




Unitech Co., Ltd

Unitech Reader Sample Guide for iOS

Unitech Reader Products

App Team

2022-07-22


		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

Revision History

Version	Date of Revision	Reason for Revision ¹	Revision Detail ²	Author
v0.1	2019-03-22	Draft		App Team
v0.2	2021-01-14	Addition	Stored Data sample add	App Team
v1.0	2021-01-21	Enhancement	6B and Rail Inventory support	App Team
v1.1	2022-07-22	Addition	RP200 model support	App Team


¹ Reason for Revision : Entry of Addition/Modification/Deletion about Revision or Enactment of the Previous Document Contents

² Revision Detail : Declaration of revised page numbers and contents

		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1


Contents

Contents	3
1. Outline	4
2. Inventory Reader.....	5
2.1. Inventory.....	5
2.2. Option	7
3. Barcode Reader	8
3.1. Barcode.....	8
3.2. Option	10
4. Stored Data ATID Reader.....	12
4.1. Stored Data.....	12
5. Read Memory Reader.....	13
5.1. Read Memory	13
5.2. Option	15
6. Write Memory Reader.....	16
6.1. Write Memory	16
6.2. Option	18
7. Lock Memory Reader	19
7.1. Lock Memory.....	19
8. Device Option Reader	23
8.1. Device Option.....	23
9. Trigger Reader.....	25
9.1. Trigger	25

		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

1. Outline

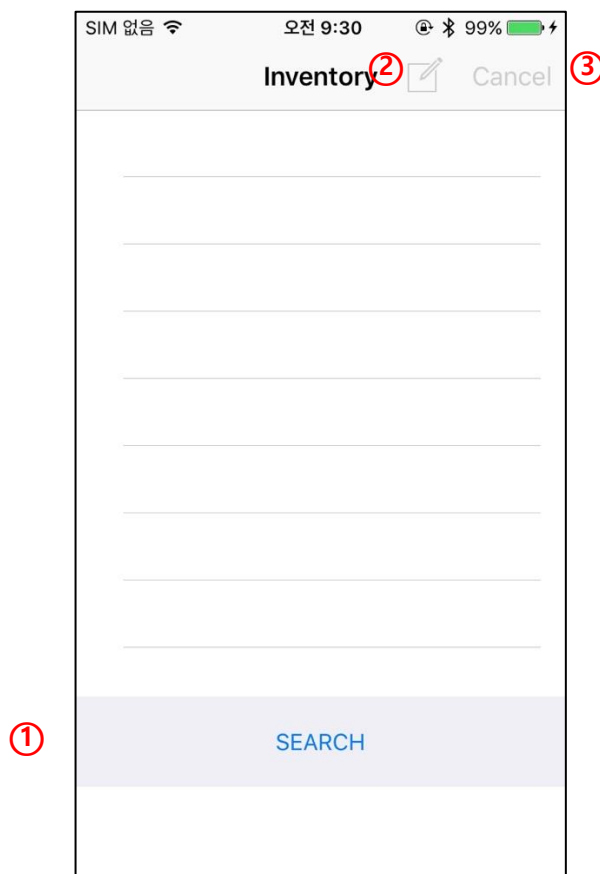
This Document is intended to describe instructions of How to Use Unitech Device sample. Unitech Device sample is designed to give demonstration of Unitech Device and recommended to be operated on iOS O/S 10.3 or higher version.

		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

2. Inventory Reader


2.1. Inventory

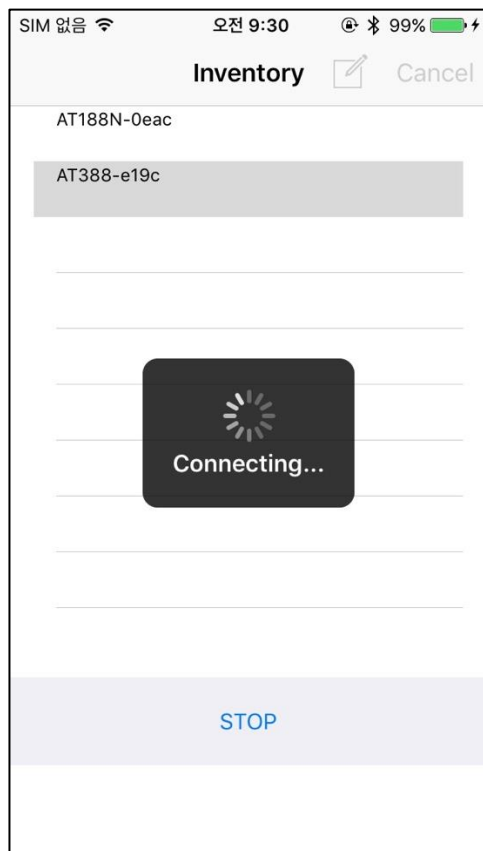
The following illustration shows the screen when the Inventory Reader is launched for the first time and there is the description of each part.




- ① **SEARCH:** It searches devices that are able to connect with the Inventory Reader.
- ② **Option:** It shows changeable setting values.
- ③ **Cancel:** It enables to disconnect the device.

It is inactive mode when Option and Cancel are not connected.

