



ATID Co., Ltd

# AT288N Demo Guide for iOS

AT288N Products

SW Team

2023-06-12



## AT288N Demo Guide for iOS

AT288N Products

Company

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## 1. Introduction

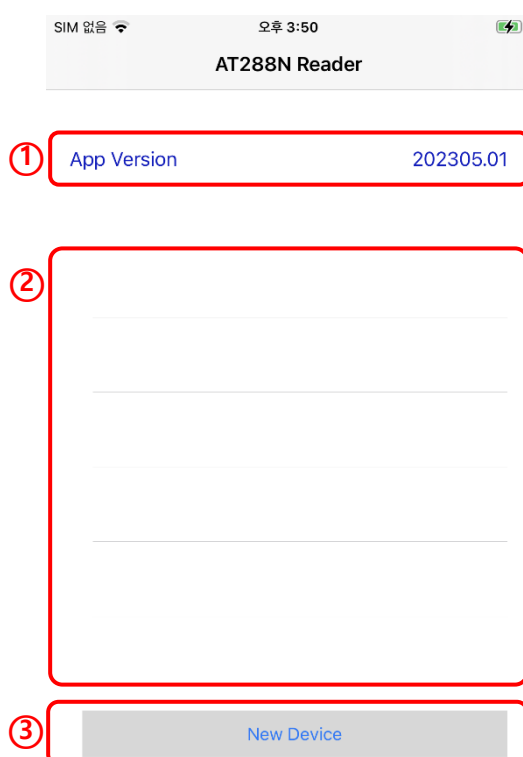
The purpose of this document is to explain how to use AT288N Demo.

The AT288N Demo is intended to demonstrate the functionality of ATID's External Accessory Device and is recommended to run on iOS O/S 10.3 or later.


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## 2. Device Management

The first screen that you can see when you run the AT288N Demo is the equipment management screen. AT288N Demo is designed to store previous connection device. In the AT288N Demo's equipment management screen, it allows the user to register and delete devices for demonstration and manage the registered devices and connections. The following figure shows the AT288N Demo application's first page and the description of each part.

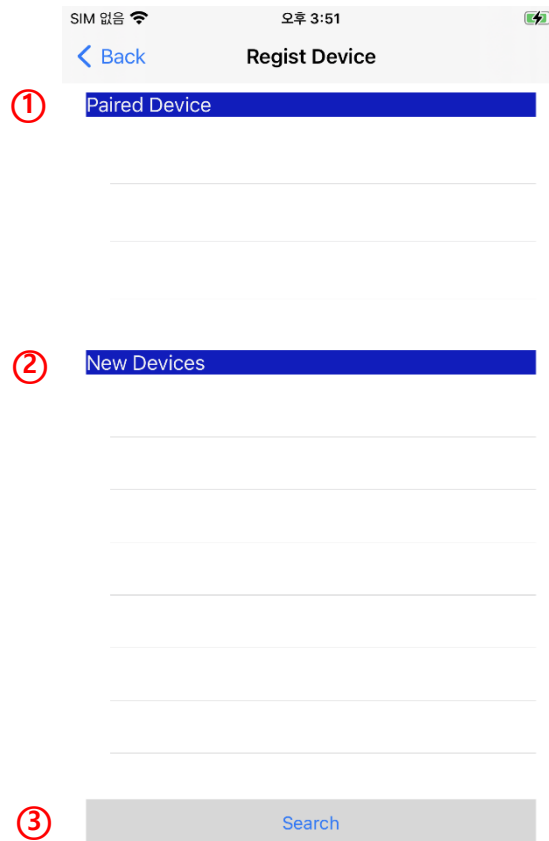


- ① **App Version:** Indicate the version of AT288N Demo App.
- ② **Device List:** Shows the devices that managed.
- ③ **New Device:** The button to select a new device and can move to the device register screen by touch.


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## 2.1. Scan a New Device

Touch the "New Device" button in the first screen of device management. Then, the device registration screen will appear as shown below. And the description of each part.

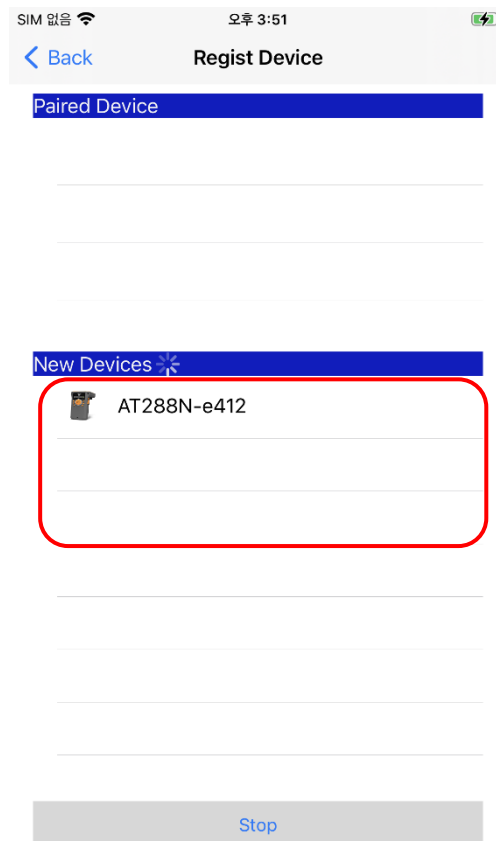


- ① **Paired Devices:** List of the devices that already searched.
- ② **New Devices:** List of new devices that are newly searched.
- ③ **Search/Stop:** Start and stop search of the devices by touch it.


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### 2.1.1. How to Connect a new device

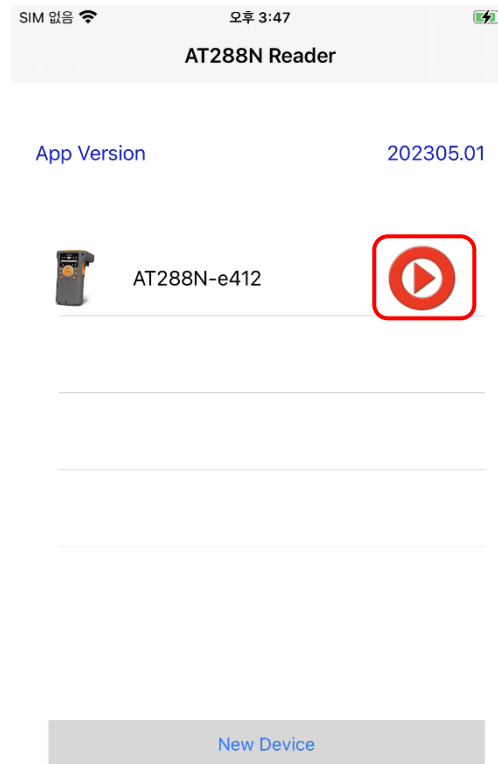
If the device registration screen shows by touch "New Device" in the device management screen, select the device, which you want to connect, under the New Devices item. As soon as the device is connected, the screen will turn to Inventory.






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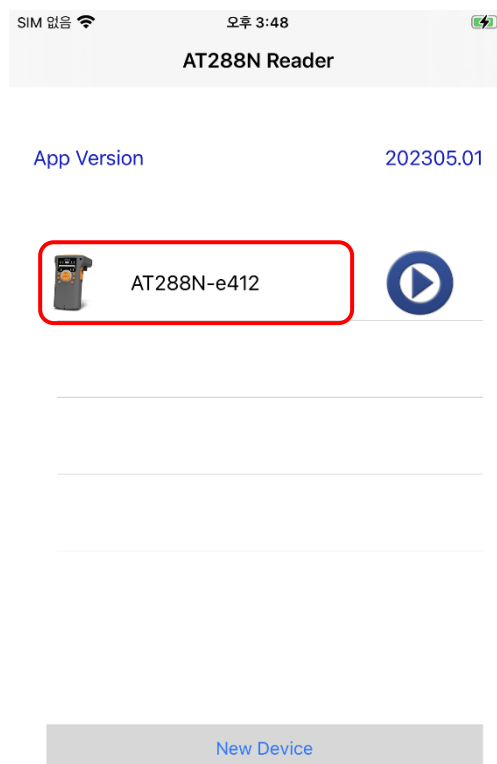
In the case of reconnecting recently connected devices, touch the image of showing the connection status in the first screen as below figure to connect the device.



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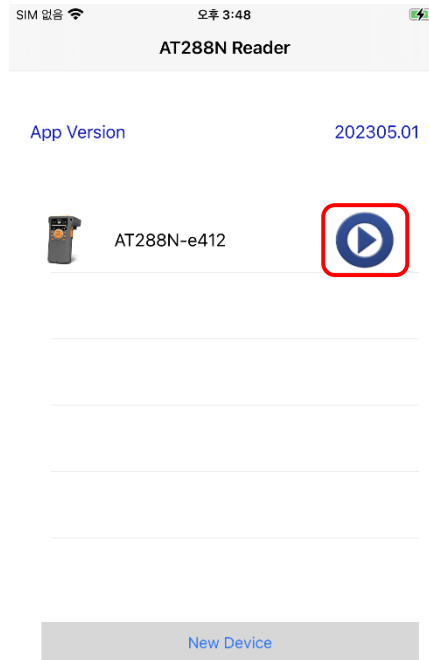
### 2.1.2. How to go to the demo screen

The way to move to the demo screen is touch the connected device from the first screen. Can into the Inventory screen by touch the already connected device.

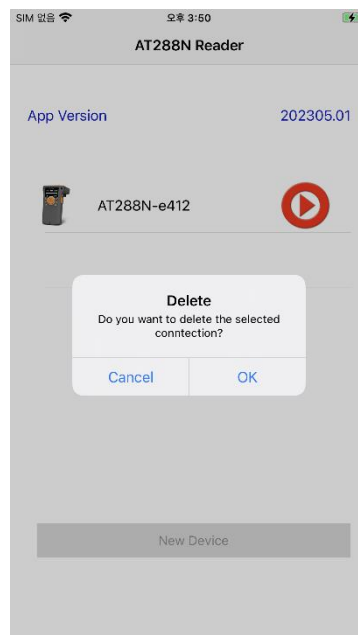



### 2.2. Disconnect Device

When the user finish using the device and want to disconnect, touch the button of the right side which shows the connection status in the device management screen.



If the distance between the smartphone which is running the demo app and the device is too far, it will be disconnected automatically because the communication failure. Moreover, the connection will be closed when the power off the device. When the device is connected, the icon which shows the connection status will be blue and will be red when it is disconnected. In the case of the icon is red (Disconnected), if the user does long press the icon, there will be a pop-up screen that could delete the device in the list.




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### 3. AT288N Device Demo

This section will explain AT288N Demo.

