

AB700 User guide

For Windows Embedded

Handheld 6.5



*Dynamic Support for
Your Business*

FCC Compliance Information

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions:

- (1) the device may not cause interference, and
- (2) the device must accept any interference, including interference that may cause undesired operation of this device.

For body-worn operation, this device has been tested and meets the FCC RF exposure guidelines when used with an accessory that contains no metal and that positions the handset a minimum of 1.5cm from the user's body.

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CONFIGURATION 70

Before You Begin

This section provides you with safety information, technical support information, and sources for additional product information.

Who should read this manual?

This manual is written for the person who is responsible for installing, configuring, and maintaining the AB700.

This manual provides you with information about the features of the AB700, and how to install, configure, operate, and maintain it.

Before you work with the AB700, you should be familiar with your network and general networking terms, such as IP address.

Safety information

Your safety is extremely important. Read and follow all warnings and cautions in this document before you handle and operate Futureid equipment. If you do not follow the safety warnings and cautions, you might be seriously injured, and the equipment and data are also might be damaged.

WARNING

A warning requires you must pay attention to the operating procedure, practice, condition, and statement strictly, or might be injured seriously.

CAUTION

A caution alerts you that you must be observe strictly when you operating procedure, practicing, configuring, for preventing from damage and destruction of equipment, and loss of data.

NOTICE

A notice provides you the information which you must needs while you using AB700

Chapter1. Caution when using Futureid PDA Product

Before you handle and operate your AB700 and other Futureid PDA Products, Please read through and familiar with the contents of this manual.

1. How to use the battery correctly

- When you dropped the main body or battery in water, please do not put it on the stove or heater for drying. Just keep it in natural temperature or contact with purchase place.
- Please do not take the metal object to approach to the terminal of battery
- If you do not use the battery for a long time after charging, please keep it at room temperature.
- According to the life of battery and the processing time of its using, the buffering time can be shortened. In this case, please contact your dealer.
- You have to charging the device with the provided adaptor from factory.

2. Caution when using Futureid PDA Product

- User careless or products repair would damage the stored data. Manufacture is not responsible for this damage, so important data should be kept separately
- If you have problem, do not try to repair or disassemble the product arbitrarily, please contact customer service center.
- Do not use your product where have electromagnetic wave or the risk may occur such as hospital, plane so on.
- A high temperature or high humidity environment will causes trouble, Please note that.
- Please do not using other sharp object to touch the screen, otherwise it might be get damaged or not working properly.
- Please be careful not to touch the metal paper cutting saw tooth, so as not to get injured
- If smell odors, occurs smoke or noise during use product, immediately disconnect the charger and off the power, then Please contact with customer service center
- If you have any other questions during use, please contact the customer service center

Chapter 2. Product composition

This is built on the Windows Embedded Handheld 6.5. The PDA could equip with Barcode Scanner and so on devices as optional items. Its various function applied to Industry, Enterprise, Logistics and so on, can be used extensively in many fields.

1. Product composition

Open the packing box and confirm that the items as below.



1. AB700 Main Body



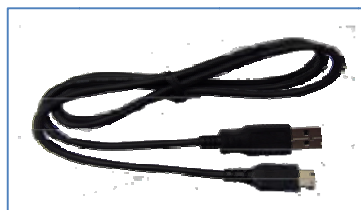
2. Power Adaptor and sync cable



3. Lithium polymer battery pack



4. Leather case
(option)



5. USB sync cable



6. Protective film

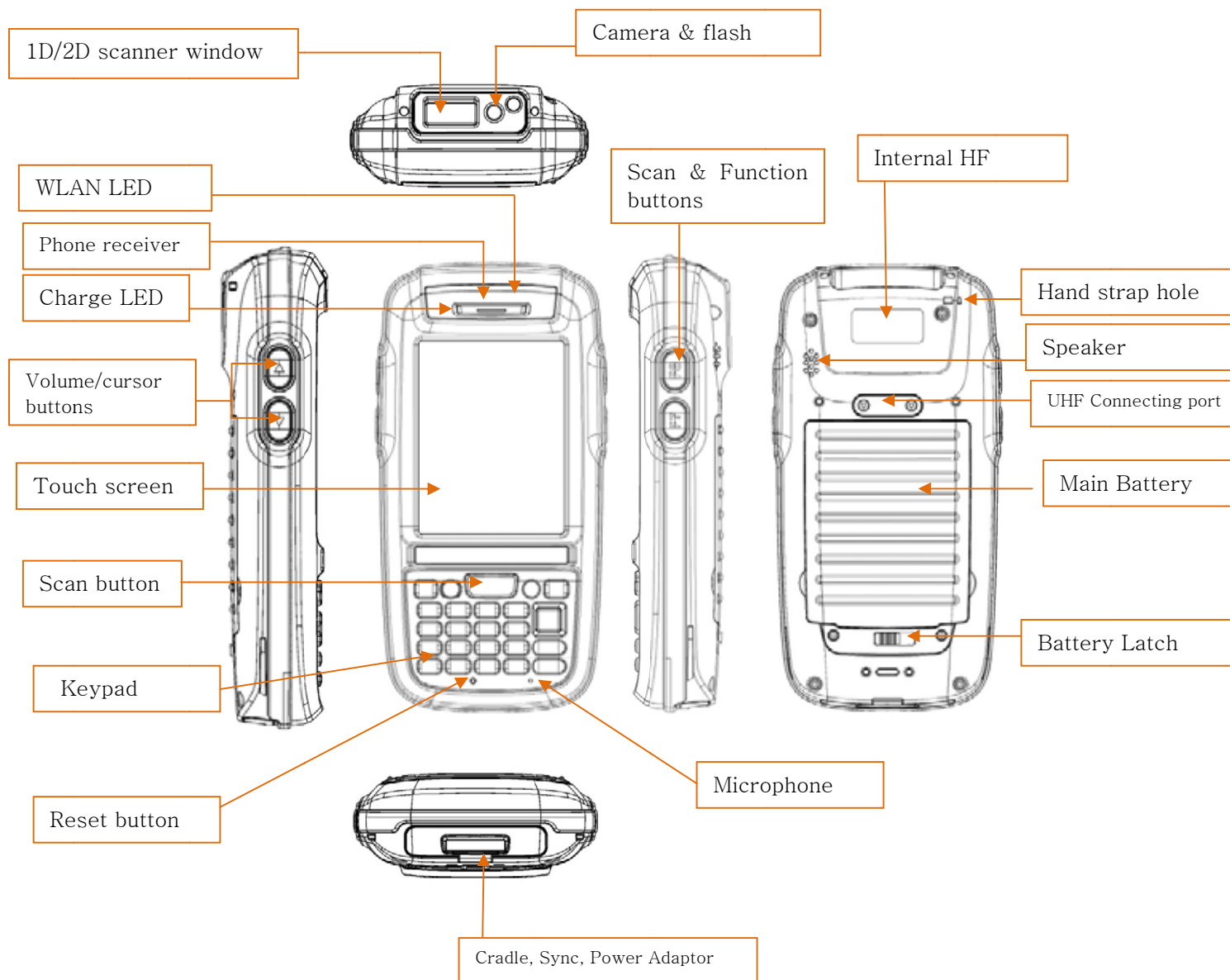


7. Hand strap



8. Stylus pen

2. Each Part Name



3. Each part name and function

Part	Descriptions
1D/2D scanner (Option)	Laser beam emitted through this window. Please be careful the foreign substances and preventing from the damage. Warning! Do not look at the laser beam directly.
UHF connection port	Enable you to install a UHF 900Mhz tag reader module.
Internal HF	HF 13.56Mhz Embedded module mounting location.
Reset Button	Enable you to perform a warm Reset, Press <Power>button simultaneously, Enable you to perform a hard Reset
Microphone	Enable you to conduct communication
WLAN(Optional) LED	Displays whether the wireless WLAN power supply
Battery Latch	Enable you to detaching and attaching the main battery.
Main Battery	Enable to supply the power to the product.
Volume Buttons	Enable you to press <FNC>button simultaneously to adjusting volume.
Scan button (F7, F8)	It is possible to scan barcode or RFID tag
Scan button (F9)	It is possible to scan barcode or RFID tag
Speaker	Build-in speaker, which could emit various sound effects.
Sync Cable Connector	Enable you to connect and send data to PC via USB sync cable.
Ear Jack	Enable you to connect to earphone.
Left and right key	Can move the cursor to the left /right direction and use the up/Down arrow keys with combination <FNC> button
Power LED	Power LED will be Red when the battery is charging, or will be green when it is charged completely.
Adaptor Connecting Jack	Enable you to connect to adaptor which provided from factory.
Camera flash (option)	You can use the camera with flash
Camera (option)	It is possible to image capture and save.
Cradle Connector	Enable you to connect to PC or charging the battery while using cradle.
Key Pad	Enable you to input key value (number, alphabets, symbol), or executing assigned programs.
Touch Screen	Display running programs, and could execute, use, and exit programs via using stylus to touch the screen.
Hand strap hole	Enable you to attach a hand strap or a stylus for the convenience of using, while need to use the device for a long period time.

Chapter3. Basic Functions

1. Power and Battery

Battery is composed of main battery and backup battery. A main battery supplies the power to the system and RAM which could keep save the data. A backup battery could keep save the data of RAM when the main battery discharged completely.

Main Battery: 3.7V 2,200mA Lithium - polymer

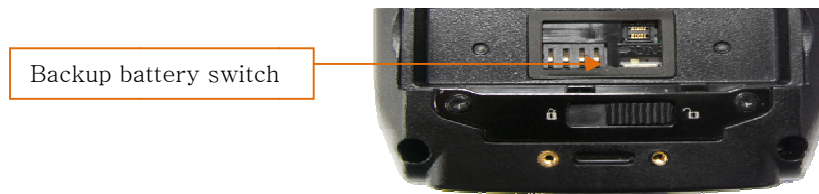
Backup Battery: 3.7V 105mA Lithium – polymer

- **NOTE:**

Switch on the backup battery at first beginning of using PDA, and then install the main battery
Change it completely

1.1 Switch On Backup Battery

The image as below shows the battery compartment, which already removed the main battery. Slide the lever to right to start to supplying power to the system.



To attaching main battery to the backup battery compartment to the PDA

To confirm the battery latch locked firmly.

“Refer to 1.2 batteries attaching and detaching”

Connecting adaptor to the PDA adaptor connecting jack, and check if the “Power LED” is Red,
And then charging the power completely until it gets into Green.

