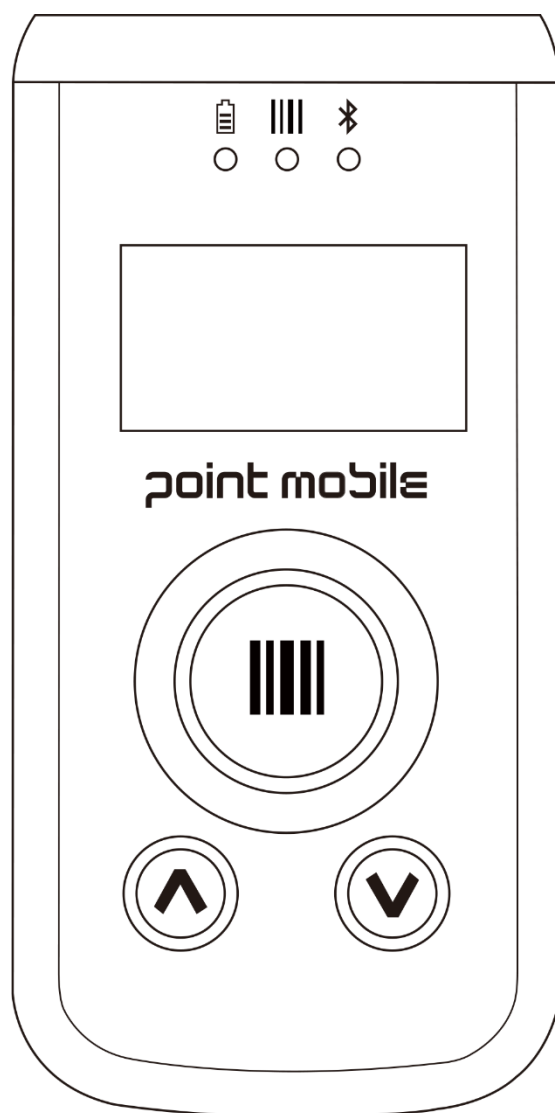


PM3 User's Guide



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1. Introduction

Thank you for purchasing PM3 Bluetooth Scanner.

This manual generally provides you with the safety information and basic features and operations of the PM3 device. Please read all safety precautions and this manual carefully before using your device and peripherals to ensure safe and proper use.

About PM3 Bluetooth Scanner

The new PM3 is the latest generation Bluetooth scanner, combining a pocket sized form factor. The PM3 is designed for retail warehousing and logistics applications where maximum performance and durability is required in compact Handheld device.

The PM3 is available in different models depending on the options.

Accessories

❑ **Power Supply**

AC Adaptor

INPUT: AC100~240V 50/60Hz, OUTPUT: DC5V 0.7A Power Supply

❑ **Cables**

Packed with the Power Supply

❑ **Others**

Customized necklace String (when requested)



PM3 Bluetooth Scanner contains the following items basically:

- Bluetooth scanner
- 5V/0.7A AC Adaptor with USB Cable
- AC Plugs

 **NOTE:** Keep the original packaging for use when sending products to the technical assistance center. Damage caused by improper packaging is not covered under the warranty

2. Safety Regulations

Symbols in this manual

In this manual, some important items are described with the symbols shown below. Be sure to read these items before using this equipment.

 **WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death serious injury, or serious damage, or fire in the equipment or surrounding objects.

AVERTISSEMENT Le terme **AVERTISSEMENT** indique une situation potentiellement dangereuse qui, si elle n'est pas évitée, peut entraîner la mort, des blessures graves, des dommages importants ou l'incendie d'objets et biens d'équipement environnants.



CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury, partial damage to the equipment or surrounding objects, or loss of data.

ATTENTION Le terme **ATTENTION** indique une situation potentiellement dangereuse qui, si elle n'est pas évitée, peut entraîner des blessures mineures ou modérées, des dégâts partiels à l'équipement, aux objets environnants ou la perte de données.



NOTE

Indicates information to which you should pay attention when operating the equipment.

This section outlines the safety precautions associated with using PM3 Bluetooth scanner.



NOTE: PM3 Bluetooth scanners meet or exceed the requirements of all applicable standards organizations for safe operation. However, as with any electrical equipment, the best way to ensure safe operation is to read this manual carefully before performing any type of connection to the Bluetooth scanner and operate them according to the agency guidelines described in the manual.

2.1. General Safety Rules



CAUTION

- Use only the components supplied by the manufacturer for the specific PM3 being used.
- Do not attempt to disassemble the PM3 Bluetooth scanner, as it does not contain parts that can be repaired by the user. Any tampering will invalidate the warranty.
- When replacing the battery or at the end of the operative life of the PM3 Bluetooth scanner, disposal must be performed in compliance with the laws in force in your country.
- Before using the devices, read this manual carefully.
- Do not submerge the PM3 Bluetooth scanner in liquid products.

CAUTION

ATTENTION

Utilisez uniquement les composants fournis par le fabricant pour l'utilisation du PM3.

Ne tentez pas de démonter le PM3. Ce produit ne contient aucune pièce ne pouvant être réparée par l'utilisateur. Toute manipulation fera perdre la garantie au produit.

Lors du remplacement de la batterie ou en fin de vie du terminal portatif PM3, l'élimination et le recyclage doit être effectuée en conformité avec les lois en vigueur dans votre pays.

Avant d'utiliser les appareils et les batteries, lire attentivement ce manuel.

Ne pas plonger le PM3 dans des produits liquides.

2.2. Power Supply

The power supply for this device has met applicable FCC/CE/CCC/UL /safety requirements. Please adhere to the following safety instructions per UL guidelines:

- FAILURE TO FOLLOW THE INSTRUCTIONS OUTLINED MAY LEAD TO SERIOUS PERSONAL INJURY AND POSSIBLE PROPERTY DAMAGE.
- IMPORTANT SAFETY INSTRUCTIONS – SAVE THESE INSTRUCTIONS.



WARNING

- DANGER – TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, CAREFULLY FOLLOW THESE INSTRUCTIONS.

WARNING
AVERTISSEMENT

DANGER - POUR RÉDUIRE LES RISQUES D'INCENDIE OU DE CHOC ÉLECTRIQUE, VEUILLEZ SUIVRE ATTENTIVEMENT CES INSTRUCTIONS.

Use only Pointmobile-approved power supply. Use of a non-Pointmobile-approved power supply may be dangerous and the warranty does not cover damage to the device caused by non-Pointmobile-approved power supply. The package includes international AC plugs. The AC plugs must be plugged in the power supply before the power supply itself is plugged on the wall outlet. The power supply is intended to be correctly oriented in a vertical or horizontal or floor mount position.