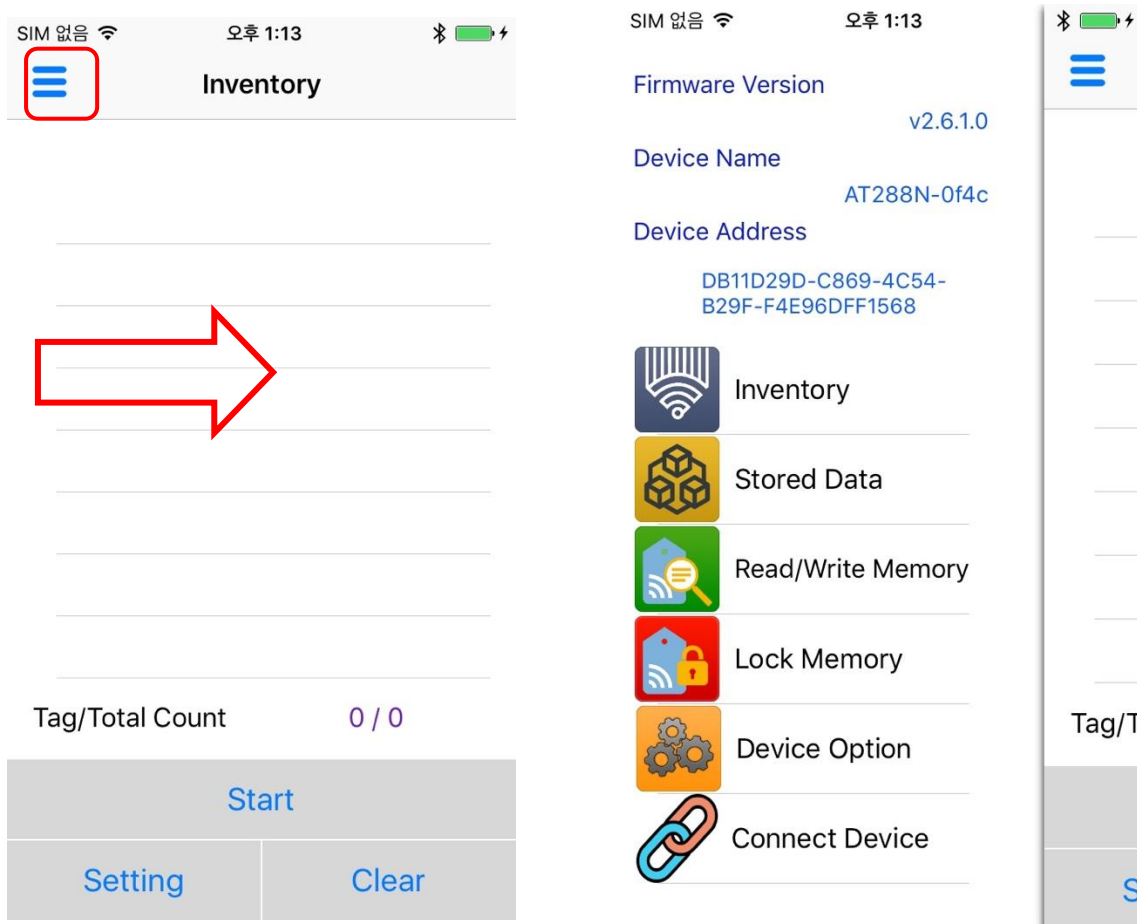
When it is connected to the Host Program, it operates interactively with Host Program and processes the data of RFID tag according to the setting of Host Program.

When it is connected with AT288N, the Demo consists of a screen for connection with the device and five demo screens. When moves to the Demo screen after its initial connection, it generally moves to the Inventory Demo screen. Moreover, there are Stored Data Demo screen for the showing the data by reading from the stored data in AT288N, the screen that could set Read/Write Memory in UHF RFID function, the screen that could set Lock Memory, and Device Options Demo screen that could set device options.


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### 3.1. Demo Menu

Like the below figures, the Demo menu will be appeared when touch the left menu button on the top of the screen or drag the screen to right side.



In the Demo menu, it displays the Firmware Version, name, and address of the connected device. And there are selectable menus which are Inventory, Stored Data, Read/Write Memory, Lock Memory, and Device Option. You can move to selected Demo screen by select menu (In the case of Read/Write Memory and Lock Memory, it only can use when the inventory Tag Type is set as 'ISO18000 6C GEN2').

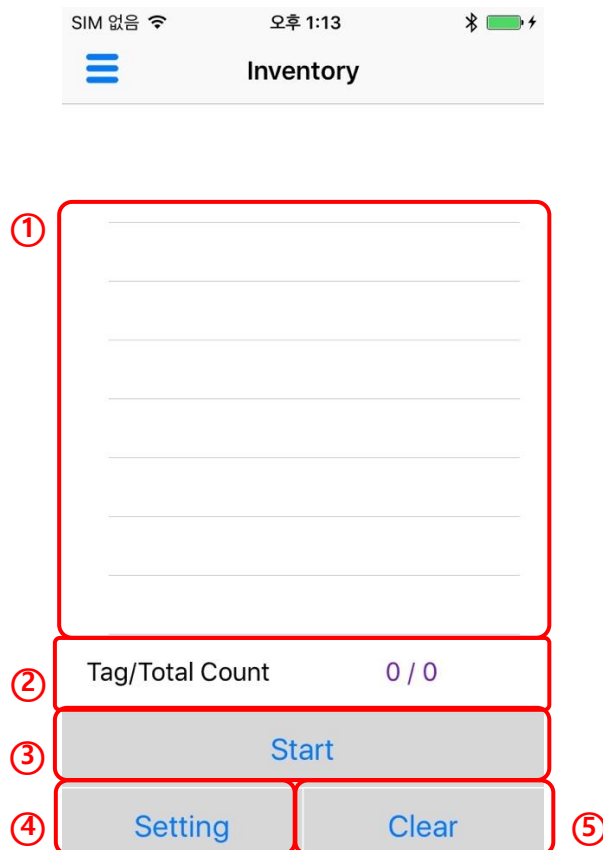
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## 3.2. Inventory


Let's start with the configuration of the Inventory Demo screen.

### 3.2.1. Screen Composition

The configuration of the Inventory Demo screen is shown in the following figure.

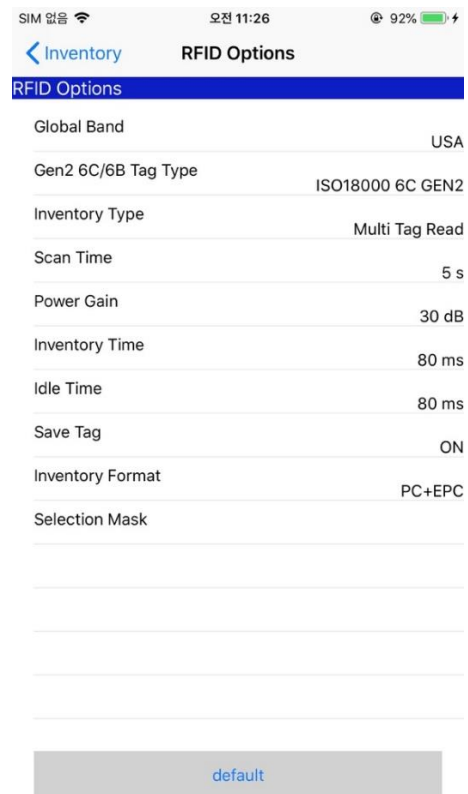
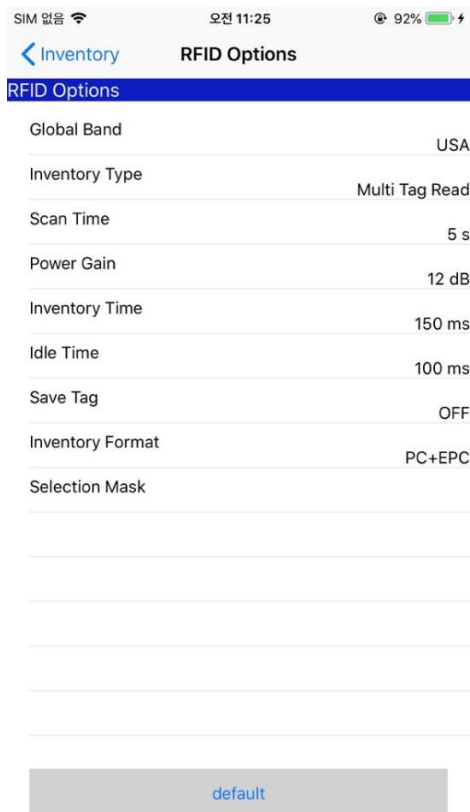


- ① **Data List:** Indicate RFID Tag data that read to the device
- ② **Tag/Total Count:** Out put the quantity of data which read in Data List or data which read to the device
- ③ **Start:** Start Inventory. After start, can change by Stop button
- ④ **Settings:** Can do necessary setting for RFID Inventory
- ⑤ **Clear:** Deletes all the data in Data List and initializes each Count value

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### 3.2.2. How to change RFID options

Inventory Option can set necessary information to conducts RFID Inventory. Can get into the Inventory Option by click the button below of the Inventory screen, Read/Write Memory screen, and Lock Memory Demo.



#### 3.2.2.1. Global Band

Show the Country setting of the current using device

#### 3.2.2.2. Gen2 6C/6B Tag Type


Sets the Type of the Tag that will do Inventory (Only can change when it gets into by Inventory screen).

#### 3.2.2.3. Inventory Type

Sets the RFID Reading method (Only can change when it gets into Inventory screen).

#### 3.2.2.4. Scan Time

It set a memory access duration time(sec) for connected AT288N.

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### 3.2.2.5. Power Gain

Sets the output power of the antenna when conducting the operations that relate to the RFID Tag.

