



User Guide

AB100

Bluetooth UHF RFID Reader



Notice

Registered Trademark



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Applicable Device

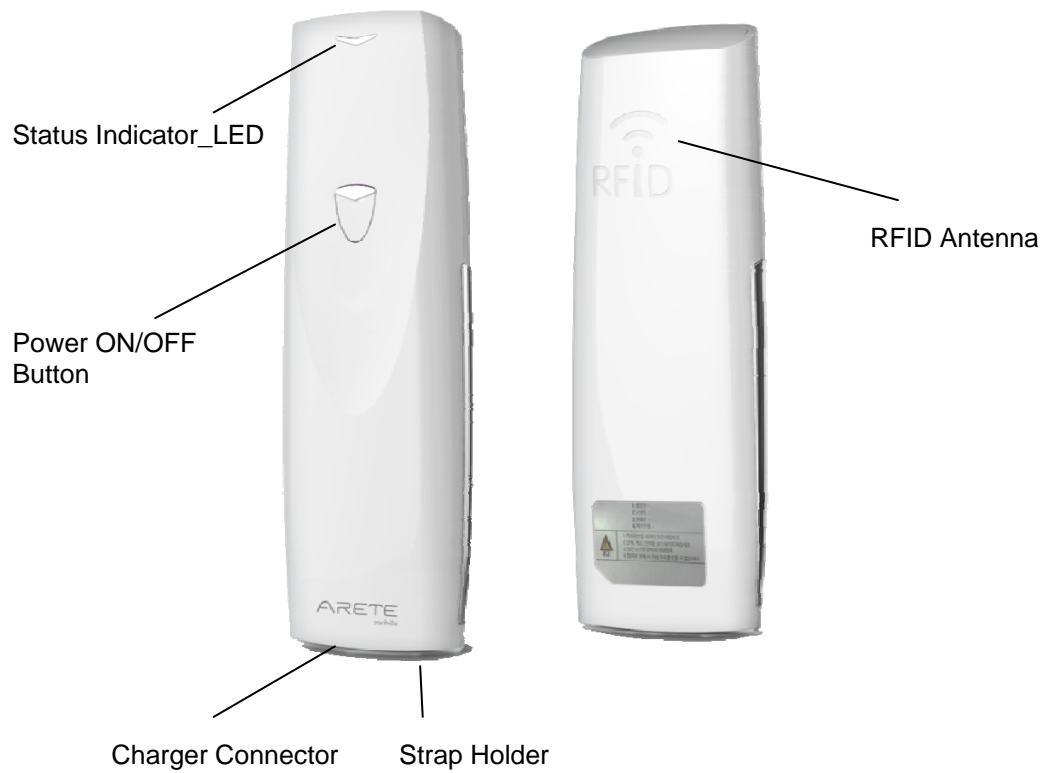
This document is applicable for Android 2.2.1~4.0.4

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Chapter 1: Understanding AB100

1.1 AB100 at a Glance



1.2 Accessories



1.3 Specifications

PHYSICAL

Dimension(WxLxH)	35.9 x 101.5 x 11.7mm
Weight	40g
Indication	Power on LED(Blue), Charging LED(Red/Green), Tagging(Red blinking)
Battery	Rechargeable, 350mAh Li-polymer
Continuous Time	2.5 hours , Sleep mode function
Charging	Micro USB 5pin
Color	White

RFID PERFORMANCE

RFID Reader Chip	PR9000
Air Protocol	ISO 18000-6C/ EPC Class1 Gen 2
Operating Frequency	902.75 Mhz ~ 927.25 Mhz
OS	Apple IOS 4.01, Android 2.2 above, Windows XP, Windows7
Output (EIRP)	25mW(14dBm)
RFID Read Distance	Max 0.5m (depend on tags)
Antenna	Circularly Polarized Patch Antenna
Tag	Read, Write

BLUETOOTH PERFORMANCE

Bluetooth	V2.1 + EDR
Frequency	2.4GHz
Profile	SPP, IAP
Bluetooth Distance	Max 10m

USER ENVIRONMENT

Operating Temp	0~40°C
Storage Temp	-20~60°C

Chapter 2: Basics

2.1 Activating

1. Power ON
 - 1) Power button is located on the front side of the product
 - 2) Power button should be pressed for 2 seconds
 - 3) LED indicator will be blinked for 60 seconds in blue color
2. Power OFF
 - 1) AB100 will be changed to "Power off" mode automatically if fail to pairing for 60 seconds
 - 2) AB100 will be changed to "Power off" mode automatically after 60 second of pairing and tag reading