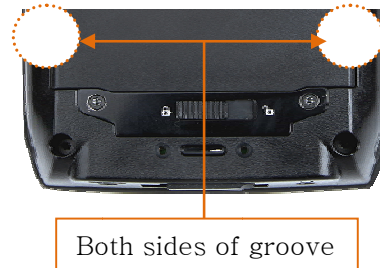
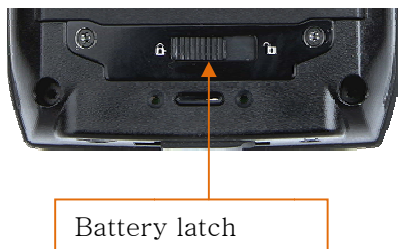
- **NOTE:**

If the window wallpaper has shown on the screen, Press the <power> button for a couple
Of seconds, so that could shorten the charging times.

1.2 Detaching and attaching Main Battery

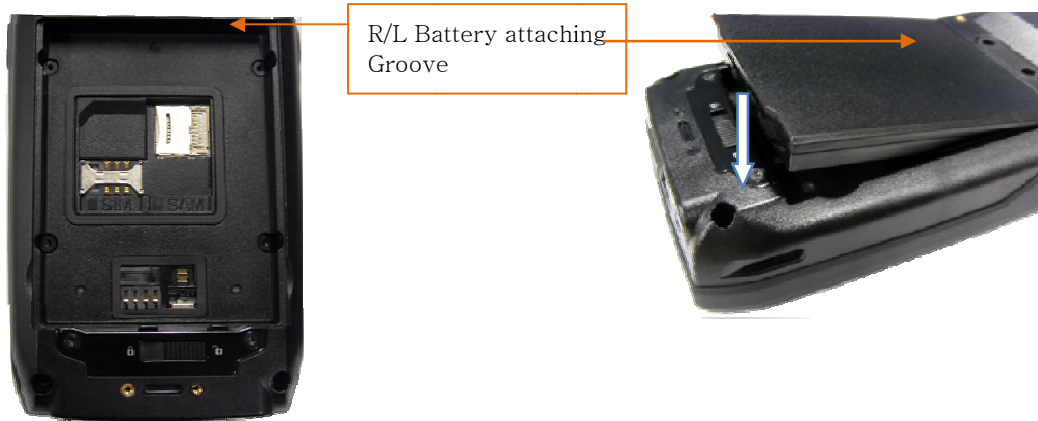
➤ Detaching Battery

These images as below, shows the back bottom of the PDA.
Slide the battery latch to the right (**UNLOCK** side), and then lift the main battery out of the compartment along both sides of groove.



➤ Attaching Battery

Put the top part of battery into the upward groove, and then press down the bottom of battery into the battery compartment, slide battery latch to the left (**LOCK** side) to attach battery firmly.



1.3 Charging

You have to charge the battery via dedicated adapter, which provided from the factory. “Power LED” is **Red or Orange** while charging or is **Green** when charged completely.

➤ **Connecting Adapter**

1. Plug the adapter cable to 220V socket.
2. Connect adapter DC cable to the “Power connecting jack” of the main body.
3. “Power LED” is **Red or Orange** while charging.

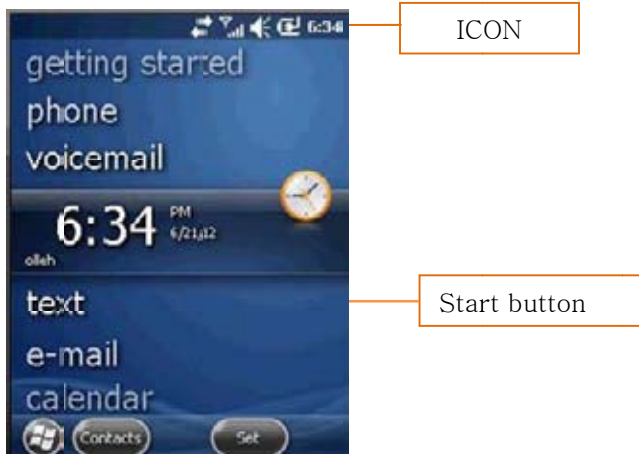


⚡ **Caution:**

You must to charge the battery by using dedicated adapter, which provided from factory, or your device might get damage.

1.4 Power ON and OFF

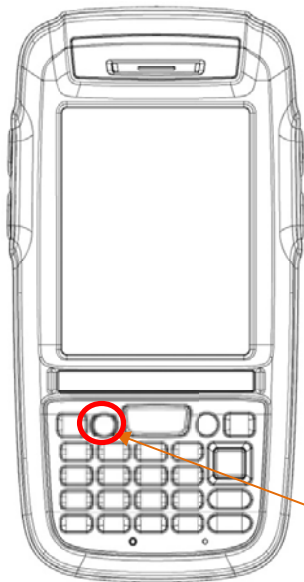
Use the <Power> button one time, the device will enter low-Power mode (Sleep Mode) Under the system is started and the following window is displayed on the desktop or other Programs is running in the system, press <Power> button once again could activated the system



ICON: Display the currently running programs

Start button: Activates the start menu and then execute a program.

➤ **Power On and Off via <Power> Button**



Power Button

Power Off:

When the system is in booting status, press <Power> button for a couple of seconds, then the backlight will be turned off and enter the low-power mode (sleep mode).

Power On:

1. When the system power is in the off status, press <Power> button quickly, then backlight will be turned on and start the system.
2. Connect to the ActiveSync USB cable; the power will be turned on automatically.

● **Note:**

Even though the power is in off state, if there was a tiny battery gauge remained, the data of RAM will be saved, and those programs which have been running for some time before the power turned off, will be recover rapidly. If the main battery and backup battery are both in the discharge state, the RAM data will disappear, and the system will be starting if the power is charged again.

➤ **Power off automatically**

- The device has been powered but has not been used for a period of time, then the system will enter low-power mode (sleep mode) automatically. You could set the sleep mode time at the power management so that could save power and prolog the battery life.

[Start Button] -> [Setting] -> [Power] -> [advanced]



Power ICON



- You can also double click <Power> Icon to enter this interface.
- You can also press the <Power> button to activate the system, when the device turned off cause get into the sleep mode.

➤ Battery Discharging

If the main battery discharge completely, the system will not turn on, the device will get into low-power mode (sleep mode) automatically, and even press the <Power> button, the system will not be turned on. In this case, you should charge the main battery or connect the adaptor to the adaptor connecting jack of main body, then press the <Power> button to turn on the system.

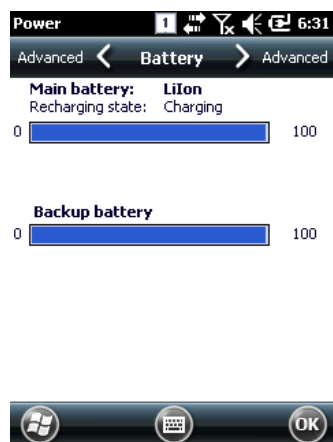
1.5 Checking Battery Gauge

● NOTE:

- Battery life is largely affected from the user using method and surrounding environments.
- A 2200mA battery is usually needs 6 ~ 12 hours to get charged completely.

➤ Checking battery Gauge

[Start button] -> [setting] -> [Power] -> [Battery]



➤ Low Power Warning

If the remaining battery gauge cannot support the system running any more, a low power warning message window will be popped up on the screen. In this case, you need to press the <Power> button to turn off the power, and to charge the battery as soon as possible.

1.6 Backup Battery

A backup battery could safely keep the RAM data, even the main battery discharged completely.



Caution:

If the main battery and the backup battery are both discharged, the RAM data will disappear. Among the running programs, the RAM data will disappear in which are using, and the system will not be restore to previous state, but rebooting system after start charging.

1.7 Dispose of Battery

You need to purchase a new one if the battery damaged or reached its end of life.



Warning!

Please dispose the used batteries in a designated place

1. System Reset

If there is no response from the system or an application is locked up and stops responding, and when you want to upgrade the firmware, reset the system is maybe necessary

2.1 Soft Reset

When do you need to perform Soft Reset?

If there is no response for your command from the system, it calls (Hang-up). In this case, you need to perform a soft reset. Soft reset will end programs and the user memory region will be deleted, but installed programs and data, and so on, are not affected.

[Soft Reset]

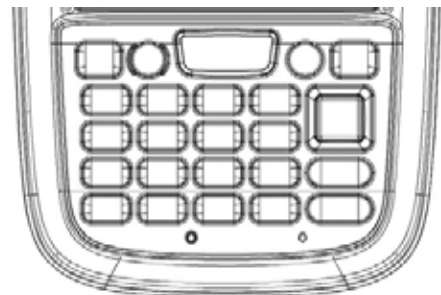
Using the stylus pen to press <Reset> button briefly, the system will restarting again, after the screen turns off shortly.

[Soft Reset Result]

- System will be restarting
- Operating system will be restarting (Windows CE)
- Desktop will appear in about ten seconds.
- User's changed registry information, copied files and Installed programs will be restored

Power Button

Reset button



2.2 Hard Reset

When do you need to perform Hard Reset?

Hard Reset, which is also called **Cold Reset**, enables to initial ize hardware completely. Users installed programs, copied files and registry values will keep remained even performed Hard Reset, but the real time and date will be initialized. So you need to reset the time and date after performed Hard Reset.

You need perform Hard Reset when the Soft Reset cannot restore the system.

[Hard Reset Procedure]

Using stylus pen to Press <Power> Button and <Reset> Button simultaneously, the system will restarting again after the screen turns off shortly.

[Hard Reset Result]

- System will be restarting.
- Operating System will be loading and rebooting.
- Home Screen will appear in about ten seconds.

2.3 Initializing system

Enter [Boot Menu] and do what you want, when in the situations as below:
(Default Password is “1205”)

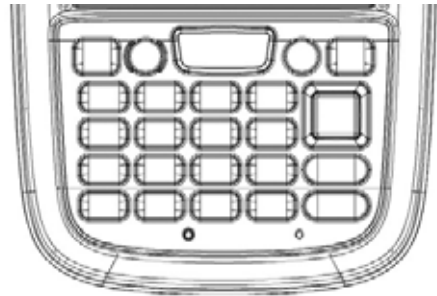
1. When you need to restore the original registry information, which has been changed.
2. When you need to initialize “My device” storage spaces.
3. When you need to initialize “Flash Disk” storage spaces.
4. When you need to initialize system to Factory Default settings.

