CM-500 Multi Function Bluetooth Barcode Scanner User manual.

Chapter 1: important Notice

Important Notice:

1-1 Regulations
1-2 TECHNICAL REGULATIONS CONFORMITY FOR SPECIFIED RADIO EQUIPMENT IN JAPAN
1-3 NATIONAL COMMUNICATION COMMISSION
1-4 RoHS DIRECTIVES
1-5 SAFETY PRECAUTION

1. Important Notice:

1-1 REGULATIONS

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.

This device 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 radiated 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:

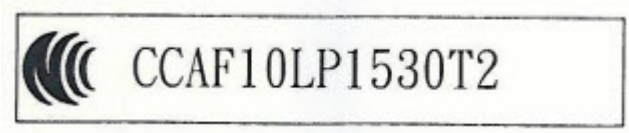
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

1-2 TECHNICAL REGULATIONS CONFORMITY FOR SPECIFIED RADIO EQUIPMENT IN JAPAN

Certificate Number: 204WW81000100

1-3 NATIONAL COMMUNICATION COMMISSION

NCC Registration Number: NCC-RCB-05
Qualified serials number on device:



1-4 RoHS DIRECTIVE

The RoHS directive (European Parliament Directive 2002/95/EC) mandates that producers of electrical or electronic equipment sold into Europe must minimize or eliminate the following materials from their design, as they are considered health risks:

1. **Lead**
2. **Mercury**
3. **Cadmium**
4. **Hexavalent Chromium**
5. **Polybrominated biphenyls (PBB)**
6. **Polybrominated diphenyl ethers (PBDE)**

These Materials must be reduced to their appropriate level (as announced by the directive) by July 1, 2006.

Technology committed to the environment, which makes the necessary changes to our products in order to comply with the directive. This involves converting most of the non-compliant components (electronics, PC boards, etc.) of our products to the compliant equivalent. We also changed the assembly processes (solder, glue, etc) to fully compliant with the directive. These changes will not affect the form, size or function of our products and the important thing is the reliability and performance remains the same.

1-5 SAFTY PRECAUTION

- Do not stare the scanning light source beam.
- Do not touch the device transparent window, reading performance might decrease if transparent window is dirty or scratch.
- Do not disassemble or modify the internal components from the scanner.
- Do not expose the scanner to any flammable source.
- Do not over charge the battery.

Lithium-Ion polymer Battery

- The Lithium-Ion polymer battery energy density is less than 400 Wh/L. Therefore, PSE certification does not required in this product.
- First time battery charge will take 4 hours for fully charge.
- Battery Life time:
  Memory Mode: Approx. 18000 scans (5 sec/per scan).
  Bluetooth Mode: Approx. 15000 scans (5 sec/ per scan).
- Do not assemble / disassemble the battery without technical support.
- Do not use unspecified power adaptor to charge the battery.
- During the charging process, if red color LED indicator flashing rapidly, discontinued the charging process, and return the scanner to the authorized dealer.
- Any leakage of fluid or abnormal odor occurred, discontinued the operation of the scanner, and returns to authorized dealer.
- Any leakage of fluid from the battery, avoid any contact with skins or eyes, if situation occurred, rinse with fresh water and consult the doctor immediately.

Chapter 2: Introduction

Introduction:

2. Introduction

2-1 PRODUCT FEATURES

- Ergonomic and lightweight
- Three in one functions (Bluetooth/ Memory/ Cabled)
- USB cable can be used as cabled scanner, data transferring from flash memory, and battery charging cable.
- Four different Bluetooth mode (Master, Slave, USB HID, and iPad mode) to communicate between PC, mobile phone and PDA.
- Programmable time stamp and output data format
- Programmable Beep tone, volume.
- Flash memory can stored up to 4500 barcode data with time stamp (bas-on EAN-13 barcode symbology)

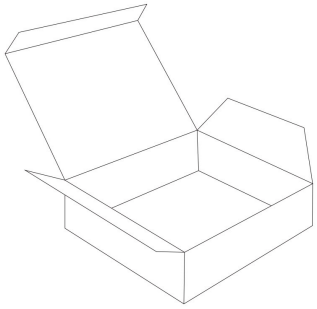
2-2 PRODUCT SPECIFICATION

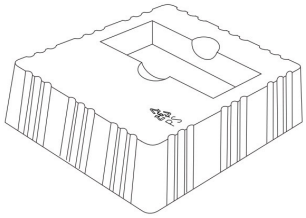
Model No.		**CM-500W wireless series**
Microprocessor		32 bits CPU
Main battery operation times		15,000 scans in Bluetooth Mode (5 sec /per scan)
Supported barcodes		Code 39, INT 25, Industrial 2 of 5, Matrix 2 of 5, Codabar(NW7), Code 93, Code 128,EAN 128, JAN/EAN/ UPC and fully RSS code (GS1 Databar)
Min. PCS value		0.45
Scan Engine	**CCD Type**	630nm Red LED LAMP, Linear CCD Image Sensor **Scan rate** : 100 scan/sec, **Scan distance** : 50mm~250mm
	Laser Type	Visible Laser Diode 650nm ±10 (25℃) **Scan rate** : 100 scan/sec **Scan distance** : 50mm~350mm
Main battery		Built in Rechargeable Li-polymer battery pack.,(3.7V, 420mAH) charging via USB port
Wireless Communication		2.4Ghz Bluetooth Class I
Keys		2 keys, 1 for scan 1 for clear data.
LED indicator		1 LED 2 colors (green and orange) for good read indication 1 LED (red) for low battery 1 LED(blue) for wireless communication on-line status
Beep indicator		Buzzer can be disable or enable by configuration
Temperature in operation		-10 ~ +40 ℃
Environment Humidity		10%-90%RH
Certification		FCC / CE / RoHS approved
Operation system		Windows XP/2000/Vista/Win 7
Dimension		(L x W x H) 89 x 40 x 17.5 mm
Weight		CCD : 75g / Laser : 85g
Power consumption		CCD : 90mA / Laser : 60mA

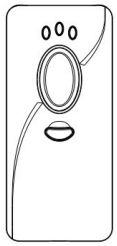
2-3 PACKAGE INFORMATION

The package included: Scanner, Bluetooth Dongle (optional), power adaptor (optional), Lanyard, USB cable, Quick start guide, product CD.

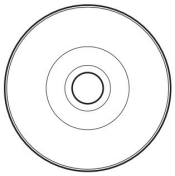
Note: The product CD includes: Quick start guide, user manual, Bluetooth setting software, barcode scanner setting software.

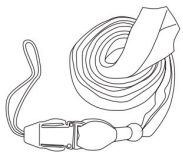


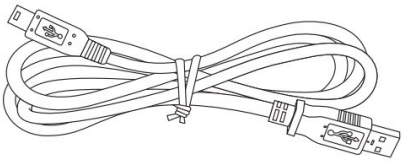


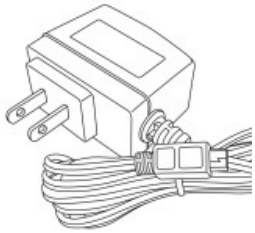


(Optional)







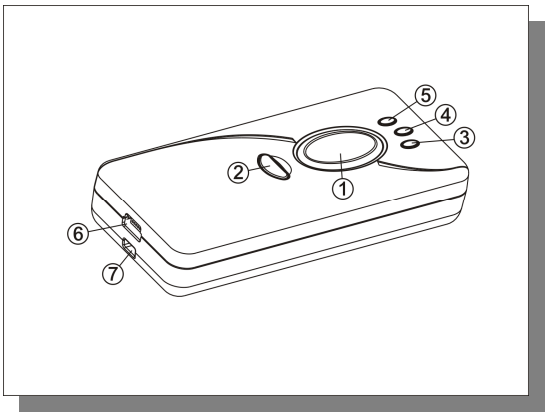


(Optional)

2-4 DEFAULT SYMBOLOGIES

Symbologies		Default setting
EAN/ UPC	UPC-A	**Enabled**
	UPC-E	**Enabled**
	EAN-8	**Enabled**
	EAN-13	**Enabled**
	EAN-13(ISBN)	Disabled
Code 39		**Enabled**
Interleaved 2/5		Disabled
Industrial 2/5		Disabled
Matrix 2/5		Disabled
Codabar/ NW7		**Enabled**
Code 128		**Enabled**
Code 93		Disabled
Code 11		Disabled
MSI/ Plessey		Disabled
UK/ Plessey		Disabled
Telepen		Disabled
GS1 Databar (RSS)	RSS14	Disabled
	RSS14 Limited	Disabled
	RSS 14 Stacked	Disabled
	RSS Expansion	Disabled
	RSS Expansion Stacked	Disabled

2-5 FUNCTION KEYS AND LED INDICATOR



① **Scan key:** Read or store barcode data. **Green** LED will be indicated when scan key pressed.

②**Erase key:**

- **Erase single data**: press the erase key and point to the previous scanned barcode, this action will erase the last previous saved barcode data from the memory.
- **Erase all data**: press and hold the erase key for approximately 8 seconds until the red light indicator on, and beep sound indicates. All barcode data saved in the memory will be erased.

③ **Power indicator**: When the battery is running low, pressing the scan key, the red LED will be indicated. During the recharging process, the red LED will be always on. When recharging process is completed, the red LED will be flashing slowly while cable is still plugged in.

④ **Good read indicator:** When the barcode is successfully read, the orange LED will be indicated.

⑤ **Wireless indicator**: When initiating Bluetooth connection Blue LED will be flashing, if connection established, Blue LED will be always on.

⑥ **USB Port:** Battery charging or data transmission.

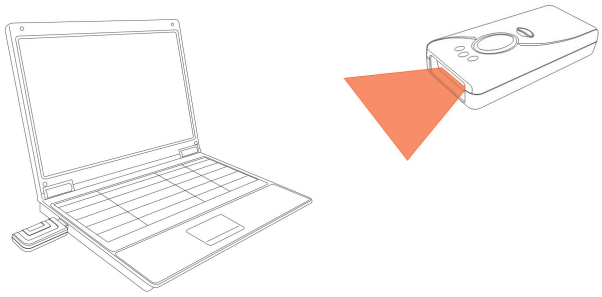
⑦ **Lanyard hole**

2-6 QUICK START GUIDE

The Quick Start guide demonstrates how to connect the scanner with Bluetooth Dongle, and some of the quick references. For detail configuration with Bluetooth, please refer to related chapter.

How to connect the scanner with Bluetooth Dongle

Procedure



Step 1 >

Insert Bluetooth Dongle to USB port.

Step 2 >

Make sure the scanner is in Bluetooth mode. If scanner is in memory mode, press and hold the scan key for few seconds until beep sound and blue LED light indication OR scan the mode switching barcode in next Page.

Step 3>

When the scanner is in Bluetooth mode, press the scan key again and wait for few seconds, the Bluetooth connection will automatically establish. If connection successful, the Blue LED indicator will be on.

Step 4>

When Bluetooth Connection established, execute any word processing software, for example: Word, notepad, Excel and etc. to receive to barcode data.

Note: Bluetooth connection will switch to sleep mode if not in use; Press Scan OR erase key once will reestablish the Bluetooth connection.

Scanner Operation Guide

Operation Mode

When plug in the USB cable with scanner.

a) It will start with short melody and the red LED will be indicated.

b) Execute Word, Excel or any word processing software; scan the barcode will transmit the barcode data to the word processing software in real time.

c) When the barcode is successfully read, beep sound and green LED will be indicated.

d) Press the Erase key for few seconds until beep sound indicates, any saved barcode data will be upload to PC at once.

Note: after uploading the barcode data to PC, the barcode data in the memory will not be erase. User needs to erase the barcode data manually.

When Unplug the USB cable with scanner.

a) It will automatically switch to Memory mode / Bluetooth mode.

b) Press the erase key and point to the scanned barcode label, this action will erase the previously saved barcode data in the memory scanner.

c) Press and hold the erase key for approximately 8 seconds until the red LED and beep indication, all barcode data saved in the memory will be erased.

Transmitting barcode data

(Send)

Send barcode data by Bluetooth OR connected by USB cable.

Clear all saved barcode data

(Clear)

Clear all barcode data in the memory

Warning: Scan the "Clear" barcode will lose all the barcode data.

Mode Switching

Switch from Bluetooth to Memory Mode

Switch from Memory to Bluetooth Mode

Important Note: For better Bluetooth transmission quality, when holding the scanner, please avoid covering the reverse top cover.

Chapter 3: Scanner Configuration

Scanner Configuration Quick Start

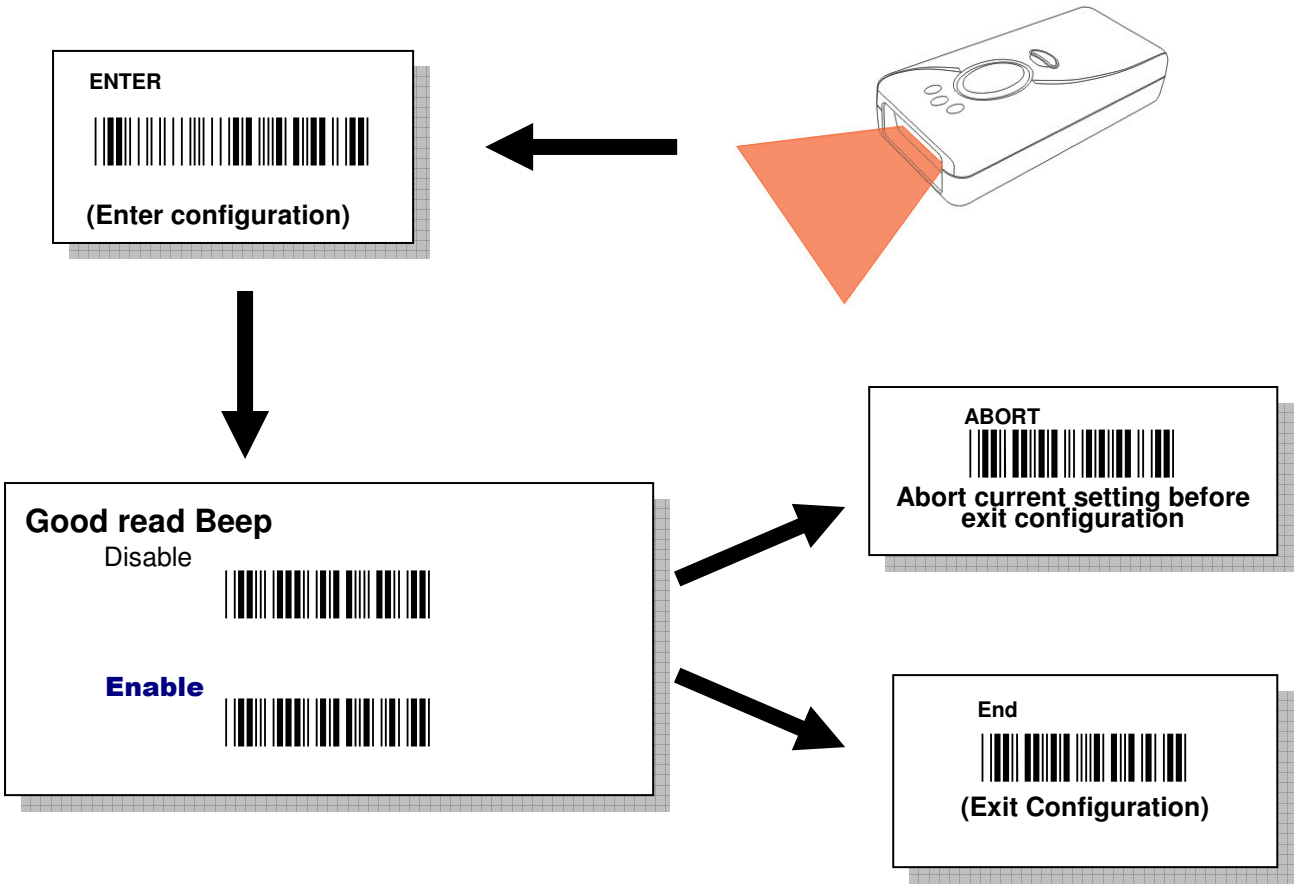
3-1 CONFIGURATION BY USER MANUAL
3-2 CONFIGURATION BY SOFTWARE

3. Scanner Configuration Quick Start

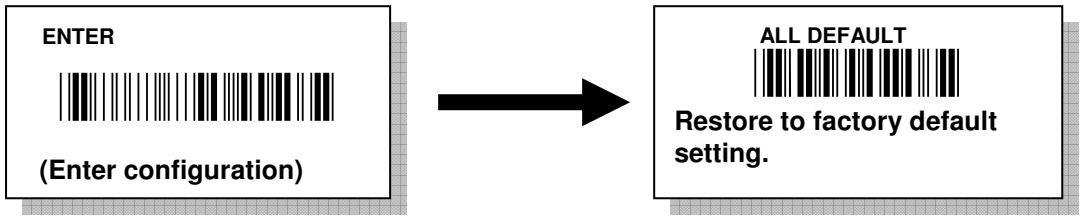
3-1 CONFIGURATION BY USER MANUAL

In the user manual, print out the related topics of setting page, simply use the scanner to scan the barcode for configuration.

For example:



Factory Default setting: user may configure the scanner back to all default settings, if configuration goes wrong.

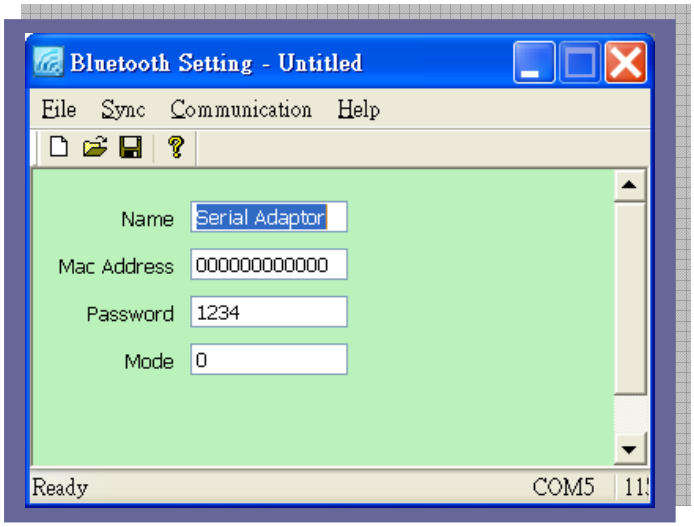


Note: The configuration barcode with **RED BOLD** font represents default setting. For more detail configuration, please refer to related configuration chapters.