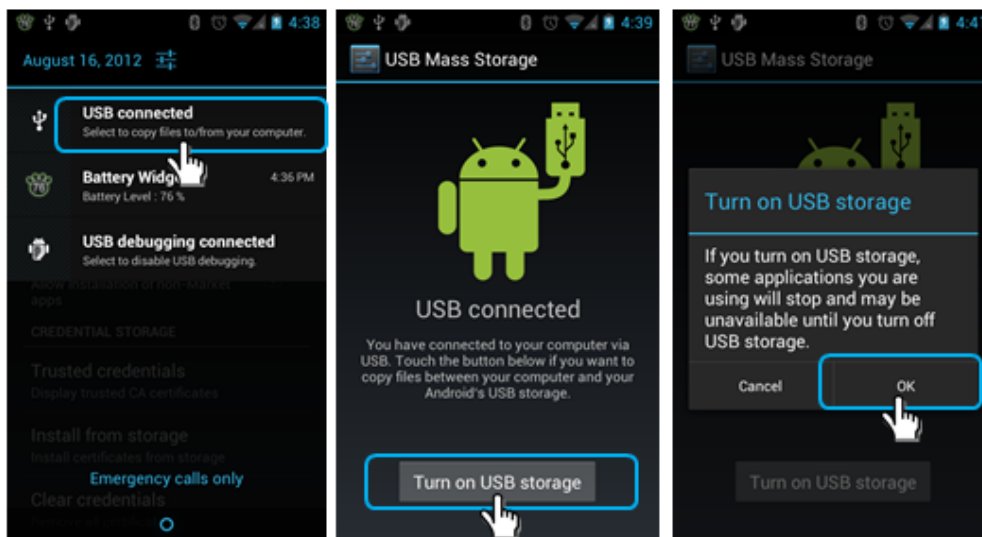
3. Battery Charging
 - 1) Battery will be charged by Micro B USB connector
 - 2) It is compatible with general Micro B USB connector
 - 3) Charging time is about 2 hours
 - 4) Red LED blinking: under charging
 - 5) Blue LED blinking: completed charging