When you are pressing the <FNC>button and press the
[Reset] button shortly

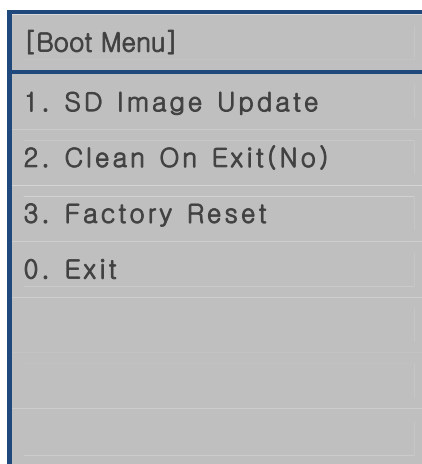
Power Button

Fun Button

Reset Button



[Boot Menu] window would appear in a couple of seconds.

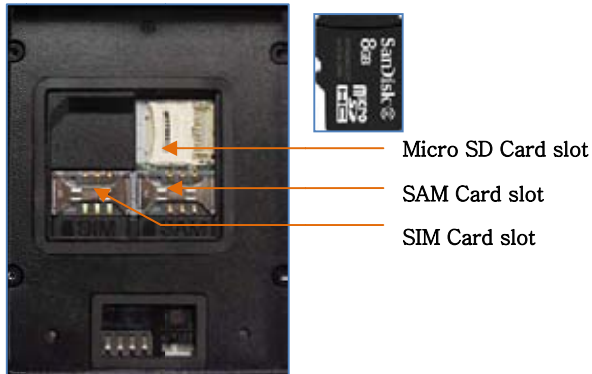


[Boot Menu] Start up screen

- SD Image Update
It is for the image (BOOT, OS) update by SD Card
- Format
My Device and Registry area recover as shipped
- Factory Reset
My Device, Registry and Flash Disk area recover as shipped
- Exit
Finish the Boot Menu.

Using Micro SD, SIM, SAM Card

The image as below is battery compartment of, and there are 1EA SIM Card Slot, 1EA SAM Card Slot and 1EA Micro SD Card Slot.



3.1 Installing Micro SD Card



Push the cover to the right along arrow direction to open it.



Lift the cover up along arrow direction.



Put Micro SD card into Slot and press down the cover as arrow direction.



Push the cover up as arrow direction to lock it, and attach the main battery and turn on the power.

You can find the Micro SD Memory Card icon when executing the file explorer, after inserted the Micro SD card.

[Start] -> [File explorer]



3.2 Installing SIM Card and SAM Card

SIM Card and SAM Card can easily insert and pull out along arrow direction.



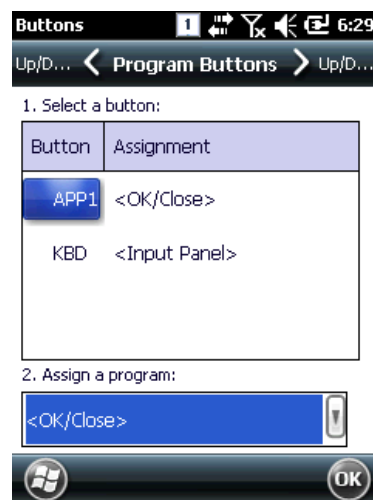
4. Personal condition setting

4.1 You want to quickly run frequently used programs You can set the shortcuts function

[How to set shortcuts]

[Start button] -> [setting] -> [Personal] -> [Button]

Select the button you want to assign as the shortcut,
And select the desired program from the program assigned



4.2 Set up the phone password

If the SIM card is lost or stolen, USIM card in order to prevent the use of others by setting as password

[How to set up the PIN number]

[Start button] -> [setting] -> [Personal] -> [Phone] -> [Security]

Use the password

Change the pin number



When you use the password and select the "Phone using the PIN (personal identification Number) password input window is displayed and required to enter the four digit password and select the 'key' <Enter>"



◆ Caution :

PIN Code is '0000' for protecting USIM card information
You can change to own your password.

PUK code is that PIN Code entered incorrectly three times identification Number (PIN) consecutive USIM unlock code. (8digit).

It will be on the USIM card's envelope or the body

Entered incorrectly 10 times in a row when not able to use the USIM card, please note

4.3 Owner information

It can set up the owner information (Name, company, address, Telephone, E-mail and Notes)

[How to set up it]

[Start button] -> [setting] -> [personal] -> [owner information]

Owner Informatic 1:10

Notes < Identification > Notes

Name:

Company:

Address:

Telephone:

E-mail:

Start Settings OK

4.4 LOCK

It is for the PDA's data,
If the handset is not in use for a certain period of time and the switch to the lock status,
You suppose to enter a password to unlock it.

[How to set the LOCK]

[Start button] -> [setting] -> [LOCK]

Password 1:11

Password

☐ Prompt if phone unused for 0 Minutes

Password type Simple PIN

Password

Confirm

Start Settings OK

Set up the LOCK screen



LOCK screen



Input the password

5. Set up the SYSTEM

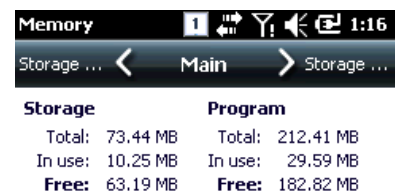
5.1 Memory

You can check the capacity of the memory

[How to check the Memory]

[Start button] -> [setting] -> [System] -> [Memory]

Main memory: Usage and remaining capacity can check
Storage card: it can check Flash area or SD care capacity



Storage	Program
Total: 73.44 MB	Total: 212.41 MB
In use: 10.25 MB	In use: 29.59 MB
Free: 63.19 MB	Free: 182.82 MB

5.2 Task Manager

You can see a list of programs currently being used and the Amount of memory you have

[How to check Task Manager]

[Start button] -> [setting] -> [system] -> [Task manager]



Application	Mem	CPU
Phone	944K	0 %
ActiveSync	448K	0 %
Text Messages	388K	0 %
Task Manager	92.0K	0 %

You can be stopped by selecting the program
You are using from the list.



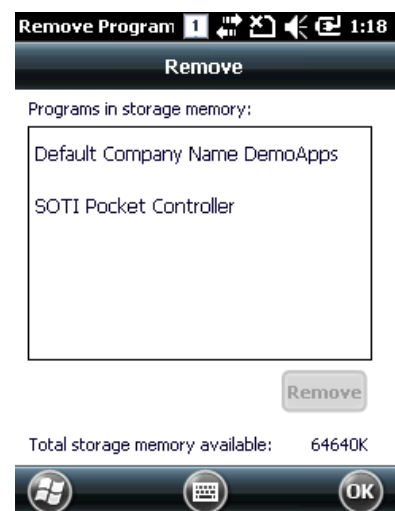
5.3 Remove the program

This will display a list of programs installed in addition to the Preinstalled programs

[How to remove the program]

[Start button] -> [setting] -> [system] -> [Remove program]

It can be removed from the list, select the program you want to Remove



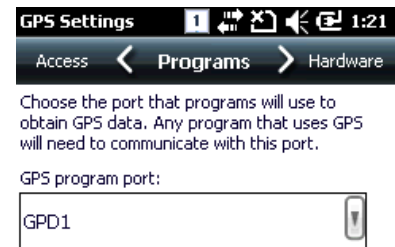
5.4 GPS

You can set the GPS port within the terminal

[How to set up the GPS]

[Start button] -> [System] -> [GPS]

Do not need to be set separately because it is set by default to the port terminals are used in GPS.



5.5 Setting the Screen Brightness

Screen brightness is set to the factory in approximately 70%

[How to set up the screen brightness]

[Start button] -> [setting] -> [system] -> [Contrast]

Brightness: you can adjust the brightness of the screen



5.6 Backlight ON/OFF set up

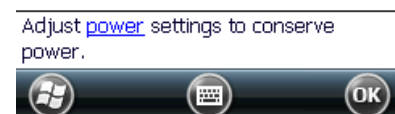
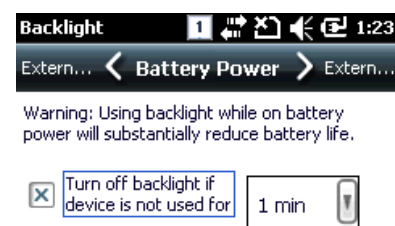
Screen brightness, the power consumption is most affected
Because it can be set up suit the user's needs.

Off screen timeout time can be set

[Start button] -> [Setting] -> [system] -> [Backlight]

Battery Power: When using the Battery power, set up the brightness On/Off.

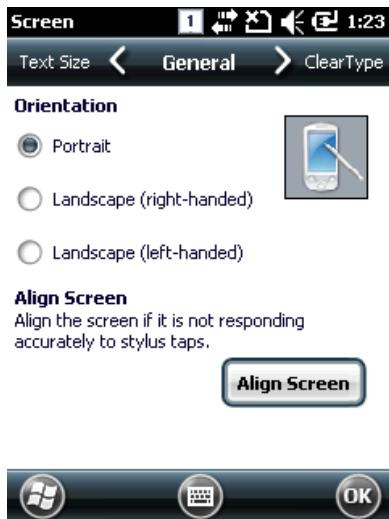
External power: the brightness of the screen when using an external Power on/ off settings



5.7 Screen calibration

At first beginning of using the device after purchasing or need to use the device for a long period time, if you cannot select the place where you touched with stylus, you need to reset the coordinate calibration values.

[Start button] -> [setting] -> [system] -> [Screen] -> [align screen]



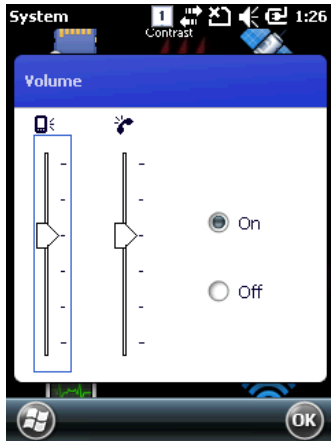
align screen

Using a stylus, tap the target firmly and accurately at each location on the screen. The target will continue to move until the screen is aligned.



5.8 Setting Volume and sounds

You can set up the Volume and sounds.



Set up the volume's ICON



- You can adjust the volume with products left volume button (hardware)

5.9 Sounds and notification

You can set up the ringing one and vibration and bell sound notification On/OFF.