		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

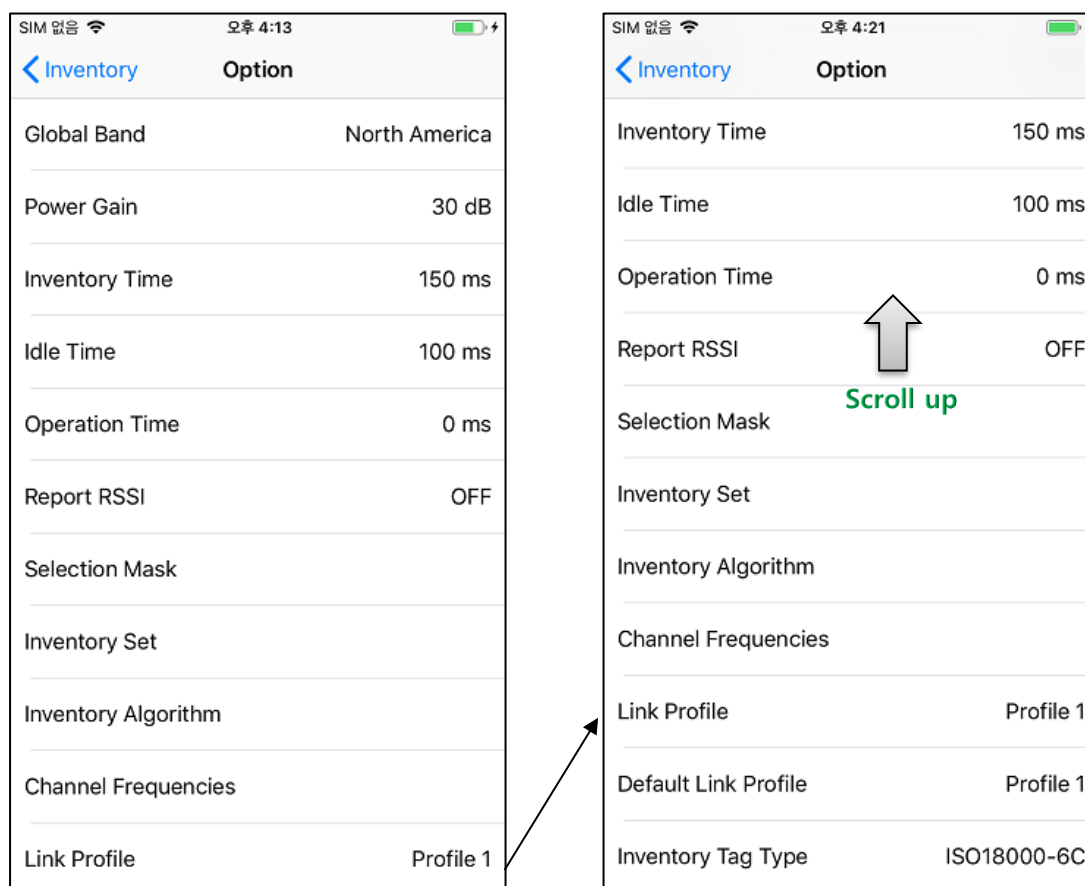



Touch "SEARCH" button to search peripheral devices and select the desired device to connect. Once it is connected, Options and "Cancel" will be active and there will be "INVENTORY" button to perform Inventory actions and "CLEAR" button at the bottom of the screen.

		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

2.2. Option

Touch "Option" button on the first entry screen. Then the Option setting screen will appear as shown in the illustration below. By touching a value on the list, each option can turn on/off functions or move to input windows and detail setting pages to change setting values.

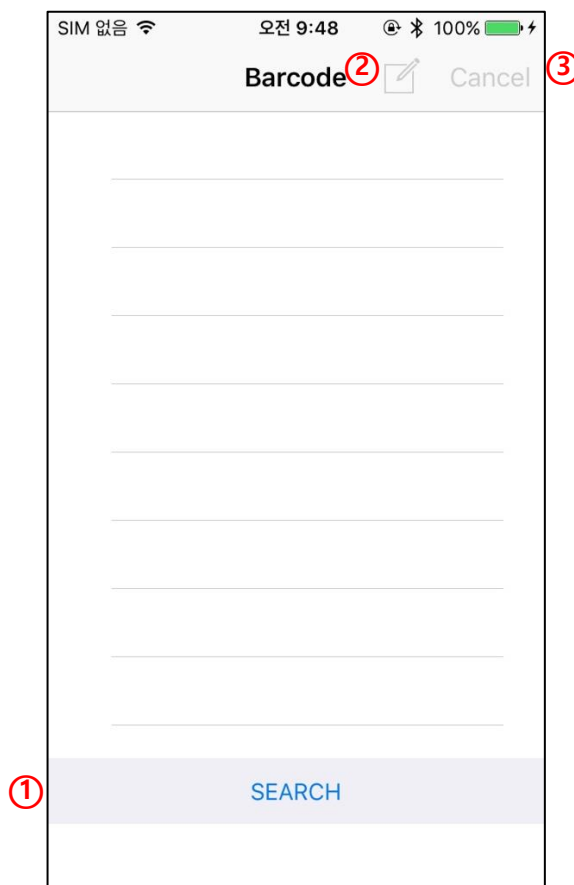


		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1


3. Barcode Reader

3.1. Barcode

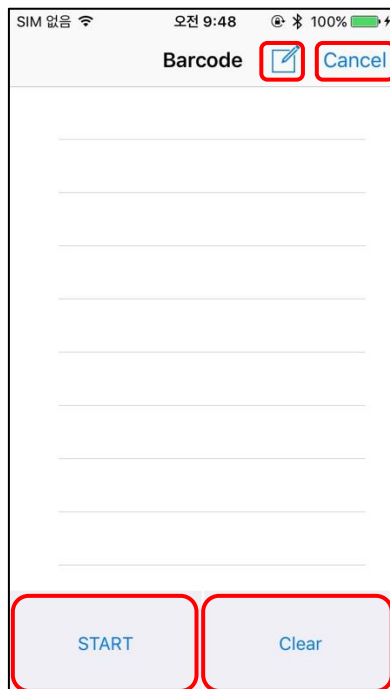
The following illustration shows when the Barcode Reader is launched for the first time and descriptions for each part.




- ① **SEARCH:** It searches peripheral devices that are able to connect with the Barcode Reader.
- ② **Option:** It shows changeable setting values.
- ③ **Cancel:** It enables to disconnect the device.

		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

Option and Cancel are activated after connection as shown in the illustration below.

