

# BI-500-A User Manual



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- The supplied basic programs are protected under. Reproduction, transfer or deletion of the programs without prior consent is strictly prohibited.
- Depending on users' environments, programs or peripherals, some parts of this Product may not work normally
- This wireless device may cause propagation interference, and so, it cannot be used for life-saving services

Trademark

A large, stylized version of the PIDION logo, rendered in blue. The letters are bold and have a modern, rounded aesthetic.

PIDION aims for leading brand in the future mobile industry.

As a global brand representing the image of reliability, representativeness, and cutting-edge technologies, this mark has been registered by Bluebird Soft Inc. around the world to be protected under trademark-related laws.

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- Read these instructions and warnings to use the Product in a safe manner and to prevent accidents.
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## Caution for Product Use.

- This Product is EMC-compliant. For safety and health, use the authentic parts supplied by the manufacturer. Any inauthentic part may affect safety.
- Do not modify, disassemble or repair the Product at your discretion. Contact the Manufacturer if there is a problem in the Product. Also, make sure to follow the warnings and Instructions. If you fail to follow any of the above instructions, no warranty service will be provided.
- If the Product is wet, do not put it in a device that may heat the terminal (heater, microwave oven, etc.). Heating batteries may cause an explosion, deformation or fault.  
(Water or any other liquid will change the color of the label inside the terminal. In this case, no warranty service will be provided.)
- Do not use the product on an airplane or in a hospital and also do not operate the product while driving a car.
- Do not use this Product in a hot or humid place. Using the Product under a hot/humid temperature such as rain or sauna may cause a trouble. In this case, no warranty service will be provided.
- Avoid vibration and impact. When not in operation or when you are absent, pull out the power cord, and keep the Product in a safe place.
- Keep this Product away from magnetic products such as credit card, telephone card, bankbook and traffic ticket. The magnetic field of the terminal may affect the data
- Use dedicated batteries only and do not use the batteries for any other purpose than operating this Product. Using an inauthentic battery may reduce life of the Product, or cause an explosion. (In this case, no warranty service will be provided..)
- Do not place the eyes of a person and/or pet near the scanner exit window. Doing so can result in retinal damage and/or reduced vision.

## About the Product

Please make sure all the above components are included.

### 1. Basic Components

Main set,, AC/DC Adapter, Clip ,USB Cable, Neck strap



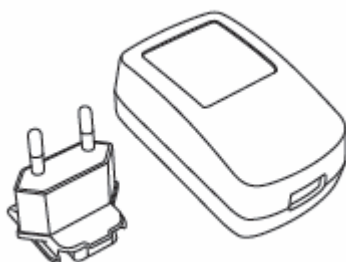
[ Main set]



[ Neckstrap]



[ Battery]



[ Adapter+Clip]



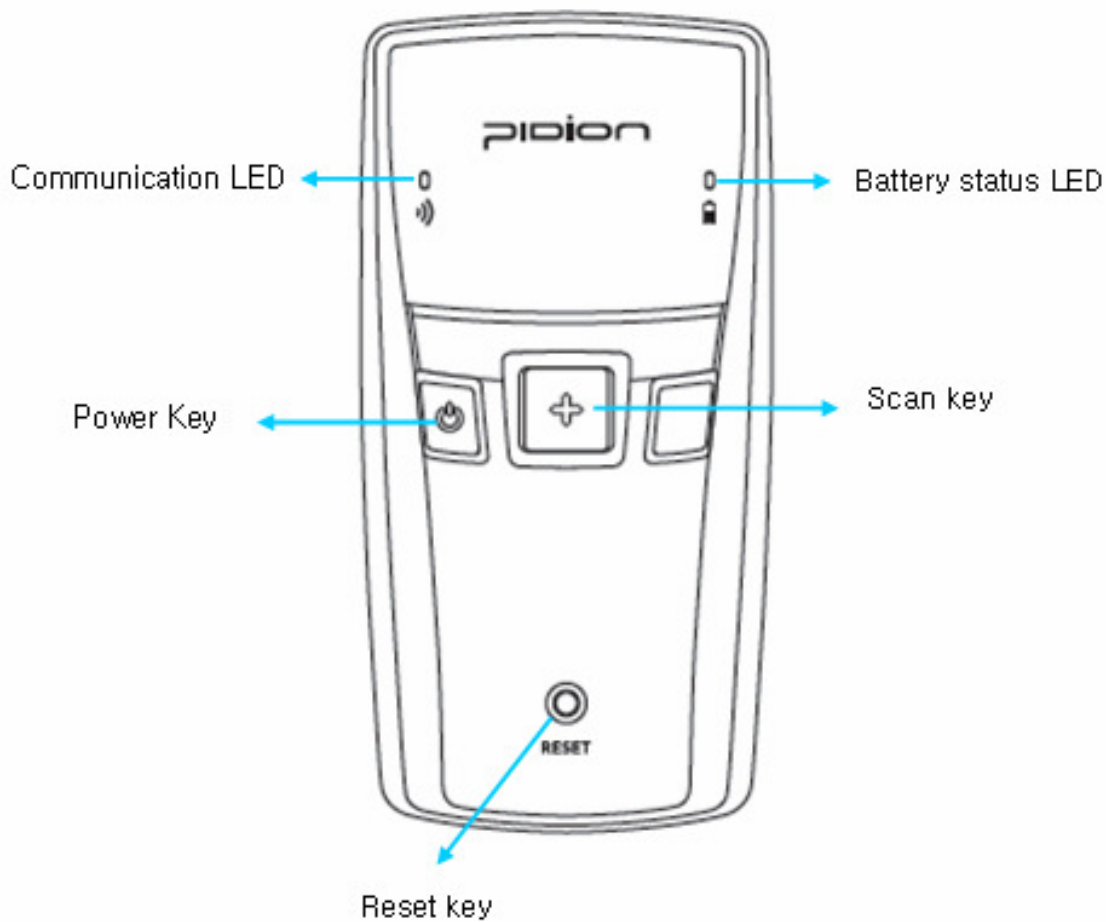
[ USB cable]

The images in this User's Manual may not reflect the color and shape of the actual product

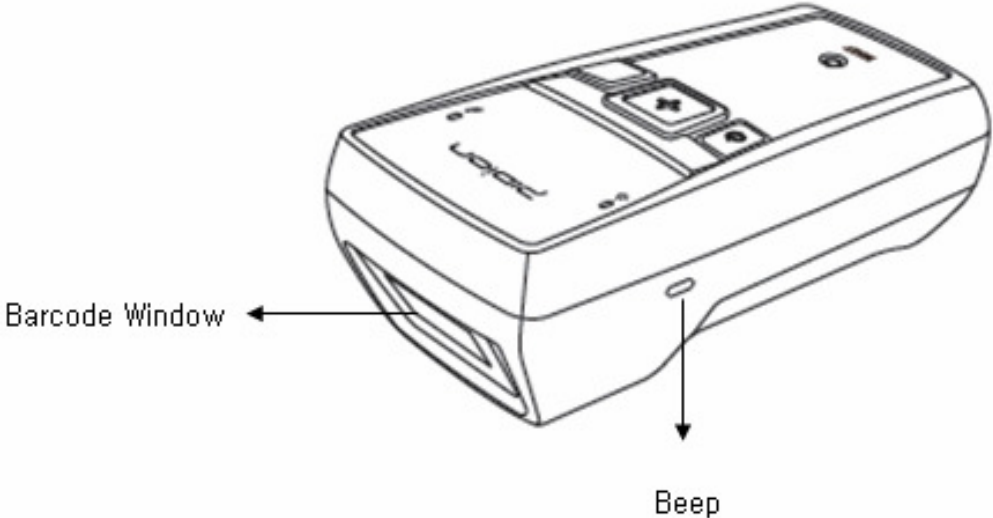
### Checking names of parts

각 부분의 명칭 및 기능을 숙지하신 후 제품을 사용하기 바랍니다.