### 3.2.2.6. Inventory Time

Sets the time of module that operates when the device doing Inventory

### 3.2.2.7. Idle Time

Sets the time of rest when the device doing Inventory

### 3.2.2.8. Save Tag

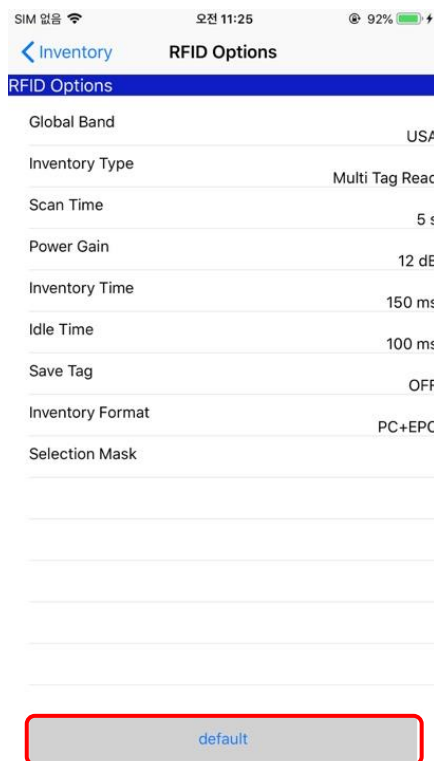
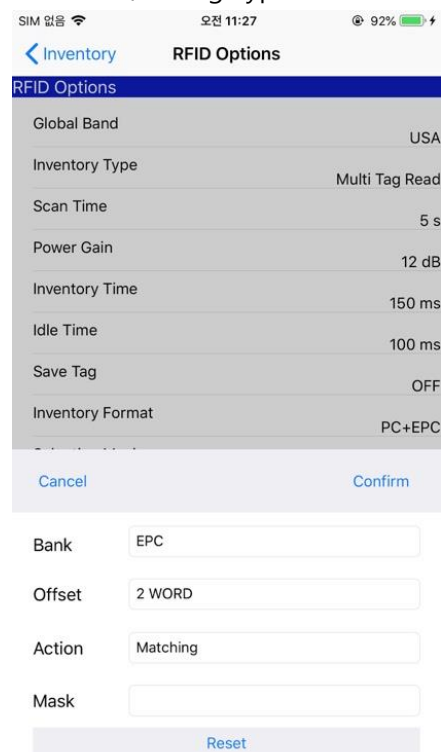
Save Tag option allows you to select whether save the read tag data in the internal memory or not

### 3.2.2.9. Inventory Format


Inventory Format allows you to select display format of the read data. The selective format are the four types (PC+EPC/Serial No. + PC+EPC/EPC/Serial No. + EPC).

### 3.2.2.10. Selection Mask

Selection Mask setting can designate only a specific Tag to operate. Selection Mask function can be set when it was set in ISO18000 6C GEN2 in the menu of Gen2 6C/6B Tag Type.

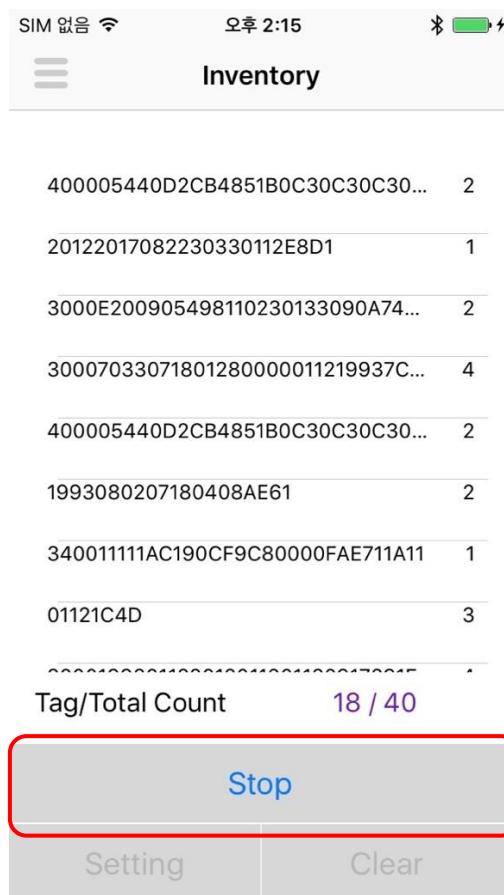





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### 3.2.3. How to RFID inventories

Can start the operation by touch the Start button in the Inventory screen.



When the Inventory start, the "Start" button will turn to "Stop" and you can stop inventory by touch the "Stop" button.

Basically, Inventory will show the consecutively read tags. The way to outputting to the screen is that when the tag has the same value, it will be displayed once in the tag list and the number of times tag reading will be displayed in the right side of the tag list.

In the Tag/Total Count, it displays the number of tags which have been displayed in the list/the number of tags that read from the beginning. If you have a lot of tags which read, you can scroll it by dragging.

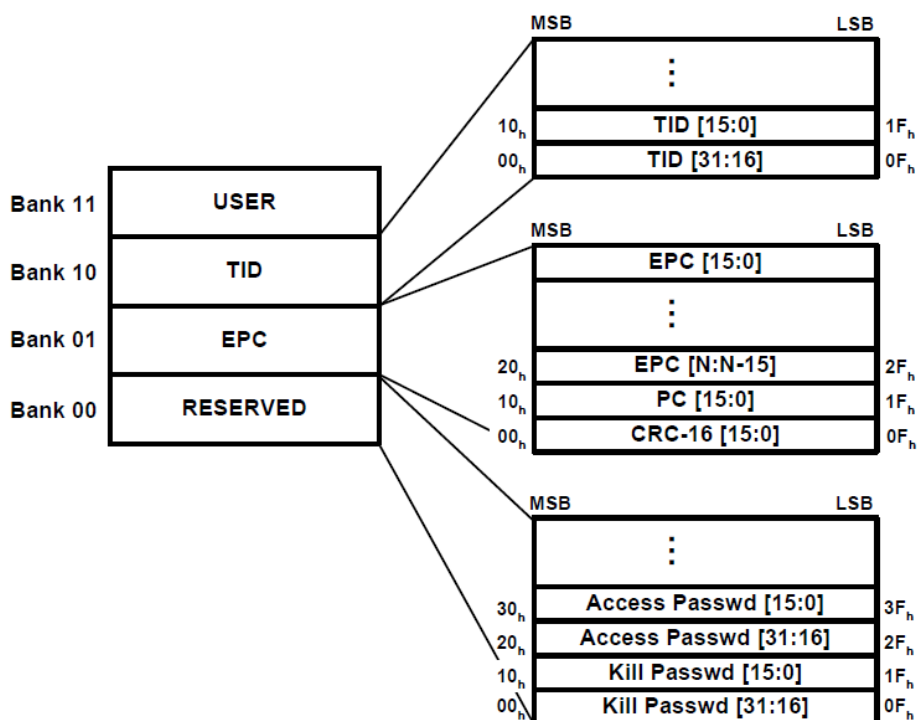
## 3.3. Selection Mask

The Selection Mask can be moved to the Selection Mask set up screen in the RFID options which RFID related functions on all the screens except the Stored Data and the Deice Options screen.

The Selection Mask is the technology to sets the access of only the tags with the specific conditions among the RFID UHF technology. To understand the Selection Mask, you need to understand the RFID tag structure and the logic of how a RFID device read a RFID tag.

### 3.3.1. Tag Memory


RFID tag is the IC chip which stored data. Therefore, the tag has the memory and its stored data in the memory. There are four major types of the tag memory. The below figure shows the structure of the tag memory.



Reserved Memory contains the Kill Password and Access Password. In the EPC memory, the stored CRC is included in the first WORD (00h~0Fh) and the stored PC is included in second WORD (10h~1Fh). And after (starting after 20h), the value to identify the tag will be included.

The first 8bit (00h~07h) of the TID Memory contains the class identifier which assigned from ISO/IEC 15963. After the TID Memory address 07h, it includes the custom commands and optional specification information which can uniquely identify the tag.

The User Memory is an optional specification that allows the user to read and write data in the User Memory if the tag implemented user memory.

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### 3.3.2. Tag Query

The conditions of Selection Mask are Action, Bank, Offset, Pattern, etc.

**Action** sets the operation when the Bank matches or not matches the conditions of Offset, Length and Pattern.

**Bank** sets the tag memory when it compares the given Pattern.

**Offset** sets the start address by bit unit when the Pattern starting to compare in the set bank.


For example, when the user wants to read the tag which only start with 0x3000 of the value of PC in the EPC, can set the Selection Mask as below Table

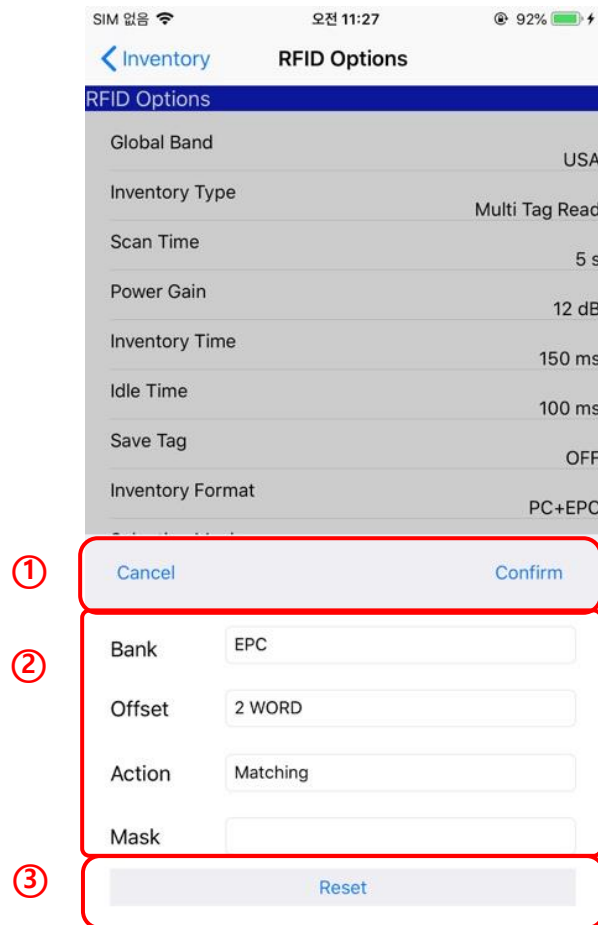
Mask Parameter	Value
<b>Action</b>	0(Matching)
<b>Bank</b>	EPC
<b>Offset</b>	16bit
<b>Pattern</b>	0x3000

If interpret the Selection Mask condition in the above Table, it read the tag which match the data that compares the value of 0x3000 and starts from 16bit(1Word) in the EPC memory.

### 3.3.3. Screen Composition

The configuration of the Selection Mask screen is shown in the following figure.


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- ① Apply or Cancel selection
- ② Set the condition of Mask Quarry
- ③ Return to initial setting

### 3.3.4. Selection Mask Detail

- ① **Cancel/Confirm:** Applies the setting value for each item to set the Selection Mask or cancel the application of the changed setting value.
- ② **Setting by items**
  - Action:** Designate the Selection Mask's comparison method and the result.
  - Bank:** The Pattern of Selection Mask designates the Tag Memory which will be comparing. The Bank Memory which can compare by Selection Mask are EPC, TID and User Memory.
  - Offset:** The Pattern of Selection Mask designates the start address which will be comparing in the designated Bank in Bit unit.

