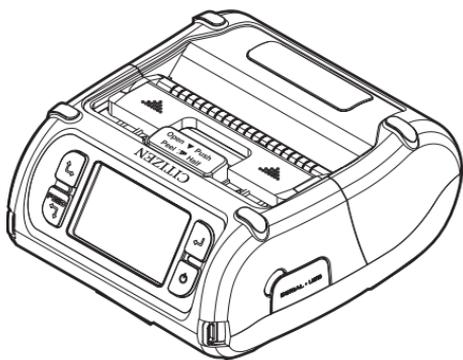


MOBILE THERMAL PRINTER

MODEL CMP-40 series

User's Manual



CITIZEN SYSTEMS JAPAN CO., LTD.

WEEE MARK

En

If you want to dispose of this product, do not mix it with general household waste. There is a separate collection systems for used electronics products in accordance with legislation under the WEEE Directive (Directive 2002/96/EC) and is effective only within European Union.

Ge

Wenn Sie dieses Produkt entsorgen wollen, dann tun Sie dies bitte nicht zusammen mit dem Haushaltsmüll. Es gibt im Rahmen der WEEE-Direktive innerhalb der Europäischen Union (Direktive 2002/96/EC) gesetzliche Bestimmungen für separate Sammelsysteme für gebrauchte elektronische Geräte und Produkte.

Fr

Si vous souhaitez vous débarrasser de cet appareil, ne le mettez pas à la poubelle avec vos ordures ménagères. Il existe un système de récupération distinct pour les vieux appareils électroniques conformément à la législation WEEE sur le recyclage des déchets des équipements électriques et électroniques (Directive 2002/96/EC) qui est uniquement valable dans les pays de l'Union européenne. Les appareils et les machines électriques et électroniques contiennent souvent des matières dangereuses pour l'homme et l'environnement si vous les utilisez et vous vous en débarrassez de façon inappropriée.

Sp

Si desea deshacerse de este producto, no lo mezcle con residuos domésticos de carácter general. Existe un sistema de recogida selectiva de aparatos electrónicos usados, según establece la legislación prevista por la Directiva 2002/96/CE sobre residuos de aparatos eléctricos y electrónicos (RAEE), vigente únicamente en la Unión Europea.

It

Se desiderate gettare via questo prodotto, non mescolatelo ai rifiuti generici di casa. Esiste un sistema di raccolta separato per i prodotti elettronici usati in conformità alla legislazione RAEE (Direttiva 2002/96/CE), valida solo all'interno dell'Unione Europea.

Du

Deponer dit product niet bij het gewone huishoudelijk afval wanneer u het wilt verwijderen. Er bestaat ingevolge de WEEE-richtlijn (Richtlijn 2002/96/EG) een speciaal wettelijk voorgeschreven verzamelstelsel voor gebruikte elektronische producten, welk alleen geldt binnen de Europese Unie.

Da

Hvis du vil skille dig af med dette produkt, må du ikke smide det ud sammen med dit almindelige husholdningsaffald. Der findes et separat indsamlingssystem for udtjente elektroniske produkter i overensstemmelse med lovgivningen under WEEE-direktivet (direktiv 2002/96/EC), som kun er gældende i den Europæiske Union.

Por

Se quiser deitar fora este produto, não o misture com o lixo comum. De acordo com a legislação que decorre da Directiva REEE – Resíduos de Equipamentos Eléctricos e Electrónicos (2002/96/CE), existe um sistema de recolha separado para os equipamentos electrónicos fora de uso, em vigor apenas na União Europeia.

Pol

Jeżeli zamierzasz pozbyć się tego produktu, nie wyrzucaj go razem ze zwykłymi domowymi odpadkami. Według dyrektywy WEEE (Dyrektywa 2002/96/EC) obowiązującej w Unii Europejskiej dla używanych produktów elektronicznych należy stosować oddzielne sposoby utylizacji.



Declaration of Conformity

This printer conforms to the following Standards:

The Low Voltage Directive 2006/95/EC, the EC/R&TTE Directive, the RoHS Directive 2002/95/EC, and the WEEE Directive 2002/96/EC.

LVD : EN60950-1
EC/R&TTE: EN55022 Class B
EN301 489-1
EN301 489-17
EN300 328
EN55024



FCC Compliance Statement for American Users

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 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 receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Use shielded cables to connect this device to computers.

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

EMI Compliance Statement for Canadian Users

- 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.

GENERAL PRECAUTIONS

- Before using this product, be sure to read through this manual. After having read this manual, keep it in a safe, readily accessible place for future reference.
- The information contained herein is subject to change without prior notice.
- Reproduction or transfer of part or all of this document in any means is prohibited without permission from CITIZEN SYSTEMS.
- Note that CITIZEN SYSTEMS is not responsible for any operation results regardless of missing, error, or misprinting in this manual.
- Note that CITIZEN SYSTEMS is not responsible for any trouble caused as a result of using options or consumables that are not specified in this manual.
- Except explained elsewhere in this manual, do not attempt to service, disassemble or repair this product.
- Note that CITIZEN SYSTEMS is not responsible for any damage attributable to incorrect operation/handling or improper operating environments which are not specified in this manual.
- Due to the nature of thermal paper, printed data should be considered for temporary use, not stored for a long period or permanently. Please note that CITIZEN SYSTEMS is not responsible for damage or lost profit resulting from the loss of data caused by accidents, repairs, tests or other occurrence.
- If you find loss of information, error, or uncertain matter, please contact your CITIZEN SYSTEMS dealer.
- If you find any disordered or missing page (s), contact your CITIZEN SYSTEMS dealer for replacement.

SAFETY PRECAUTIONS

What the Icons Mean

Precautions and notices necessary to follow for preventing hazards to the user or other person or their properties are defined as shown below. Hazards and degrees of damage that may be caused by ignoring the instructions are categorized as shown below. Please be familiar with the content of these definitions before reading this manual.

 DANGER	Indicates the case that may result in death or serious injury.
 WARNING	This symbol indicates that using the product improperly in defiance of this symbol may result in death or serious injury.
 CAUTION	This symbol indicates that using the product improperly in defiance of this symbol may result in injury or damage to properties.

Definition of the icons



This symbol indicates the hazard that needs precautions.



This symbol indicates prohibited actions.



This symbol indicates mandatory actions.

Precautions in Handling Printer



WARNING



- If the product continues to be used when heat or smoke is generated or an abnormal odor is produced, a fire may occur. Immediately turn the printer power off, and carefully but quickly remove the battery, then contact our service agent.
- If any foreign matter (metal tip, water, liquid) enters the product, immediately turn the printer power OFF, and carefully but quickly remove the battery, then contact our service agent. Ignoring this instruction may result in a fire.



CAUTION



- Do not place the printer on a shaky table or other unbalanced place. The printer may drop or fall resulting in injury.
- Avoid using or storing in the following place. Damage to printer may be caused.
 - In a car parked in a sunny place, a place exposed to direct sunlight, near heat generating equipment, or the like.
 - A place where temperature or humidity is excessively high or low, or its change is radical.
 - A dusty place.
 - A place likely to get a splash of water or liquid.
- Avoid dropping, impacting or vibrating the printer otherwise damage may be caused.
- Avoid entry of foreign material. Otherwise, fault may occur.
- Do not use volatile liquid (thinner, benzine, etc.) or wet cloth when cleaning the printer. Deterioration or discoloration may occur. Use a dry, soft cloth for cleaning.
- Do not move the printer or give any shock or vibration to it while the printer is in operation or in standby operation. The printer power may be disconnected and the print data may be lost.

Precautions on Using Printer



WARNING



- Do not touch the print head or paper cutter while replacing print paper. Heated print head may cause burn. The cutter may cause injury to the hand.



CAUTION



- Use of print paper other than specified may result in not only deteriorated print quality but shortened life of print head (printing portion).
- Do not tap or rub the print head with edged or hard material.
- When condensation is present on the print head, dry it completely before printing. Printing with condensation may damage the print head.



Precaution on Overheating



CAUTION



- To prevent the motor from overheating, continuous printing (or feeding) of the printer should be 1.5 m or less in print length. After printing for this distance we recommend a pause of at least 30 seconds for cooling.

Precautions on Using Battery



DANGER



- Leaked liquid from the battery may result in loss of eyesight if it enters the eye. Immediately wash eyes with fresh water and get medical care.
- If liquid from the battery is ingested, immediately seek medical attention.
- Keep the following in mind when handling battery. Otherwise, liquid leakage, heat generation, and explosion may result.
 - Do not throw battery into fire or do not apply heat.
 - Do not peel or scratch the external battery casing.
 - Soldering is prohibited.
 - Do not give strong shock to battery or throw it away.
 - Do not short-circuit the positive and negative terminals with a metal such as metal wire.
- Never disassemble or modify battery. Otherwise, liquid leakage, heat generation, or explosion may occur.



WARNING



- If battery liquid attaches to skin or cloth, immediately wash it out with fresh water. Otherwise, skin disorder may be caused.



