

AT880

User guide



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1 Background

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

2 Before using AT880

2.1 Safety information

Your safety is extremely important. Read and follow all warnings and cautions in this document before you handle and operate equipment. If you do not follow the safety warnings and cautions, you might be seriously injured, and the equipment and data 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 observe strictly when you operate procedure, practice, configure.

NOTICE

A notice provides you the information while using AT880.

3 How to use battery correctly

- In case you drop the main body or battery in water, please do not put into the stove or heater for drying. Just keep it in natural drying or contact purchase place.
- Please note that the battery terminal should not be in contact with metallic object.
- If you do not use the battery for a long time, please keep it at room temperature after charging.
- Operating time of battery can be shorter than usual in accordance with loss of battery and use time. In this case, please contact us.
- You have to use provided adaptor when charging the device.
- Turn off the device properly then detach or replace the battery.

4 Caution when using AT880

- User careless or products repair would damage the stored data. Manufacturer is not responsible for this damage, so please do back-up the important data separately.
- If you have a problem on product, do not try to repair or disassemble it by yourself, please contact our customer service center.
- Do not use your product at the specific places such as hospital, plane and so on where electromagnetic wave or the risk may occur.
- Please note that using the device in environment of high temperature and humidity for long hours can make a malfunction of device.
- In case of that noise, smoke and odor occur at the device while using product, please disconnect the charger with device and off the power immediately, then please contact our customer service center.

- If you have any other questions on use of device, please contact our customer service center.

4.1 Caution when using AT880

The mobile computer is a small, ergonomically designed PDA, which is built on the Microsoft window CE 5.0 Operating System.

The PDA can be equipped with Barcode Scanner, RFID Tag Reader, MSR Card Reader, Printer, Smart Card Reader, Wireless Modem, Camera and other optional items. Thanks to its various functions it can be used in Industry, Enterprise, Logistics...

4.2 Product composition

Open the packing box and make sure you have all the below items are:



Please contact our customer service in defect of product composition and need to be changed.

4.3 Name of each part



4.4 Function of each part

| NAME | FUNCTION |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Camera (option) | It is possible to image capture and save. |
| Camera flash (option) | You can use the camera with flash |
| 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. |
| Charger jack | Enable you to connect to adaptor which provided from factory. |
| Cradle connector | Enable you to connect to PC or charging the battery while using cradle. |
| Earphone jack | Enable you to connect to earphone. |
| Sync cable connector | Enable you to connect and send data to PC via USB sync cable. |
| Charger LED | Charger LED will be Red when the battery is charging, or will be green when it is charged completely. |
| Touch screen | Display running programs, and could execute, use, and exit programs via to touch the screen. |
| Keypad | Enable you to input key value (number, alphabets, symbol), or executing assigned programs. |
| Reset button | Enable you to perform a warm Reset, Press <Power> button simultaneously, Enable you to perform a hard Reset |
| WLAN LED (option) | Displays whether the wireless WLAN power supply |
| Scan key | It is possible to scan barcode or RFID tag |
| Microphone | Enable you to conduct communication |
| Internal HF | HF 13.56MHz Embedded module mounting location. |
| 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. |
| Speaker | Build-in speaker, which could emit various sound effects. |
| UHF Connecting port | Enable you to install a UHF 900MHz tag reader module. |
| Battery | Enable to supply the power to the product. |
| Battery latch | Enable you to detaching and attaching the main battery. |
| Scan button (F7, F8) | It is possible to scan barcode or RFID tag |

5 Basic Function

PDA battery is composed of a main battery and a 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 2,970mAh Lithium – polymer

Backup Battery: 3.7V 80mAh Lithium – polymer

Note:

Switch on the backup battery when you use the PDA for the first time and then install the completely charged main battery.

5.1 Battery

5.1.1 Switch On Backup Battery

The image blow shows the battery compartment.

Slide the lever to right to start supplying power to the system.



To attach main battery to the back-battery compartment of the PDA and to confirm the battery latch locked firmly refer to “5.2 Battery attaching and detaching”

Connect adaptor to the PDA adaptor connecting jack, and check if the “Power LED” is Red, and then charge 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 in order to shorten the charging times.

5.1.2 Attaching and Detaching the battery

5.1.2.1 Battery detachment

These images show 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.



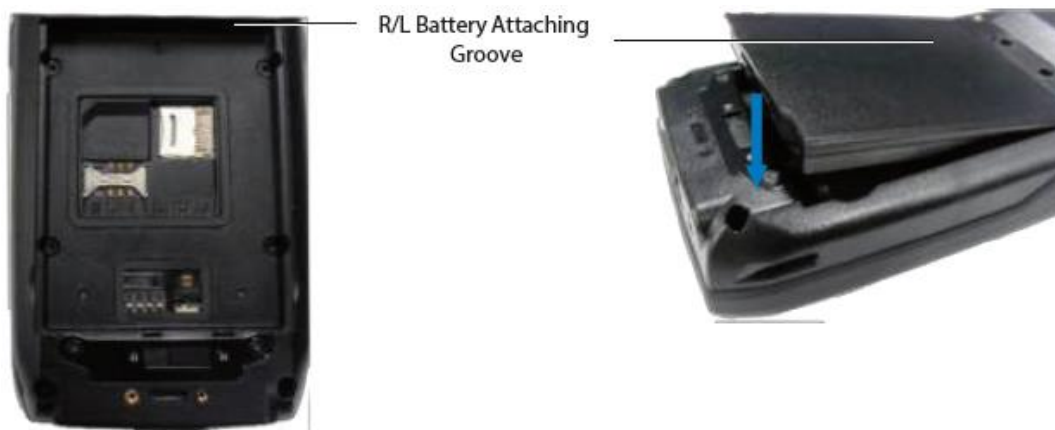
Battery latch



Both sides of groove

5.1.2.2 Battery attachment

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.



5.1.3 Charging battery

You have to charge the battery via dedicated adapter, which provided from the factory. “Power LED” is Red 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 while charging.



Caution:

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

5.2 Power On and Off

Press <Power> button one time, the device will enter low-Power mode (Sleep Mode). The following window is displayed on the desktop or other programs is running in the system.

Press <Power> button once again could activate the system.

Taskbar: displays the currently running programs.

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



Taskbar

Start button



5.2.1 Power Off:

1. 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).
2. You can also press <Start Button> -> <Suspend> button to turn the device off.

5.2.2 Power On

1. When the system power is in the on 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.

5.2.3 Automatic Power OFF

If the device has been powered but has not been used for a period, the system will enter low-power mode (sleep mode) automatically. To set up the sleep mode time:

[Start Button] -> [Setting] -> [Control Panel] -> [Power Management] -> [Power Off]

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.

5.2.4 Battery Discharging

If the main battery discharges completely, the system will not turn on, the device will get into low-power mode (sleep mode) automatically. Even if you 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.

5.2.5 Checking Battery Gauge

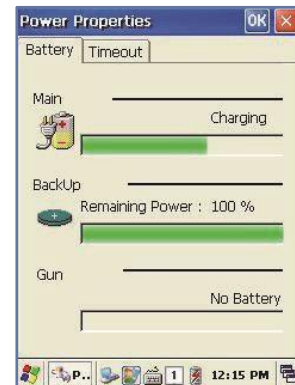
Note :

Battery life is largely affected from the user using method and surrounding environments.

A 2,970mAh battery is usually needs 6 ~ 12 hours to get charged completely.

5.2.5.1 Checking Battery Gauge

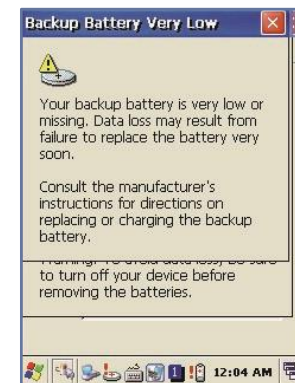
[Start Button] -> [Setting] -> [Control Panel] -> [Power Management] -> [Battery]



5.2.5.2 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.



5.2.6 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.

5.2.7 Battery replacement

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

■ **Warning!**

Please dispose the used batteries in a designated place.

