Eagle UHF

User guide

AXEM Technology
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Siret : 45071140300045 - APE : 4652Z - RCS : CRETEIL 450711403 - N° TVA intracom : FR05450711403 - Capital : 500 000,00 €

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1 Background

Description	Date	Version	Author	Auditor
First parution	27/05/2020	V1.0	CLO	ACA

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2 Product introduction

2.1 Introduction

The Eagle racket offers a powerful UHF RFID module up to **30dBm** (adjustable from 5 to 30dBm) and 1D/2D barcode scanner.

It communicates with any mobile device or computer in **Bluetooth** communication.

The device is perfectly adapted to inventory management, asset management, inspection etc.

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1.1 Precaution before using battery

- Do not leave battery unused for long time, no matter it is in device or inventory. If battery has been used for 6 months already, it should be check for charging function or it should be disposed correctly.
- The lifespan of Li-ion battery is around 2 to 3 years, it can be circularly charged for 300 to 500 times. (One full battery charge period means completely charged and completely discharged.)
- When Li-ion battery is not in used, it will continue discharge slowly. Therefore, battery charging status should be checked frequently and take reference of the related battery charging information on the manuals.
- Observe and record the information of a new unused and non-fully charged battery. On the basis of operating time of new battery and compare with a battery that has been used for long time. According to product configuration and application program, the operating time of battery would be different.
- Check battery charging status at regular intervals.
- When battery operating time drops below about 80%, charging time will be increased remarkably.
- If a battery is stored or otherwise unused for an extended period, be sure to follow the storage instructions in this document. If you do not follow the instructions, and the battery has no charge remaining when you check it, consider it to be damaged. Do not attempt to recharge it or to use it. Replace it with a new battery.
- Store the battery at temperatures between 5 °C and 20 °C (41 °F and 68 °F).

1.2 Charger

The charger type is GME10D-050200FGu, output voltage/current is 5V DC/2A. The plug considered as disconnect device of adapter.

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1.3 Notes

Note 1:

Using the incorrect type battery has danger of explosion. Please dispose the used battery according to instructions.

Note 2:

Due to the used enclosure material, the product shall only be connected to a USB Interface of version 2.0 or higher. The connection to so called power USB is prohibited.

Note 3:

The adapter shall be installed near the equipment and shall be easily accessible.

Note 4:

The suitable temperature for the product and accessories is 010℃ to 50℃.

Note 5:

CAUTION RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

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3 Installation Instructions

3.1 Appearance

The Eagle racket back and front appearances are showing as follows:

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3.2 Battery charge

By using micro USB contact, the original adaptor should be used for charging the device. Make sure not to use other adaptors to charge the device.

