UHF RFID Reader/Writer

DOTR-900 User manual

Ver 1.0

D.O. Tel
"Dream of Telecommunication"

1. This is a Demo Software manual of DOTR-900.

2. This manual is written based on the latest version of Demo program, it could be differed from the SW which you have now.

⚠ **Notice**

1. **This manual is made for introducing brief information and usage of DOTR-900**

2. **This Radio facilities have possibility which is mixed to electric wave in using.**

3. **Do not put the device close to heat or water. It causes trouble.**

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1.1 Basic Accessories

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DOTR-900

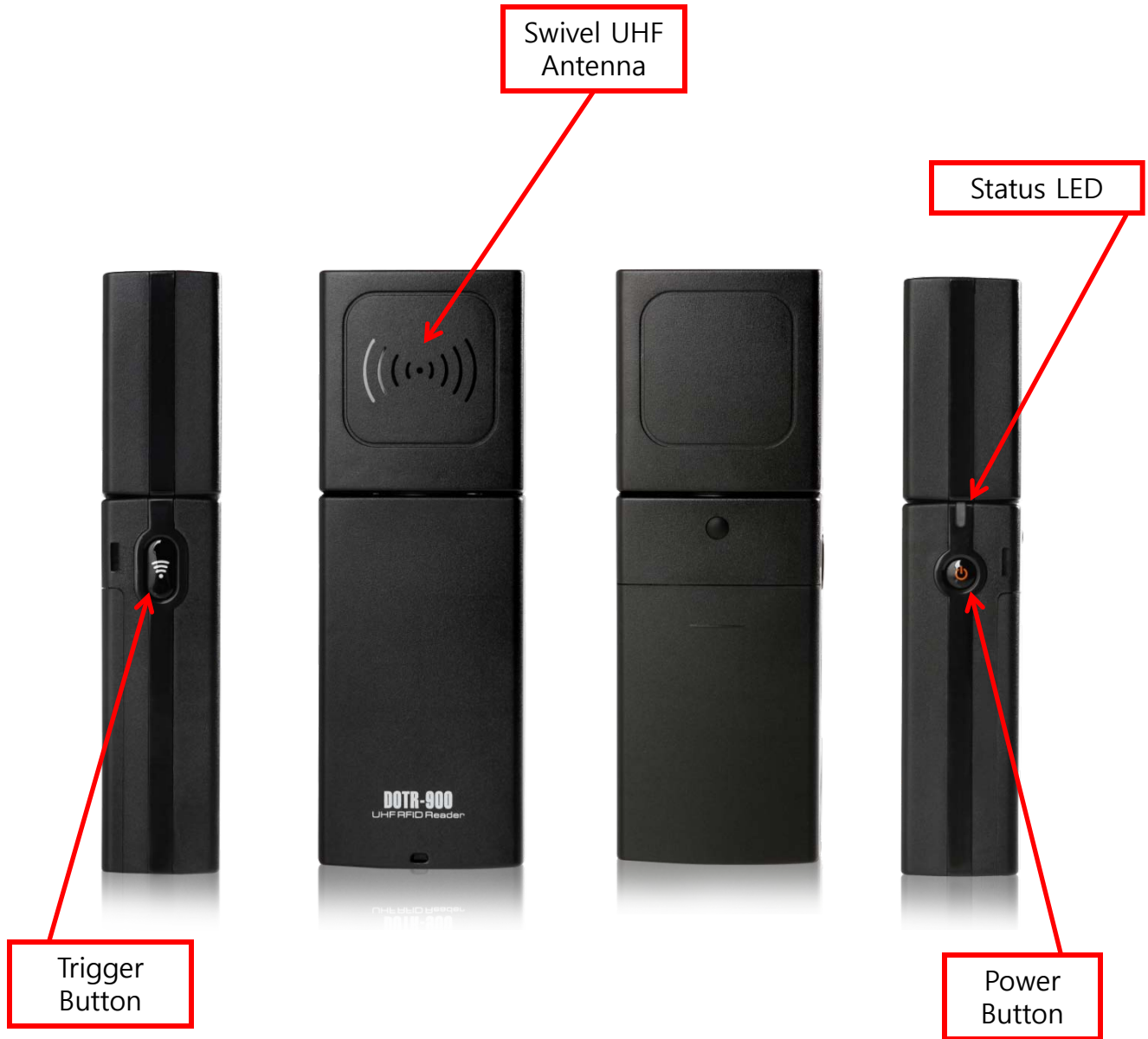USB Data / Charging Cable

Neck strap

Belt Clip

Adaptor (Option)

⚠️ **Notice**

The Specification of the product is supposed to be changed without notice, in order to improving its performance and safety.