N'utilisez que l'alimentation fournie et approuvée par Pointmobile. L'utilisation de toute autre alimentation peut être dangereuse. La garantie ne couvre pas les dommages causés à l'appareil par une autre alimentation que celle fournie par Pointmobile. L'alimentation est livrée avec des adaptateurs AC pour les différentes prises Internationales. Ces prises adaptateur doivent être installées à l'alimentation électrique avant que cette dernière soit elle-même branchée sur la prise murale. L'alimentation est destinée à être orientée en position verticale ou horizontale.

2.3. Laser Safety

 CAUTION

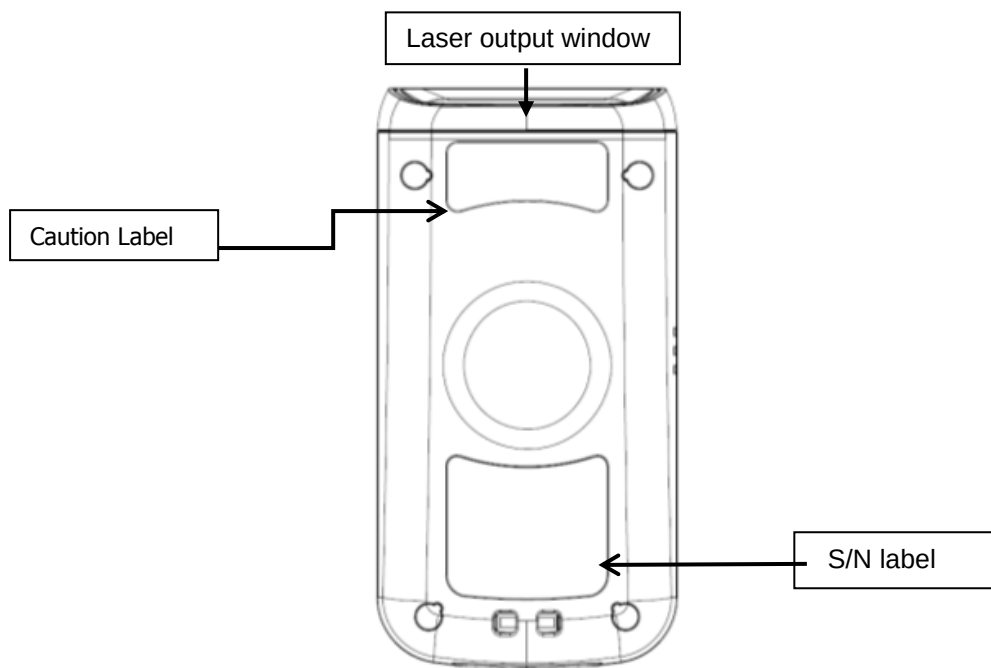
A Class 2 laser is safe because the blink reflex limit the exposure to no more than 0.25 seconds. It only applies to visible-light lasers (400–700 nm). Class-2 lasers are limited to 1mW continuous wave, or more if the emission time is less than 0.25 seconds or if the light is not spatially coherent. Although staring directly at the laser beam momentarily causes no known biological damage, avoid staring at the beam as one would with any very strong light source, such as the sun. Avoid that the laser beam hits the eye of an observer, even though reflective surfaces such as mirrors, etc.

The laser light is visible to the human eye and is emitted from the window indicated in the figure.

ATTENTION

Un laser de classe 2 reste inoffensif pour les yeux. Le réflexe de clignement de l'œil limite l'exposition à 0,25 secondes au plus. Ceci s'applique uniquement aux lasers de lumière visible (400-700 nm). Les Lasers de Classe 2 sont limités à 1 mW (onde continue), ou davantage si le temps d'émission est inférieur à 0,25 secondes ou encore si la lumière n'est pas cohérente dans l'espace. Bien que le fait de regarder directement le faisceau laser ne cause pas de dommage biologique momentané, il est conseillé d'éviter de regarder le faisceau ainsi que n'importe quelle source de lumière très forte, comme le soleil. Évitez également que le faisceau laser frappe l'œil d'un observateur, ainsi que toutes surfaces réfléchissantes environnantes, telles que des miroirs, etc

La lumière laser est visible pour l'œil humain et est émise à partir de la fenêtre indiquée sur la figure.



If the above laser light label is attached to your device, it indicates the product contains a laser engine or laser aimer that emits the laser light. The following information is provided to comply with the rules imposed by international authorities and refers to the correct use of PM3 Bluetooth scanner.

Laser Safety Statement

This product has been tested in accordance with and complies with CDRH 21 CFR 1040.10 and 1040.11 and IEC 450825-1 Ed 2 (2007) except for deviations pursuant to Laser Notice No 50, dated June 24, 2007. LASER LIGHT. DO NOT STARE INTO BEAM. CLASS 2 LASER PRODUCTS. 1 mW MAX OUTPUT: 650nm.

For installation, use and maintenance, it is not necessary to open the device.



WARNING: Do not attempt to open or otherwise service any components in the optics cavity. Opening or servicing any part of the optics cavity by unauthorized personnel may violate laser safety regulations. The optics system is a factory only repair item.

AVERTISSEMENT : Ne tentez pas d'ouvrir ou d'intervenir de quelque manière que ce soit sur les composants de la cavité optique. L'ouverture ou l'entretien d'une partie de la cavité optique par des personnes non autorisées pourrait enfreindre les réglementations liées aux normes de sécurité laser. La réparation du système optique ne peut être prise en charge que par le personnel qualifié du fabricant.



WARNING: Use of controls or adjustments or performance of procedures other than those specified herein may result in exposure to hazardous visible laser light.

AVERTISSEMENT : Toute manipulation, réglage, ou l'exécution des procédures autres que ceux spécifiés ici peuvent entraîner une exposition dangereuse à la lumière visible du laser.



WARNING: Use of optical systems with the scanner will increase eye hazard. Optical instruments include binoculars, microscopes, eye glasses and magnifying glasses.

AVERTISSEMENT : L'utilisation du scanner avec des systèmes optiques tels que jumelles, microscopes, lunettes de vue et autres loupes, augmente les risques de dommages pour les yeux.

2.4. LED Safety

The LED output on this device has met IEC62471 LED safety and certified to be under the limits of a CLASS 1 LED product.

2.5. FCC/EU RF Exposure

This device complies with FCC/EU RF exposure guidelines set forth for an uncontrolled environment. For body worn operation, this device has been tested and meets the RF exposure guidelines for use with an accessory that contains no metal and the positions the handset a minimum of 1.0cm from the body. Use of other enhancements may not ensure compliance with RF exposure guidelines. If you do not use a body-worn accessory and are not holding the device at the ear, position the handset a minimum of 1.0cm from your body when the device is switched on.