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.

5.3 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.

[Process of Soft Reset]

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



5.4 Hard reset

When do you need to perform Hard Reset?

Hard Reset, which is also called Cold Reset, enables to initialize 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.

[Process of hard reset]

Use stylus pen to press <Power> Button and <Reset> Button simultaneously. The system will restart again after the screen turns off shortly.

[Result of Hard Reset]

- System will restart
- Operating System (Windows CE) will be loading and restarting.
- Desktop will appear in about ten seconds.
- Time and date window will be popped up and need to reset it.

5.5 Initializing System

Enter [Boot Menu] and do what you want, when in the situations as below:

- When you need to restore the original registry information, which has been changed.
- When you need to initialize “My device” storage spaces.
- When you need to initialize “Flash Disk” storage spaces.
- When you need to initialize system to factory default settings.



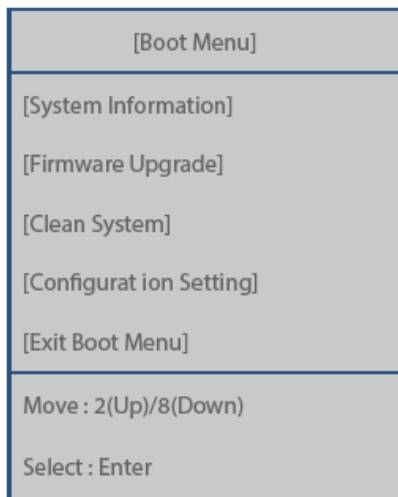
You can also press <Power> button and <Fun> button simultaneously, and then press <Reset> button to perform Hard Reset.

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

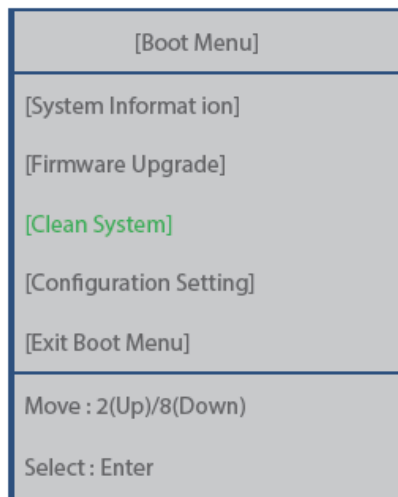
Warning!

Except for [Clean System], please do not use other functions.

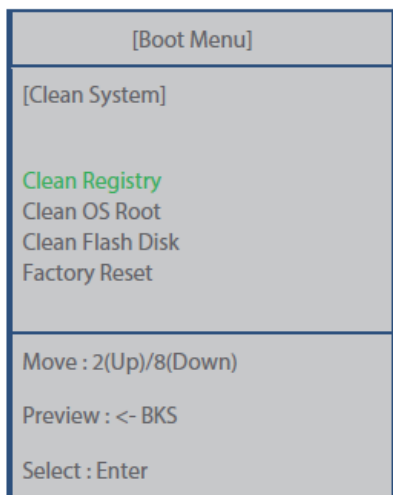
The system might not work properly if you use other functions on the [Boot Menu].



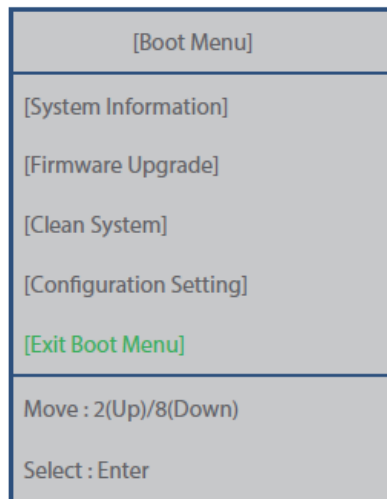
[Boot Menu] Start-up Screen



Using<2▲>, <8▼> buttons to select Clean System, then press <Enter> button.



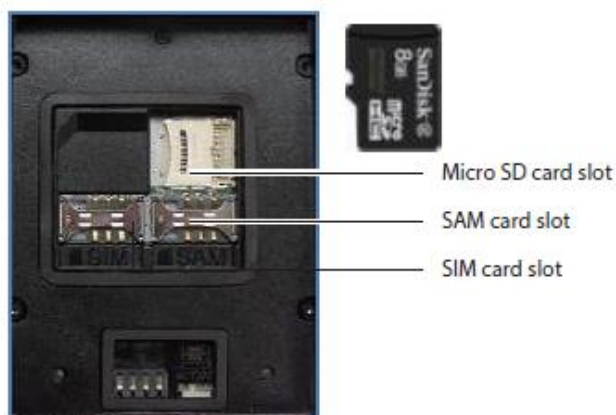
Using<2▲>, <8▼> button to select your need command.
Press <BKS> button to return to main menu.



Using<2▲>, <8▼> buttons to select [Exit Boot Menu], then press [Enter] button to exit [Boot Menu].

Clean Registry – Initializing registry.
Clean OS Root – Initializing “Mydevice” region.
Clean Flash Disk – Initializing “Flash Disk” region.
Factory Reset – Initializing to factory default settings.

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



5.6 Attaching Micro SD card



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



lift the cover up along arrow direction.

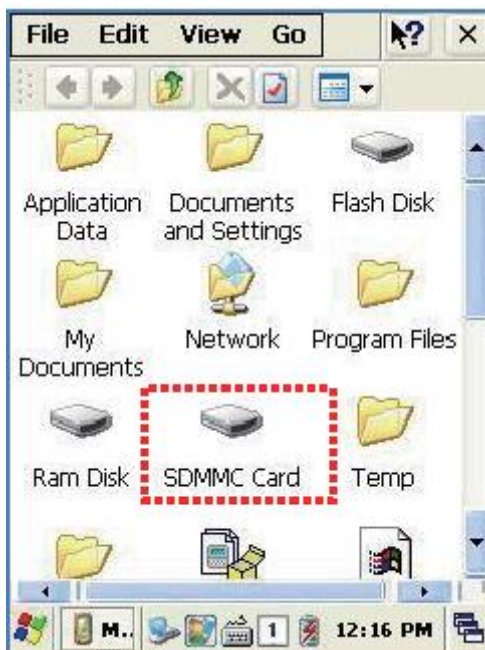


Put Micro SD card into Slot and press down the cover as arrow direction.



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 -le explorer, after having inserted the Micro SD card.



5.7 Attaching SIM Card and SAM Card

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



5.8 Screen settings

5.8.1 Screen brightness setting

Brightness is already set 80% at the factory, and brightness is the biggest consume part of the power, so you might need to adjust it to your actual need.

[Setting the screen brightness]

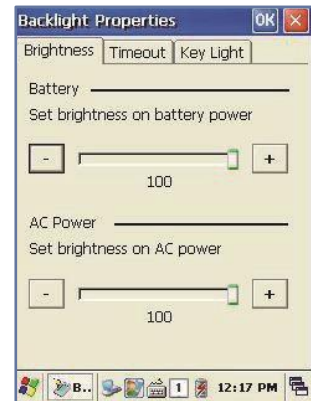
[Start Button] -> [Setting] -> [Control Panel] -> [Backlight]

[MyDevice] -> [Control Panel] -> [Brightness]

Brightness: enable you to adjust brightness.

Timeout: enable you to adjust the timing of turning off brightness.

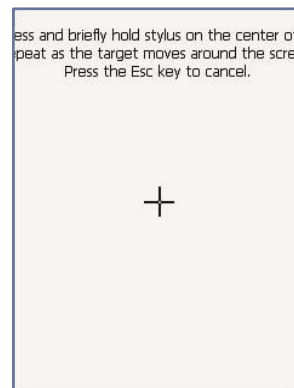
Key Light: enable you to adjust the timing of turning off key lamp.



5.8.2 Screen adjustment

When you first use the device or you need to use the device for a long period time, you may not be able to select the place where you touched with stylus. To solve the problem you have to reset the coordinate calibration values.