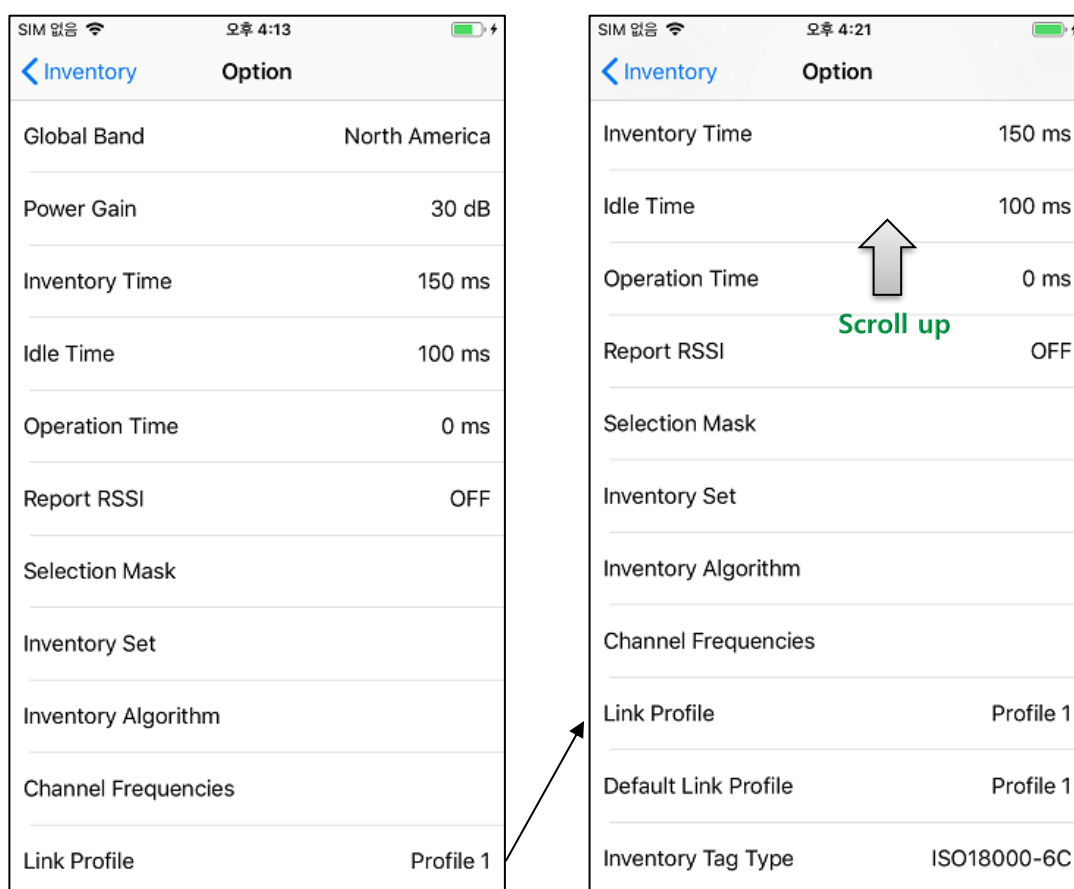



After the device is connected, "Start" and "Clear" buttons will appear to enable to start scanning Barcode.

		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

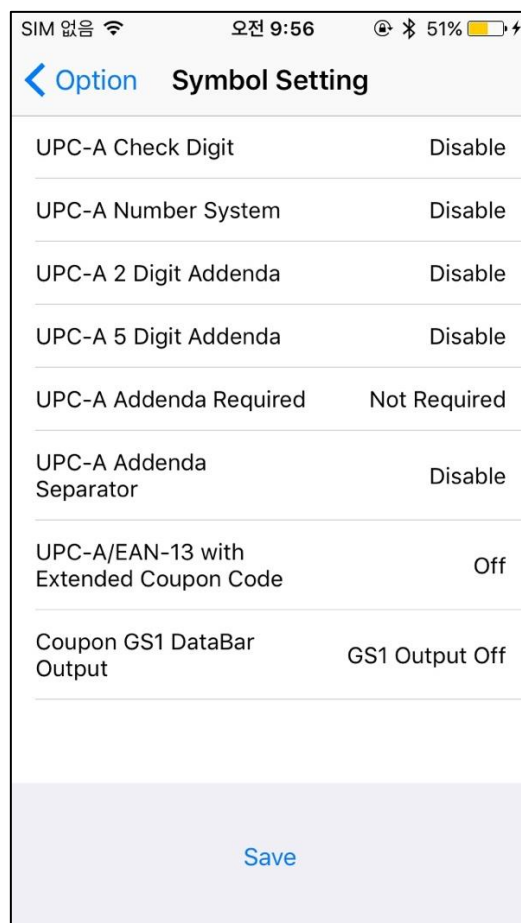
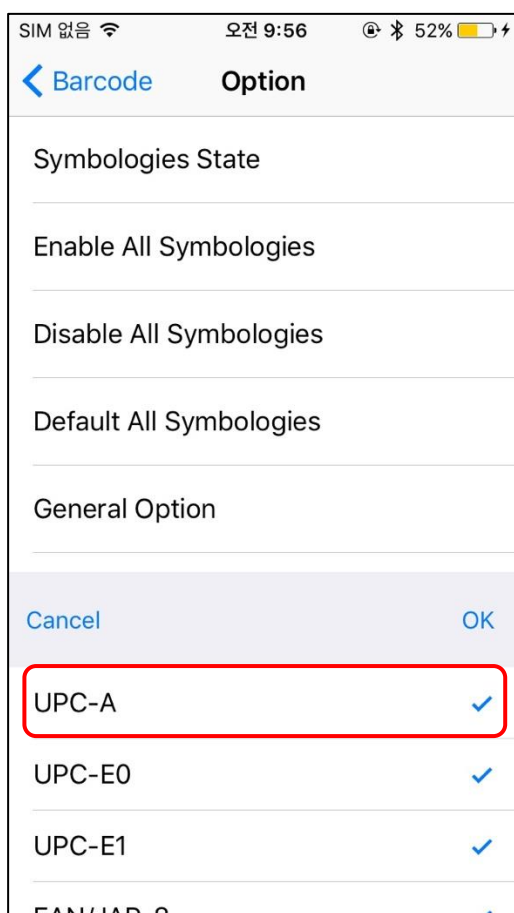
3.2. Option


Touch "Option" button on the first entry screen. Then the Option setting screen will appear as shown in the following illustration. The options will be applied right away when you touch one of these options: "Enable All Symbologies", "Disable All Symbologies", "Default All Symbologies". When you touch "Symbologies State" Menu, it shows Symbol list that the connected device supports and enables to selectively apply Symbols which will be activated. When you touch Char Set Menu, it enables to select which language to display the decoded Barcode values.



		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

In the case of Symbol that has detail setting options, press long an option of the Symbol Setting to move to the detail setting. After changing the detail setting values, press "Save" button to apply the changed options.