2.2 Application: How to Install in your Phone

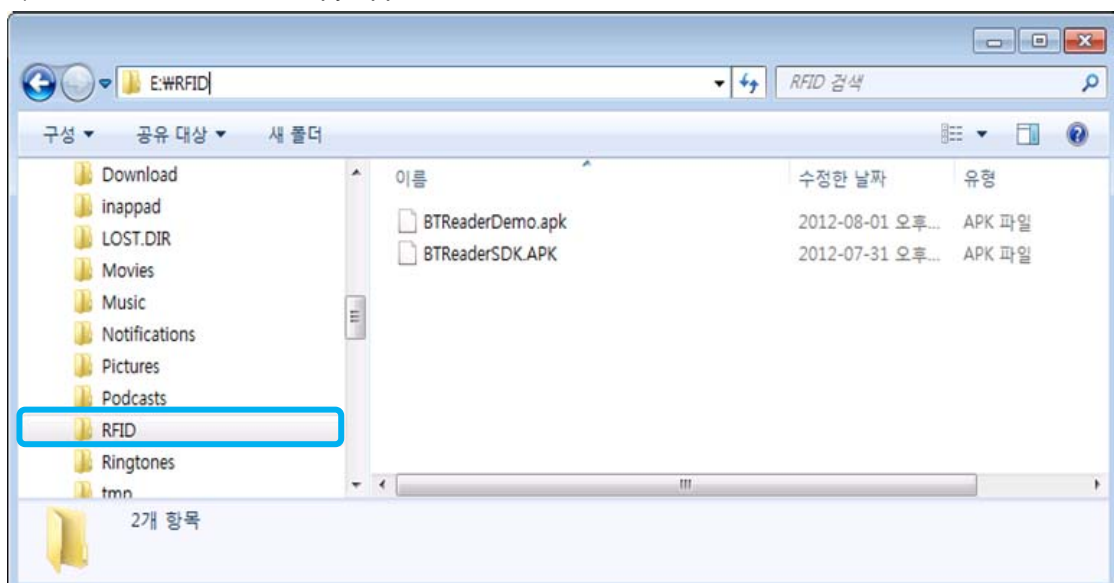
1. Connect your phone to PC



2. Turn on USB storage

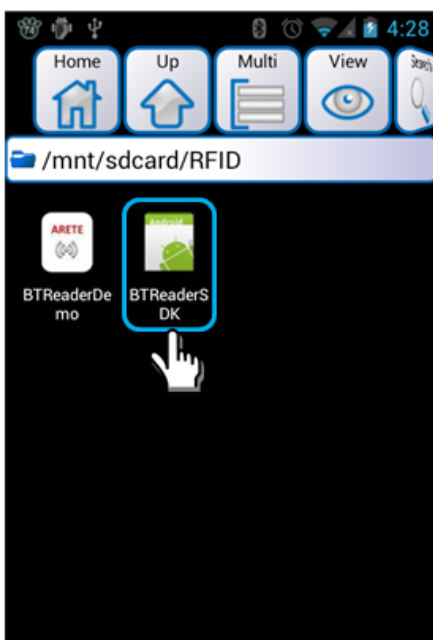
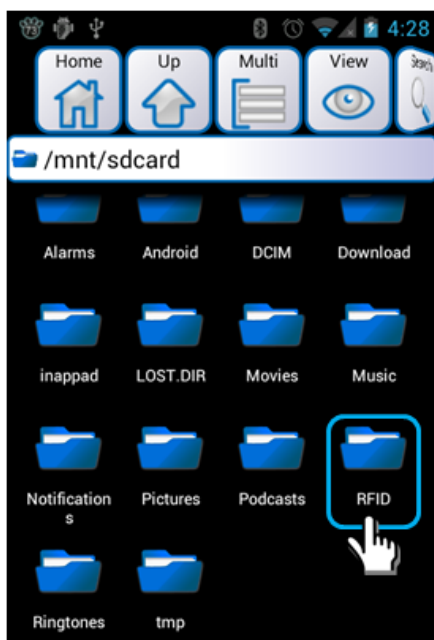
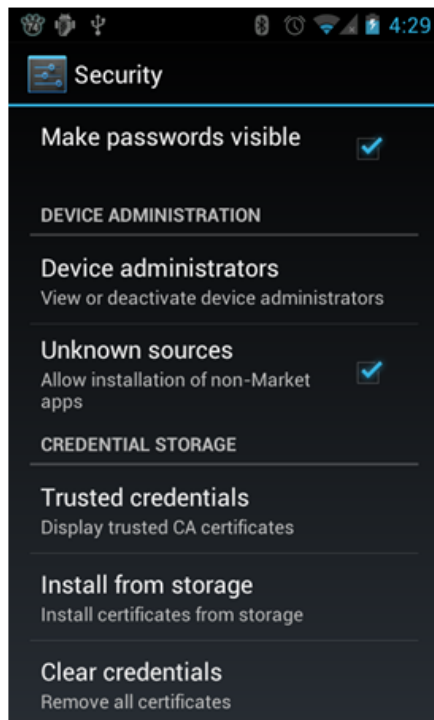


3. Copy apps into your phone
 - 1) Your phone shows up as a removable device on your PC.