[Start Button] -> [Setting] -> [Control Panel] -> [Stylus] -> [Calibration] -> [Recalibration]



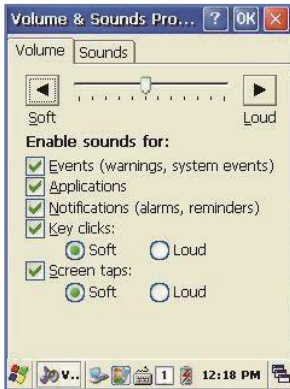
Press and hold stylus pen briefly on the center of cross symbol and repeat 5 times as it moves around the screen. The screen counts 30 seconds after calibrating, and you can finish the recalibration to touch screen wherever you want, if you do not any action, the screen will automatically finish the recalibration of itself.

5.9 Volume and sounds setting

Volumes is already set 80% at the factory, and you can readjust you need volume at control panel -> "Volume and Sounds"

Setting Volume and Sounds

[Start Button] -> [Setting] -> [Control Panel] -> [Volume and Sounds]



5.10 Data and time setting

[Start Button] -> [Setting] -> [Control Panel] -> [Date and Time]



Setting Year :

Double Click the year, and click the up and down arrow button to set year.



Setting Month :

Double Click the Month or
Click L/R arrow button to set Month.



Setting Day :

Click the day directly to set day.



Setting Time :

Click AM/PM, Time area directly,
using up and down arrow button
to set Time.




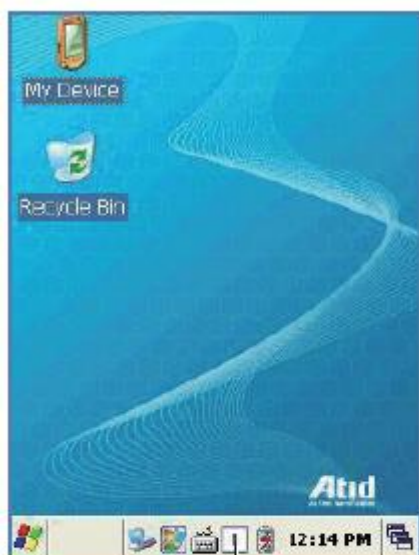
Setting Time Zone :

Click up and down arrow
direction to select time zone
and click apply button.

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

5.11 Using keypad


If you want to change the current input language, press <1  ALP> button as below steps:
[Numeric] -> [Lowercase] -> [Uppercase]




Click the input language icon on the taskbar is also can change the input language.

5.12 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.

5.13 Using <Fun> Button

Press <Fun> button and other buttons simultaneously to activate functions as below:

| Fun + button | Function description |
|----------------------------|-------------------------------------------------------------------------------|
| <Esc> | Enable you to cancel the selected command or the programs operating or state. |
| Volume button <Up>, <Down> | Enable you to increase or decrease the sound. |
| <3>,<9> | Enable you to perform page Up or page Down. |
| <2>,<4>,<5>,<6>,<8> | Enable you to move the cursor to the L/R, UP/DOWN and HOME. |
| | Enable you to delete a letter which located after the cursor. |
| <7> | Enable it has Tab button function. |
| <*>,<0>,<#> | Enable you to input <+> <000> <-> symbols. |
| <F3>,<F4> | Enable you to use as like function buttons. |

5.14 Use of stylus

You can tie the stylus to the hand strap hole, in order to use the stylus like a mouse on a PC



Use of stylus:

- 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.

5.15 Connecting PDA to PC

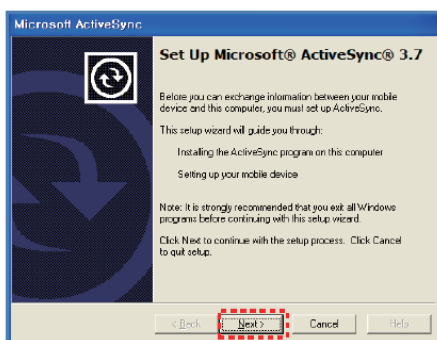
Download the latest version of ActiveSync program from Microsoft Windows CE. Website, and install it to your PC.

ActiveSync: Windows Xp

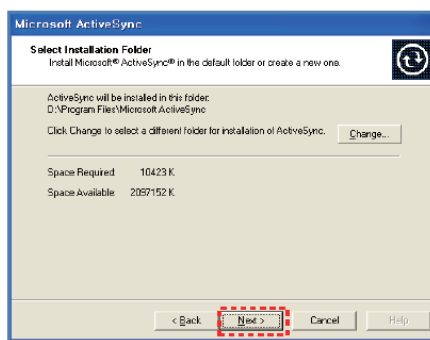
Download Address: <http://www.microsoft.com/downloads/>.

Caution:

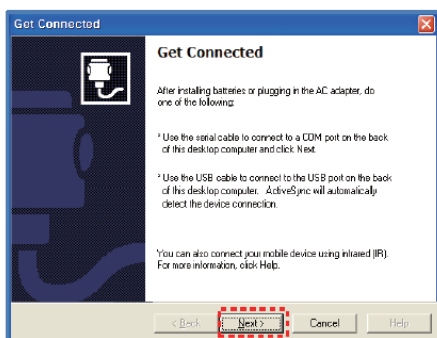
You must use ActiveSync v3.7 version or above.



Click [Next] Button.



Designate installation folder, then click <Next> button.

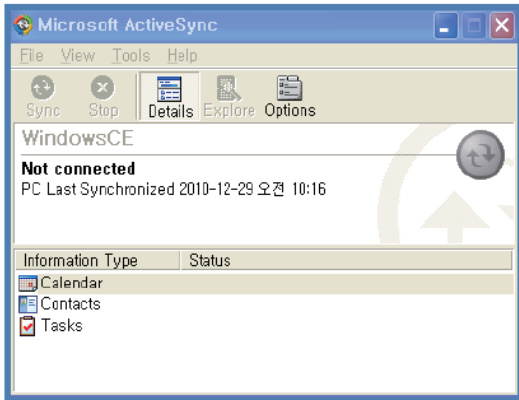


The installation was finished, and then uses the USB cable to connect to the USB port on the computer; ActiveSync will automatically detect the device connection.

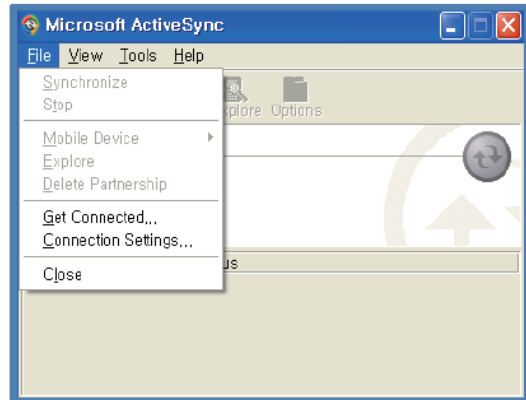
Setting PDA

[Start Button] -> [Setting] -> [Control Panel] -> [PC Connection]

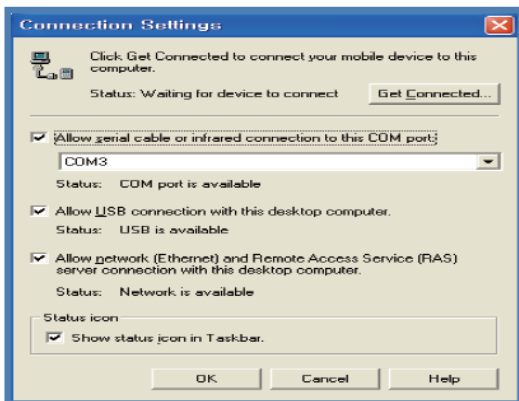
<Windows XP >



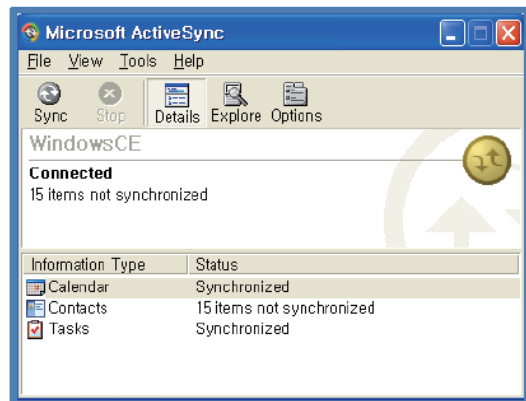
Executing Microsoft ActiveSync program



Click [File], Click [Get Connected].



