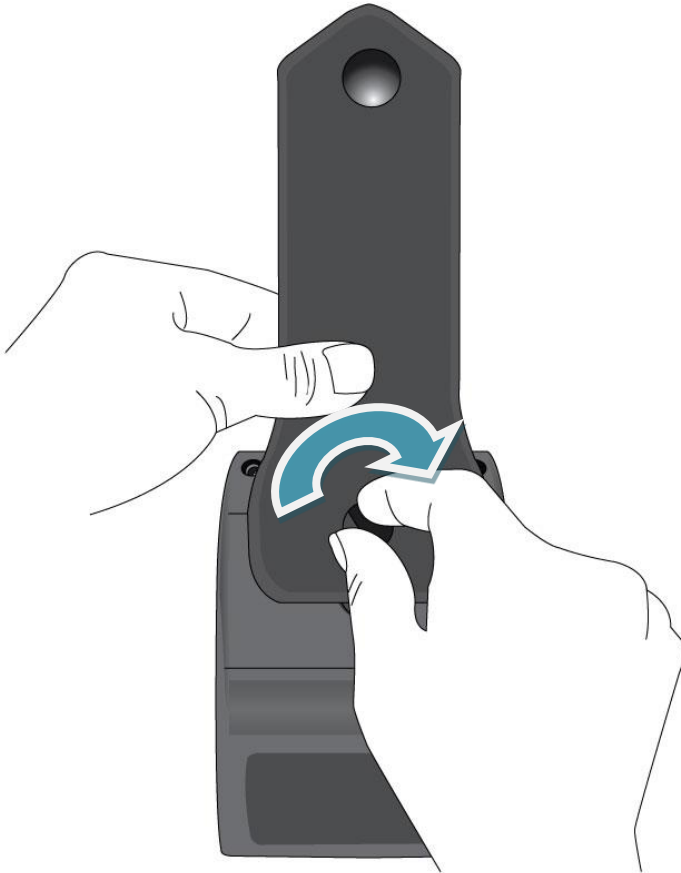


2. Attach the belt strap onto the knob.

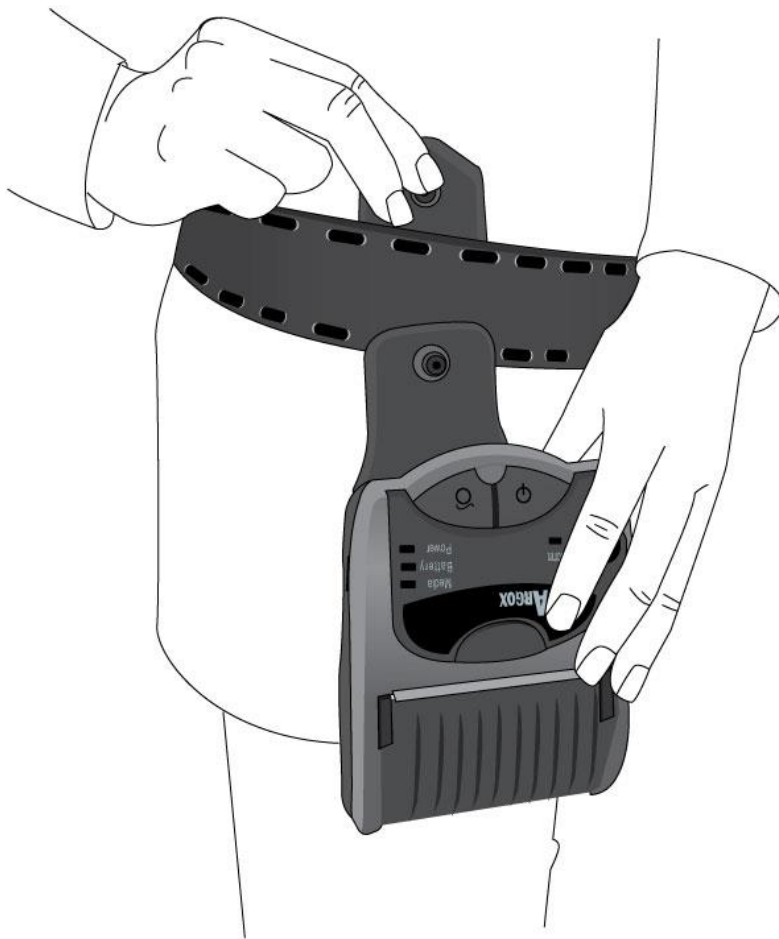
Ensure that the outside of the belt strap is facing you.