1.2 Part Name

Swivel UHF Antenna

Status LED

DOTR-900
UHF RFID Reader

Trigger Button

Power Button

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Status LED

Power Button

1. Power ON / OFF
   1) Power on: Press and hold the power switch for 1-2 sec, the device will be turn on with beep sound and Green LED.
   2) Power off: Press and hold the power switch for more than 2 sec, the device will be turn off with beep sound.
   3) Auto-off: if there is 5 minutes elapses without any action, the device will be turn off automatically with the ringing tone 10 seconds Alerts.
      ❖ User san set "Auto-off" time by setting program "R900SETUP" which will be provide SDK.

2. Usage: user can use DOTR-900 in wired and wireless, with various Host devices.
   1) USB cable connection to PC or laptop.
   2) Bluetooth wireless connection to Smartphone, PC or laptop.

3. Paring standby Status (Bluetooth)
   1) To turn on the unit
   2) Becoming in stand-by and being ready to pair with Bluetooth. Green LED flashes every two seconds.
   3) Beep sound twice when succeed in paring.

1. In Connecting and Reading
   1) Pressing "Trigger Button"
      ❖ User can control "inventory" and "stop" in RFID host program.
   2) LED will be in Red during reading tags.
   3) The unit and the host device beep during reading tags.
      ❖ Auto-off: 5 minutes elapses without any action, the ringing tone 10 seconds Alerts and then automatically turns off.

2. Warning Sound
   ❖ When battery power is low, warning sounds in every 1 sec with Red LED

3. Memory.
   1) Before or after connecting to host device, data of reading 100 tag is been saved in built-in memory.
   2) Transferring data when connecting a host player.

Trigger Button

3. Connecting the device

3.1 Connect to PC

How to connect to PC

** Demo program set up

Click the "RFIDHOST.msi" file in Setup RFIDHOST folder to set up the demo program.

1. USB Cable connection manual

    1) After turn on DOTR-900, connect the device to PC with USB cable.
    2) Click "rfidbthost.exe" to operate.
    3) Usually, DOTR-900 will be connected automatically with PC.
    4) If DOTR-900 does not connect to PC, set up USB driver for proper connection.
    5) user can set up driver on "new hardware device found" message.
    6) If user can not find message, use driver software update in device manager.
    7) Above are not working properly, please delete demo program and try 1) to 6) again.

2. Bluetooth connection manual

    1) Search DOTR-900 with Bluetooth manager on your PC.
    2) Add DOTR-900.(connection code : 1234)
    3) Click "rfidbthost.exe" to operate.
    4) If DOTR-900 does not connected to PC, please check comport.
    5) Comport checking is available in "device and printer."
      Check hard ware tab for proper device adding.

** Comport can be different depend on host devices (Usually R900 uses COM4)

3.2 Connect to Window CE device

How to connect R900 to Window CE device.

** Demo program set up

Make copy "rfidhost.wce500.cab"file in WCE500cab folder and move to Window CE device. Demo program setting is done.

Connection manual

    1) Turn on Bluetooth function on your host device.
    2) Run demo program (Click rfidhost.exe)
    3) Enter Link screen (MENU-LINK)
    4) Select COM3 port, click LINK button.

** If user can not connect to host device, try below solution.

    4) Search DOTR-900(HQ_UHF_READER) – Link screen
    5) After DOTR-900 is found, Bind to COM3. And click LINK button.

