ARETE
mobile

User Guide

ARETE POP

Smart RFID Dongle Reader

Notice

Registered Trademark

ARETE mobile is launched by PHYCHIPS Inc. for mobile device and currently registered worldwide with its ARETE mobile trade mark legally protected by law.
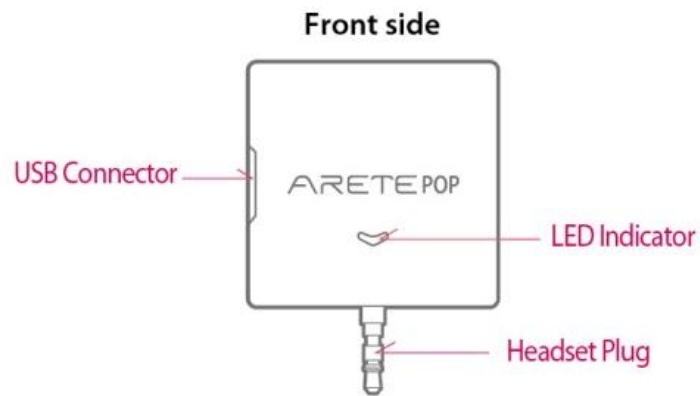
Applicable Device
This document is applicable for iOS 6.0 and Android 2.3.3 above

Contents

1 Understanding ARETE POP

1.1 ARETE POP at a Glance

Front side

USB Connector ——— ARETE POP

LED Indicator

Headset Plug

1.2 Accessories

USB Cable

Quick Manual

1.3 Specifications

PHYSICAL

Dimension(WxLxH)	51 x 50 x 15 mm (without plug), 51 x 67.5 x 15 mm (with plug)
Weight	30g
Indication	Power on LED(Blue), Charging LED(Red), Tagging LED(Blinking Blue)
Battery	360mAh
Continuous Time	About 2.0 hours
Standby Time	About 17 hours
Charging	Micro USB 5pin
Color	White

RFID PERFORMANCE

RFID Reader Chip	PHYCHIPS PR9200
Air Protocol	EPCglobal Class 1 Gen 2 (ISO 18000-6C)
Interface	3.5mm stereo headphone jack
Part No. & Operating Frequency	A100-K: 917.1 ~ 923.3 MHz (Korea Band) A100-U: 917.1 ~ 926.9 MHz (US Band) A100-E: 865.1 ~ 867.9 MHz (EU Band) A100-J: 920.6 ~ 923.4 MHz (Japan Band)
OS	Apple iOS 6.0, Android 2.3.3 above (as of July 1st 2013)
Output Power(EIRP)	316mW(25dBm) for US, EU and Korea band 200mW(23dBm) for Japan band
RFID Read Distance	Up to 1.0m (depend on tags)
Antenna	Circularly Polarized Antenna
RFID Function	Read, Write, Lock, Kill

USER ENVIRONMENT

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

REMARK

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.
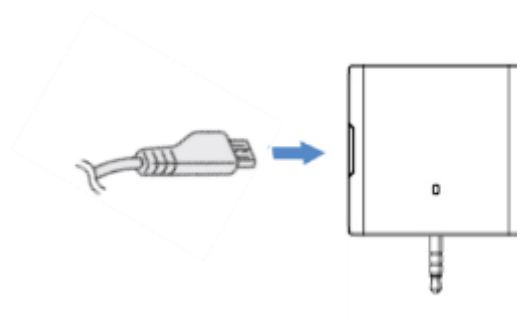
2   Basics

2.1   Activating

1.   Insert ARETE POP RFID Reader to your Phone's headphone jack.
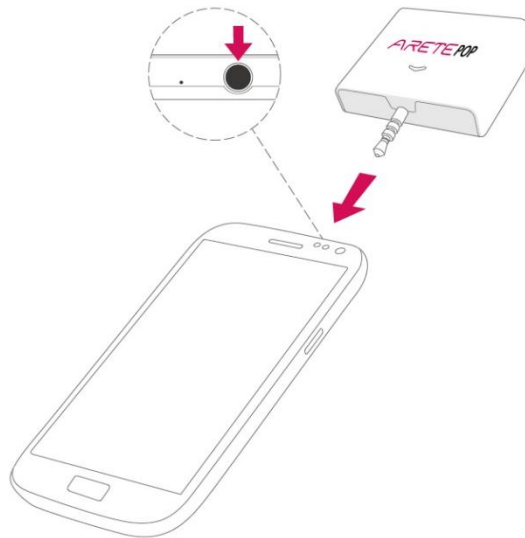
2.   Turn volume up to 100%.
3.   Switch the button to "On" in App.
4.   LED indicator will be turned on in blue color.

