



ITと経営のベストバランスで笑顔を創造する

Asterisk Inc.

AsReaderGUN ASR-R250G, ASR-R250G-21, ASR-R250G-01

AsReader User guide

AsReader Product User guide


B.G Choi

2016-12-06

AsReader Product User guide				Company	Asterisk		
Doc.		Writer	B.G Choi	Date	2016-12-06	Ver.	v0.1


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1 Prologue

In this document, explains basics of ATID device for instance how to use AsReader and maintenance etc.

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2 Product Overview

AsReader do support reading Barcode and RFID tags. The IP rates of AsReader is IP65 which means dust proof and water proof and 1.2m drop resistance. With those reason, AsReader satisfies industrial market demands to use in multiple fields for instance manage medical supplies, inventory management, track and trace of logistics, production management and access control for collecting data.

3 Strong Point

Specification of AsReader :

- Qualified IP65 and 1.2m drop resistance.
- Install high performance Honeywell's latest barcode module N6603
- Install Impinj R2000 module / capable of high speed reading UHF RFID Tag
- Switchable RFID Antenna and RFID Module / can be used in multiple workplace (factory option)
- Install Magconn technology connect with iPhone and other smartphone (data communication)
- Can be charged with the Micro-USB back side of the device using iPhone adaptor
- Supply charging cradle for charging battery (optional)

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4 H/W Specification

Performance Characteristics

Processor	ARM7 Core
Support Operating System	iOS
Memory	1Mbit (512Kbyte above)
Weight	320g (without Battery 270g)
Operation Temperature	-20°C ~ 60 °C
Storage Temperature	-30°C ~ 70 °C
Charge Temperature	0°C ~ 45°C
Humidity	95% non-condensing
Drop specification	1.2M Drop to concrete
Dust & Water Proof	IP54

Physical Characteristics

Audio	Buzzer
Standard I/O Port	Micro USB
Notification	LED, Buzzer, vibrator
Dimensions(L x W x H)	134 x 154 x 48 mm

Battery Supply

Main Battery	2,600mAH Li-Ion Rechargeable Battery

Barcode Data Processing Device

Barcode Engine	2D Scanner (HHP N6603)
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UHF 900MHz RFID Reader/Writer (Option)

Chips set	Impinj R2000
Frequency	CE 865MHz ~ 868MHz FCC 902MHz ~ 928MHz (Support Global Frequency)
Reading Range	0M~10M (According to Tag & Environment)
Writing Range	0M~0.5M (According to Tag & Environment)
Max. RF output	30dBm
Protocol	EPC Gen2, ISO/IEC 18000-6C
Special Function	Anti-Collision

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Accessories

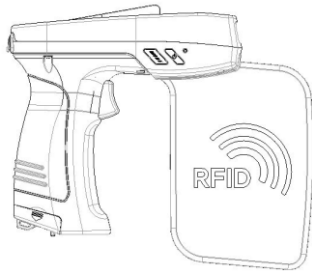
Basic Accessories	USB Cable
Optional Accessories	Docking Cradle

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5 Product Constitution

5.1 Constitution of Product

This product is sold in the following configurations.