3. Insert the screw on the knob through the belt strap and tighten clockwise until it is fully secured.



4. With the belt strap attached to the printer, place the top of the belt strap over your belt.



5. Pull down the top of the belt strap to fix onto the lock.



Controls & Connections

Self-Test before Connecting

After the Battery is charged and media is loaded, before connecting the printer to a computer or a portable data terminal, perform a printer self-test label to verify that the printer works properly.

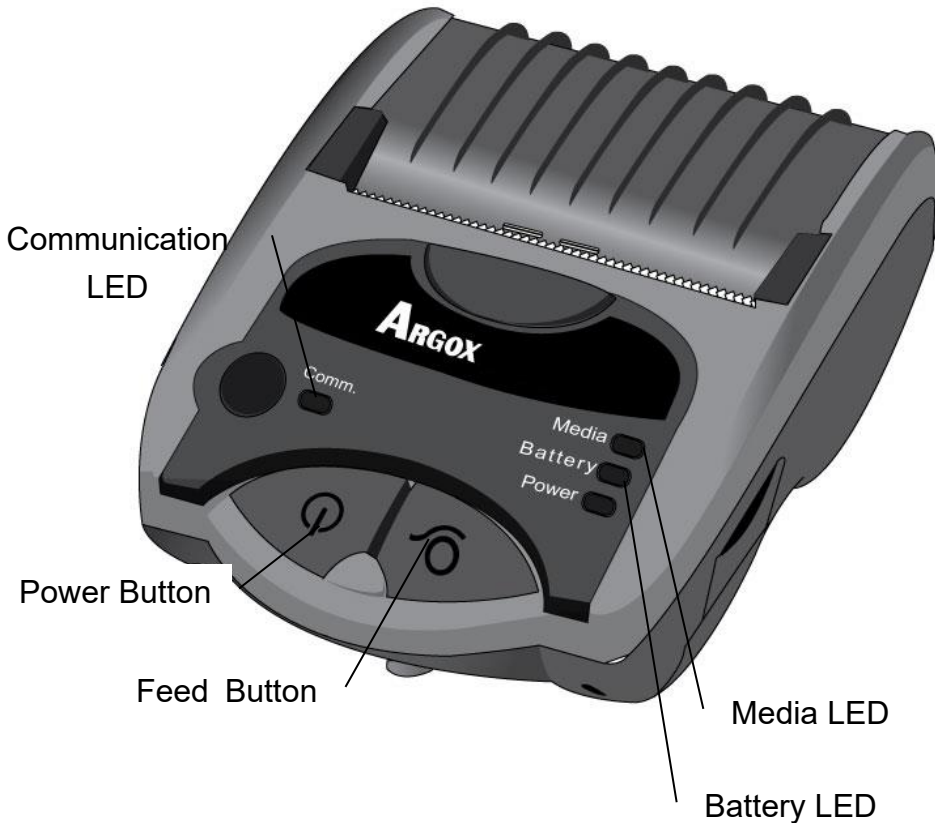
Printing a Self-Test Label

- Press the power switch to turn off the printer.
- Make sure the battery is installed and media is loaded.
- Press and hold the feed button, and then press the power switch to turn on the printer.
- The Power LED will illuminate. Release the power button.
- After the printer starts to print, release the feed button.
- Wait until the printer finishes printing and press the power switch or feed button to resume normal printing mode.