2.2   Battery Charging

1.   Plug the plug of USB cable into the USB connector of ARETE POP. Plug the other end of USB cable into a USB hub.

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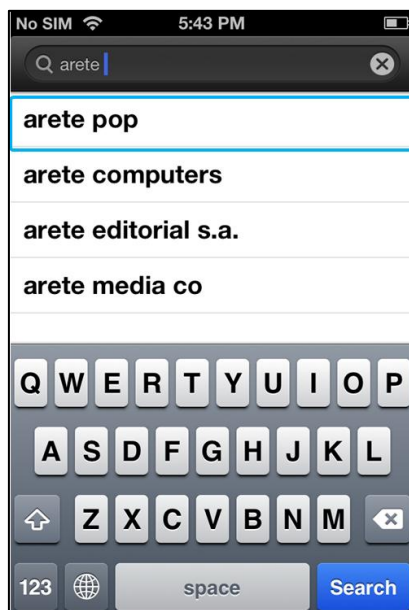5.   Blue LED: completed charging

3   How to use application

3.1 How to install application in your iPhone
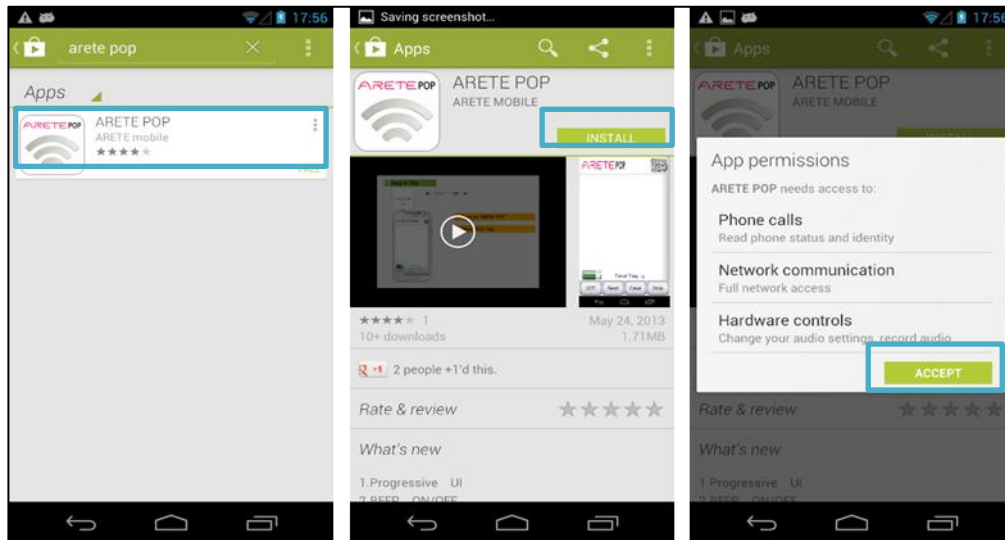
1.   Select App Store

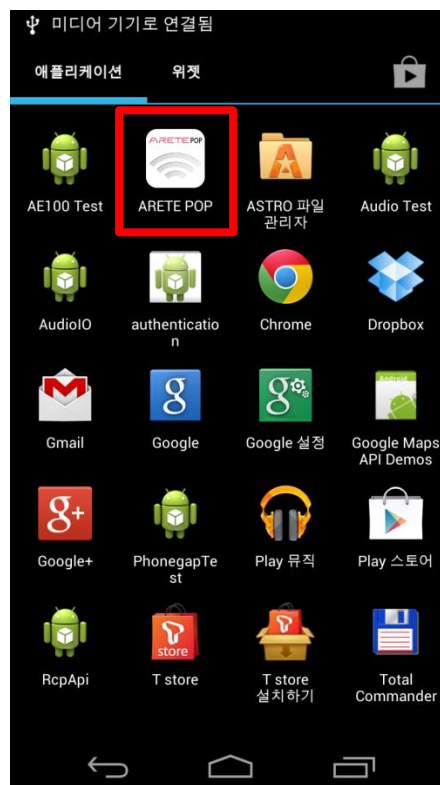2.   Search ARETE POP application and install it.
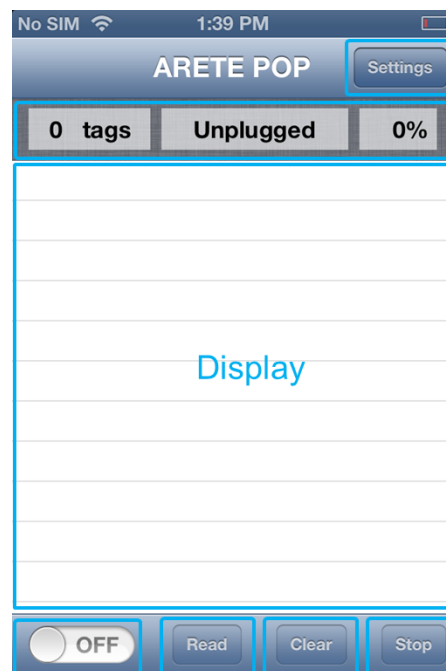
3.2 How to install application in your Android Phone

1. Connect your phone to Google Play Store.

2. Search "ARETE POP" and touch install.

3. ARETE POP app touch your phone.

3.3 Main Display

- Switch: Turn on or off the Reader
- Read Button: Start to read "Tag EPC"
- Clear Button: Remove Read Record
- Stop Button: Stop Tag Reading
- Display: Show Tag Read Record

3.4 Status Bar

|	
0 tags	The number of tags displayed
Unplugged	ARETE POP Status - Unplugged: ARETE POP is not inserted into headset jack. - Plugged: ARETE POP is inserted into headset jack. - Connected: ARETE POP is connected to app.
0%	Battery gauge

3.5 Inventory

1. Switch the button to "On"
2. Touch **Read** button to inventory tag continuously
3. Touch **Stop** button to finish inventory tag
4. Touch **Clear** button to clear the list of tags.