** Comport can be different depend on host devices (Usually R900 uses COM3)

** Depend on host device, DOTR-900 searching is not available in link screen.

** This demo program meet WCE 5.0 standard. Depend on host device, this
    program is not available. Please contact manufacturer for further question.

3.3 Connect to Window Mobile device

How to connect R900 to Window Mobile device.

** Demo program set up

Make copy "rfidhost.wm6.cab"file in Smartphonecab folder and move to Window Mobile device. Demo program setting is done.

Connection manual

1) Turn on Bluetooth function of host device.
2) Search DOTR-900 with Bluetooth manager of host device.
3) Connect DOTR-900.
4) DOTR-900 connect properly with host device when green LED is flashing.
5) Run demo program. (Click rfidhost.exe)
6) DOTR-900 will be connect to host device automatically.

** If connection is not available, please try belows.

7) Search DOTR-900(HQ_UHF_READER) – Link screen
8) After DOTR-900 is found, Bind to COM7. And click LINK button.

** Comport can be different depend on host devices (Usually R900 uses COM7)

** It is unavailable to search DOTR-900 in Link screen depending on host device. That time, Link COM7 directly without search.

** Our demo program is set WM 6.0 standard. This demo program may not work depending on version of host device. That time, contact the manufacturer to ask.

3.4 Connect with USB cable

Set up demo program for PC

1. Click RFIDHOST.msi for PC demo program.
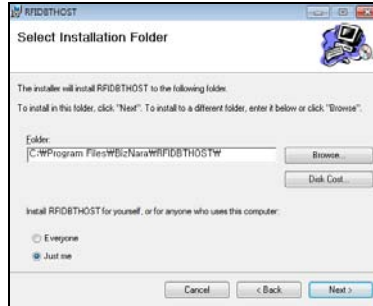
2. Click Next.
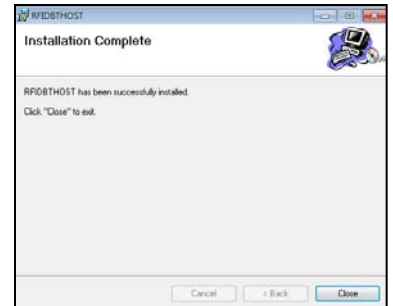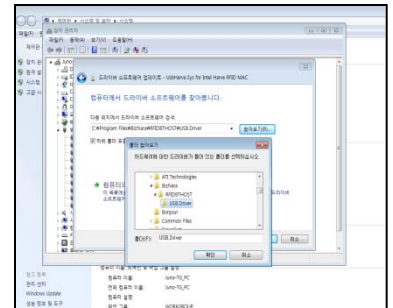

3. Click Close to exit.
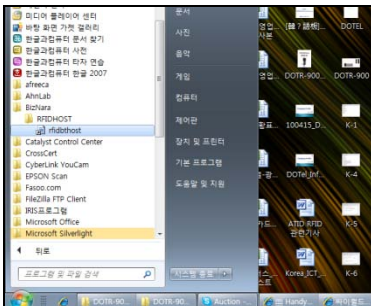
Connect with USB cable
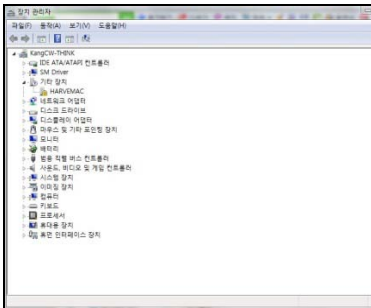
1. Power on - Connect the USB Cable - device manager - another device – HARVEMAC-drive update. (user can set up "new hardware deviece found")
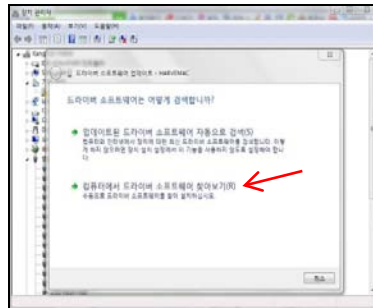
2. Search USB driver.