This device was tested for typical body operation, keeping a distance of 1 cm (0.39 inch) between the user's body and the device.

To comply with RF exposure requirements of the FCC standards, a minimum distance of 1 cm (0.39 inch) between the user's body and the device is required.

Belt-clips, holsters, and similar accessories containing metallic components from others manufacturers should not be used.

Accessories worn close to the body, without keeping a minimum distance of 1 cm (0.39 inch) between the user's body and the device, and that have not been tested for typical body operation, may not comply with FCC's RF exposure limits and should be avoided.

2.6. CB Scheme

This device complies with CB Scheme IEC 60950-1

2.7. FCC Part 15 Regulation

Pursuant to part 15 of the FCC Rules, you are cautioned that changes or modifications not expressly approved by Pointmobile could void your authority to operate the PM450 handy terminal.

This device complies with part 15 of the FCC 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.

This device 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.

In accordance with FCC 15.21, changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter. To maintain compliance with FCC/EU RF exposure guidelines for body-worn operation, do not use accessories that contain metallic components.

2.8. Radio Compliance

PM3 RF terminals are in conformity with all essential requirements of the R&TTE Directive (1999/5/EC).

This device is marked with **CE0984** in accordance with the Class II product requirements specified in the R&TTE Directive, 1999/5/EC. The device is intended for use throughout the European Community; PAN European Frequency Range: 2.402 ~ 2.480 GHz.

Restrictions for use in France are as follows:

- Indoor use: maximum power (EIRP*) of 100 mW for the entire 2.400 ~ 2.4835 GHz

- Outdoor use: Maximum power (EIRP*) of 100 mW for the 2.400 ~ 2.454 GHz band and maximum power (EIRP*) of 10 mW for the 2.454 ~ 2.483 GHz band.



The CE mark on the device indicates that the system has been tested to and confirm with the provisions noted within the 2004/108/EC Electromagnetic Compatibility Directive and the 2006/95/EC Low Voltage Directive, 1999/5/EC (R&TTE), and 2011/65/EU (RoHS).

Pointmobile shall not be responsible for use of our product with equipment (i.e., power supplies, personal computers, etc.) that is not CE marked and does not comply with the Low Voltage Directive.

2.9. WEEE Compliance

Information for the user in accordance with the European Commission Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on Waste Electrical and Electronic Equipment (WEEE)

This product has required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment, if not properly disposed. In order to avoid the dissemination of those substances in our environment and diminish the pressure on the natural resources, we encourage you to reuse, recycle and recover the product. If the product is disposed according to the Directive, it will avoid potentially negative consequences to the environment and human health which otherwise could be caused by incorrect disposal.



The product marked with crossed out wheeled bin must be disposed separately from municipal waste.

For more detailed information about disposal, reuse, and recycle system, contact your local or regional waste administration.

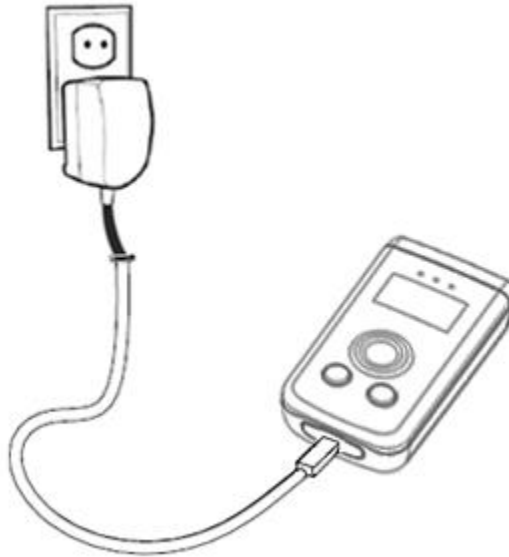
3. Getting Started

3.1. Charge the Device

Battery pack is assembled inside of the PM3 Bluetooth scanner. Charge the device with the charging cable for **a minimum of 4 or 6 hours before initial use**.

1. Attach the appropriate plug adapter to the plug of the power cable.
2. Insert the plug into the appropriate power source.

Plug the Bluetooth scanner power cable into the USB Jack on the side end of the unit.



WARNING: Use only Pointmobile-approved peripherals, power cables, and power adapters. Unauthorized peripherals, cables, or power adapters may cause explosion or damage on your device.

DO NOT attempt to charge damp/wet Bluetooth scanners or batteries. All components must be dry before connecting to an external power source.

Batteries must be charged at a temperature ranging from 0~45°C ($\pm 3^\circ\text{C}$). If you don't follow the guide, it might have a harmful effect on the battery life.

AVERTISSEMENT : Veillez à n'utiliser que les périphériques approuvés par Pointmobile (câbles d'alimentation et adaptateurs électriques). Tout périphérique non autorisé (câble ou adaptateur) peut provoquer l'explosion de la batterie ou endommager votre appareil.

NE PAS tenter de recharger les terminaux ou les batteries encore humides lorsqu'ils ont été mouillés. Tous les composants doivent être impérativement séchés avant la connexion à une source d'alimentation externe.

Les batteries doivent être chargées à une température allant de 0~45°C ($\pm 3^\circ\text{C}$). Le non-respect de ces recommandations pourrait avoir un effet néfaste sur la durée de vie de la batterie.



CAUTION: After the device has been charged, disconnect the DC Power Jack. If you stay on that plug in use, it is possible to break the power cord.

ATTENTION: Après une période de charge de la batterie, veillez à débrancher le connecteur du chargeur. Une utilisation prolongée de celui-ci risquerait d'endommager le cordon d'alimentation.

3.2. LED Indicators

The red LED is ON while charging the battery and the green LED is ON when the battery is fully charged.

During the charging process, the LED positioned at the upper-left side of the display is red constant. Once the charging process has been completed this LED is green constant.

3.3. Turn Your Device On

Press the UP key for 1 second.

3.4. Turn Your Device Off

Press the UP key for 5 seconds.

4. Get to Know Your Device

4.1. Feature of Your Device

The following list outlines a few of the feature included in your device.