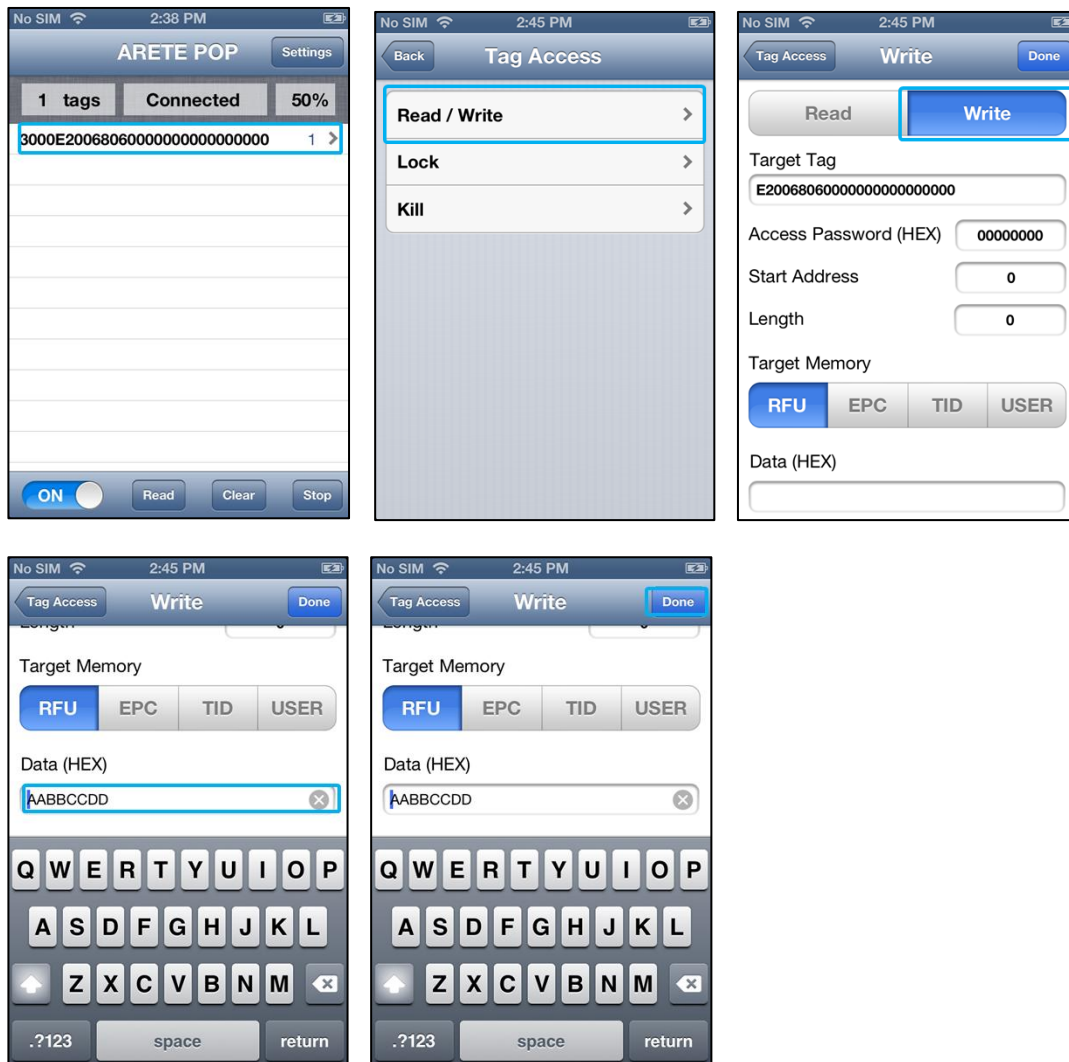## 3.6 Read Tag Memory

1. Choose the target tag
2. Choose **Read/Write**
3. Configure parameters
4. Touch **Done** button to read tag memory.
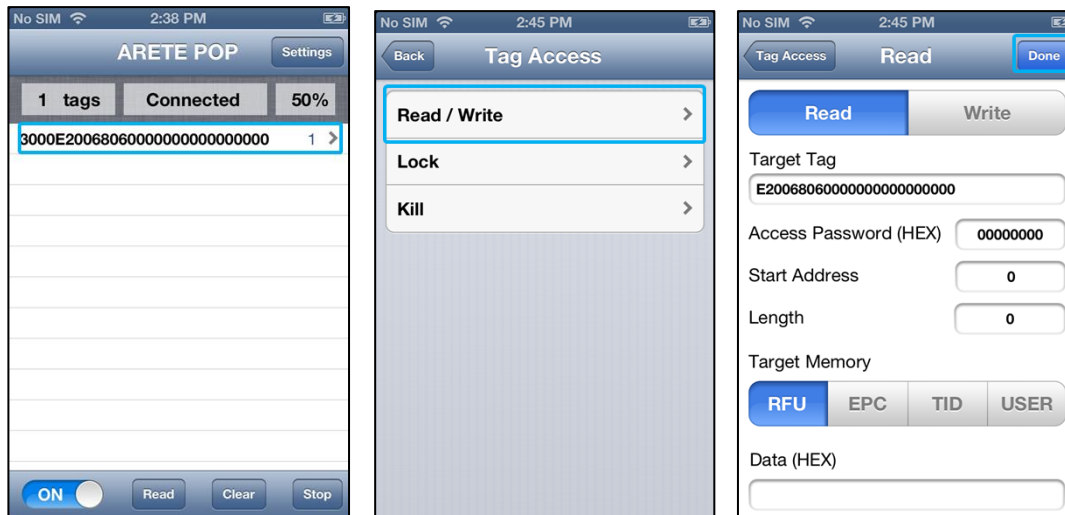
3.7 Write Tag Memory

1. Choose the target tag
2. Choose **Read/Write**
3. Perform *Read Tag Memory* described in previous section.
4. Choose **Write**
5. Configure parameters
6. Set Data to write
7. Touch **Done** button to write data to tag memory.