Note: For more information on self-test printouts, see *Troubleshooting – Printing a Configuration Report*.

Printer Controls and Indicators

The printer's controls and indicators are shown in the diagram below:



Feed Button:

1. Pressing this button during printing will make the printer pause.
2. To feed a blank label

Power Button: Turn the printer ON/OFF.

The following table explains control and indicator functions to help operators understand LED indications and printer status.

Printer Status	Power LED (Green)	Battery LED (Yellow & Red)	Media LED (Orange)	Communication LED (Blue)	Beep
Power On	ON				
Power Off					
Media Out	ON		Blinking		Beep
Bluetooth or 802.11b/g/n Connection	ON			ON	Beep x1
RS232 Connection	ON				Beep x3
Charger Connected		ON (Yellow)			
Battery Low	ON	Blinking slowly (Red)			
Battery Out (printer will power off)	ON	Blinking fast (Red)			Beep

Smart Battery Power Management

The MP3-200 mobile printer is equipped with a Li-ion battery pack (7.2V 3200mAh). With the smart battery power management function, MP3-200 is able to monitor and automatically remind operators of different battery power status.

Battery Power Status	Printer's Indications
Charging Mode	Battery Green LED remains On (Charging Mode). If Battery is fully charged, the LED will be off.
4%	Battery LED blinks slowly (Reminder: Battery power will drop to 2% in approximately 30-60 minutes.)
2%	Battery LED blinks + warning beeps (Reminder: Battery power will drop to 0% in approximately 30-60 minutes.)
0%	Printer suspends printing. (Some minor power remains.)

Note:

- 1. If the standby duration exceeds **3 minutes**, printer will turn off automatically in order to decrease power consumption.*
- 2. The standby time can be changed by the operator, the default standby time of the printer is 3 minutes.*

Connecting the Printer

The interfaces of MP3-200 include Bluetooth 5.2 LE, 802.11b/g/n, RS-232, and USB (2.0). USB and RS-232 communication cables are optional accessories.

Bluetooth / WLAN Communications:

MP3-200 BT Theory of Operation

Single BT Transmitters: 2402 – 2480 MHz

CYW89820

The MP3-200 uses the module and supports Bluetooth 5.2. The IC requires 3.3V for its main power input and the built-in power management unit. A 24MHz XTAL provides the fast clock. An internal PLL is used to generate the 2.4GHz high frequency clock which is output to a bandpass filter and on to the chip antenna. The processor monitors and controls the IC via UART interface with 3.3V level.

The MP3-200 can wirelessly connect to your Android or iOS mobile device via Bluetooth or WLAN.

To enable Bluetooth communication, it is suggested to first install the Argox iLabelPrint+ on your Android or iOS mobile device. ARGOX iLabelPrint+ (the App) is a label design and printing App for Android OS and iOS on mobile device (phone or pad). You can use the App to print barcode or labels from the mobile device to the ARGOX printers which supports Bluetooth module. You can also download the label form files from the cloud storage service. Before starting the wireless Bluetooth connection

between the MP3-200 and your mobile device, please visit the ARGOX global website (<https://www.argox.com/>) to download iLabelPrint+ and the user manual for the software.

To enable WLAN communication, it is suggested to first install the Argox Printer Tool software on your computer. The Argox Printer Tool makes it easy to set up the MP3-200's wireless parameters for further WiFi communication. Before starting the WLAN connection between the MP3-200 and a WLAN device, please visit the ARGOX global website (<https://www.argox.com/>) to download Printer Tool and the user manual for the software.

Alternatively, if you want to convert Bluetooth to WiFi functionality, please download an app that supports GATT (Generic Attribute Profile).

USB & RS-232 Communications:

No additional setup is required for cable communications.

Note: *Turn off the printer before connecting or disconnecting the USB or RS-232 interface cable. The RS-232 interface cable is optional.*

- **USB:**

Once the USB cable is connected, printer will detect automatically and link to host without emitting beeps.