4.2. PM3 Bluetooth scanner

- Micro Processor: 32-bit ARM® Cortex®-M4 RISC processor 120Mhz
- RAM Memory: 128KB
- FLASH Memory: 1MB, 4MB Storage
- 0.96" OLED Display: 128x64 Dot Passive Matrix/Monochrome(Blue)
- Keyboards: 3 Keys(1 Scan key, 2 Menu keys)
- Power Supply : AC power adaptor
- HandyLink connector: USB 2.0 Full speed Client,
- Scan Engine:
 - 1D engine: SE965HP
 - 1D engine: N4313
 - 1D CCD engine : SE655
 - 2D engine : SE4710
- Battery: Lithium Polymer battery, Standard 3.7V/900mAh
- IP54(IEC 60529)
- Audio: Built-in speaker
- BT: Bluetooth Radio 2.1+EDR with Internal Antenna
- Notification LEDs
 - 1) Power indications, 2) Scan reading indications 3)BT pairing indication
- Notification Vibration Motor
- NFC : 13.56MHz HF, ISO14443A, ISO14443B & ISO15693 are supportive, Mifare
- GPS: Stand-alone GPS

4.3. Front Panel Layout

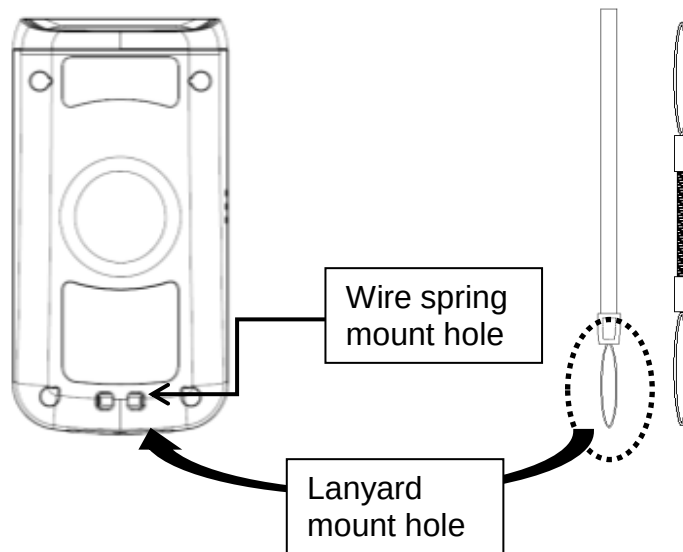


LED Indicator

Shows the information needed to operate your device as follows:

LED Color	Meaning
> Front Left	
Red	Lights when main battery is charging
Green	Lights when main battery charging has completed.
> Front Middle	
Red	Light when a scan fails
Blue	Light when a scan pass
> Front Right	
Blue	Light when Bluetooth pairing has completed

4.4. Back Panel Layout



Battery Installed Inside of the Device

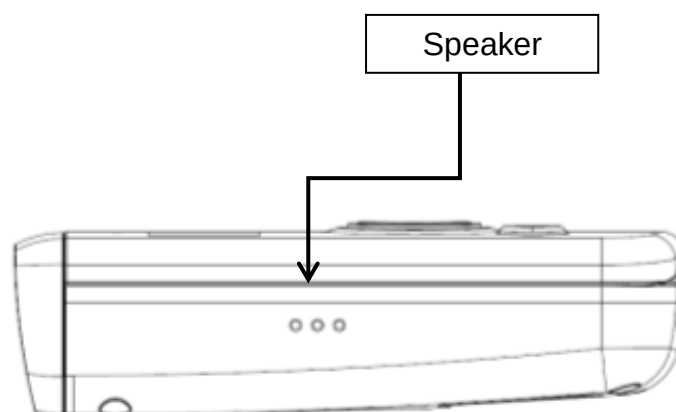
For information about battery power, see Battery Power on paragraph 4.12.

Speaker

The integrated speaker sounds audio signals as you scan bar code labels and enter data, The speaker meets the following SPL levels at 10cm:

- 500Hz–70dB
- 1kHz–80dB
- 4kHz–80dB

4.5. Left Side Panel Layout



4.6. Top Panel Layout

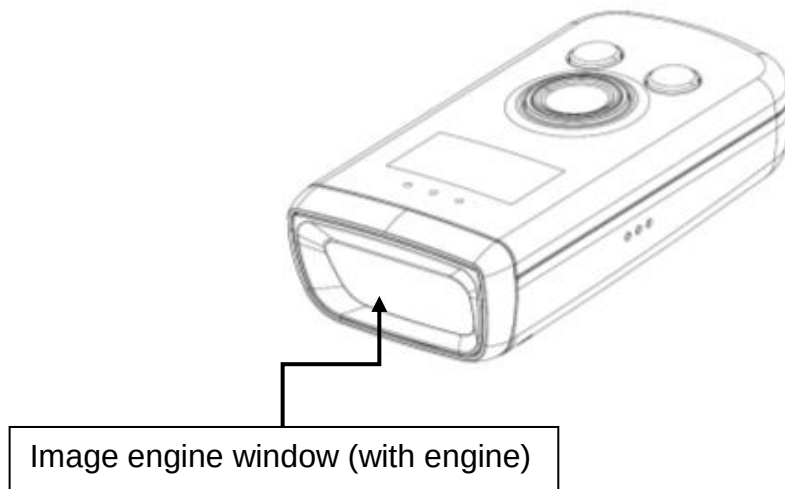
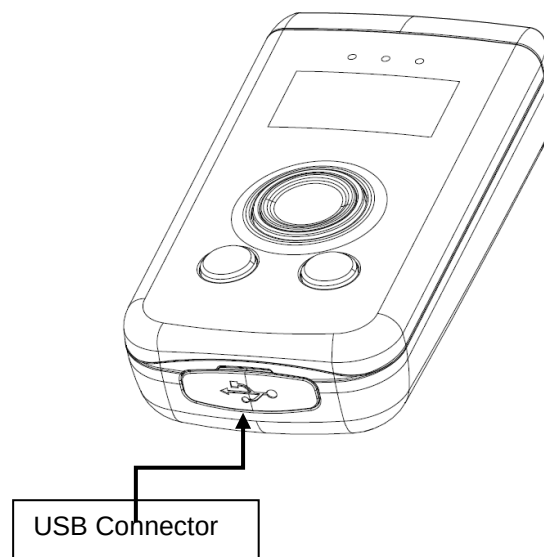


Image Engine Window

The angled image engine reads and decodes most popular bar code symbolizes. For more information, see Using the Image Engine on paragraph 6.

4.7. Bottom Panel Layout



USB Port

This connector supports full speed USB 2.0 communication. Also external power from the MicroUSB Adaptor that is included with the terminal. When connected to the MicroUSB Adaptor, the terminal is powered and the main battery pack is charging.

4.8. USB Cable

The Micro USB Cable is used when communicating between the terminal and a host computer to transfer data via the USB interface.

4.9. Battery Power

The battery works to prevent data loss when the terminal is used over long periods of time.

The battery must be charged to full capacity before using the BLUETOOTH SCANNER AC Adaptor for the first time!