3.8 Lock Tag Memory

1. Choose the target tag
2. Choose **Lock**
3. Configure parameters
4. Touch **Done** button to lock to tag memory.
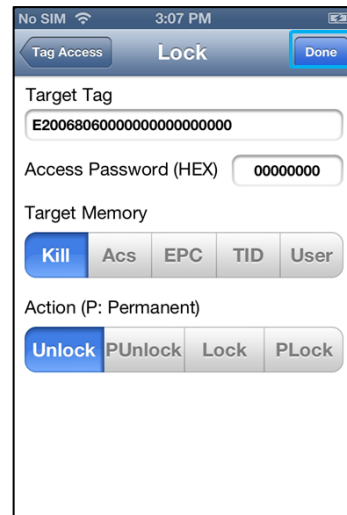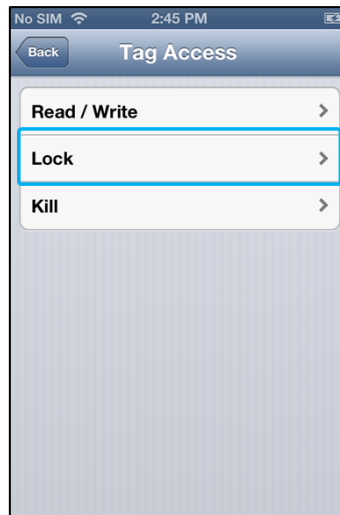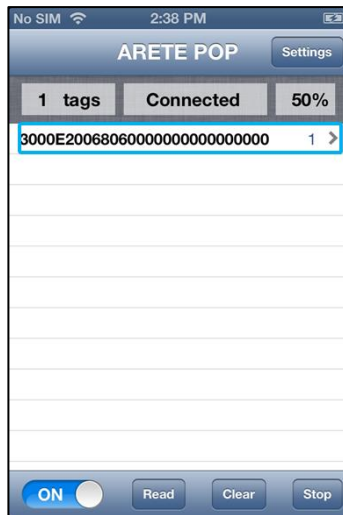
3.9 Kill Tag Memory

1. Choose the target tag
2. Choose **Kill**
3. Configure parameters
4. Touch **Done** button to lock to tag memory.
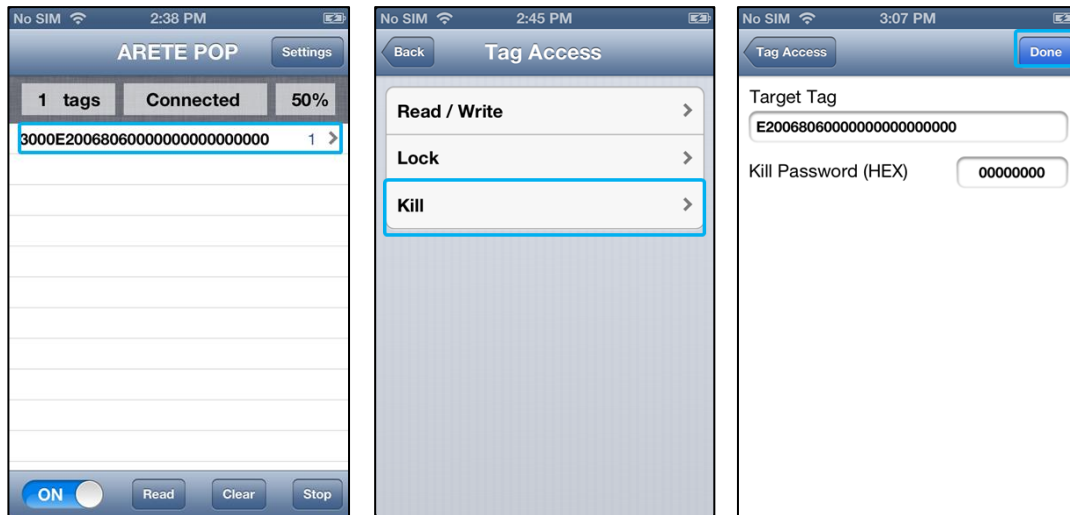
3.10Output Power Setting