3. C: - Program files – BizNara – RFIDHOST – USB Drive

4. start – program – BizNara – RFIDHOST – rfidhost

5. Finish. Green lamp stop

3.5 Example for Bluetooth connection

Connection with Bluetooth

1. Bluetooth ON – add new device – select HQ_UHF_READER to connect

2. Put 1234 for connecting code.
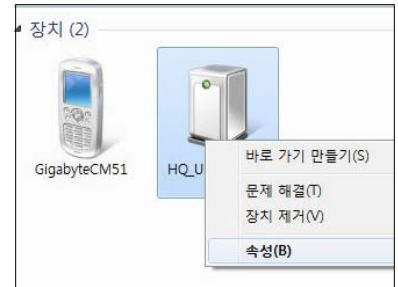
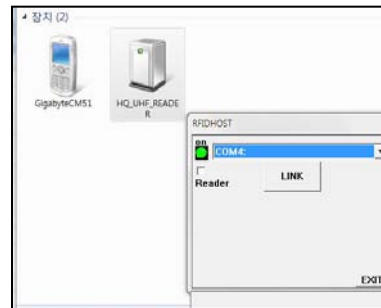3. Click property.
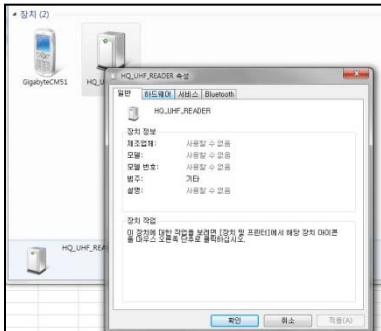
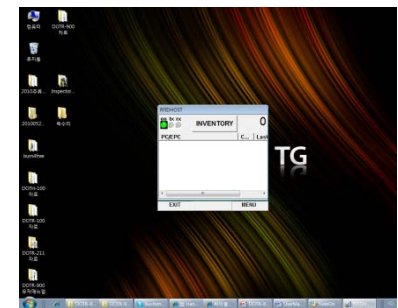4. Select hardware tab.
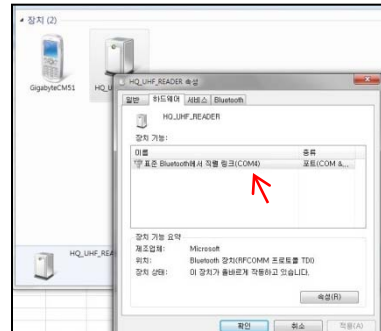
5. Check COM Port number.

6. start – program – BizNara – RFIDHOST – rfidhost.exe
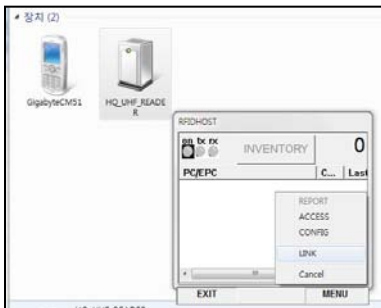
7. MENU - LINK

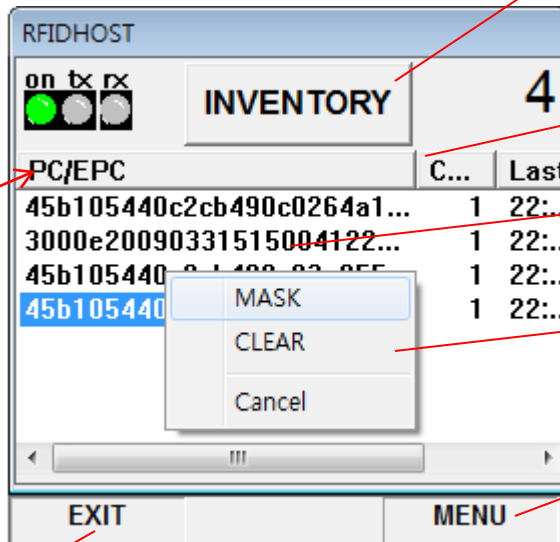8. Select COM4, Click LINK. (check No. 5 screen)

9. finish

Using the RFID host program

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INVENTORY screen

Reading button

Tag count

Tag ID list

List menu

Menu button

EXIT button

1. Press inventory button to operate inventory. When operation starts, button will changed as STOP. To stop, Press STOP button.