CAUTION



- Risk of explosion if battery is replaced by an incorrect type.
- Dispose of used batteries according to the instructions.
- Use only the approved external charger or charge the battery within the printer.
- Never use another charger or one that looks to be similar.



CAUTION



- Do not dip battery in water or sea water. Wet battery may generate heat or may be subject to corrosion.
- Do not use or leave battery at high temperature. Using or leaving battery in a place of high temperature may result in liquid leakage, deteriorated performance, or shortened lifetime.



- Keep battery beyond the reach of a baby or child. Pay attention not to let a child take out the battery.
- If the battery is used for the first time, be sure to charge it completely before use.
- If any abnormality is found while the battery is in use, stop the operation and carry the battery in local sales agent.
- The battery in the printer is shipped partially charged. Please fully charge the battery prior to using the printer.

Precautions on Installing New Paper

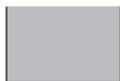


CAUTION



- Before printing, confirm that print paper is set straight forward at the exit from the print (thermal) head. Skewed setting may result in paper jamming.
- To prevent skewed insertion of paper, use the following form for the end of paper.

OK



Precautions on Using Thermal Paper



CAUTION



- Print density may change with different kinds of paper.
- Observe the following when using thermal paper. Thermal paper is not resistant to discoloration, deterioration in quality, and thin printing.
 - Do not leave printed thermal paper exposed to light for a long time.
 - Avoid exposure to high temperature, humidity, liquid, or sunlight.
 - When keeping the printer thermal paper on a board, do not use paste, adhesive, or adhesive tape containing volatile organic solvent.
 - For long-time storage, use thermal paper of high storage type or copy it with plain paper copier.
 - Avoid contact with a film of vinyl chloride for a long time.
 - Avoid using ammonia. Do not put thermal paper near the paper copied by use of ammonia.
 - Avoid putting sweat or grease from your hands on the surface (printed or to be printed) of thermal paper.
 - Store thermal paper in a dark place with average temperature below 25°C and relative humidity below 65% .
- Using print paper with a thickness outside the recommended range may cause improper print quality.

Precautions on Using Special Serial Cable



WARNING



- With one side of the connector connected to this product, do not touch the metal part of the other connector.



CAUTION



- Static electricity may cause breakdown of internal circuit of this product.
- Do not leave this product with a cable wound around it for a long time. Disconnection or discoloration may result.
- Plugging and unplugging the contactor shall be done securely in the correct direction.

Precautions on Using Charger



CAUTION



- Do not use the product at a voltage and frequency other than specified.
- Do not use Charger other than specified.
- Before use, confirm that the power receptacle has sufficient capacity.
- Do not connect to the power receptacle where multiple connections are used.
- Do not step on, tap, or put any object, on the cable of the Charger.
- Before connecting or disconnecting Charger, turn the printer power OFF. Do the operation securely.

THE TABLE OF CONTENTS

1. GENERAL OUTLINE	14
1.1 Unpacking.....	14
1.2 Basic Specifications	15
1.3 Model Classifications	17
1.4 Explanation of Printer Parts	18
2. OPERATION	21
2.1 Installing and Using Battery.....	21
2.2 Removing Battery	22
2.3 Charging the Battery	23
2.4 Using Battery Charger	24
2.5 Using Cigarette Jack Charger	25
2.6 Installing Belt Clip.....	26
2.7 Installing Interface Cap	27
2.8 Setting/Replacing the Paper Roll	28
2.9 Installing/Uninstalling the External Paper Guides.....	30
2.10 Peel Mode.....	33
2.11 Strap Installation	35
2.12 Self Test and HEX-DUMP mode	36
2.13 Wireless Communication.....	39
2.14 Interface Cable Connection.....	40
3. PRINTER SETTINGS	41
3.1 How to Use the Menu	41
3.2 Menu Setting Table	46
3.3 Using the Web Interface.....	51

4. PRINTER ADJUSTMENTS	54
4.1 Setting the Sensor Mode	54
4.2 Setting the Stock Sensor	56
5. PRINTER CLEANING	60
5.1 Print-Head Cleaning	60
5.2 Platen Roller Cleaning	61

-
- “Made for iPod,” “Made for iPhone,” and “Made for iPad” mean that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone or iPad may affect wireless performance.
 - iPad, iPhone and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries.
iPad Air and iPad mini are trademarks of Apple Inc.
 - EPSON and ESC/POS are registered trademarks of Seiko Epson Corporation.
 - QR Code is a registered trademark of DENSO WAVE INCORPORATED.
 - Bluetooth® is a registered trademark of Bluetooth-SIG Inc.
 - Wi-Fi is a registered trademark of Wi-Fi Alliance.
-

CITIZEN is a registered trade mark of Citizen Holdings Co., Japan
 CITIZEN es una marca registrada de Citizen Holdings Co., Japón
 Copyright © 2015 by CITIZEN SYSTEMS JAPAN CO., LTD.

1. GENERAL OUTLINE

CMP-40 is a full featured portable line thermal printer, which can be used in a large variety of job environments.

Bluetooth/Wi-Fi communication with a PDA or similar device is useful for business activities at the point of sale or service.

1.1 Unpacking

Standard



Printer



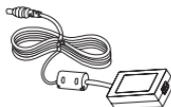
Battery



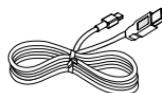
Belt Clip



AC cord



Adaptor



USB Cable



Paper Roll



Serial Cable



CD-ROM



Quick Start Guide

Optional



Strap



Car Charger



Battery Cradle

1.2 Basic Specifications

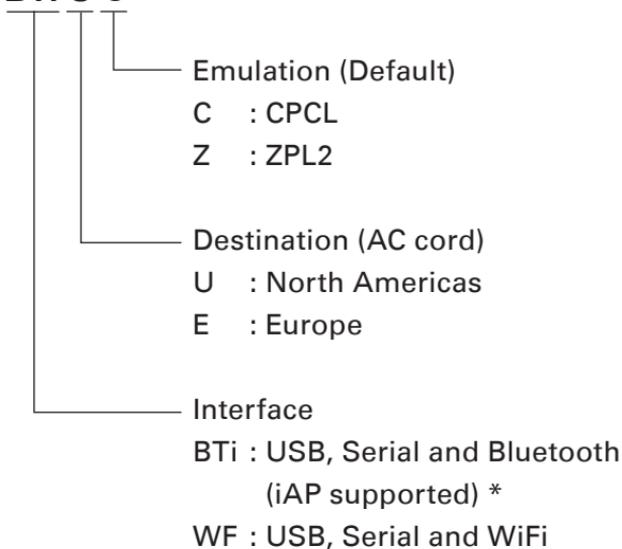
Printing Method		Direct Thermal
Printing Speed		80 mm/sec.
Resolution		203 DPI x 203 DPI
Character		ALPHA NUMERIC Character, Extension Character
Barcode	One-Dimensional Barcodes	UPCA +2/+5, UPCE +2/+5, EAN8 +2/+5, EAN13 +2/+5, EAN 128, Interleaved 2 of 5, Extended Code 39, Codabar (NW7), Code 128, Code 93, PostNet
	Two-Dimensional Barcodes	PDF417, MaxiCode, Aztec, QR Code (Quick Response), Datamatrix
	Stacked One-Dimensional Barcodes	GS1 Databar (RSS or Composite Code)
Emulation		CPCL & ESC/POS or ZPL2 option.
Sensor		Black-Mark Upper/Lower, Gap, Cover open, Peeler Detect, Peeler S/W
Paper	Paper type	Thermal Paper
	Width	50 to 112 mm
	Thickness	Roll : 60 to 165 μ m / Fanfold : 60 to 150 μ m
	External Diameter	Max. ϕ 58 mm
	Internal Diameter	12.5 mm \pm 0.5 mm
Reliability	Thermal Printer Head	50 km
	Battery	Continuous Printing 62 min Standby for 60 hours Printing Length: 140 m
MEMORY		Flash memory (32 MB)
Communications	Standard	Serial (RS-232C), USB
	Optional	Bluetooth Class2 / Wireless LAN *802.11b/g/n
Display		TFT-LCD (RGB) 240 x 400
Adaptor	Input	AC 100 to 240 V 50/60 Hz
	Output	9.0 V, 4.0 A

Battery	Battery Type	Li-ion
	Output	STANDARD : 7.4 V, 2600 mAh/19.24 Wh OPTION : 7.4 V, 5200 mAh/38.48 Wh
	Charging Time	3.3 Hrs Charging
Size	W x D x H	166 mm x 174 mm x 82 mm 6.5 inch x 6.8 inch x 3.2 inch
Weight		1 kg (With battery)
Environment Sealing		IP54
Temperature	Operation	Non Peel Mode : 0 to 45°C Peel Mode : 0 to 40°C
	Storage	Both : -20 to 60°C
Humidity	Operation	Non Peel Mode : 10 to 85% Peel Mode : 35 to 80%
	Storage	Both : 10 to 95%

1.3 Model Classifications

Classified by the following designation.