Select <Allow USB connection with this desktop computer>, press OK button.



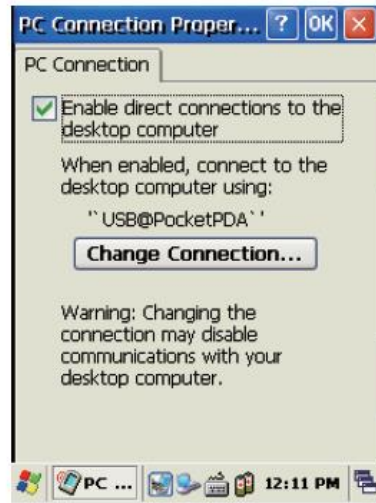
ActiveSync connected to PDA

Setting PDA

[Start Button] -> [Setting] -> [Control Panel] -> [PC Connection]



Double click PC Connection icon



To check if set to connected to USB Sync cable

5.16 Data transfer

Use the USB cable to connect PC and the device.



Connecting state



Disconnecting state

You can check the ActiveSync connecting state on the taskbar.

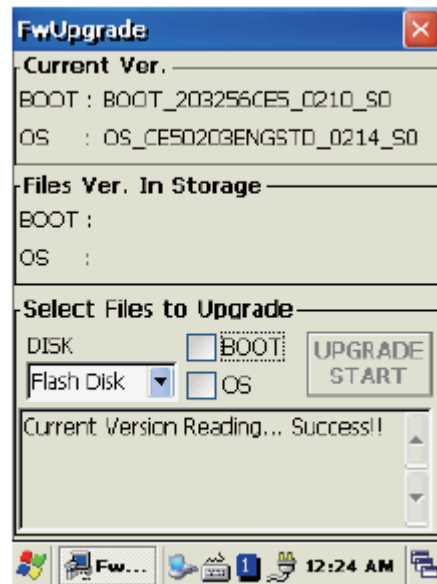
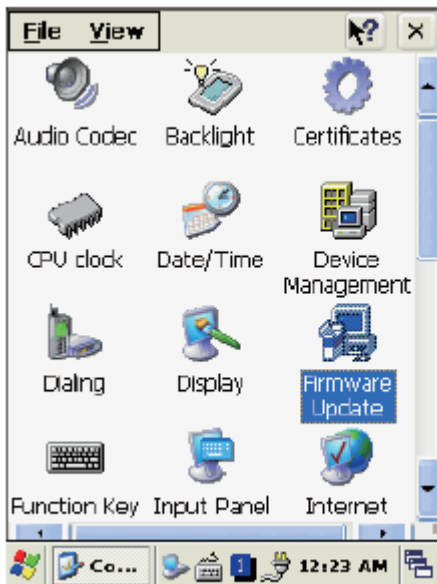
<Windows XP>



Start button/Programs/Microsoft ActiveSync

5.17 Firmware upgrading

[Start Button] -> [Setting] -> [Control Panel] -> [Firmware Upgrade]

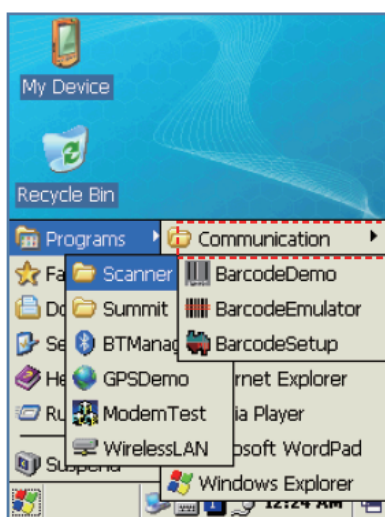


6 Optional modules

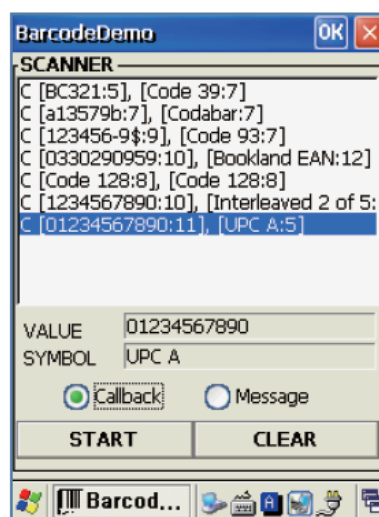
The optional modules are the following:

- 1) Barcode reader
 - 1D Laser Barcode Scanner
 - 2D Imager Barcode Scanner (2D Long Range Barcode Option)
- 2) Wireless LAN – IEEE 802.11 a/b/g/n (Option)
- 3) Bluetooth
- 4) UHF 900MHz – GEN2, ISO/IEC 18000-6C
- 5) HF 13.56MHz – ISO15693, MIFARE, ISO14443 A/B (Option)
- 6) GPS Module
- 7) Phone
- 8) Camera

6.1 1D or 2D barcode scanner



Start Button/Programs/Demo Apps/



Press Scan Buttons to Read Barcode.

6.2 Barcode emulator setting

Barcode Emulator program enables you to set the barcode value input type, scan button, scan sound and so on.

Executing Barcode Emulator

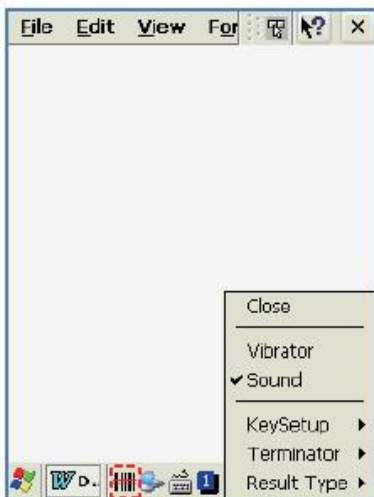
[Start Button] -> [Programs] -> [Scanner] -> [BarcodeEmulator]



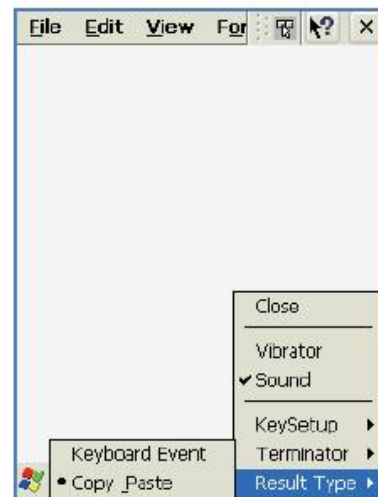
Run the Barcode Emulator



Barcode Emulator Icon will be showed on the taskbar.



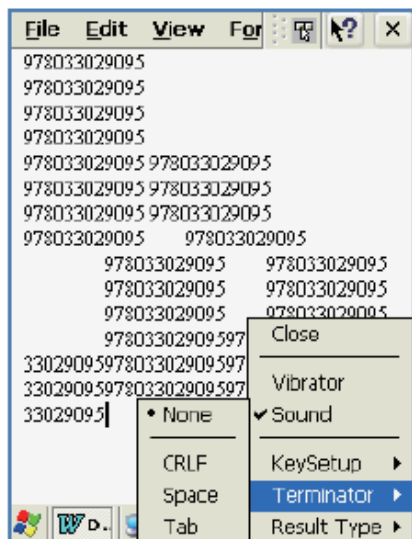
Run WordPad Program, then click the Emulator Icon



Result Type

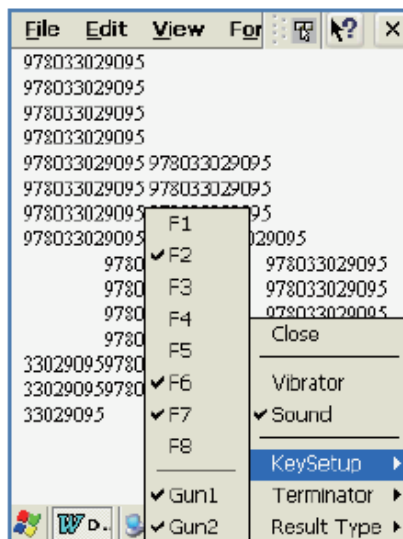
Keyboard Event : Barcode inputted one by one.