		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

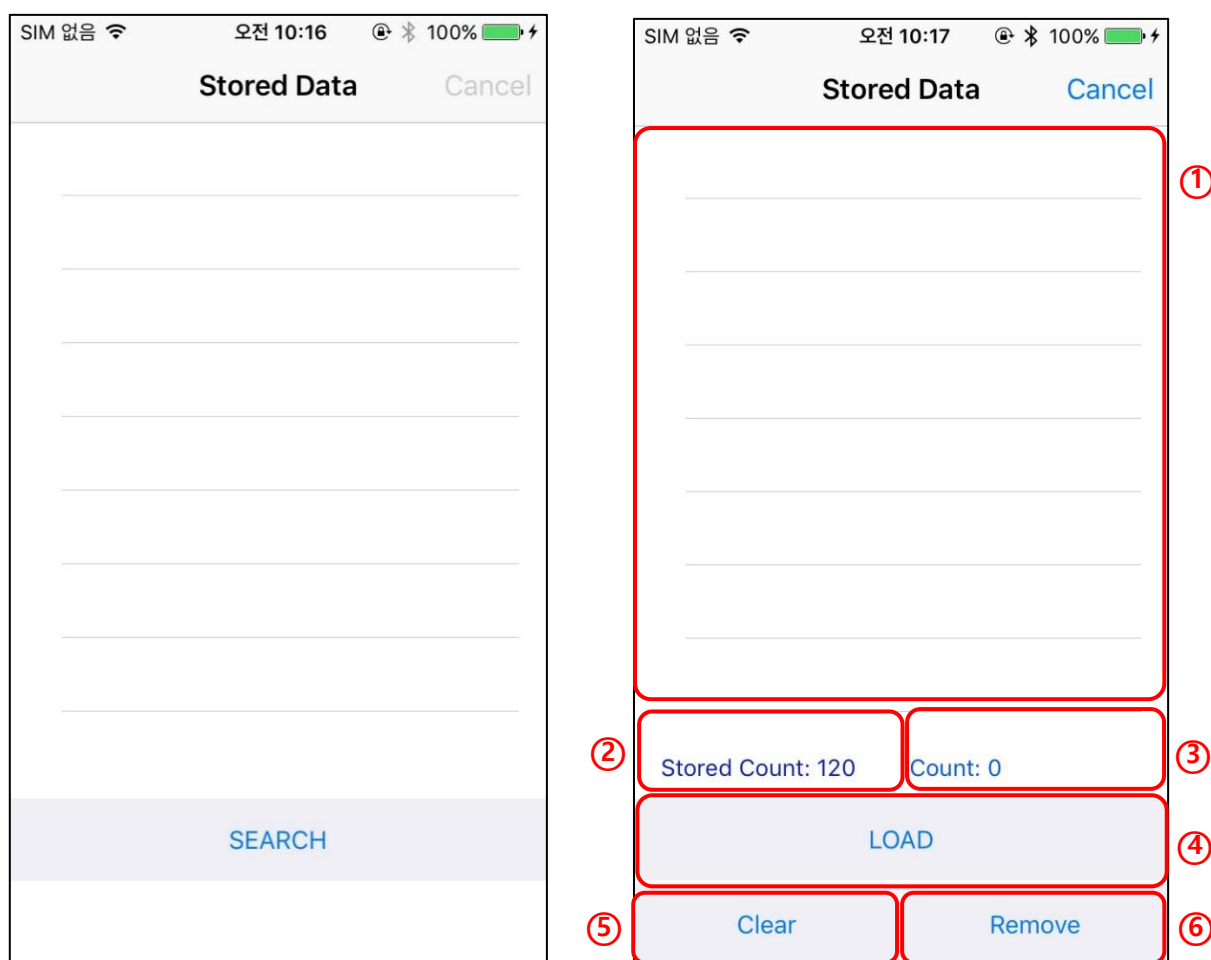
4. Stored Data ATID Reader

4.1. Stored Data


Stored Data reads the data stored in the internal storage such as RFID tags or Barcode that the device reads. (It does not support RP100/RP200).

The Stored Data screen is shown in the illustration below.

The illustration on the left shows the feature before connection with the device, and the illustration on the right shows the feature after the connection.



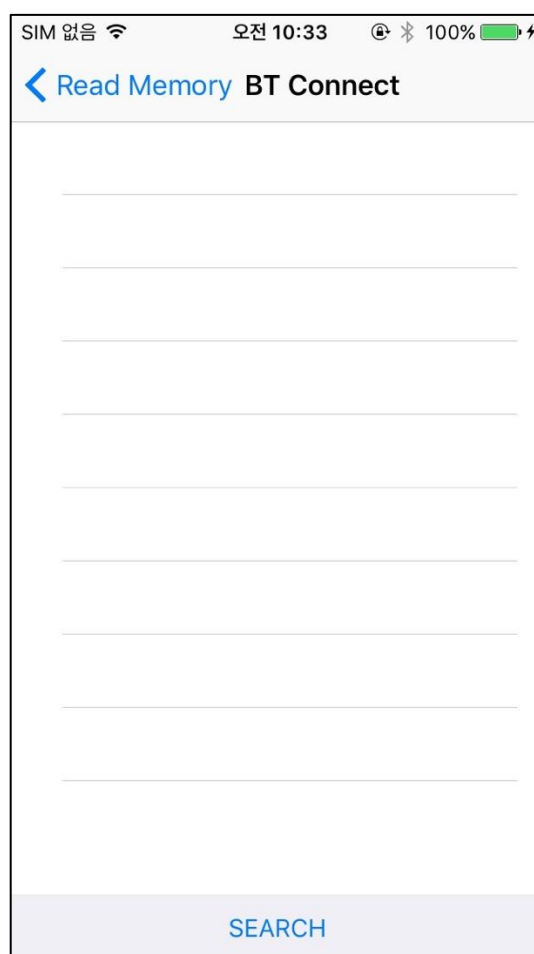
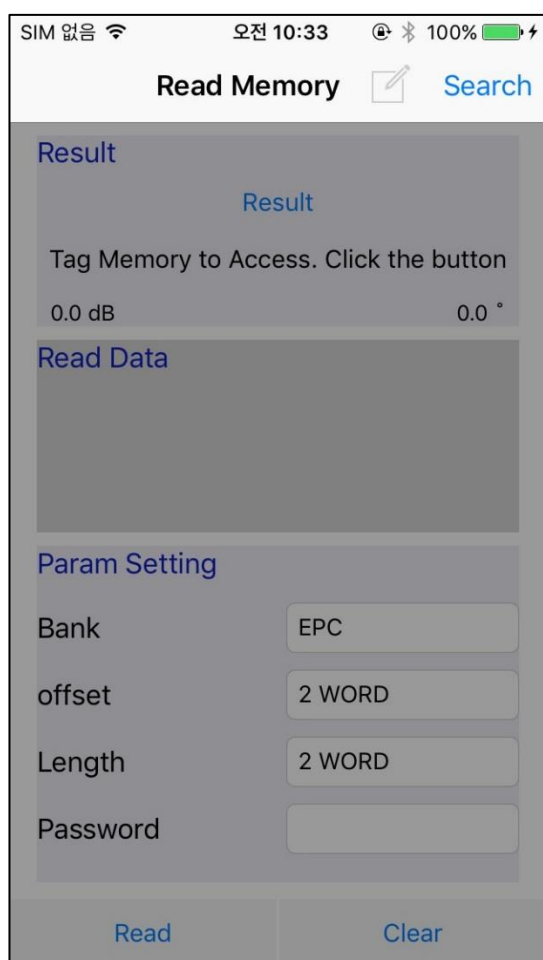
- ① **Data List** : It shows the data loaded from the device
- ② **Stored Count** : It shows the number of the stored data in the device.
- ③ **Count** : It shows the number of data on the Data List. Since redundant data is displayed on the Data list, it is counted as one on the Data Count.
- ④ **Load** : It reads data from the device.
- ⑤ **Clear** : It clears all Data List and initializes Data Count and Total Count as 0.
- ⑥ **Remove** : It removes all the stored data in the device.