[ Front ]



[ Side ]



## Product Features

SPECIFICATIONS	Laser Scanner
<b>Physical Characteristics</b>	
Dimensions (W x H x D)	50 x 99 x 34mm / 2.0 x 3.9 x 1.3 inch
Weight	Excluding battery: 80g / Including battery: 110g
Indicator (LED)	Three-color LED (blue, red and green)
Alert Type	Beep sound
Input	Scan, Power buttons, Reset Key
Standard Battery	Rechargeable, 3.7V, 1,130mAh, Li-ion
GPS	Integrated GPS
<b>Performance Characteristics</b>	
CPU	S3C2440A40, 400MHz
OS	Window CE Core
Memory	32MB RAM / 32MB ROM
Interface	USB 1.1 Client
<b>User Environment Characteristics</b>	
Operating Temp	-10°C to 40°C / 14°F to 104°F
Storage Temp	-20°C to 60°C / -4°F to 140°F
Humidity	90% non-condensing
Drop Spec	5ft. / 1.5m drop to steel surface, 3 drops per 6 sides
Rain/Dust Protection	IP54
<b>Integrated Radio</b>	
WPAN Radio	Bluetooth Class II V2.0
<b>Data Capture</b>	
Barcode Scanner	1D Laser Class II / 1D&2D CMOS Imager

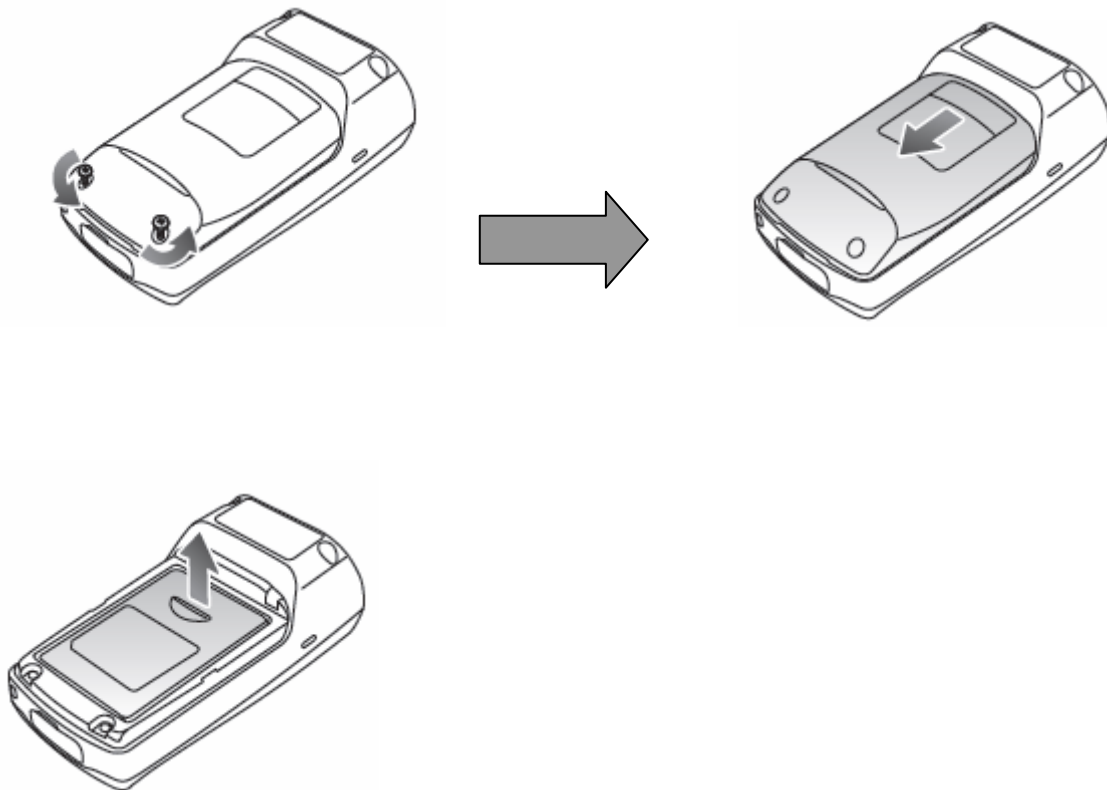


## Learning scan,communication, battery LEDs

Notifies the operating information of the scanner to the user by tone volume or sequence.

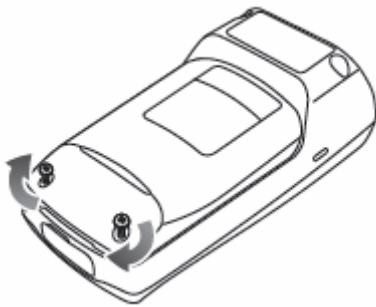
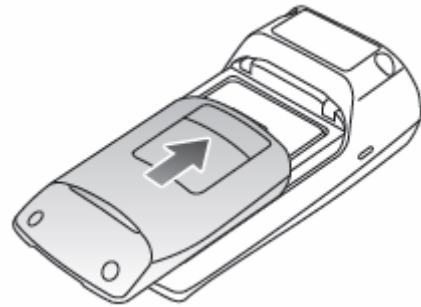
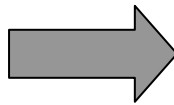
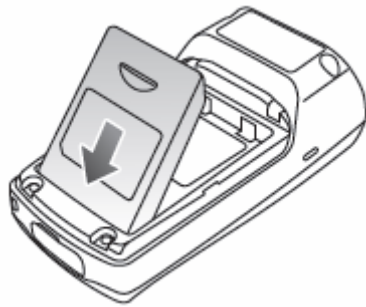
Division	LED [ Left] – Barcode reading – Communication	LED [ Right] –Battery status	Beep
Power On or Reset	Purple/Red/Green/Blue		Low/medium/high once
Power Off	Red once time blink		High once
USB connection	Blue		High once
USB disconnection	–	–	Low/High Once
Barcode reading	Green once time blink		High once
Storage Overflow			High 3 times
Data error	Red 3 times blinks		High once
Data delete	Purple once time blink		Low/medium/high once
All Data delete	Purple once time blink		Low/medium/high once
GPS disconnection	Yellow 5sec blinks / cycle		
BT connection	Blue		High once
BT disconnection			Low/High Once
Battery not enough		Blue	
Battery charging		Red	
Full charged battery		Green	

## Battery removal



- 1 Turn the product power off
- 2 Turn the screw on the battery cover counter-clockwise to loosen, then remove
- 3 Lift off the battery cover in the direction of the arrow.
- 4 Pull up a doorknob for battery and battery removed.

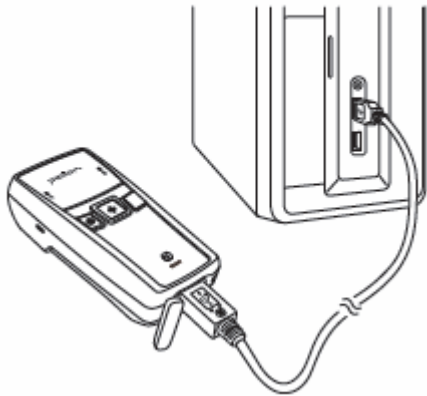
## Insert the Battery



1. Put the battery in line.
2. Fit the battery cover to groove and close of battery cover.
3. Tighten 2 screw clockwise.

## Battery Charging

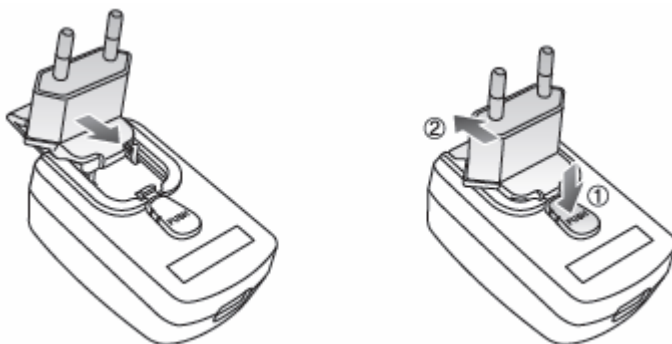
### 1. Charging with a charge cable



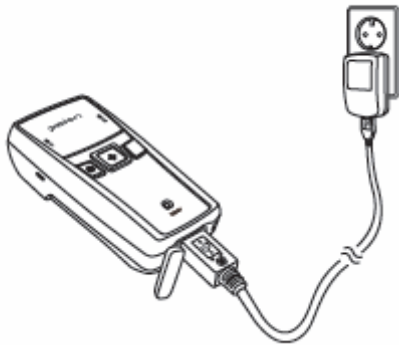
Connect the charge-USB cable to the micro-USB port at the bottom of the product and then connect to the PC of USB.

### 2. Charging with DC adapter

1) Connection Adapter and Adapter clip.



2) Connect the charge-USB cable to the micro-USB port at the bottom of the product and then connect to the DC adapter and AC plug.



## Power ON

Push to left power button about 3sec and the power is on. When booting is start, the lamp will be turn on in purple.

After completion of booting up, the lamp will be flashed with Red/Green/Blue Led wink up with signal sound.



The booting up time about 10 seconds.

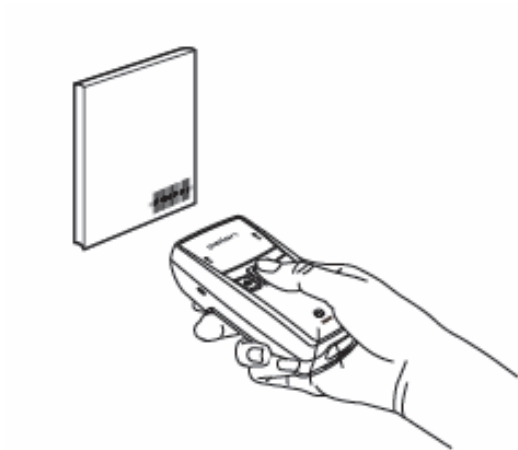
Please used to about later 10 sec after push to the power button.