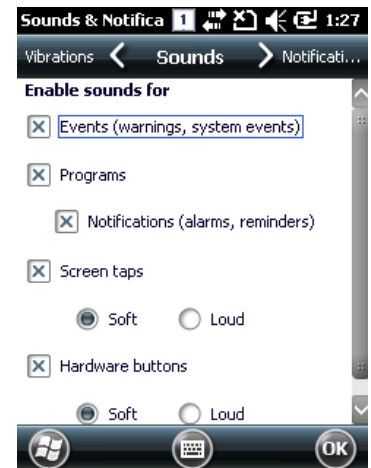
[How to set up]

[Start button] -> [setting] -> [Sounds and notification]

Vibration: Set the vibration amplitude set

Sound: Set the sound notification

Notification: Select the ring type



5.10 Set up the Clock and Alarms

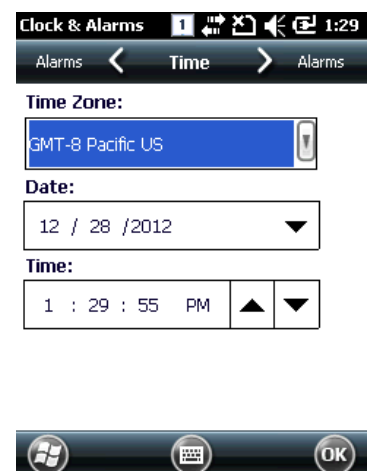
Set up the date, time and Alarms

[How to set up]

[Start button]-> [setting] -> [Clock and Alarms]

Time: Set the Date and Time

Alarms: Set the Alarms



5.11 Wireless Manage

You can control the Bluetooth, Wi-Fi, Phone's function On/Off.

[How to set up]

[Start button] -> [Setting] -> [connect] -> [Wireless manage]

All: It can control the all ON/OFF of WIFI, Bluetooth, and PHONE
Separately: when you click the Buttons (Wi-Fi, Bluetooth, and Phone)
It is possible to ON/OFF

It can be expressed differently depending on the product option



6. Using keypad

Keypad enables you to input numbers, alphabets and special symbols. And can also execute other set function with <FNC> button.

6.1 Using keypad

When you change the current input language, please press <1<=>ALP> button.

[Number] → [Lowercase alphabetic characters] → [Uppercase alphabetic characters]
Order transition.

6.2 Inputting Data

Numeric Keypad Mode: Press<1<=>ALP> button or keypad icon on the taskbar to change to the numeric mode and directly press number on the keypad.

Alphabet Keypad Mode: Press <1<=>ALP> button or keypad icon on the taskbar to change to the Lowercase or Uppercase and directly press alphabets or special symbols on the keypad. Each button has 2 ~ 3 letters or symbols. Press the button once, the first letter or symbol will be inputted, press twice continuously, then the second letter or symbol will be inputted, and the third letter or symbol need to press button three times continuously.

6.3 Using <FNC> Button

Press <FNC> button and other buttons simultaneously can activate functions as below:

Fun + button	Descriptions
<Left>, <Light> Cursor Key On the Keypad & Left Side <Up>, <Down>	Increase or decrease the sound.
<Up>, <Down> Cursor Key on the Keypad	Perform Page Up or Page Down.
<1> ~ <9>	Perform F1 ~ F9 Function Key
<Back Space>	Delete a letter which located after the cursor.
<.>,<0>,<_>	Enable you to input <+> <000> <-> symbols.

7. Using stylus

You can tie the stylus to the hand strap hole, so that enable you to use the stylus as like a mouse on a PC



Use Stylus to:

- Select a letter on the soft keypad.
- Select a program on the desktop or taskbar.
- Select button, zone or tab bar in a window box or program.

⚠ Caution:

Please do not use sharp objects on the touch screen. Use only supplied stylus, otherwise would bring seriously damage to the touch screen.

8. Using active sync program

ActiveSync program could synchronize between the PC and PDA device, so that enable you to perform program installing, copy, transition, delete and so on operations.

8.1 Set up the Microsoft ActiveSync

8.2 Installing Microsoft ActiveSync Program

Download the latest version of ActiveSync program from Microsoft **Windows CE**. Website, and install it to your PC.

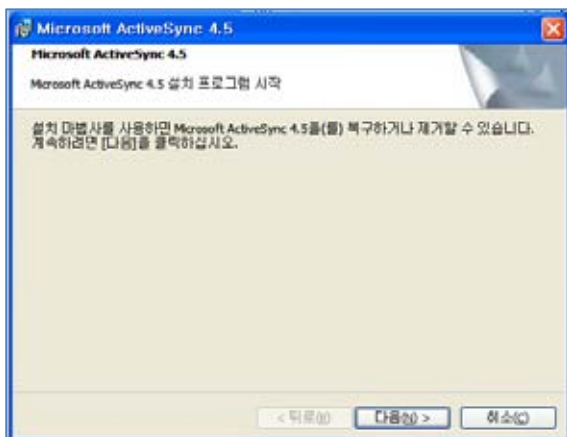
ActiveSync: Windows XP

Download Address: <http://www.microsoft.com/downloads/>.



Caution:

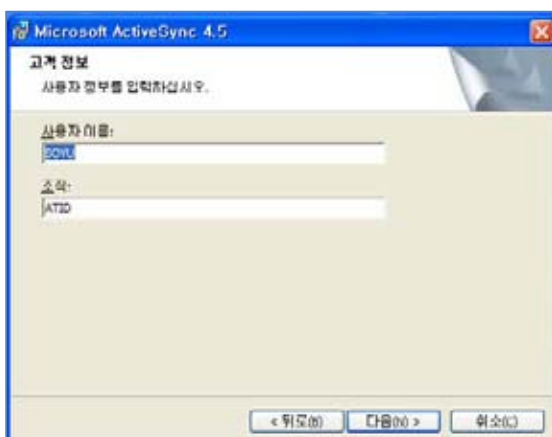
You must use ActiveSync v3.7 version or above.



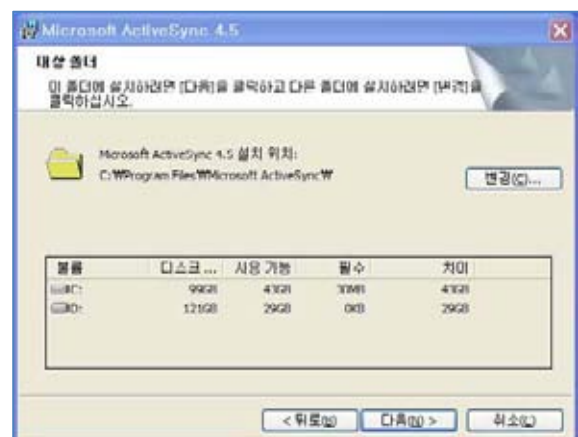
Click [Next] Button.



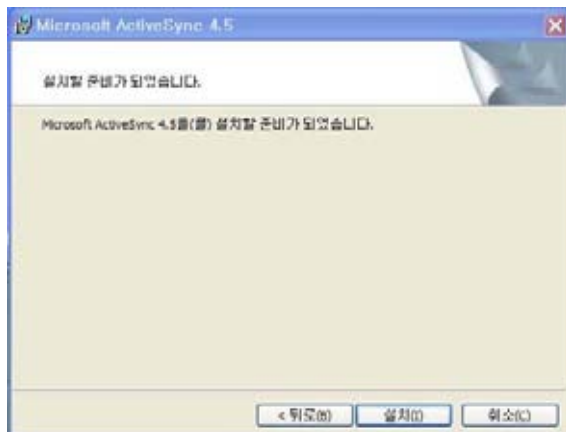
Select the License agreement, and then click the next button.



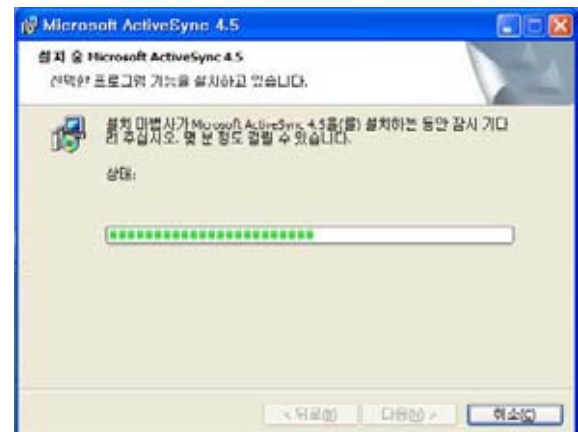
Enter a user name and organization name, and then click the Next button.



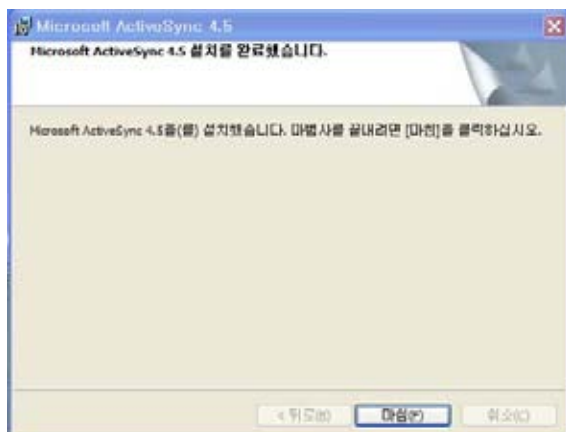
Specify the path to the installation program, and then click the next button.



Click on the install button



Installation of active sync program



Click the finish button to complete the installation.

8.3 Connection Pc to PDA

Setting PC

[Start button] -> [Programs] -> [Microsoft ActiveSync]

< Windows Xp >



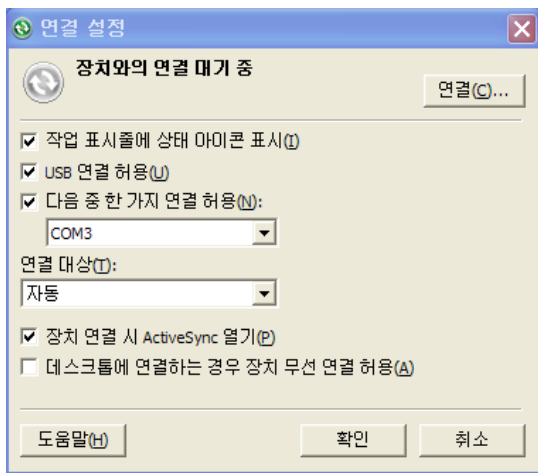
< Win7 / Vista >



Active Sync is a program run screen.



File connection settings, Click the button.

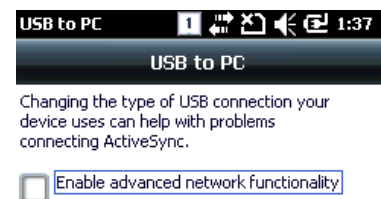


USB sync cable connection, select Allow, and then click the OK button.

[How to set up the USB to PC]

[Start buttons] -> [setting] -> [connect] -> [USB-PC]

Even connect to PC, synchronization is not good
Please select the Enable advanced network functionality
To use a VPN you can connect your computer to your device
Using the RNDIS.
In this case, please try to connect and after you turn off the
'Enable advanced network functionality'



8.4 Transmitting Data

Using the USB cable to connect PC and the device.