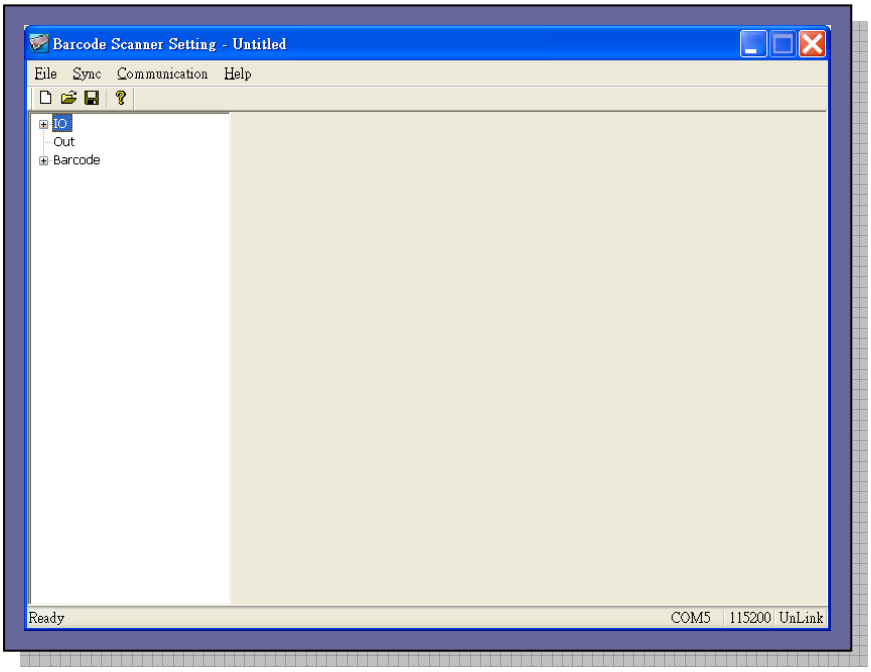
3-2 CONFIGURATION BY SOFTWARE

In the product CD, you can find two different configuration software “Bluetooth setting” and “Barcode scanner setting” to configure the parameters.

Bluetooth parameter settings: (CM500\ Software \ Bluetooth setting\Bluetooth Setting.exe)



Scanner general settings: (CM500\ Software \ barcode scanner setting\ Scanner Setting.exe)



Note: Please refer to the related configuration chapters or additional manual for how to use the software.

Chapter 4: Memory / Bluetooth Mode

Memory / Bluetooth Mode:

4-1 Memory Mode

4-1-1 Function Switch (Bluetooth mode to Memory mode)

4-1-2 Transmitting barcode data in memory mode

4-1-3 Erase barcode data (single data/ all data) in memory mode

4-2 Bluetooth Mode

4-2-1 Function switch (Memory Mode to Bluetooth mode)

4-2-2 Bluetooth Mode LED indication

4-2-3 Bluetooth mode selection Code Table

4-2-4 Bluetooth mode configuration by user manual

4-2-4-1 Slave Mode-Third party Bluetooth devices (Mode selection code: 0)

4-2-4-2 Master Mode -Third party Bluetooth devices (Mode selection code: 1)

4-2-4-3 Bluetooth SPP dongle Mode (Mode selection code: 2)

4-2-4-4 HID Mode - For third party Bluetooth devices (Mode selection code: 3)

4-2-4-5 iPad OSK MODE (Mode selection code : 4)

4-2-4-6 Bluetooth HID dongle Mode (Mode selection code:5)

4-2-5 Bluetooth parameter configuration by user manual

4-2-5-1 BT Local name

4-2-5-2 Remote Mac Address

4-2-5-3 Pin Code

4-2-6 Bluetooth Parameter Configuration by Software

4. Memory / Bluetooth Mode Explanation

This chapter explains the different functions between Memory function and Bluetooth function.

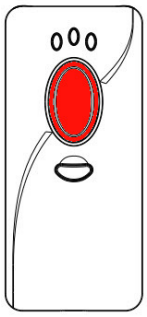
Note: If user only purchase Memory scanner model, switching to Bluetooth mode is not applicable.

4-1 Memory Mode

4-1-1 Function switch (Bluetooth mode to Memory mode)

There are two methods of switching from Bluetooth mode to Memory mode:

1) Press and hold the scan key for 8 seconds, the green LED indicator will flash until a beep sound indicated.



OR

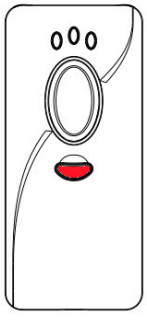
2) Scan the following barcode to switch from Bluetooth Mode to Memory Mode.

Switch from Bluetooth to Memory Mode

4-1-2 Transmitting barcode data in memory mode

There are two methods of sending the barcode data from barcode scanner.

1) **Connect the USB cable** between scanner and PC, hold the erase key for few seconds. The barcode data will transmit all the scanned barcode data to your word processing software, e.g. Word, excel, or notepad.



OR

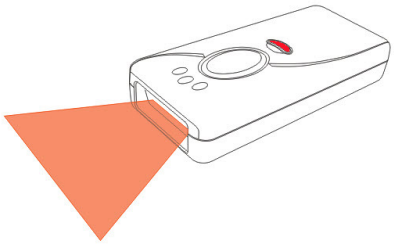
2) Connect the USB cable between scanner and PC, and scan the below "Send" barcode.

(Send)

4-1-3 Erase barcode data (Single data / ALL data)

Erase single data:

Press the erase key and point to the scanned barcode, this action will erase the last previous saved barcode data
in the memory.



Erase all data:

Press and hold the erase key for approximately 8 seconds until the red light indicator ON, and beep sound indicates. All barcode data saved in the memory will be erased.

OR

By scanning the send barcode as below:

(Clear)

Clear all barcode data in the memory

Caution: Scan the "Clear" Barcode will erase all the barcode data saved in the memory; make sure you have back up all the barcode data before performing this action.

4-2 Bluetooth Mode

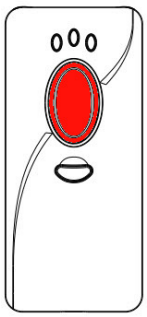
User can configure different Bluetooth connection mode in different Bluetooth environment.

1. **Slave Mode** (For third party Bluetooth devices)
2. **Master Mode** (For third party Bluetooth devices)
3. **Bluetooth SPP Dongle mode** (Original factory dongle, USB-HID / USB-COM configurable)
4. **HID Mode** (Third party Bluetooth devices with USB HID mode only)
5. **iPAD/ iPhone OSK Mode** (iPad, iPhone3Gs and 4)
6. **Bluetooth HID Dongle Mode** (Original factory dongle , USB-HID only)

4-2-1 Function switch (Memory Mode to Bluetooth mode)

There are two methods of switching from Memory mode to Bluetooth Mode:

1. Press and hold the scan key for 8 seconds, the green LED indicator will flash until a beep sound indicated.



OR

2. Scan the following barcode from Memory Mode to Bluetooth Mode.

Switch from Memory to Bluetooth Mode

4-2-2 LED indication under Bluetooth Mode

	Status	Description
Red	**ON**	When scan key is pressed, if red LED is ON, this means the power is low and needs to be recharge soon.
Orange & Green	**Green LED Flashing**	When scan key is pressed, and the green LED is blinking, this means the barcode scanning function is ready.
	Orange LED Flashing	To disconnect the Bluetooth connection, press the delete key for 3 seconds until the orange LED turns from steady to blinking. With this action, the power will also be shut down.
		To power on the scanner, press scan or delete key again
	Orange LED ON	When scanner is set as iPad OSK mode and the connection with iOS is successful, press the delete key (once) to enable or disable the virtual keyboard in iOS.
Blue	**Flashing**	Under Bluetooth mode, and Bluetooth connection is not yet connected, the blue LED indicator will be flash per 3 seconds.
		Under Bluetooth Mode and if Bluetooth connection is not connected, **Press and Hold the delete key** until BLUE LED indicator flashing rapidly, at this time, release the delete key for Bluetooth pairing with your device.
	ON	When power on and if Bluetooth is connected, the blue LED will be on.

4-2-3 Bluetooth mode selection Code Table

Bluetooth mode selection code Table		
Mode	**Description**	**Mode selection Code**
Slave Mode	Applied to third party Bluetooth dongle, or build-in Bluetooth devices	**0**
Master Mode	Applied to third party Bluetooth dongle, or build-in Bluetooth devices	**1**
Bluetooth SPP Dongle mode	Applied to original factory dongle, **USB-HID / USB-COM configurable**	**2**
HID Mode	Third party Bluetooth dongle, or build in Bluetooth device with **USB HID mode only**	**3**
iPAD/ iPhone OSK Mode	iPad, iPhone devices	**4**
Bluetooth HID Dongle Mode	Original factory dongle , **USB-HID only**	**5**

4-2-4 Bluetooth mode configuration by user manual

4-2-4-1 Slave Mode : Third party Bluetooth devices (Mode selection code: 0)

This mode is for user to configure with third party Bluetooth dongle, or build-in Bluetooth device.

For slave mode configuration; please scan below barcodes step by step.

Procedure:

(1)BT Module Enter: (Enter Bluetooth setting) 

(2)Mode: (Mode selection) 

(3) 0: (mode selection code) 

(4)OK : (Selection code confirmed) 

(5)End: (Exit setting) 

4-2-4-2 Master Mode - Third party Bluetooth devices (Mode selection code: 1)

This mode is for user to configure with third party Bluetooth dongle, or build-in Bluetooth device.

For master mode configuration, please scan below barcodes step by step.

Procedure:

(1)BT Module Enter: (Enter Bluetooth setting) 

(2)Mode: (Mode selection) 

(3) 1 : (mode selection code) 

(4)OK : (Selection code confirmed) 

(5)End: (Exit setting) 

4-2-4-3 Bluetooth SPP dongle Mode (Mode selection code: 2)

This mode is for user to configure with purchased original factory dongle, and it is **USB-HID** / **USB-COM configurable**.

For Bluetooth SPP Dongle mode configuration, please scan below barcodes step by step.

Procedure:

(1)BT Module Enter: (Enter Bluetooth setting)

(2)Mode: (Mode selection)

(3) 2: (mode selection code)

(4)OK : (Selection code confirmed)

(5)End: (Exit setting)

4-2-4-4 HID Mode - For third party Bluetooth devices (Mode selection code: 3)

This mode is for user to configure with third party Bluetooth dongle, or build-in Bluetooth device with USB HID only.

For HID mode Configuration, please scan below barcodes step by step.

Procedure:

(1)BT Module Enter: (Enter Bluetooth setting)

(2)Mode: (Mode selection)

(3) 3: (mode selection code)

(4)OK : (Selection code confirmed)

(5)End: (Exit setting)

4-2-4-5 iPad OSK MODE (Mode selection code : 4)

This mode is for user to configure with iPad or iPhone devices

For iPad OSK mode configuration, please scan below barcodes step by step.

Procedure:

(1)BT Module Enter: (Enter Bluetooth setting)

(2)Mode: (Mode selection)

(3) 4: (mode selection code)

(4)OK : (Selection code confirmed)

(5)End: (Exit setting)

4-2-4-6 Bluetooth HID dongle Mode (Mode selection code:5)

This mode is for user to configure with purchased original factory dongle, but it **only support USB-HID**.

Bluetooth HID Dongle mode, please scan below barcodes step by step.

Procedure:

(1)BT Module Enter: (Enter Bluetooth setting)

(2)Mode: (Mode selection)

(3) 5: (mode selection code)

(4)OK : (Selection code confirmed)

(5)End: (Exit setting)

4-2-5 Bluetooth parameter configuration by manual

4-2-5-1 BT Local name

This option enables to assign Bluetooth the scanner name. Please refer to the HEX ASCII table (Form 0~9, A~F). The first digit and last digit cannot be space or "-". If scanner name setting is incorrect, connection failure will occur.

Configuration	Max. Configurable Length	Default Setting
Please refer to ASCII table	16 digits	'Serial Adaptor'

Procedure:

(1) BT Module Enter: (Enter Bluetooth setting)

(2) "BT Local name"

(3) Scan Hexadecimal/Decimal Barcode table for input characters.

(4) OK : (Selection confirmed)

(5) End: (Exit setting)

Example:

Set Local name as 'BT Scanner'

(A) Scan "BT Module Enter" barcode

(B) Scan "BT Local name" barcode

(C) Scan parameters from Hexadecimal / Decimal barcode table =>"4","2", "5","4", "2","0", "5","3", "6","3", "6","1", "6","E", "6","E", "6","5", "7","2","OK" (configured as 'BT Scanner', Please refer to ASCII TABLE)

(D) Scan "End" Barcode

4-2-5-2 Remote Mac Address

Mac address configuration, total of 12 digits, Please refer to the HEX ASCII table (From 0~9, A~F).

Configuration	Max. Configurable Length	Default Setting
Hexadecimal / decimal barcode table	12 digits	000000000000

Procedure:

(1) BT Module Enter: (Enter Bluetooth setting)

(2) "Remote Mac address" *ZBT2*

(3) Scan Hexadecimal/Decimal Barcode table for input parameters.

(4) OK : (Selection confirmed)

(5) End: (Exit setting)

Example:

Set Remote Mac Address to 00126F006EAA

A. Scan "BT Module Enter" barcode
B. Scan "Remote Mac Address" barcode
C. Scan parameters from Hexadecimal /decimal barcode table =>"0", "0", "1","2", "6","F", "0","0", "6","E", "A","A"→ "OK" (Set "Remote Mac Address " value to **00126F006EAA**)
D. Scan "End" barcode

Note:

(1) If scanner connection mode is"Slave" or "HID" or "iPad OSK" Mode, Mac Address configuration does not required.

(2)If scanner connection mode is "Master" or "Bluetooth SPP Dongle" or "Bluetooth HID Dongle" mode, configuration of Mac address does required, and the configuration cannot be "000000000000"

4-2-5-3 Pin Code

When the scanner and Bluetooth device is in the pairing process, user will need to enter the pin code for pairing confirmation. This pin code might be generate by Bluetooth devices or preconfigured by user depends on different mode setting.

(1) Under “Slave” or “Master” mode, pin code configuration is needed when the pairing action is performed.

(2) Under “Bluetooth SPP Dongle” or “Bluetooth HID Dongle” mode, Pin code does not required.

(3) Under “HID” or “iPad OSK” Mode, during pairing process, the PC or other devices will generate the pin code, user will need to referred to that pin code, and scan the pin code digits from Hexadecimal / Decimal table.

Configuration Range	Max. Configurable Length	Default Setting
0000 ~ 9999	4 digits	1234

Procedure:

(1) BT Module Enter: (Enter Bluetooth setting)

(2) “Pin Code”

(3) Scan Hexadecimal/Decimal Barcode table for input digits.

(4) OK : (Selection confirmed)

(5) End: (Exit setting)

Example:

Set Pin Code to 5678

(A) Scan “BT Module Enter” Barcode

(B) Scan “Pin Code” Barcode

(C) Scan parameters from Hexadecimal/Decimal table =>“5”,”6”, “7”,”8”

→”OK”

(Set “Pin Code “ value to 5678)

(D) Scan “End” Barcode

4-2-6 Bluetooth parameter configuration by software

Procedures:

- Connect scanner with PC by USB cable, and set the scanner to ISP mode.
  Scan the below barcodes step by step to set the scanner to ISP mode.

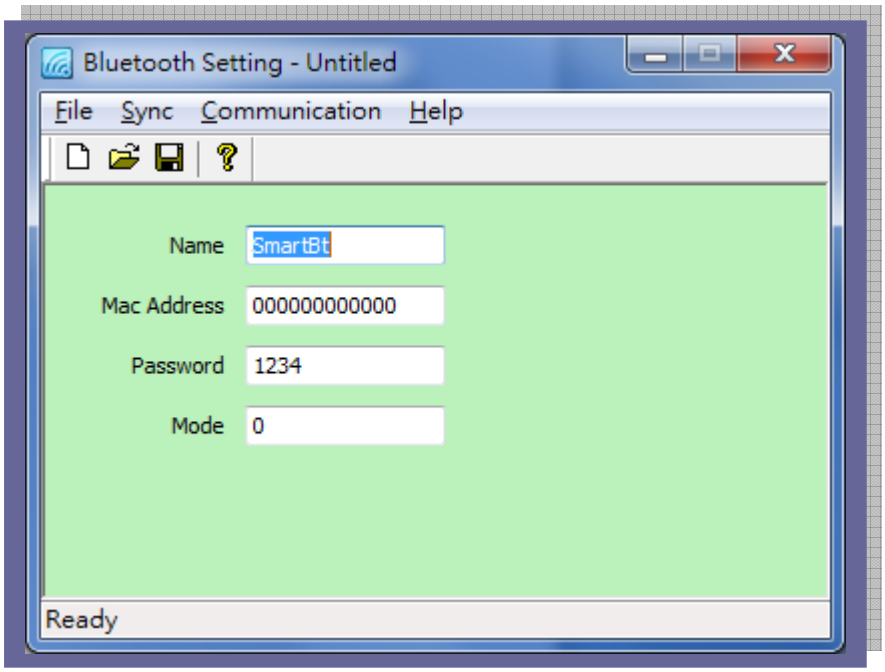
1. **ENTER:**

2. **ISP:**

Note: ISP mode means scanner configuration mode.
Before any configuration with the software, scanner must scan above two barcodes in order to perform software configuration.