- **RS-232:**

When the printer is off and the RS-232 cable is connected, the printer will emit 3 beeps and automatically switch to the RS-232 mode. The next time the printer is switched on with the RS-232 cable connected and the printer will emit 1 beep (Bluetooth mode) and then 3 beeps to indicate RS-232 mode.

When the RS-232 cable is disconnected, printer will emit 1 beep and switch back to the Bluetooth mode.

Note: *The communication indicator blinks blue when data is being transferred on all interfaces - Bluetooth, RS-232, 802.11b/g/n and USB.*

Drivers & Software

MP3-200 is bundled with its smart printer drivers. This allows users to easily print a receipt or label from any Windows application, such as Microsoft Word, labelling software, such as Bartender, etc. on operating systems including Windows Vista / Windows 7 / Windows 8 / Windows 10 / Windows 11.

Drivers & software can be downloaded from Argox website.

Troubleshooting

Normally, if the printer is not working properly, the Power LED will blink continuously while printing and communication between the host and the printer will stop.

Printer Status Indications

Printer status and error messages are displayed via LED indicators. Generally, when a malfunction or an abnormal condition is detected, the ERROR LED will blink.

The table below shows the LED indications corresponding to various errors:

Status	Blinking LED
PAUSE	POWER LED blinking
Possible Symptoms & Solutions	
The printer is in PAUSE status. Press FEED button to return to normal printing mode.	

Status	Blinking LED
MEDIA OUT	MEDIA LED blinking
Possible Symptoms & Solutions	
<ol style="list-style-type: none">1. The media is not installed or is used up.2. Printer fails to detect the media gaps/black marks.	

Status	Blinking LED
SERIAL I/O ERROR	POWER LED blinking
Possible Symptoms & Solutions	
<p>The format or baud rate of the RS232 communication is inconsistent between the printer and host.</p>	

Status	Blinking LED
MEMORY FULL	POWER LED blinking
Possible Symptoms & Solutions	
<p>The printer's memory buffer is fully loaded with downloadable soft fonts, graphics or forms. Check the format and size of the stored data with the available memory size or call for service.</p>	

Status	Blinking LED
Print Head overheated	POWER LED blinking
Possible Symptoms & Solutions	
<p>The printer enters the PAUSE state to wait for the print head to cool down; the printer will resume printing when ready.</p>	

Performing Calibration

If labels with gaps/black marks are in use, perform media calibration before printing to index the printer correctly.

1. Properly install labels.
2. Power off the printer.
3. Press and hold the FEED button and then power on the printer; do not release the button until the printer starts to feed labels.
4. Then, press the FEED button once or twice to check that labels are correctly indexed.

Note: *You must always calibrate when changing media. Failure to do so will result in incorrect detection by the label sensor.*

Printing a Configuration Report

The Configuration report, also known as the Self-Test report, can work as a printer diagnosis tool. Steps to print a Configuration report are listed below.

1. Press the Power button to turn off the printer.
2. Make sure the battery is installed and media is loaded.
3. Press and hold the Feed button and then press the Power Switch to turn on the printer.
4. After the printer starts to print, release the Feed button.
5. Wait until the printer finishes printing and then press the Power Switch or the Feed button to resume the normal printing mode.

Sample printout of Configuration (Self-Test):

```

LABEL PRINTER WITH FIRMWARE
MP3-200-V01.00 20230710 PPLZ
STANDARD RAM : 128M BYTES
AVAILABLE RAM : 32356K BYTES
FLASH TYPE : ON BOARD 128M BYTES
AVAILABLE FLASH : 100546K BYTES
NO. OF DL SOFT FONTS(FLASH) : 0
NO. OF DL SOFT FONTS(RAM) : 0
NO. OF DL SOFT FONTS(HOST) : 0
H. POSITION ADJUST.: 0000
REFLECTIVE SENSOR
REF: 0160
RTC TIME: 1/1/23(0:0:21)
MAX LABEL HEIGHT: 40 INCHES
PRINT WIDTH: 576 DOTS
LAB LEN(TOP TO TOP): 43mm
SPEED: 3 IPS
ABS. DARKNESS: 16
TRIM. DARKNESS: 0
DIRECT THERMAL
PRINT LENGTH: 17M