<Main Body>

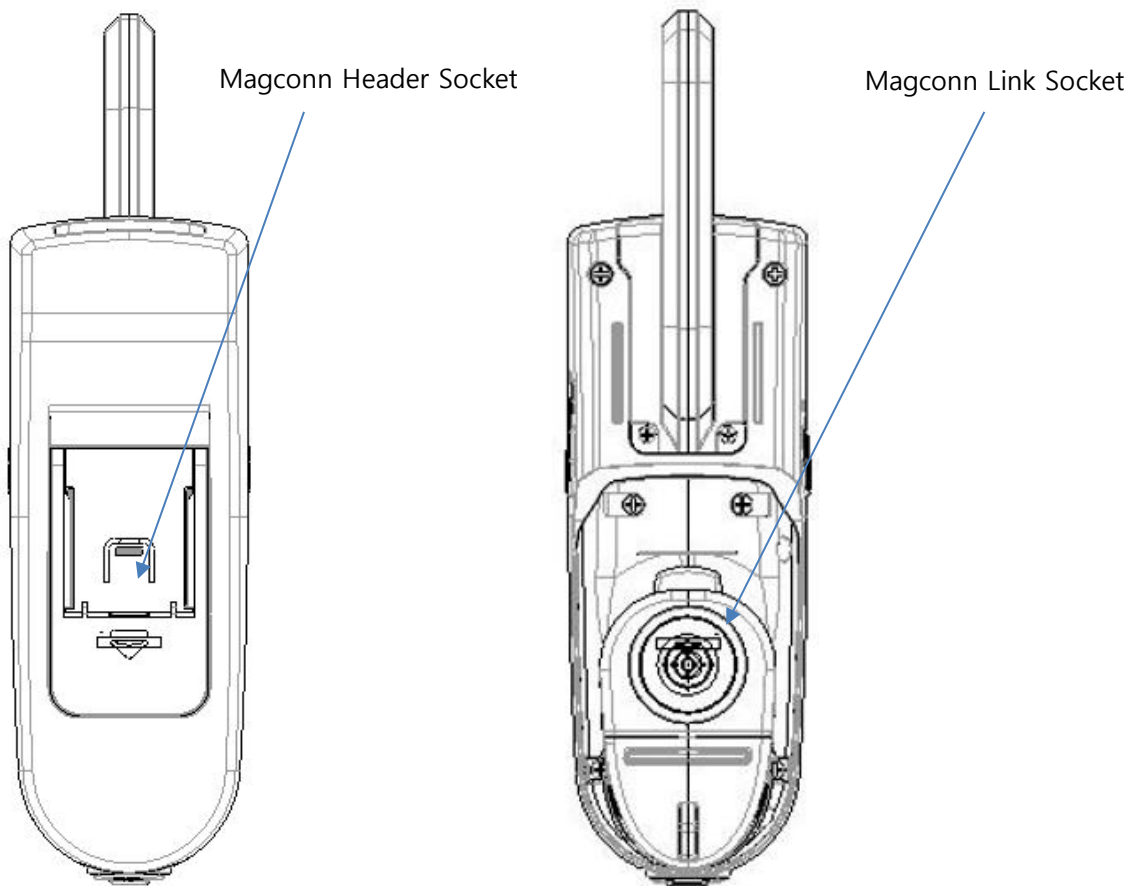


<Micro USB Cable>

<User Manual>

5.2 Composition of Product

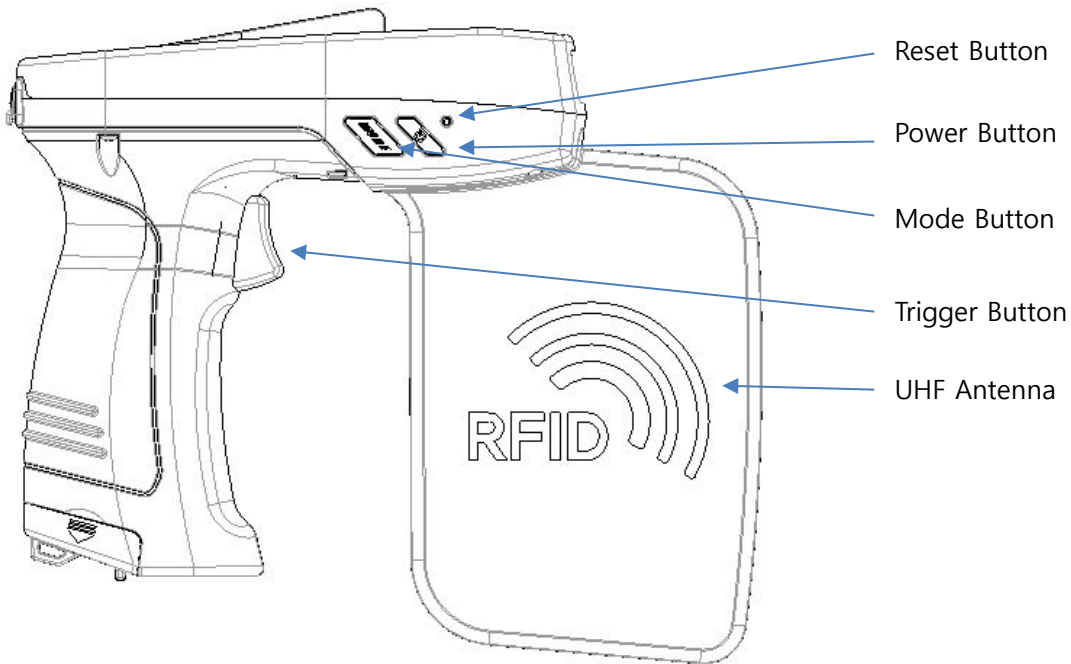
i. Upper & Bottom side



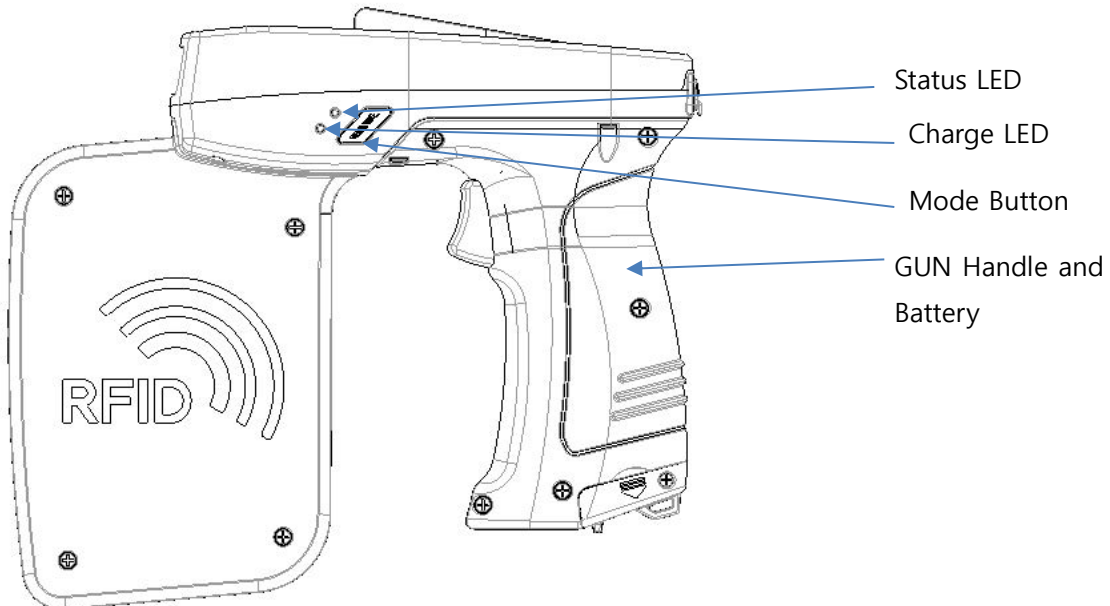
- Magconn Header Socket: Header connect point with AsRing
- Magconn Link Socket: Magconn connecting socket