Charge the main battery pack with the Bluetooth scanner AC Adaptor for **a minimum of 4 or 6 hours depending on your battery before initial use.**

4.10. Resetting the Terminal

The device is reset when pressing the SCAN, UP, and DOWN Key at the same time, and press The UP key for 1 second to turn it on.

4.11. Sleep Mode

Sleep Mode suspends terminal operation. The terminal appears to be “off” when in Sleep Mode. The terminal is programmed to go into Sleep Mode automatically when inactive for a specified period of time. You can set this time period in the “Sleep Timeout” menu.

4.12. PM3 Technical Specifications

Model	PM3
Operating System	Firmware
Processor	ATMEL SAM4S16C, 32-bit ARM® Cortex®-M4 RISC processor 120Mhz
Memory	1MB(PGM), 4MB Storage Flash, 128KB RAM
Storage Expansion	N/A
Display	Bright OLED/ 0.96 inch(21.74mm x 11.18mm Active Area)
Scan Engine	1D engine: SE-965HP, N4313 2D engine: SE4710 CCD: SE655
Keypad	3 keys [1 scan key, 2 menu Keys (Up & Down)]
Audio	Built-in speaker
I/O	Full Speed USB v2.0(12Mbps) Client. support USB Disk Mode & USB to Serial mode

Battery	3.7V, 910mAh
Expected Charge Time	< 4 hours (from Low-Battery Shutdown level)
Charging Peripherals	USB Cable
Operating Temperature	-10°C to 50°C
Charging Temperature	0~45°C (±3°C))
Storage Temperature	-20°C to 60°C
Humidity	95% humidity, non-condensing
Construction	High impact resistant PC housings
Drop	1.5m multiple drops to concrete, MIL-STD-810G
ESD	Air: ± 15kV Direct: ± 8kV
Environmental	Independently certified to meet IP54 standards for moisture and particle resistance
Dimensions	78.5mm x 39.0mm x 19.4mm
Weight	N4313 : 67g SE655 : 61g SE965 : 65g SE4710 : 65g

5. Using the Keys



5.1. Scan Key

Located at the center of the keypad for easy access with either hand
Scanning Barcodes or choosing options in menu.

5.2. Up Key

Located at the bottom left
Moving up in the menu

 **NOTE:** Press the UP and DOWN Key at the same time to move to the main menu

5.3. Down Keys

Located at the bottom right
Moving down in the menu

 **NOTE:** Press the UP and DOWN Key at the same time to move to the main menu

6. Using the Image Engine

6.1. Overview

The BLUETOOTH SCANNER contains an SE4710 2D image engine that instantly reads all popular 1D and 2D bar codes and supports omni-directional aiming and decoding or a SE965HP, SE655, N4313 1D laser engine that reads all popular 1D bar codes. The image engine can also capture digital images, such as signatures and pictures.

 **NOTE:** It may not read the barcode due to specular reflection if scanning from directly above. Try again after changing angle.

 **NOTE:** It may not read the barcode, if this Bluetooth scanner is too close to or too far from the barcode even if the barcode is within the aiming range. Move the Bluetooth scanner toward or away from the barcode slowly and try again. The aiming range is for reference only.

 **NOTE:** It may not read the barcode if the barcode surface is curved. Scan the barcode at the center of the aiming range.

 **NOTE:** It may not read the barcode if the barcode surface is dirty. Try again after cleaning the barcode.

 **NOTE:** It may not read the barcode if the image engine window is dirty. Try again after wiping the window with a cotton swab or similar soft object gently.

 **NOTE:** It may not read the barcode according to the direct sunlight or the brightness of the surrounding. Try again away from the direct sunlight. Try again after adjusting the brightness of the surrounding if indoors.

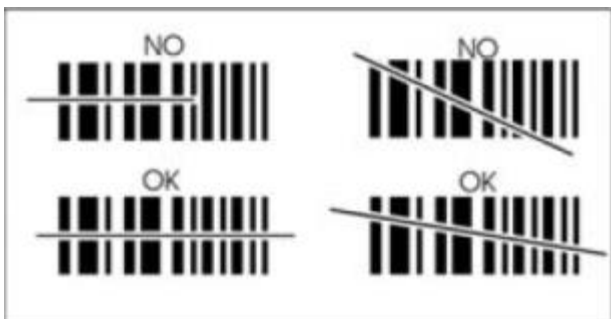
 **NOTE:** It may not read the barcode if it is blue on white background. Try again after changing angle or adjusting the brightness of the surrounding.

 **NOTE:** It may not read the barcode if it is black on silver background. Try again after changing angle or adjusting the brightness of the surrounding.

 **NOTE:** Bar codes printed on glossy or laminated paper are best read at angles greater than 5° in relation to the Laser Engine. This prevents bright illumination reflections from being returned to the Laser Engine..

 **NOTE:** Performance may be impacted by bar code quality and environmental conditions

 **NOTE:** Misreading may occur, if the bar code isn't positioned correctly. Recommended scanner beam positions are as follows



6.2. Available Image Engines

The BLUETOOTH SCANNER is equipped with an SE4710.

6.3. Depth of Field

Depth of Field for SE4710

Bar Code Type	Scan Angle /Focus Position	Near Distance	Far Distance
		Guaranteed	Guaranteed
PDF417, 5mil. 80% MRD	Default	4.25 in/10.79 cm	7.25 in/18.51 cm
UPCA, 13mil. 80% MRD	Default		19.9 in/50.54 cm

6.4. Supported Bar Code Symbologies

Symbology Type	Symbology Name
SE4710 Symbologies	UPC A, UPC E1, EAN 13, CODE 128, ISBT 128, TRIOPTIC CODE 39, CODE 11, DISCRETE 2 OF 5, MSI, GS1 DATABAR LIMITED, UCC COUPON, MATRIX 2 OF 5, US POSTNET, UK POSTAL, AUSTRALIA POST, USPS 4CB/ONE CODE/INTELLIGENT MAIL, COMPOSITE CC-C, COMPOSITE TLC-39, MICROPDF417, MAXICODE, MICRO QR, HAN XIN UPC E, EAN 8, BOOKLAND EAN, GS1 128, CODE 39, CODE 93, INTERLEAVED 2 OF 5 CODABAR, GS1 DATABAR, GS1 DATABAR EXPANDED, CHINESE 2 OF 5, KOREAN 3 OF 5, US PLANET, JAPAN POSTAL, NETHERLANDS KIX CODE, UPU FICS POSTAL, COMPOSITE CC-A/B, PDF417, DATA MATRIX, QR CODE, AZTEC,

6.5. To Decode a Bar Code

1. Position the Bluetooth scanner over one of the Sample Bar Codes on paragraph 6.9.
A range of 4–10 inches (10–25 cm) from the bar code is recommended.
2. Project the aiming brackets by pressing and holding the **Scan** key. The Scan LED lights red.
3. Center the aimer crosshair over the bar code. The aiming beam should be oriented in line with the bar code to achieve optimal decoding; Omni-Directional Scanning Positions on paragraph 6.10.
4. When the bar code is successfully decoded, the decode LED lights blue and the terminal beeps.