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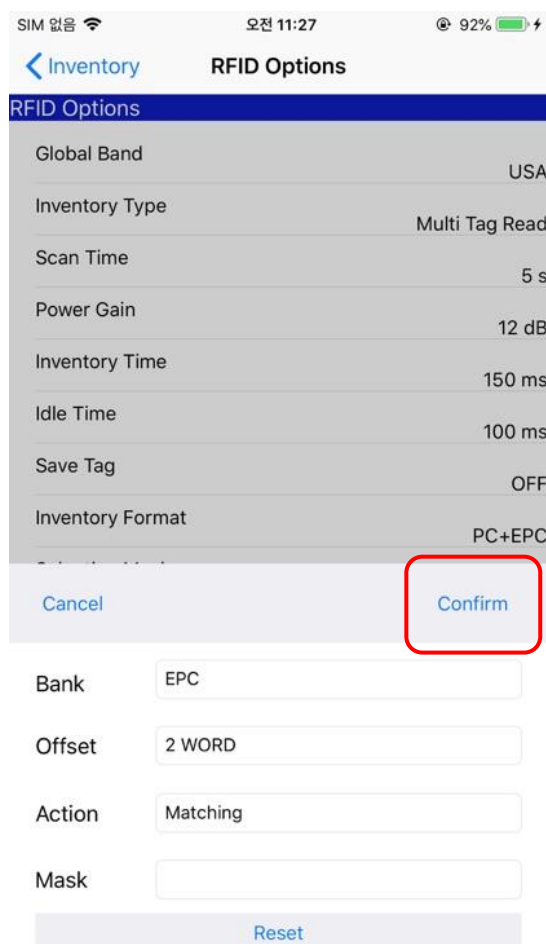
The start address of Selection Mask can designate from 0bit to maximum 255bit.

**Mask:** Designate the value which will be comparing from the start address which designated in the bank that designated in the Selection Mask. The inputting Mask value is a Hex value and it can input up to 32 characters.

- ③ **Reset:** Changes the Selection Mask condition, which has been set, to the initial value.

### 3.3.5. How to set a selection mask

Touch the Selection Mask menu in the RFID Options which entered by touch the setting button in Inventory, Read Memory, Write Memory, or Lock memory screen. Then, on the Selection Mask screen, set each item's value and touch Confirm to apply it.



### 3.3.6. How to disable selection mask

The way to deactivate Selection Mask in the AT288N Demo is after initializing the value by touch the Reset button in the Selection Mask screen, touch the confirm to applying the initialized value.

SIM 없음 92% 오전 11:27

< Inventory RFID Options

RFID Options

Global Band	USA
Inventory Type	Multi Tag Read
Scan Time	5 s
Power Gain	12 dB
Inventory Time	150 ms
Idle Time	100 ms
Save Tag	OFF
Inventory Format	PC+EPC

Cancel Confirm


Bank EPC

Offset 2 WORD

Action Matching

Mask

Reset

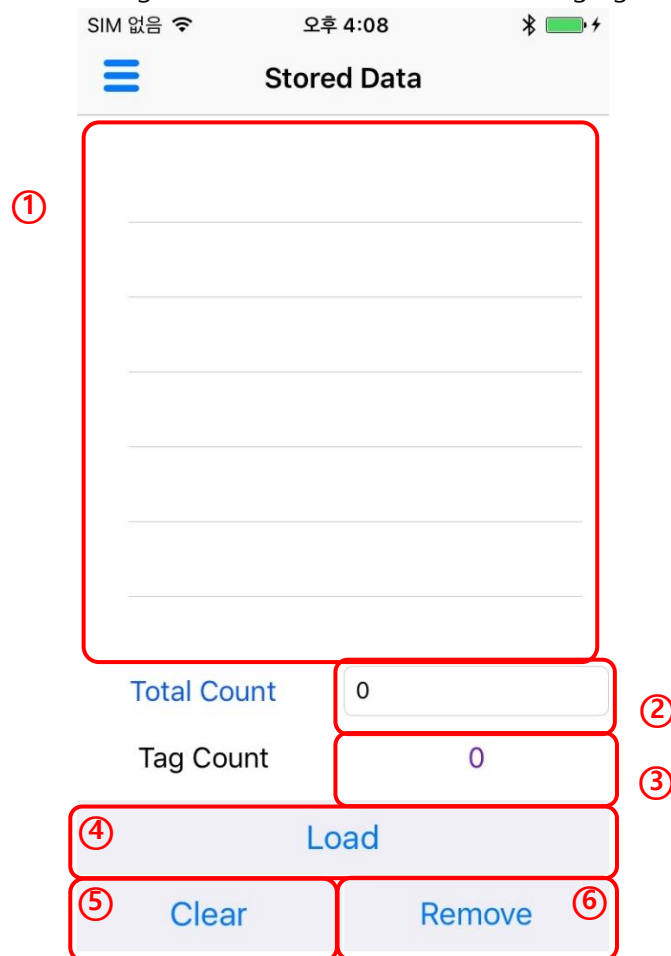
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### 3.4. Stored Data


Stored Data Demo is the Demo to read the stored data in the internal memory by reading RFID tag. The data was stored in the internal memory because the data read in the condition of the Save Tag Mode option was turned on in the Inventory Demo or the stored data in the Device's internal memory when the Device is not connected to the Demo.

#### 3.4.1. Screen Composition

Stored Data Demo's screen configuration is as shown in the following figure.



- ① **Data List:** Displays data which loaded from the device.
- ② **Total Count:** Displays the number of the stored data in the device.
- ③ **Tag Count:** Displays the amount of data in the Data List. Duplicated data is displayed in the Data List, so it is displayed as one count in the Data Count.
- ④ **Load:** Read the data from the device.
- ⑤ **Clear:** Erases all the Data list and Initializes the Total Count and Data Count as 0.
- ⑥ **Remove:** Delete all the saved data in the device.


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### 3.4.2. How to load stored data

Touch the Load button to start reading data from the device.

When the device starts to read the data, a dialog box appears to indicate that the data is loading. Through the dialog box, you can check that the data is loading from the device. When all the saved data had read, the dialog box will be disappeared, and the read data will be output to the Data List and each Count will be updated.

SIM 없음
오후 4:24


**Stored Data**

30000802199319930718EEEE1993...	4
3400000000000160000000000000...	3
1993080207180408AE61	2
20122017082230330112E8D1	3
01121C4D	1
400005440D2CB4851B0C30C30C3...	3
200070220718012800000011210027	2


Total Count

Tag Count
14

Load

Clear
Remove

SIM 없음
오후 4:24


**Stored Data**

30000802199319930718EEEE1993...	40
3400000000000160000000000000...	35
1993080207180408AE61	33
20122017082230330112E8D1	33
01121C4D	24
400005440D2CB4851B0C30C30C3...	11
200070220718012800000011210027	25


Total Count

Tag Count
26

Load

Clear
Remove




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### 3.4.3. How to remove all stored data

If you have able to read the stored data, you also able to delete the stored data on the device.

The Stored Data screen also provides you to delete the stored data in the device. Touch the Remove button at the bottom right of the screen to delete all the data on the device.

SIM 없음
오후 4:24


**Stored Data**


30000802199319930718EEEE1993...	40
3400000000000160000000000000...	35
1993080207180408AE61	33
20122017082230330112E8D1	33
01121C4D	24
400005440D2CB4851B0C30C30C3...	11
20007022071801200000011210027	25

Total Count

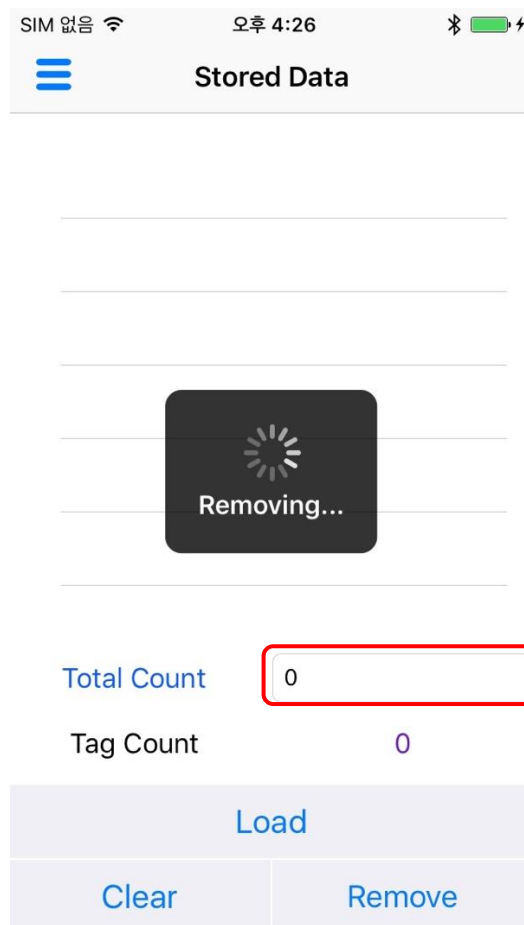
Tag Count
26

Load


Clear
Remove

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The time that takes to delete the stored data depends on the amount of stored data. While deleting the data, the status display dialog box will inform you that you are currently deleting the data.



When all the stored data is deleted, the status display dialog box disappears. If you try to execute the Load, you can see that there is no data can be Loading.

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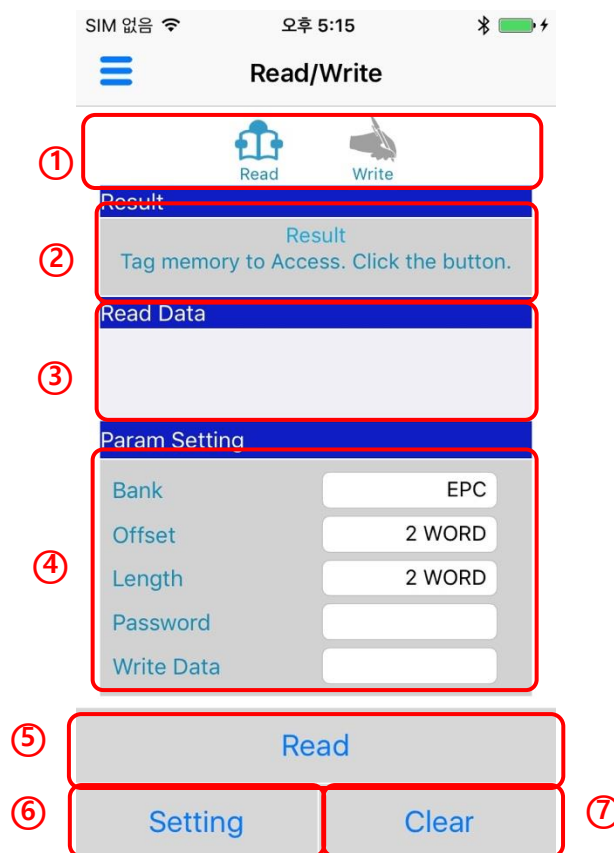
### 3.5. Memory Access (ISO18000 6C GEN2 Only)

#### 3.5.1. ReadMemroy

Read Memory Demo can use the function of designate which RFID Tag Memory should be read among the functions of RFID (UHF).