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ii. Left & Right side



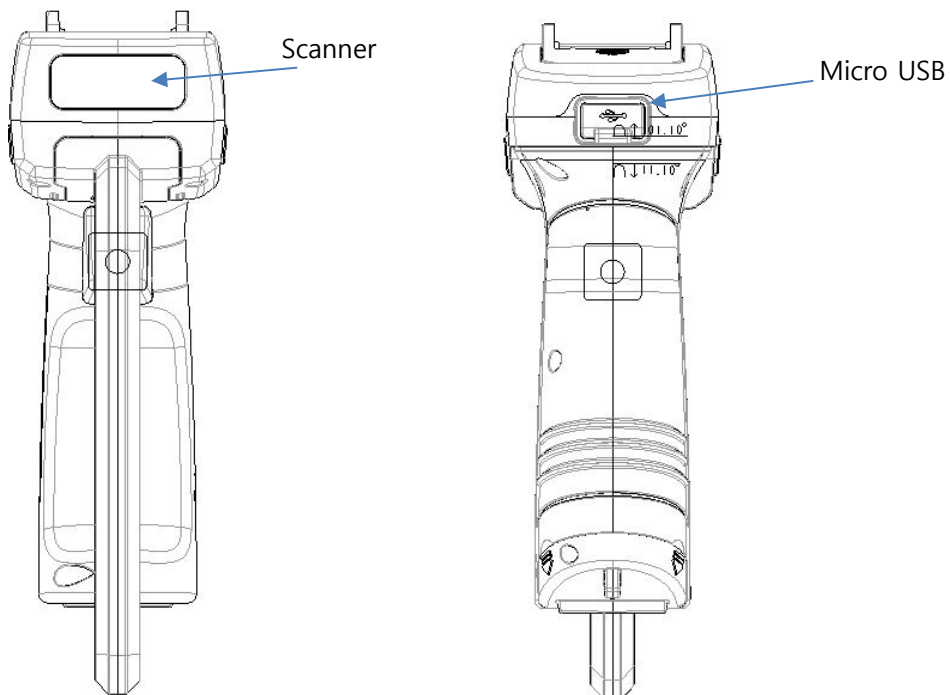
- Reset Button: Reset device manually.
- Power Button: Power on/off.
- Mode Button: Mode change Scanner/RFID.
- Trigger Button: Proceed selected function Scanner/RFID.