- When the scanner is in ISP mode, the PC might request for driver installation, **the driver is located in the CD (CM500\driver\ C0801.inf).**

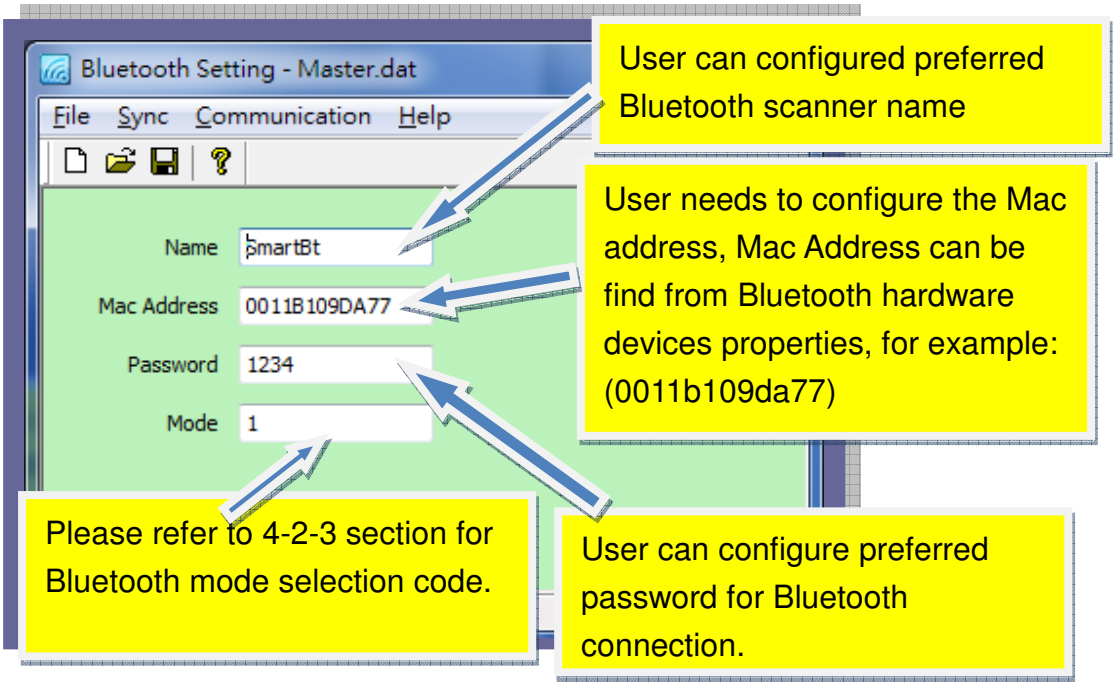
Execute "Bluetooth Setting" software, file located in the CD **(CM500\ Software \ Bluetooth setting\Bluetooth Setting.exe)**



- Go to device manager in windows system to make sure which com port your scanner connected with (control panel → system→ hardware→ Hardware devices → COM port). for example: COM5)

- In the software, please go to **Sync → properties→ COM PORT** for synchronization.

- Configure scanner Bluetooth parameters, including **Name** (user preferred device name for the scanner), **Mac Address** from the third party Bluetooth dongle or devices, **Password** (user preferred password), and make sure Bluetooth connection **Mode** is set as corresponding selection code.
(please refer to Bluetooth mode selection code table section :4-2-4-1)



- Save the configuration parameters, and download the settings to scanner **(File→Save → Communication → Download T-parm File)**

Note: User can also transfer the saved configuration to the scanner. The procedure as following:

For synchronization procedure, please refer to above steps and select **File→Open (and selected your saved configuration file) →Download T-parm File.**

- Exit the software, and disconnect the connection between Bluetooth Setting software and scanner.

Note: for more detail, please refer to Bluetooth Setting instruction guide.

(CM500\manual\Bluetooth setting instruction guide.pdf)

Chapter 5: Bluetooth Connection Mode Instruction

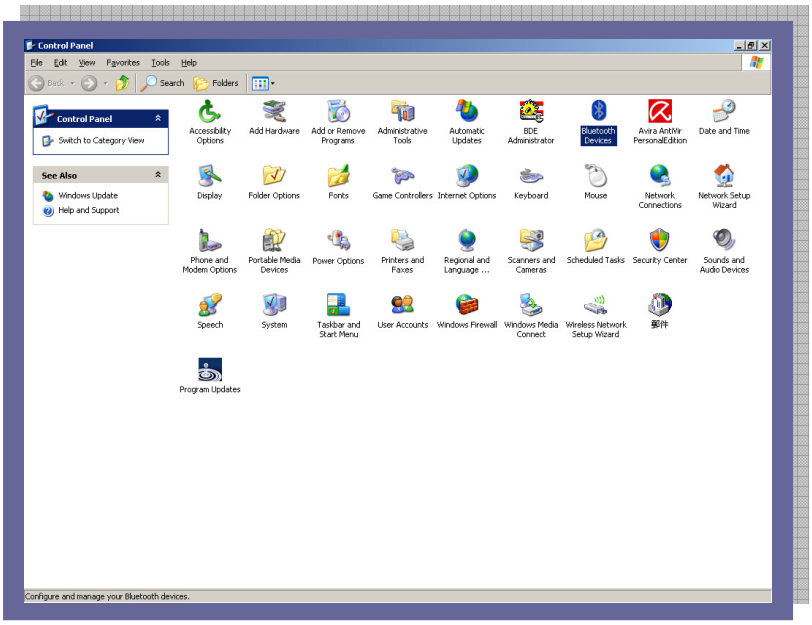
Bluetooth Mode – Bluetooth Connection Mode Instruction

5. Bluetooth Connection Mode Instruction

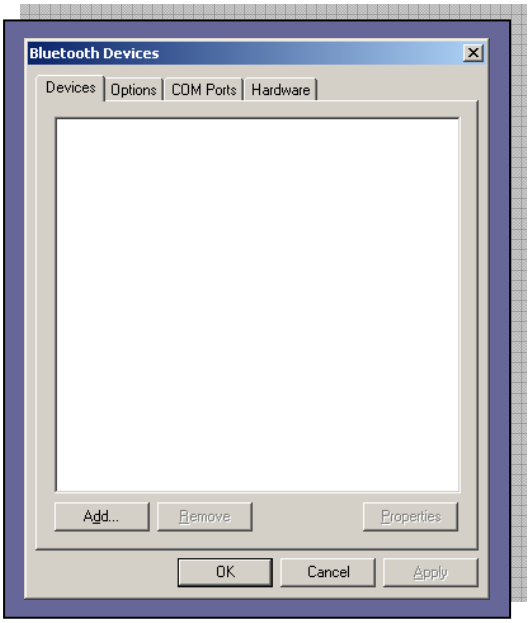
5-1 Slave mode Connection (For Third party Bluetooth devices)

- **Make sure the scanner is in Bluetooth mode; please refer to chapter 4-2-1 for how to configure in Bluetooth mode.**
- **Make sure the Mode selection code is configured as "0". Please refer to chapter 4-2-4-1.**

Insert the third party Bluetooth dongle to PC, or build-in Bluetooth device in windows system. Go to Control Panel. Please refer to the screen below.

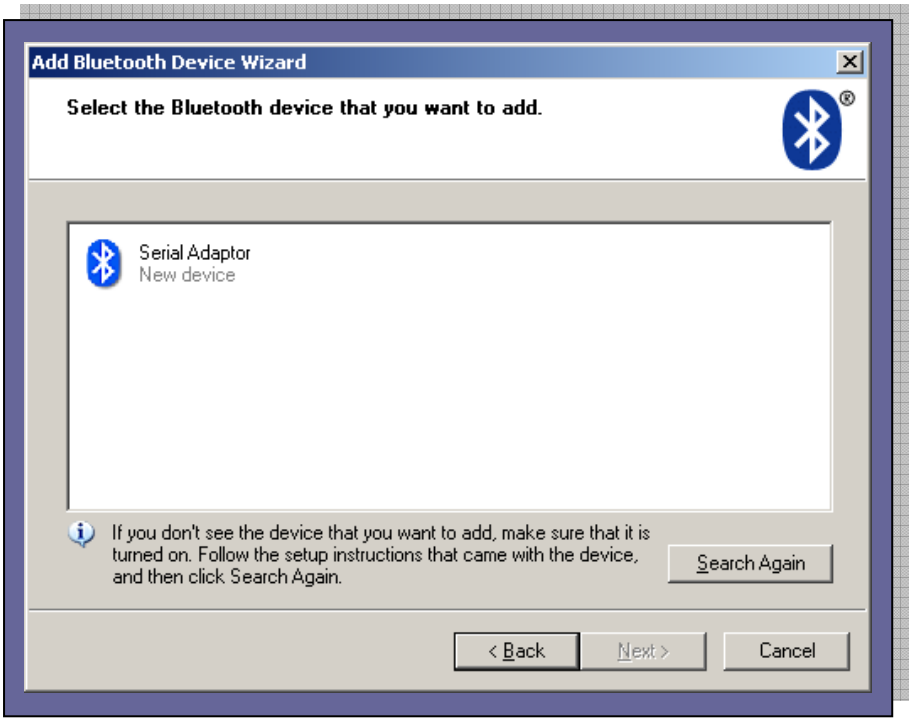


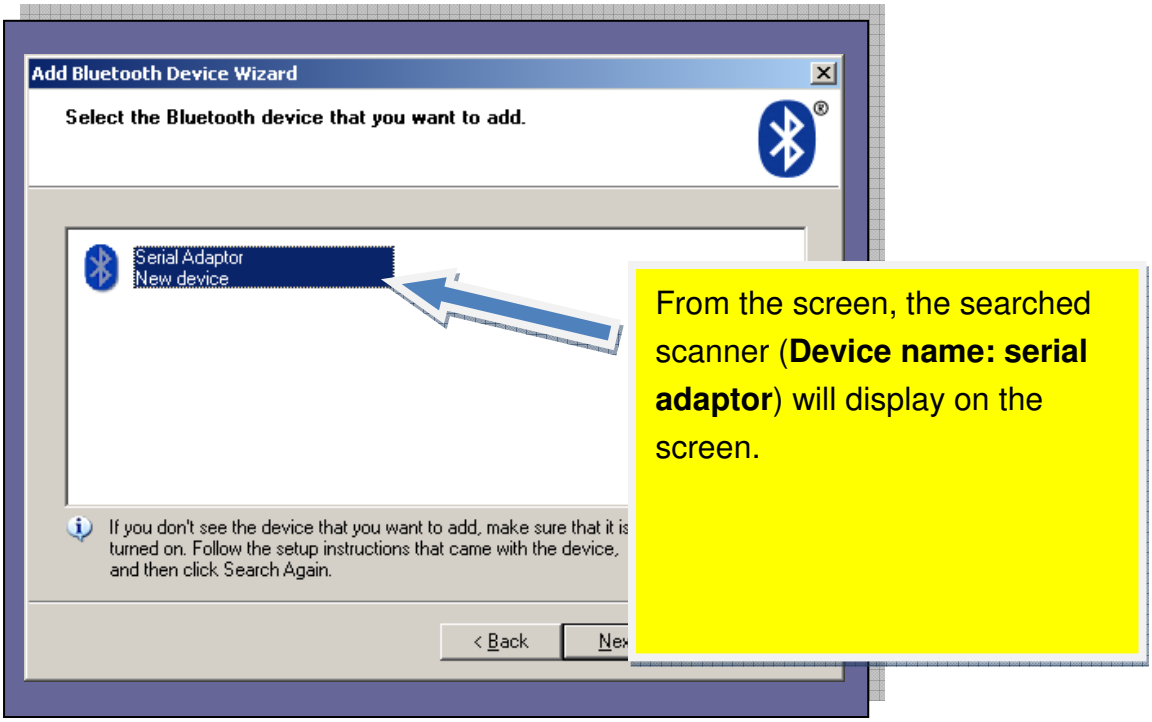
Select Bluetooth devices; please refer to the following screen.



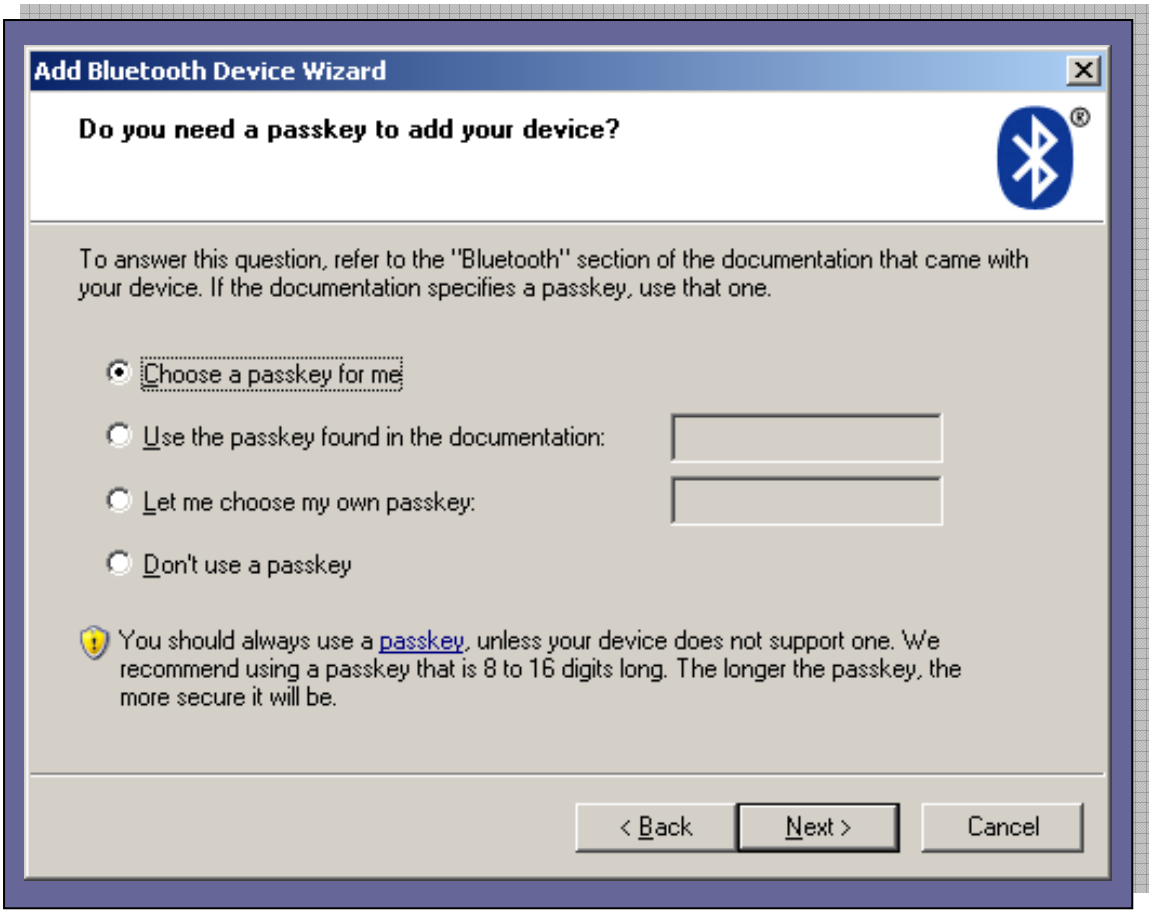
Under Devices tab, select “Add” button”

After Scanner and Bluetooth dongle is in pair status, select “Next”, the device wizard will start searching for Bluetooth scanner, if Bluetooth scanner found, it will appear as following:

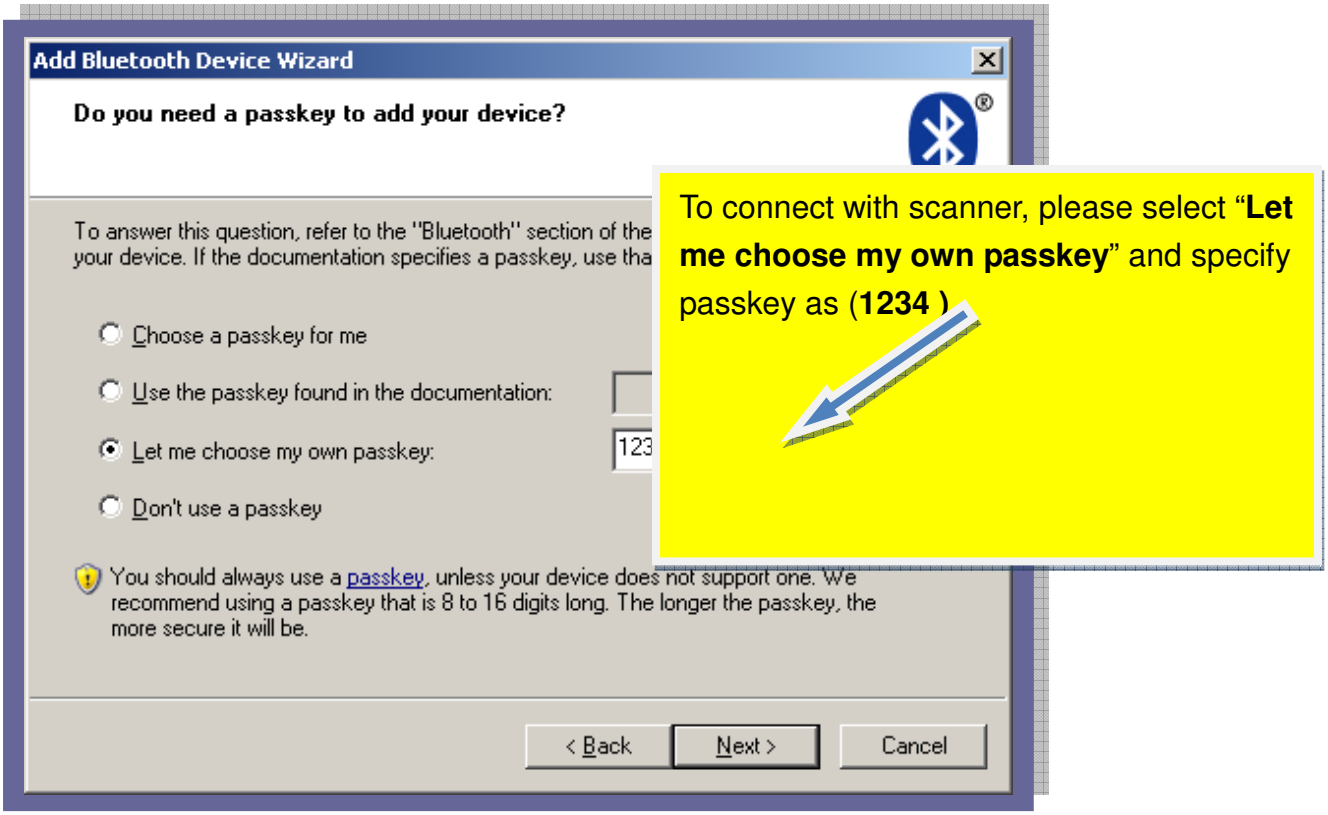




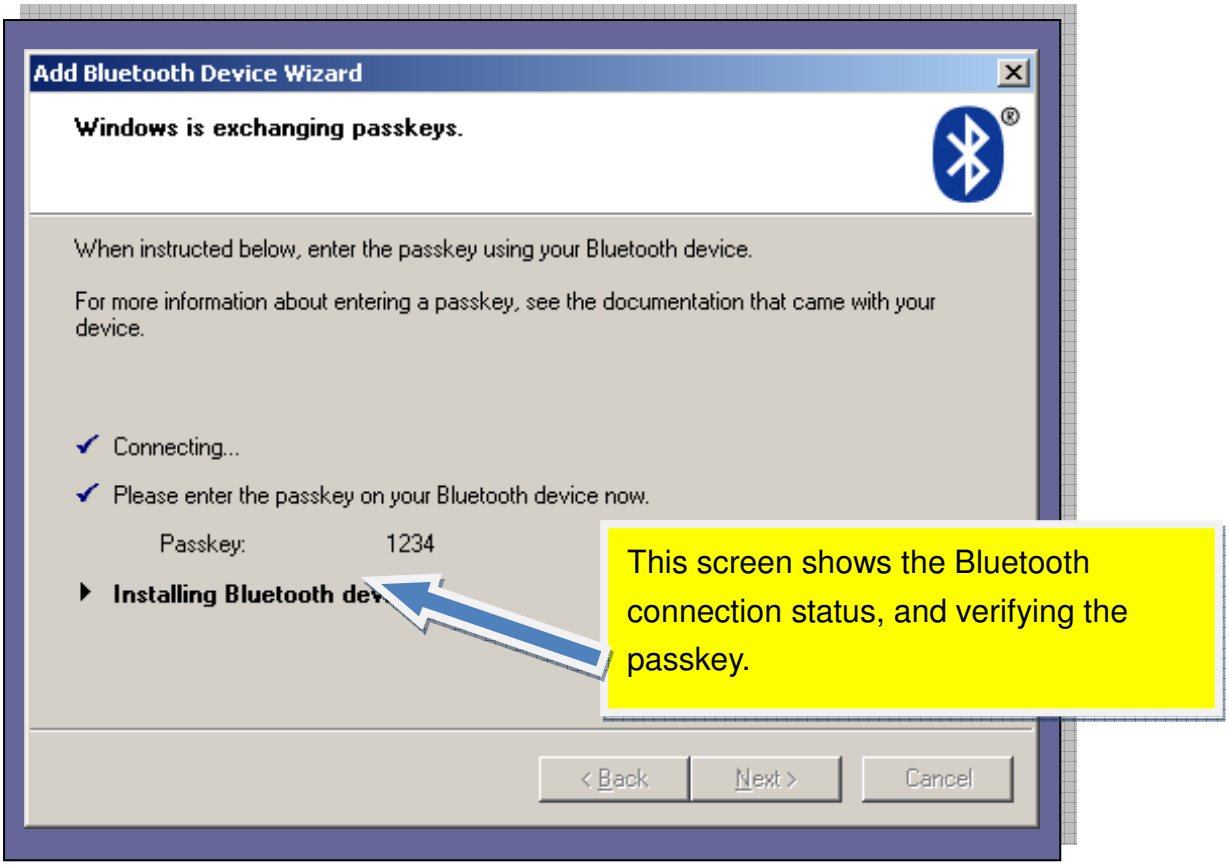
Select the scanner (Serial Adaptor). And select “Next” button.