##### 3.5.1.1. Screen Composition

The structure of the Read Memory Demo screen is shown in the following figure.



- ① **Action Mode:** Sets the operation mode for Memory Access.
- ② **Result:** Outputs the operation results after the device read the RFID Tag and the EPC value of RFID Tag that the device accessed.
- ③ **Read Memory Value:** Outputs the read data if the device read the RFID Tag correctly.
- ④ **Memory Parameter:** Sets for to do Read Memory.
- ⑤ **Read:** Allows the device to perform the Read Memory function.
- ⑥ **Setting:** Moves to the screen that could set the Option which related to RFID operation.
- ⑦ **Clear:** Initialize Result, Read Memory Value, etc.

## 3.5.1.2. How to change read memory Option

Read Memory Option allows you to set the information needed to perform Read Memory.


To perform the Read Memory, designate the start address as WORD unit in the designated Memory Bank and in the Tag's memory bank which you want to Read. Also, need to designate memory length, which you want to read, as WORD unit.

- ① Bank: Bank option can set what memory of RFID Tag to read by performing the Read Memory. The readable Tag memory bank in the Tag are Reserved, EPC, TID, and User.
- ② Offset: Offset option designates the start address where to read the data of the designated memory bank by perform the Read Memory. The designable unit is WORD.
- ③ Length: Length option can set the length to read the designated Memory Bank's data by performing Read Memory. The designable unit is WORD.
- ✂ **The maximum data length that can read by Read Memory at once is 65 WORD.**
- ④ Password: Password option can set in the device to the access to the tag when the RFID Tag that you want to perform the Read Memory is locked.

In the case of the RFID Tag is locked, the Reserved Bank becomes unreadable.

If you want to read the Reserved Bank data, set the Password as the same as Access Password that saved in the Tag and perform Read Memory in the Tag, you can read Reserved Bank data.

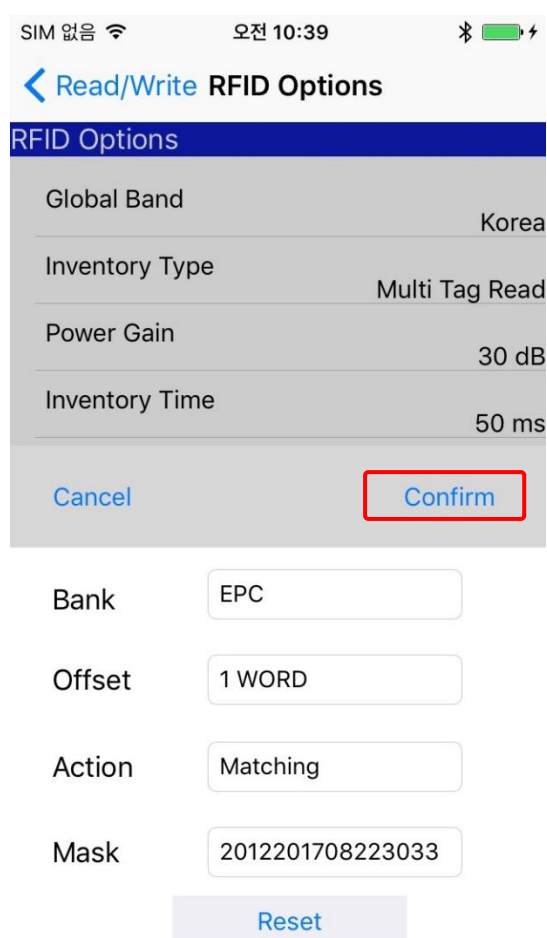
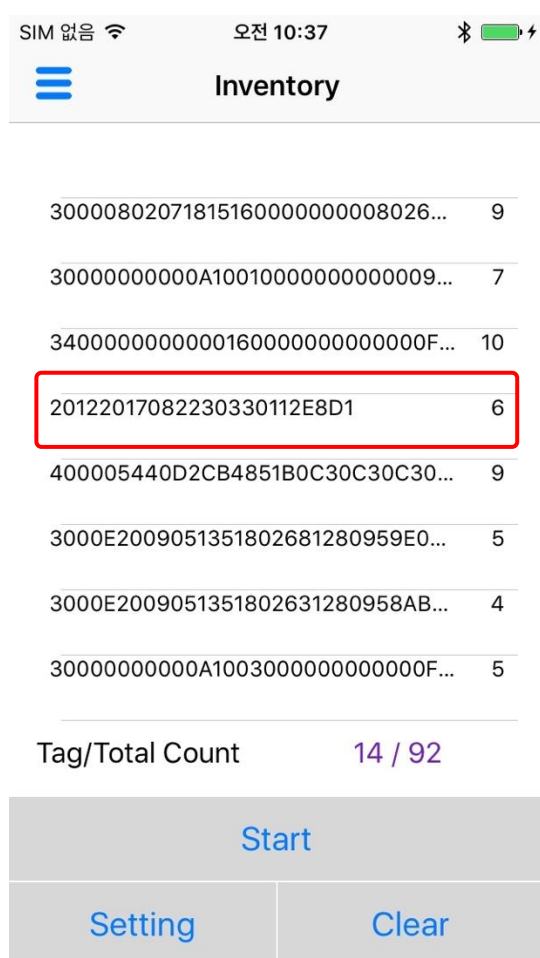
If the Password is different as the Access Password that saved in the RFID Tag, the perform result of the Read Memory will be failed.

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### 3.5.1.3. How to read tag memory

To the test of reading the RFID Tag, read the 4WORD of EPC value in specified Tag's EPC area.

In the EPC area, the start address of EPC value is starting from 2WORD. Generally, before doing Read Memory, access to the Tag's memory by using the Selection Mask on a tag based on the EPC when searching by Inventory. On the Inventory screen, conducts Inventory to search for the Tag that you want to read memory.

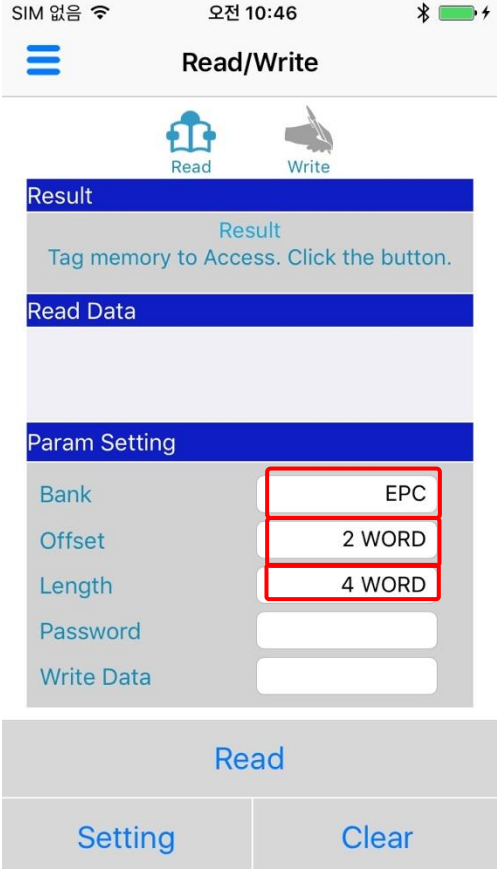


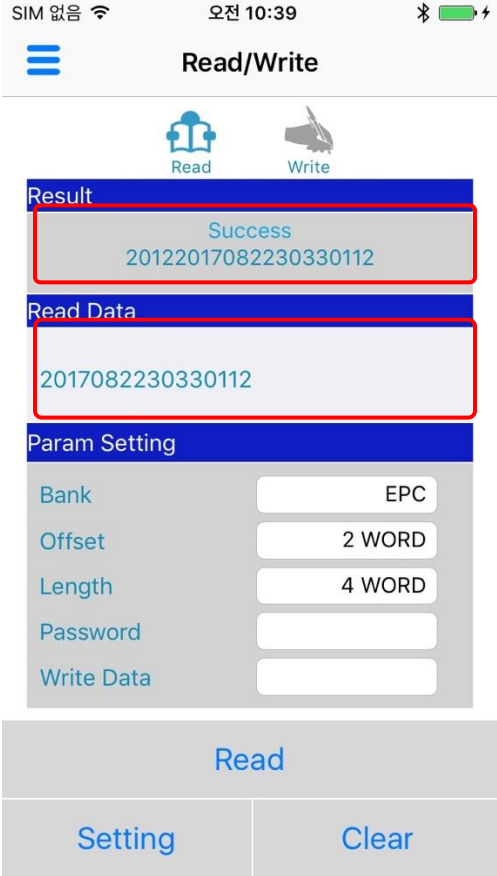
In the Inventory, enter the RFID Tag value, which you want to Access, into Mask item to set as Selection Mask. If you want to read an unspecified Tags, you can skip this part and go to the next.

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After set the Selection Mask, move to the screen of Read Memory in the main menu.

In the Read Memory Parameter of the Read Memory screen, set the Memory Bank that you want to read from the RFID Tag as the EPC, then set the start address as 2WORD and set the length that needed to read as 4WORD.





When you are ready to read the RFID Tag memory, touch the Read button to read Tag memory. If you read the Tag memory successfully, the Tag EPC which Accessed to the EPC area will be output and outputs the Access result in the message window. And then, outputs the value of Tag memory, which already read, in the Read Data.