 - 2) Create a folder and copy apps on removable drive.



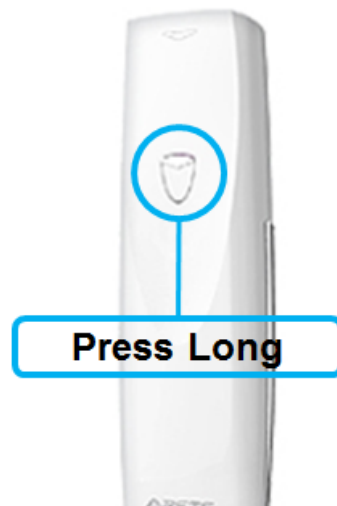
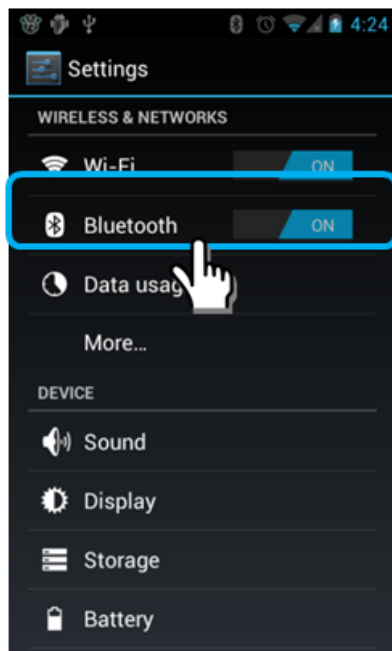
4. Install

- 1) Allow unknown sources
- 2) Open your file browser app
- 3) Install the APK file

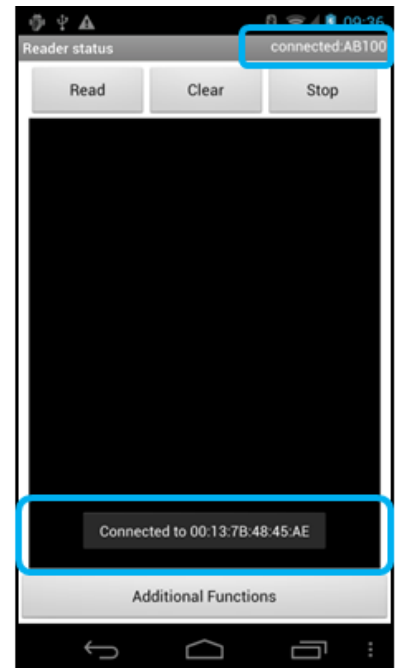
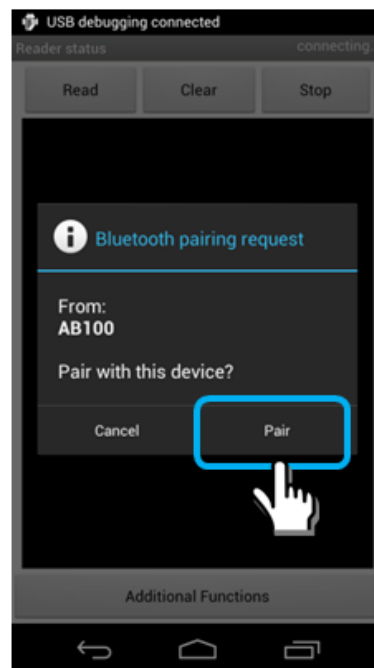
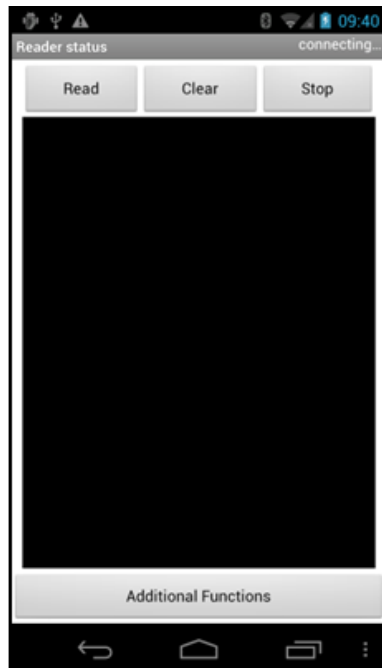