This enables to configure the Bluetooth passkey setting.



After specified the passkey, select "Next" button.



When the connection succeeded, the screen appears as below.

From this screen, it indicates the scanner has linked to Bluetooth device, and the scanner can use two com ports to receive barcode data, for example: Outgoing COM Port (COM5), and Incoming COM port (COM6).

What is Outgoing COM port and Incoming COM port?

- **Outgoing COM port:** When the scanner is set as "**Slave**" mode and connected by other Bluetooth devices. Outgoing COM port must be selected.

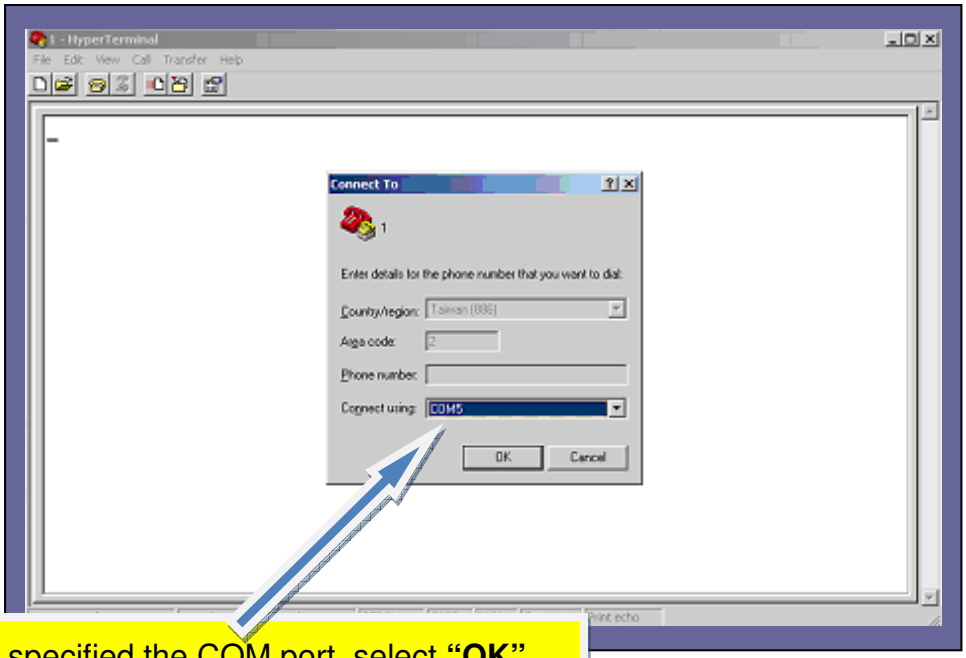
- **Incoming COM port:** When the scanner is set as "**Master**" mode and initiates the connection to Bluetooth device. Incoming COM port must be selected.

When the Bluetooth scanner connection established, please execute "Hyper Terminal" to received barcode data.

5-1-1 receive barcode data by WINDOWS HYPER TERMINAL in slave mode

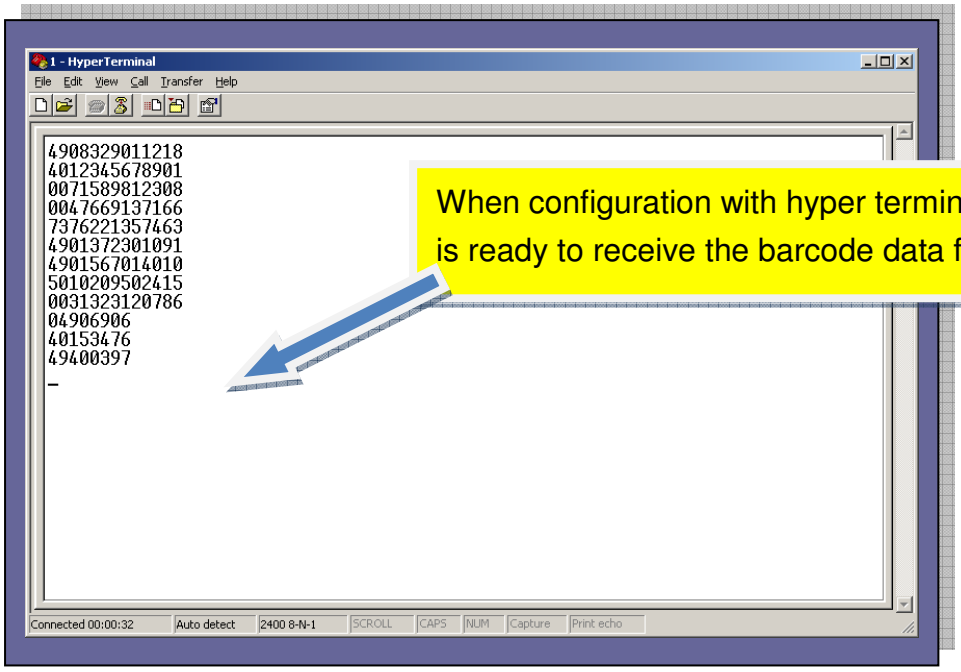
Hyper Terminal COM port selection in Slave Mode:

- Execute “Hyper Terminal” and set the connection as “Outgoing COM port (COM5)”. Please refer to the screen below.



After specified the COM port, select **“OK”** button for connection. When the connection succeeded, it will indicate with a beep sound.

COM port setting: Baud rate: 115200, Data bits:8 bits, Stop Bits: 1 Bits, Parity: None.

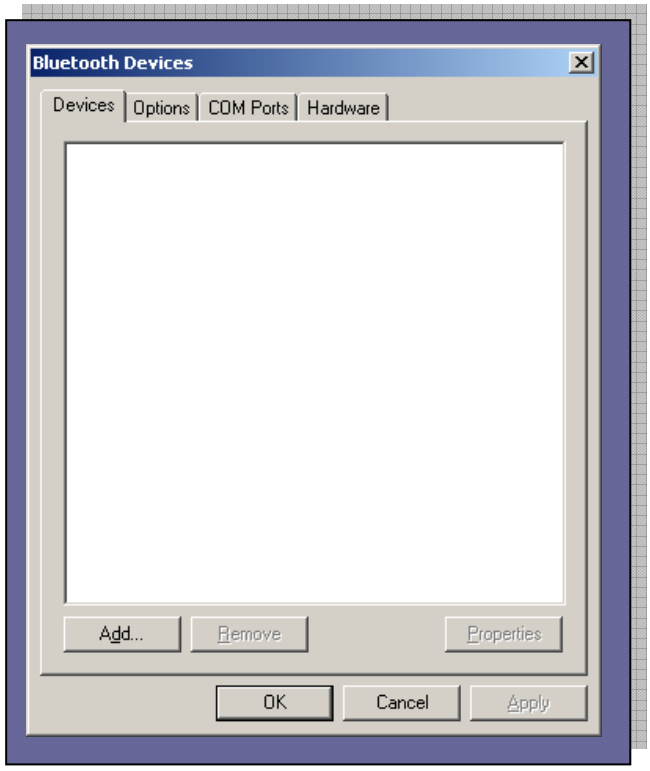


When configuration with hyper terminal succeeded, it is ready to receive the barcode data from scanner.

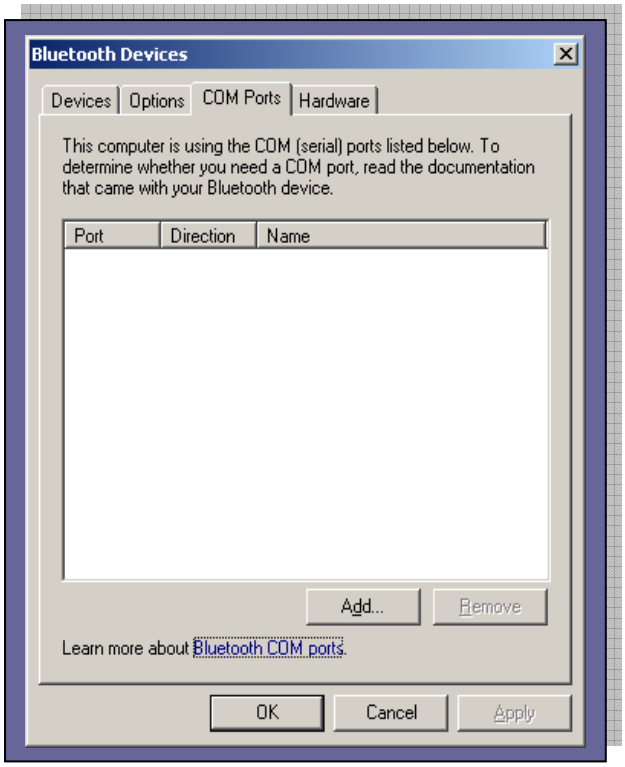
5-2 Master mode Connection (For third party Bluetooth Devices)

- **Make sure the scanner is in Bluetooth mode; please refer to chapter 4-2-1 for how to configure in Bluetooth mode.**
- **Make sure the Mode selection code is configured as "1". Please refer to chapter 4-2-4-2.**

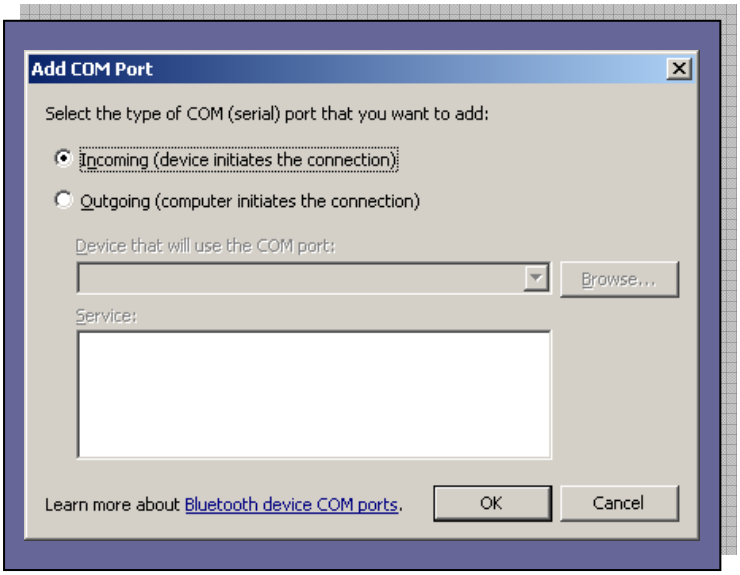
Insert the third party Bluetooth devices, in windows system, go to Control Panel and select Bluetooth devices. Please refer to the screen below.



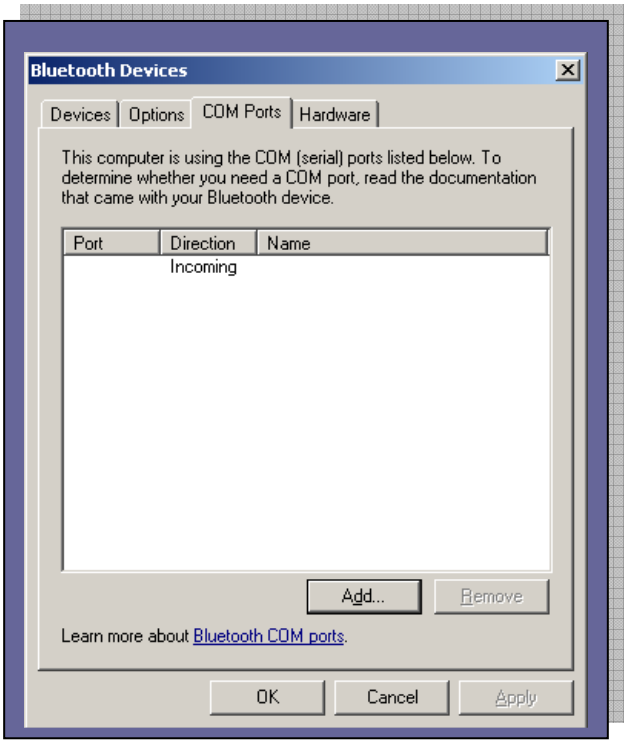
Please go to "Com Port" option.



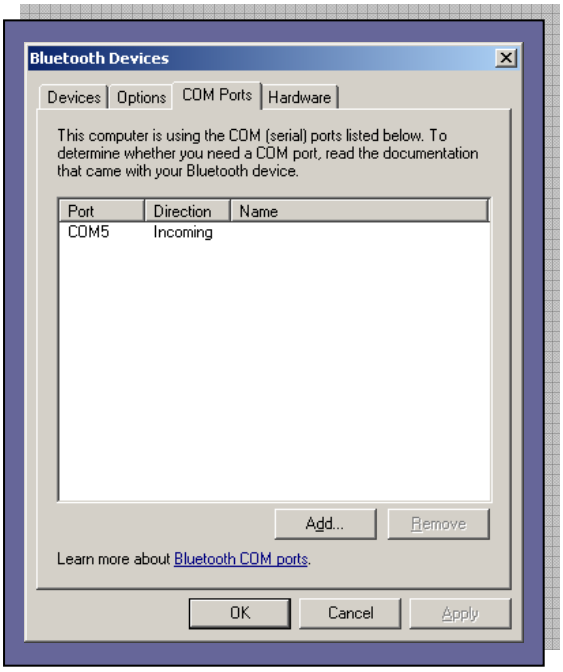
Select "Add" button"



Select “Incoming (device initiates the connection) and “OK”



Wait for COM port detection.



From the screen, the COM port is detected as COM5. And select “OK”

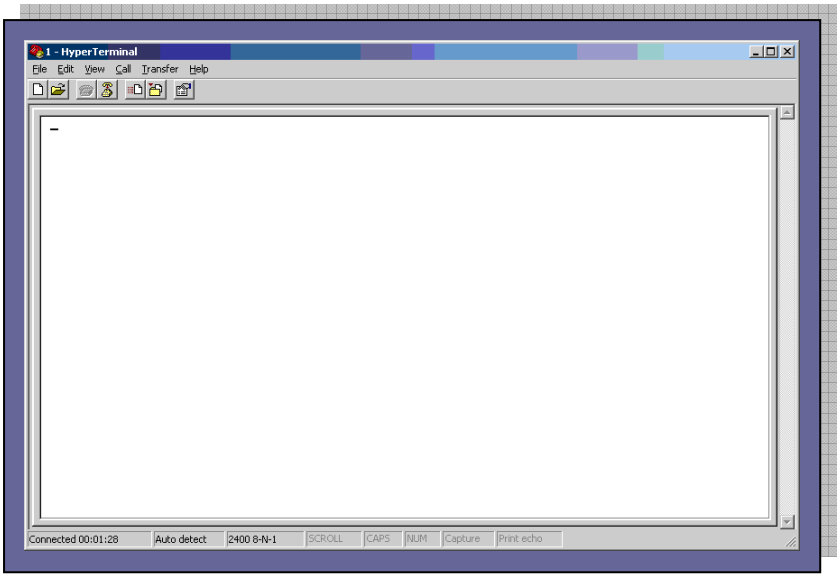
5-2-1 receive barcode data by WINDOWS HYPER TERMINAL in master mode

Hyper Terminal COM port selection in Master Mode:

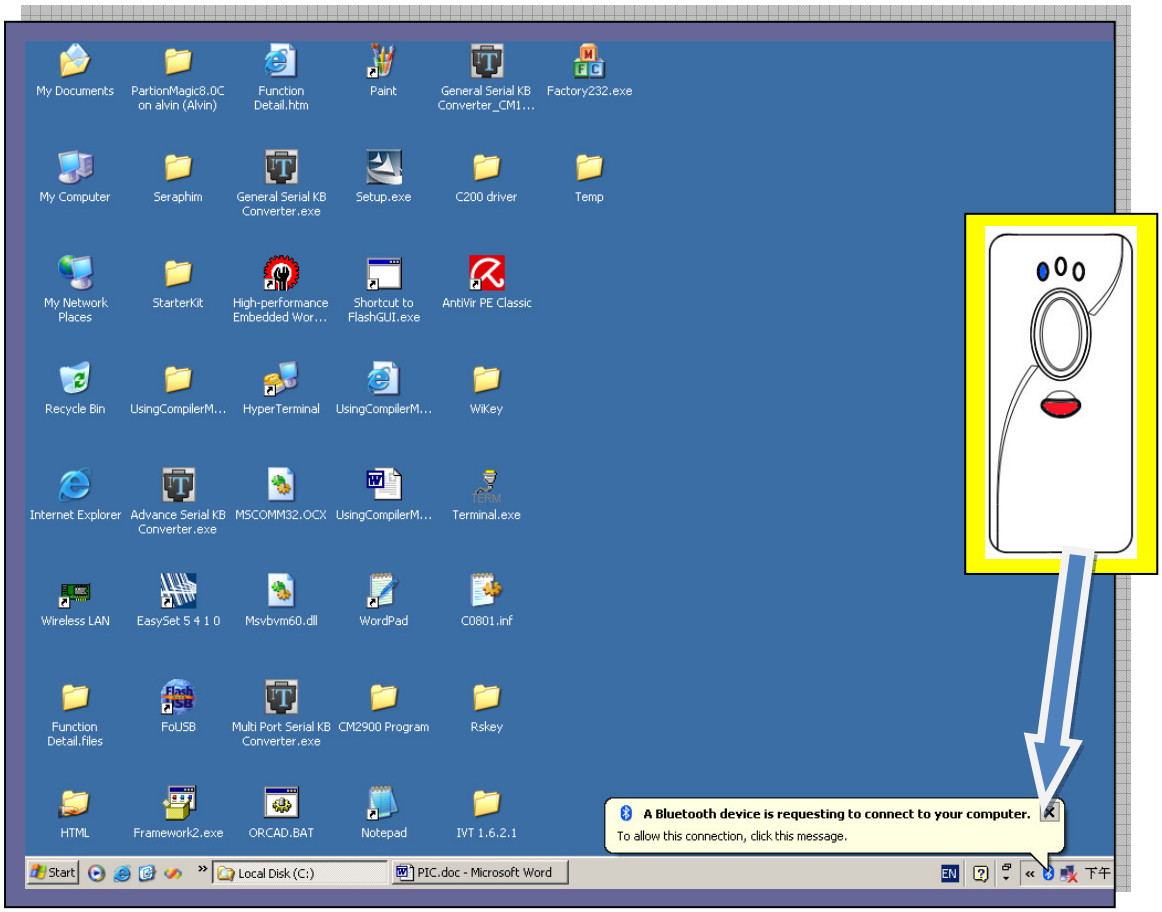
1. Please access to “Hyper Terminal”, and select the “Connection using” as COM 5 (examples of Bluetooth COM port detection).