		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

5. Read Memory Reader

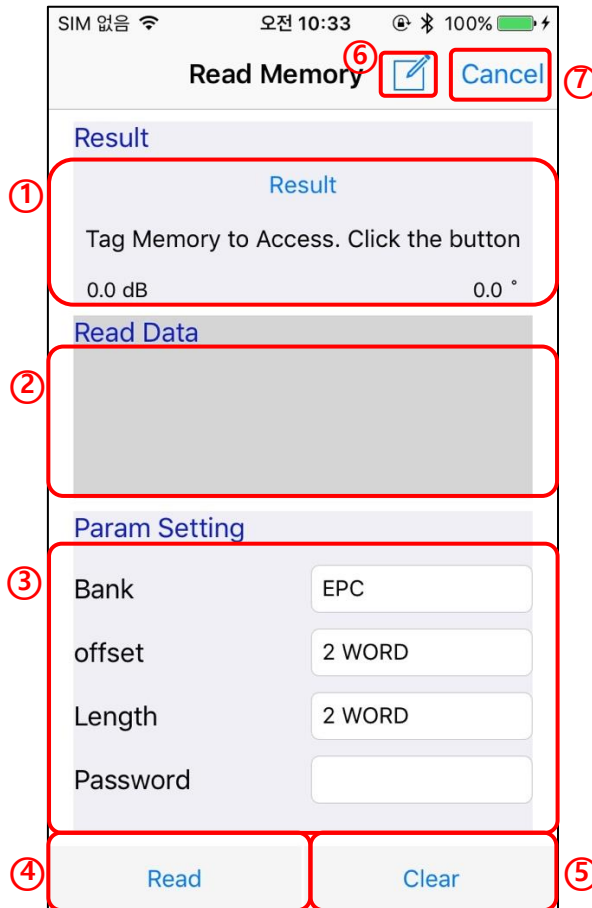
5.1. Read Memory

Among RFID (UHF) functions, Read Memory can use the function to read by specifying the memory of RFID tags. Before the device is connected, all works are stuck except the function to connect with devices as shown in the illustration below. Touch "Search" to connect with devices and it moves to the Device Search screen as shown in the illustration on the right.




		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

The screen after connection with devices is shown in the illustration below.



- ① **Result:** It prints the result about the device reading RFID tags, RSSI, Phase and the EPC value of RFID tags that device approached.
- ② **Read Memory Value:** When the device read RFID tags normally, it prints the data as a unit of WORD.
- ③ **Read Memory Parameter:** It sets the setting to perform Read Memory.
- ④ **Read:** It enables the device to perform Read Memory.
- ⑤ **Clear:** It initializes Result and Read Memory Value.
- ⑥ **Option:** It moves to the Option settings related with RFID actions.
- ⑦ **Cancel:** It disconnects devices.

		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

To perform Read Memory, set the memory bank of the tag to be read and the initial address to be read at the assigned memory bank as the unit of WORD. Also set the length of the memory as the unit of WORD.

- ① Bank: Bank Option performs "Read Memory" and specifies which memory of the RFID tag to read. The readable tag memory banks are "Reserved", "EPC", "TID", and "User".
- ② Offset: Offset Option specifies the initial address to read the Data of the assigned Memory Bank by performing "Read Memory". The assignable unit is WORD.
- ③ Length: Length Option specifies the length to read the data of the assigned memory bank by performing "Read Memory"

※The Maximum Length of Readable Data with "Read Memory" at once is 64WORD.


- ④ Password: Password Option sets the device setting to access tags when the RFID tag to perform Read Memory is locked.

When the RFID tag is locked, in the case of the Reserved Bank, it is not readable.

At this time, if you want to read the Data of the Reserved Bank, set the identical password with the Access Password that is stored in the tag and perform "Read Memory" on the tag. If the password is different from the Access Password that is stored in the RFID tag, the performance of "Read Memory" will fail.