CMP-40BTi U C



* iAP is necessary to connect to Apple iOS device.



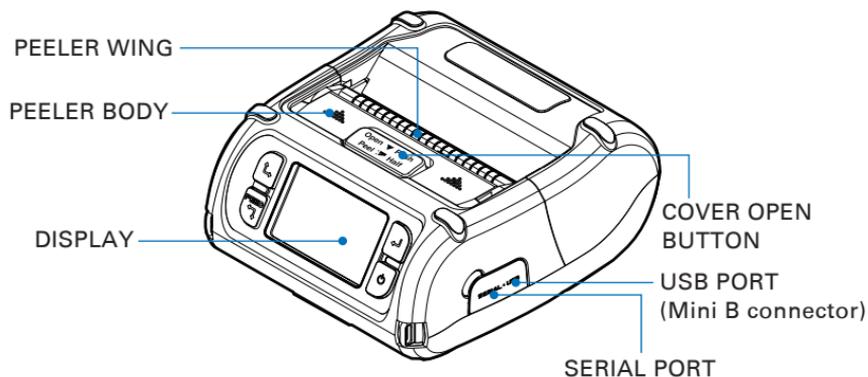
NOTE

There are no products available for some of the combination of symbols.

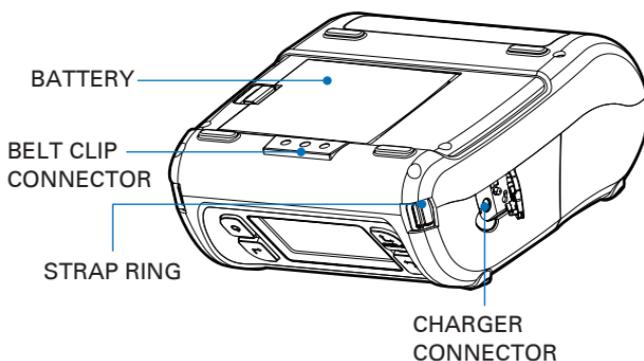
1.4 Explanation of Printer Parts

1.4.1 Printer Appearance

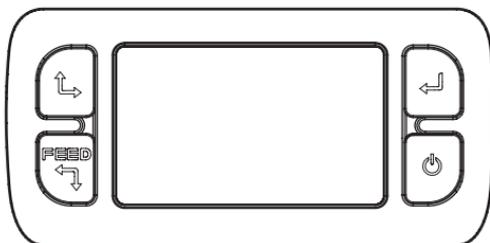
Front



Bottom



1.4.2 Operation Panel

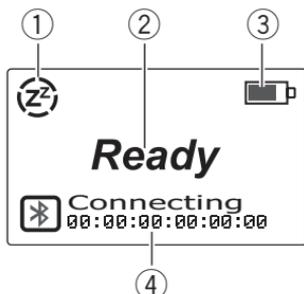


Button	Name	Function
	Paper Feed / Down Button	Paper can be fed manually by pressing this button. Clears error message. Moves down through menu options. During printing multiple sheets, press this button to pause printing. Press the button again to print remaining sheets.
	Enter Button	Selects the highlighted menu option.
	Up Button	Moves up through menu options.
	Power Button	Turns the printer on and off. Press to turn power on. Press for three seconds to turn power off. Wakes the printer from sleep mode.

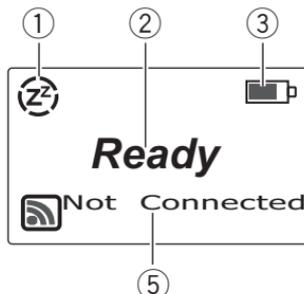
NOTE

1. The battery status LEDs indicate amount of power remaining. Actual run-time remaining depends on factors such as the contents of output, distance to computer, etc.
2. When the battery level is very low, high density printing can result in the printer switching off during printing resulting in possible loss of data.

1.4.3 Ready Screen (initial screen)



Bluetooth module-embedded model

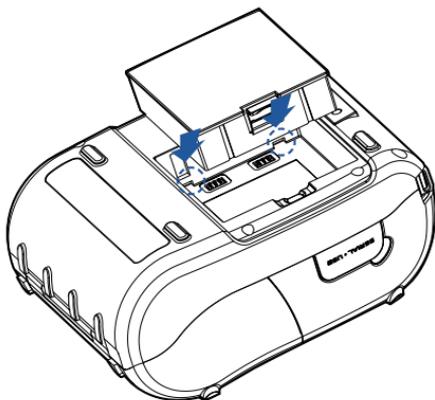


Wi-Fi module-embedded model

- ① Indicates that the Power Save mode is on. The circular icon section disappears one by one in a timely manner until it all disappears and the backlight turns off.
- ② Indicates that the printer is in Ready mode to send and receive data.
- ③ Remaining charge
 - : 7.8 V or above
 - : 7.5 V or above
 - : 7.2 V or above
 - : 6.8 V or below
- ④ Indicates whether the printer is connected to a Bluetooth device.
Connecting: “Connecting” will be displayed when the printer is waiting for a connection from a Bluetooth device, or when connected to a Bluetooth device.
Connected: If Bluetooth linked, you can see string “Connected” and Address.
- ⑤ Indicates whether the printer is connected to a Wi-Fi module.
Initialising: If Wi-Fi is booting, you can see string “Initialising”.
Connecting: When the boot is complete, you can see string “Connecting”.
Connected: If Wi-Fi linked, you can see string “Connected” and IP Address.
Not Connected: If the connection is interrupted, you can see string “Not Connected”.

2. OPERATION

2.1 Installing and Using Battery

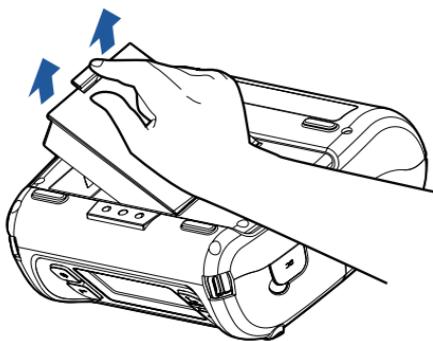


Align the battery hooks as shown in the picture.
Push the battery into the holder until it locks in place.

NOTE

You must fully charge the battery when you receive the printer.
Batteries can be charged in the printer or in an optional external cradle.

2.2 Removing Battery

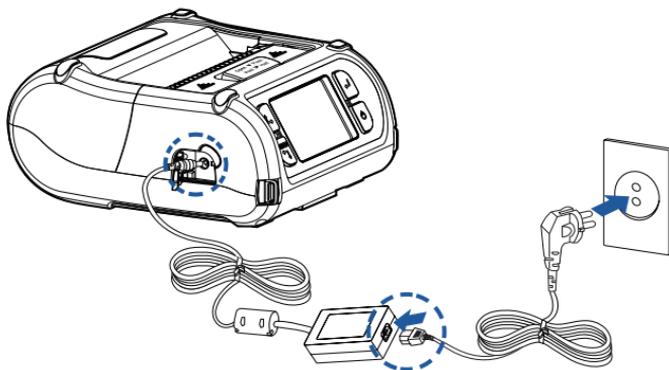


Gently release the battery catch for the battery holder and lift out the battery from the printer.

NOTE

Lithium Button Cell is equipped on the PCB (Printed Circuit Board). When disposal, the proper separation for Lithium Button Cell is needed.

2.3 Charging the Battery



- (1) Be sure that the printer is turned off.
- (2) Plug the AC cord to the AC adaptor.
- (3) After open the charger connector cover, insert DC plug into the printer.
- (4) Plug the AC cord to electrical outlet.

The status of lamp in charging

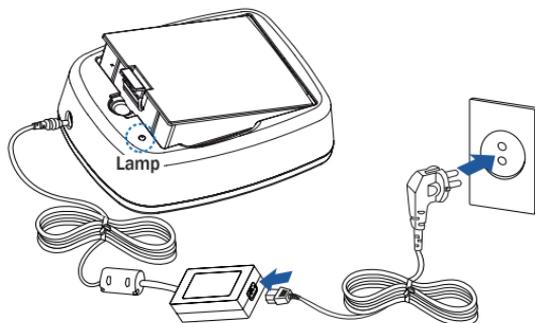
Status	Charging	Charging Completed
Charging Lamp	Red	Green

NOTE

When the battery cannot be charged properly, the charger indicator blinks green. If this happens, try disconnecting and reconnecting the charger. If charging does not resume, please contact your CITIZEN SYSTEMS dealer.

2.4 Using Battery Charger

Optional



- (1) Insert the battery into the battery cradle as shown above.
- (2) Connect the DC plug to the battery cradle.
- (3) Plug the AC cord into the electrical outlet.
- (4) Once the charging is completed, remove the battery from the cradle.