COM port setting: Baud rate: 115200, Data bits:8 bits, Stop Bits: 1 Bits, Parity: None.

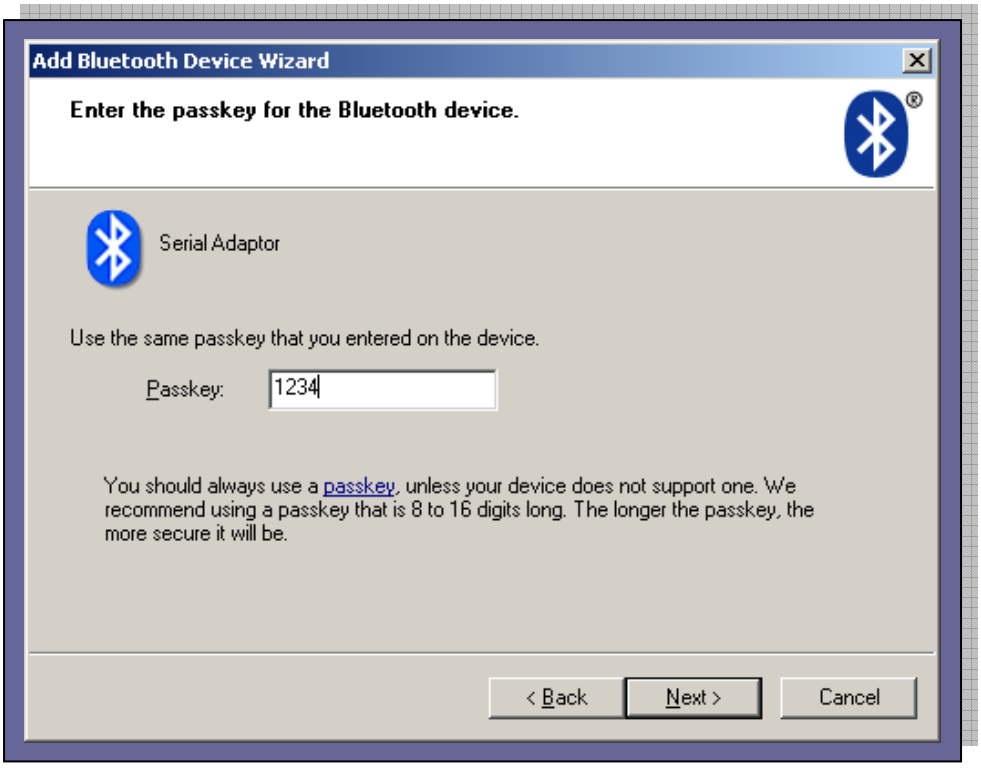
Select OK to start connection. IF connection is successful, it will show as following screen.



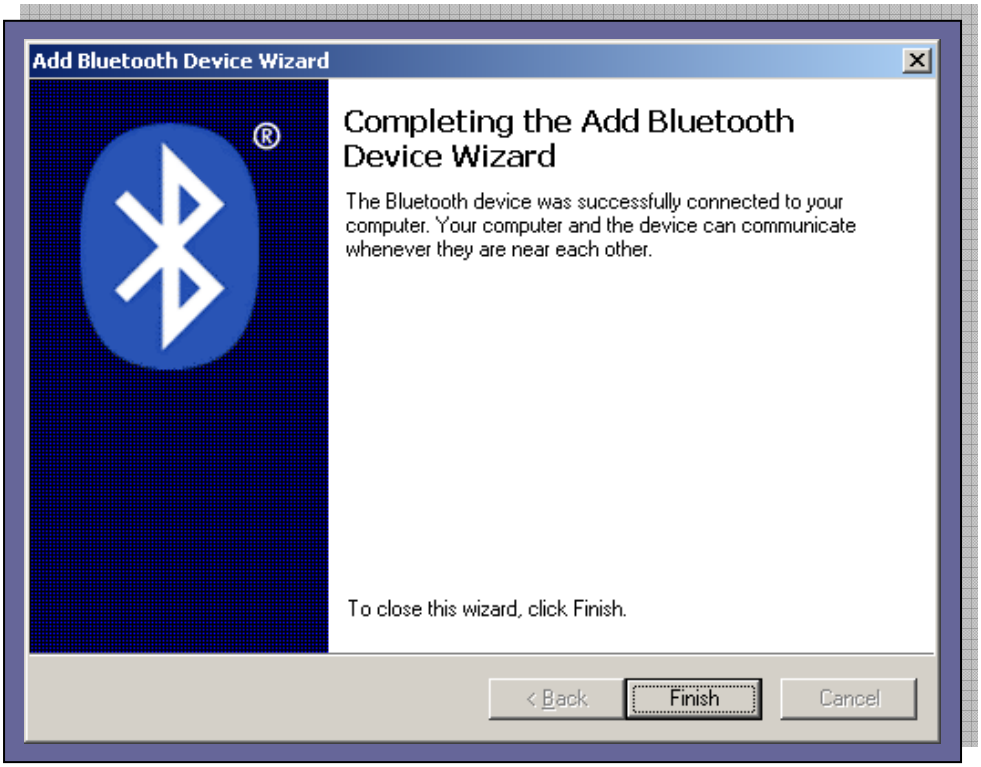
From the scanner, please press the small key for pairing process (press and hold for few seconds until the BLUE led flashing rapidly, and release the key). And from the PC screen, you may see the following indication.



Select the Bluetooth Device Wizard from the bottom right corner.

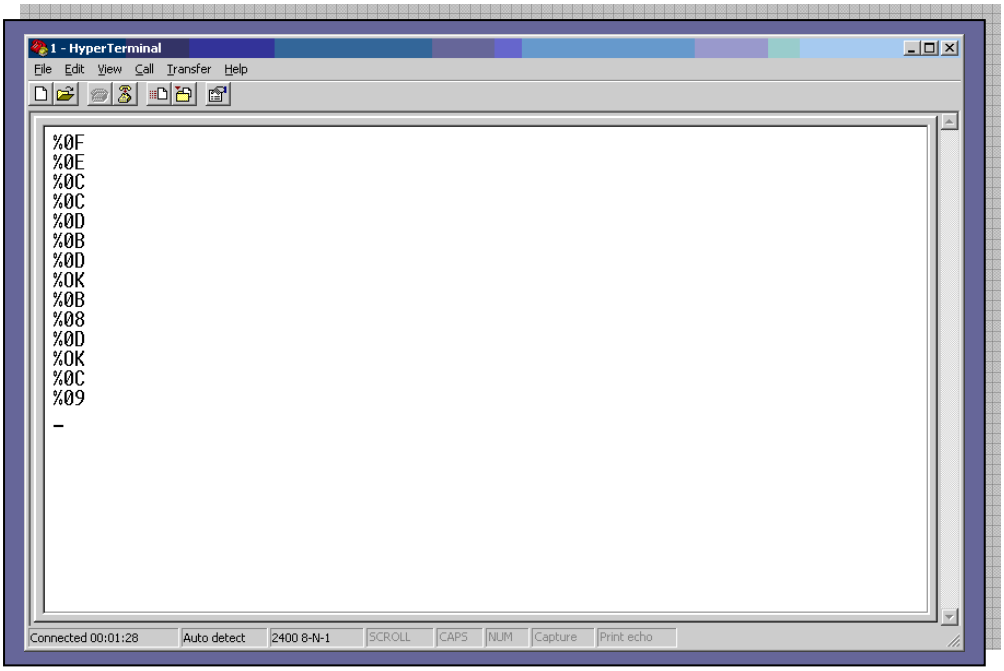


Key in the passkey (for example :1234), and select “Next”.



Select “Finish” to complete the Bluetooth device wizard, when connection succeeds, the scanner BLUE LED will be ON.

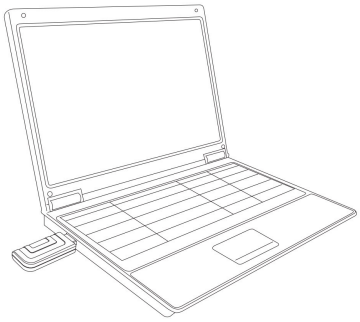
Now, scan the barcode, the barcode data will appear on Hyper Terminal.



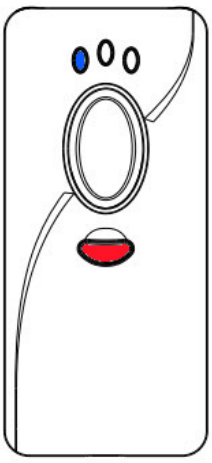
5- 3 Bluetooth SPP Dongle Mode Connection (USB-HID / USB COM)

5-3-1 HID MODE:

- **Make sure the scanner is in Bluetooth mode; please refer to chapter 4-2-1 for how to configure in Bluetooth mode.**
- **Make sure the Mode selection code is configured as "2". Please refer to chapter 4-2-4-3.**



Insert Bluetooth SPP Dongle to PC.

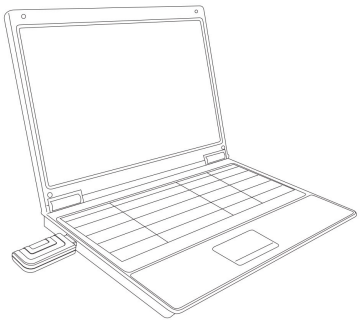


When connecting scanner and Bluetooth Dongle, Press and hold the Pairing/delete (small) key until blue LED flashing rapidly, and then release it. The scanner will establish the Bluetooth connection. If connection successful, the Blue LED indicator will be on. If not, please repeat the above mention action or check the Bluetooth parameters setting.

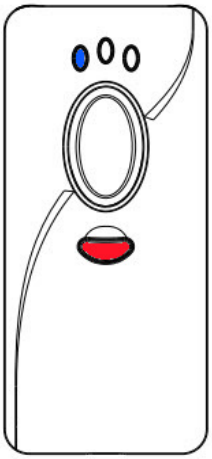
When Bluetooth Connection established, execute any word processing software, for example: Word, notepad, Excel and etc. to receive to barcode data.

5-3-2 USB COM MODE

- **Make sure the scanner is in Bluetooth mode. Please refer to above sections of how to configure in Bluetooth mode.**
- **Make sure the Mode selection code is configured as "2".**

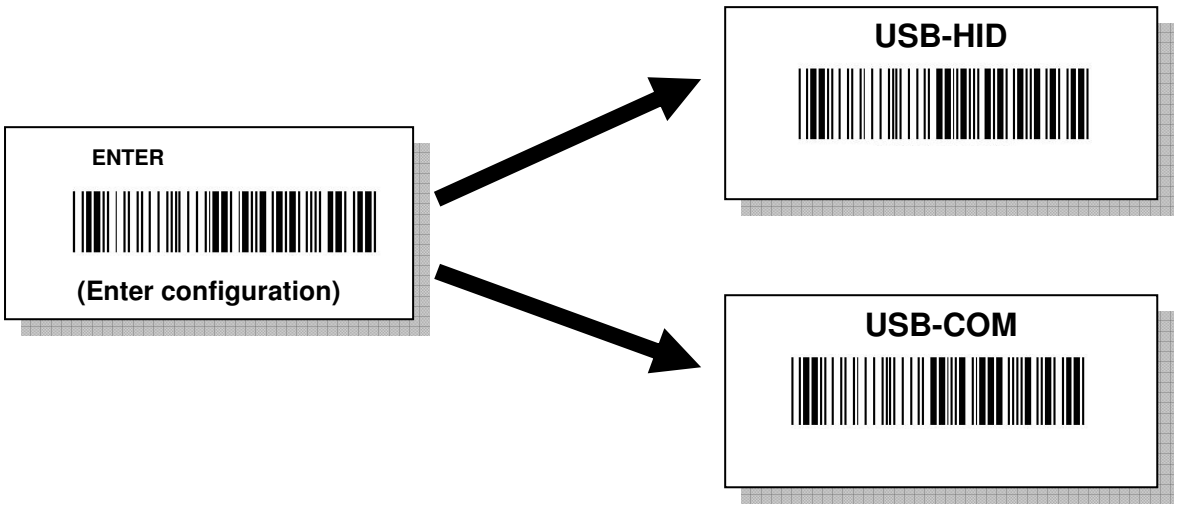


Insert Bluetooth SPP Dongle to PC.



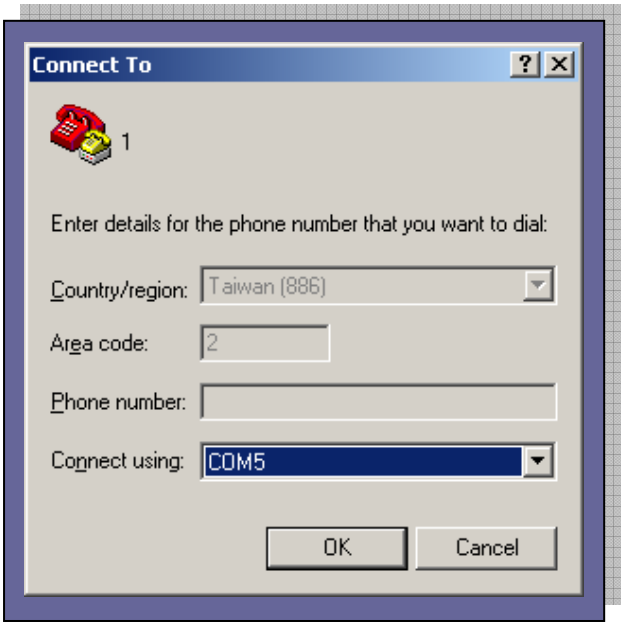
When connecting scanner and Bluetooth Dongle, Press and hold the Pairing/delete (small) key until blue LED flashing rapidly, and then release it. The scanner will establish the Bluetooth connection. If connection successful, the Blue LED indicator will be on. If not, please repeat the above mention action or check the Bluetooth parameters setting.

If the user wants to switch between USB-HID/ USB- COM mode, please scan the following barcode.



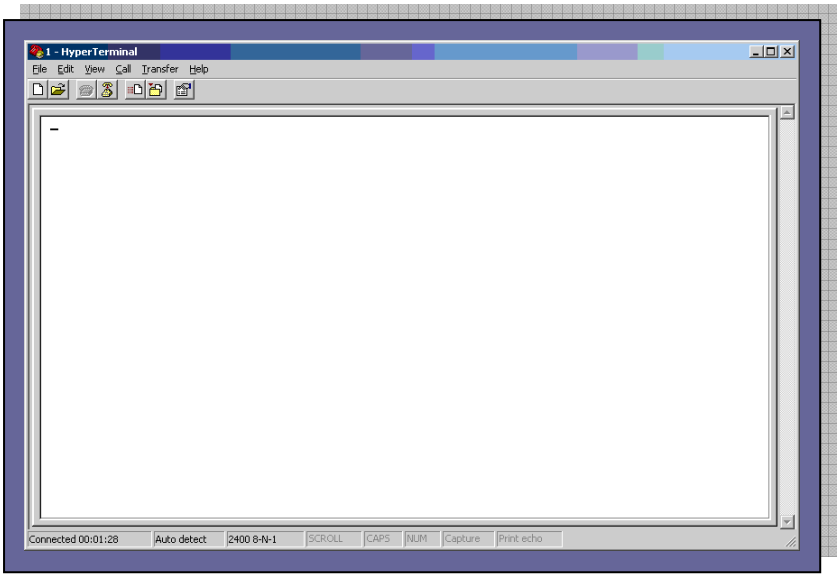
Note: Before scan the barcode, make sure the scanner and the Bluetooth Dongle is in paired status.

5-3-2-1 Receiving barcode data by Hyper Terminal (USB-COM Mode).



COM port setting: Baud rate: 115200, Data bits:8 bits, Stop Bits: 1 Bits, Parity: None.