2. The saved PC/EPC data will displayed on tag ID list. Count is accumulated count.

3. Click tag list for displaying list menu. User can make MASK or delete inventory list in this menu.

4. To finish program, press "EXIT" menu bar. Press OK icon, the program window will be hide to tray.

5. Menu bar on the right side uses for other functions as tag read/write.

Using the RFID host program

ACCESS screen

ACCESS button

TAG Memory bank

TAG Memory data
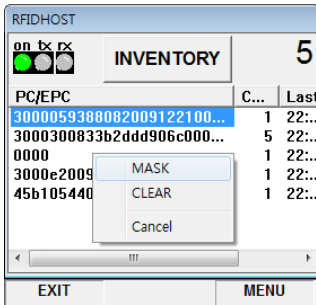
EXIT button

TAG mask button
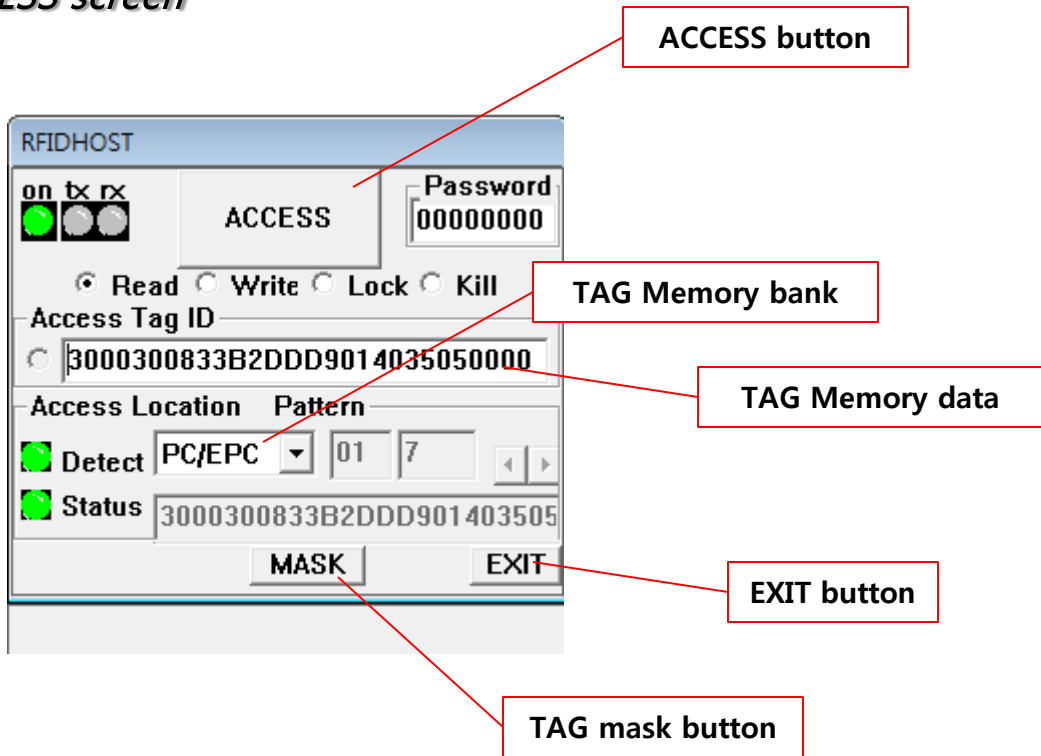
1. Press access, to detect tag and read data from set up memory.