1. Touch **Settings** button
2. Choose **Pop settings**
3. Choose **Output Power.**
4. Choose target output power and touch **Done** button to change output power.
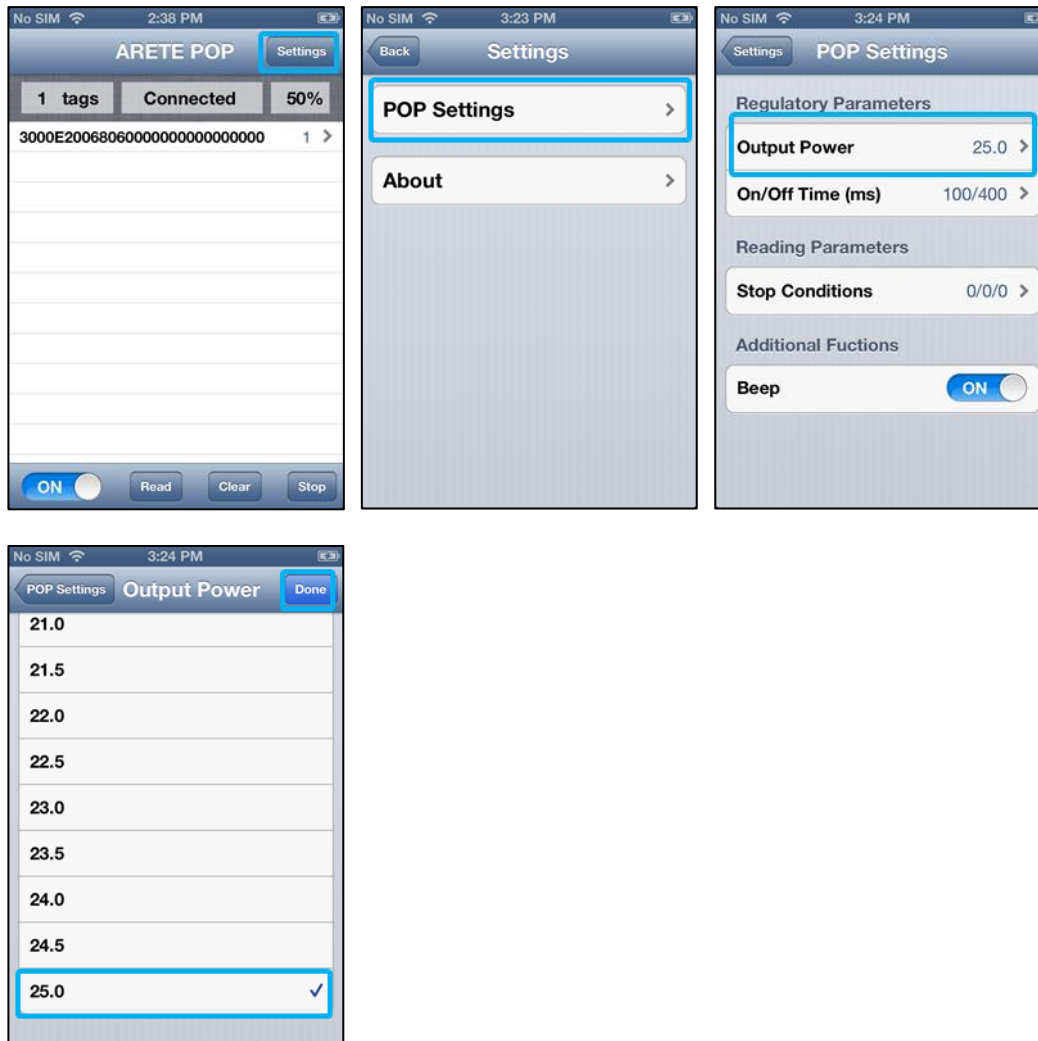
3.11 On/Off Time Setting