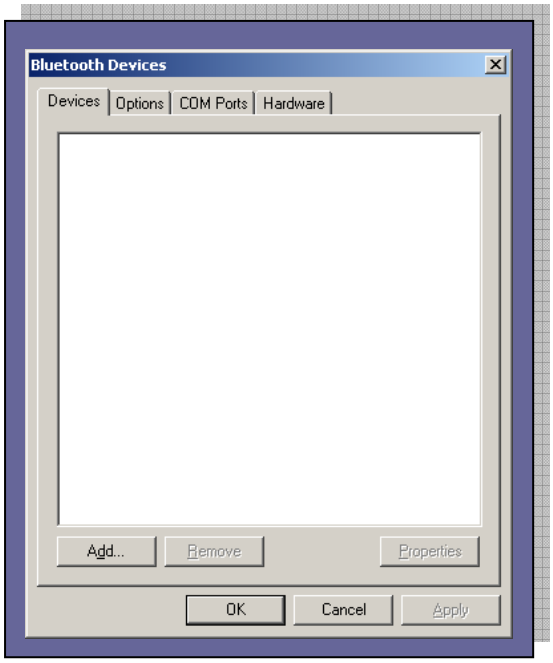
Select OK to start connection. IF connection is successful, it will show as following screen.



5-4 HID Mode Connection (For Third party Bluetooth devices)

- **Make sure the scanner is in Bluetooth mode; please refer to chapter 4-2-1 for how to configure in Bluetooth mode.**
- **Make sure the Mode selection code is configured as "3". Please refer to chapter 4-2-4-4**

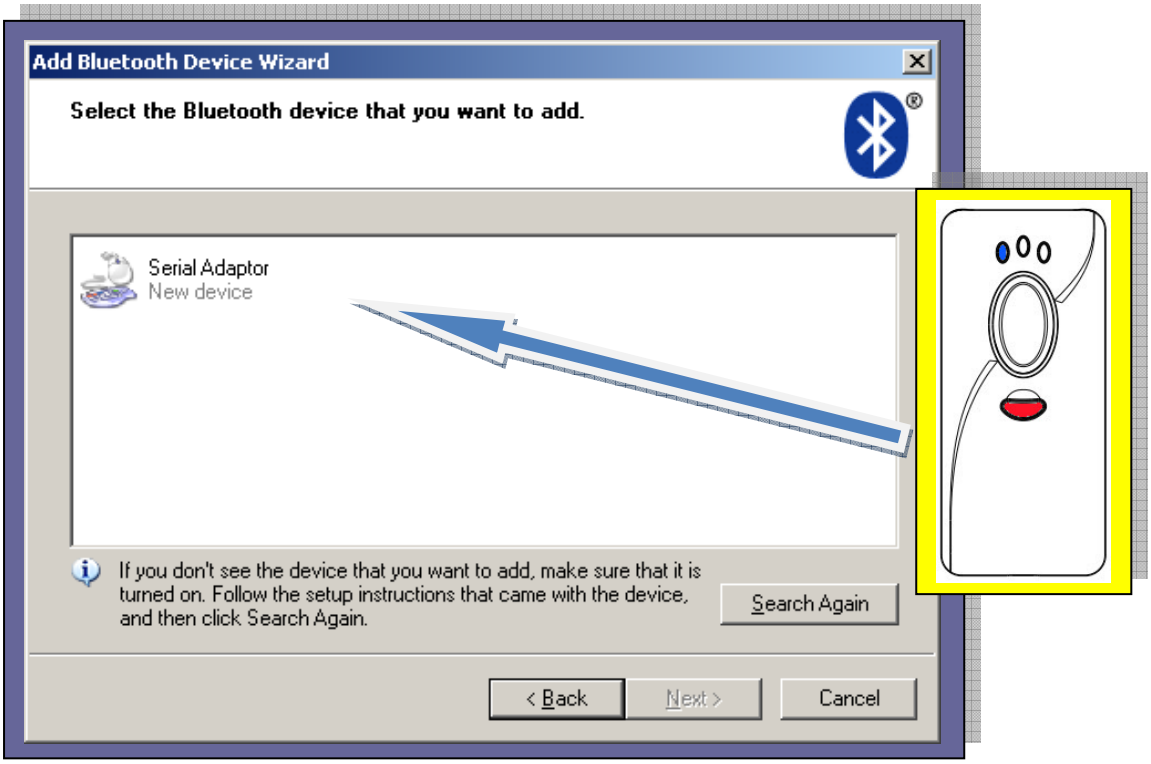
Plug in the third party Bluetooth dongle to PC and access to build in Windows Bluetooth Devices.



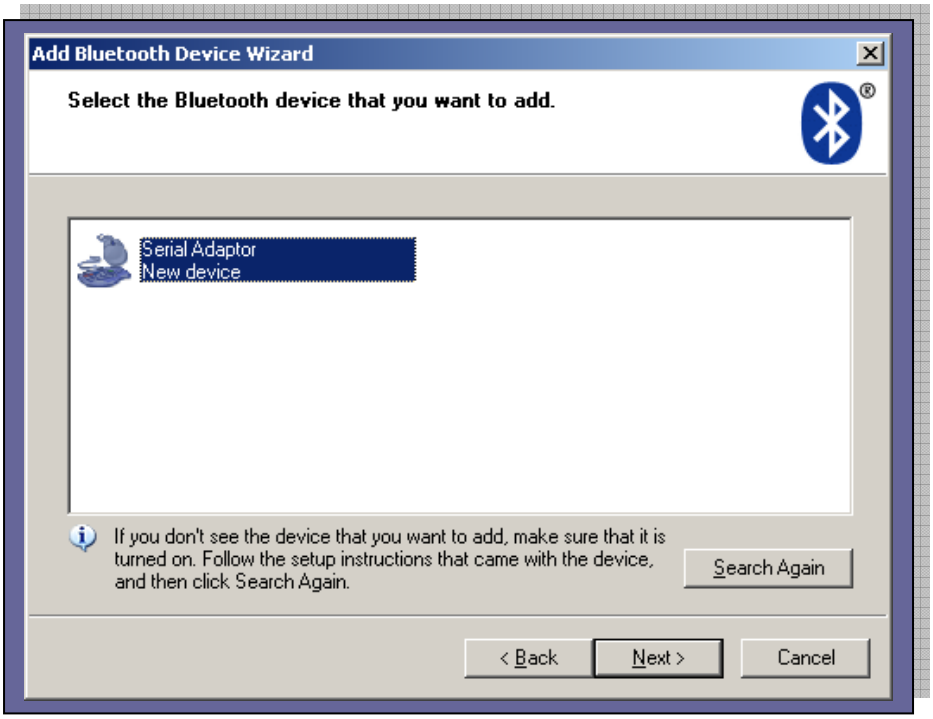
Select "Add" button.

From the SCANNER, press and hold the small blue pairing key for few seconds until the orange LED turns off, and Blue LED start flashing rapidly, and then release the key.

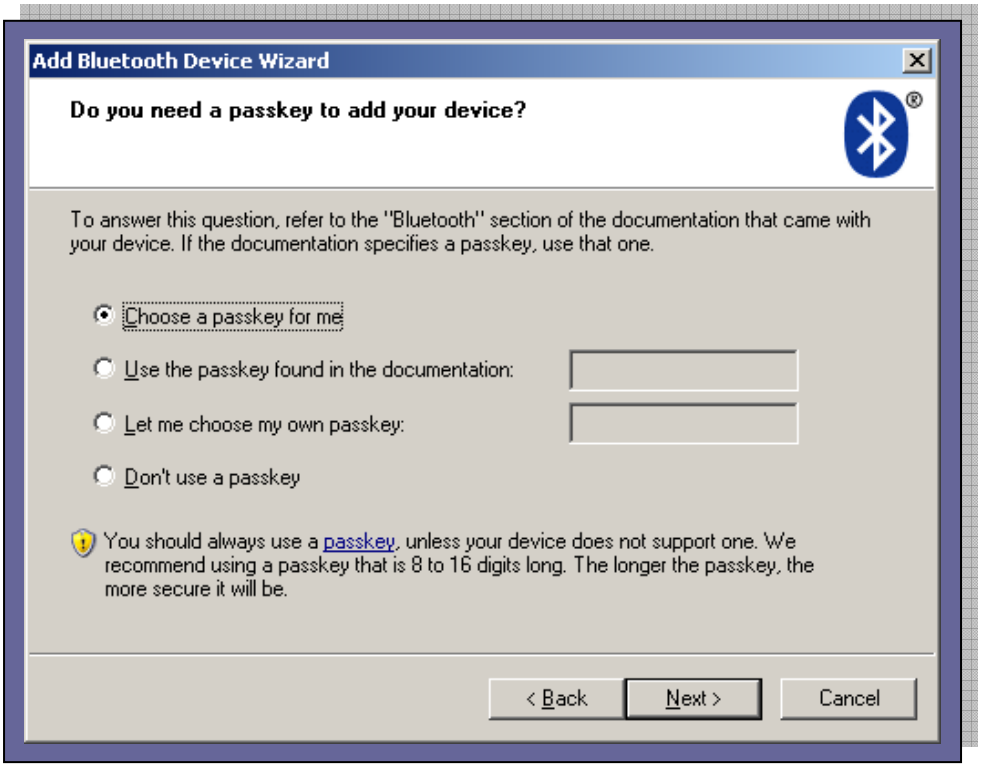
On “Add Bluetooth Device wizard”, and select “Next”. It will start searching for the Bluetooth devices. If searching succeeds, it will show as following screen.



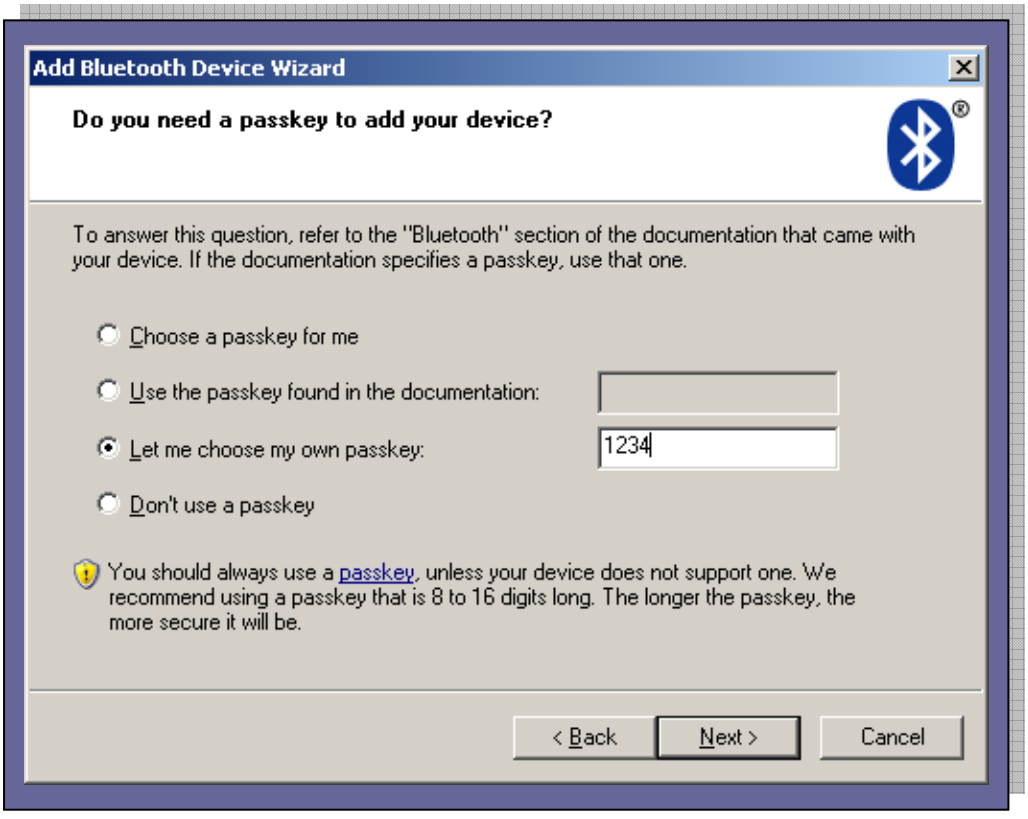
Select the device for paring process.



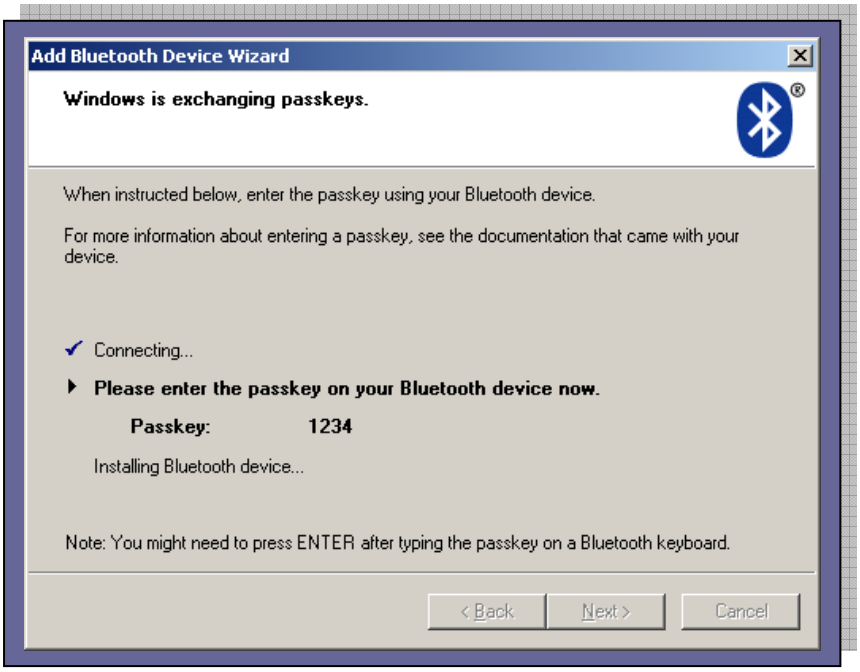
Select “Next”, the screen will request for Passkey information.



From the screen, select “Let me Choose my own passkey” and specify the passkey, for example: “1234”. (Note: user can specify preferred passkey)

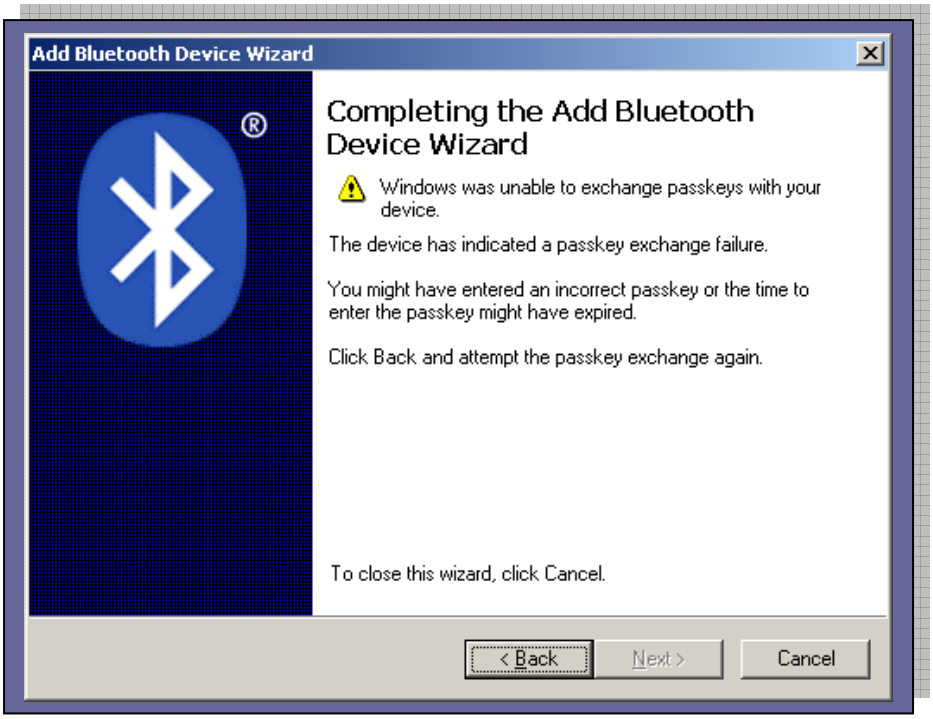


Select “Next” for passkey verification.

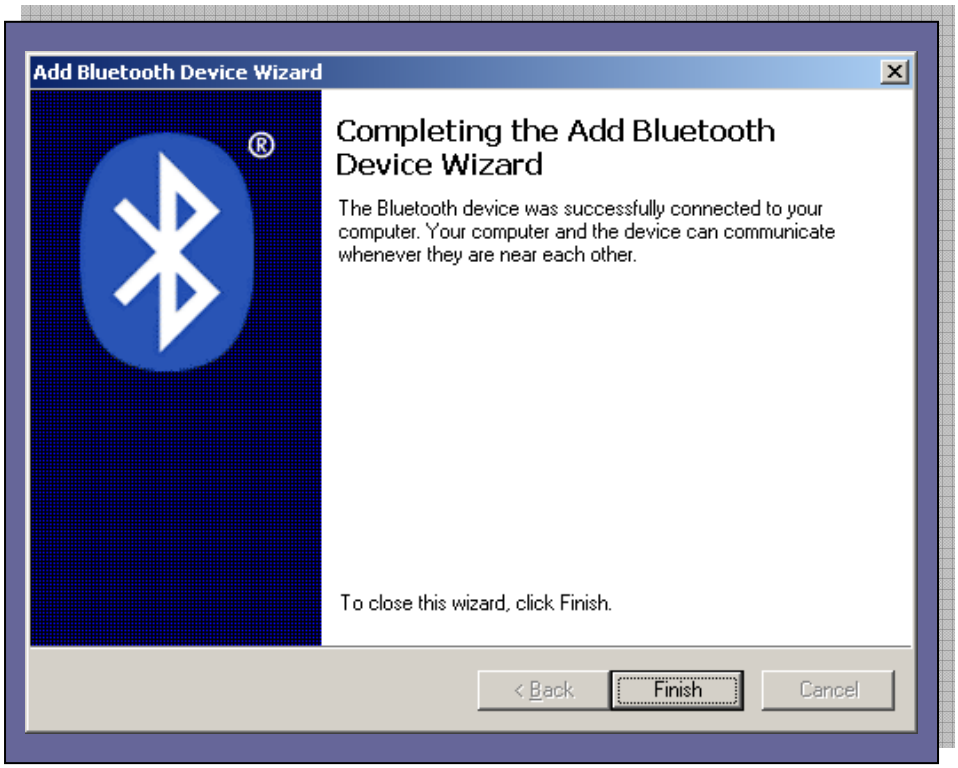


From the SCANNER, it will indicate the beep sound to notify the user to use the scanner to scan the passkey barcode, for example:”1234”. (Please print out the “Hexadecimal / Decimal table (page189)” and scan the digits, for example **“1 → 2 → 3 → 4 and OK”**)

If the passkey verification fails, please select ”Back” to resume the previous action. (Re-entering the passkey and scanning passkey action).