The status of lamp in charging

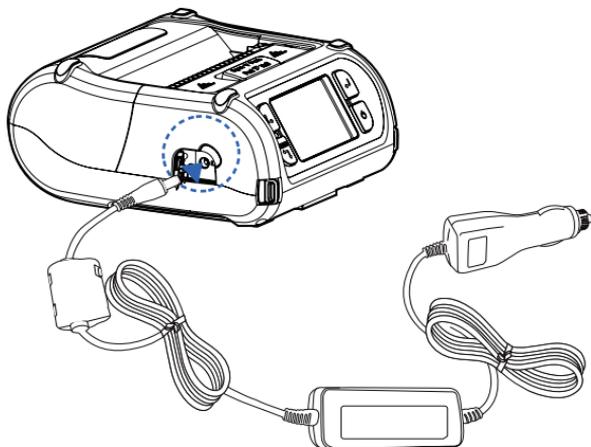
Status	Charging	Charging Completed
Charging Lamp	Red	Green

NOTE

If the battery is not fixed properly in the holder, the red lamp will be blinking. In such case, extract and reinsert the battery.

2.5 Using Cigarette Jack Charger

Optional



Connect the vehicle charger to the printer.

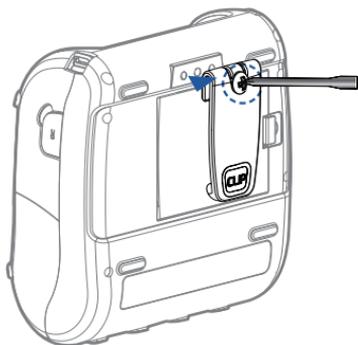
Input	12 V to 24 V
Output	9.5 V / 3 A

Plug the vehicle charger to the cigarette socket on your vehicle.

2.6 Installing Belt Clip



(1) Insert screw into belt clip.

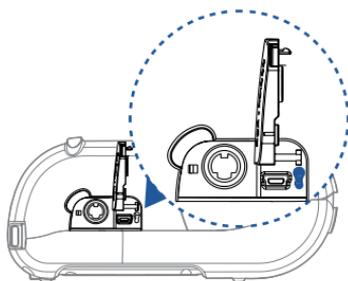


(2) Tighten the screw with driver as shown.

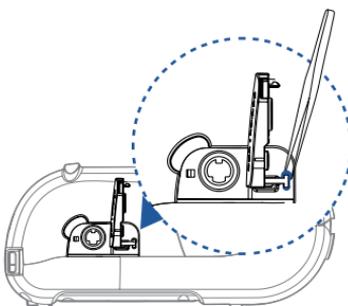
NOTE

Install the belt clip if it is required.

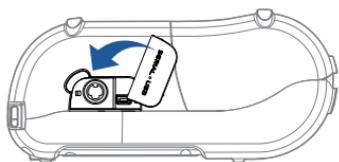
2.7 Installing Interface Cap



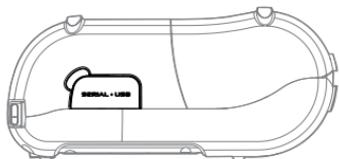
- (1) When Interface Cap separated from the printer, try to array the Cap Hook in horizontal direction as shown in the image.



- (2) Using a sharp tool, insert the Cap Hook to the hole which is located in the right side of Interface Cap.

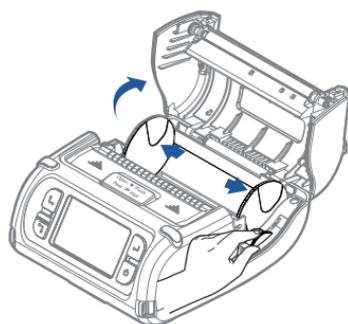


- (3) When Cap Hook inserted, install the Cap Cover in direction of an arrow as shown in the image.

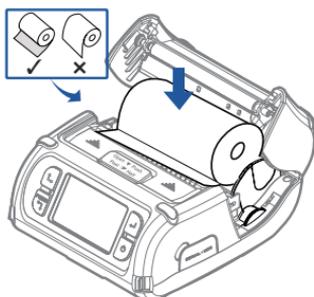


- (4) Close the Interface Cap cover.

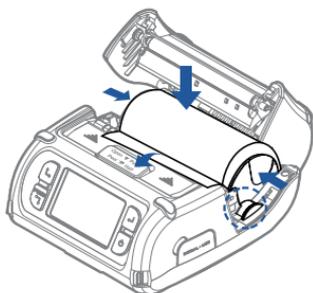
2.8 Setting/Replacing the Paper Roll



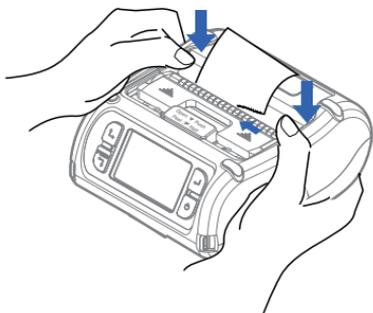
- (1) Open the Paper cover by pressing the Open button and set the width of paper guide by turning the knob with finger.



- (2) Put the stock in so it unrolls from the bottom. Remove the stock core when it is empty. Pull a short length of stock out of the printer.



- (3) After inserting the paper, adjust the paper guide to little wider than paper size. Then pull the paper out and close the paper cover.



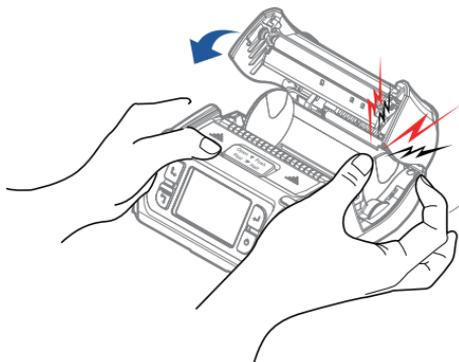
- (4) Close the Paper cover with both hands and run the paper line up by pressing the Paper Feed/Down (↶) button.

! **NOTE**

Use both hands to close the cover properly.

! **CAUTION**

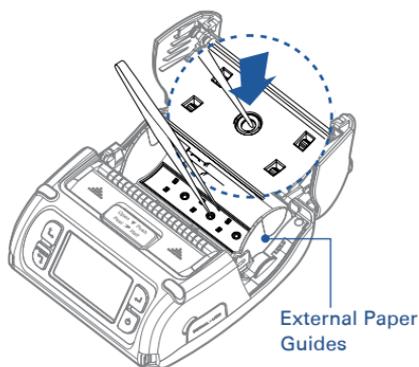
Use caution when handling the product when the Printer Cover is in an open position. There will be a risk of injury if the Paper Cover closes.



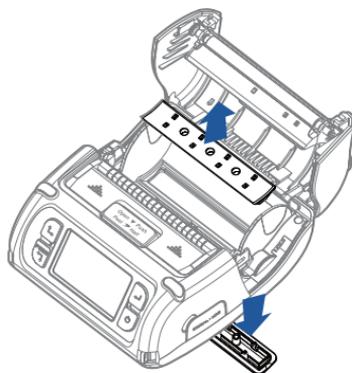
2.9 Installing/Uninstalling the External Paper Guides

Uninstall the External Paper Guides

- (1) Using sharp tool, push External Paper Guides in order to detach from the printer. Press circle on the middle of external paper guide with tool.

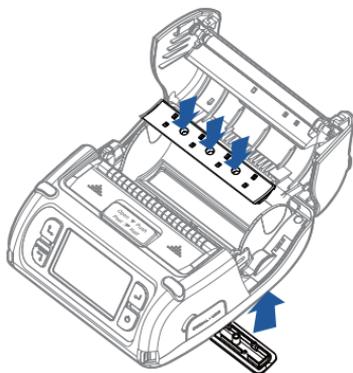


- (2) The outer cover of External Paper Guides will be separated.



Install the External Paper Guides

- (1) Assemble two (inner and outer) External Paper Guides as shown in figure and press three points to fix firmly inner guide with outer guide.



- (2) Two external paper guides will be installed to printer.

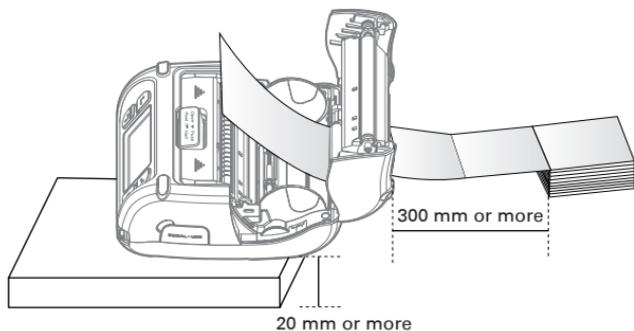


CAUTION

When using an external paper supply, set the printer 20 mm higher than the ground. Then insert the paper correctly to the paper slot on the backside of the printer and adjust the paper guide to fit the paper properly.