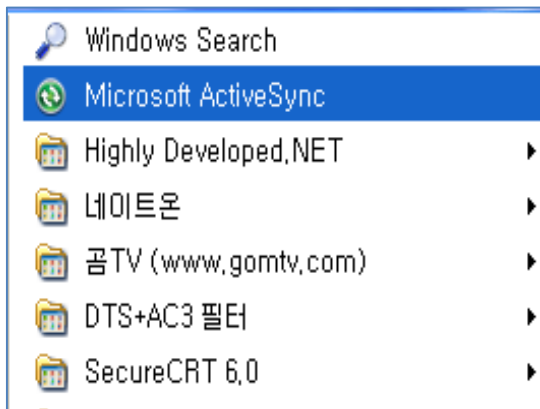
Connection state



Disconnection state

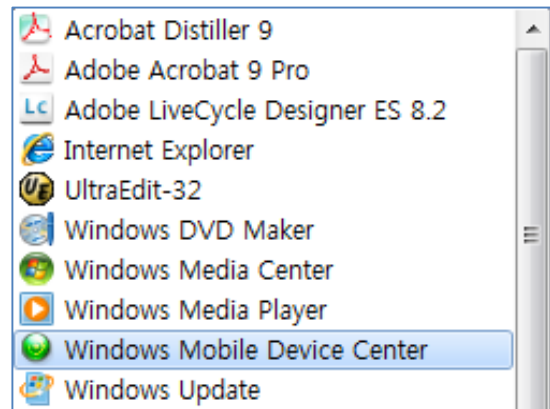
You can check the ActiveSync connecting state on the taskbar.

< Windows Xp >

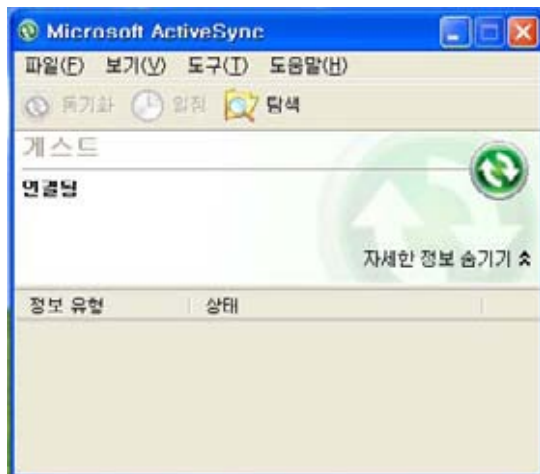


Start – Program– Click Microsoft ActiveSync

< Win7 / Vista >



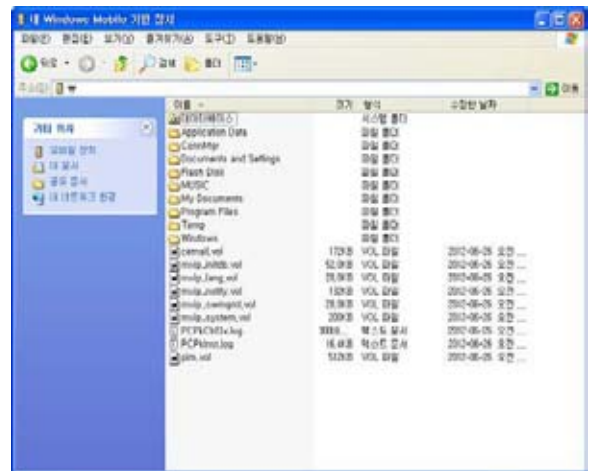
Start – Program – Click Windows Mobile Device Center



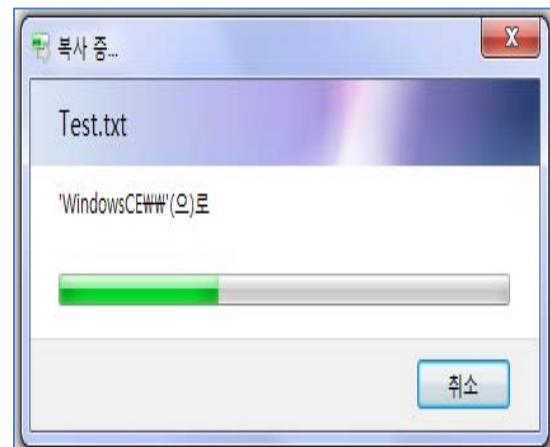
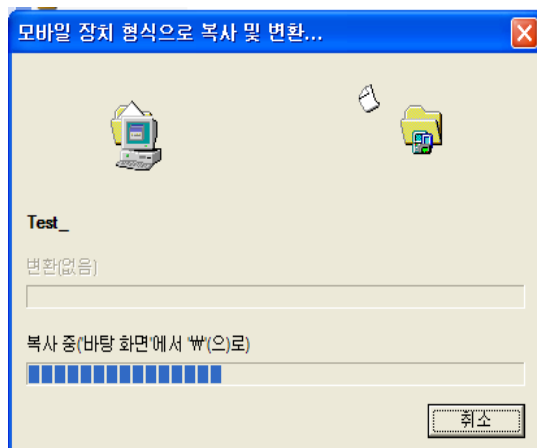
When you connect ActiveSync Click the explorer menu.



Content on the device when Active sync Connected, click the browse ICON.



File/ directory device's screen



Data transfer screen

Chapter4. Optional Module

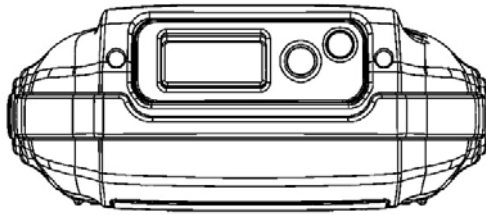
Provided variety of optional modules and in this chapter will provide you the information of each module.

Optional module as below

- 1) Barcode Scanner
 - . 1D Laser Barcode Scanner
 - . 2D Imager Barcode Scanner
- 2) Wireless LAN – 801.11 a (OPTION)
- 3) Wireless LAN – 801.11 b/g
- 4) Bluetooth
- 5) UHF 900 M – Gen 2 Full Function (OPTION)
ISO18000 6C (Only Tag UID Reader)
- 6) RF 13.56 – Mifare, ISO15693 (OPTION)
- 7) GPS Module
- 8) Phone
- 9) Camera
- 10) IC Card

1. Using 1D or 2D Barcode Scanner

Enable to equip with a compact image engine, which could recognize all 1D and 2D barcodes



1.1 Scanning Barcode

Set up the Decoding option or reading barcode by using Barcode scanning.



Running application

- [Start Button] -> [DEMO_BarcodeScan] performing



Main window

- Start Scan: start reading barcode.
- Stop Scan: stop reading barcode
- Symbol: Read barcode type name
- Length: length of the barcode read
- Menu: application pop-up menu.
- Exit: Exit the application.



Pop-up menu

- Option: Set up the application options
- Capturing: image capture by 2D Scanner module
- Symbology Config : Set up the Barcode decoding options



Option window

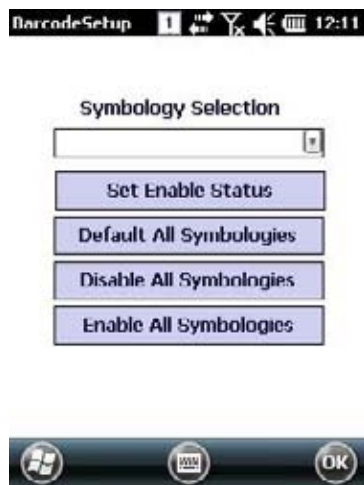
- Beep: Success the Barcode scanner, beep sound output.
- Vibrator: Success the Barcode scanner, working vibrator.
- Enable “SCAN” key: Enable “SCAN” key
- Enable F7 key on right side: Enable F7 key
- Enable F8 key on right side: Enable F9 key
- Enable trigger: Enable Gun Trigger key
- RAW Data: To set the scan results in the form of raw data 2D scanners only support.



Capturing window

- Start Preview: Start preview by 2D scanner
- Stop Preview: Stop preview
- Do Capture: current screen and save it as a file

Symbology Config window



- Symbology Selection: Set up the specific decoding options
- Set Enable Status: Enable/Disable status of all symbology.
- Default All Symbologies: All symbology set as default
- Disable All Symbologies : All Symbology Disable.
- Enable All Symbologies : All Symbology Enable

1.2 Setting barcode Emulator

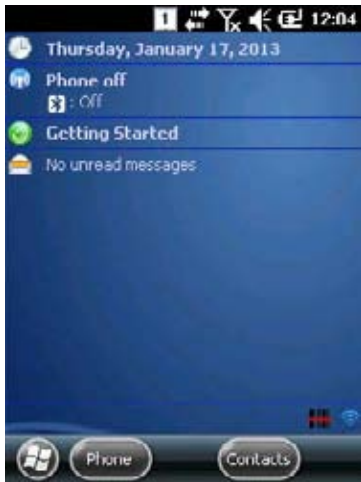
Barcode Emulator program enables you to set the barcode value input type scan button, scan sound (Notes , internet explorer)

When user running the barcode Emulator, who should finish the previous running program.



Running application

- [Start Button] -> [File Explorer] -> [My Device] -> [Program Files] -> [ATID_DemoApps] -> BarcodeEmulatorWM.exe



Application run complete.

- Once the run is complete, the barcode icon on the bottom right of the screen is registered and can be scan
- When user click the barcode icon , pop up the main menu and Can change the settings



Emulator Main Menu

- Exit: Exit the application
- Vibrator: Upon successful barcode scanning vibrator action
- Beep: success the barcode scanning and beep sound output
- Key Setup: set up the start barcode scan key
- Terminator: select barcode value to be added to the special Character
- Result Type: select how to output barcode value



Key Setup

Below keys can set multiple

- F1: Set up for starting when the F1 key is pressed
- F2: Set up for starting when the F2 key is pressed
- F7: Set up for starting when the F7 key is pressed
- F8: Set up for starting when the F8 key is pressed
- SCAN: Set up for starting when the SCAN key is pressed
- Gun Trigger: Set up for starting when the Gun Trigger is Pressed



Terminator

Set up the special character to add the output barcode value
Select one of the values below value

- None: Do not use the Terminator.
- CRLF: Add Carriage Return/Line Feed at the end of the Barcode value
- Space: Add the space at the end of the barcode value
- Tab: Add the tab character at the end of the barcode value



Result Type

Set output barcode form

Select the type of the one of the following types

- Keyboard Event: Output barcode value on the screen by using Keyboard Event.
- Copy and Paste: Copy to clipboard and then copy to screen .

■ Warning!

Please do not look directly into the laser beam of barcode, or it may do harm to your vision.