5.2. Option

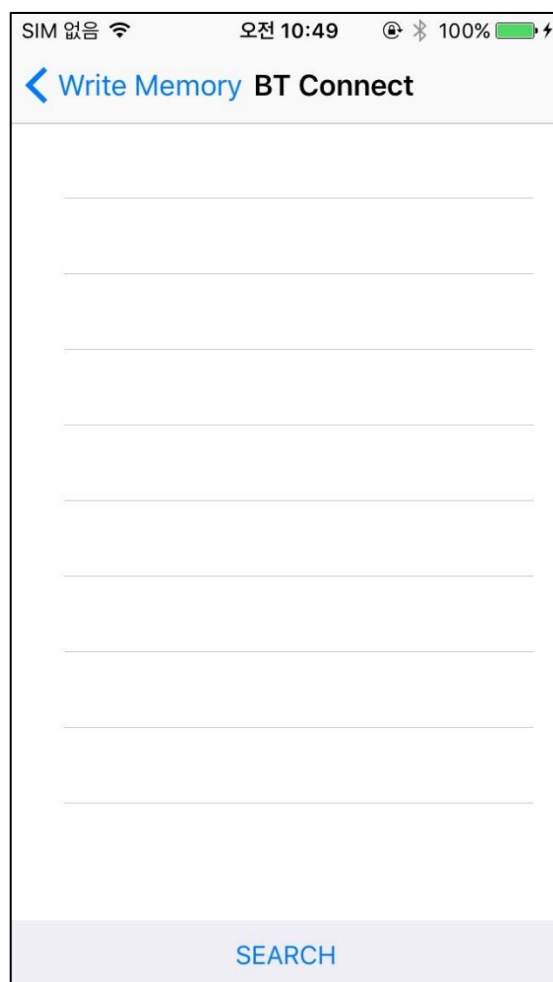
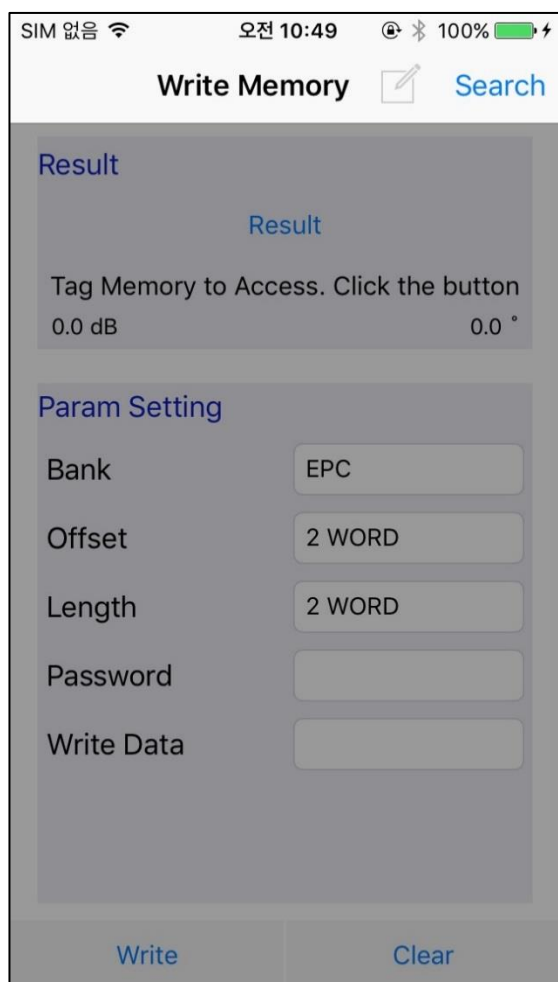
The Option consists of identical items with Options of the Inventory Reader.


		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

6. Write Memory Reader

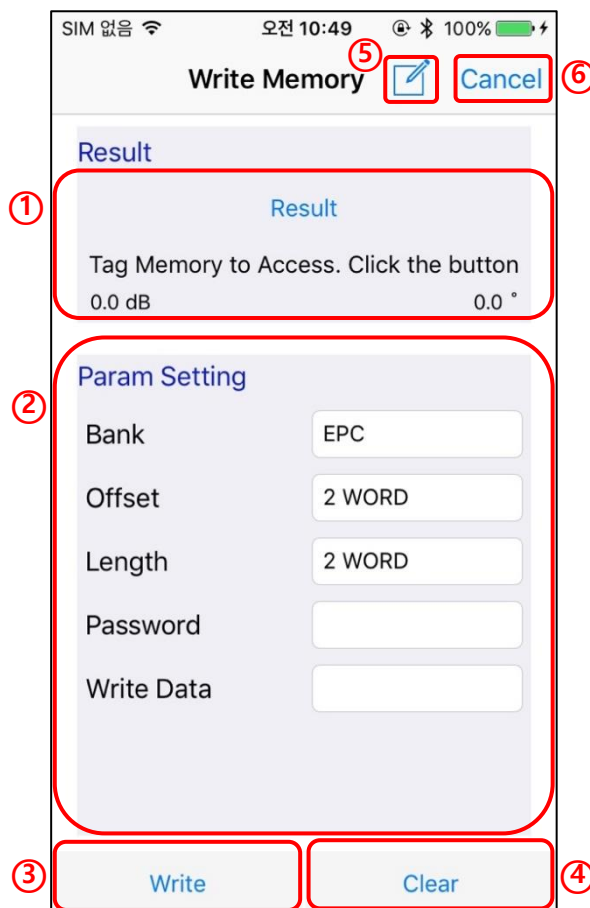
6.1. Write Memory

Among RFID (UHF) functions, the Write Memory Demo can use the function to write data on the memory assigned to RFID tag. Before the device is connected, all works are stuck except the function to connect with devices as shown in the illustration below. Touch "Search" to connect with devices and it moves to the Device Search screen as shown in the illustration on the right.




		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

The screen after connection with devices is shown in the illustration below.



- ① **Result:** It prints the EPC values of the RFID tags that the device approached and the result about the device writing on RFID tags and RSSI and Phase.
- ② **Write Memory Parameter:** It sets the setting to perform "Read Memory".
- ③ **Write:** It makes the device to perform "Write Memory".
- ④ **Clear:** It initializes the result.
- ⑤ **Option:** It moves to the screen that you can set options related with RFID.
- ⑥ **Cancel:** It disconnects devices.

		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

To perform Write Memory, specify the initial address that the assigned memory bank will use and the tag that will write the data as the unit of WORD (4 Letters).

- ① Bank: Bank Option can specify which memory's value of RFID tags will be changed by performing Write Memory. The changeable tag memory banks are "Reserved", "EPC", "TID", and "User".
- ② Offset: Offset Option specifies the initial address to write the data of the assigned memory bank by performing Write Memory. The assignable unit is WORD.
- ③ Write Data: The Write Data Option performs Write Memory and input the data to write the data on the assigned memory bank. The input data should be in the unit of WORD(4 Letters).

※The Maximum Length of Usable Data with using "Write Memory" at once is 32WORD


- ⑤ Password: The Password Option sets the device setting to access tags when the RFID tag to perform Write Memory is locked.

When the RFID tag is locked, in the case of Reserved Bank, it is not readable.

At this time, if you want to read the Data of Reserved Bank, set the identical password with the Access Password that is stored in the tag and perform "Write Memory" on the tag. If the password is different from the Access Password that is stored in the RFID tag, the performance of "Write Memory" will fail.

6.2. Option

The Option consists of identical items with the Option of the Inventory Reader.