Recommendation

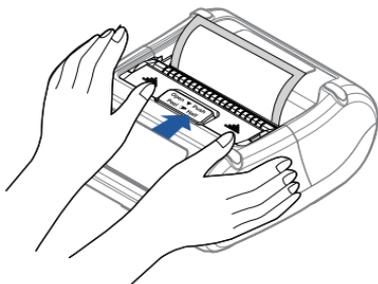
Please set apart the printer and paper at least twice of the paper length.



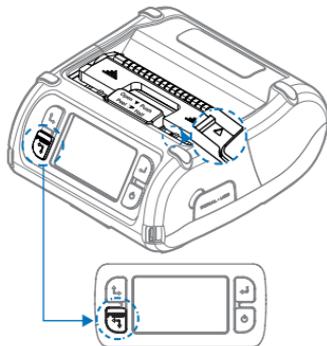
2.10 Peel Mode

Peel Mode

- (1) With a roll of stock installed, slide the peeler body towards the back of the printer.

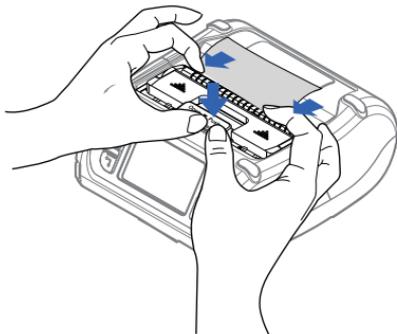


- (2) Push the peeler body until you see two complete triangles. Press the Paper Feed/Down (↶) button.



Non-Peel Mode

- (1) Pull down the Peeler Wing while pressing the Cover open button slightly.



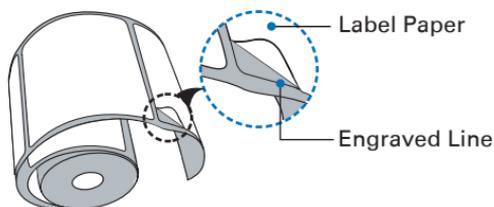
- (2) Press the Paper Feed/Down (↶) button.



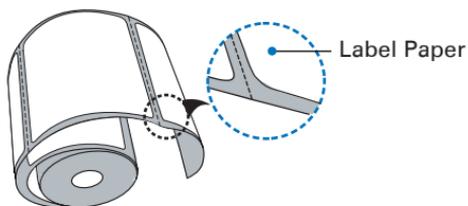
 **CAUTION**

When using the peeler like the images below that has engraved lines on the label (1) and the perforated label (2), it may cause an error in the peeler function.

Paper (1)



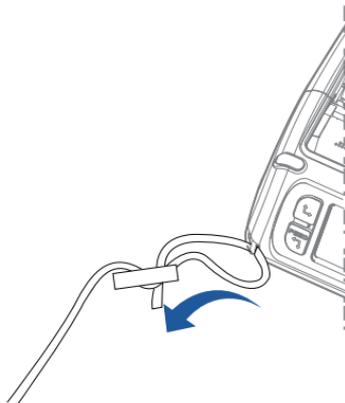
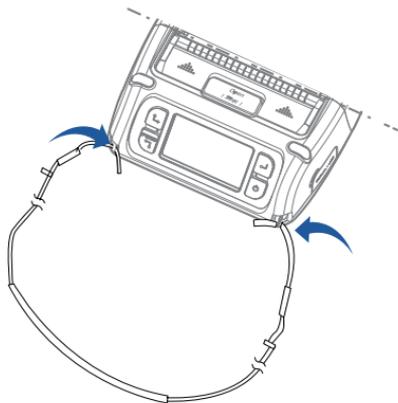
Paper (2)



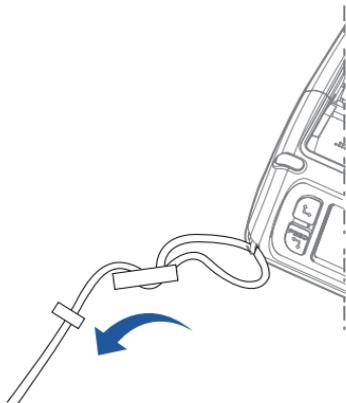
2.11 Strap Installation

Optional

- (1) Insert the strap into the hook of the printer.
- (2) Insert the end of the strap into the buckle.



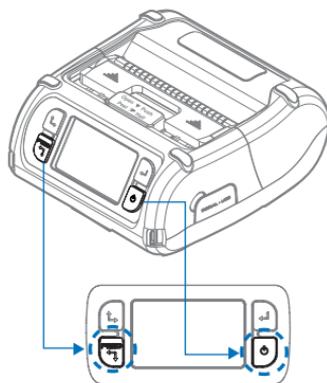
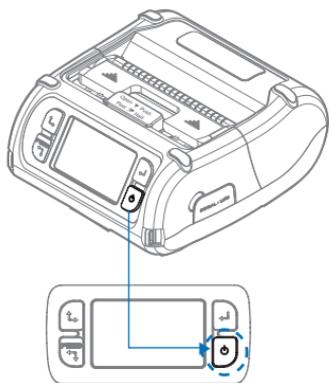
- (3) After pulling out the end of the strap tightly, put it into the clip to be fastened.



2.12 Self Test and HEX-DUMP mode

Self Test

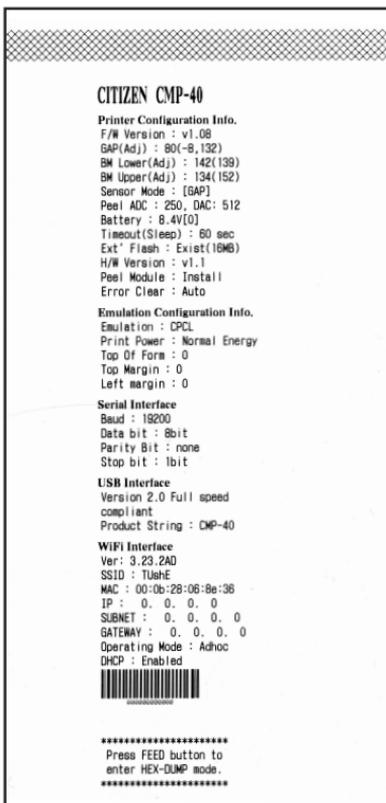
- (1) Press the Power (⏻) button for approximately 3 seconds to turn off the printer.
- (2) While pressing the Paper Feed/Down (↵) button, press the Power (⏻) button and hold both until the beep sounds.



- (3) The information label prints.



The Sample of Self-test Printout



When Self-test is implemented, the model name, firmware version, emulation, sensor setting, interface setting, etc. will be printed.

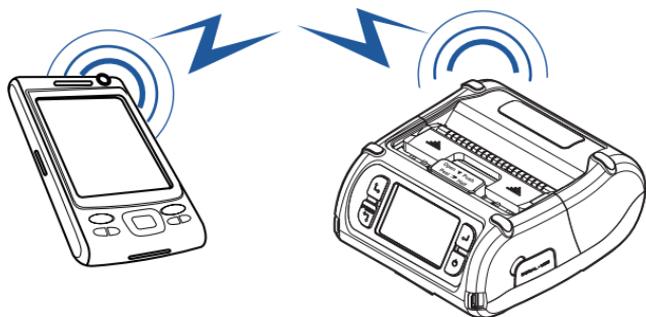
NOTE

Printed contents may differ depending on the firmware version.

HEX-DUMP mode

- (1) Implement the Self-test and print out the information label.
- (2) Within 3 seconds after the printing completes, briefly press the Paper Feed/Down (↵) button once more to switch to HEX-DUMP mode. If the Paper Feed/Down (↵) button is not pressed within 3 seconds, it will switch to standard mode.
- (3) In HEX-DUMP mode, data received will be printed in HEX format.
- (4) To exit HEX-DUMP mode, turn off the power.

2.13 Wireless Communication



Bluetooth Connection

- (1) Printer can be connected to the PDA and PC which can do Bluetooth communication.
- (2) Use the Bluetooth function supported by the connecting device to ensure Bluetooth connection.

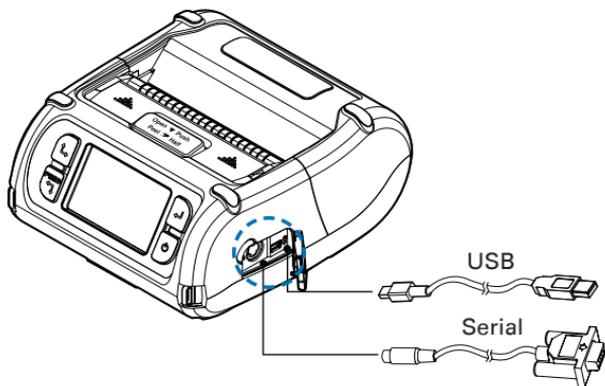
Wi-Fi (802.11b/g/n) Connection

- (1) The Printer can be connected to devices equipped with Wi-Fi (802.11b/g/n) communication capacity (PDAs, PCs, etc.).
- (2) Use the Wi-Fi (802.11b/g/n) connection function of the device to connect to the printer.