Copy Paste : Barcode will be stored in clipboard and shown at paste way.



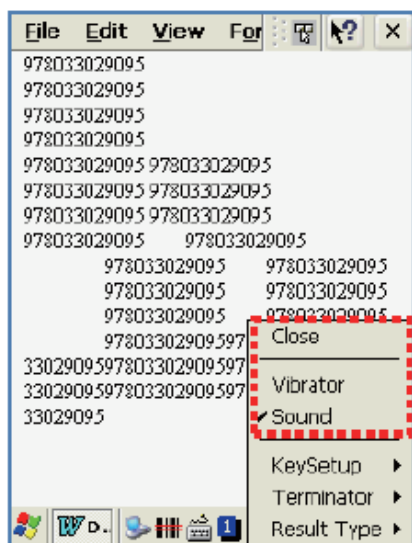
Terminator

- None : Not input terminal barcode value.
- CRLF : Barcode value will include an "Enter"
- Space : Barcode value will include a "Space"
- Tab : Inputting type as same as Tab Key Function.



Key Setup

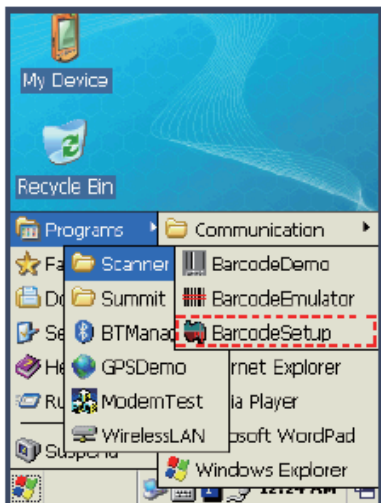
- F1-F8 Key : Hardware Keypad
- Gun1, Gun2 : Gun Trigger



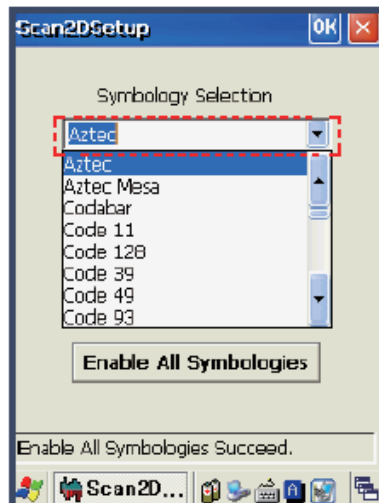
- Sound : Set sound ON/OFF after scanned barcode
- Vibrator : Set vibrator ON/OFF after scanned barcode
- Close : Exit Emulator Program

6.2.1 Barcode symbology setting

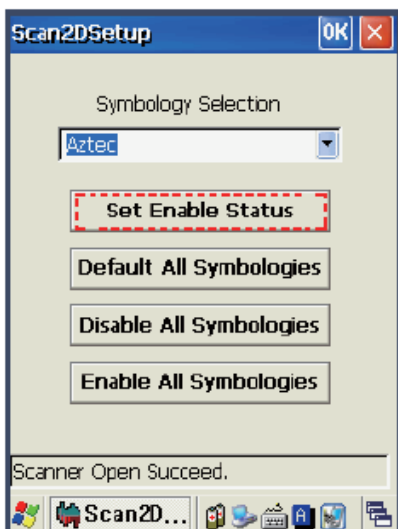
[Start Button] -> [Program] -> [Scanner] -> [BarcodeSetup]



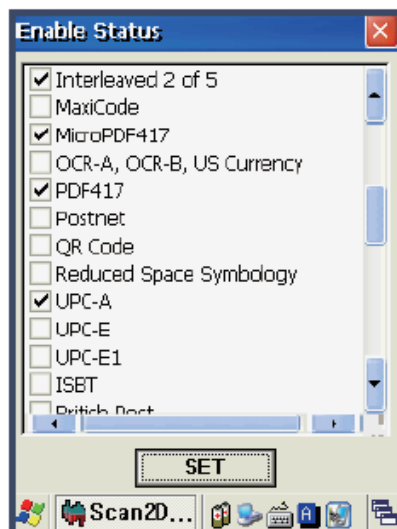
Run BarcodeSetup Program.



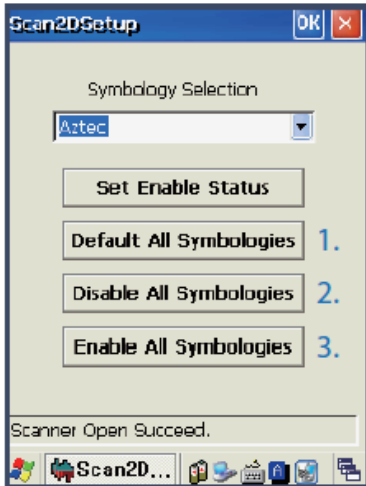
Set Barcode Type in detail.



Click Set Enable Status button

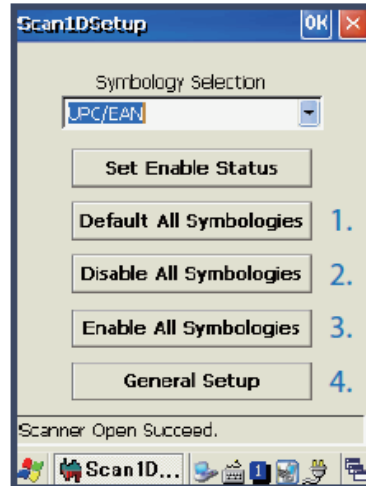


Make a check mark on the barcode which you want to use, and then click <SET> button.



2D Symbology Selection:

1. Initialize all the symbologies to factory default value.
2. Unable to read all the symbologies.
3. Enable to read all the symbologies.



1D Symbology selection:

1. Initialize all the symbologies to factory default value.
2. Unable to read all the symbologies.
3. Enable to read all the symbologies.
4. Set a level that enable to read more than two symbologies simultaneously.

Warning!

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

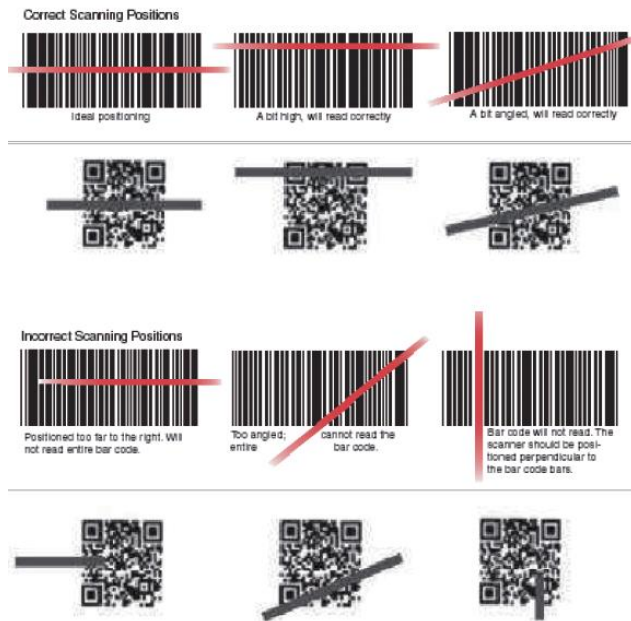
6.2.2 Barcode scanning

1. Remove the protective film from the window of barcode.
 2. Execute 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 barcode reading]

The smaller barcode is, the closer to the barcode the reader must be. The effective scanning rang of is from 40 ~ 300mm. If it fails to scan barcode, please try to adjust scan angle and distance.