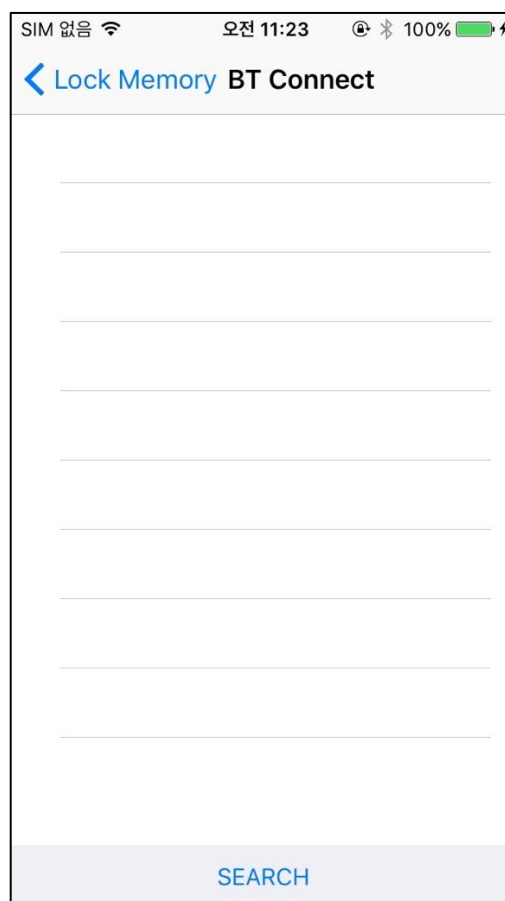
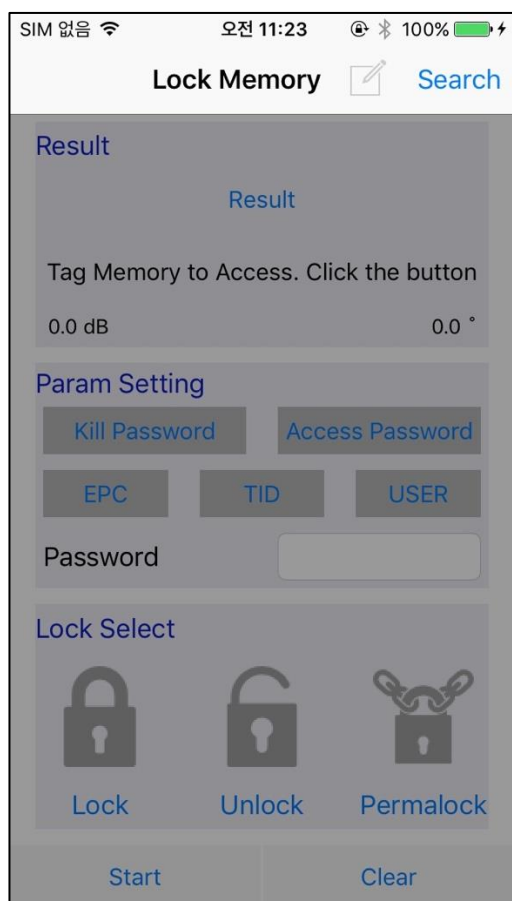
		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1


7. Lock Memory Reader

7.1. Lock Memory

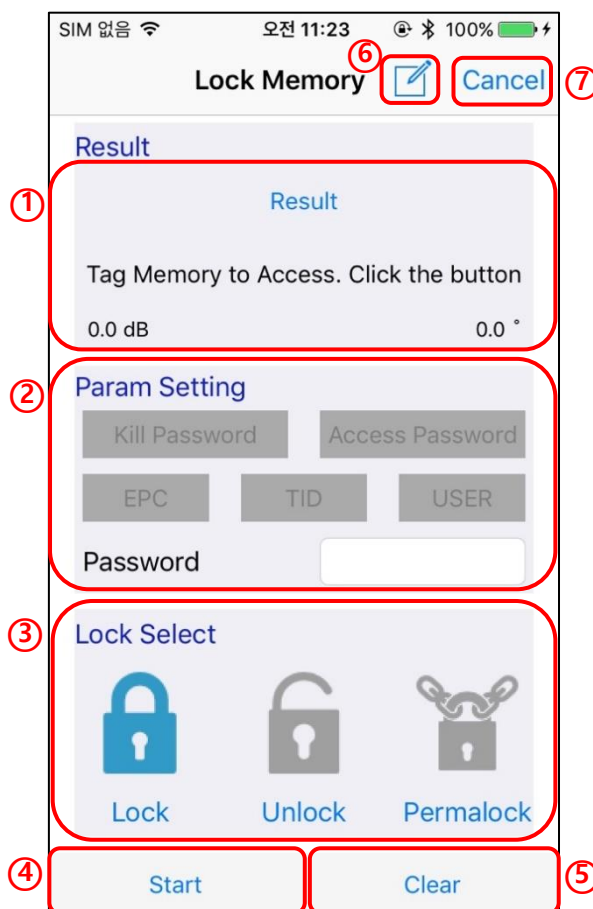
Among the functions of RFID (UHF), the Lock Memory Demo function is to lock or unlock tags.

Before the device is connected, all works are stuck except the function to connect with devices as shown in the illustration below. Touch "Search" to connect with devices and it moves to the Device Search screen as shown in the illustration on the right.



		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1


The screen after connection with devices is shown in the illustration below.



- ① **Result:** It prints the result of actions after the device locks or unlocks RFID tags and EPC of RFID tags that the device accesses to.
- ② **Param Setting:** It specifies the settings to perform Lock Memory.
- ③ **Lock Select:** It selects which actions the device will perform on tags. The options are lock, unlock, and permanent lock.
- ④ **Start:** It performs the selected Action from Lock Select.
- ⑤ **Clear:** It initializes EPC and Message.
- ⑥ **Setting:** It moves to the setting to specify option settings related with RFID actions.
- ⑦ **Cancel:** It disconnects devices.

To perform Lock Memory, specify the desired areas and select the desired actions.

- ① **Kill Password:** The Kill Password option is when it performs Lock, Unlock, Permalock, it enables Offset to set the Kill Password area with the Length from 0WORD to 2WORD as the target work in the reserved area of RFID tags.

		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

When the Kill Password area is locked by Lock or Permalock, it is unable to unlock, lock, read and write unless you set the Password identically with the Access Password set by the tag.