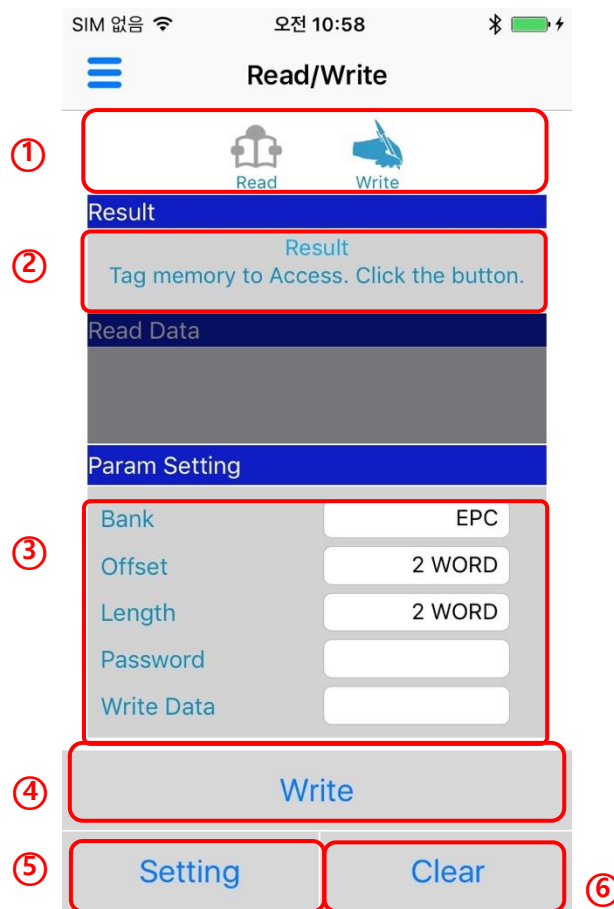
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### 3.5.2. Write Memory


Write Memory Demo can use the function of writing the data in the designated memory of RFID Tag among the RFID (UHF) functions.

#### 3.5.2.1. Screen Composition

The structure of the Write Memory Demo screen is shown in the following figure.



- ① **Action Mode:** Sets the operation mode which related to Memory Access.
- ② **Result:** Outputs the result after the device wrote data in the RFID Tag, EPC value of RFID Tag which device accessed, RSSI and Phase.
- ③ **Param Setting:** Sets in order to do Write Memory.
- ④ **Write:** Makes the device executes Write Memory function.
- ⑤ **Setting:** Moves to the screen that you can set the option setting which related to RFID operation.
- ⑥ **Clear:** Initializes Result.

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### 3.5.2.2. How to change write memory option

Write Memory Option allows you to set the information needed to perform Write Memory. Write Memory Option can be dragged with your finger to scroll.

To perform the Write Memory, designate the address where to start to write as WORD unit in the designated Memory Bank and in the Tag's memory bank which you want to write the data. Also, need to designate data which you want to write as WORD unit (4-character unit).

- ① Bank: The Bank option can set to what memory of RFID Tag to read by performing the Write Memory. The readable Tag memory bank in the Tag are Reserved, EPC, TID, and User.
- ② Offset: Offset option designates the start address where to write the data of the designated memory bank by performing the write Memory. The designable unit is WORD.
- ③ Write Data: Write Data option inputs the data which for writing the data in the designated memory bank by perform the Write Memory. The input data value is HEX value and the input data should be in WORD (4-character unit) unit.


※ **The maximum data length that can write by Write Memory at once is 32 WORD**

- ④ Password: Password option can set in the device to the access to the tag when the RFID Tag that you want to perform the Write Memory is locked.

In the case of the RFID Tag is locked, the data cannot be written in the locked Bank. If you want to write the data to a specific Bank Memory of locked RFID Tag, set the Password as the same as Access Password that saved in the Tag and perform Write Memory in the Tag. Then you will be able to write the data.

If the Password is different as the Access Password that saved in the RFID Tag, the perform result of the Write Memory will be failed.



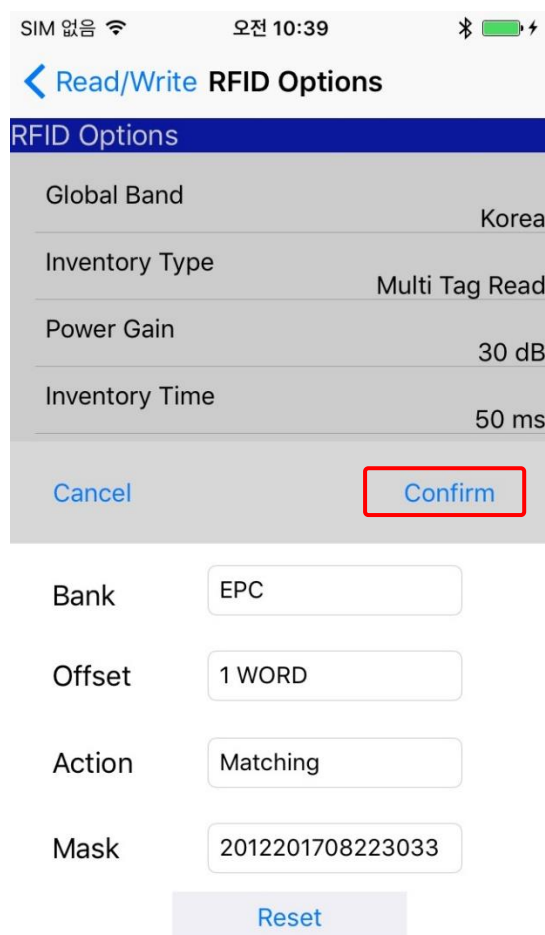
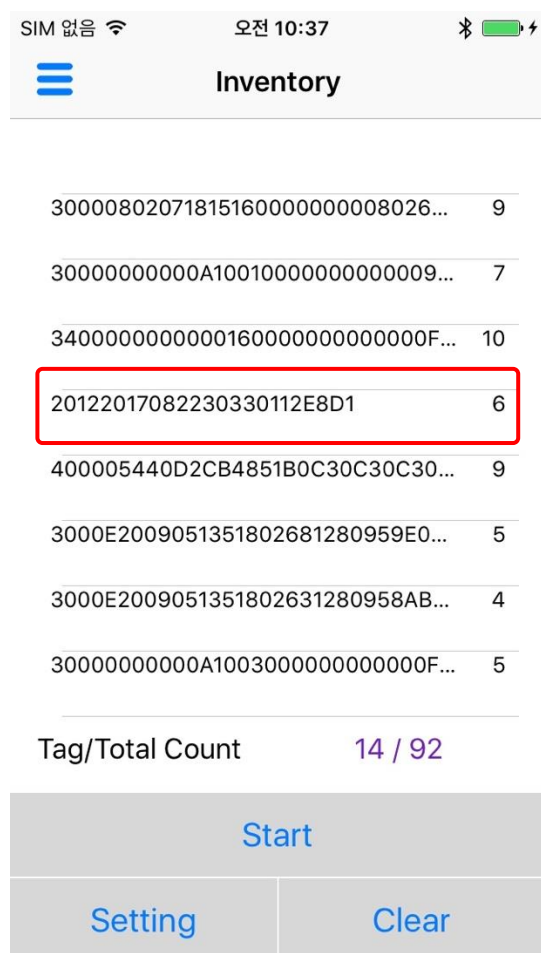
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### 3.5.2.3. How to write tag memory


To the test of writing the RFID Tag, write the 4WORD of EPC value in specified RFID Tag's EPC area.

The unit of the value that we will write in the EPC area is "12345678" as HEX. In the EPC area, the start address of EPC value is starting from 5 WORD. Generally, in the Write Memory, in order to avoid writing in the other Tag, accesses to the Tag Memory by applying Selection Mask in a Tag, that based on EPC after searched by Inventory.

In the Inventory screen, searches Tag that you want to read the memory by performing Inventory.

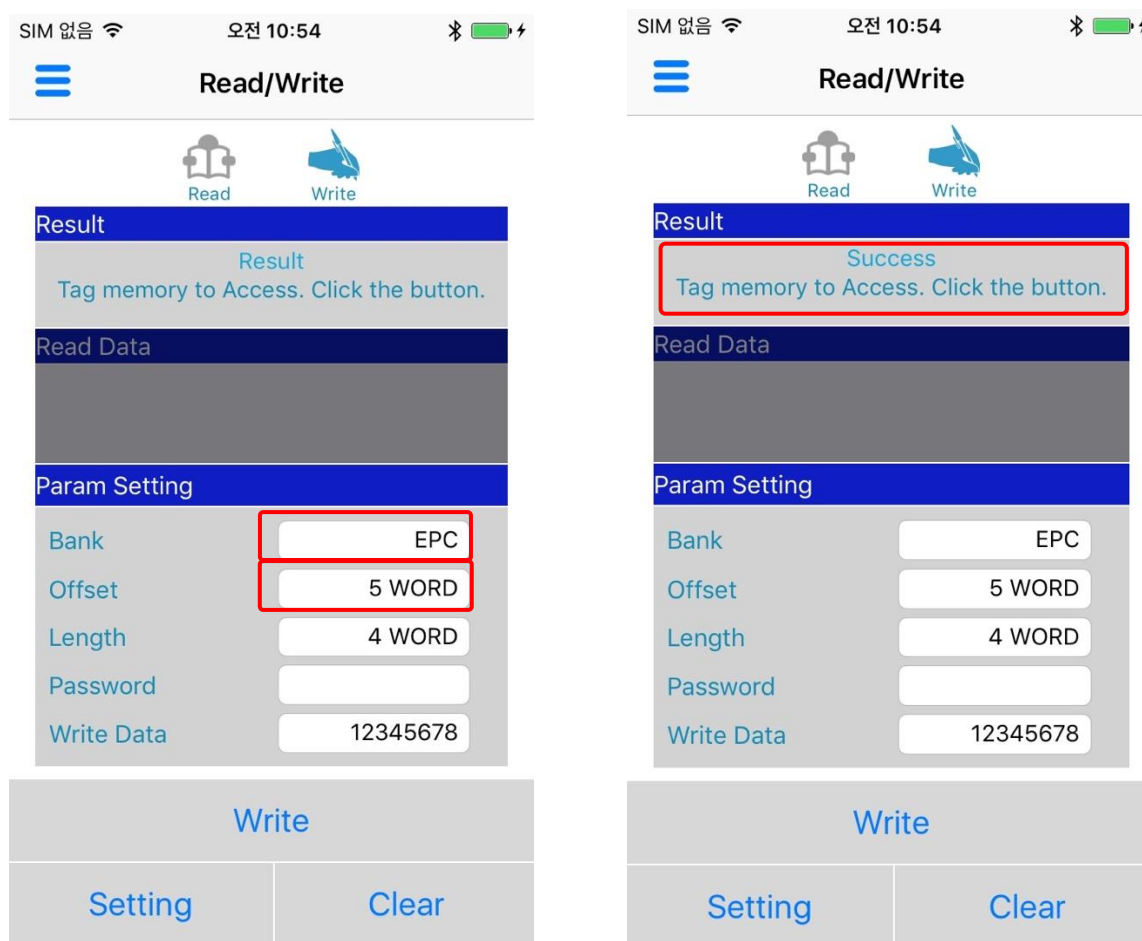


When the RFID Tag, that you want to Access, was being searched in the Inventory, stop the Inventory and enter the searched RFID Tag value in to the Mask item to sets the Selection Mask.

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If you set the Selection Mask, move to the Write Memory screen from the main menu.