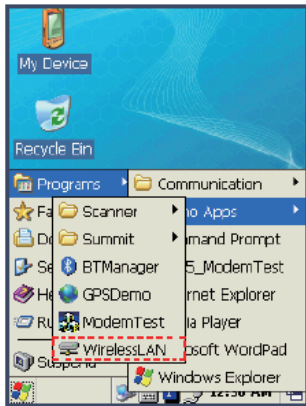
The laser beam is a red thick line, when scanning a barcode.



[Incorrect barcode reading]

The laser beam must cross the barcode.

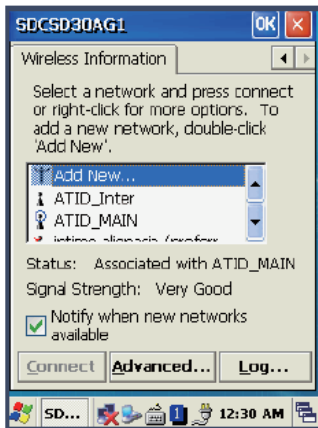
6.3 WLAN connection and termination



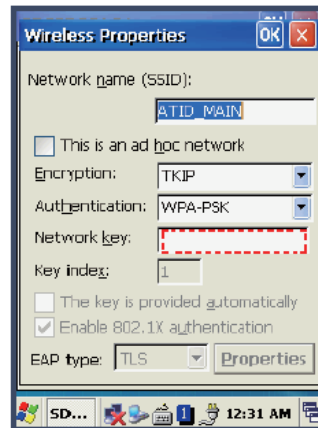
Run the Wireless LAN program.



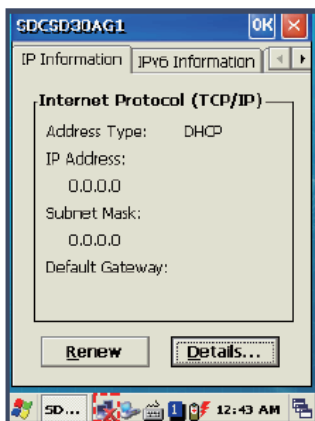
Select <ON>, and then click Ok button.



Double click a suitable device from the list of AP.



Input Key Password, and then click OK button.



Double click WLAN icon on the taskbar to check Wlan information.



Start Button/Programs/ ATID App/Wireless Lan, and then select <OFF> to stop Wlan communication.

Warning!

The Wlan LED will be changed to green and the Wlan icon on the taskbar will be lighted on



if failed the Wlan icon will be light off



6.4 Bluetooth connection and termination

[WinCE Start] -> [Programs] -> [Demo Apps] -> [Bluetooth]

1. Start Bluetooth function



Executing the "Bluetooth" demo program.



Select "Bluetooth ON" item, then press OK button.



After Bluetooth executed, the Bluetooth BTPAN1 icon will be appeared on the bottom of Windows Taskbar, and the red cross mark on it shows that you access is available and prepared to be accessed.

[WinCE Start] -> [Programs] -> [Demo Apps] -> [Bluetooth]

2. End Bluetooth function



Executing "Bluetooth" demo App from Windows CE Menu.



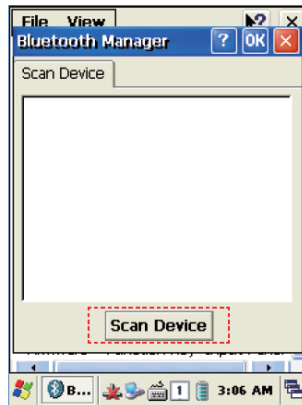
Select "Bluetooth OFF", then to press OK button to off the Bluetooth power.

6.4.1 Bluetooth Pairing

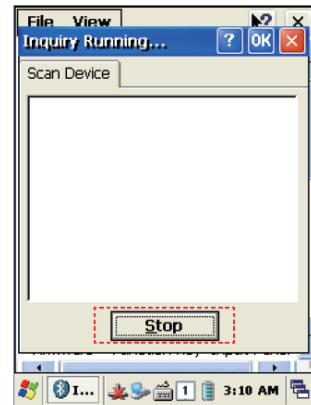
[WinCE Start] -> [Settings] -> [Control Panel] -> [Bluetooth Device Properties]

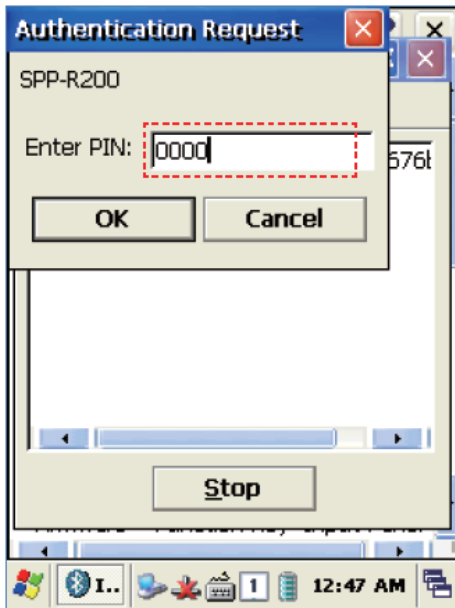


Executing Bluetooth program as below path.



Press "Scan Device" button to searching devices which could pairing.

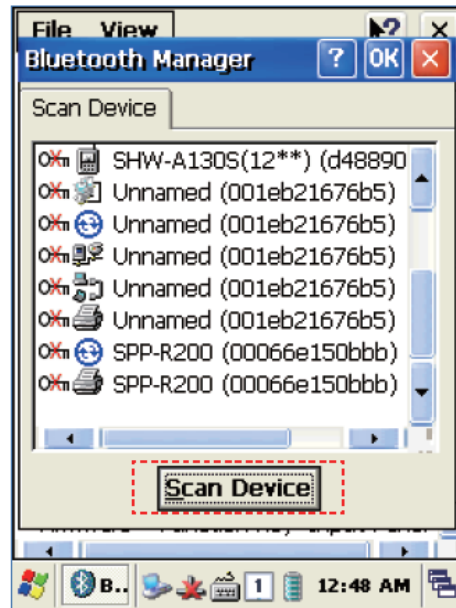




Depending on the situation, maybe need to input password for some devices, then could search devices continually.

** According to the devices need, some devices have to input Pin Code (password) firstly.

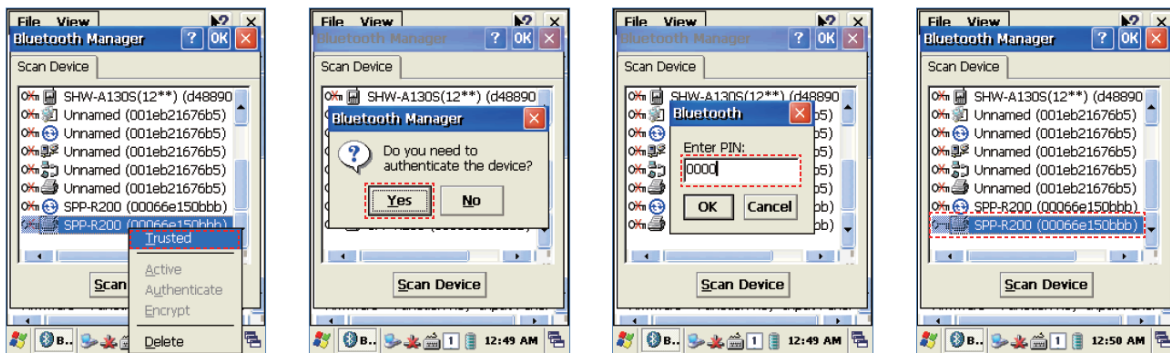
** SPP-R200 printer factory setting Pin Code is "0000".



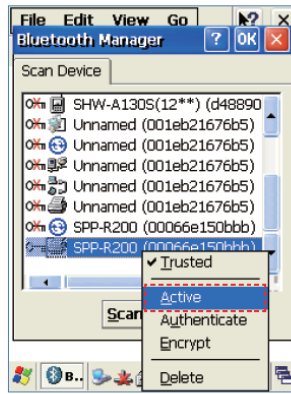
The devices which can connect will be listed, after finished searching.