2. Before operate, choose single_tag on config screen.

3. The status lamp will be changed as red when error occurred.

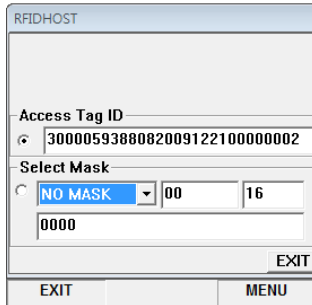4. To access ID tag, press left side button on the tag ID window
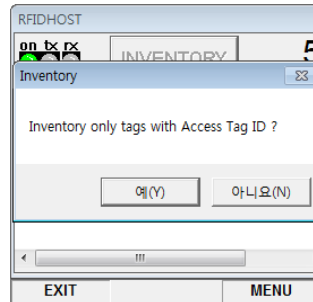
Using the RFID host program

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MASK function – manual to find only specified tag
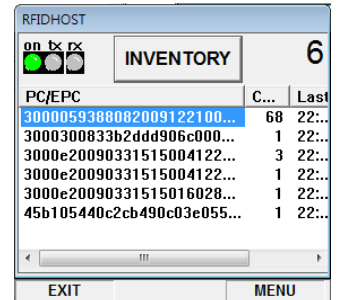

1. Click MASK.

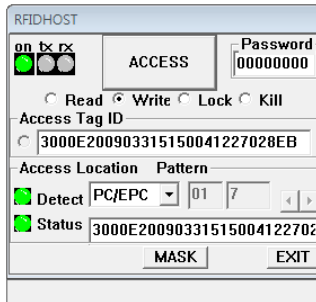2. Click EXIT after select MASK memory area.

3. When click INVENTORY button, Can see on the message. Click "Y" button.
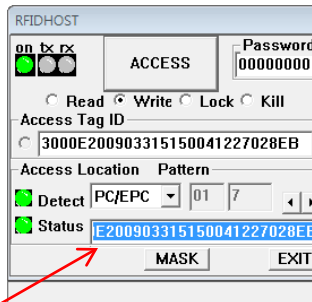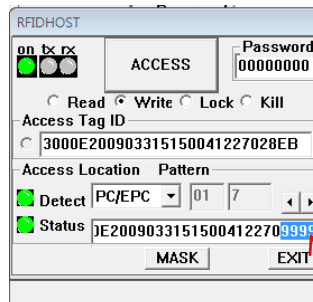

4. DOTR-900 will read only specified tag.

Write function – manual to write EPC value on tag
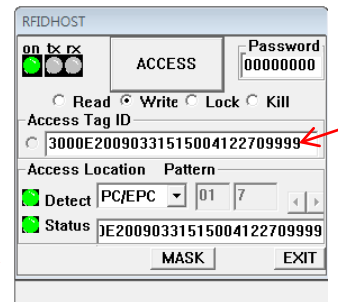

1. After select write, click ACCESS button.

2. Write tag value

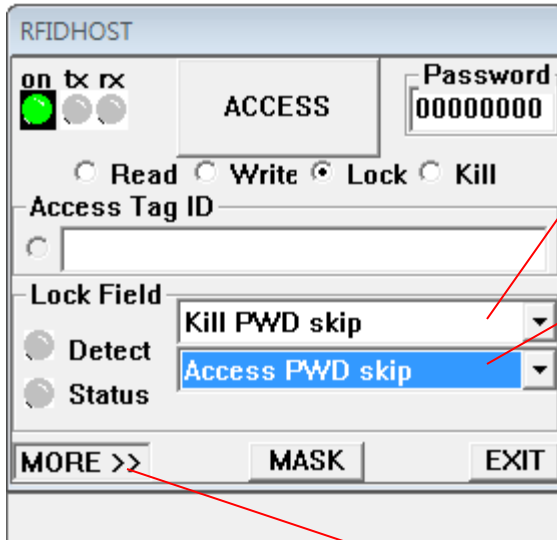3. EX) Input 9999 value, after delet 29EB final value. And click ACCESS button.

4. check changed EPC value.
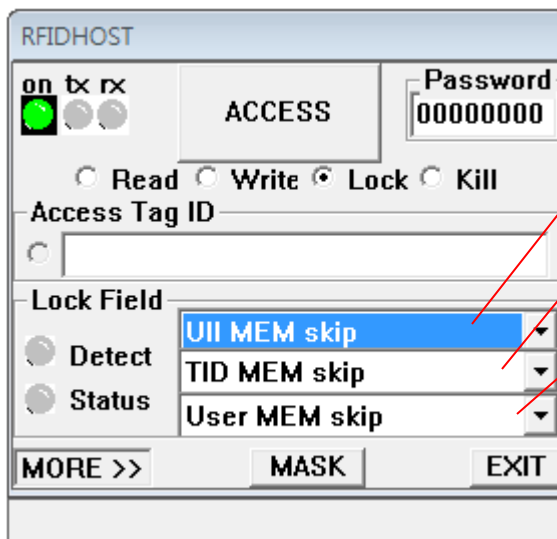
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Using the RFID host program