1.3 Barcode Scanning Beam Position

1. Remove the protective film from the window of barcode.
2. Executing the Barcode Demo program.
3. Emit laser beam to the barcode.
 - Adjust the distance according to the size of barcode.
 - Barcode will stop automatically in five minutes if out of the Barcode reading range.

[Correct Scanning Beam position]

1. The more small size of barcode needs the more close to barcode. The effective scanning rang of is from 40~300mm. if failed to scan barcode, please try to adjust scan Angle and distance.
2. The laser beam is a red thick line, when scanning a barcode. .



[Incorrect scanning beam position]

1. The laser beam must across the barcode.
2. It cannot scan barcode if the laser beams across only a fraction of barcode.

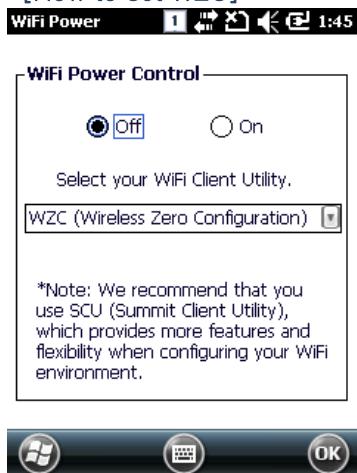


2. WiFi

1.1 WiFi Power On /Off Wireless Zero Configuration

WiFi is always set to the OFF state, when products ship from factory Customer needs to ON for using WiFi

[How to set WZC]



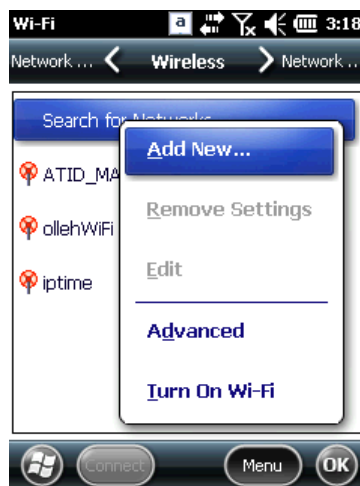
[Start button] -> [Setting] -> [System] -> [WiFi POWER]

ON: WIFI ON

OFF: WIFI OFF



When you want to turn off the WIFI function please turn off WIFI



When you want to turn on the WIFI function. Please turn on WIFI

2.2 Connect WIFI AP_

1. How to connect AP (1)

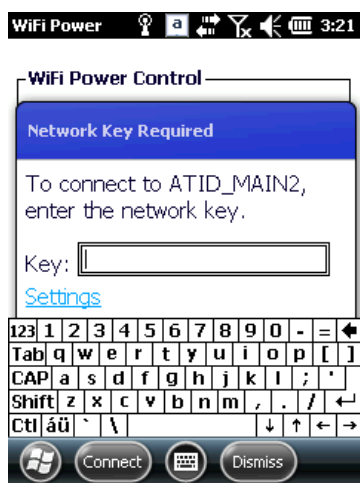
When you turn on Wi-Fi, AP list up automatically. .



Choose the AP what you want to use and click



Click for connecting



Input the network key.

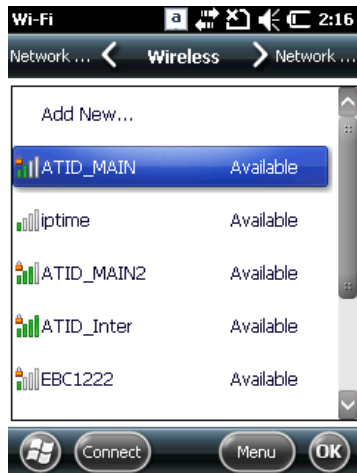


If it connect well you will be able to see mark as screen

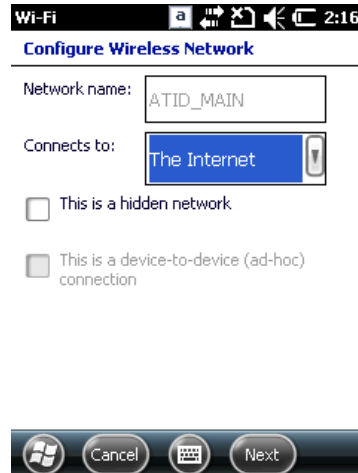
2. How to connect AP (2)

You can connect using the wireless AP management program

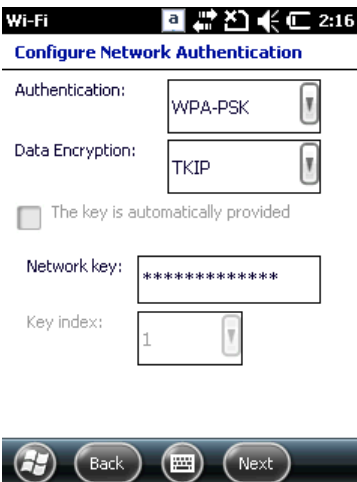
[Start button] -> [Setting] -> [Connections] -> [Network cards]



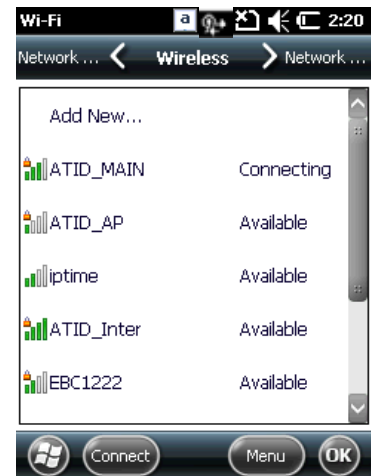
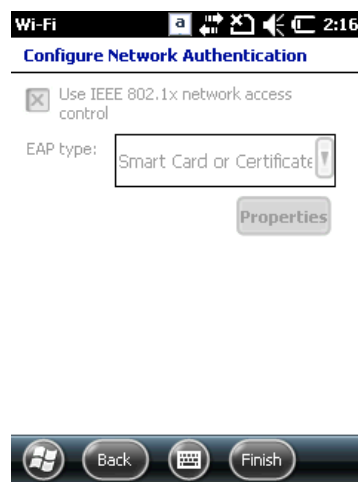
AP or Router captured automatically, Click on the appropriate device form the list



Click as picture



Input the Network key.



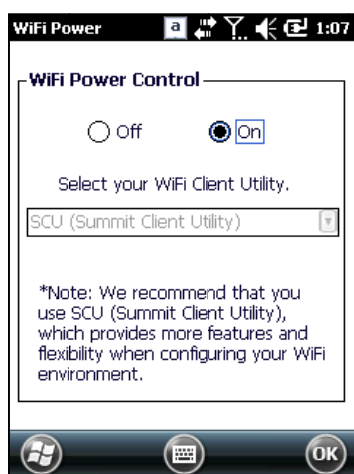
You will be able to see connect Wireless

2.3 WiFi Power On /Off Summit client utility

WiFi is always set to the OFF state, when products ship from factory
Customer needs to ON for using WiFi

[How to set SCU]

[Start button] -> [Setting] -> [System] -> [WiFi POWER]



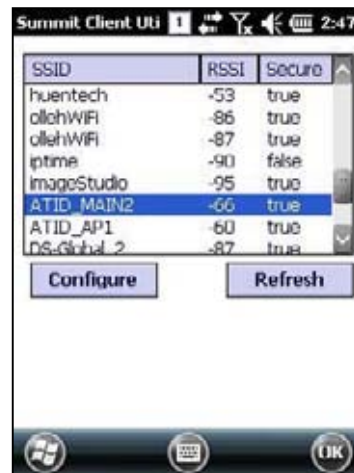
Click on the WiFi



If the summit of the setting is the only default profile, SCU will execute automatically



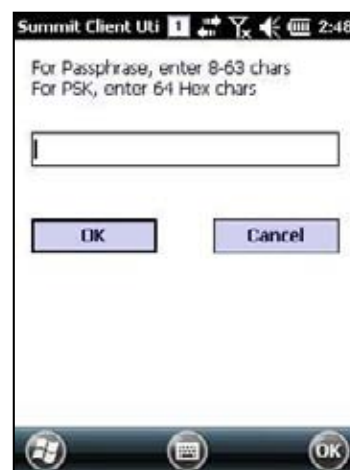
Click the "Scan".



Click the Configure".



" Click the Yes"



Input the password



Click the Commit.



If you choose a list of registered AP WIFI connection, turn on the WIFI

3. Bluetooth

This User Guide described how to Pairing and Disconnecting between AB700 and Bluetooth devices, and also described basic testing method of Mobile Printer SPR-R203, which launched by Bixolon, as a sample device.

** It could pairing with maximum 6ea devices, but assign COM Port only to COM2 and COM7.

3.1 Bluetooth Beginning and Closing

1. Bluetooth Power On/Off

[How to set]

Checking

[Start button] -> [Setting] -> [Bluetooth] -> [MODE]

Turn on the "Bluetooth"

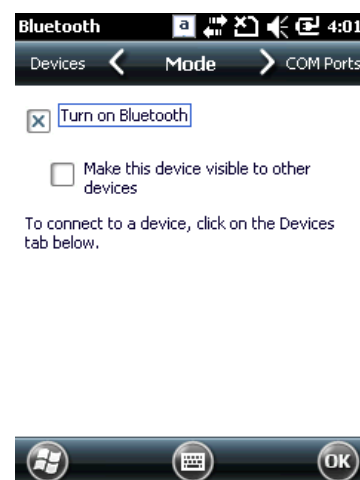
: Depends on checking check box user can control the Bluetooth power.

- Select : Bluetooth On
- No select : Bluetooth Off

Set up for searching this device by other devices

: Depends on checking check box, user can set up for Bluetooth

- Select: Allow to searching this device by other devices
- No select: Do not allow to searching this device by other devices.

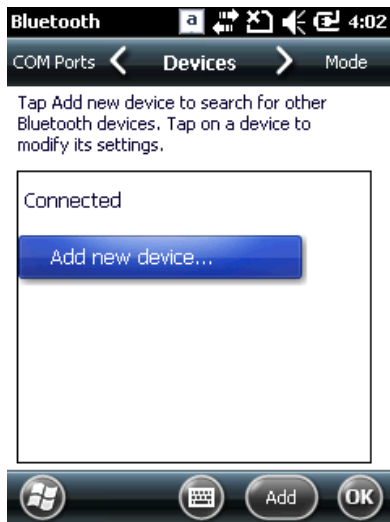


3.2 Bluetooth (Pairing)

After connecting each other through pairing way, Bluetooth devices could do its function properly.