In the Write Memory Parameter of the Write Memory screen, selects Memory Bank, which you want to write from the RFID Tag, as EPC, then sets the start address as 5 WORD. After that, inputs the data value that you want to write in the Write Data.



The image displays two screenshots of the AT288N iOS application interface, specifically the 'Read/Write' screen. The top status bar shows 'SIM 없음', '오전 10:54', and battery level. The app has a hamburger menu icon on the left and 'Read' and 'Write' icons at the top. The 'Write' icon is selected.

**Left Screenshot (Param Setting):** The 'Result' section shows 'Tag memory to Access. Click the button.' Below this is the 'Param Setting' section with the following fields: 'Bank' (set to 'EPC'), 'Offset' (set to '5 WORD'), 'Length' (set to '4 WORD'), 'Password' (empty), and 'Write Data' (set to '12345678'). The 'Bank' and 'Offset' fields are highlighted with red boxes.

**Right Screenshot (Result):** The 'Result' section shows 'Success' in green text, with the message 'Tag memory to Access. Click the button.' below it. This entire section is highlighted with a red box. The 'Param Setting' section remains the same as in the left screenshot.

At the bottom of both screens are two large buttons: 'Write' (in blue text on a grey background) and 'Setting' (in blue text on a grey background). Below these are two smaller buttons: 'Setting' and 'Clear' (both in blue text on a grey background).

When you are ready to write the data in the RFID Tag memory, touch the Write button to write the data in the Tag's memory.

If the data being written in the Tag's memory successfully, it will output Access result in the Message box. But if the data in the EPC area changed from the previous EPC value, because the value is different from the EPC value that you set by Selection Mask previously, you need to release the Selection Mask setting.

SIM 없음
오전 11:01

Read/Write

Read
Write

Result

Success  
20122017082230331234

Read Data

12345678

Param Setting

Bank
EPC

Offset
5 WORD

Length
2 WORD


Password

Write Data
12345678

Read

Setting
Clear

If you execute Read Memory of area that you performed Write, you can confirm that it successfully being written in the Tag.

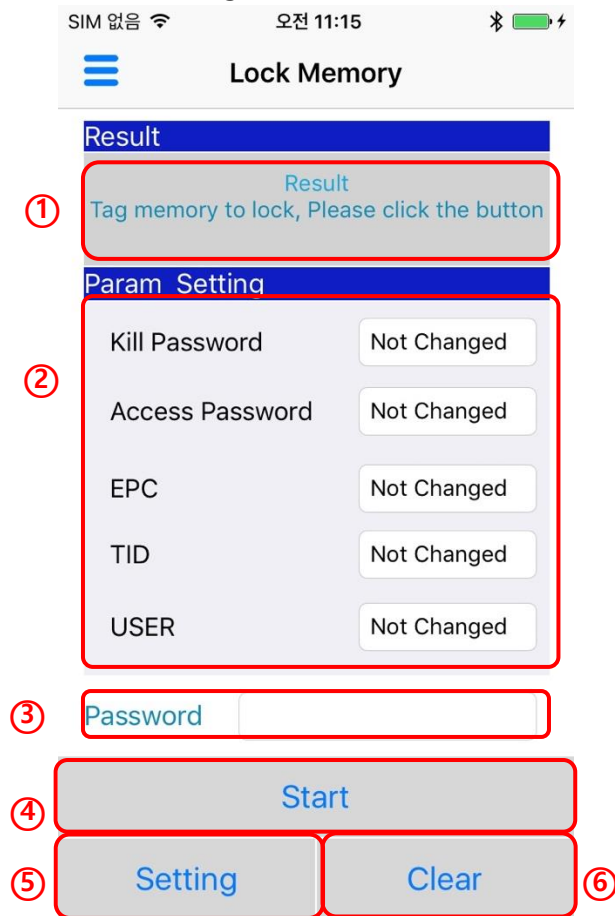
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### 3.5.3. Lock Memory


Lock Memory Demo can use the function of lock or release lock among the RFID (UHF) functions.

#### 3.5.3.1. Screen Composition

Lock Memory Demo screen configuration is shown in the following figure.




- ① **Result:** Outputs the RFID Tag's EPC that device accessed and after the device locks or unlock the RFID Tag, outputs the operation result as a message.
- ② **Param Setting:** Selects what action the device will do on the Tag. There will be four selections which are no application, lock, unlock, and permanently lock.
- ③ **Password:** To apply the setting to the Tag which locked, enters password that has been set on the Tag.
- ④ **Start:** Conducts the Action that selected in the Lock Select.
- ⑤ **Setting:** Moves to the screen that can set the Options which relate to RFID operation.
- ⑥ **Clear:** Initializes EPC, Message, etc.

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### 3.5.3.2. How to change lock memory option

- ① **Kill Password:** When performing Lock, Unlock and Permalock, Kill Password option is the option that can set the Kill Password area, which the Offset length is 0 WORD to 2 WORD on the RFID Tag's reserved area, as the work subject.  
If the Kill Password area locked by Lock or Permalock and if didn't set the Password as Access Password which has been set on the Tag, cannot lock, unlock, read and write.  
Kill Password, Access Password, EPC, TID, and User option can be set to be overlapped.  
The area that becomes work subject, which set to be overlapped, will be processed together when it conducts Lock, unlock or Permalock function.
- ② **Access Password:** When performing Lock, Unlock and Permalock, access Password option is the option that can set the Access Password area, which the Offset length is 0 WORD to 2 WORD on the RFID Tag's reserved area, as the work subject.  
If the Access Password area locked by Lock or Permalock and if didn't set the Password as Access Password which has been set on the Tag, cannot lock, unlock, read and write.  
Kill Password, Access Password, EPC, TID, and User option can be set to be overlapped.  
The area that becomes work subject, which set to be overlapped, will be processed together when it conducts Lock, unlock or Permalock function.
- ③ **EPC:** When performing Lock, Unlock and Permalock, EPC option is the option that can set the EPC Bank area of RFID Tag as the work subject. If the EPC area locked by Lock or Permalock and if didn't set the Password as Access Password which has been set on the Tag, cannot lock, unlock, read and write. Kill Password, Access Password, EPC, TID, and User option can be set to be overlapped. The area that becomes work subject, which set to be overlapped, will be processed together when it conducts Lock, unlock or Permalock function.
- ④ **TID:** When performing Lock, Unlock and Permalock, TID option is the option that can set the TID Bank area of RFID Tag as the work subject. If the TID area locked by Lock or permalock and if didn't set the Password as Access Password which had been set on the Tag, cannot lock, unlock, read and write. Kill Password, Access Password, EPC, TID, and User option can be set to be overlapped. The area that becomes work subject, which set to be overlapped, will be processed together when it conducts Lock, unlock or Permalock function.

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- ⑤ **User:** When performing Lock, Unlock and Permalock, User option is the option that can set the User Bank area of RFID Tag as the work subject. If the User area locked by Lock or Permalock and if didn't set the Password as Access Password which has been set on the Tag, cannot lock, unlock, read and write. Kill Password, Access Password, EPC, TID, and User option can be set to be overlapped. The area that becomes work subject, which set to be overlapped, will be processed together when it conducts Lock, unlock or Permalock function.
- ⑥ **Password:** Password option can set in the device to the access to the tag when the RFID Tag that you want to perform Lock, Unlock or Permalock is locked. In the case of the RFID Tag is locked, the area that locked can not do Lock and unlock. If you want to Lock or Unlock to a specific area's Memory of locked RFID Tag, set the Password as the same as Access Password that saved in the Tag and perform Lock, Unlock or Permalock to the Tag. Then you will be able to Lock or Unlock the Tag. If the Password is different as the Access Password that saved in the RFID Tag, the perform result of the Lock, Unlock or Permalock be failed.

### 3.5.3.3. How to set access password in tags

To the test the way to lock the RFID Tag, sets Access Password of specific RFID Tag's Reserved area, then let's try to Lock the Access Password.

Access Password starts from 2 WORD and has 2 WORD length in the Reserved area.

Generally, before doing Lock Memory, access to the Tag's memory by using Selection Mask on a tag based on EPC when searching by inventory. On the Inventory screen, conducts Inventory to search the Tag that you want to read memory.

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SIM 없음 1:24

**Inventory**

3000000020120408000000000000...	47
3000E20090549811022914608380E...	11
199342430112DDDD2D75	37
1993080207180408AE61	32
01121C4D	36
3000199301122012011201120917291E	31
30007033071801280000011219937C...	26
30000802199319930718EEEE199340...	38
00000000000000000000000000000000	10

Tag/Total Count 22 / 474

**Start**

**Setting Clear**

SIM 없음 1:25

**Inventory RFID Options**

**RFID Options**

Global Band	Korea
Inventory Type	Multi Tag Read
Power Gain	30 dB
Inventory Time	50 ms

**Cancel Confirm**

Bank EPC


Offset 1 WORD

Action Matching

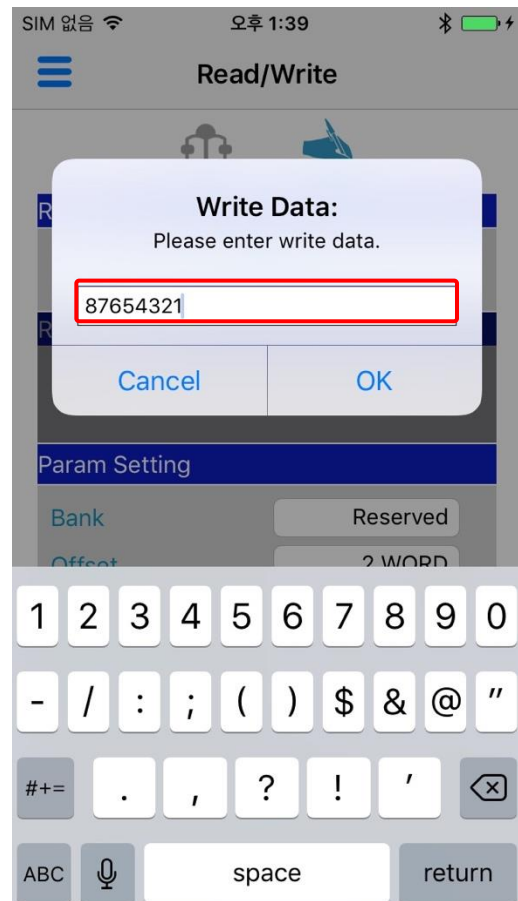
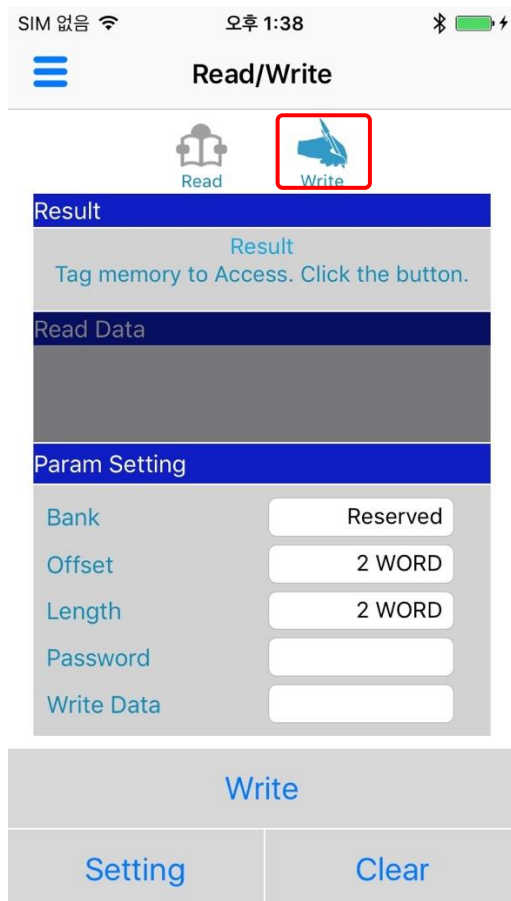
Mask 199342430112

**Reset**

In the Inventory, when the RFID Tag, that you want to Access, searched, stop the Inventory and enter the value of the RFID Tag that has been searched to the Mask list to set as Selection Mask.