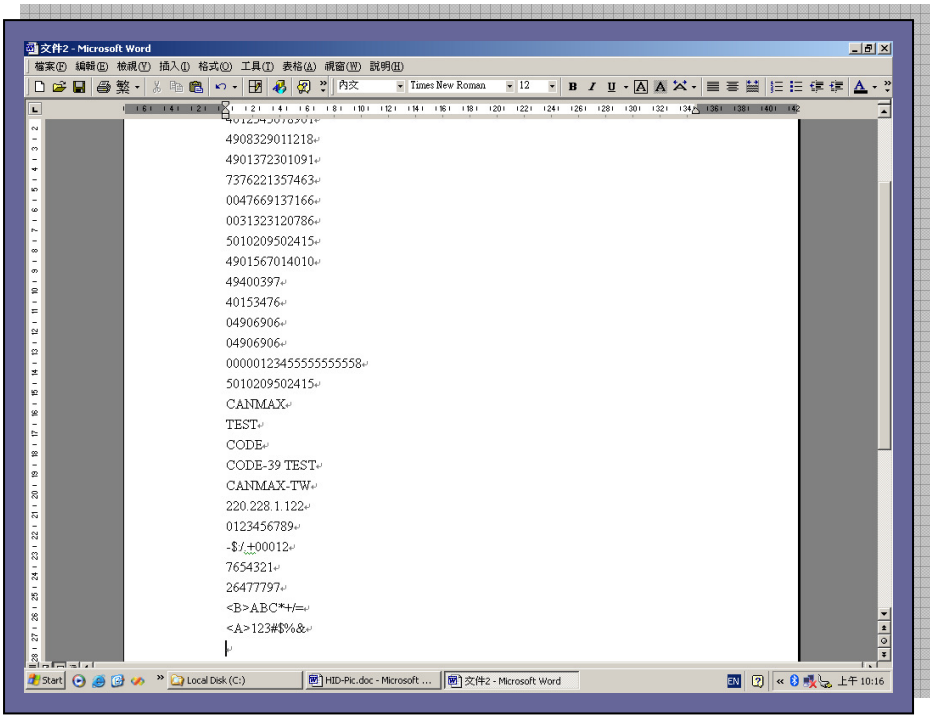


If the passkey verification succeeds, the screen will show as following.



Select “Finish” completing the Bluetooth device wizard, when connection succeeded, the scanner BLUE LED indicator will be ON.

User now can access to Word or Excel word processing software to receive the barcode data by the scanner.



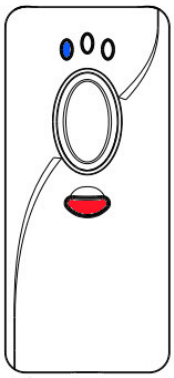
5-5 iPad OSK MODE CONNECTION

- **Make sure the scanner is in Bluetooth mode; please refer to chapter 4-2-1 for how to configure in Bluetooth mode.**
- **Make sure the Mode selection code is configured as “4”. Please refer to chapter 4-2-4-5**

Please turn on iPad and select “settings” as below

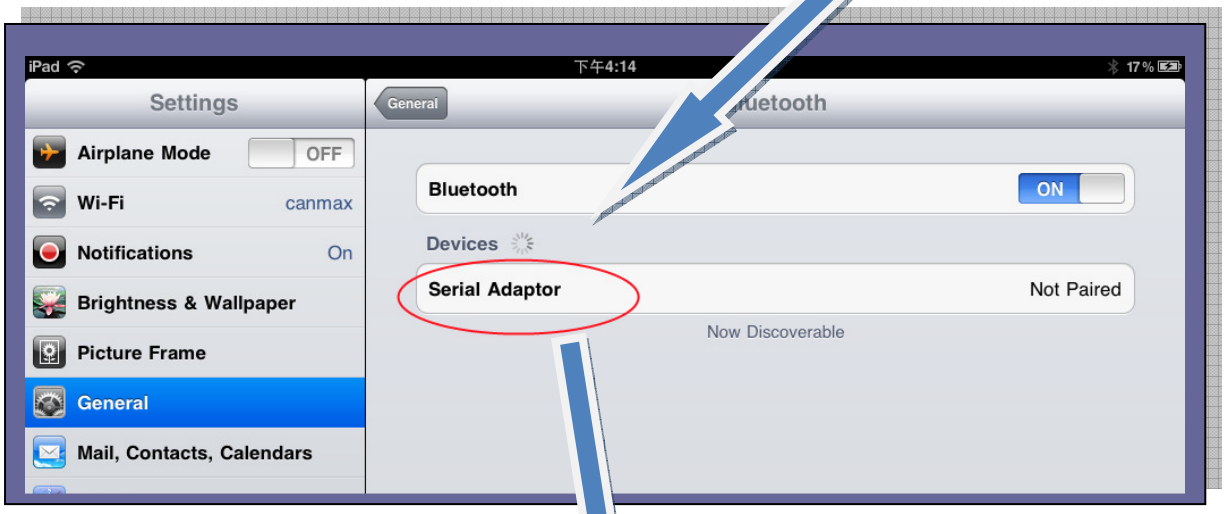
Please access to General → Bluetooth→ Bluetooth ON. At this stage, iPad will start searching for Bluetooth devices.

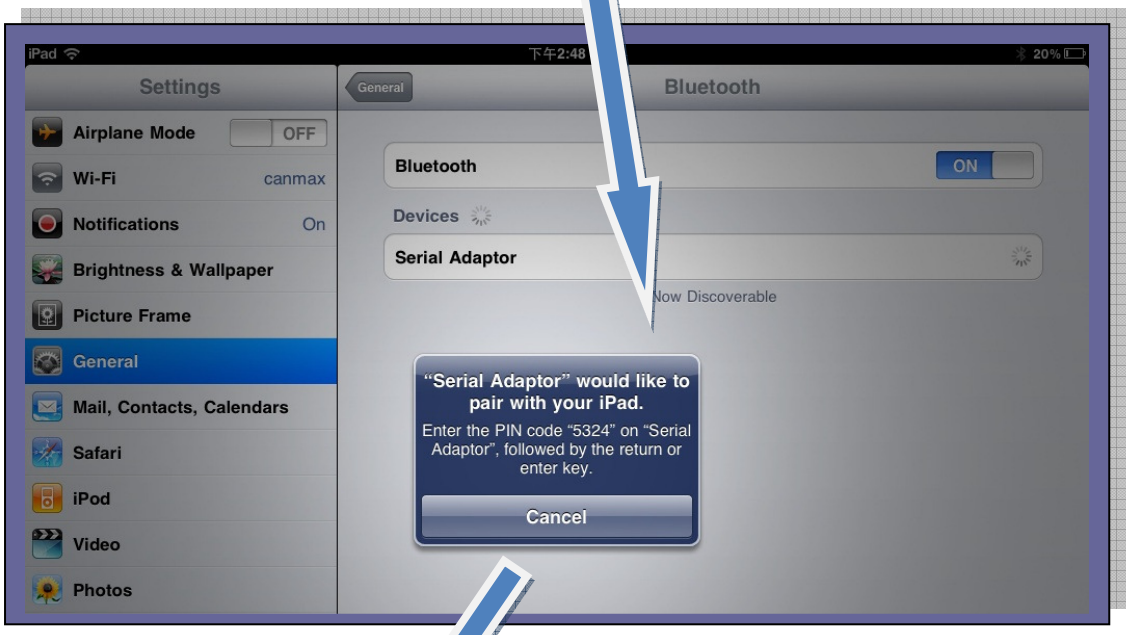
From the scanner, press and hold the pairing key, for few seconds until the orange LED turns off, and Blue LED flashing rapidly, at this stage, release the pairing key.

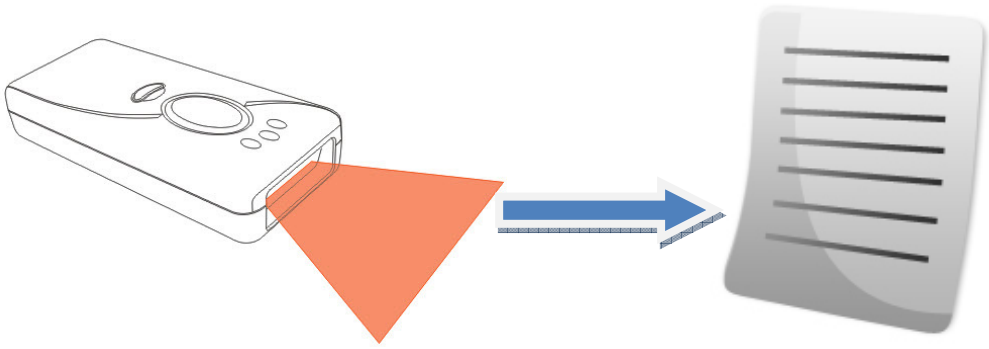


From iPad, the Bluetooth will search for the Bluetooth device (“Serial Adaptor” as scanner name)

When iPad searched “Serial Adaptor”, select the device for Bluetooth pairing



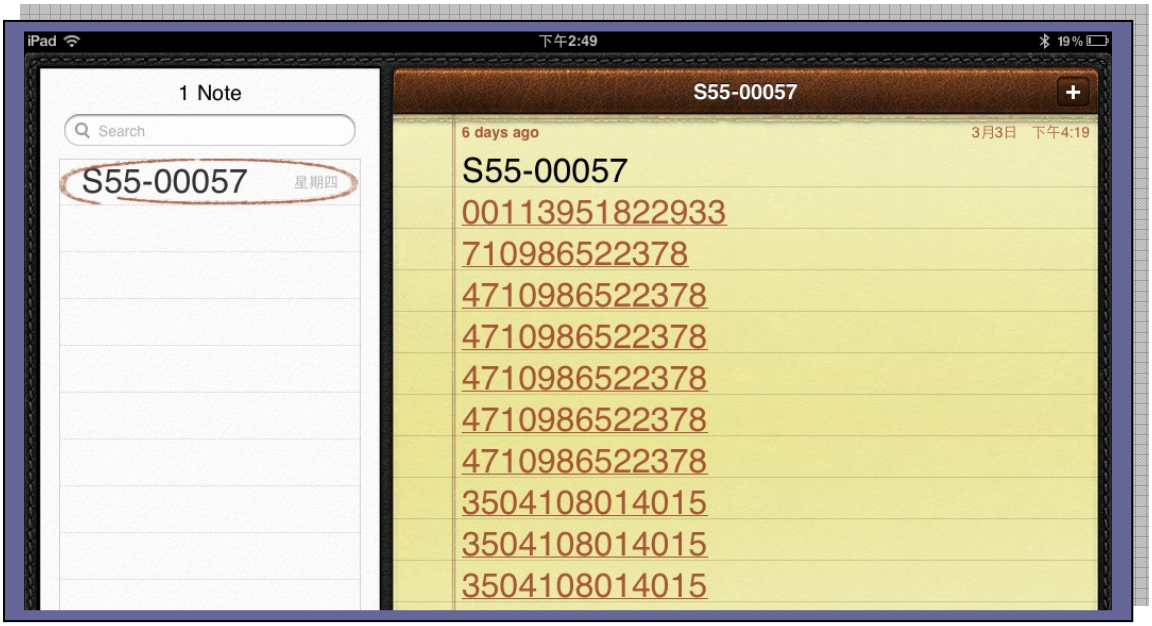




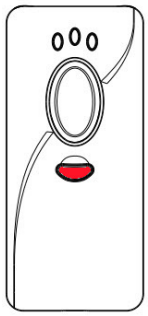
From the scanner, scan the digits appear on iPad to complete the pairing process. (Note: please print out the "Hexadecimal / Decimal table (page189)" and scan the digits, for example: "scan 5,3,2,4 –> OK.)

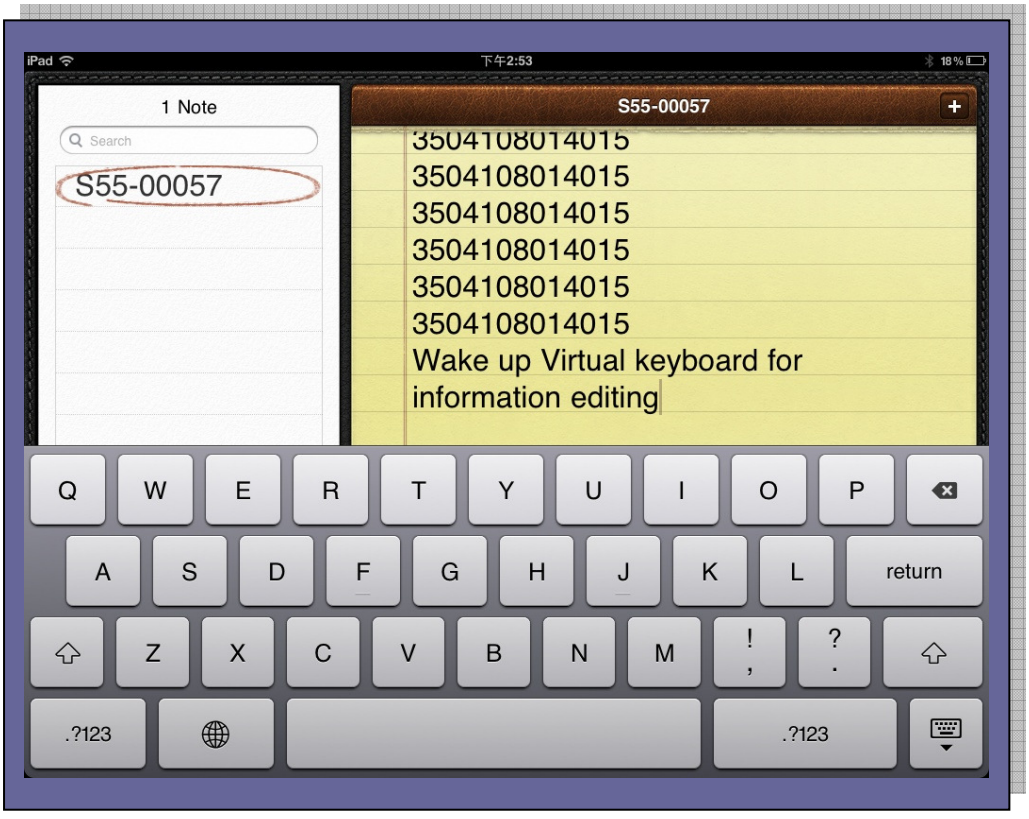
When the pairing processes succeed, on the iPad Bluetooth devices, it will appear as Connected. And the scanner will launch 2 beep sounds with BLUE LED indicator ON.

Now, user can access to "Notes" from iPad application to receive barcode data.



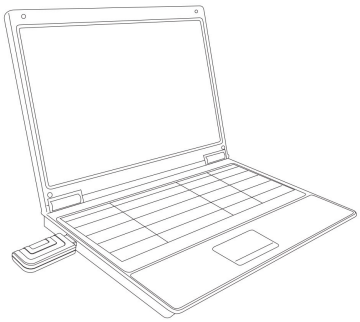
Additional Function: press the small button from the scanner once, iPad will wake up the virtual keyboard for information editing.



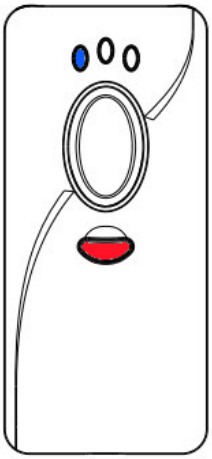


5- 6 Bluetooth HID Dongle Mode Connection (USB-HID only)

- **Make sure the scanner is in Bluetooth mode. Please refer to chapter 4-2-1 for how to configure in Bluetooth mode.**
- **Make sure the Mode selection code is configured as "5". Please refer to chapter 4-2-4-6**



Insert Bluetooth HID Dongle to PC.



When connecting scanner and Bluetooth Dongle, Press and hold the Pairing/delete (small) key until blue LED flashing rapidly, and then release it. The scanner will establish the Bluetooth connection. If connection successful, the Blue LED indicator will be on. If not, please repeat the above mention action or check the Bluetooth parameters setting.

When Bluetooth Connection established, execute any word processing software, for example: Word, notepad, Excel and etc. to receive to barcode data.

Chapter 6: Memory / Bluetooth General Setting

Memory / Bluetooth General Setting

6. Memory / Bluetooth General Setting

6-1 General Memory Mode Setting – By User Manual

6-1-1 Header Transmission

Under memory mode, when **connecting the USB cable with the scanner**, press the small key will transmit the saved barcode data from memory to pc. The user will be able to verify the barcode data saved in the memory by the header <Memory><End>. User can enable / Disable the function by scanning the following barcode.

7A00   Disable
7A01   **Enable**

6-1-2 Date & Time Transmission

Under Memory mode, when connecting the USB cable with the scanner to perform the data uploading action. User can enable / disable the time stamp function in front of the barcode data.

7A10   Disable
7A11   **Enable**

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER

End

6-1- 3 Reject Same

Under Memory mode, user can configure the scanner to avoid reading the same barcode in sequent. This function is avoiding the scanner to read the same barcode by mistake.

 **Disable**
 Enable

6-1-4 Good Read Beep

Beep sound indicator configuration when the barcode has successfully decoded

 **Enable**
 Disable

Procedure:
(A) Scan “Enter” Barcode (B) Scan “Enable” or “Disable” Barcode (C) Scan “End” Barcode

ENTER 

 End

6-1- 5 Good Read Vibrator

The vibration configuration if barcode reading is successfully decoded. **Note: Vibration function is only available with optional purchased Vibrator installed.**

7A71   Enable
7A70   **Disable**

6-1-6 Time Format

Time format configuration, in order for the time stamp to be display in front of each barcode data, Date and Time Transmission must be enabled (**Chapter: 6-1-2**) and configure the following formats:

7B90   **hh:mm:ss**
7B91   hh:mm

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “hh:mm:ss” or “hh:mm” Barcode
(C) Scan “End” Barcode

ENTER

End

6-1-7 Date Format

Date format configuration, in order for the date and time to be display in front of each barcode data (In Memory Mode), Date and Time Transmission must be enabled and configure the following formats: (**chapter: 6-1-2**)

Date Format
7BD0 **yyyy/mm/dd**
7BD1 mm/dd/yyyy
7BD2 yy/mm/dd
7BD3 mm/dd/yy
7BD4 yyyy-mm-dd
7BD5 mm-dd-yyyy
7BD6 yy-mm-dd
7BD7 mm-dd-yy
7BD8 dd/mm/yyyy
7BD9 dd/mm/yy

Date Format
 dd-mm-yyyy
 dd-mm-yy

Procedure:
(A) Scan “Enter” Barcode (B) Scan Date Format Barcode (C) Scan “End” Barcode

6-1-8 Date/Time Position

If you want to display data from Memory, you can use this function to set Date/Time position. Date and Time Transmission must be enabled and configure the following formats: (**chapter: 6-1-2**)

 **Before Barcode**
 After Barcode

Procedure:
(A) Scan “Enter” Barcode (B) Scan “Before Barcode” or “After Barcode” Barcode (C) Scan “End” Barcode

ENTER 

End 

6-1-9 Ext Transmission Delay

This configuration enables the delay time (time gap) setting in between each barcode data sending to PC.