## Power Off

Push to left power button about 5 sec same to power on and then power is off.

## Barcode scanning

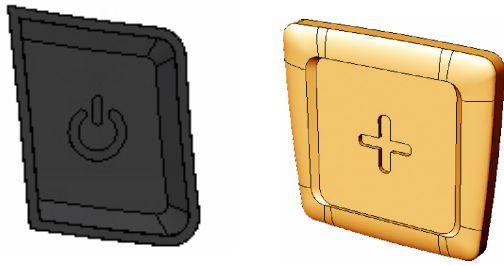
Face the scanner window toward the barcode at intervals of approximately 10cm, and press the scan button to read the barcode.



- When scanning barcode, do not direct the scanner window toward eyes of a man • an animal. It may cause damage to the retina and eyesight damage.
- If you use the product at a place with a big difference in ambient temperature, barcode can't be recognized temporarily due to moisture or frost in the barcode window.
- If the scanner window is perpendicular ( $0^\circ$ ) to the barcode, it is impossible to read barcode due to characteristics of the laser barcode engine. Thus, scan at a little inclined angle, not a right angle.



Button.



Key	Function
Left( ^ ) 3 sec	Power
SCAN	Barcode scanning

## PC Sync

### 1. Installation of Driver – Window XP

If Microsoft ActiveSync is installed in a PC, set [Microsoft ActiveSync] ► <File> ► <Connection Setup> ► <Permit USB Connection> as inactivate. Driver is not installed if USB connection is permitted.

① Select the PC driver folder [BI300\_PidionScan\_Windows XP, Vista], and copy the driver file [gserial\_XP.inf] in the PC.

You can download the driver at our homepage. (<http://www.mypidion.com>)

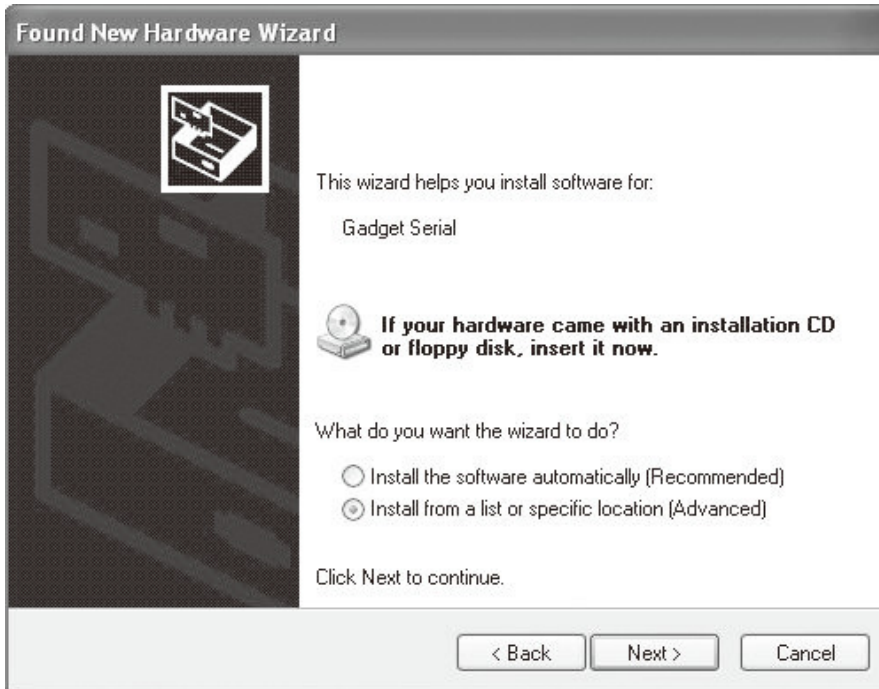
② Power the terminal on and connect it to the PC using the USB cable

③ The [Found New Hardware Wizard] program is automatically run, and select <No, not this time>, and select the <Next> button.

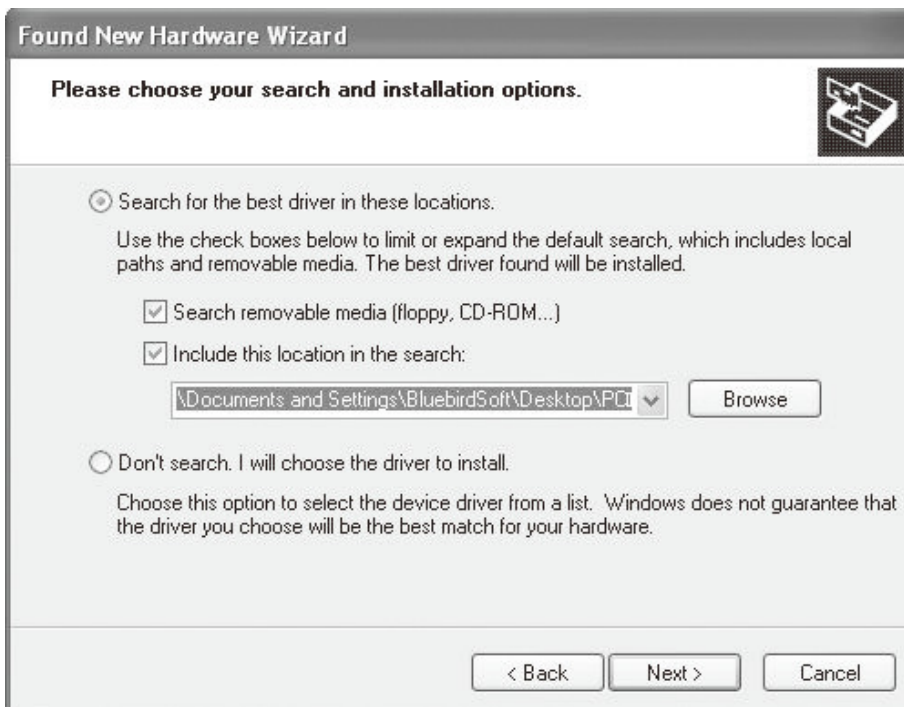


④ Select the <Install from a list or specific location [Advanced]> menu and select the <Next> button.





- ⑤ Select the <Include this location in the search> menu and select the <Search> button, and select a folder in which the driver file [gserial\_XP.inf] is saved, and then select the <Next> button.



- ⑥ After the <Install Hardware> window appears, press the <Continue> button.

⑦ If you check <Finish> in the [Found New Hardware Wizard], the program is successfully installed.



TIP.

- If the window to search for [usbser.sys] file does not appear, or the device is not properly recognized even after the driver file [gserial\_XP.inf] is normally installed, separate the terminal from the PC, ► copy the [usbser.sys] file of in the <C:\WINDOWS\system32\drivers> folder, ► connect the terminal to the PC again.
- You can download the driver at our homepage. (<http://www.mypidion.com>)

## Sending data to PC

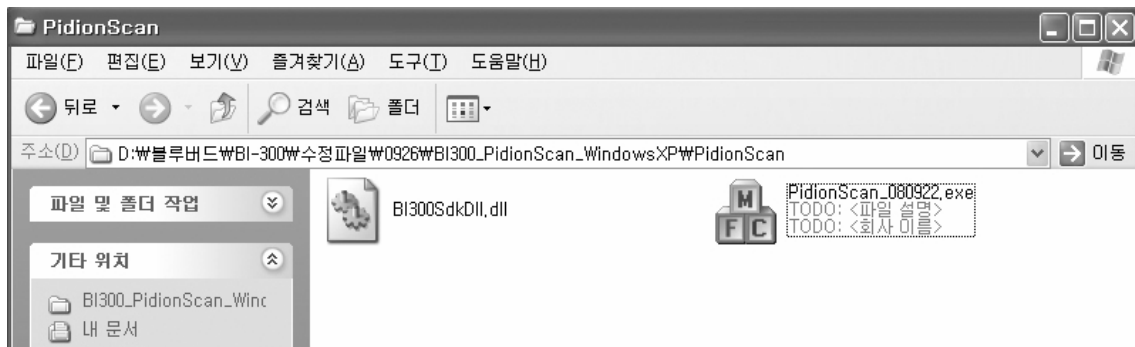
### 2. Installing PidionScan Program.