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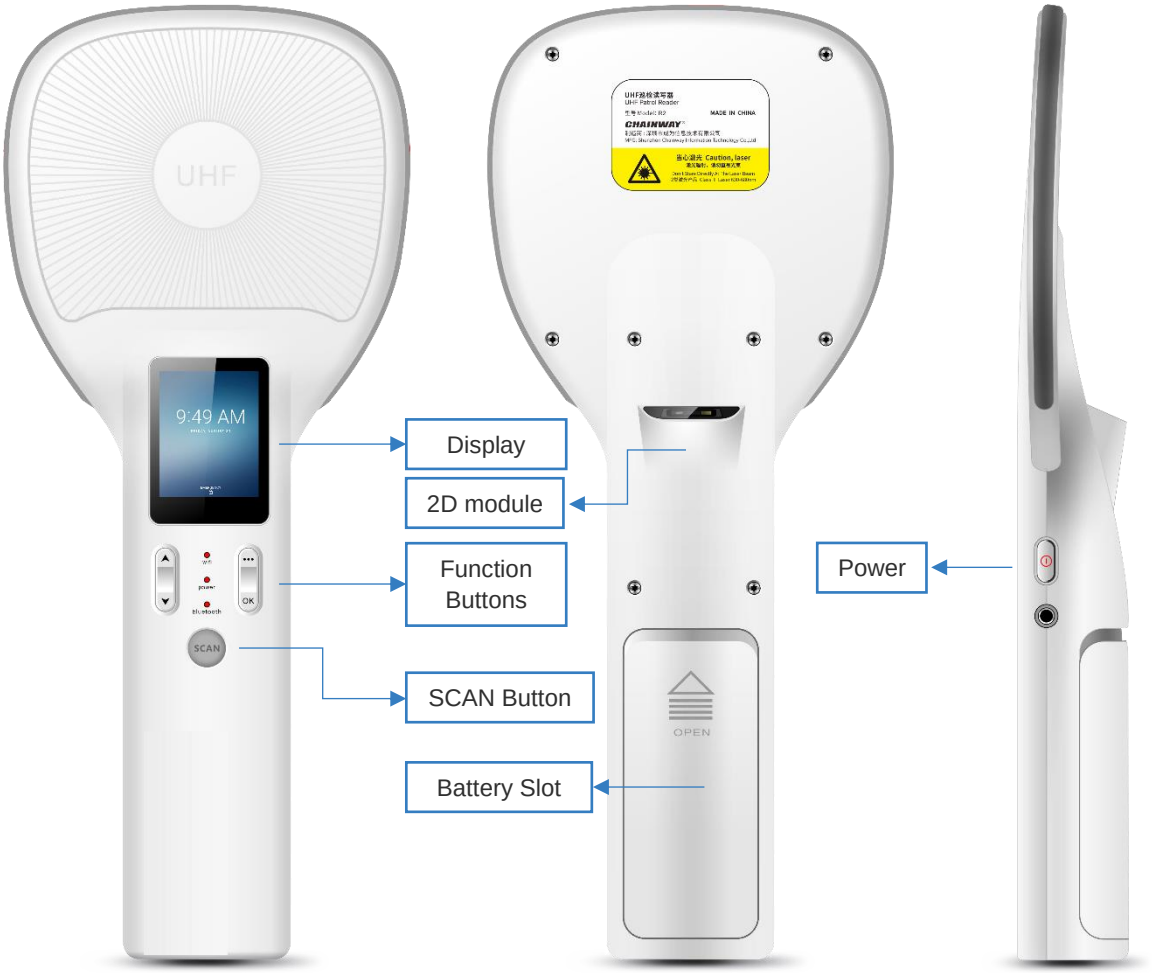
3.3 Buttons and functions area display

Eagle racket UHF swing reader has 4 function buttons and 1 SCAN button, UHF scanning area, 1 display screen. Power key on the right side.



Buttons and Indicating Lamps instruction

Buttons and Lamps		Description
Indicating Lamps	WIFI	Display WIFI connection status
	Power	Display power status
	Bluetooth	Display Bluetooth connection status
Main button	UP	Move up cursor
	DOWN	Move down cursor
	OK	Press to confirm current selection.
	. . .	Escape current page

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Power	The LED is green when the device is turned on
Work	The LED is blue when the device is reading tags
Bluetooth	The LED is blue when Bluetooth is turn on

4 Manual of the Eagle racket unpaired

4.1 Buttons and functions

4.1.1 Turn on/off the device

Press the power button to turn on or off the device.

4.1.2 Functions buttons

To access the menu, press the button  . This button also allows you to go back in the menu.

To confirm press  .

Sound, mode and language can be configured to in “Config” menu.

4.1.2.1 Sound

To turn on or off the sound, go to the menu by pressing the button  . Select “Config”. Select “Sound”. Choose “ON” or “OFF” by using the button

Sound, mode and language can be configured to  .

4.1.2.2 Language

To switch language, go to the menu by pressing the button  . Select “Config”. Select “Language” and choose the language by using the button  .

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4.1.2.3 Mode

To switch from scanning mode, go to the menu by pressing the button  . Select “Config”.

Select “Mode” and choose the mode “Auto” or “Once” by using the button  .

4.2 Barcodes scanning

To scan barcodes, access the menu by pressing the button  . Select “BarCode”.

Press the button 

Be careful to position the racket so that it can read the barcode.

The barcode number is then displayed on the screen.

4.3 RFID UHF scanning

To scan tags, access the menu by pressing the button  . Select “Inventory”.

Press the button 

Be careful to position the racket so that it can read tags.

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The number of tags identified will be seen on the screen of the racket.

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5 Demo test

5.1 Install demo-uhf-bt (1.0.8)

1. Copy demo-uhf-bt (1.0.8) into internal storage of smartphone or MBA5 device.
2. Click to install.
3. Click icon to open demo.