[How to set]

[Start button] -> [Setting] -> [Bluetooth] -> [Devices]

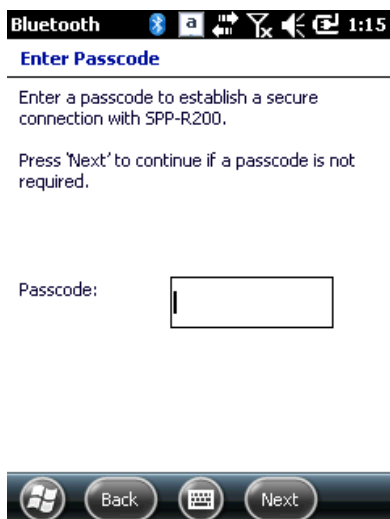


Press the 'Add new device' for searching devices which could pairing



Choose the devices on searching list for pairing and click the next

Depending on the situation, maybe need to input password for some devices, then could

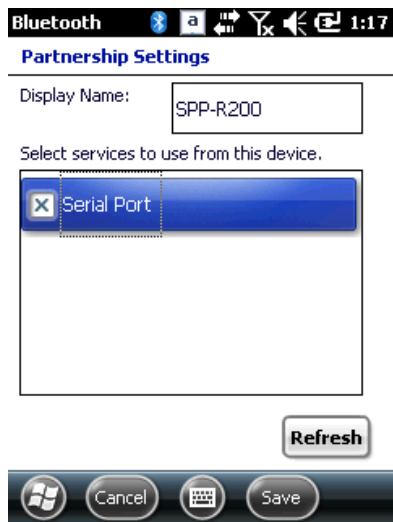


Input the PIN code and click the next button.

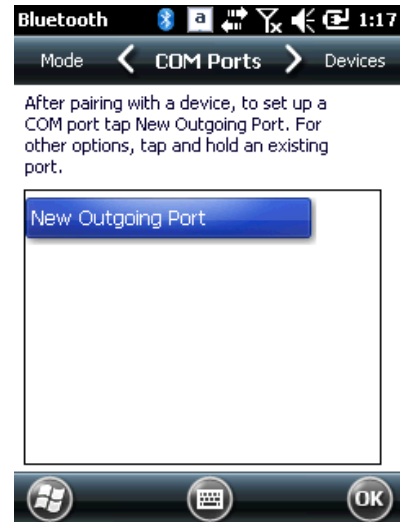


Click the SPP-R200 on the list

*Basically SPP-R200's printer pin code is "0000".



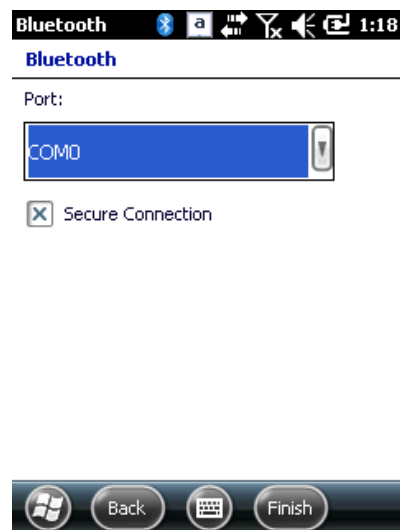
작업 포트를 선택한다.



“choose the”COM port” tap and click the new serial port



Click the SPP-R200 on the list.



Choose the communications Port (COM2), and then click the finish button.
After that it is possible to transmission and reception of data by COM2 port

*when you add a new device, the equipment information is not normally displayed
Please try again

* Password that should be used to Pairing (authentication code), the unit can be set by mutual

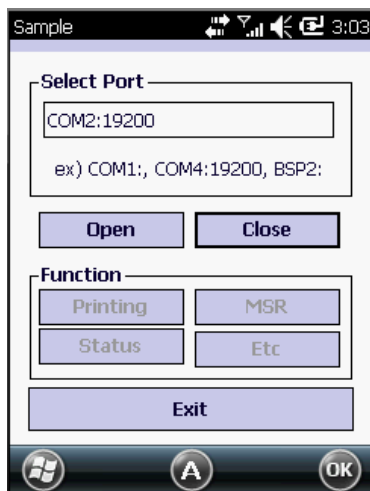
* After the paring is normally achieved, User can use SDK for Bluetooth service. The SDK should be by manufacture of the Bluetooth devices

3.3 Bixolon SPP-R200 Printer Demo

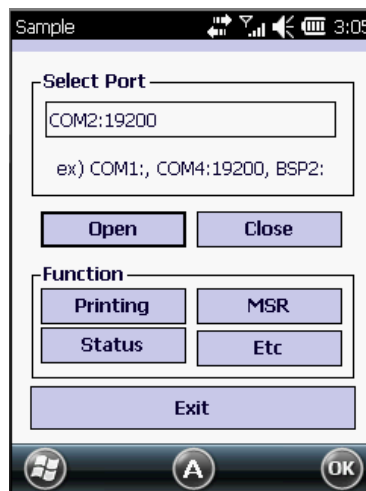
SPP-R200 is typical Mobile Printer of the Bixolon, you can using its App which get from Bixolon website to perform print through Bluetooth.

**the Printer program and SDK, which described in this User Guide is based on the 5th Aug, 2011, and it's would be a little different from homepage contents according to the Bixolon policy.

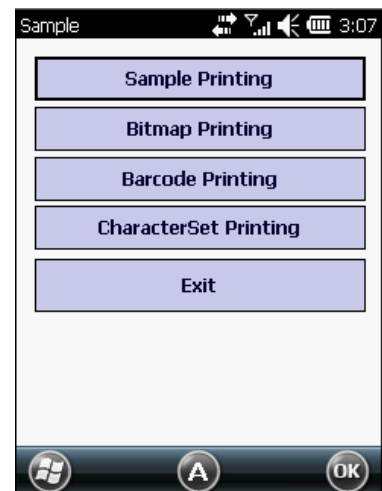
1. Download "SPP-R200 Windows SDK" from the Bixolon homepage (www.bixolon.com) to a suitable directory and unzip the file.
2. Bluetooth Power ON.
3. Executing "Bluetooth Device Properties" programs which located in Control Panel.
4. SPP-R200 printer power ON.
5. Setting the SPP-R200 printer to be in the status of pairing. (Please refer to the User Guide of SPP-R200 Printer)
6. Press "Scan Device" button to searching printer device nearby.
7. In the status of pairing, the factory setting password is "0000" usually.
8. If connected successfully, "COM2 port connected" message will be confirmed. (If had connected one time, maybe not show the message.)
9. Copy and paste the DLL and executable file, which located at bin\ce5\MobileCompia_M3Plus\ within the printer SDK, to AB700 Flash Disk.
10. Executing the Sample.exe program in the AB700 Flash Disk.
11. Change the COM8 to COM2, then press "Open" button to testing printer.
12. Please check to click Printing button and sample printing button. it is working well or not



Change from COM8 to COM2



Click Open button and
Printing button



Click the Sample Printing
button

4. Using Modem

4.1 How to use Phone

1. [Home] -> [Phone]
2. [Start Button]->[Phone]
3. Press Keyboard  button.



4.2 Dialing

Function Key	Descriptions
	Delete number one by one.
	Enable add/edit/delete/ speed dial number and make phone call. (Save maximum 98ea speed dial numbers.)
	Enable to looking for recent Call History.
	After input phone number, press “Talk” button to dialing.

- Press and hold relevent Speed Dial number for a while to make phone call, when you the speed dial number has been already registered.

4.3 Receiving Phone call



Function Key	Descriptions
	Press this button to receive incoming phone call.
	Press this button to reject a phone call.

- Received message information may be different.

4.4 Hang off Phone Call



Function Key	Descriptions
	Communicate via Speaking Key.
	Mute microphone during a phone call.
	Switch active phone call on holding status.
	Switch on holding phone call to active status.
	Enable to Search/add/delete contacts. Enable to add a phone call while looking for contacts,
	End a phone call.

5. Contacts

5.1 Contact List

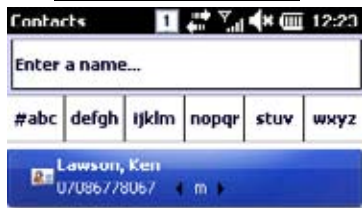
1. [Home] -> [Contacts]

5.2 How to search a contact information



Enter the contacts number or name into the searching box.

5.3 Add to contact list



Press this button to add a new contact information



Select new contact information type.



Select items which will add new contact information.



Enable to add name and company information.



Enable to add mobile phone number.



Enable to add new Email information.



Except for mobile number, Enable to add other phone number.

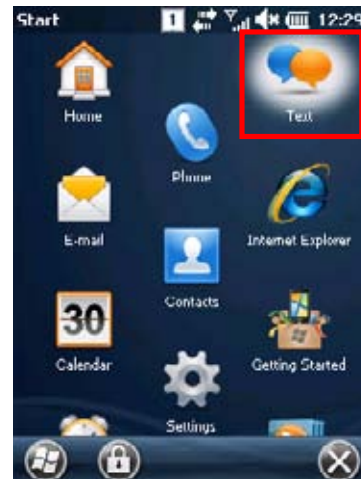


Except for basic e-mail address, enable to add other e-mail

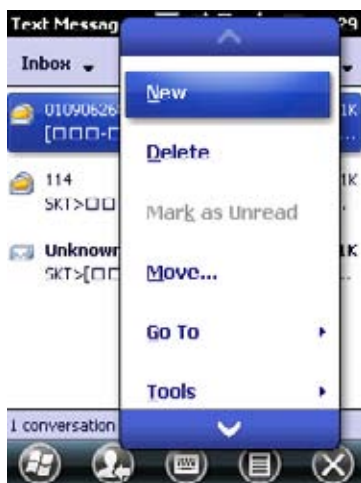
6. Text Message

6.1 How to use Text Message

1. [Home] -> [Text Message]
2. [Start Button]->[Text Message]



6.2 Sending Message



Press this button to make a new message.



Press this button to send a message.

6.3 Receiving Message



Press this button to check new message.



Check message in detail.

- Received message may expressed differently.

6.4 Replying Message



click the relevant message in received message box.



Press "Reply/Forward(R)" button and then choose Reply(R) item.



Press this button to send reply message, after done text.

7. GPS Module

This product enable to install GPS module and comes out internal type.

GPS program port : GPD1

GPS hardware port : COM6, 9600

7.1 GPS Demo Program



Demo Execution

- [Start Button] -> [DEMO_GPS_WM]



Main window button description:

- Start : press "Start" button to start to receiving GPS data.
- Stop : press "Stop" button to stop receiving GPS data.

GPS Data checking:

1. GPS data should be received effectively in open field.
2. GPS Data receiving time is depended on actual using environment. (around 3~10minutes)
After received GPS data once, then next GPS connection will be very fast.

8. Using Camera

This product comes out with 3.0 Mega pixel camera with flash and enable to adjust screen brightness, resolution, screenshot capture, and record video and so on functions.