Warning)

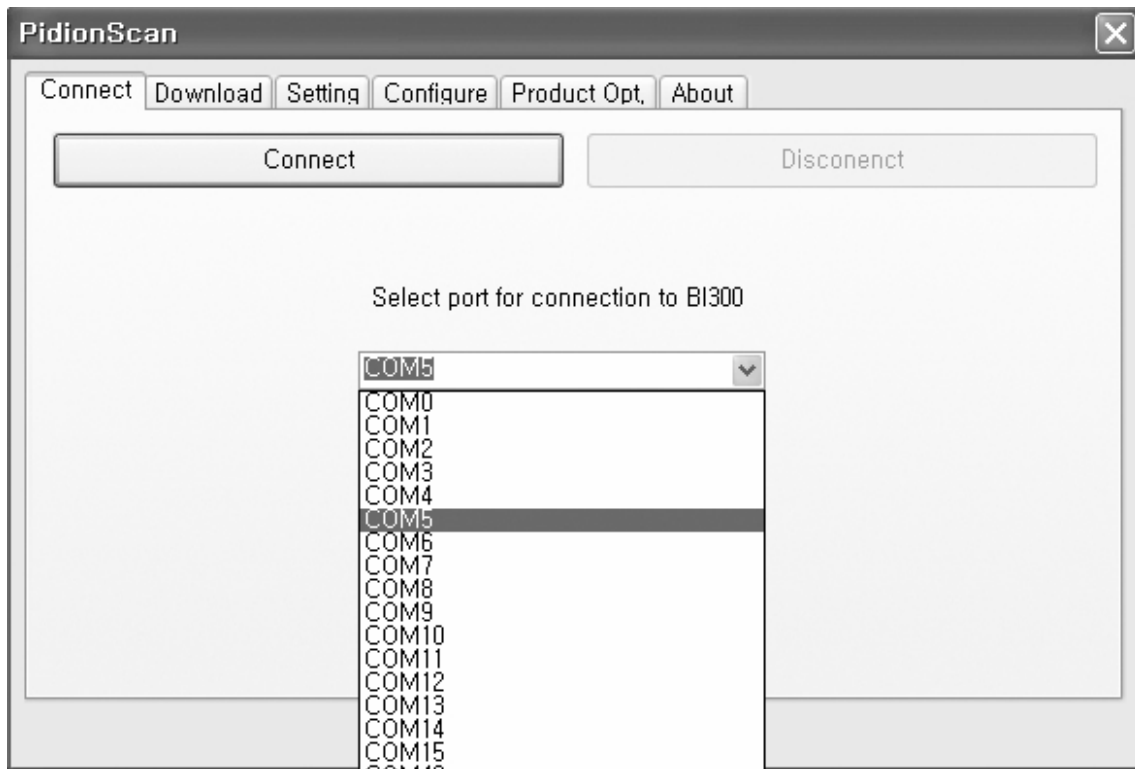
- The seen screen corresponds to the [Windows XP] version and it depends on the software version used.
- Image seen in the [Windows Vista] screen is different, but the function is the same as [Windows XP].

① Select the PC driver folder [BI300\_PidionScan\_Windows XP, Vista], and copy the [PidionScan\_ Winxp,Vista] folder in the PC, and select the [PidionScan\_WinXp,Vista.exe] program.

You can download the driver at our homepage.



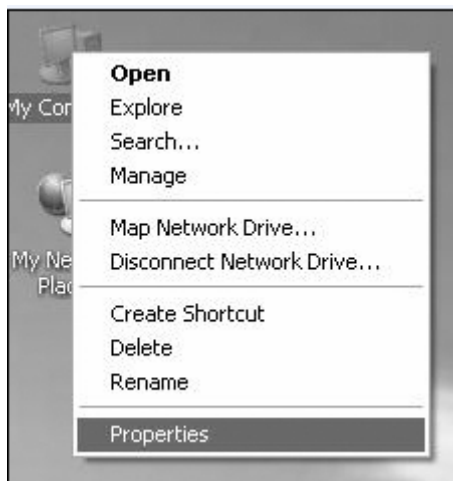
② Set <COM Port> in the [Connect] tab and select the <Connect> button.



TIP. <COM Port> of <Gadget Serial> is changed at each PC, so that check the number to which the Gadget Serial COM port is set.

To check <COM Port> to be set,

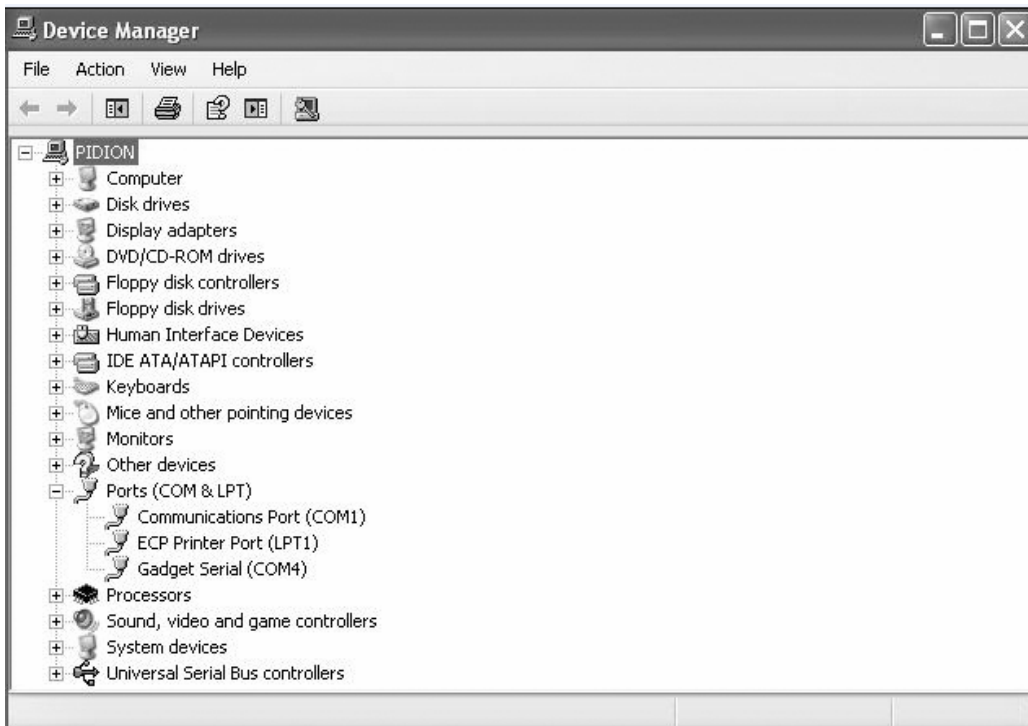
a. Right-click the mouse in [My Computer] of the PC, and select <Properties>.



b. Select [System Restore] ► [Hardware] ► <Device Manager>.



c. If you select <Port (COM and LPT)> in <Device Manager>, you can check <Gadget Serial>.



③ For how to use the [PidionScan] program, refer to <Use PidionScan Program> on page 37.

Tip. Image seen in the PC screen is different, but the function is quite similar to PDA.

## Sending data by PDA

You can exchange data by connecting the terminal to the PDA supporting Bluetooth, without the USB cable.

### 1. Procedures for data transmission.

- ① Install [Microsoft ActiveSync] in a PC. (See P-26)
- ② Connect the PDA and PC with the USB cable and install [PidionScan] in PDA, and disconnect. (See P-28)
- ③ Power the terminal on. (See P-11)
- ④ Set <Bluetooth> of the PDA. (See P-31)
- ⑤ Set the [PidionScan] program of the PDA. (See P-37)
- ⑥ Scan barcode with the terminal. (See P-12)
- ⑦ Scanned barcode information is displayed in the screen of the [PidionScan] program or in the Word/Memo of the PDA.

Tip.

- If the PDA and Bluetooth are properly connected, the battery communication lamp turns blue, and high signal tone is generated once.
- Even if the Bluetooth transmission fails after barcode scanning, the barcode data is automatically stored in the scanner.
- Because the Bluetooth interworking is disconnected while PDA is in Power Save mode, do not use Power Save mode when interworking with Bluetooth.

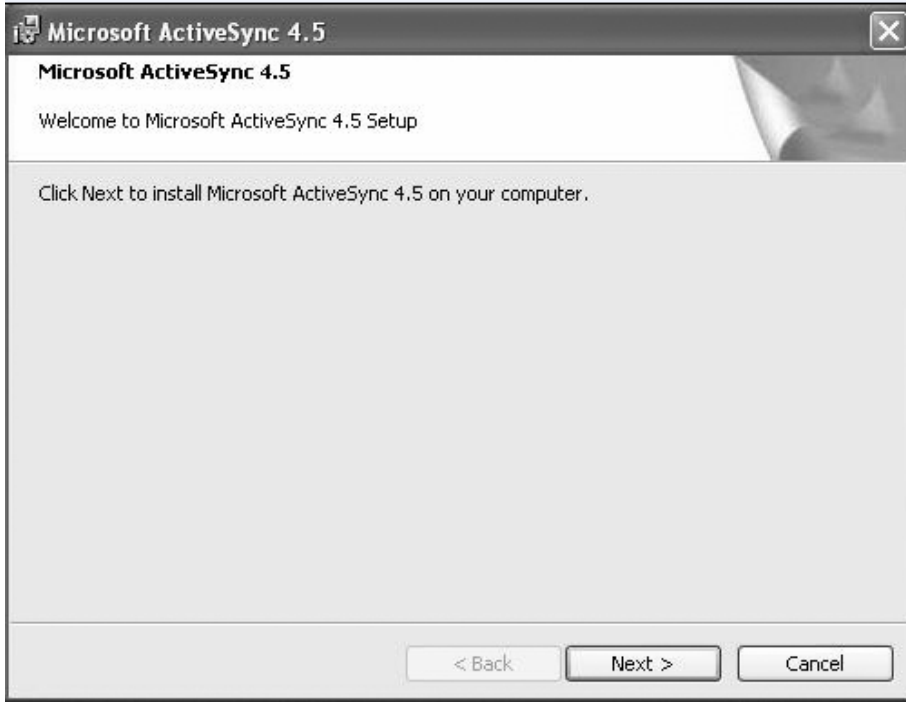
### 2. Installing ActiveSync.