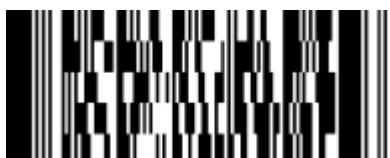
6.6. Sample Bar Codes

You can use the following bar codes to verify decoding:

Code 39



PDF 417



7. Using the Laser/CCD Engine

7.1. Overview

The BLUETOOTH SCANNER (N4313/SE965HP laser version, SE655 CCD version) contains a laser diode that emits a beam toward an oscillating mirror that scans through the code and the reflected light is bounced off of two mirrors back to the collector. The laser version reads all popular 1D bar codes. See Overview on paragraph 6.1 also.

 **NOTE:** Performance may be impacted by bar code quality and environmental conditions.

7.2. Available Laser Engines

The BLUETOOTH SCANNER can be equipped with an N4313, SE965HP or SE655 laser/CCD engine (depending on the configuration purchased).

7.3. Depth of Field

Depth of Field for N4313

Symbology	<i>Typical</i>			<i>Guaranteed</i>		
	Near Distance (in/mm)	Far Distance (in/mm)	Delta (in/mm)	Near Distance (in/mm)	Far Distance (in/mm)	Delta (in/mm)
4 mil Code 39	4.3 (109)	5.9 (149)	1.6 (40)	4.6 (117)	5.6 (141)	0.9 (24)
5 mil Code 39	3.7 (94)	7.9 (201)	4.2 (107)	4.2 (106)	7.5 (190)	3.3 (84)
7.5 mil Code 39	2.7 (68)	12.0 (305)	9.3 (237)	3.6 (92)	11.1 (281)	7.4 (189)
10 mil Code 39	2.2 (55)	15.0 (381)	12.8 (326)	2.6 (66)	14.6 (371)	12.0 (305)
13 mil 100% UPC	2.0 (52)	18.0 (457)	16.0 (405)	2.0 (52)	18 (457)	15.9 (405)
15 mil Code 39	1.77 (45)	21.5 (547)	19.73 (502)	1.77 (45)	21.5 (547)	19.8 (502)
20 mil Code 39	1.7 (43)	26.8 (680)	25.1 (637)	1.7 (43)	26.8 (680)	25.1 (637)
40 mil Code 39	3.4 (85)	35.1 (891)	31.7 (806)	3.8 (96)	29.1 (734)	25.3 (642)
55 mil Code 39	4.7 (119)	38.4 (976)	33.7 (857)	5.3 (135)	34.3 (872)	29 (737)

Depth of Field for SE965HP

Symbol Density/ Bar Code Type/ W-N Ratio	Bar Code Content/ Contrast (Note 1)	Typical Working Ranges	
		Near	Far
5.0 mil Code 128	1234 80% MRD	1.2 in 3.05 cm	7.7 in 19.56 cm
5.0 mil Code 39; 2.5:1	ABCDEFGH 80% MRD	1.2 in 3.05 cm	12.5 in 31.75 cm
7.5 mil Code 39; 2.5:1	ABCDEF 80% MRD	1.1 in 2.79 cm	18.5 in 46.99 cm
10 mil Code 128	1234 80% MRD	1.2 in 3.05 cm Note 3	19.0 in 48.26 cm
13 mil 100% UPC	12345678905 80% MRD	1.6 in 4.06 cm	27.0 in 68.58 cm
15 mil Code 128	1234 80% MRD	1.0 in 2.54 cm Note 3	29.5 in 74.93 cm
20 mil Code 39; 2.2:1	123 80% MRD	1.4 in 3.56 cm Note 3	52.0 in 132.08 cm
55 mil Code 39; 2.2:1	CD 80% MRD	3.4 in 8.64 cm Note 3	100.0 in 254.00 cm
100 mil Code 39; 3.0:1 reflective	123456 80% MRD	2 ft 60.96cm Note 3	17 ft 518.16 cm

Notes:

- Contrast measured as Mean Reflective Difference (MRD) at 650 nm.
- Working range specifications at ambient temperature (23°C), photographic quality symbols. Pitch=10°, roll=0°, skew=0°, ambient light < 150 ft-candles using Symbol or equivalent decoder.
- Dependent on width of bar code.
- Distances measured from front edge of chassis.

Depth of Field for SE655

Barcode	Distance	Typical	Guaranteed
Code 128 5mil	Near	2.75 in. / 70 mm	3.90 in. / 99 mm
	Far	8.25 in. / 210 mm	6.25 in. / 159 mm
Code 39 5mil	Near	2.25 in. / 57 mm	3.15 in. / 80 mm
	Far	9.75 in. / 248 mm	8.00 in. / 203 mm
Code 39 7.5mil	Near	1.50 in. / 38 mm	2.50 in. / 64 mm
	Far	12.75 in. / 324 mm	10.25 in. / 260 mm
100% UPC-A	Near	2.00* in. / 51 mm	2.25 in. / 57 mm
	Far	15.75 in. / 400 mm	11.00 in. / 279 mm
Code 39 20mil	Near	1.50* in. / 38 mm	2.00* in. / 51 mm
	Far	24.0 in. / 610 mm	18.25 in. / 464 mm

Notes:

1. Distances are measured from the front flange surface of the image lens.
2. The distances marked with asterisk (*) are a result of the field of view (FOV) limitation.
3. Image signal should be with "Raw" option checked
4. Successful decoder criteria: Less than 250ms decode time, maximum of two attempts.
5. Symbols are to be mounted with a pitch of 15 +/- 3 degrees away from the engine.
6. Maximum allowable roll angle of symbols relative to the engine mounting base plane is +/- 3.0 degrees.