- Status LED: Display device status.
- Charge LED: Display state of charge.
- GUN Handle and Battery: Trigger gun handle (battery included).

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iii. Front & Rear side



- Scanner: Read 2D Barcode.
- Micro USB: Connect charging Micro USB cable.

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6 Device Operating

6.1 Usage and Function of Button

- Trigger Button: It should have to done S/W handling in the Application.
- Reset Button: Reset device manually.
- Power button: Press more than a sec to power on, press more than a 3 sec to power off.
- Mode Button: Toggling barcode scan mode and RFID mode each time press this button.

6.2 Composition and Action of LED

- Mode LED: On call – flicker blue light / Connected – lighting up with blue.
- Power LED: Lighting up with red when Adapter or connected with PC (charging).
- Lighting up with green when completely charged. Flickering when battery is low.


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7 Basic Operation Guide


After turn on the AsReader, it can be read barcode and RFID Tags without any connection. But if the data from barcode or RFID Tag needs to be proceeded, AsReader should have to connected with Host Device.

7.1 Power ON & OFF

7.1.1 Power ON

- ① Press power button  on the right side of the device more than 2 sec.
- ② Red LED lighting up and Buzzer & Vibrator activated. When AsReader ready to operate, red LED turned off then blue LED flickers.

7.1.2 Power OFF

- ① Press power button  more than a 3 sec.
- ② When it turning off, blue LED lighting up and Buzzer & Vibrator activated. When AsReader completely turned off, LED off and Buzzer & Vibrator stopped.

7.2 Barcode Data Recognition

- ① Select Barcode mode with pressing Mode Button with beep sound.
- ② Pull the trigger to initiate barcode scanning.


7.3 RFID Tag Data Recognition

- ① Select RFID mode with pressing Mode Button with beep sound. (default mode is RFID mode when AsReader turned on)
- ② Pull the trigger to initiate RFID Tag reading.

7.4 Change Beep Level

Change beep sound level to High/Low/Off.


- ① Press Mode Button any side, when beep level changed vibrator activated.
- ② Default setting is High when AsReader turned on. Long press on Mode button, beep level changed to Low. Repeat to turn off the beep sound.

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7.5 Change Vibrator Mode

Set Vibrator On/Off

- ① OFF: Vibrator always on when AsReader turned on. Press Mode Button along with Trigger until the beep sound. When beep sounds that means Vibrator turned off.

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8 Firmware Update

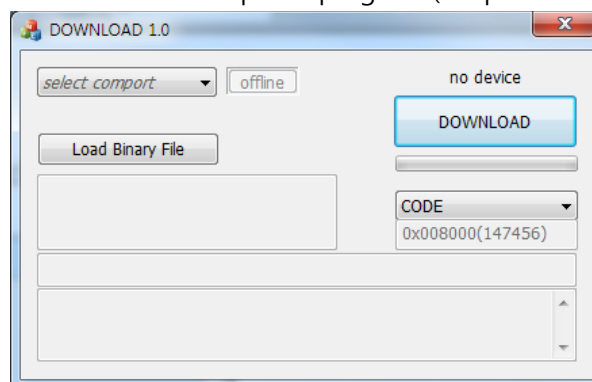
The firmware of AsReader can be updated to improve its functionality and performance. Please be careful when you date the firmware. If the problem comes up during firmware update, AsReader may cannot be restored.

8.1 Preparation

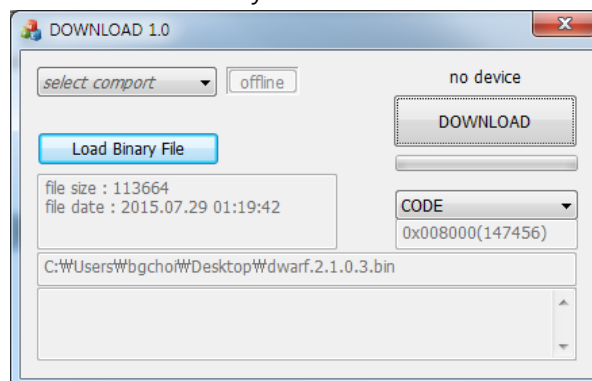
- PC (installed Windows 7 or upper version)
- USB 2.0 Port
- AsReader Body
- Micro USB Cable
- Firmware File(.bin)
- Firmware Updater Program

8.2 Initiate Firmware Update


- ① Save Firmware File in your PC.
- ② Run Firmware Update program (fwupdate.exe).