2.3 Bluetooth Pairing

1. Turn on **Bluetooth** at Settings
2. Turn on AB100
3. Run App
4. Touch **Pair**
5. Connected

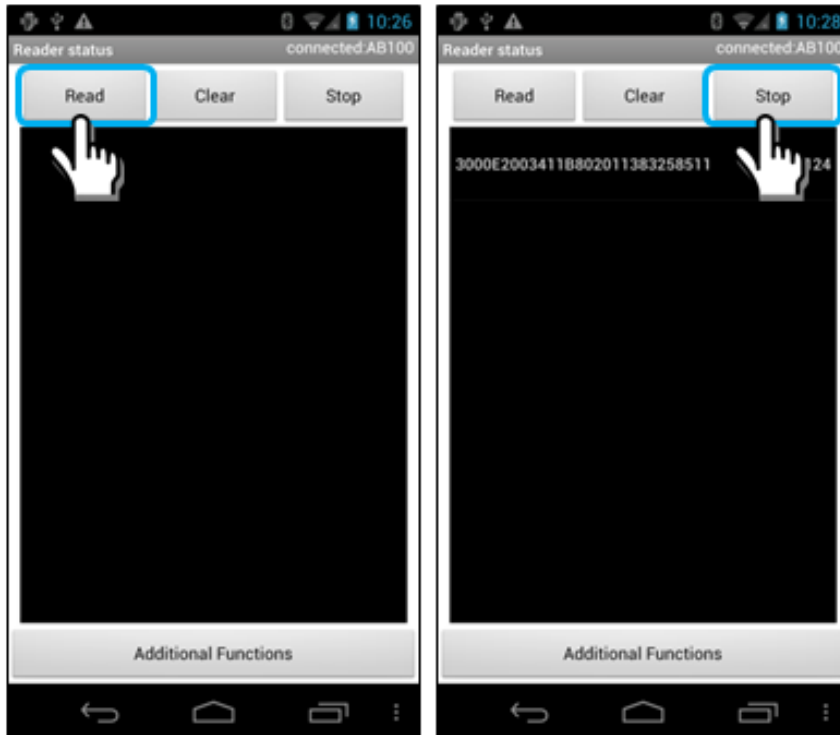


**Place AB100
near the phone**



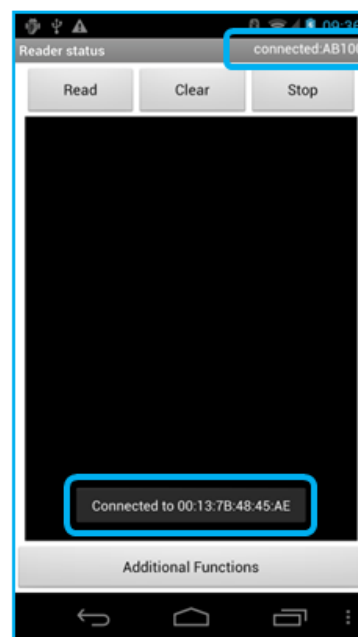
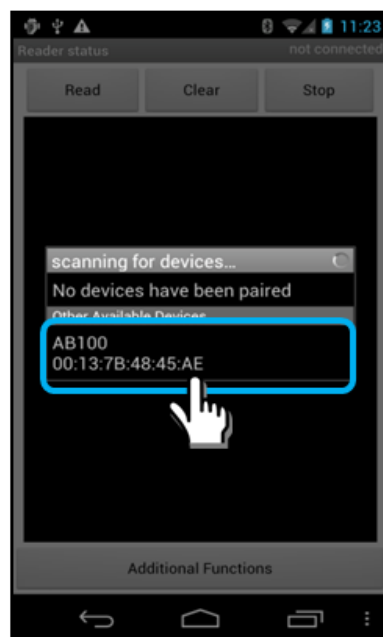
2.4 Inventory

1. Touch **Read** button to inventory tag continuously
2. Touch **Stop** button to finish inventory tag
3. Press shortly the reader button to inventory tag 1 short time