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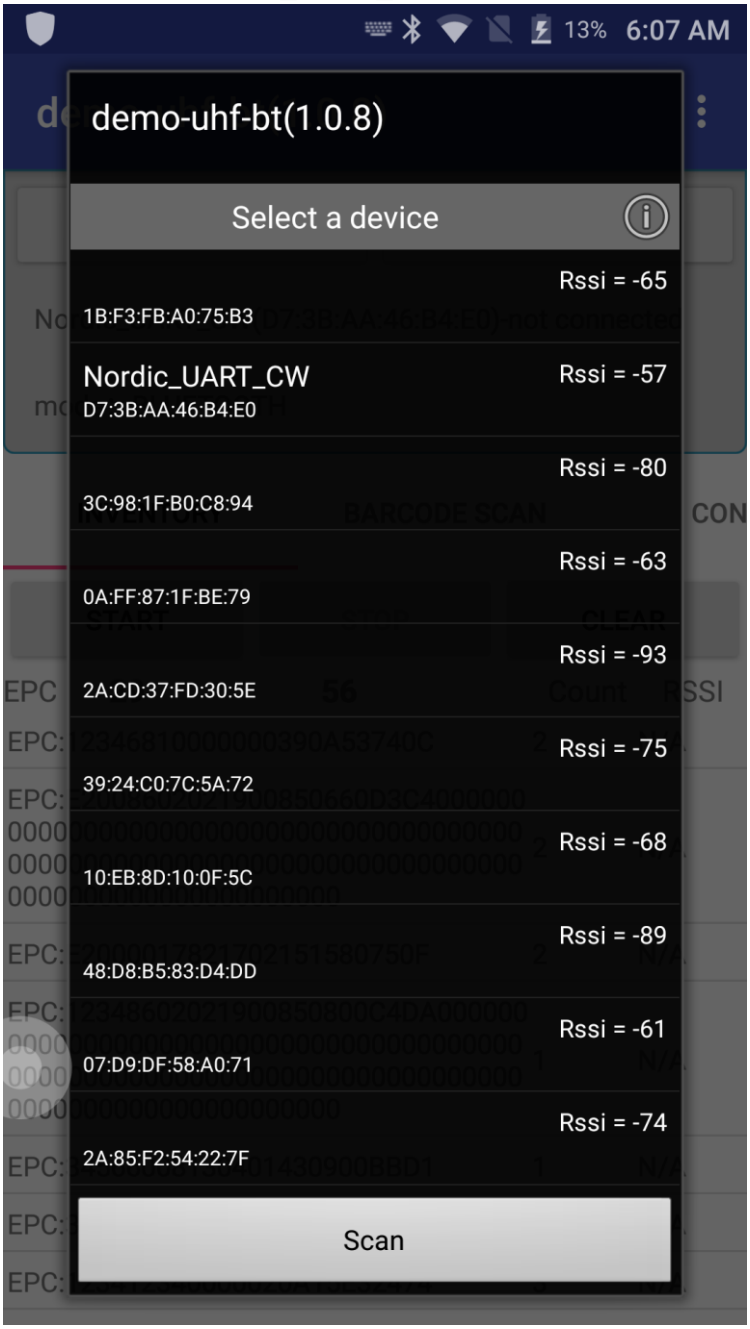
3.2 Pairing Device

1. Switch on Bluetooth function of smartphone or MBA5 device.
2. Power on Eagle racket.
3. On your MBA5 or smartphone, click BLUETOOTH in the demo.
4. Click on SEARCH to search for Nordic_UART_CW.



5. Click on Nordic_UART_CW to connect.
6. After connecting successfully, user could click 3 dots on top right to check UHF version, battery percentage and UHF module temperature.