NOTE

Refer to the WLAN Web Interface Guide for more information.

2.14 Interface Cable Connection



- (1) Connect the USB or Serial cable to the cable connector on the printer.

NOTE

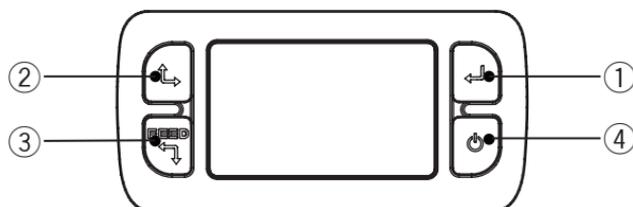
Use cable only offered by the printer manufacturer.

- (2) Connect the interface cable into the USB or Serial port of the device (PDA, PC, etc.).

3. PRINTER SETTINGS

3.1 How to Use the Menu

3.1.1 Using the Buttons

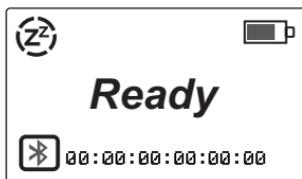


- ① Shows the menu and to select the highlighted option.
- ② Moves the Menu screen to the previous screen or moves the cursor to a position where you can change it.
- ③ Moves the Menu screen to the next screen.
- ④ Cancels the Menu.

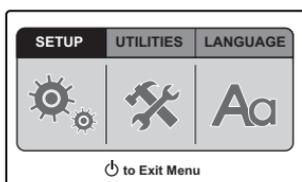
3.1.2 Menu operation examples

Here we explain how to adjust the display brightness as an example.

- (1) Press the Enter (↵) button to enter the Menu.



- (2) Press the Up (↑) or Paper Feed/Down (⇩) button to select SETUP.



SETUP: Using this menu, you can customize various system settings to achieve optimal performance from this printer.

UTILITIES: Using this menu, you can use various utilities to checks sensor value, perform a test printing, etc.

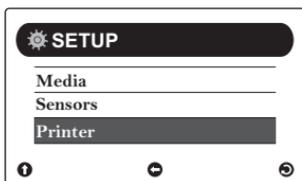
LANGUAGE: Using this menu, you can change the system language.

- (3) Press the Enter (↵) button.
Password input screen appears.
- (4) Press the Up (↑) and Enter (↵) buttons in the following sequence:
↵, ↑, ↑, ↑, ↵.

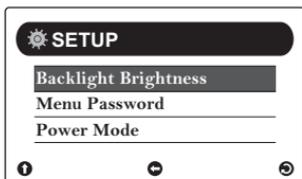


If the password is entered correctly, the SETUP screen will appear.

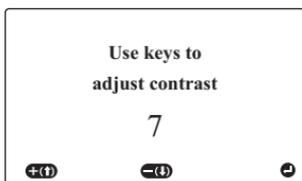
- (5) Press the Up (↑) or Paper Feed/Down (↵) button to select **Printer**, and press the Enter (↵) button.



- (6) Press the Up (↑) or Paper Feed/Down (↵) button to select **Backlight Brightness**, and press the Enter (↵) button.



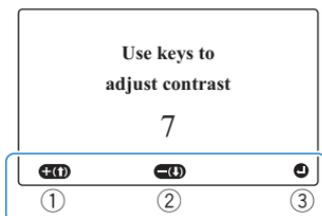
- (7) Press the Up (↑) or Paper Feed/Down (↵) button to set the value.



- (8) When the value is decided, press the Enter (↵) button to confirm. Possible operations vary depending on the displayed screen. For details, refer to "Display Guides" on page 44.
To return to the previous screen, select **Exit** and press the Enter (↵) button.
- (9) Press the Power (⏻) button to exit the menu.

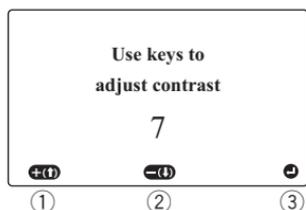
Display Guides

Possible operations are briefly displayed at the bottom of the screen when the buttons are pressed.



- ① Displays the operation by pressing the Up (↑) button.
- ② Displays the operation by pressing the Paper Feed/Down (⇩) button.
- ③ Displays the operation by pressing the Enter (↵) button.

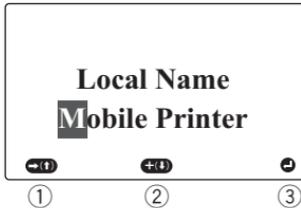
Increasing or decreasing the value



- ① Increases (+) the value.
- ② Decreases (-) the value.
- ③ Confirms set value and returns to the previous screen.

Entering characters and numbers

This example describes using the screen of Bluetooth module-embedded model.



- ① Moves the cursor to right.
- ② Displays the next character or number.
- ③ Confirms entered characters or numbers and returns to the previous screen.

3.2 Menu Setting Table

This section describes the details on how to set each item.

NOTE

- The previous screen appears when Exit is selected on each menu.
- Settings marked with an asterisk (*) show that they are default or factory settings.

SETUP menu

When the password input screen appears, press the Up (↑) and Enter (↵) buttons in the following sequence: ↵, ↑, ↑, ↑, ↵. If a password is entered correctly, the SETUP screen will appear. (Refer to 3.1.2 for “Menu operation examples”.)

Sub Menu	Menu items	Options	Description
Media	Print Power	Standard* High Power Low Power	Set stock type here. Standard mode supports tag, label, or receipt and High Power mode supports linerless and synthetic. If ink is blurred when you select Standard, select Low Power instead.
	Print Darkness	Contrast -4 to 4 (0 is default.)	The print contrast can be adjusted.
	Tear/Peel Position	Supply Position -80 to 80 (0 is default.)	This Menu sets how much paper is to be fed during printing.
	Up/Down Image Shift	Print Position 0 to 28 (0 is default.)	This Menu will allow adjustment to the printing position from the current position by using Up/Down.
	Left/Right Image Shift	Margin Adjust -80 to 80 (0 is default.)	This Menu will allow adjustment to the printing position from the current position by using Left/Right.
Sensors	Sensor Select	Label Gap* Black Mark Lower Black Mark Upper Continuous (Off)	This Menu sets the sensor according to presently loaded paper stock (Gap, Black Mark). For details, refer to Setting the Sensor Mode on page 54. Note: Our supplies usually have a black mark on the back (non-printing side), so select Black Mark Upper.
	Sensor Calibrate	Label Gap* Black Mark Lower Black Mark Upper Peeler	This Menu sets sensor level value for each sensor (Gap, Black Mark). Note: For details, refer to Setting the Stock Sensor on page 56.

Sub Menu	Menu items	Options	Description
Printer	Backlight Brightness	1 to 10 (7 is default.)	You can adjust the display brightness.
	Menu Password	Enabled* Disabled	You can set a password for this printer. When "Enabled" is selected, the system will prompt for the password each time you display the SETUP menu.
	Power Mode	Disabled Low Power 10/20/30 Sec, 1/2/5/10/30 Min, 1 Hour Shut Down 10/20/30 Min	This menu sets power-saving timeout. Low Power mode dims the screen backlight until any button is pressed to revive it. Shut Down mode shuts off the system after the set time passes. Note: <ul style="list-style-type: none"> • If USB cable is connected, the printer does not go into the power-saving mode even when Low Power mode is selected. • In low-luminance state, if the Low Power mode is selected, the printer will return to normal mode with the following operations: <ul style="list-style-type: none"> – connecting the USB cable – pressing the Power (⏻) button – receiving data via the serial port
	RunWPS	–	Using the WPS function, you can easily connect to the access point.
Serial Interface	Baud Rate	1200 bps 2400 bps 4800 bps 9600 bps 19200 bps* 38400 bps 57600 bps 115200 bps	You can set the baud rate for serial communication with the computer.
	Data Bits	7 8*	You can set data bits for serial communication with the computer.
	Parity	None* Odd Even	You can set parity for serial communication with the computer.
	Stop Bits	1* 2	You can set stop bits for serial communication with the computer.
	Flow Control	None DTR* RTS Xon/Xoff Special	You can set serial port flow controls for serial communication with the computer. Note: The "Special" setting is reserved for future supply types. Do not use this setting.