7.4. Supported Bar Code Symbolologies

Symbology Type	Symbology Name
N4313 Symbologies	CODABAR, CODE 39, CODE 93, STRAIGHT 2 OF 5 IATA, CODE 11, GS1 128, UPC A, EAN 8, MSI, GS1 DATABAR OMNIDIRECTIONAL GS1 DATABAR EXPANDED, TRIOPTIC INTERLEAVED 2 OF 5, NEC 2 OF 5, STRAIGHT 2 OF 5 INDUSTRIAL, MATRIX 2 OF 5, CODE 128, TELEPEN, UPC E EAN 13, PLESSEY, GS1 DATABAR LIMITED, CHINA POST,
SE965HP Symbologies	UPC A, UPC E1, EAN 13, CODE 128, ISBT 128, UPC E, EAN 8, BOOKLAND EAN, GS1 128(EAN 128), CODE 39,

	TRIOPTIC CODE 39, CODE 11, DISCRETE 2 OF 5, MSI, GS1 DATABAR LIMITED, UCC COUPON, MATRIX 2 OF 5	CODE 93, INTERLEAVED 2 OF 5 CODABAR, GS1 DATABAR 14, GS1 DATABAR EXPANDED, CHINESE 2 OF 5, KOREAN 3 OF 5
SE655 Symbolologies	UPC A, UPC E1, EAN 13, CODE 128, ISBT 128, TRIOPTIC CODE 39, CODE 11, DISCRETE 2 OF 5, MSI, GS1 DATABAR LIMITED, UCC COUPON, MATRIX 2 OF 5	UPC E, EAN 8, BOOKLAND EAN, GS1 128(EAN 128), CODE 39, CODE 93, INTERLEAVED 2 OF 5 CODABAR, GS1 DATABAR 14, GS1 DATABAR EXPANDED, CHINESE 2 OF 5,

7.5. Decoding a Bar Code

1. Position the Bluetooth scanner over one of the Sample Bar Codes on paragraph 7.8.
A range of 4-10 inches (10-25 cm) from the bar code is recommended.
2. Project the aiming beam by pressing and holding the **Scan** key. The Scan LED lights red.
3. Center the aimer beam horizontally over the bar code and highlight all of the vertical bars of the bar code. The aiming pattern is smaller when the terminal is held closer to the code and larger when the terminal is held farther from the code. Symbolologies with smaller bars or elements (mil size) should be read closer to the unit whereas larger bars or elements (mil size) should be read farther from the unit.
4. When the bar code is successfully decoded, the decode LED lights blue and the terminal beeps.

7.6. Sample Bar Code

You can use the following bar code to verify decoding:



7.7. Scanning Positions

The aiming beam must be aimed across the entire bar code to provide you with the best scanning performance. The aiming pattern is smaller when the terminal is held closer to the code and larger when the terminal is held farther from the code. Symbolologies with smaller bars or elements (mil size) should be read closer to the unit whereas larger bars or elements (mil size) should be read farther from the unit.



8. Bluetooth

Bluetooth wireless technology is a short-range communications technology to connect portable and/or fixed devices while maintaining high levels of security.

8.1. Enabling the Bluetooth

1. Choose "Bluetooth" -> "BT Service" -> Power in the main menu
2. Choose "Enabled" and Save

 **NOTE:** Area coverage and Bluetooth radio performance may vary, due to environmental conditions or interference caused by other devices (microwave ovens, radio transmitters, etc.).

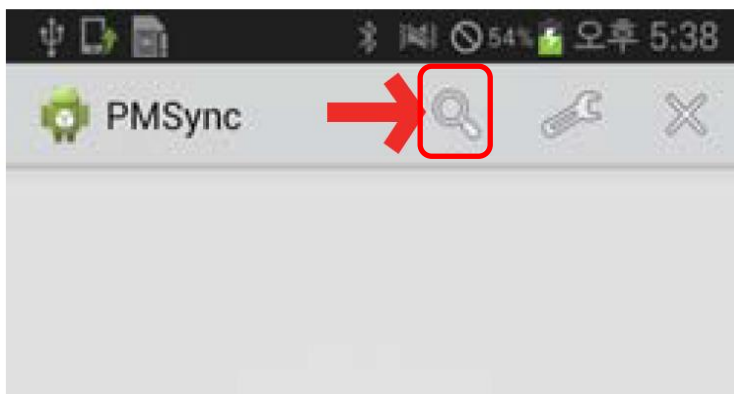
8.2. Pairing Bluetooth Devices

Connecting Bluetooth devices usually requires them to be paired; the same pass key must be entered for each device.

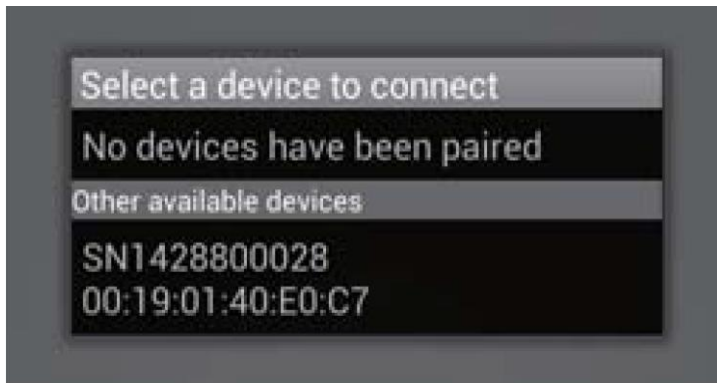
1. Enter User Settings -> Connect Mode
2. Choose "Pairing"
3. Search the BT device from the smartphone and connect

9. Connecting PM3 with Smartphone

1. Start Bluetooth pairing from PM3 device (Refer to 8.1 above)
2. Search the device by selecting the button below



3. Select a device from the list and connect.



10. Reconnecting HID

When HID is disconnected while using PM3 device, reconnection is available by following the options below.

1. Admin Menu -> Bluetooth -> HID Settings -> HID Reconnect -> Enabled
2. Press DOWN key for 1 second to reconnect
3. "Bluetooth Connected" is shown on the display when successfully reconnected

11. PM3 User Menu and Functions

To use the User Menu, Select "User Settings" in the main menu

1. Auto Scan
 - You can select Auto Scan and the scanning time on a 0.25 second cycle
2. Beeper Volume
 - Beeper Volume can be adjusted
 - Volume size is available among "None", "Low", "Middle", "High"
3. Vibrator
 - You can select the vibrator working when scanning is "Success" and "Fail"
 - Vibration time can be selected among "Short", "Middle", "Long"
4. Connect Mode
 - Bluetooth transfer mode can be selected. Basic setting is "SPP 2.0"

12. PM3 Administrator Menu and Functions

To use the administrator menu, select "Admin Menu" in the main menu.
General uses may not change the settings of the admin menu. Ask for help to an administrator when changes are required.