```

⇒ Firmware version
⇒ SDRAM memory
⇒ Flash memory

```
RS232: 115200, 8, N, 1P, XON/XOFF
CARET CONTROL CHAR : <^> 5EH
DELIMITER CONTROL CHAR : <, > 2CH
TILDE CONTROL CHAR : <~> 7EH
CODE PAGE : USA1
MEDIA : CONTINUOUS
CALIBRATION MODE: INTELLI PRINT
REPRINT AFTER ERROR : ENABLED
BACKFEED ENABLED
HEATTURBO DISABLED
SLEEP TIME: 3 MINUTES
BATTERY INDICATOR: 100%
BT DEVICE: COMBO
BT PIN: 0000
BT MAC: 43-43-A1-12-40-03
```

➔ RS-232 parameters

➔ Media type setting

➔ Standby time (in minutes)

➔ Bluetooth PIN code

➔ WLAN FW version

```
WLAN FW VERSION: 2.04
WLAN IP ADDRESS: 0.0.0.0
WLAN SUBNET MASK: 0.0.0.0
WLAN GATEWAY: 0.0.0.0
WLAN MAC ADDRESS: DC-EF-CA-13-40-03
WLAN DHCP: ON
WLAN DHCP HOSTNAME: dc-ef-ca-13-40-03
: 3
```

➔ MAC Address

```
WLAN SOCKET PORT: 9100
WLAN SSID: WIRELESS PRINTER
WLAN MODE: Infrastructure
WLAN COUNTRY CODE:
WLAN CHANNEL: AUTO
WLAN NETWORK AUTHENTICATION: Open
WLAN WEP: OFF
USB SN: 20AA23F00001
CG ENABLED
MTC: Auto
ot(0,0)<0.1dot,0.01mm>
rm(0,0)<1+ 0-,0.01mm>
rv(305,270,35)<0.01u><P>
rso(0)<0.01mm>
TPL: 17
ragc(243)<0.01u><P> 1u(5)
```

THIS IS FONT A. 0123ABCabc

THIS IS FONT B. 0123ABCABC

THIS IS FONT C. 0123ABCabc

THIS IS FONT D. 0123ABCabc

THIS IS FONT E. 0123ABCabc

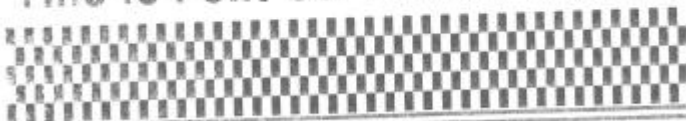
THIS IS FONT F. 0123ABCabc

THIS IS FONT

THIS IS FONT H. 0123ABC

This Is Font CG Triumv Bd Con

➔ *Internal fonts*



Printer Maintenance

Print Head Maintenance Guide

To keep the Print Head in the best conditions and efficiency and to extend duration for use, regular cleaning action is needed:

Note: *Always power off the printer before cleaning.*

1. Cleaning Interval:

It is strongly recommended to regularly clean the print heads, or at least every time a label roll is changed (in direct thermal printing mode). In addition, if the printer is operated under critical applications or environments, or if the print quality is found to have degraded, please clean the print heads more frequently.

2. Cleaning Material:

The surface of print head's heating element is very fragile. To prevent possible damage, please use the print head cleaning pen supplied with the printer or a soft cloth / cotton swab with "ethanol" or "industrial alcohol" to clean the print head surface.

It is strongly recommended to wear gloves during cleaning. Do not touch the print head surface with bare hands or with any hard objects.

Keep water and moisture away from the print head to prevent corrosion of the heating elements.