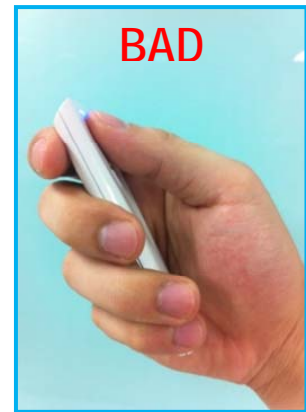
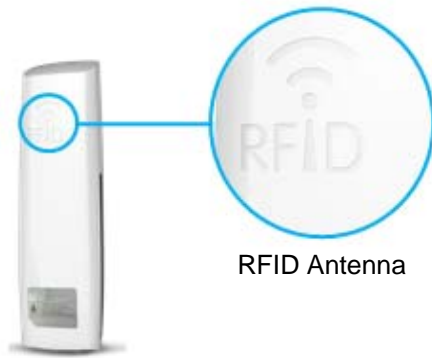
2.5 When disconnected from phone

1. Turn on AB100
2. Scan for Device
3. Now connected



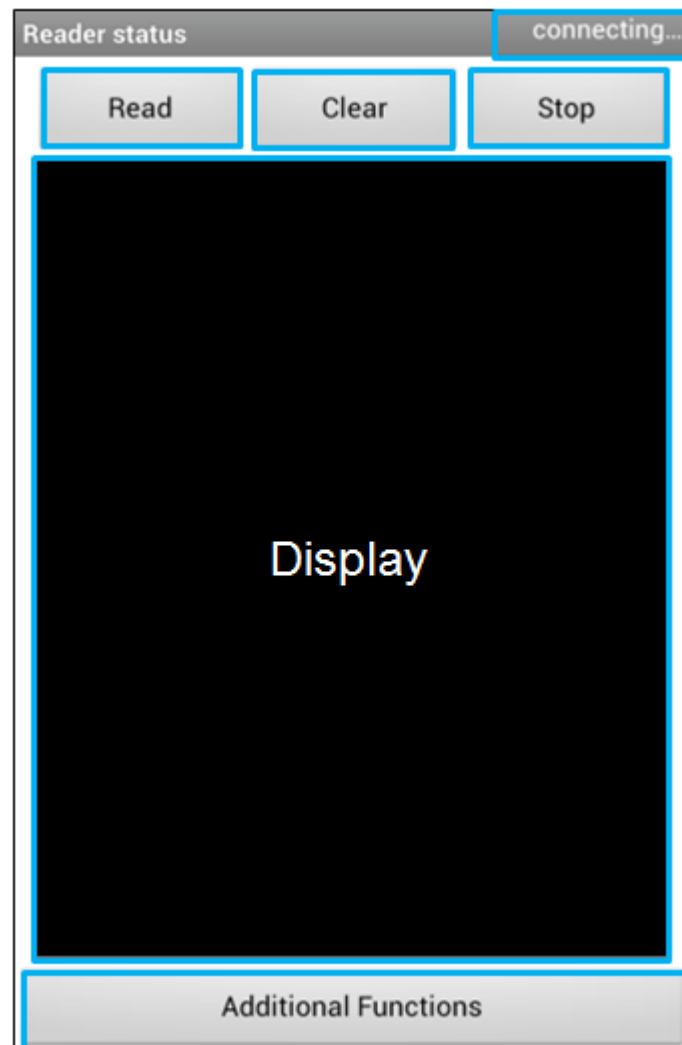
2.6 How to Grip

1. Do not cover RFID antenna area by hand
2. Hand Effect
RFID reader performance will be lower if antenna area covered by hand.



Chapter 3: How to use Application

3.1 Main Display



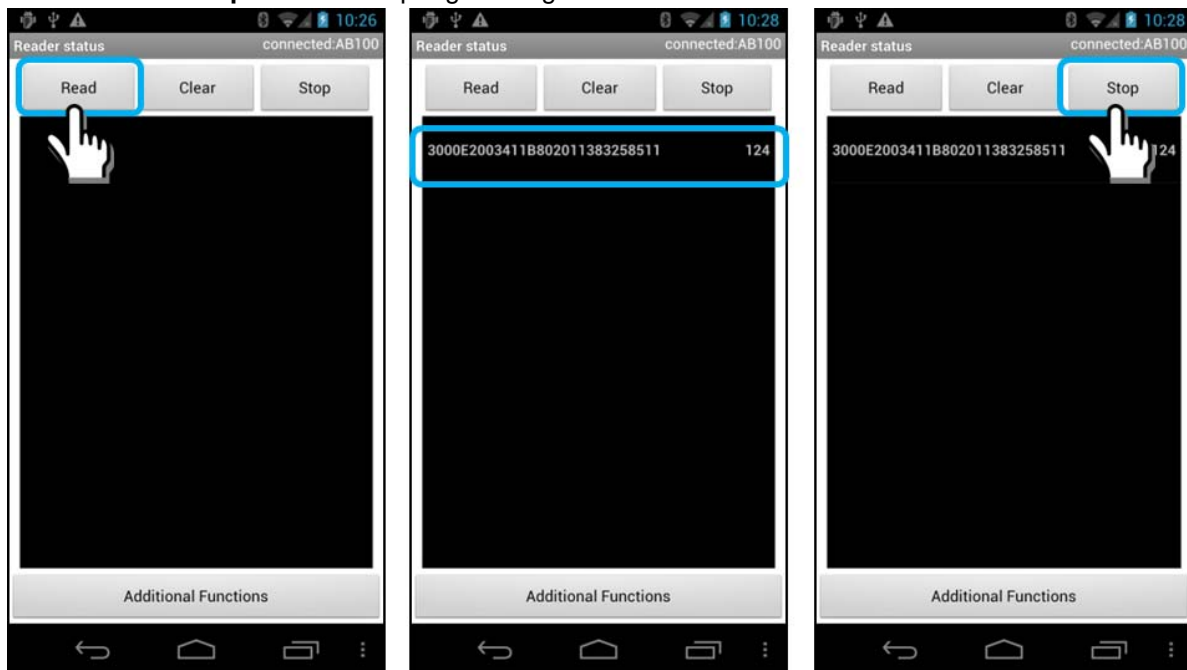
- Connection Status: Connection status with AB100 such as not connected, connecting, connected
- Read Button: Start to read "Tag EPC"
- Clear Button: Remove Read Record
- Stop Button: Stop Tag Reading
- Display: Show Tag Read Record
- Additional Functions: Set Access Password