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If you set the Selection Mask, moves to Write Memory screen.

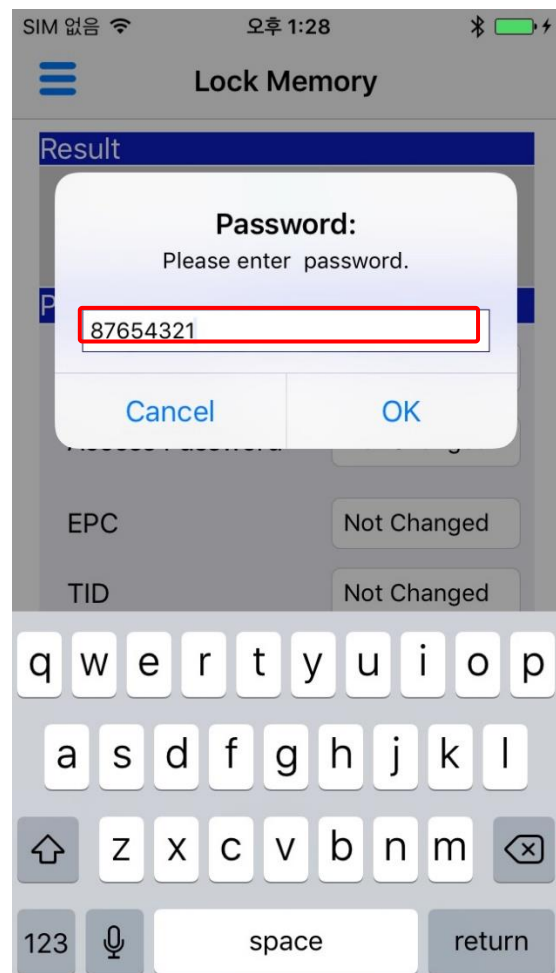
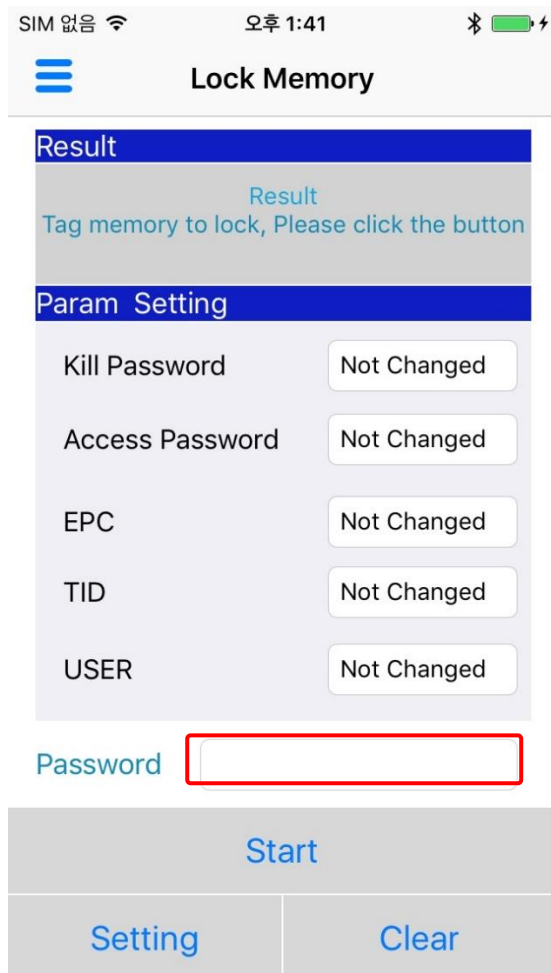


In the Write Memory screen, sets Bank as Reserved, sets Offset as 2 WORD, input the Write data as "87654321" and touch the start button to conduct Write Memory, the Password will be set.




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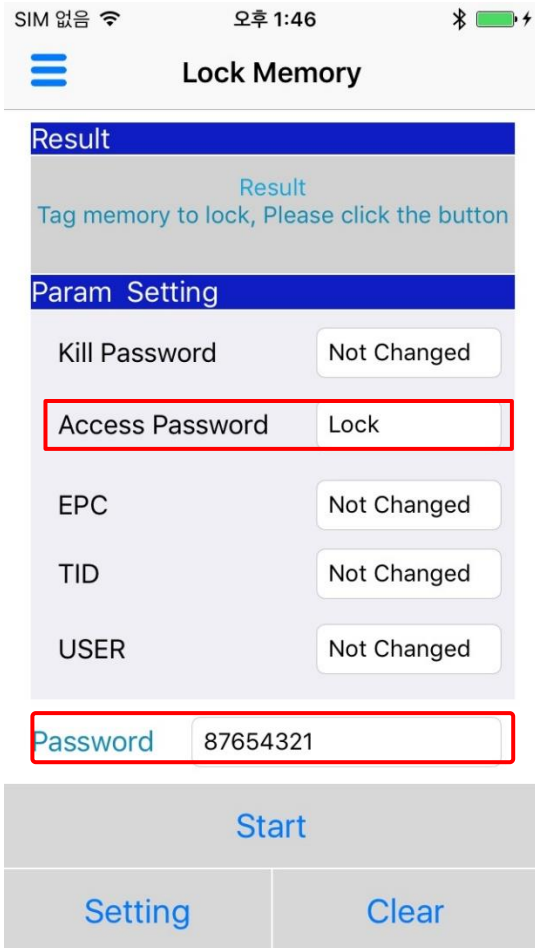
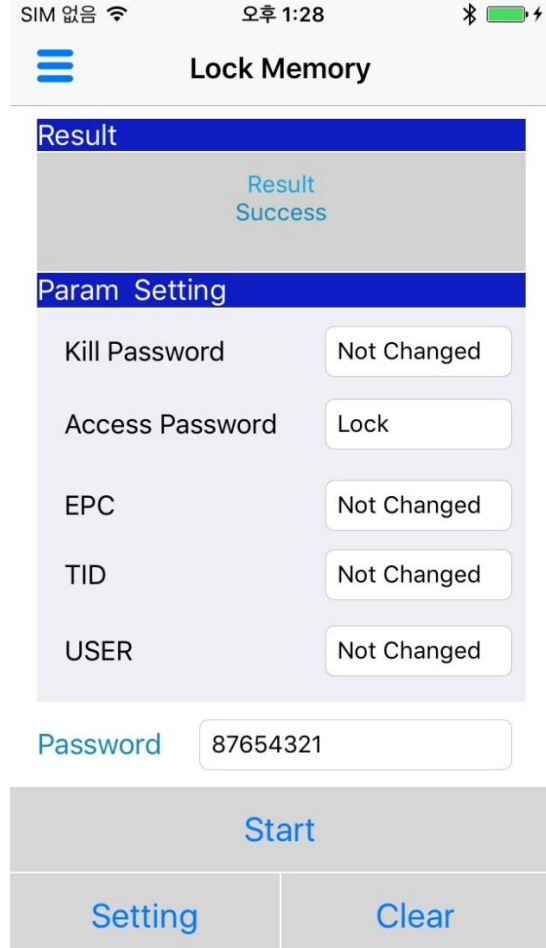
If the Access Password being set, you need to set access right of Tag's Access Password that want to access from the device.




Input the Access Password value that set in the RFID Tag by touch the value of Lock Memory Password.

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Now, to do Lock on the Access Password, select the Lock among the selectable item by touch Access Password in the Param Setting.

If you are ready to do Lock on the RFID Tag, touch the Start button to Lock the Access Password area. Now, if the Access Password is not match. that RFID Tag cannot read or write data in the Access Password area.

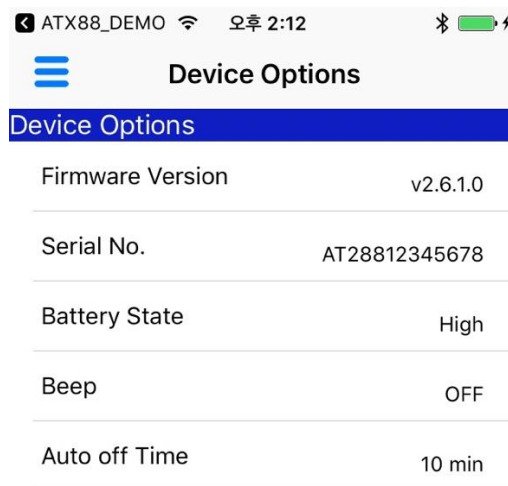
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### 3.6. Device Options


Device Options Demo can set up the device.

#### 3.6.1. Screen Composition

Device Options Demo screen configuration is shown in the following figure.



**Option List:** It is the list of device options. List item shows the option name and the setting value. You can set up by touch the option.

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### 3.6.2. Firmware Version

Firmware Version displays main program's version that runs in the main device.

### 3.6.3. Serial No

Serial No. is the unique numbers for managing the devices individually. It displays the numbers which for managing the device.

### 3.6.4. Battery State

Battery State is the item that shows the device's current battery status that connected with App. It displays the battery status as Low or High.

### 3.6.5. Beep

Beep can set the output of alarm sounds. When it is On, it will output alarm sound according to the operation and when it if OFF, it will not output alarm sound.

### 3.6.6. Auto off Time

You can set the time for the device to turn off when there is no activity for a certain period. After the display window is turned off, the device will be turned off if there is no activity during the period of Auto off Time setting.