** If cannot find your need device, please press "Scan Device" button to searching your device again.

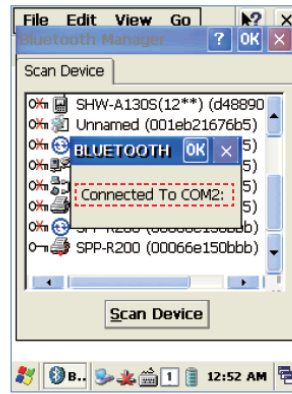
Double click your device name, click "Trusted" Tab to add the device to the pairing items, then click "Yes" button to ending the Bluetooth Manager.



- * You can set the Password (Authentication code) according to the each device.
- * The Red Cross mark(X) on the Key icon will disappear if finished to registration.



Click "Active" button to active the paired device.

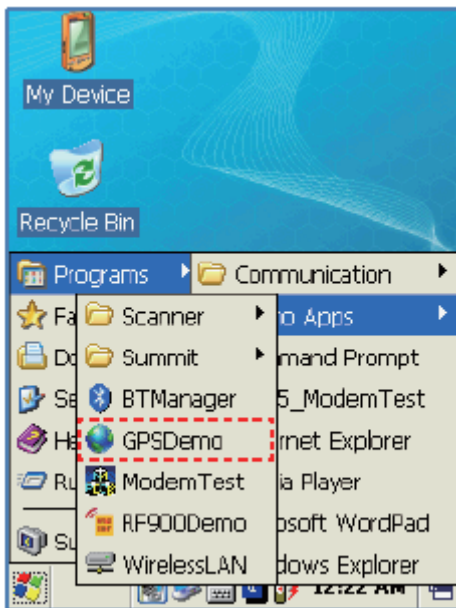


Then, you can perform the data communication through COM2 Port.

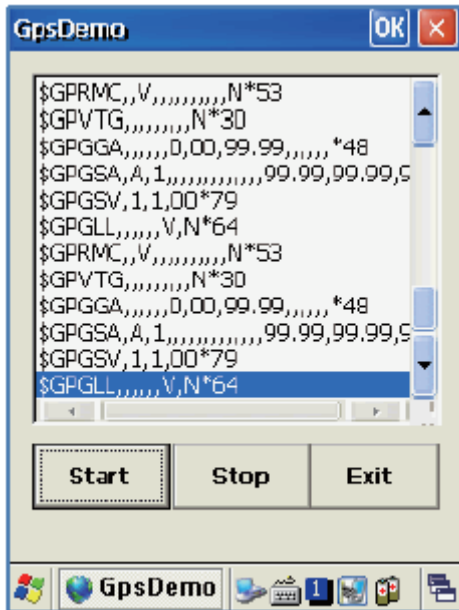
After pairing and active the Bluetooth device, you can use the Device driver, S/W, and SDK, which provided from the Bluetooth device manufacturer, to perform the relevant Bluetooth function.

6.5 GPS demo program execution

[Start Button] -> [Program] -> [DEMO Apps] -> [GPS-Demo]



Execute GPSDemo Program.



Start: Start to receive GPS data

Stop: Stop to receive GPS Data

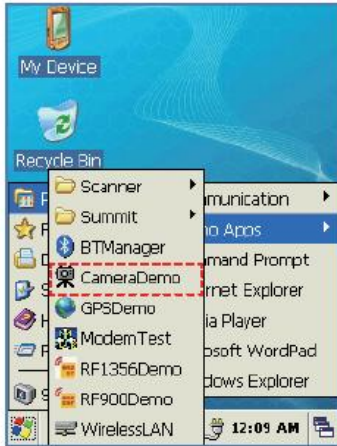
Exit: Exit the GPS Demo program

Con-frm GPS receiving Data:

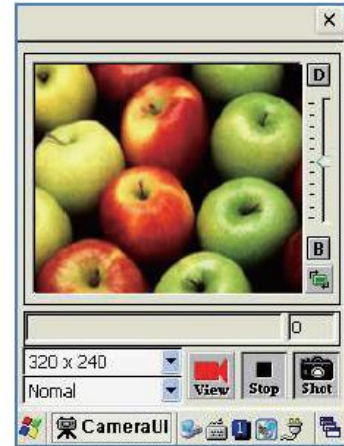
1. Find an open place to check your GPS signals.
2. According to the actual environment, the time to receive data is diereent (about 3~10min), After receiving GPS data once, it is faster to receive GPS data than the first attempt.

6.6 Use of camera

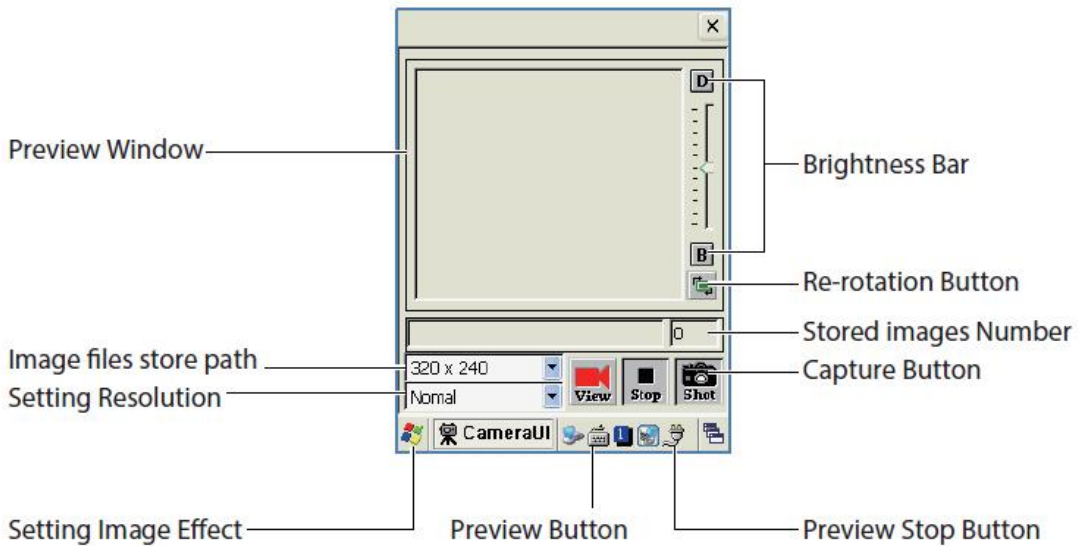
[Start Button] -> [Program] -> [DEMO Apps] -> [CameraDemo]



Execute Camera Program.

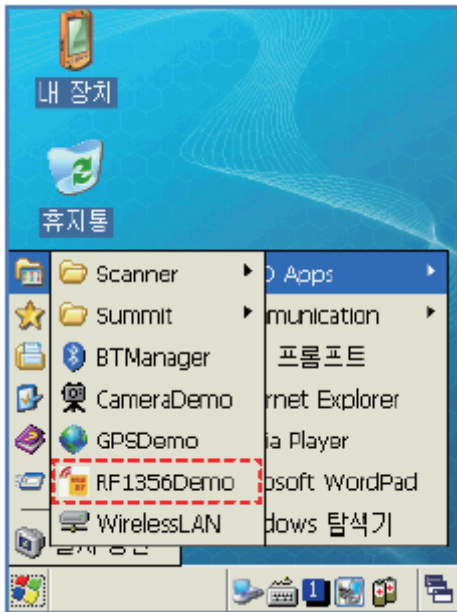


Camera's Main Screen.