To install the [PidionScan] program in the PDA, install the [MicroSoft ActiveSync] program in a PC.

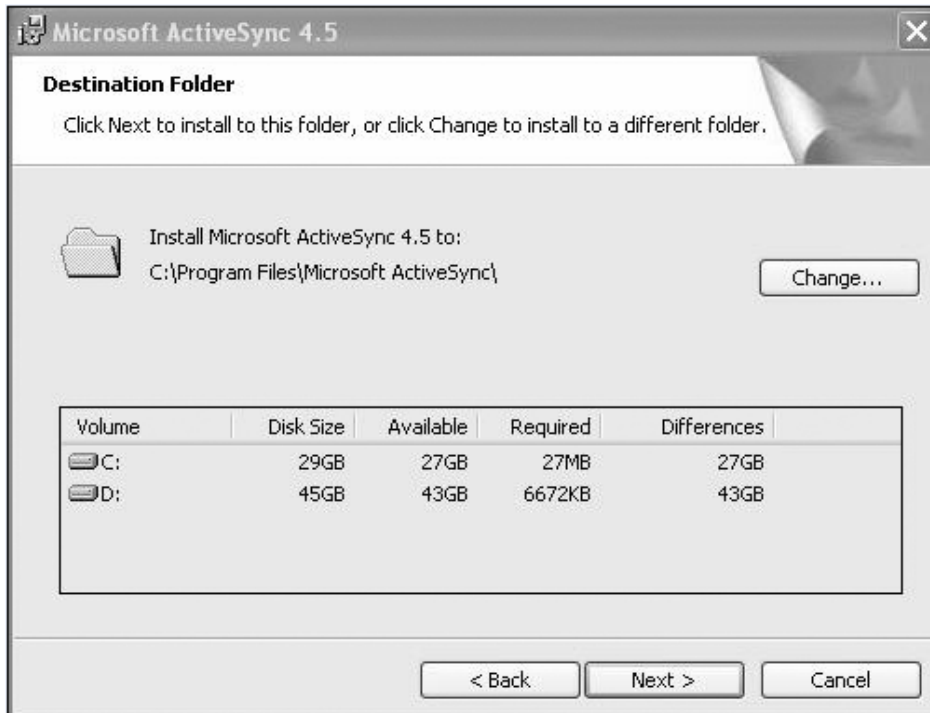
If the [ActiveSync] program is already installed in the PC, you need not install the program separately.

The seen screen corresponds to the [Microsoft ActiveSync 4.5] version and it depends on the software version used.

① Access the Microsoft’s Website, and download [Microsoft ActiveSync], and install.

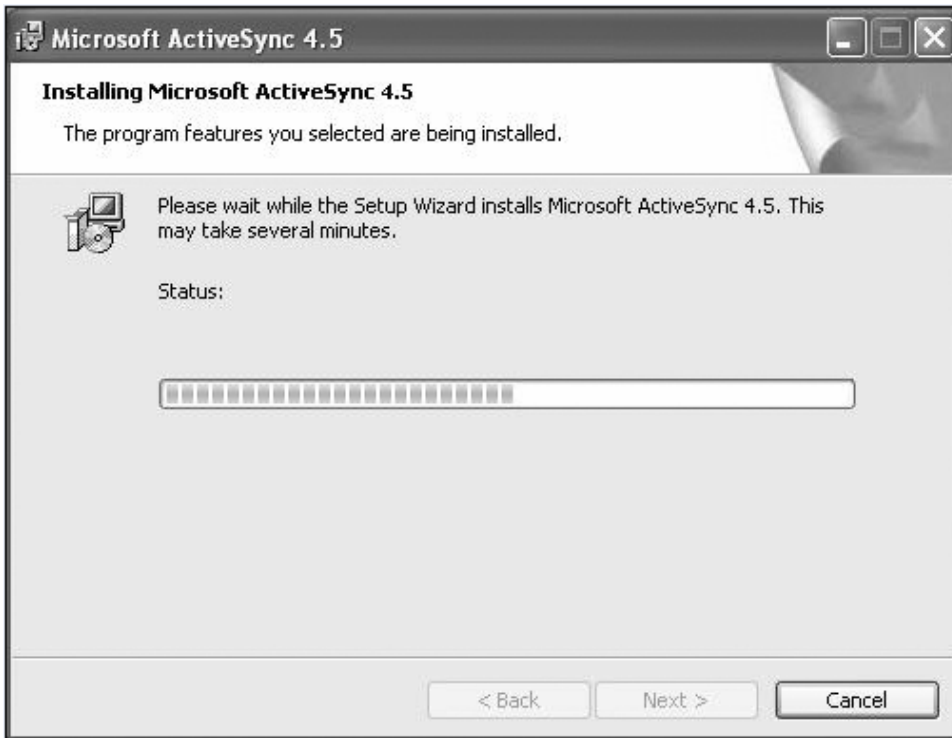


② Select the <Accept> button in the [License Contract] window, and ► fill in the <User ID> <Organization> in the [Customer information] window, and ► set <Installation Location> in the [Target Folder] window.





③ If ready to install, [Microsoft ActiveSync] is installed.

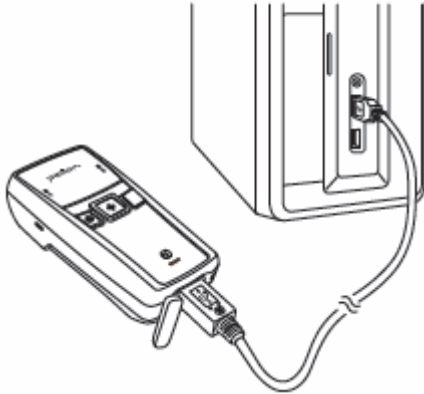


④ [Microsoft ActiveSync] installation is completed.

### 3. Installing PidionScan Program.

- The seen screen corresponds to the [Windows Mobile] version and it depends on the software version used.
- Image seen in the [Windows CE] screen is different, but the function is the same as [Windows Mobile].

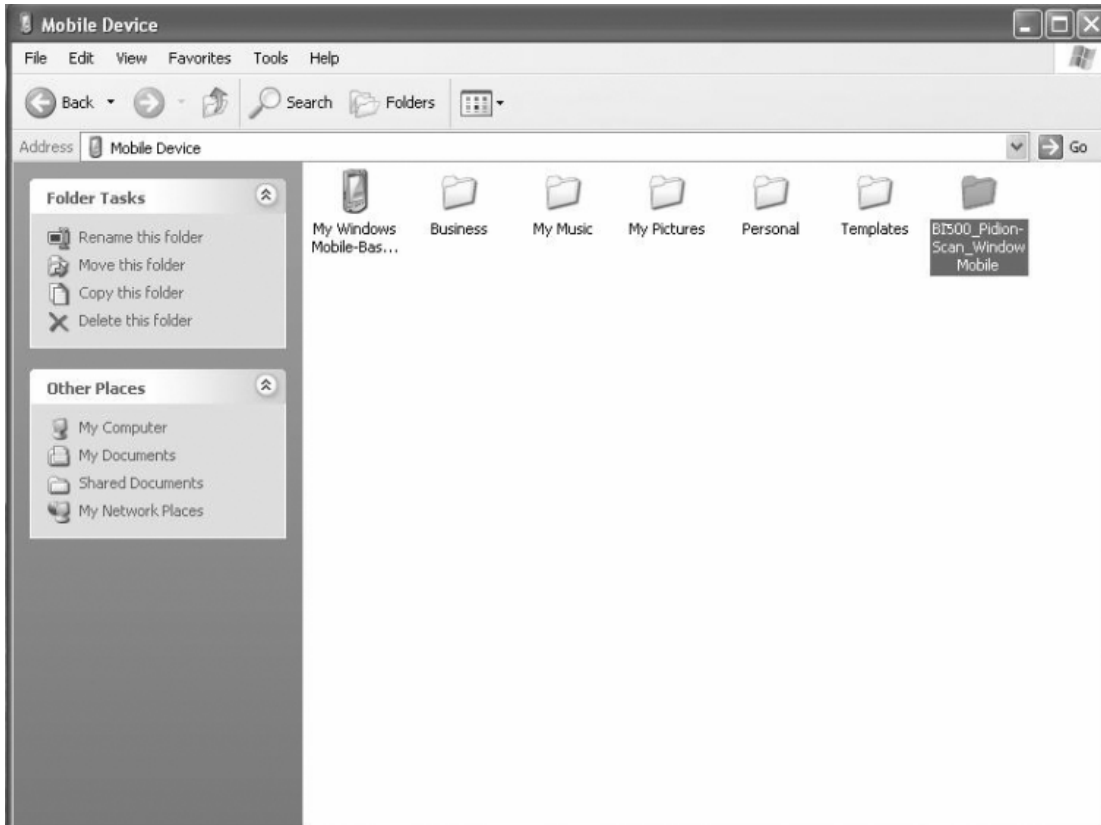
- ① Connect the PDA and the PC using the USB cable.