Sub Menu	Menu items	Options	Description
Bluetooth Interface	Security	Enabled Disabled*	If "Enabled" is selected, printer name becomes visible from other Bluetooth devices. If "Disabled" is selected, printer name becomes invisible from other Bluetooth devices.
	Change PIN code	0000* to 9999	The PIN code can be changed.
	Printer Name	The maximum length is 20 characters ("Mobile Printer" is default.)	You can change the printer name which is used for the Bluetooth connection.
	Address	—	You can check the Bluetooth address of this printer.
	Print Settings	—	Current Bluetooth settings can be printed by pressing the Enter (↵) button.
Wireless LAN Interface	Configure	IP Address 000.000.000.000* to 255.255.255.255	The printer's IP address can be set. Note: If you set the DHCP setting to "Enabled", this menu cannot be used.
		SubnetMask 000.000.000.000* to 255.255.255.255	The printer's subnet mask can be set. Note: If you set the DHCP setting to "Enabled", this menu cannot be used.
		Gateway 000.000.000.000* to 255.255.255.255	The printer's router (gateway) address can be set. Note: If you set the DHCP setting to "Enabled", this menu cannot be used.
		DNS 000.000.000.000* to 255.255.255.255	The DNS server address (if necessary) can be set. Note: If you set the DHCP setting to "Enabled", this menu cannot be used.
		SSID	The SSID for an access point can be set.
		Mode Infrastructure/ Ad-Hoc/ SoftAP*	If you want to connect this printer to the network via an access point, select "Infrastructure". If you want to connect this printer directly to another device, not via access point, select "Ad-Hoc". If you want to use this printer as an access point, select "SoftAP".
		WPA Type NONE*/ WPA-PSK/ WPA2-PSK	You can select a WPA type from "NONE", "WPA-PSK" and "WPA2-PSK".
		WPA Key At least 8 characters in length, with a max length of 12 characters can be set.	You can set the encrypted key which is used for protocol for the WPA encrypted protocol.

Sub Menu	Menu items	Options	Description
		DHCP Enabled*/Disabled	DHCP makes it possible to automatically receive networking information, such as IP address.
		Power Mode Continuous Awake Mode*/Power Save Protocol	This option sets the power mode. If you want to save battery consumption, select "Power Save Protocol".
	Display Status	—	You can check the currently set network information. Pressing the UP (↑) or Paper Feed/Down (↓) buttons allows you to switch the display screen to the next/previous page.
	Print Status	—	The network IP address can be checked.

UTILITIES menu

Sub Menu	Menu items	Options	Description
Test Prints	Test Label	—	Test label is printed by pressing the Enter (↵) button.
	Test Receipt	—	Test receipt is printed by pressing the Enter (↵) button.
	Checkerboard	—	Checkerboard pattern is printed by pressing the Enter (↵) button.
	Grey Scale	—	Gray Scale pattern is printed by pressing the Enter (↵) button.
	Configuration Print	—	Current printer configuration is printed by pressing the Enter (↵) button.
Sensors & Switches	Black Mark	—	A/D value of the Black Mark sensor is displayed.
	Peel	—	A/D value of the Gap sensor is displayed.
	Gap	—	A/D value of the Peeler sensor is displayed.
	Peeler Switch	—	A/D value of the Peeler Switch sensor is displayed.
Distance Counter	Print Counter	—	You can view total inches printed.
	Service Counter	—	You can view current service counter.
	Reset Service Counter	Reset/Cancel	You can reset service counter by selecting "Reset".

Sub Menu	Menu items	Options	Description
Hardware Test	Printhead Temperature	—	You can check Printhead temperature in °C (Centigrade).
	Battery Voltage	—	You can check the battery level value.
	Backlight	—	You can check the backlight condition. You can turn the backlight on or off by pressing the Up (▲) button.
	LCD Colour Test	—	You can check the LCD color condition with RGB. You can change the test color by pressing the Up (▲) button.
	Button Test	—	You can check whether the buttons are operating properly. If the buttons are not operating properly, the displayed shape ("O" or "X") will change when you press a corresponding button.
	RAM Test	—	You can check the printer memory. When you select this menu by pressing the Enter (↵) button, RAM test process will start immediately. Note: If "RAM test failed" is displayed, please contact your CITIZEN SYSTEMS dealer.
	About This Printer	—	You can check the model name of the printer and hardware revision and software version with this menu.
Factory Reset	Load Factory Defaults	—	You can reset all settings and restore them to the default or factory settings.
File System	Clear All Files	Clear All Files/Cancel	You can delete all of the downloaded fonts and formats.
	Pack Files	Pack Files/Cancel	You can pack all of the downloaded fonts and formats.

LANGUAGE menu

Sub Menu	Menu items	Options	Description
—	Test Label	English* Francais Deutsch Espanol Italiano Portugues Polski Pyccknn	You can select a system language.

3.3 Using the Web Interface

Each setting can be done on the web browser. (Wi-Fi model only)

- Boot the web browser.
- Enter the IP address for the printer into the address input column and press Enter (↵) button.

(example: http://192.168.100.1/)

Confirm the IP address on the Ready screen on the printer.

The HOME screen will be displayed.

See the following table for the setting items.

For setup details, refer to the separate "WLAN Web Interface Guide".

Sub Menu	Menu items	Options	Description	
System	Firmware	—	The current settings are displayed.	
	MAC Address	—		
	Operation Mode	—		
	SSID	—		
	Channel	—		
	IP Address	—		
	Subnet Mask	—		
Gateway	—			
Wireless	Connection Type	Infrastructure Adhoc SoftAP	You can select the Connection Type from "Infrastructure", "Adhoc", or "SoftAP".	
	SSID	—	The SSID for an access point can be set.	
	Channel	1 to 14	Available channels. You can select from 1 to 13. Note: This setting can be set when "Adhoc" or "SoftAP" is selected for Connection Type.	
	When "SoftAP" is selected for Connection Type	WLAN Security Type	Open WPA-PSK WPA2-PSK	You can select a WLAN Security Type from "Open", "WPA-PSK" and "WPA2-PSK".
		Network Key	—	You can set Network Key when "WPA-PSK" or "WPA2-PSK" is selected for WLAN Security Type.

Sub Menu	Menu items		Options	Description	
	When "Adhoc" is selected for Connection Type	WLAN Security Type	Open WEP	You can select a WLAN Security Type from "Open" and "WEP".	
		Network Key	Type	WEP64 WEP128	You can select an encryption method from "WEP64" and "WEP128" when "WEP" is selected for WLAN Security Type.
				ASCII HEX	You can select a WEP key format from "ASCII" and "HEX" when "WEP" is selected for WLAN Security Type.
			Index	1	You can set "Index" and "WEP key" when "WEP" is selected for WLAN Security Type.
		WEP key	—		
	When "Infrastructure" is selected for Connection Type and Enterprise is not selected	WLAN Security Type	Open WEP WPA-PSK WPA2-PSK	You can select a WLAN Security Type from "Open", "WEP", "WPA-PSK" and "WPA2-PSK".	
		Network Key	Type	WEP64 WEP128	You can select an encryption method from "WEP64" and "WEP128" when "WEP" is selected for WLAN Security Type.
				ASCII HEX	You can select a WEP key format from "ASCII" and "HEX" when "WEP" is selected for WLAN Security Type.
			Index	1 to 4	You can set "Index" and "WEP key" when "WEP" is selected for WLAN Security Type.
		WEP key	—		
		Network Key	—	You can set Network Key when "WPA-PSK" or "WPA2-PSK" is selected for WLAN Security Type.	
	When "Infrastructure" is selected for Connection Type and Enterprise is selected	WLAN Security Type	WPA-Enterprise	You can select a WLAN Security Type from "WPA-Enterprise" or "WPA2-Enterprise".	
			WPA2-Enterprise		
	Enterprise	Method	EAP-TLS EAP-TTLS PEAP	The menu items for Enterprise will be active. Configure the settings according to your environment. Note: "Client" and "Key" can be set when "EAP-TLS" is selected for Method. Note: "Anonymous ID" can be set when "EAP-TTLS" is selected for Method. Note: "Phase1" can be set when "PEAP" is selected for Method. Note: "Phase2" can be set when "EAP-TLS" is selected for Method.	
			ID		—
			PW		—
			CA		—
			Client		—
			Key		—
			Anonymous ID		—
			Phase 1		—
Phase 2	—				

Sub Menu	Menu items	Options	Description
Network	DHCP	ON OFF	You can set whether to enable or disable the DHCP function. If DHCP is enabled, the IP address of the specified SSID Gateway will be applied. Note: This setting can be set when "Infrastructure" is selected for Connection Type.
	IP Address	—	You can set the IP address to be applied. Note: If you set Connection Type to "SoftAP" or DHCP to ON, this menu cannot be used.
	Subnet	—	The subnet mask can be set. Note: If you set Connection Type to "SoftAP" or DHCP to ON, this menu cannot be used.
	Gateway	—	The IP address for an access point can be set. Note: If you set Connection Type to "SoftAP" or DHCP to ON, this menu cannot be used.
	DNS	—	If using a DNS server, enter the address. Note: If you set Connection Type to "SoftAP" or "Adhoc", or set DHCP to ON, this menu cannot be used.
Traffic	—	—	You can confirm the traffic (transmitted and received data, etc.) of each protocol (ETH ARP, IP, TCP and UDP).
Security	CA	—	You can configure the settings for a digital certificate. PEM format files are only supported.
	Client	—	
	Key	—	
WPS	WPS Type	PBC	You can set WPS. Note: Note: This setting can be set when "Infrastructure" is selected for Connection Type.
Etc	Reboot	—	You can apply the setting to the printer.
	Firmware Update	—	The firmware can be updated.