1. Touch **Settings** button
2. Choose **Pop settings**
3. Choose **On/Off Time**
4. Configure On/Off Time
5. Touch **Done** button.
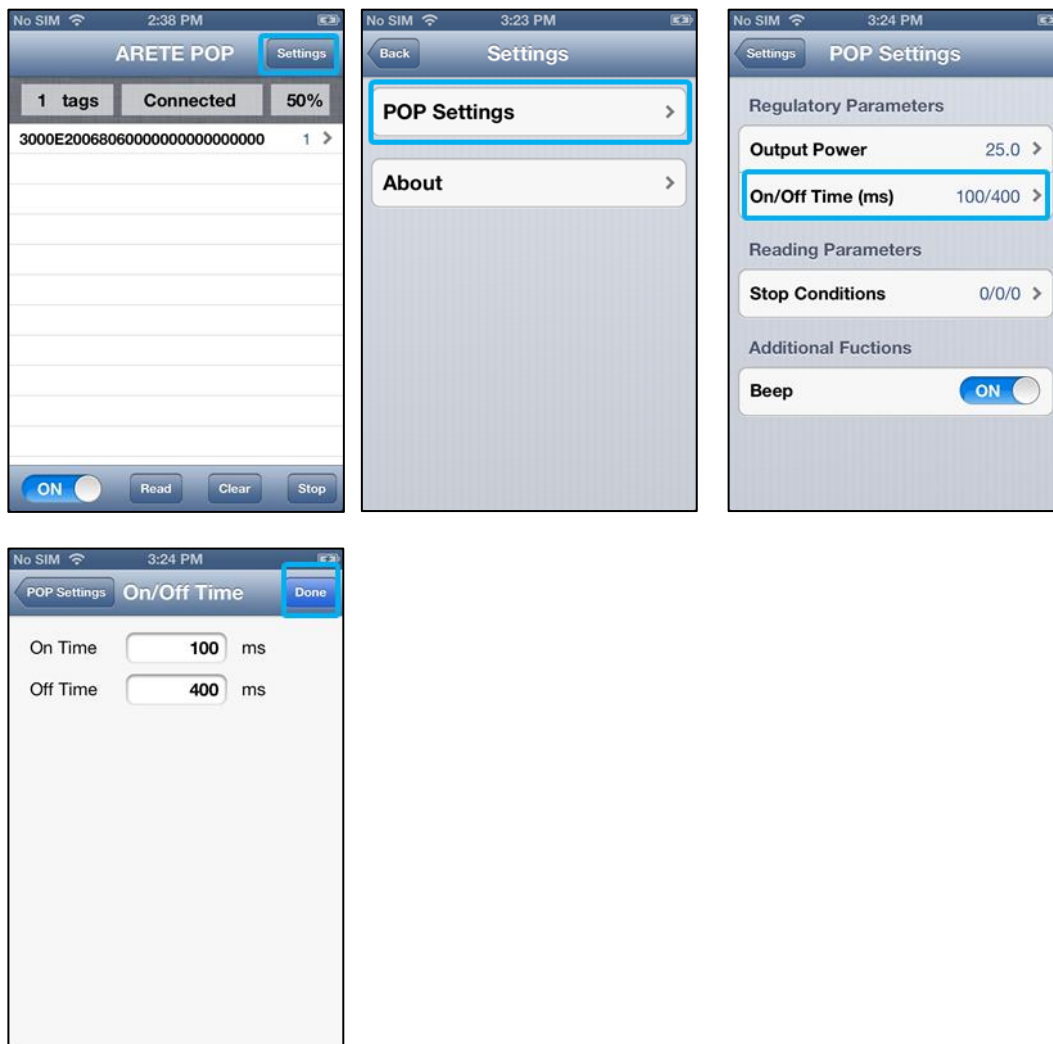
3.12 Stop Condition Setting