3. Cleaning Direction:

When cleaning the print head, only wipe **in one direction** - left to right or right to left - to gently clean the print head's "heating line" without overloading the unit.

Do not wipe back and forth to prevent dust or dirt from reattaching to the cleaning cloth/swabs on the print head.

Cleaning the Media Sensor:

Debris or dirt on the media sensor can cause a misread or unstable detection to index label gaps/black marks. Clean the media sensor properly with a cotton swab dampened with alcohol.

Specifications

Printing Method	Direct Thermal
Printing Resolution	203 dpi (8 dots/mm)
Printing Speed	Max. 5ips (Default: 3 ips)
Printing Length	40" (1016mm)
Printing Width	Max 2.8" (72mm)
Memory	128MB SDRAM (user available 30MB), 128MB Flash (user available 90M)
CPU Type	32 bit RISC microprocessor
Operation Indicator	LED indicator x 4 (Power status/Battery/Media/Communication)
Button	Power button / Feed button
Comm. Interface	USB (2.0 compatible), RS-232, BT V5.2LE, WiFi 802.11.b/g/n
Wireless Security Authentication and Encryption Options	WEP, WPA-PSK, WPA2-PSK WPA-ENT/WPA2-ENT: TLS/TTLS/PEAP
Fonts	Internal character sets standard 5 alpha-numeric fonts from 0.049"H ~ 0.23" H (1.25mm ~ 6.0mm) Internal fonts are expandable up to 24x24 4 direction 0° ~ 270°. Rotation Soft fonts are downloadable. Ability to print any Windows True Type font easily Support to scalable font (optional)
1D Barcodes	PPLA: Code 39, UPC-A, UPC-E, Code 128 subset A/B/C, EAN-13, EAN-8, HBIC, Codabar, Plessey, UPC2, UPC5, Code 93, Postnet, UCC/EAN-128, UCC/EAN-128 K-MART, UCC/EAN-128 Random weight, Telepen, FIM, Interleaved 2 of 5 (Standard/with modulo 10 checksum/with human readable check digit/with modulo 10 checksum & shipping bearer bars), GS1 Data bar (RSS) PPLB: Code 39, UPC-A, UPC-E, Matrix 2 of 5, UPC-Interleaved 2 of 5, Code 39 with check sum digit, Code

	<p>93, EAN-13, EAN-8 (Standard, 2/5digit add-on), Codabar, Postnet, Code128 subset A/B/C, Code 128 UCC (shipping container code), Code 128 auto, UCC/EAN code 128 (GS1-128), Interleave 2 of 5, Interleaved 2 of 5 with check sum, Interleaved 2 of 5 with human readable check digit, German Postcode, Matrix 2 of 5, UPC Interleaved 2 of 5, EAN-13 2/5 digit add-on, UPCA 2/5 digit add-on, UPCE 2/5 digit add-on, 64 Compact Printer Series - User's Manual GS1 Data bar (RSS)</p> <p>PPLZ: Code39, UPC-A, UPC-E, Postnet, Code128 subset A/B/C, Interleave 2 of 5, Interleaved 2 of 5 with check sum, Interleaved 2 of 5 with human readable check digit, Code 93, Code 39 with check sum digit, MSI, EAN-8, Codabar, Code 11, EAN-13, Plessey, GS1 Data bar (RSS), Industrial 2 of 5, Standard 2 of 5, Logmars</p>
2D Barcodes	<p>PPLA: MaxiCode, PDF417, Data Matrix (ECC 200 only), QR code, Composite Codes</p> <p>PPLB: MaxiCode, PDF417, Data Matrix (ECC 200 only), QR code, Composite Codes</p> <p>PPLZ: MaxiCode, PDF417, Data Matrix (ECC 200 only), QR code, Composite Codes, Aztec Barcode, Micro PDF417</p>
Graphics	<p>PPLA: PCX, BMP, IMG, HEX and GDI format files</p> <p>PPLB: PCX, PCX , BMP , Binary Raster, and GDI</p> <p>PPLZ: GRF, Hex and GDI</p>
Emulation	<p>ESCP, PPLZ (ZPL), PPLB (EPL), PPLA (DPL), Default: PPLZ</p>
Software	<p>Utility: Printer Tool, Font Utility</p> <p>Label editing: iLabelPrint+ (for Android / IOS), BarTender</p>
Drivers	<p>Windows Driver for Windows Vista / Win7 / Win8 / Win10, Linux Printer Driver, macOS Printer Driver, and Raspberry Pi Driver</p>
Media Type	<p>Direct thermal receipt, direct thermal labels, die-cut, black mark</p>
Media Specifications	<p>Recommended Label / Ticket: 3" (76.2mm) ~ 1"(25.4mm)</p> <p>Roll capacity (OD): Max. 2.2" (55.8mm)</p> <p>Core diameter: Continuous 0.25" (6.35mm); 0.5" (12.7mm)</p> <p>Label: min. 1" (25.4mm)</p>