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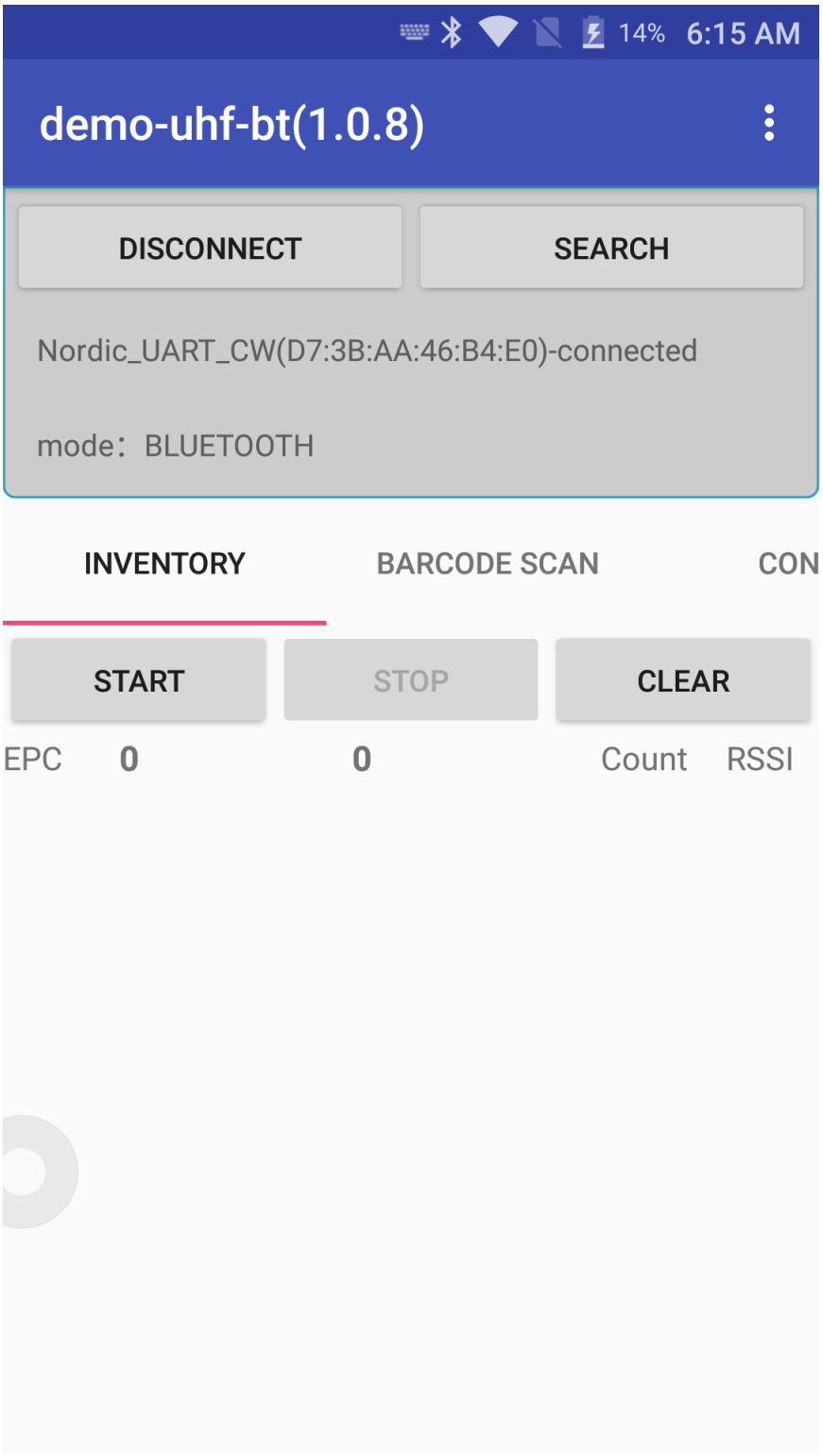