Lock Screen

Kill password change option

Access password change option
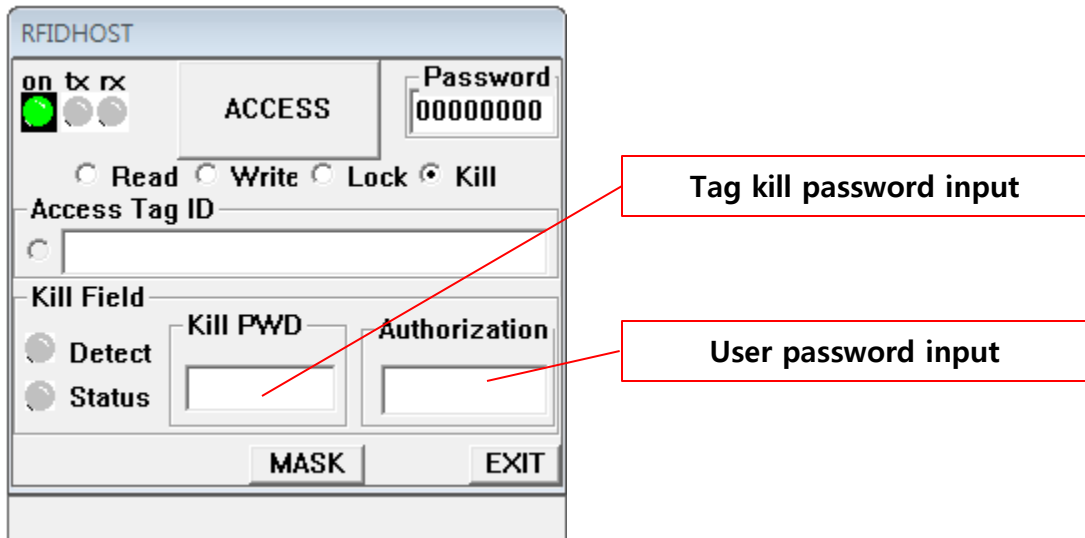
Page change option

UII memory change option

TID Memory change option

User Memory change option

Using the RFID host program
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Kill screen

Tag kill password input

User password input

1. Operate and input kill password of tag.

2. User password is for prevent tag destruction by mistake.

3. Once kill tag, the tag will not saved. Please careful to kill.

Using the RFID host program

Session setting to Query

Config screen

Q data setting to Query

Query timeout setting

Max power setting

Select detect sound

Single tag select

Continuous select

HOST Program ver.