- ③ Click "Load Binary File" button then select saved firmware file.

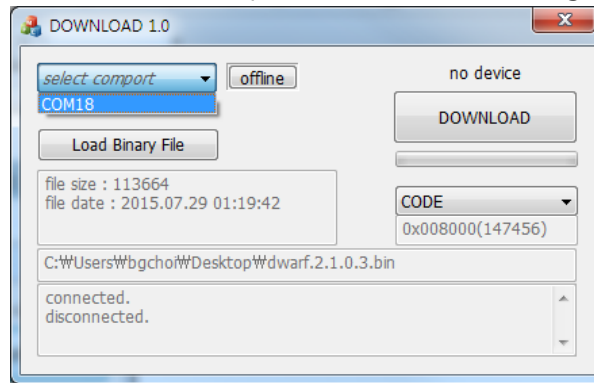


- ④ Connect AsReader to PC using USB cable을 이용해 PC와 연결합니다.
- ⑤ Reset AsReader along with press Mode Button on each side.

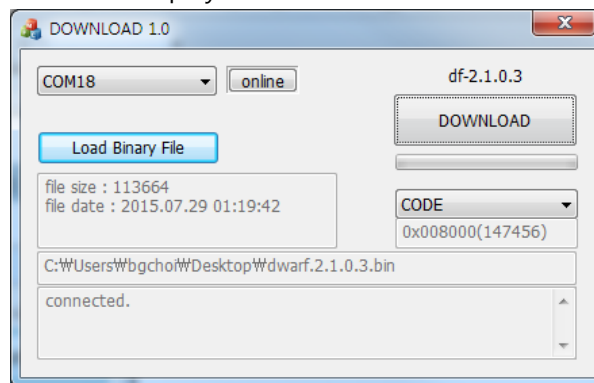
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⑥ AsReader will be entered the Download Mode. On the Download Mode red and blue LED flickering.

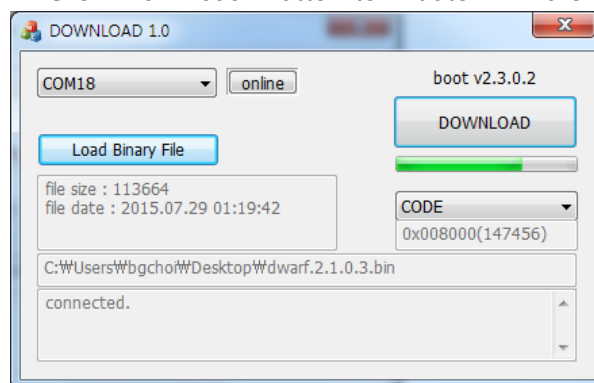
⑦ Click "select comport" Button to select assigned COM Port.




⑧ Click "off line" Button to change "Online". Existing firmware version will be displayed.



⑨ Click "Download" Button to initiate firmware download.



⑩ AsReader will automatically restart after firmware updated with LED off.

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9 Guarantee & Technical Support

AsReader can be repaired free of charge for one year from the manufacturing date.

However, in case of defects caused by negligence in the use of the customer, even if it is guarantee period, it needs to pay for the repair.

Warranty, technical support and inquiries about this product should be directed to the distributor.



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FCC RF Exposure Information and Statement

This device meets the government's requirements for exposure to radio waves. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health. The SAR limit of USA (FCC) is 1.6 W/kg averaged over one gram of tissue for body, and 4 W/kg averaged over ten gram of tissue. Device types: AsReaderGUN (FCC ID: 2AJXEASR-R250G) has also been tested against this SAR limit. SAR information on this and other pad can be viewed on - line at <http://www.fcc.gov/oet/ea/fccid/>. Please use the device FCC ID number for search. This device was tested simulation typical 0mm worn on hand and 10mm for body-worn. To maintain compliance with FCC RF exposure requirements, use accessories should maintain a separation distance between the user's bodies mentioned above, the use of belt clips, holsters and similar accessories should not contain metallic components in its assembly, the use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided.

FCC Warning

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.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.