- ② Execute [Microsoft ActiveSync], and select the <Browse> button.



- ③ Copy the [BI300\_Pidion-Scan\_Windows Mobile] folder in the provided CD in the [Mobile Device] folder.



- Depending on software version used in PDA, install the [BI500\_PidionScan\_Window CE] folder for Windows CE, and install the [BI500\_PidionScan\_Window Mobile] folder for Windows Mobile.
- The <PidionScan\_WinCE.exe, PidionScan\_WinMobile.exe> file and the <BI500SdkDll.dll> file and the <BIDevSearch.dll> file are enabled only if they are installed in the same folder.

#### 4. Bluetooth Power On/Power Off –1

If you want to connect other equipment using the Bluetooth, execute the Bluetooth function first.

- ① Select the [Start] ► [Set] ► [Connect], and ► [Wireless Administrator].



- ② Select <Bluetooth>.




: Bluetooth on (set)



: Bluetooth off (release)

#### 4. Bluetooth Power On/ Power Off –2



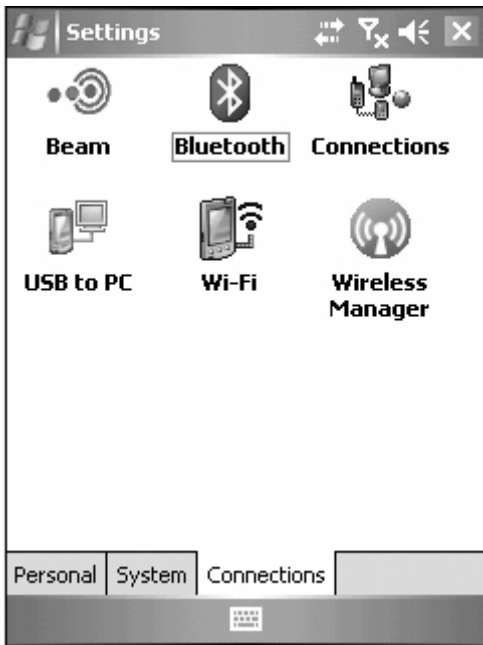
- ① Select  at the top of the screen and select [Wireless Administrator].
- ② Select <Bluetooth>.

Tip. Terminal equipped with Bluetooth can be connected without setting Bluetooth.

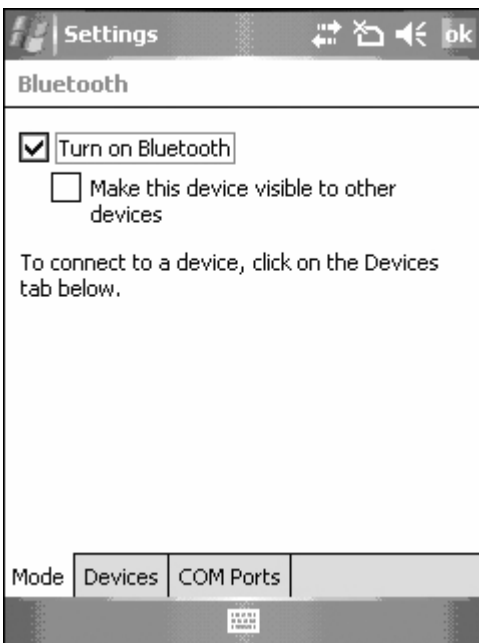
### 5. Bluetooth setting–Windows Mobile

The seen screen corresponds to the [Windows Mobile 5.0] version and it depends on the software version used.

- ① Select the [Start] ► [Set] ► [Connections] and ► [Bluetooth].



② Select <Turn on Bluetooth> in [Mode] tab.



③ Select <Add New Device> in the [Device] tab.



④ Select <BI-500> among the searched Bluetooth devices, and select the <Next>button.



⑤ Enter password and select <Next> button.

※ If the PDA and the terminal are connected for the first time, enter password to register.

Default password is 1234, and the user can change the password.

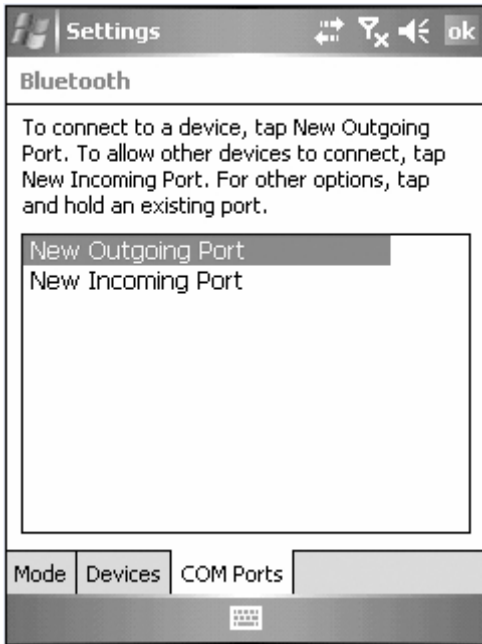


⑥ Select <Serial Port> and select the <Finish> button.





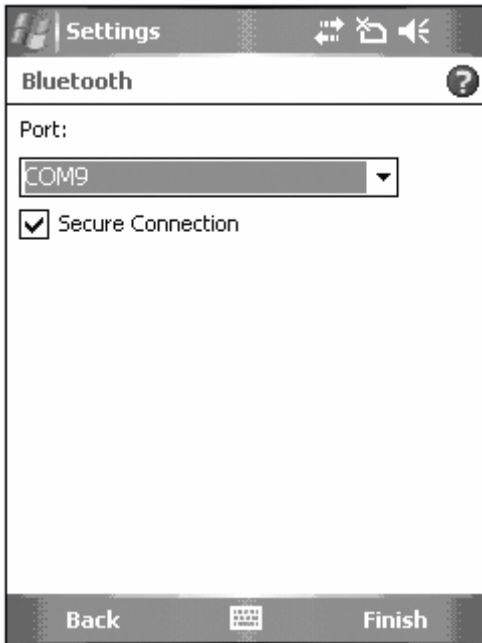
⑦ Select <New Outgoing Port> in the [COM Port] tab.



⑧ Select <BI-300> and select the <Next> button.



- ⑨ Select an unused port address and select the <Finish> button.

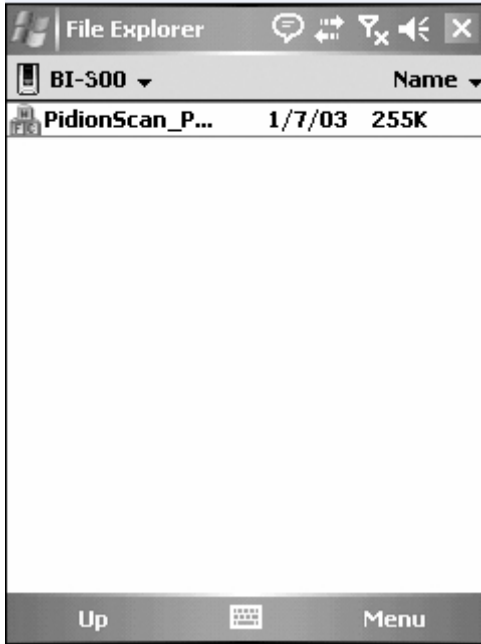


TIP. Unavailable if a port in use is selected and available only if a port not in use is selected.

## Using PidionScan Program

Using the program named PidionScan, you can perform data communication with the PDA/PC, and set the function of a terminal.

Image seen in the PC screen is different from that of PDA, but the function is quite similar each other.

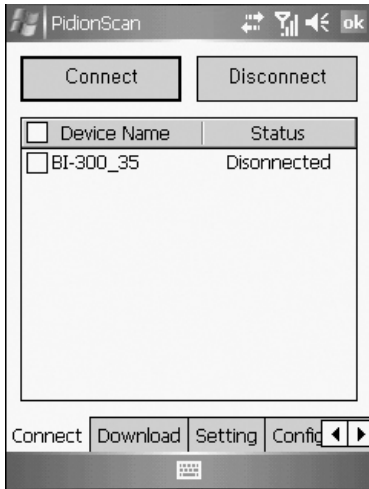


Click [PidionScan] installed in PDA/PC to execute the program.

In case of PDA, go to [Start] ► [File Browser], and then search for the folder saving PidionScan. Select [PidionScan] in the folder.

### 1. Connect

You can connect/disconnect communication between the terminal and PC/PDA through Connect/Disconnect.