1. Set parameter while tag query. This setting data effected inventory and access both.

2. If Query timeout is 0, there is no timeout. The measure is second.

3. User can reduce the maximum output as 9dB.

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Using the RFID host program

Link screen

COM Port select window

COM Port Link button

Bluetooth device search button

Bluetooth device ID list window

Virtual COM Port select window

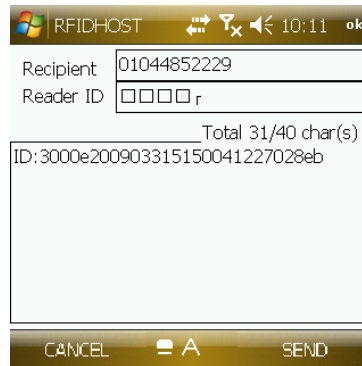**Virtual COM Port BIND button**

Battery check of DOTR-900
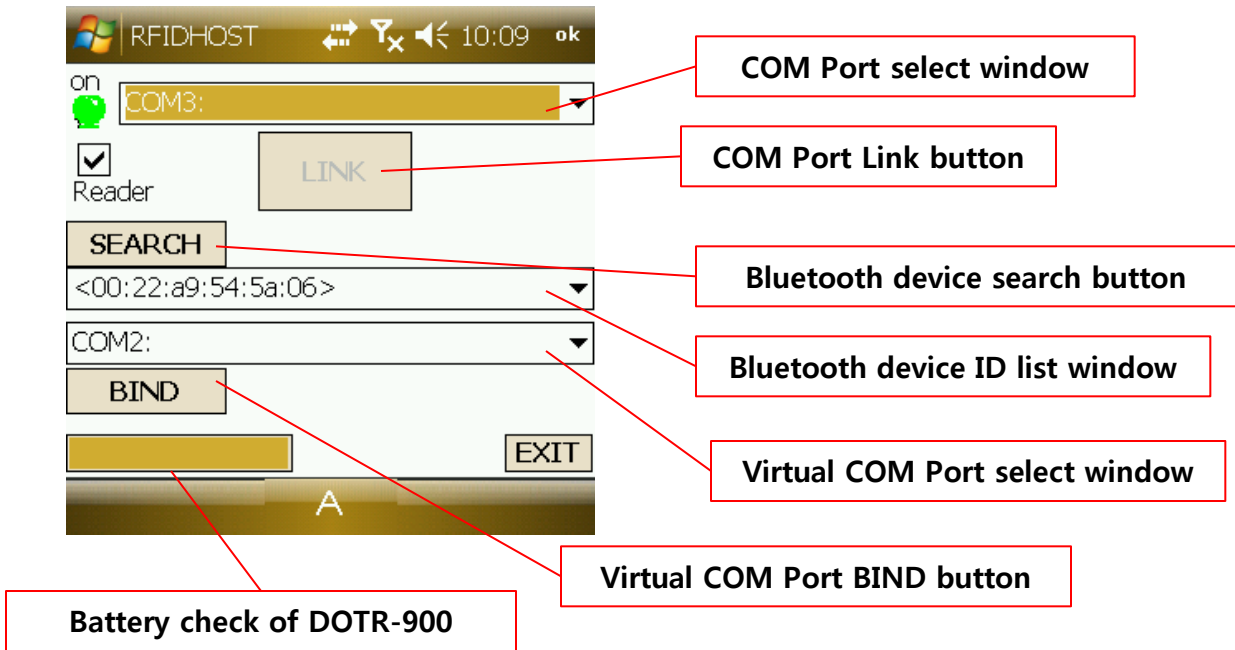
Another function – Sending the text message

1. Select REPORT after click the inventoried tag.

2. Insert recipient's phone number the smartphone and click the send button.

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5. Other

5.1 Support and Information

1. A/S Center Information

   1) Telephone

     A/S consultation : 82-2-850-3629

   2) Working hour

     Mon~Fri : AM 09:00~PM 06:00 (lunch time PM 12:00~PM01:00)

     Saturday, Sunday and public holidays is not available.

   3) Service center address

     #507, Kolon Science Valley II, 811 Guro-dong, Guro-gu, Seoul, Korea 152-878

2. Before reguesting the repair

   1) Please note telephone number, address and issues.

     This can be very helpful for customer services.

   2) Please check the user manual again before A/S service require.

3. Warranty – Main unit : 1 year

4. Quality information

In the following cases, even within the warranty period can not be repaired at no charge.

A. Case of failure to shock, flooding occurred by consumer mistake.
B. Case of disassembly and modification by consumer
C. Case of failure by fire, earthquake, flood damage and so on.
D. Case of repairs by undesignated A/S center

5. Other

5.2 Product specificaions

SECTION	Specifications
Supported Protocols	ISO 18000-6C, EPC Class1 Gen2
Frequency	860MHz ~ 960MHz
RF output power	1 W
Modulation	PR-ASK
Interfaces	Bluetooth 2.0 EDR / USB 1.1 compatible / UART 3.3V , 3-wire
Battery	2350mAh Li-Polymer rechargeable battery
Operating Temperature	-20°C to 50°C
Storage Temperature	-40°C to 70°C
Dimensions	148mm x 51mm x 30mm (H x W x D)
Weight	170g
Charge	20pin TTA