It is able to duplicate the settings of Kill Password, Access Password, EPC, TID, User option. The target work areas with duplicated settings will be processed at once when it performs Lock, Unlock or Permalock.

- ② Access Password: The Access Password option is when it performs Lock, Unlock, and Permalock, it enables Offset to set the Access Password area with the Length from 2WORD to 2WORD as the target work in the reserved area of RFID tags.

When the Access Password area is locked by Lock or Permalock, it is unable to unlock, lock, read and write unless you set the Password identically with the Access Password set by the tag.

It is able to duplicate the settings of Kill Password, Access Password, EPC, TID and User option. The target work areas with duplicated settings will be processed at once when it performs Lock, Unlock or Permalock.

- ③ EPC: The EPC option is when it performs Lock, Unlock and Permalock, it sets the EPC bank area of RFID tags as the work target.


When the EPC area is locked by Lock or Permalock, it is unable to unlock, lock, read and write unless you set the Password identically with the Access Password set by the tag.

It is able to duplicate the settings of Kill Password, Access Password, EPC, TID and User option. The target work areas with duplicated settings will be processed at once when it performs Lock, Unlock or Permalock.

- ④ TID: TID option is when it performs Lock, Unlock and Permalock, it sets the TID bank area of RFID tags as the work target.

When the TID area is locked by Lock or Permalock, it is unable to unlock, lock, read and write unless you set the Password identically with the Access Password set by the tag.

It is able to duplicate the settings of Kill Password, Access Password, EPC, TID and User option. The target work areas with duplicated settings will be processed at once when it performs Lock, Unlock or Permalock.

		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1


- ⑤ User: The User option is when it performs Lock, Unlock, Permalock, it sets the User bank area of RFID tags as the work target.

When the User area is locked by Lock or Permalock, it is unable to unlock, lock, read and write unless you set the Password identically with the Access Password set by the tag.

It is able to duplicate the settings of Kill Password, Access Password, EPC, TID and User option. The target work areas with duplicated settings will be processed at once when it performs Lock, Unlock or Permalock.

- ⑥ Password: The Password option is a setting to access to tags when the RFID tags to perform Lock, Unlock, Permalock are locked.

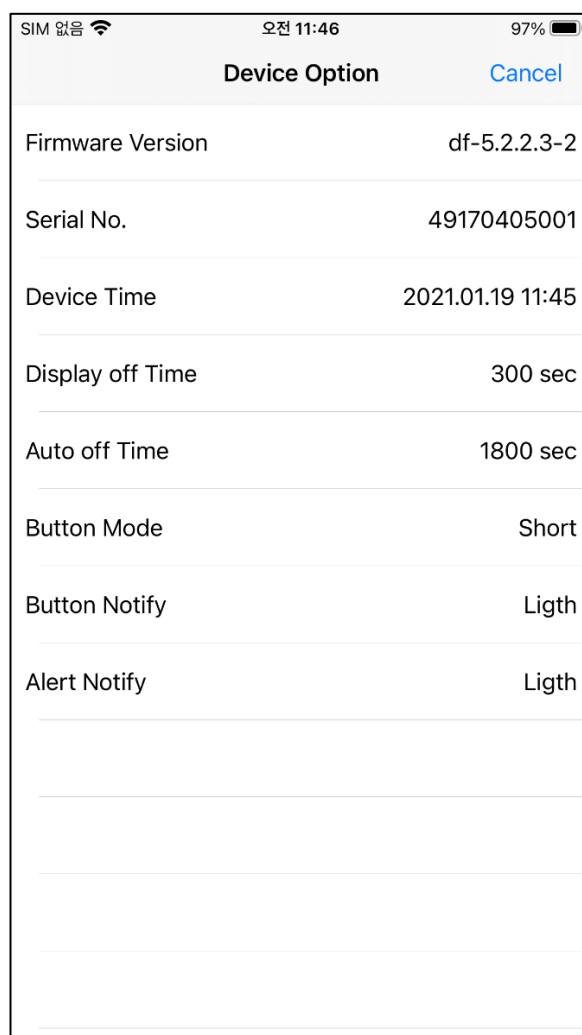
When RFID tags are locked, it is unable to lock or unlock the area that is locked. To unlock or lock the memory of the specific area of the locked RFID tags, set the same Password as the Access password stored in the tags. Then you will be able to lock or unlock the tags by performing Lock, Unlock, and Permalock on the desired tags.


		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

8. Device Option Reader


8.1. Device Option

The Device Option changes the basic settings of the Device. Before the device is connected, it is only available to press "Search" button to connect with other devices as shown in the illustration below. Once the device is connected, it shows options and device information.



		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

- ① **Firmware Version:** Firmware Version shows the version of the main program that is operated in the main device.
- ② **Serial No:** As the only number to manage the device separately, Serial No Section shows the Serial Number that manages the device.
- ③ **Device Time:** It informs the time that device displays. Select the option to change the setting.
 ✖ This function is not supported in RP100/RP200.
- ④ **Display off Time:** When the device has no action for a specified time period, you can set the time to turn off the display of the device automatically. When the value is 0, it will not be off. When the value is greater than 1, and there is no action for a specific time period, the display of the device will be off. It is available to set a value larger than 20 sec. When it is connected with Demo, it will not be off.
 ✖ This function is not supported in RP100/RP200.
- ⑤ **Auto off Time:** You can set the time to turn the device off if there is no action for a specified time period. The device will be off if there is no action in accordance with Auto off Time set after the display is off.
- ⑥ **Button Mode:** You can set the time to notify an alert that is set in Button Notify. There are three options: None, short, and long.
- ⑦ **Button Notify:** You can select types of alert to notify when you push the button of the device. There are three types: beep, vibration, and light. Multi-selection is available.
- ⑧ **Alert Notify:** You can select types of alert to notify when the device works. There are three types: beep, vibration, and light. Multi-selection is available.

		Unitech Reader Sample Guide for iOS					
Unitech Reader Products					Company	Unitech Co., Ltd	
Document Name		Author	App Team	Date	2022-07-22	Version	v1.1

9. Trigger Reader

9.1. Trigger

On the Trigger mode, the Trigger informs you about Trigger Actions on the device with Trigger. When the device is not connected, it only provides "Search" button to search devices. After a connection, it shows a Trigger input on a table and by pressing "CLEAR" button at the bottom of the screen, it refreshes the screen and by pressing "Cancel" button, it disconnects devices.