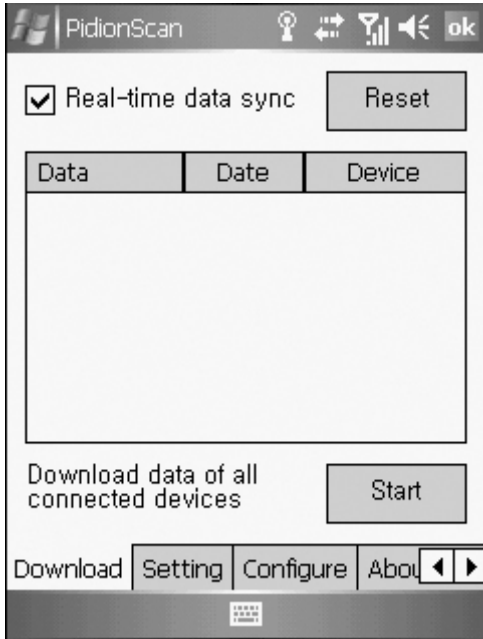


- Connect : Connect to the ticked device in the list.
- Disconnect : Disconnect to the ticked device in the list, among connected devices.
- Device Name; It is possible to distinguish many devices by the terminal serial number.
- Status : Display the progress status and results.
  - Connected : Connected normally.
  - Connecting : Attempting to connect.
  - Connect Fail : Fail in connection.
  - Disconnected : Disconnect.

## 2. Download

You can download data stored in the terminal.

- Real-time data sync : If ticked off, barcode values read in all connected devices are displayed in data sheet in real time.



- Reset

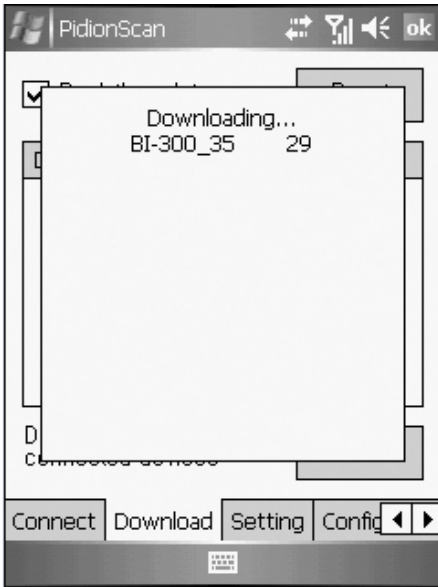
If you press Reset, barcode values read as Real-time data sync is cleared only from the screen.

Tip. If too many barcode values are displayed in a data sheet in Real-time data sync state, sometimes, there may be a problem with program performance.

- Data sheet

- Possible to adjust the width of each row by drag.
- Scroll is automatically created if an item goes beyond the window.
- Unless otherwise, size only is left as blank.

- Download data saved in the device



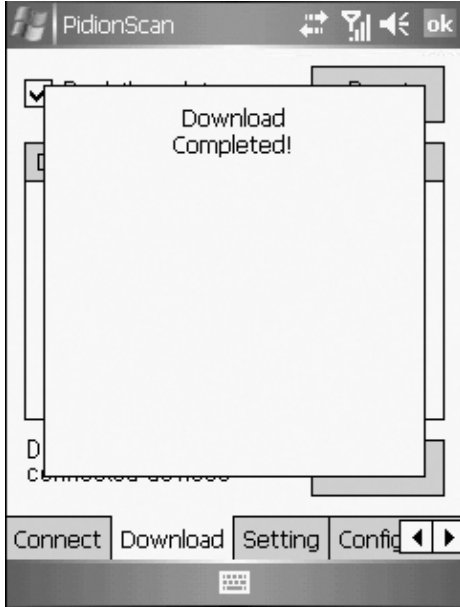
① If you press the <Start> button in the [Download] tab, the <Downloading> popup window appears (If the Popup window appears, the Download button is deactivated, and activated again after the completed Popup window disappears)

② Device IDs of all connected devices are displayed in the Popup window, and the download status per device is progressed by %.

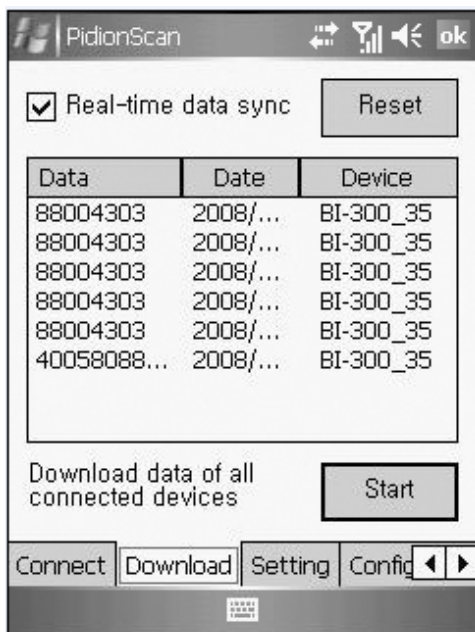
IF download is completed, the <Done!> message is displayed, and the download of the next device gets started.



③ If download of all devices is completed, the <Download Completed!> message is displayed, and automatically disappears in one second.

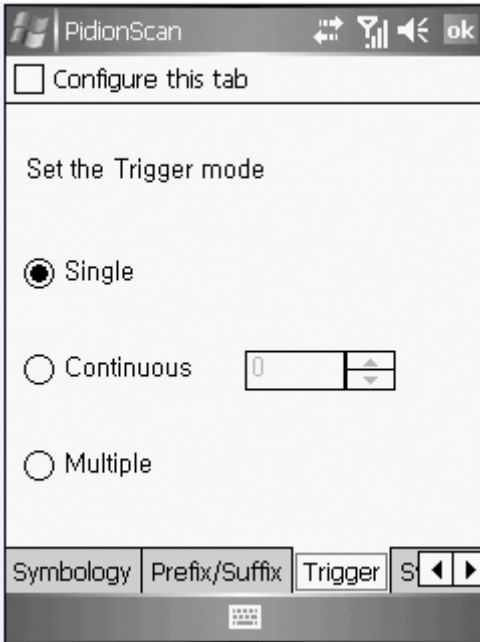


④ File name of download location is saved as <Device name\_scandata.extension>. For PDA, downloaded files are saved in the <Device(my device)> folder, and for PC, downloaded files are in a folder where the EXE file of [PidionScan] exists



### 3. Setting

#### Auto re-connect



- Automatically re-connect if Bluetooth connection is disconnected.
- You can set the maximum number of attempt.
  - Time interval default is 5 seconds, the maximum number of attempt is 0~10 (impossible to automatically re-connect if 0)
- Default : 3times

#### Auto Real-time mode

- If you select the checkbox, barcode values read by If you click the check box, the barcode data from the terminal will be indicated on the exe window of notepad or word at your PC or PDA in real time.
- If you do not select the checkbox, barcode values are not displayed in real time.
- Time Stamp

Used to display date and time in the barcode information.

Example) 2008/11/20 19:26:13 01223334

date time Barcode information

Tip. If you select the <Auto Real-time mode> checkbox, the <Time Stamp> checkbox is activated.

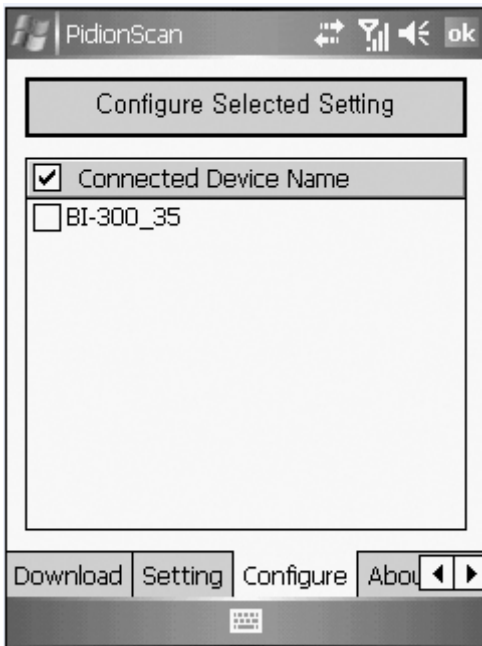


#### 4. Configure

You can configure the environment such as terminal volume, memory.

For multiple accesses, you can select many terminals and apply set value at a time.

If you select the checkbox of a target terminal and click the <Configure Selected Setting> button, you can move to the submenu of Configure.