1. Barcode/Scan
 - 1.1. View Data
 - Searching or deleting the saved barcode data
 - 1.2. Symbolologies
 - You can select use or disuse of barcode type. It is toggled when pressing the key
 - When "*" is shown at the left corner of the display, it means the barcode type is being used
 - 1.3. Code Options
 - Setting the detail options for each of the scanner type
 - 1.4. Scan Options
 - 1.4.1 Scanner Lock
 - Scanner Lock Setting
 - 1.4.2 LED On Scan
 - LED alert setting when scanning is "success" and "Fail"
 - 1.4.3 Trigger Release
 - Operation mode setting for scan trigger
 - When enabling, scan button should be pressed in order to apply the trigger time. Scanner Trigger becomes "off" when the button is not pressed
 - Trigger Time is continued if the button is not pressed when the device is disabled
 - 1.4.4 Trigger Timeout
 - Setting the Scan Trigger Time Out
 - 1.4.5 Power save mode
 - Setting the Power save mode
 - 1.4.6 Terminator
 - Setting the terminator text when transmitting the barcode
 - 1.4.7 Transmit Barcode ID
 - Setting the Barcode ID Transmission
 - 1.4.8 Security Level
 - Setting the Security Level
 - 1.4.9 Scan Angle (SE965HP)
 - Setting the angle of the Scanner Beam
 - 1.4.10 Adaptive Scan (SE965HP)
 - Setting the focus of the Scanner Beam to Automatic change
 - 1.4.11 Picklist Mode (SE4710)
 - Setting the scanner to scan the barcode only indicated by the aimer

- 1.4.12 Redundancy (SE4710)
 - Setting the Scan level to prevent from misreading
- 1.4.13 Inverse 1D (SE4710, SE655)
 - Setting the scanner whether the color-reversed 1D barcode should be read or not
- 1.4.14 Prefix / Suffix
 - Deleting Prefix, Suffix
- 1.5. Duplicate
 - Setting to check if data is duplicated when scanning
 - Duplicated data is not saved when the device is set to Enabled
- 2. Bluetooth
 - 2.1. Power
 - Setting On/Off power of the device
 - 2.2. Wakeup Nulls
 - You may transmit, or not transmit the Null data to wake up the module when the Bluetooth module of the Host is on Sleep
 - 2.3. Connect Alert
 - Setting the alert if the Bluetooth is disconnected while transmitting the barcode
 - 2.4. Data Format
 - Setting the format of the Barcode transmission data
 - Barcode Only : Transmitting the barcode data only
 - Packet Data : Transmitting the packet data of the barcode
 - 2.5. Handshake
 - You may check if the packet data transmission was "Success" or "Fail" by setting the handshake function
 - 2.6. HID Settings
 - 2.6.1 HID Reconnect
 - Setting the function of reconnection on HID transmission mode
 - If there is HID connection record, and it is currently disconnected, you can set it to Reconnection by using DOWN key
 - 2.6.2 HID Keyboard
 - Setting the Keyboard input method of the connected device
 - 2.6.3 HID Delay
 - Setting the time of HID text transmission to get help with stable transmission
 - 2.6.4 HID Control Char
 - You can transmit the values of ASCII (0x01 ~ 0x1F) which is not expressed by the keyboard
 - 2.6.5 HID Sync
 - Setting the synchronization on the HID transmission mode
- 3. Configuration
 - 3.1. UI Settings
 - 3.1.1 Language
 - Language (English, Korean)
 - 3.1.2 Auto Exit Time
 - Setting the operation time of auto exit from the menu

3.1.3 Display Format

- Setting the display format of the scan result and information

3.2. USB Settings

3.2.1 USB Mode

- You can select the USB connection method. See "3.10. Using the USB memory in connection with PC"

3.3. GPS Settings

3.3.1 GPS Power

- Setting the GPS Power on/off

3.3.2 Power Mode

- Setting the power save mode

3.3.3 Bypass Data

- Setting the bypass of NMEA data
- When setting to Enabled, operated by BT GPS Receiver and not transmits barcode data

3.3.4 Reset GPS

- GPS Reset Setting

3.4. NFC Settings

3.4.1 NFC Power

- NFC power on/off Setting

3.4.2 Support Type

- Select the supporting tag type

3.4.3 Auto Detect

- Auto Detect Setting

3.4.4 F/W Update

- NFC Firmware Updating

3.5. System Settings

3.5.1 Auto Erase

- When the storage is full, data is automatically deleted if you set it to "Auto Erase"
- When the device is Enable, all data is deleted if the storage is full
- "Buffer full" is displayed when the device is Disable

3.5.2 Sleep Timeout

- Sleep timeout setting

3.5.2 Date/Time

- Date/Time Setting

3.5.4 Button Lock

- Button lock Setting

3.5.5 Power Save

- Power save mode setting

3.5.6 Factory Reset

- Factory reset Setting

3.5.7 F/W Update

- Updating is available when you enter the password (ask for the password to the administrator)

4. Device Info

4.1. F/W Version

4.2. Memory Info

4.3. Battery Info

- 4.4. H/W Revision
- 4.5. Serial Number
- 4.6. Part Number
- 4.7. Scanner Type
- 4.8. Scanner S/N
- 4.9. Scanner F/W
- 4.10. BT MAC Addr.
- 4.11. BT F/W Ver.
- 4.12. NFC F/W Ver.

13. Functions of the Keys

	On Idle Screen	On Menu Screen
SCAN Key	● Scans ● Starts/Stops Auto Scan	● Selects Menus ● Selects settings
UP Key	● Turns off when pressing for 5 seconds ● Turns on when pressing for 1 second on power OFF ● Display enters to the menu screen when pressing with DOWN key at the same time	● Moves up to the menu above ● Keeps it moving up when pressing for 3 seconds
DOWN Key	● Disconnects BT when pressing for 3 seconds if BT is connected ● Tries to reconnect when pressing for 1 second if disconnected on BT HID mode ● Display enters to the menu screen when pressing with UP Key at the same time	● Moves down to the menu below ● Keeps it moving up when pressing for 3 seconds

14. Initializing the Memory

To delete the data saved in storage:

1. Select "Reset Memory" in the main menu
2. Check the message of "Erase All Data?" and select "Yes"
3. Wait until deleting is completed

15. Using the USB Memory in Connection with PC

When connecting with PC, you can select the serial type and disk type. Basic setting is serial type.

To use your device with disk type, set as follows

1. Admin Menu-> Configuration -> USB Settings -> USB Mode -> USB Disk
2. Check "Flash Erase And Reset" message and select "Yes"

3. Wait until memory is completely deleted
4. After deleting, your device is automatically reset and operates with USB memory from this moment

16. Trouble Shooting and Note

If the device operates abnormally because wrong value setting, restore the device by selecting factory reset.

How to Factory Reset : In the main menu, " Admin Menu-> Configuration -> Sys. Settings -> Factory Reset"

*Note: After factory reset, all settings are initialized, and the saved barcode in the storage is deleted.