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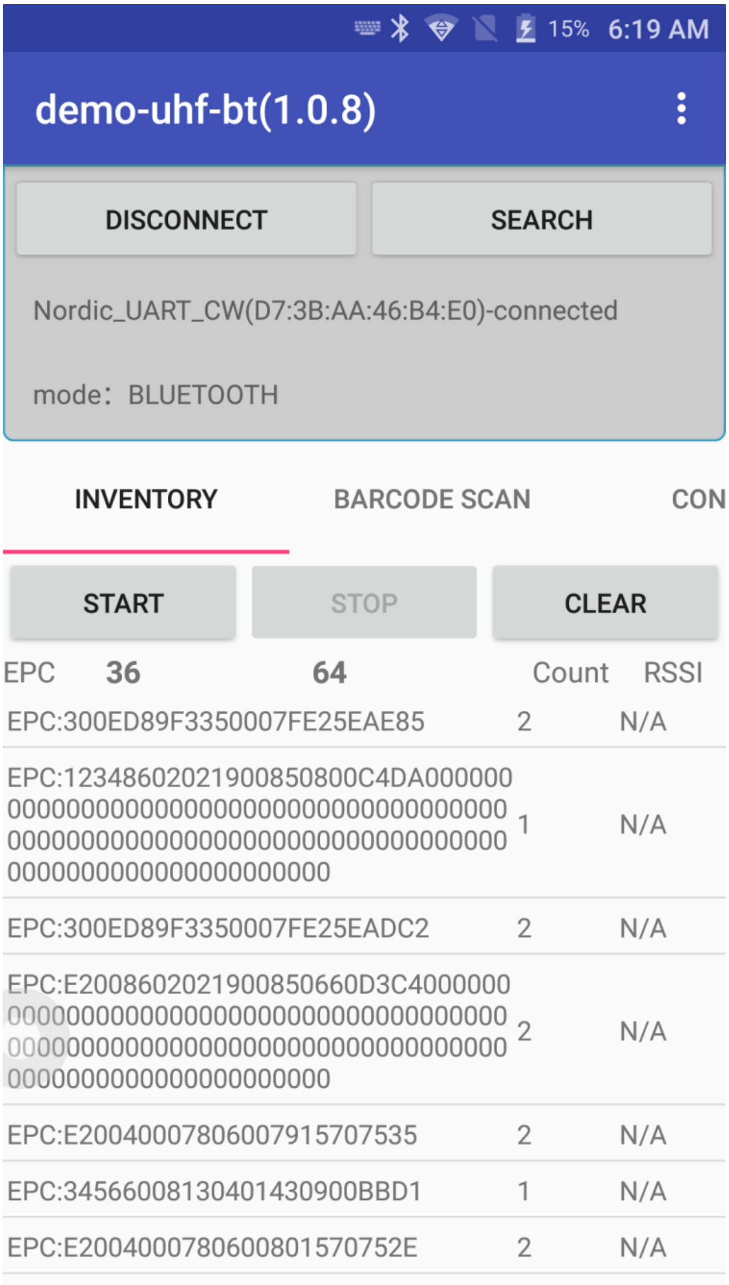
3.3 Scan Function

1. Click START in demo or press SCAN button on Eagle racket, the UHF tags could be read.
2. Click STOP in demo or click again on SCAN to stop reading of UHF tags.
3. Click CLEAR to clean all EPC information.



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3.4 UHF Configuration

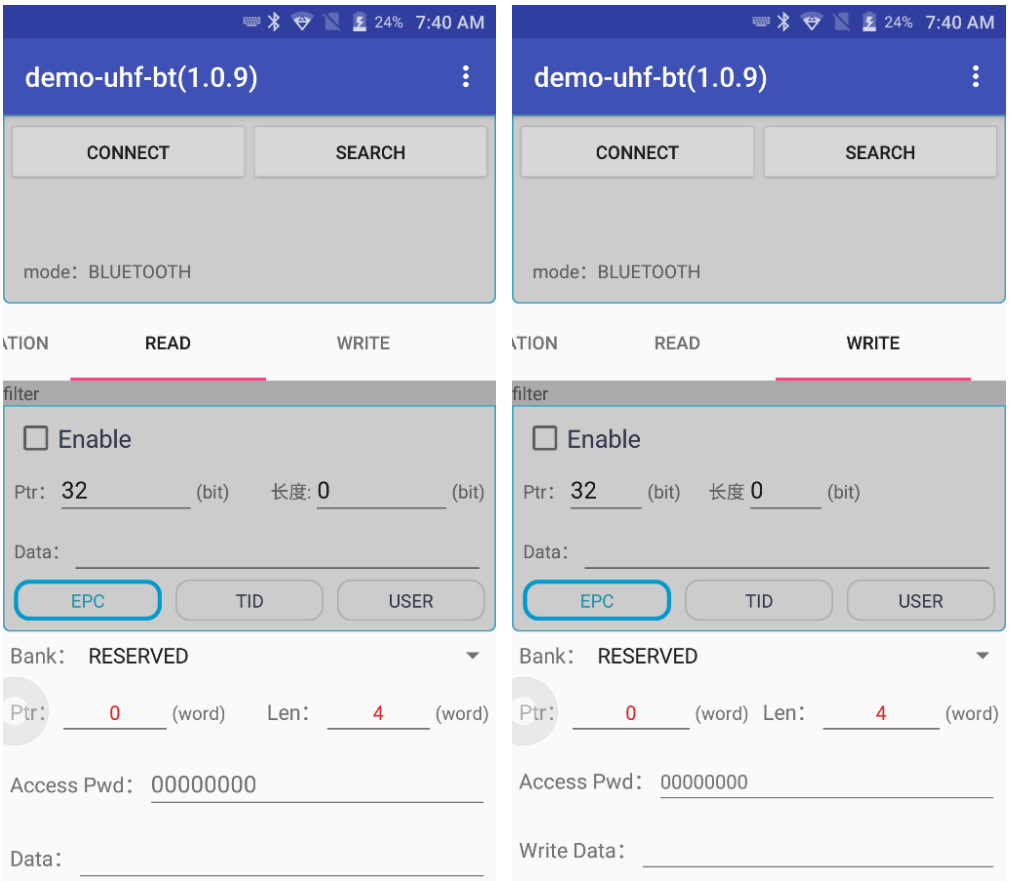
1. Click CONFIG in demo to adjust working mode and output power.