	Thickness: Receipt - 2mil to 4mil (0.0508 ~ 0.1016mm) DT Label: 6mil (0.15~0.16mm)
Drop protection	1.5m
IP Rating	IP54 (with case)
Dimensions	W 106mm x H 70mm x L 153mm
Weight	530g w/Battery
Power Source	Universal Switching Power supply 100-240VAC, 50-60 Hz, 1A Input; 9 VDC 1.33 A output
Battery	Rechargeable 7.2V Lithium-ion, 3200mAh, Operating 8 hours, standby 14 hours
Operation Environment	Operation Temperature (w/batt.): 14°F~104°F (-10°C~40°C), 10% ~ 90% non-condensing Storage Temperature (w/o batt.): -4°F~140°F (-20°C~60°C)
Standard Items	Belt Clip, Battery, AC adapter, Cleaning pen, USB Cable, and Quick guide
Optional Items	Shoulder Strap, Environmental case, Lithium-ion battery, Single- Battery Charger, 4 Bay- Battery Charger, RS-232 Cable, and Vehicle power adapter
Agency Listing	CE, FCC, UL, BSMI, NCC, RoHS 2.0

Interface Specifications

Serial Interface:

RS-232C port with a mini-type 10-pin connector

Flow control mechanism is either RTS/CTS or X-on/X-off (control characters are DC2 and DC4).

Programmable parameters are listed below:

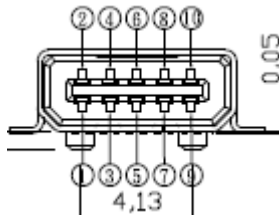
Speed: 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200
bauds

Parity: Odd, Even or None.

Data Bits: 7 or 8 bits.

Stop Bit(s): 1 or 2 bits.

Factory Default Parameters: 115200 bauds, no parity, 8 data bits,
1 stop bit.



Pin	Signal	Description
3	Transmitted Data, TxD	Output, Serial "Transmitted Data"
5	Received Data, RxD	Input, Serial "Received Data"
7	Request to Send, RTS	Output, used as the control signal for "H/W Flow Control"
9	Clear to Send, CTS	Input, used as the control signal for "H/W Flow Control"
10	GND	Signal ground

USB Interface:

This port complies with USB 2.0 Full-Speed communication.

The USB interface is a mini-type USB 10-pin convertor.

Pin	Signal	Description
2	VBUS	5V
4	D -	Differential data signaling pair-
6	D +	Differential data signaling pair+
10	GND	Ground

Bluetooth Interface:

Bluetooth version: 5.2

Communication range: 50 meters

Wi-Fi (802.11 b/g/n) Interface:

Wireless Security Authentication and Encryption Options:

WEP, WPA-PSK, WPA2-PSK

WPA-ENT/WPA2-ENT: TLS/TTLS/PEAP

Wireless access modes: Infrastructure and ad-hoc

Network support: DHCP, UDP, DNS, ARP, ICMP, TCP, sockets

Communication range: 100 meters