3.2 Pairing with AB100

See Chapter 2.3 Bluetooth pairing

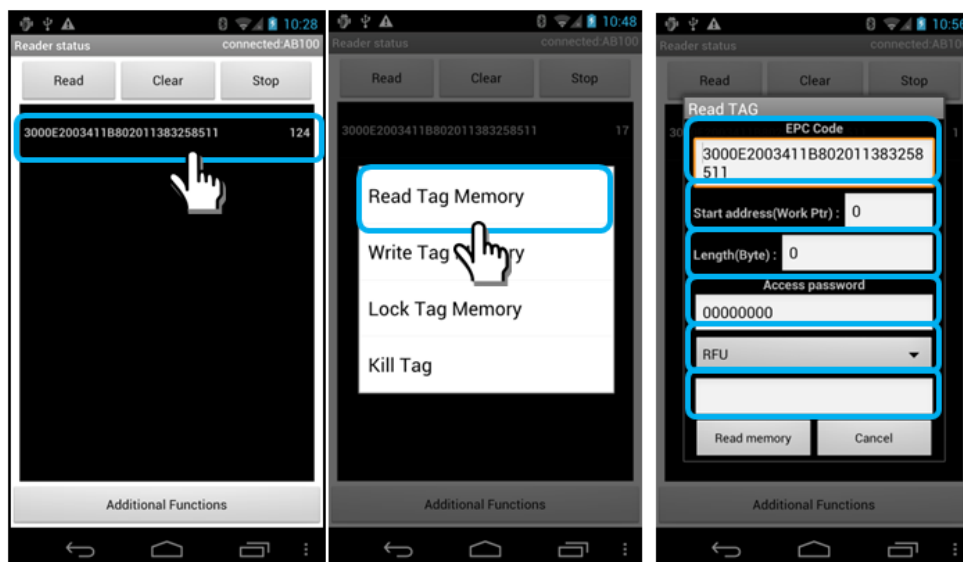
3.3 Read EPC Tag

1. Touch **Read** button to start Tag reading
2. Touch **Stop** button to stop tag reading



3.4 Read Tag Memory

1. Touch long target **EPC code**
2. Touch **Read Tag Memory**
3. Give parameters
4. Touch **Read Memory**
5. Check Data



Target Tag EPC

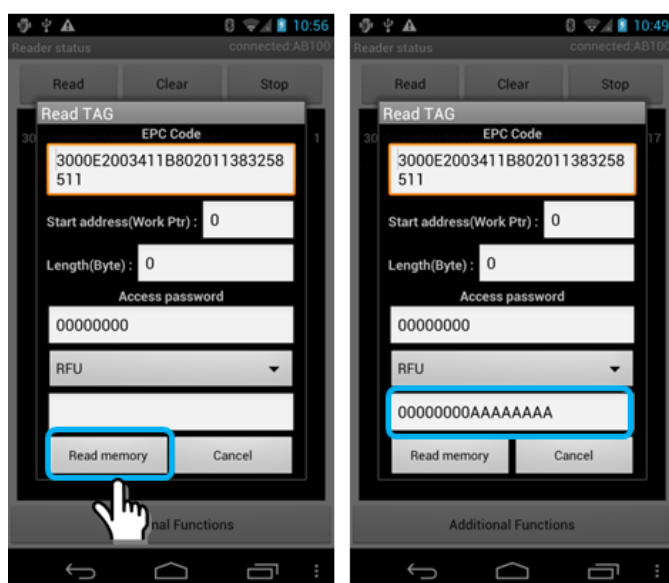
Start Address

Length to read

Access Password

Target Memory

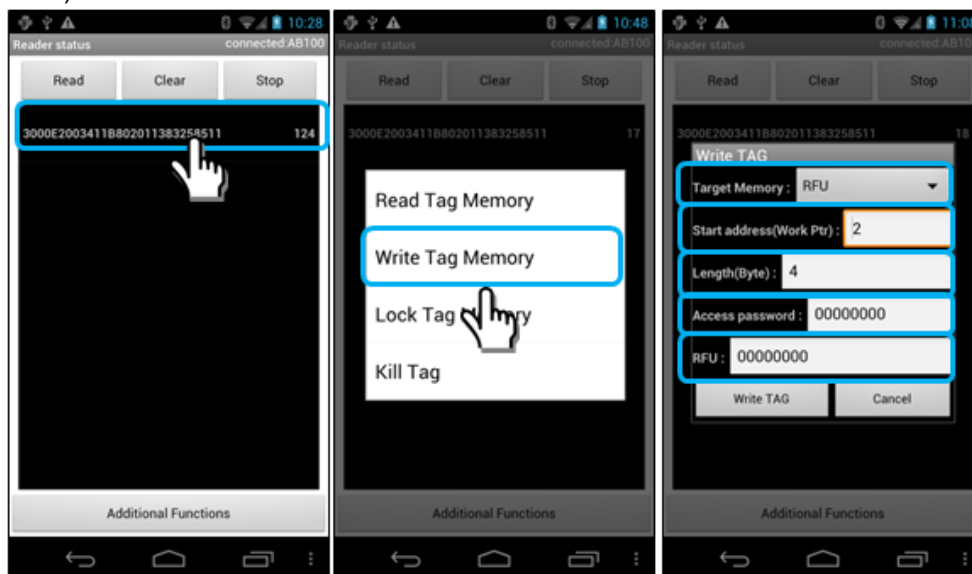
Memory Data



RFU block
memory data

3.5 Write Tag Memory

- 1) Touch long target **EPC code**
- 2) Touch **Write Tag Memory**
- 3) Give Parameters
- 4) Touch **Write TAG**

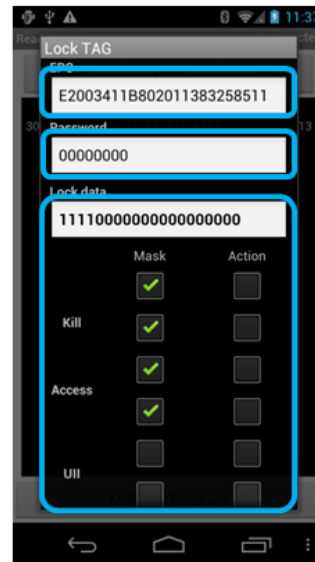
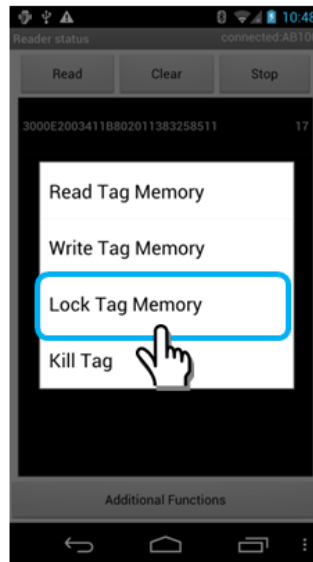
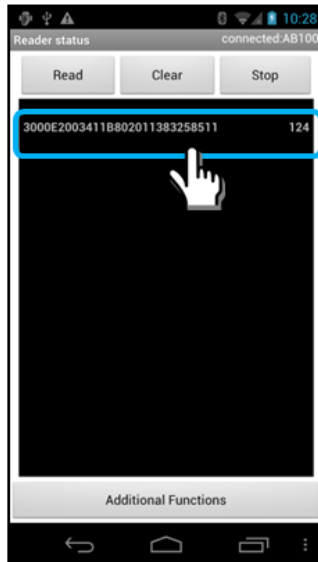


Target Memory
Start Address
Length to read
Access Password
Data to write



3.6 Lock Tag Memory

- 1) Touch long target **EPC code**
- 2) Touch **Lock Tag Memory**
- 3) Give Parameters
- 4) Touch **Lock TAG**