4. PRINTER ADJUSTMENTS

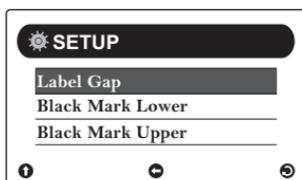
4.1 Setting the Sensor Mode

This menu sets sensor according to presently loaded paper stock (Gap, Black Mark).

Set the sensor mode according to your supply as follows:

Sensor Mode	Intended Use
Label Gap	Use for die cut (no black mark) supplies. Note: If your supply is die cut with black marks, select Black Mark Upper.
Black Mark Lower	Use for supplies with black marks on the front (printing side) of the supply.
Black Mark Upper	Use for supplies with black marks on the back (non-printing side) of the supply.
Peeler	Use for receipt paper.

- Display the SETUP menu.
For details, refer to Menu operation examples on page 42.
- Press the Up (⬆) or Paper Feed/Down (⬇) button to select the items in the following order.
Sensors – Sensor Select
- Press the Up (⬆) or Paper Feed/Down (⬇) button to select one of four sensor modes: Label Gap, Black Mark Lower, Black Mark Upper, Peeler.



If you selected any of the four sensor modes, the following screen (e.g. Label Gap) will be displayed.



- (4) Press any key to exit the screen.
The set value is saved.



NOTE

Our supplies are usually black mark on the back (non-printing side), so select Black Mark Upper.

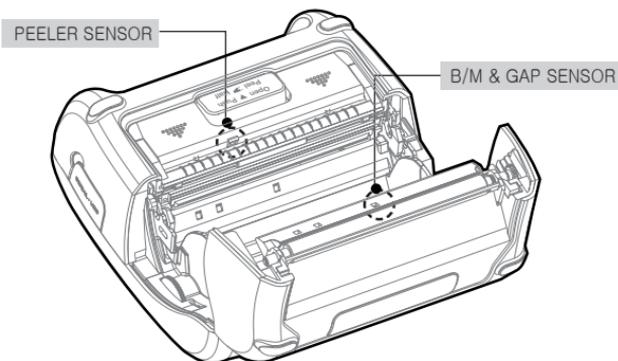
4.2 Setting the Stock Sensor

This menu sets sensor level value for each sensor (Gap, Black Mark).

- (1) Display the SETUP menu.
For details, refer to Menu operation examples on page 42.
- (2) Press the Up (⬆) or Paper Feed/Down (⬇) button to select the items in the following order.

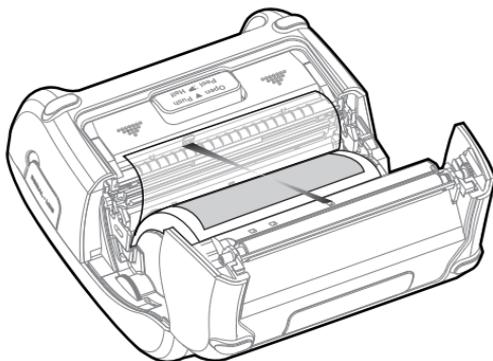
Sensors – Sensor Calibrate

- (3) Conduct testing by referring to the following picture.



4.2.1 Testing the Label Gap mode

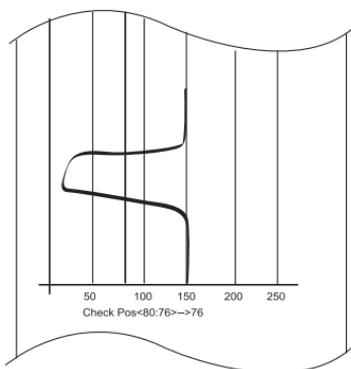
- (1) Turn the printer off, and then remove one or two labels from the liner. With the printer in peel mode, place the liner over the sensor.



- (2) When the following message is displayed, press the Enter (↵) button to continue.



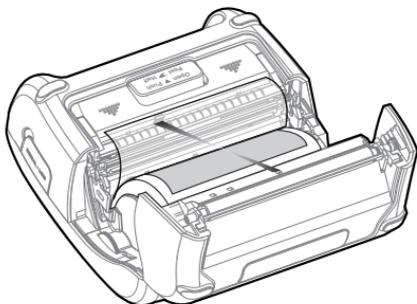
To cancel the calibration process, press the Power (⏻) button. When you press the Enter (↵) button, the information label will start printing.



- (3) Press any key to exit the Menu.

4.2.2 Testing the Black Mark Lower Mode

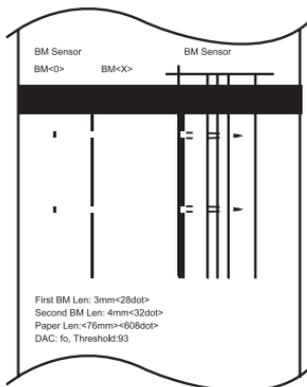
- (1) Cover the lower black mark with a label.



- (2) When the following message is displayed, press the Enter (↵) button to continue.



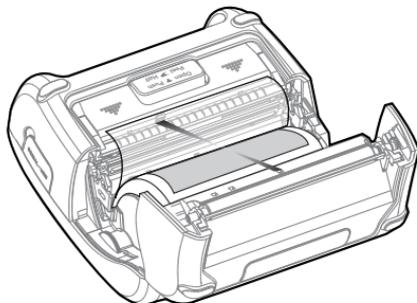
To cancel the calibration process, press the Power (⏻) button. When you press the Enter (↵) button, the information label will start printing.



- (3) Press any key to exit the Menu.

4.2.3 Testing the Black Mark Upper Mode

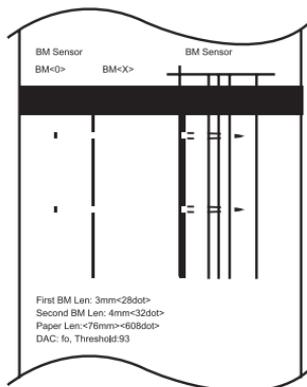
- (1) Cover the upper black mark with a label.
Black Mark Upper is recommended for use as supply.



- (2) When the following message is displayed, press the Enter (↵) button to continue.

Insert Media...
OK to calibrate,
POWER to abort

To cancel the calibration process, press the Power (⏻) button.
When you press the Enter (↵) button, the information label will start printing.



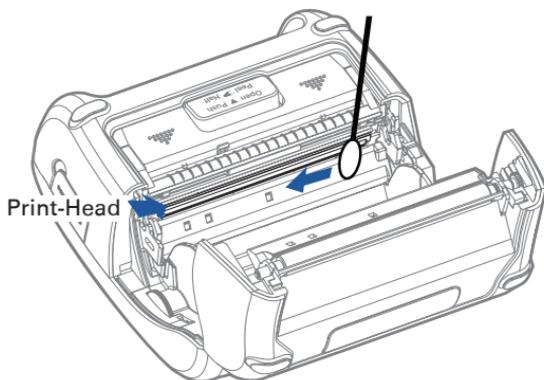
- (3) Press any key to exit the Menu.

5. PRINTER CLEANING

If the interior of the printer is dusty, printing quality can be lowered. In this case, follow the instructions below to clean the printer.

5.1 Print-Head Cleaning

- (1) Use an applicator swab moistened with an isopropyl alcohol to clean the print-head and remove any dust.
- (2) Once cleaning is complete, allow the printer to dry then install the stock and close the cover.

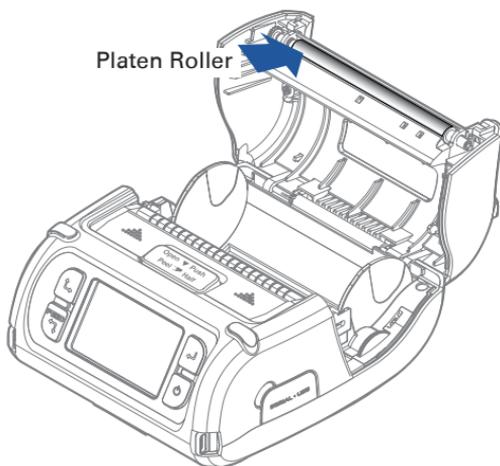


NOTE

1. Make sure to turn the printer power off prior to cleaning.
2. The print-head can become very hot during printing; allow the printer approximately 10 minutes to cool before cleaning.
3. Do not touch the print-head, it can be damaged by static electricity.
4. Take care not to allow the print head to become scratched and/or damaged in any way.

5.2 Platen Roller Cleaning

- (1) Clean the platen roller with a clean soft cloth moistened with isopropyl alcohol or a cleaning pen.
- (2) Turn the platen roller with your finger to clean the entire surface.



CITIZEN SYSTEMS JAPAN CO., LTD.

6-1-12, Tanashi-cho, Nishi-Tokyo-shi Tokyo, 188-8511, Japan

Tel: +81 (0) 42 468 4608 Fax: +81 (0) 42 468 4687

<http://www.citizen-systems.co.jp>

CMP-40_UM_100EN

September 2015

PMC-1509