8.1 How to use Camera



Demo Application Execution

- [Start Button] ->
- [Pictures&Videos] ->
- [Camera]

Main Window button description:

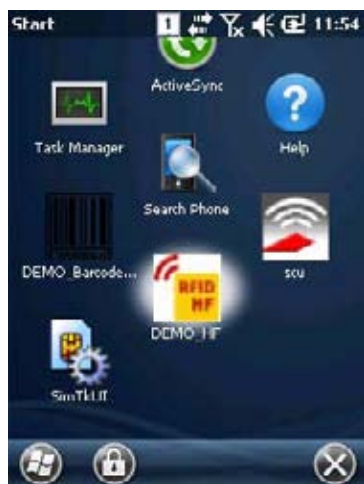


- Thumb... :end the main window and switch to Pictures&Videos screen.
- Menu : main Menu list
- press "Enter" button to save current screen picture.

9. Using HF13.56MHz Reader

This product comes out with internal type of HF13.56Mhz reader as optional item, and card reading distance around 3~8.5cm compliant with ISO Standards, and in the case of Mifare tag, the reading distance around between 1~3.5cm.

9.1 How to use F13.56 Demo



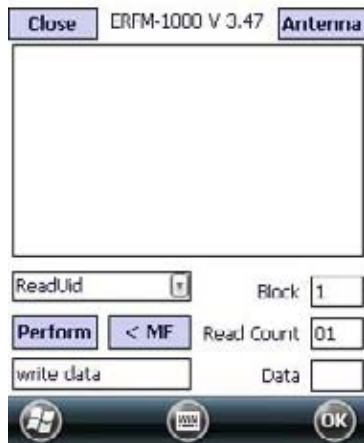
Demo Execution

- [Start Button] -> [DEMO_HF]



Mifare Window button desicription:

- Open : Open HF device
- Antenna : stop emit antenna power.
- Perform : send command which selected from above combo box..
- ISO> : switch ISO-15693 command screen.
- Block : block number which will be accessed
- Key Type : key type of block which will be accessed.
- Key Set : key set of block which will be accessed.



ISO-15693 window button description:

- <MF : switch to Mifare command window.
- Block : start number of block which will be accessed.
- Read Count : number of block which be accessed.

10. Using Smart Card Reader

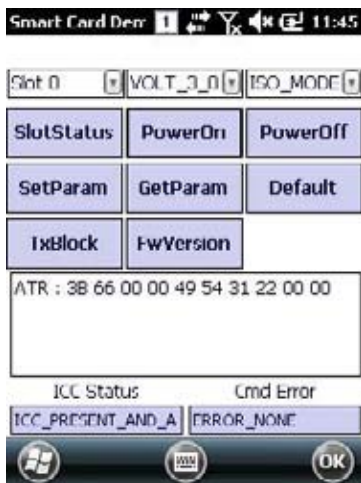
This product enable to communicate with IC Card which compliant with ISO-7816.

10.1 How to use SmartCard Demo



Demo Execution:

- [Start Button] -> [DEMO_SAM]



Main window button description:

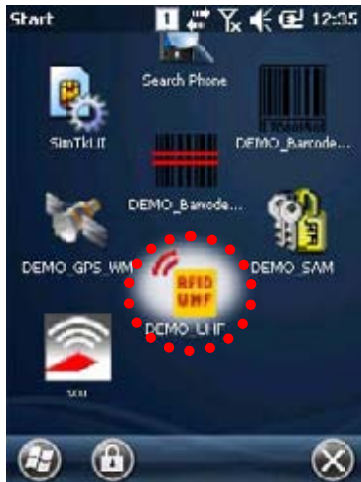
- Slot Status : check card status whether inserted into slot.
- PowerOn : power on IC Card reader module.
- PowerOff : power off IC Card reader module.
- SetParam : set or change Card reader's protocol type, clock rate, bit rate and so on data.
- GetParam : get Card reader's protocol type, clock rate, bit rate and so on data.
- Default : initialize Card reader's set value to default values.
- TxBlock : send APDU Command to Card reader.
- FwVersion : get the firmware version of Card reader.

11. Using UHF 900Mhz reader

This product enable to install UHF module as optional item, and read&write RFID tag based on EPC GEN2 Protocol, performance frequency between 850~960Mhz,

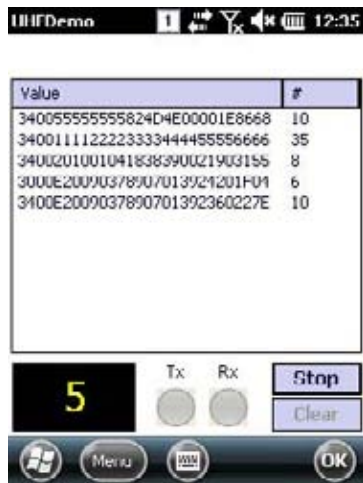


11.1 How to use UHF 900Mhz Demo



DEMO Execution:

- [Start Button] -> [DEMO_UHF]



Demo Main window button description:

Select a tag that will perform “Access” command.

- Start : press Start button to perform “Inventory”, and button changed into “Stop” icon.
- Clear : delete all tag values on the screen.
- Menu : Main Menu



Demo Application optional Menu:

- Read/Write : Read/Write tag.
- Lock/Kill : Lock/Kill tag.
- Option : Application option.
- Version : Version information.

Read/Write window button description:

– Mask : if selected a tag value on main window, then the tag value also showed on Read/Write window, and used as masking pattern while performing Read/Write tag.

It means even there are a great many of tags around the reader, Read/Write command only apply those tag that set as masking pattern,

– Kill Pwd, Access Pwd : Read/Write tag's Kill password, access

– EPC length : Read/Write Tag's EPC length.

Even though using 128bits tag, but if EPC length set as 96bits, then only identify 96bits if performance Inventory command. Please refer to EPC Class1 Gen2 specification for further information.

– Read/Write : Read/Write tag to designated Memory Bank.

– MemBank : read/write의 target memory bank.

– Ptr : Memory Bank offset which would be read/write.

– Seconds : read/write time(seconds)

– Format : read/write data format.

Lock/Kill window button description:

– Mask : if selected a tag value on main window, then the tag value also showed on Read/Write window and used as masking pattern while performing Lock/Kill tag.

It means even there are a great many of tags around the reader, Lock/Kill tag command only apply those tag that set as masking pattern,

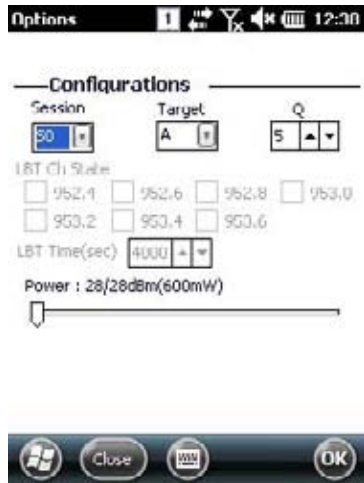
– Kill Pwd, Access Pwd : Read/Write tag's Kill password, access password.

– EPC length : Read/Write Tag's EPC length.

Even though using 128bits tag, but if EPC length set as 96bits, then only identify 96bits if performance Inventory command. Please refer to EPC Class1 Gen2 specification for further information.

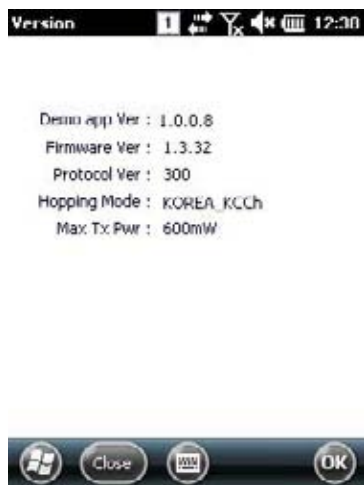
– Do Lock : performance command according to check marks on box.

– Kill : Kill tag. The tag will be never restore if kill a tag, please think twice before perform kill tag.



Options Window button description:

- Session : change Session when operating Tag.
- Target : change target when operating tag.
- Q : change Q in Tag operation
- LBT Ch State/Time : change LBT option for Europe, Japan type(forbidden)
- Power : change Tx Power level of Reader.



Version Window button description:

- Demo app Ver : Demo application Version.
- Firmware Ver : UHF module firmware Version.
- Protocol Ver : UHF module library Version.
- Hopping Mode : UHF module country Version.
- Max Tx Pwr : UHF module maximum output.

Chapter5. Appendix

Configuration

Physical and Environmental Characteristics

Dimension	158mm(L) X 78mm(W) X 28mm(H)
Weight	320g
Operation Temperature	-20℃ ~ 55℃
Storage Temperature	-30℃ ~ 70℃
Humidity	Non-condensing
Drop	1.5m drop to concrete

Performance Characteristics

Processor	Marvell™ PXA320 806MHz
Operating System	Windows Embedded Handheld 6.5 or (Windows CE 5.0 option)
Memory	ROM 256MB (Max. 512MB option) / RAM 256MB
Display	3.5" QVGA with Backlight, TFT LCD, 240*320 Pixels, 262,144 Color *3.5" VGA with Backlight, TFT LCD, 480*640 Pixels, 262,144 Color option) Stylus Touch Screen Interface
Audio	Phone Receiver, Earphone Jack, Speaker
Communication Port	RS-232Serial Port, USB 1.1 Client, USB 1.1 Host
Expansion Slot	1 Micro SD Slot (SDHC Support) / 1 SIM Slot / 1 SAM Slot
Keypad	31key
Notification	Vibrator, LED, Speaker

Power Supply

Main Battery	Lithium ion 3.7V Above 2,960mAH(rechargeable), Up to 4,400mAH(Option)
Backup Battery	Lithium-ion Polymer 3.7V, 80mAH(rechargeable)
Adaptor	Input AC100V ~ 240V, Output DC5V 3A

Network Character

Wireless Lan	WLAN(802.11 b/g compliant)
Bluetooth	Class II, v2.1 EDR
GPS	Internal Antenna

Data Capture Devices

Barcode Engine	1D Laser Scanner or 2D Image Scanner
Camera	3.0Mega Pixel with Auto Focus

UHF 900MHz Tag Reader

Frequency	850MHz- 960Mhz (Adjustable)
Reading Range	0m ~ 7m (Differs from each tag)
Writing Range	0m ~ 3m (Differs from each tag)
Antenna Gain	2dbi (Standard)

Speed	62.5 kbps
RF Output	1W EIRP
Protocol	EPC Gen2 ISO 18000 6C / ISO 18000 6B(option)
Multi-Reading	Anti-collision

Technical support and Sale Contact

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