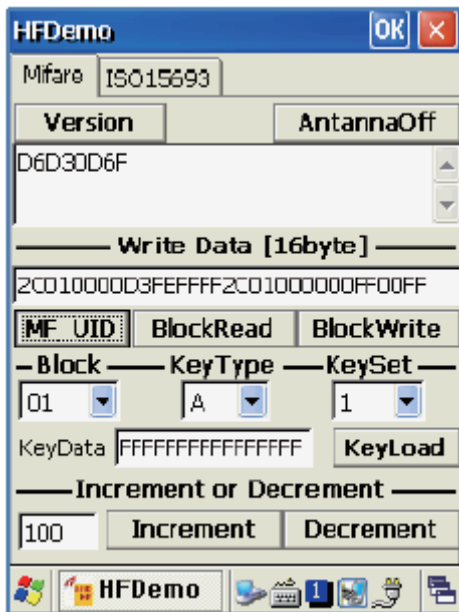
6.7 HF13.56 demo program execution

[Start Button] -> [Program] -> [DEMO Apps] -> [RF13.56Demo]



6.8 Mifare tag recognition

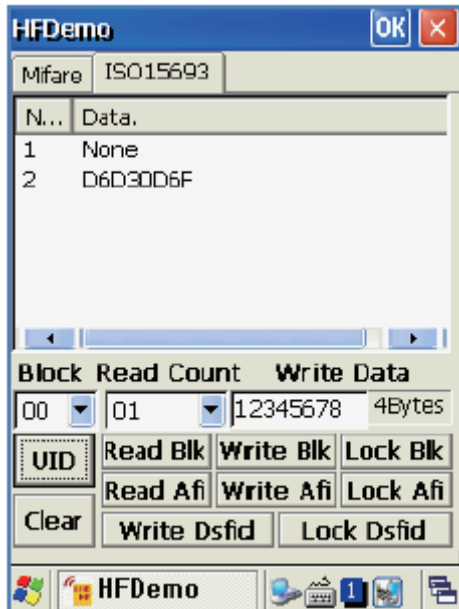
Click MF_UID button to read a Mifare Tag



6.9 ISO15693 tag recognition

AT880 enables to read and write RFID Tag which supported protocol of GEN2, ISO/IEC 18000-6C. The Frequency range is CE 865MHz ~ 868MHz, FCC 902MHz ~ 928MHz.

Click UID button to read ISO 15693 Tag



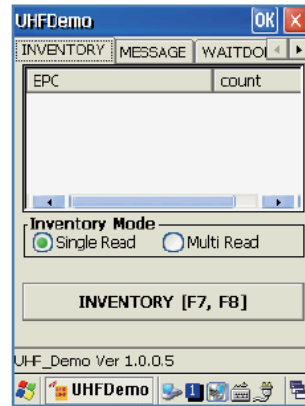
6.10 UHF 900MHz Program

[Start button] -> [Program] -> [DEMO Apps] -> [RF900Demo]





Run RF900Demo Program



INVENTORY Mode :

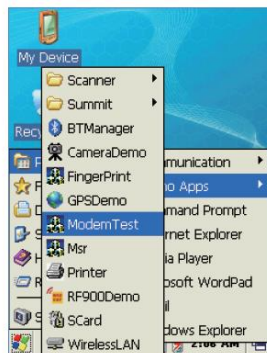
Single Read : Read one Tag each time.

Multi Read : Read multi Tag each time (Anti Collision).

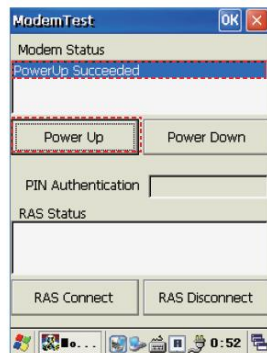
INVENTORY : Press <Inventory> button to read tags.

6.11 Modem

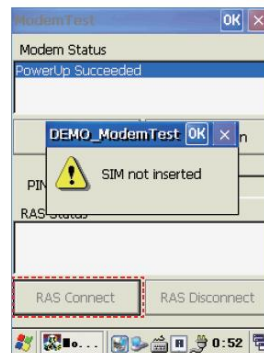
6.11.1 Modem ON/OFF



Click Start->Demo Apps -> ModemTest



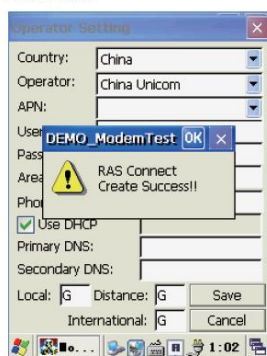
Press <Power Up> button, wait till power up succeed.



Press <RAS Connect> button, if there is no SIM card, the prompt message window will pop up.



If there is the SIM card, then setting each item on the Operator Setting interface, and press <Save> button



Then, RAS Connecting success

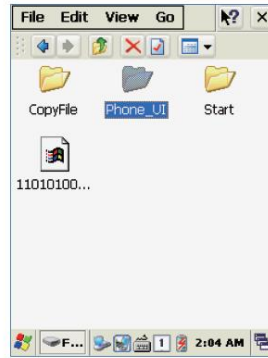
6.11.2 Modem Resetting



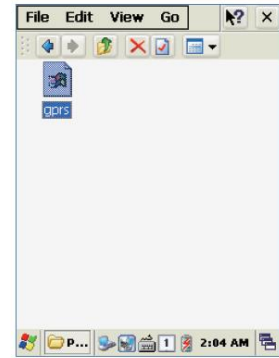
Double click Mydevice icon



Double click <Flash Disk>



Double click <Phone UI>



Delete <Gprs.ini> file



Press <Yes> button, then to resetting

7 Appendix

7.1 Product specification

| PHYSICAL CHARACTERISTICS | |
|---------------------------------------|------------------------------------------------------------------------|
| Dimensions (L x W x H) | 159x79x27.7 (35.2)mm |
| Weight | 280g (PDA only, without battery) |
| Operating Temp. | -20°C ~ 60°C |
| Storage Temp. | -30°C ~ 70°C |
| Humidity | 95% non-condensing |
| Drop Spec. | 1.5M Drop to concrete |
| Dust & Water Proof | IP65 |
| PERFORMANCE CHARACTERISTICS | |
| Processor | Marvell™ PXA320 806MHz |
| Operating System | Windows CE 5.0 / Windows Embedded handheld 6.5 |
| Memory | 256MB (512MB Option) RAM / 512MB ROM |
| Display | 3.5" QVGA with Backlight, TFT LCD, 240 X 320Pixel, 262K Color |
| Audio | Phone Receiver, Speaker, Ear Jack, Microphone |
| Standard I/O Port | USB 1.1 Client / USB Host & Serial (RS-232) via gender cable or Cradle |
| Expansion Slot | 1Micro SD Slot (SDHC), 1SIM Slot, 1SAM Slot |
| Notification | Vibrator and LED, Speaker |
| BATTERY SUPPLY | |
| Main Battery | Lithium Polymer 3.7V 2,970mAh (Rechargeable) |
| Backup Battery | Lithium Polymer 3.7V 80mAh (Rechargeable) |
| Power Adapter | Input AC100V ~ 240V / Output DC 5V 3A |
| NETWORK CHARACTERISTICS | |
| WLAN | IEEE 802.11 a/b/g Compliant (a/b/g/n Option) |
| Bluetooth | Bluetooth Class II, v2.1 + EDR |
| Radio | MODEM 3G (GSM / GPRS / EDGE / WCDMA / HSPA+) |
| GPS | Internal Antenna (GPS + Glonass Option) |
| DATA CAPTURE & DATA PROCESSING DEVICE | |
| Barcode Engine | 1D Laser or 2D Imager Barcode Scanner (2D Long Range Barcode Option) |
| Camera | 3.0 Mega Pixel Auto Focus with Flash |
| UHF 900MHZ RFID READER/WRITER | |
| Frequency | CE 865MHz ~ 868MHz FCC 902MHz ~ 928MHz |
| Reading range | 0M ~ 5M (According to Tag & Environment) |
| Writing range | 0M ~ 0.5M (According to Tag & Environment) |
| RF output | 1W (MAX) |
| Protocol | GEN2, ISO/IEC 18000-6C |
| Special function | Anti-Collision |
| HF 13.56MHZ RFID READER/WRITER | |
| Applied RFID Tag | ISO15693, MIFARE, ISO14443 A/B (Option) |
| Reading range | According to Tag : 0Cm ~ 5Cm (Internal or External) |
| ACCESSORIES(OPTION) | |
| Gun Handle Grip (Pistol Grip) | Body, UHF / HF Available |
| Gun Handle Battery | Lithium-Ion 3.7V 5,200mAh (Rechargeable) Option |