Target EPC

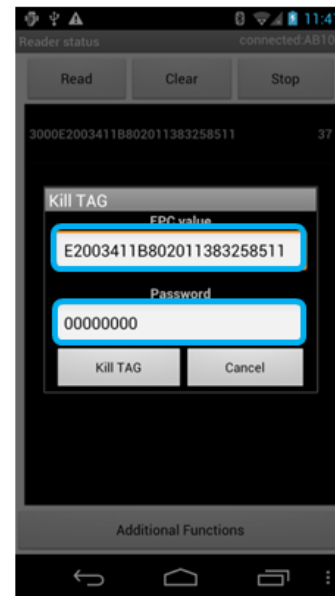
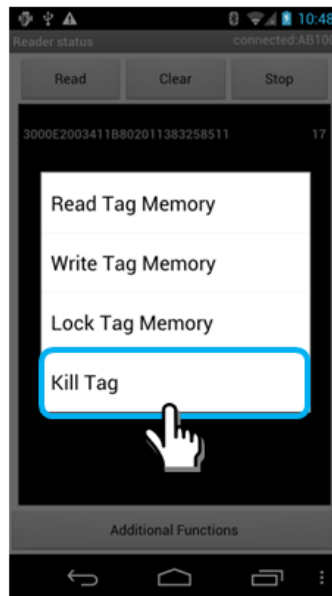
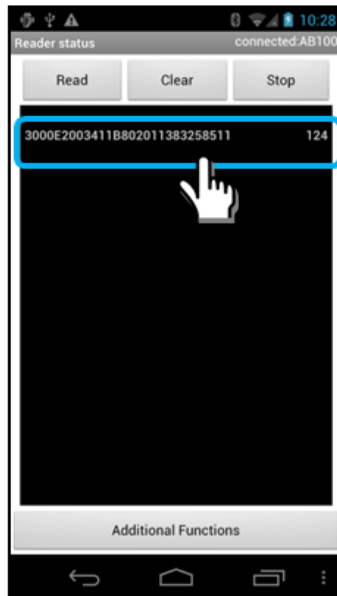
Access Password

Target Memory
& Action



3.7 Kill Tag Memory

- 1) Touch long target **EPC code**
- 2) Touch **Kill Tag**
- 3) Give Parameters
- 4) Touch **Kill TAG**



Target EPC

Kill Password



3.8 Additional Functions

1. Setting for Local Regulations



2. Save Setting to AB100

You can store your settings in AB100 flash memory by touching update button.
If you touch erase button, stored setting are cleared.



Chapter 4: Information

4.1 Safety Information

1. Do not disassemble or repair arbitrarily but contact where you buy when AB100 is in trouble.
2. Do not use chemical substance(alcohol, benzene, detergent etc) and water to clean AB100
3. Please avoid vibrations and shocks. Please place in a safe place when not in use.
4. Please avoid high/low temperature and high humidity.
5. Please turn AB100 off in explosive area as there may be danger due to electric wave.
6. Please use medical device(pacemaker, hearing aid etc) which is blocked from RF energy.
7. Please stop using AB100 and consult a medical expert in case of any allergic reactions and side effect.

4.2 Troubleshooting

Q: What should I do if I fail to turn on AB100?

A: First, check the batter power status.

Second, recharge for a certain amount of time and try again.

If you fail to turn it on again, please contact where you buy it.

Third, if red LED is blinking in standby status, it is battery failure.

Please contact where you buy it.

Q: What should I do if AB100 gets wet?

A: Dry it first.

If it does not working properly after being dried, then contact where you buy it.

Q: What should I do if AB100 fail to pair with device?

A: First, check AB100 ID

Second, check power status of AB100

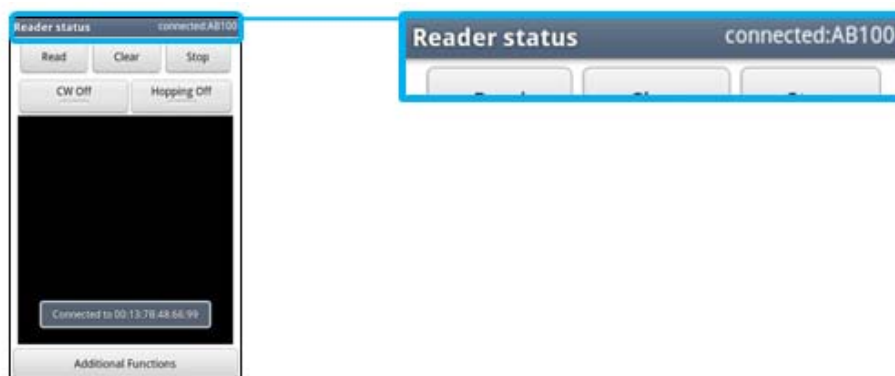
Third, check Bluetooth function as "ON"

Q: What should I do if I fail to read tag?

A: First, check whether Bluetooth connected or not.

Second, check power status of AB100.

Third, it is possible to fail to read tag due to interference if other RFID readers are being used in the same place.



4.3 Disposal and Recycling

You must dispose of AB100 properly according to your local laws and regulations. Because electronic components and a battery are included in the AB100.

4.4 Customer Service

1. ARETE mobile Customer Service
 - 1) Phone: + 82 42 864 2402
 - 2) Fax: + 82 42 864 2403
 - 3) Email: sales@phychips.com
 - 4) Address
PHYCHIPS Inc.
#205 Migun Technoworld 1, 533 Yongsan-dong, Yuseong-gu, Daejeon, Korea, 305-500
 - 5) Working Day and time
 - Monday to Friday
 - 09:00~18:00(Korean Time, GMT Time + 9 hours)
 - 6) RMA Rule
 - http://www.arete-mobile.com/pdf/RMA%20Policy_ARETE%20mobile.pdf
2. Local Customer Service
Please contact where you buy.

4.5 FCC Information to User

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 of the following measures:

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

Caution

Modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Compliance Information : 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

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RF Exposure Statement :

The equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operation in conjunction with any other antenna or transmitter.

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