3.5 UHF Encryption

1. Click ENCRYPTION to decrypt and encrypt the special zones of UHF tags such as USER, EPC, etc.

3.6 UHF Tag Reading and Writing

1. The storage of one tag has 4 zones: RESERVED, EPC, TID and USER. Normally, the default password is 00000000. And TID zone can only be read, other zones can be read and written.



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3.7 UHF Tag Lock and Kill

5.1.1 Lock Function:

For example. User could try to lock down EPC zone.

5.1.2 Kill Function:

Kill function can be used to kill the tag permanently. Input the correct access password and click kill.

3.8 Firmware Upgrade

1. Copy the firmware bin. file into internal storage.
2. Click Select file to search for bin.
3. Click Upgrade to upgrade firmware.

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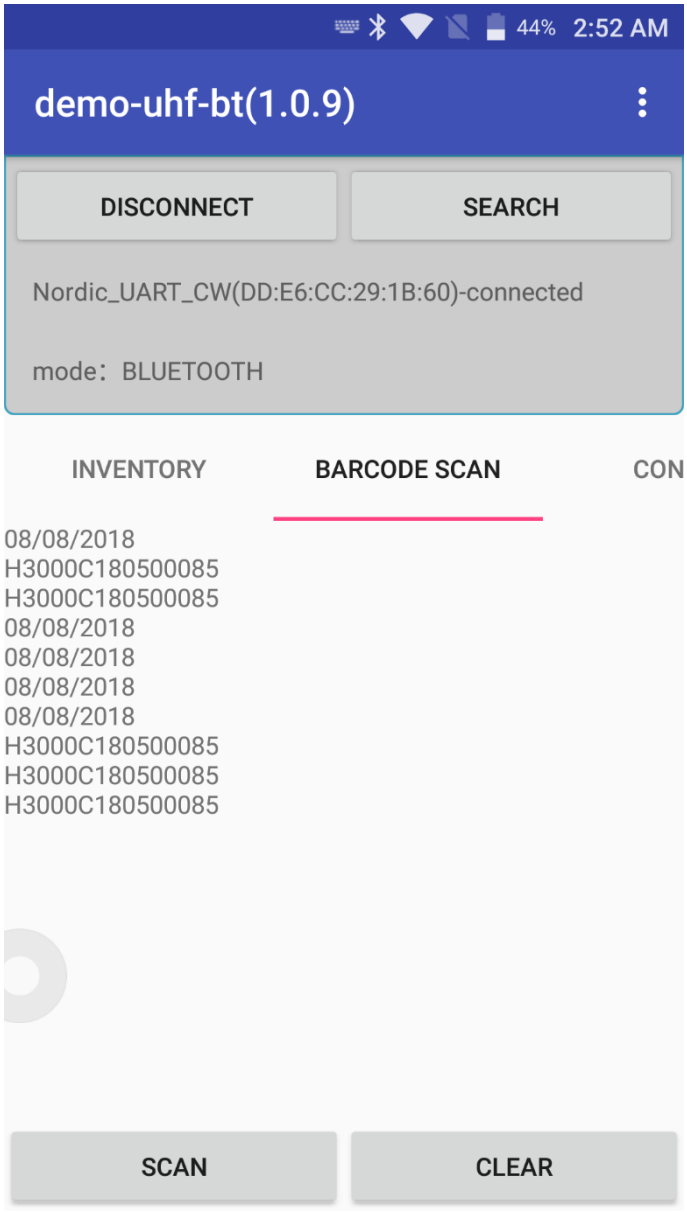
3.9 Barcode Scan Test

Select BARCODE SCAN in the demo and click SCAN button on the screen to scan barcodes.



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