1. Touch **Settings** button
2. Choose **Pop settings**
3. Choose **Stop Conditions.** ARETE POP will stop reading after reading done.
4. Configure stop parameters
   A. Tag Count: How many tags to read.
   B. Elapsed Time: How long have ARETE POP read tags
   C. Inventory Round: How many times to read tag.
5. Touch **Done** button.
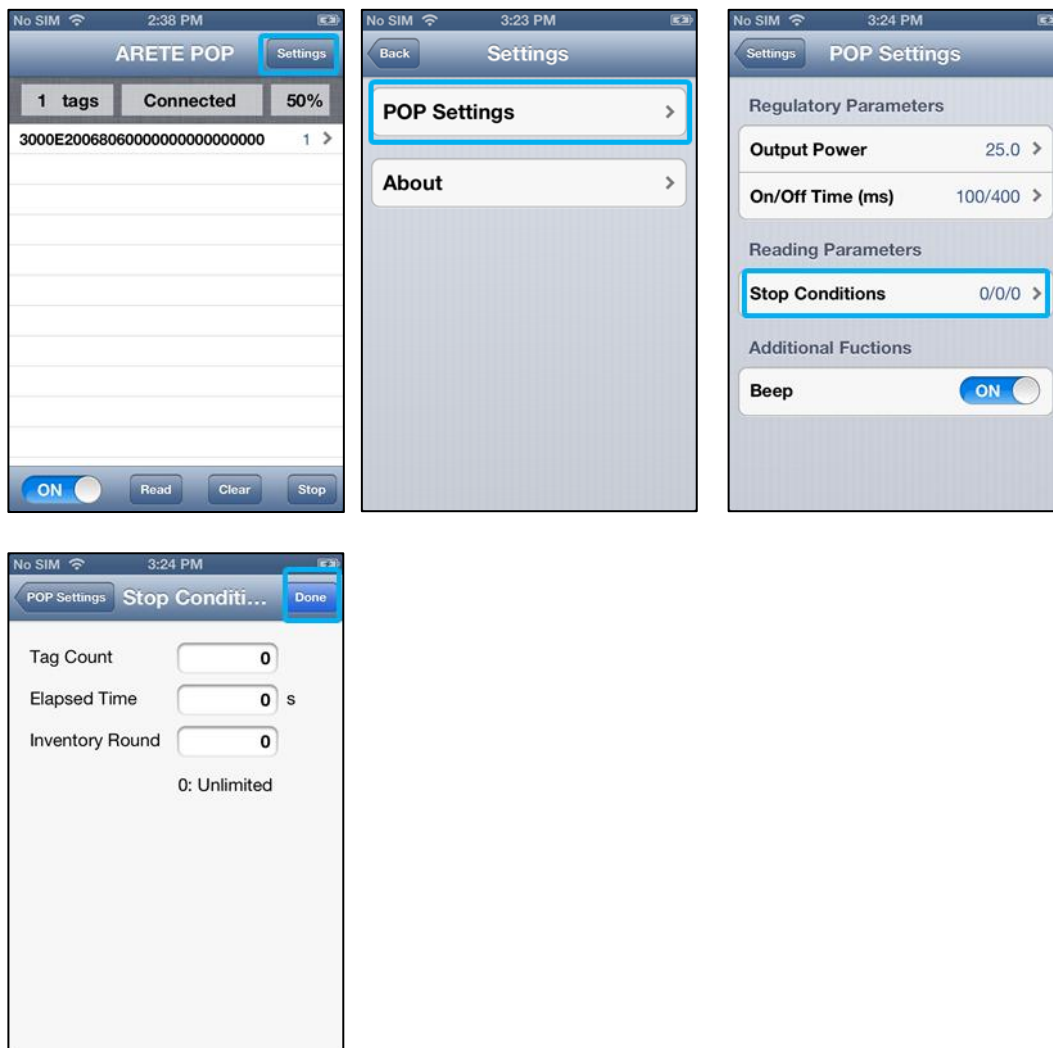
3.13 Beep Setting

1. Touch **Settings** button
2. Choose **Pop settings**
3. Switch **Beep** to turn beep on/off.
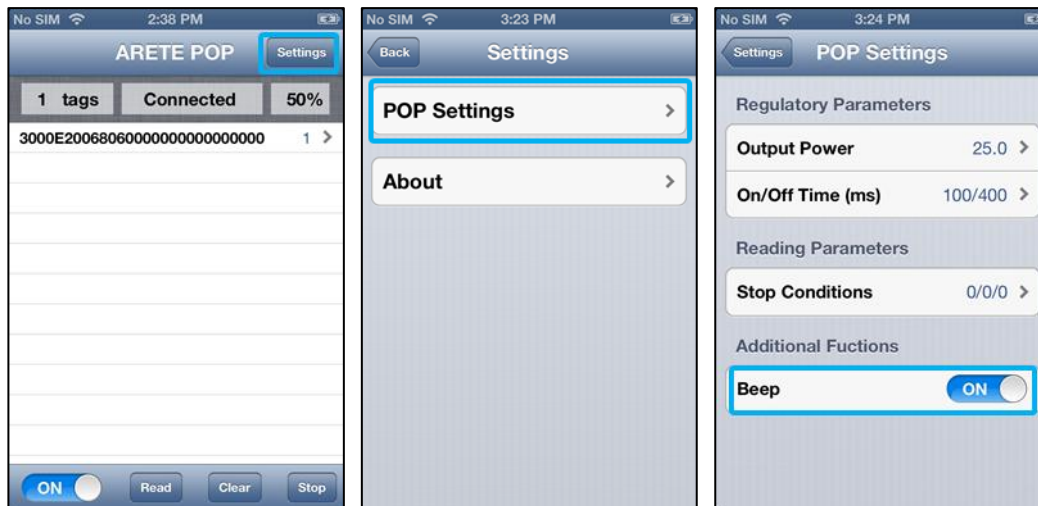
3.14 About