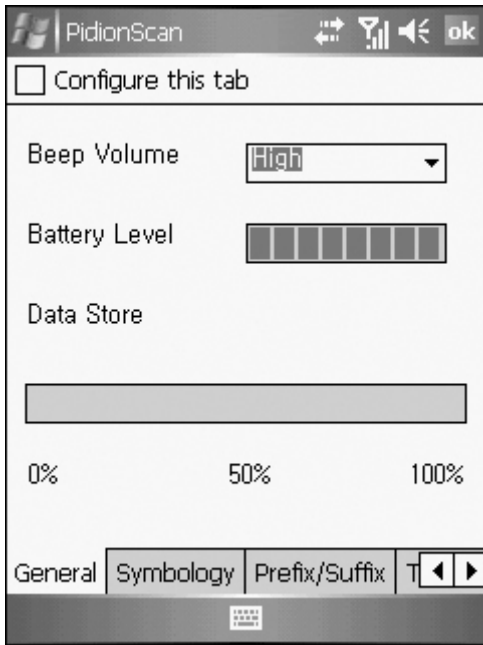
Tip. Change settings in each submenu, and check <Configure this tab>, and select the <OK> button at the right top, and then settings are applied.

**General**

**Beep Volume** : You can adjust the beep volume to level 4(Off/Low/Medium/High).  
(Default : High)

**Battery Level** : Battery level is displayed as High/Medium/Low.

**Data Store** : Memory usage is displayed and available memory is indicated as %.



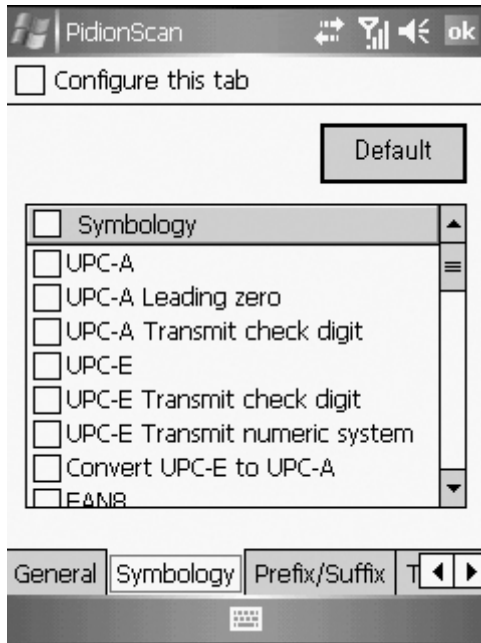
**Symbology**

You can set a barcode symbol. Select the checkbox of a barcode symbol.

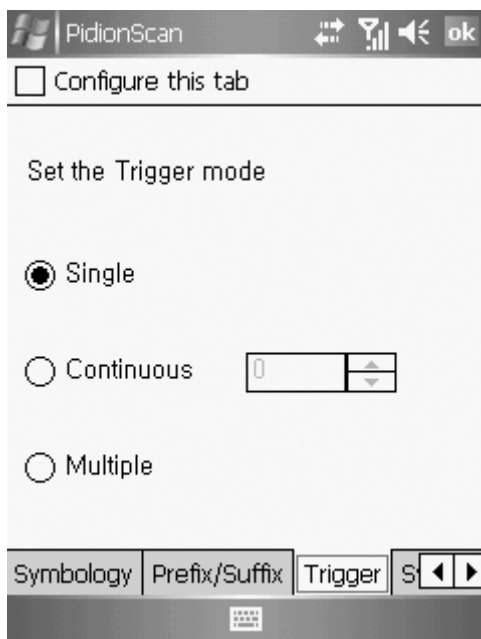
**Default** : Default barcode is selected.

Among the barcode symbols, Supplement code, Interleaved 2 of 5 Length Min, Interleaved 2 of 5 Length Max, MSI check digit, MSI check digit algorithm are needed to put the default value of symbol.

If you click the check box of barcode symbol, Sub Option which you can input the default value will pop up. Then, input the default value as below and push Set button.



## Trigger



You can the Scan mode of the Scan button.

**Single** : Scans one barcode each time you press the Scan button once.

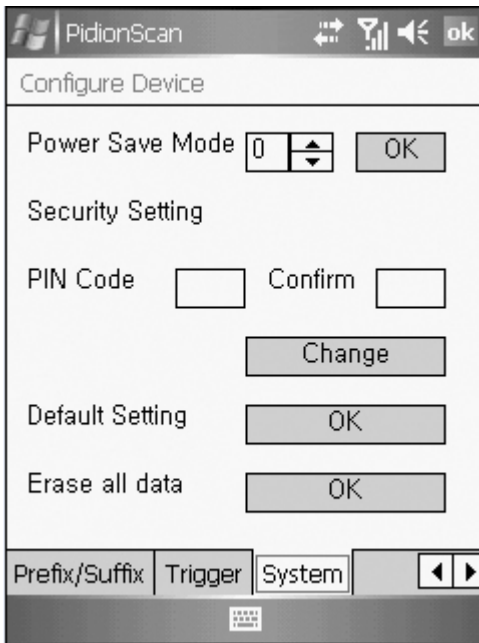
**Continuous** : If you press the Scan button once, the laser is continuously emitted, so that barcodes are read in a row. If you press the Scan button once again, laser emission is stopped. If you scan the barcode, after a certain period of time, even

if it is read once, additional data can be read. You can set a certain period of time, and the range is 0~9999, unit is ms(1/1,000 of 1 second), Default is 2222ms.

**Multiple** : If you press the Scan button once, laser is continuously emitted, so that barcodes can be read in a row, but a read barcode is not read again.

If you press the Scan button one more time, laser emission is stopped.

## System



You can change the Power Save mode and password of the terminal.

**Power Save Mode** : Set to the Power Save mode for saving power.

If you do not use a terminal for a certain period of time (minute), the terminal is changed to the Power Save mode.

**Security Setting** : Set password.

- Password is up to 4 numeric characters.
- PIN Code : Set password.
- Confirm : Confirm password to be set.
- Press the Change button and turn off and on the terminal again, then, password is changed.

**Default Setting** : All settings for the terminal are initialized to default setting. If you execute this, the terminal reboots as initialization.

**Erase all data** : Clear all barcode values saved in the terminal.

## Q&A

### **If the terminal does not operate normally, please refer to**

Q: Water comes into the barcode scanner. What shall I do?

A: First, remove the battery from the barcode scanner, and dry it up at the dry place for a certain period of time.

Q: Power is not on.

A: Check if the battery is inserted properly and use after charging the battery for a certain period of time.

Q: A battery is not charged.

A: Check if the barcode scanner is properly connected to the charger.

Q: Barcode is not scanned.

A: 1. Angle of scan may be incorrect. Scan at a right angle.

2. Barcode cannot be read if you scan barcode too far. Move close and scan barcode.

3. The barcode may be damaged. Scan other barcodes for check.

Q: Barcode data scanned by PDA is not transmitted.

A: 1. When transmitting Bluetooth, check if PDA supports the Bluetooth function.

2. Check if the Bluetooth of PDA is set properly.

3. When sending Bluetooth through data cable, check if cable is connected correctly.

Q: Data is not sent from PC.

A: 1. Check if data cable is connected properly.

2. Check if the connection program is correctly installed in a PC.

Q: Heat is generated in the barcode scanner

A: If you use the product for a long time, heat is generated sometimes. Use the product in relief because product performance is not affected.

Q: Lifetime of a battery is reduced.

A: Batteries are consumables. Lifetime may be reduced depending on period of use. Please, replace by a new battery.

If the terminal does not operate normally, please refer to:

※ If a problem still remains even if you check the above items, please contact a nearby Customer Service Center.

※ The warranty period (one year after the purchase date) for the product is one year.

## Customer Service

### [Before asking for after-sales service]

- Before requesting after-sales service, the user needs to back up data in the device in person.
- We do not backup products registered at the customers service center. Therefore, we are not responsible for any damage or loss of data.

### [Customer care center of Bluebird Soft Inc.]

- Phone : +82-2-1588-1380
- Fax : +82-2-548-0870
- E-Mail : gcs@bluebird.co.kr
- Address : 1242, Gaepo-dong, Gangnam-gu, Seoul, Korea

### [ Work hours]

- Mon.-Fri. : 9 A.M. ~ 6 P.M. (GMT Time: +9 Hours)
- We do not work on Saturday, Sundays and National Holidays.

### [How to ask for after-sales service]

- For after-sales service, please contact your local dealer or our customer care center.
- Do not remove the label of the product on purpose.
- Make sure to deliver the product in a safe way.

Bluebird Soft is not liable for device loss during delivery.

For any enquires of problems or inconveniences while using the product please call +82-2-1588-1380.

## **FCC Compliance Statement.**

**This device complies with part 15 of the FCC Rules.  
Operation is subject to the following two conditions :  
(1) This device may not cause harmful interference, and  
(2) This device must accept any interference received, including  
interference  
that may cause undesired operation.**

## **Do Not.**



**Any changes or modifications to the equipment not expressly  
approved by the party  
responsible for compliance could void user's authority to operate  
the equipment.**

## FCC Warning

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

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

[15.105 Federal Communications Commission \(FCC\) Requirements, Part 15](#)

**This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.**

**This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:**

- Reorient or relocate the receiving antenna.**
- Increase the separation between the equipment and receiver.**
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.**
- Consult the dealer or an experienced radio/TV technician for help.**



## FCC Warning

**Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.**

**FCC RF Radiation Exposure Statement: This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.**