1. Touch **Settings** button.
2. Choose **About** to get ARETE POP information.
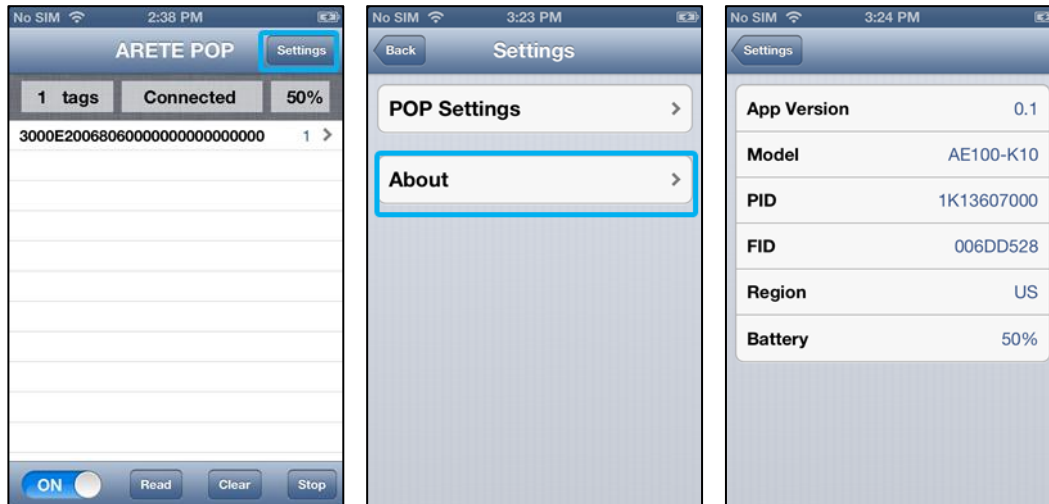
3. Touch **Diagnostic** when audio communication is not working properly. (Android Only)
4. Test Log will be generated at sdcard/AudioTest in your android smart phone.
5. Copy all files and send them to PHYCHIPS

4   Information

4.1 Safety Information

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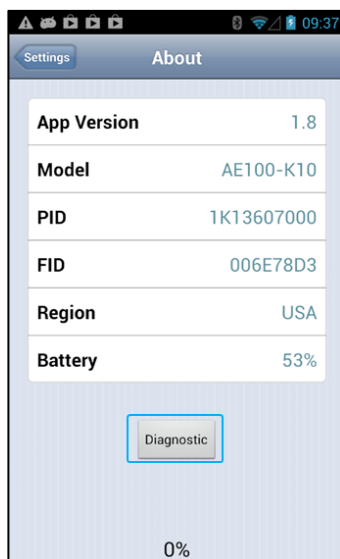6. Please use medical device(pacemaker, hearing aid etc) which is blocked from RF energy.
7. Please stop using ARETE POP and consult a medical expert in case of any allergic reactions and side effect.

Caution
Risk of explosion if battery is replaced by an incorrect type.
Dispose of used batteries according to the instructions.

4.2 RF Exposure Information
FCC
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.

CE
The antenna must be installed in final product such that 20 cm is maintained between the antenna and user.

KC

본 제품은 인체와 20 cm 이상 간격을 두고 사용을 해야 합니다. 본 제품의 밑면은 일반적인 사용 위치가 아닙니다. 전화 기능을 이용할 때에는 본 제품을 사용하지 말아야 합니다.

4.3 Compliance Information
FCC
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
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 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.

CE

This device is in compliance with the essential requirements and other relevant provisions of directive 1999/5/EC.

TELEC

本機器は、電波法第38条の24第1項の規定に基づく認証を行ったものであることを証する。

KC

본 기자재는 전파법 제58조의2 제2항에 따라 인증되었습니다. 적합성평가표시 정보는 다음과 같습니다. 적합성평가를 받은 자의상호: 주식회사 파이칩스. 기자재의 명칭 및 모델명: RFID/USN용 무선기기(900MHz 대역사용기기) / A100-K. 제조년월: 2013. 인증번호: MSIP-CRM-PHY-A100K. 제조자: 주식회사 파이칩스. 제조국가: 대한민국

4.4 Troubleshooting

Q: What should I do if I fail to turn on ARETE POP?
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 ARETE POP 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 I fail to read tag?
A: Turn volume up to 100%. Check power status of A100.
    Third, it is possible to fail to read tag due to interference if other RFID readers are being used in the same place.

Q: A100 beeps when it is reading tags. But EPC is not showing in the list.
A: Please touch diagnostic button in information tab. Wait for diagnostic process done.
    Send generated files in yourPhone/sdcard/AUDIOTEST folder to sales@phychips.com.

4.5 Disposal and Recycling

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

5   Customer Service

ARETE mobile Customer Service
Phone: + 82 42 864 2402
Fax: + 82 42 864 2403
Email: sales@phychips.com

Address
PHYCHIPS Inc.
#205 Migun Technoworld 1, 533 Yongsan-dong, Yuseong-gu, Daejeon, Korea, 305-500

Working Day and time
Monday to Friday
09:00~18:00(Korean Time, GMT Time + 9 hours)

RMA Rule
http://www.arete-mobile.com/pdf/RMA%20Policy_ARETE%20mobile.pdf

Local Customer Service
Please contact where you buy.