Configuration Range	Unit	Default Setting
0 ~ 2.5 Sec	0.01 sec	0 sec

Procedure:	**Example:**
(A) Scan “Enter” barcode (B) Scan Ext Transmission Delay barcode (C) Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode	if configure to 1 sec. the parameter value is: **1 sec** / **0.01 sec = 100.**

6-1-10 Lamp Off Delay

The configuration enables the setting of duration time of scanner LED power off.

Configuration Range	Unit	Default setting
0 ~ 4 min 15 sec	1 sec	5 sec

Procedure:	**Example:**
(A) Scan “Enter” barcode (B) Scan “LampOff Delay” barcode (C) Scan parameters from Hexadecimal / Decimal table (D) Scan “Set“ barcode (E) Scan “End” barcode	If configuration is10 sec, the parameter value is **10 sec** / **1 sec = 10.** .

ENTER

End

6-1-11 Standby Time

This configuration enables the time configuration for the main power switching off after scanner LED turned off.

7062

ConfigurationRange	Unit	Default Setting
0 ~ 99 sec	1 sec	0 sec

Procedure:	Example:
(A) Scan “Enter” barcode (B) Scan “Standby Time” barcode (C) Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode	If configuration is10 sec, the parameter value is **10 sec** / **1 sec = 10.**

6-1-12. Separator

This configuration enables separator setting in between date, time and barcode data. In order for the date and time to be display in front of each barcode data, Date & time transmission must be enabled.

707A

Configuration	Max. configurable range	Default setting
Please refer to ASCII table	1 digit	‘ ‘

Procedure:	Example:
(A) Scan “Enter” barcode (B) Scan Separator barcode (C) Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode	If configuration is “+”, the parameter value is **“ 2,B → + ”.** (Refer to ASCII TABLE).

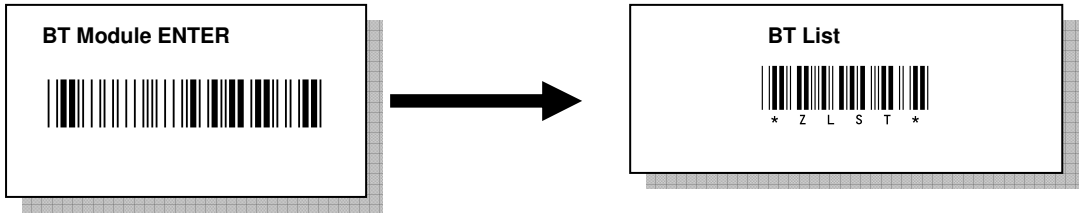
ENTER

End

6-2 General Bluetooth Mode Setting – By User Manual

6-2-1 BT List

User can simply understand their Bluetooth parameter setting by scanning the following barcode, and use the notepad to receive the Bluetooth parameter configuration data.

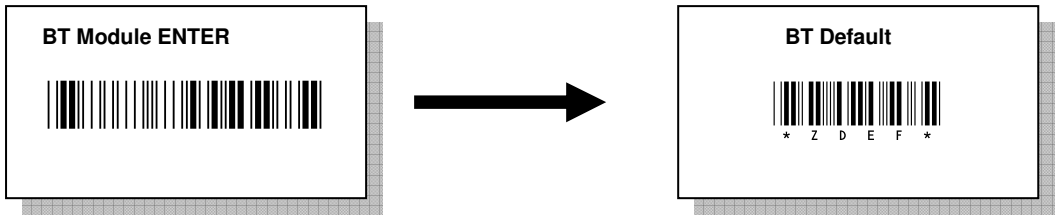


Example value display:

Serial Adaptor → Configured Bluetooth scanner name
000000000000 → Configured Remote Mac Address of your Bluetooth device.
1234 → Configured Bluetooth scanner "Pin Code"
4 →Configured Bluetooth Mode
0 → Disregard
0 → Disregard.

6-2-2 BT Default Setting

User can restore the default setting for the Bluetooth Parameter.



Note: Default value listed as below:

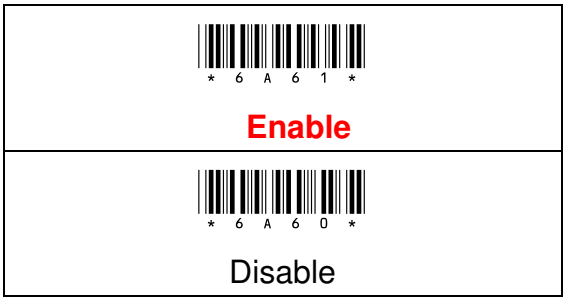
Parameter	Default Value
BT Local name	Serial Adaptor
Remote Mac Address	000000000000
Pin Code	1234
BT Mode	0

ENTER

End

6-2-3 Good Read Beep

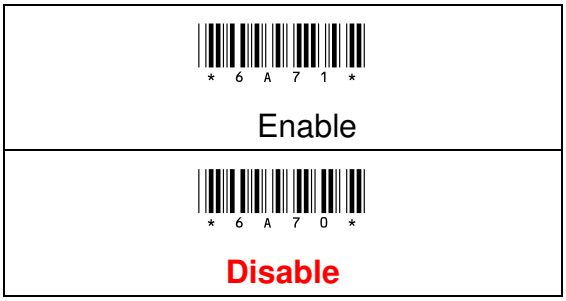
When barcode is successfully decoded, the Beep sound indicator configuration.



Procedure:
(A) Scan “Enter” Barcode (B) Scan “Enable” or “Disable” Barcode (C) Scan “End” Barcode

6-2-4 Good Read Vibrator

The vibration configuration if barcode reading is successfully decoded. Note: Vibration function is only available for the scanner with vibrator installed.



Procedure:
(A) Scan “Enter” Barcode (B) Scan “Enable” or “Disable” Barcode (C) Scan “End” Barcode

ENTER

End

6-2-5 Connect Off Time

Under the Bluetooth mode, when the Bluetooth connection is established while the scanner is not working. This configuration enables to set the duration of scanner sleep time. (**Note: Default value is 6 as 60 seconds**)

Configuration Range	Unit	Default Setting
0 ~ 42 Min 30secs	10 secs	6 (as 1 minute)

Procedure	Example
(A) Scan “Enter” barcode (B) Scan “Connect Off Time” barcode (C) Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode	If configuration is 2 minutes, the parameter value is **2 min** / **10 sec = 12 (2minx 60** / **10sec = 12)**

6-2-6 Lamp Off Delay

The configuration enables the setting of duration time of scanner LED power on and off .

Configuration Range	Unit	Default Setting
0 ~ 4 minutes 15 sec	1 sec	5 sec

Procedure:	Example:
(A) Scan “Enter” barcode (B) Scan “LampOff Delay” barcode (C) Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode	If configuration is 10 sec, the parameter value is **10 sec** / **1 sec = 10**

ENTER

End

6-2-7 Standby Time

This configuration enables the time configuration for the main power switch off after scanner LED turns off.

ConfigurationRange	Unit	Default Setting
0 ~ 99 sec	1 sec	0 sec

Procedure:	Example:
(A) Scan “Enter” barcode (B) Scan “Standby Time” barcode (C) Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode	If configuration is10 sec, the parameter value is **10 sec** / **1 sec = 10.**

6-2-8 Timeout

The timeout setting for the handshaking acknowledgment from the host PC, if scanner did not receive acknowledgement from the host PC, the warning sound will be active. This function is particular useful for some applications which host PC takes longer response time.

Configuration Range	Unit	Default Setting
0 ~ 99 sec	1 sec	10 sec

Procedure:	Example:
(A) Scan “Enter” Barcode (B) Scan “Standby Time” Barcode (C) Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” Barcode	If configuration is 1 minute, the parameter value is **1 min** / **1 sec = 60. (1min: 60 sec /1sec= 60)**

6-2-9 Date & Time Transmission

Under Bluetooth mode, user can enabled/ disable the time stamp function in front of the barcode data.

 **Disable**
 Enable

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “hh:mm:ss” or “hh:mm” Barcode
(C) Scan “End” Barcode

6-2-10 Time Format

Time format configuration, in order for the time stamp to be display in front of each barcode data, Date and Time Transmission must be enabled and configure the following formats:

 hh:mm:ss
 hh:mm

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “hh:mm:ss” or “hh:mm” Barcode
(C) Scan “End” Barcode

ENTER 

End 

6-2-11 Date Format

Date format configuration, in order for the date and time to be display in front of each barcode data, Date and Time Transmission must be enable and configure the following formats:

Date Format
6BD0 **yyyy/mm/dd**
6BD1 mm/dd/yyyy
6BD2 yy/mm/dd
6BD3 mm/dd/yy
6BD4 yyyy-mm-dd
6BD5 mm-dd-yyyy
6BD6 yy-mm-dd
6BD7 mm-dd-yy
6BD8 dd/mm/yyyy
6BD9 dd/mm/yy

ENTER

End

Date Format
6BDA dd-mm-yyyy
6BDB dd-mm-yy

Procedure:
(A) Scan “Enter” Barcode (B) Scan Date Format Barcode (C) Scan “End” Barcode

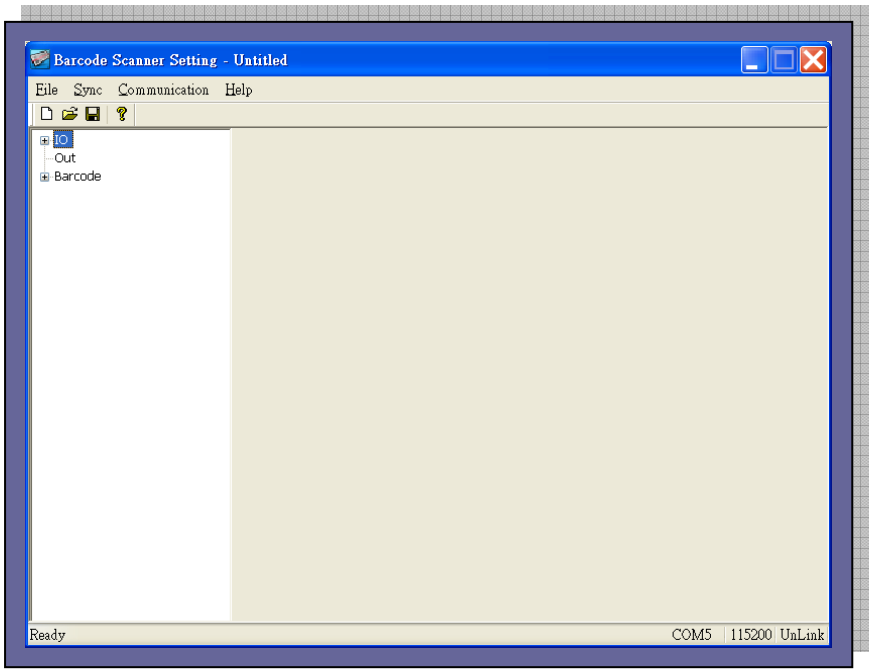
ENTER

End

6-3 Scanner Configuration by Software

6-3-1 Firmware update

Open the software" **Barcode Scanner Setting**", the file is located in the CD **(CM500\software\barcode scanner setting\scanner setting.exe)**



Connect scanner with PC by USB cable, and set the scanner to ISP mode.

Scan below barcodes to set the scanner to ISP mode.

1 . ENTER: * / $ % E N T *

2. ISP: * Z I S P *

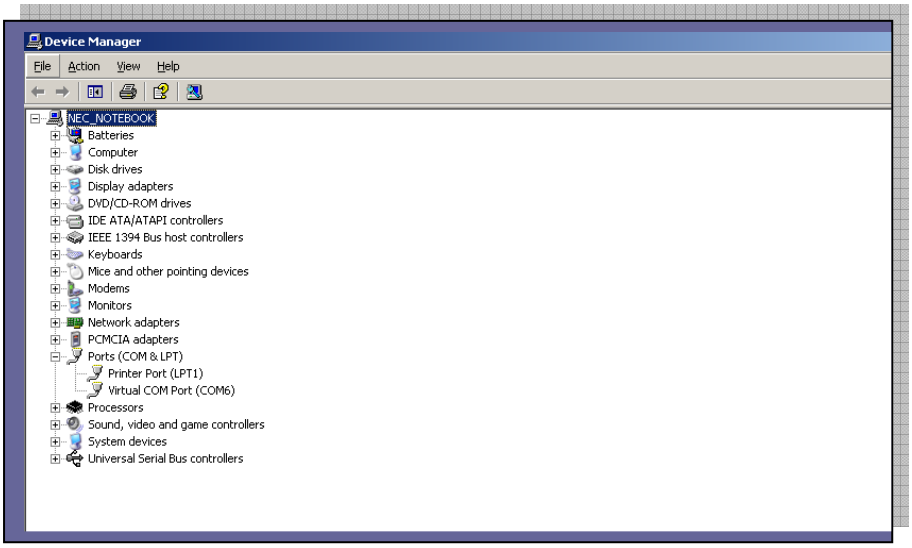
Note: ISP mode means scanner configuration mode.
Before any configuration with the software, scanner must scan above two barcodes in order to perform software configuration.

- When the scanner is in ISP mode, the PC might request for driver installation, **the driver is located in the CD (CM500\driver\ C0801.inf).**

ENTER

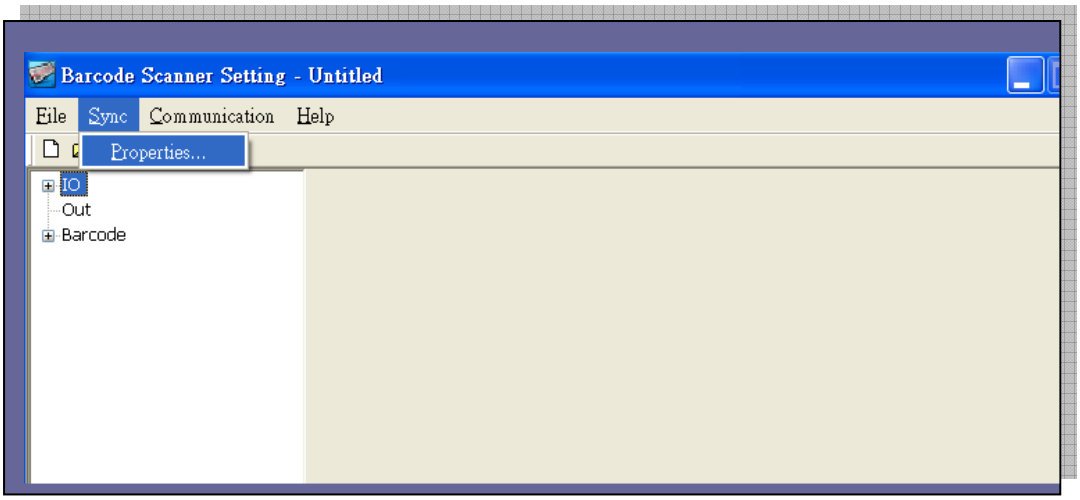
End

After the scanner scan Enter. ISP barcode, the “green” LED indicator will be flashing, then proceed to “Device Manager” to check COM Port

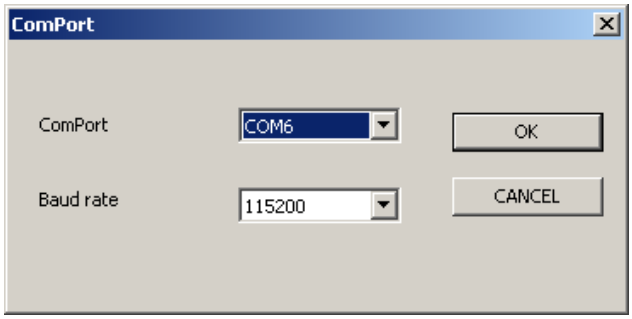


For example: The COM Port used by scanner is COM6

In barcode scanner setting software, **Sync → Properties**



And select the COM port (for example:COM6, Note: Baud rate is 115200)

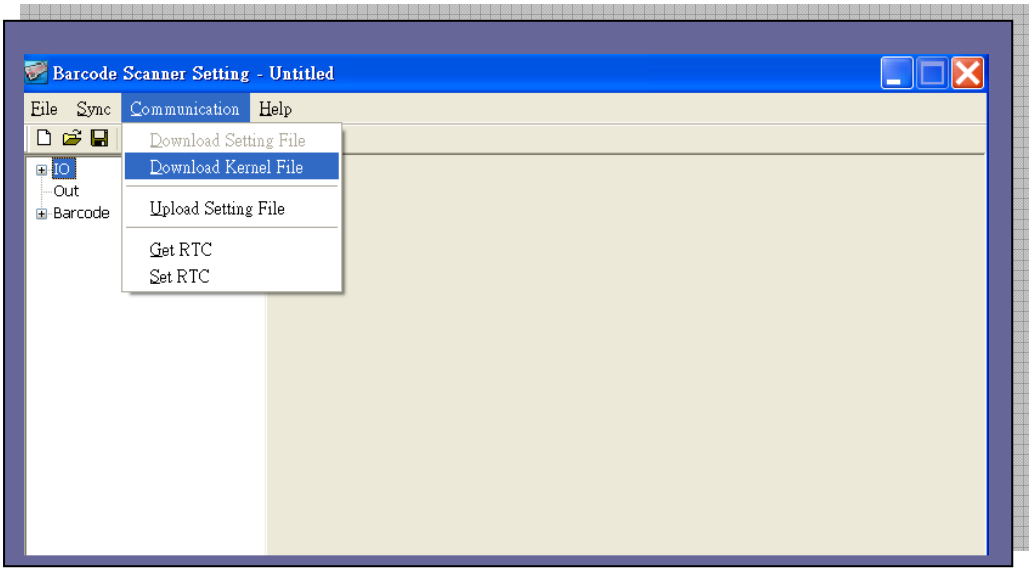


Select ”OK” for software synchronization.

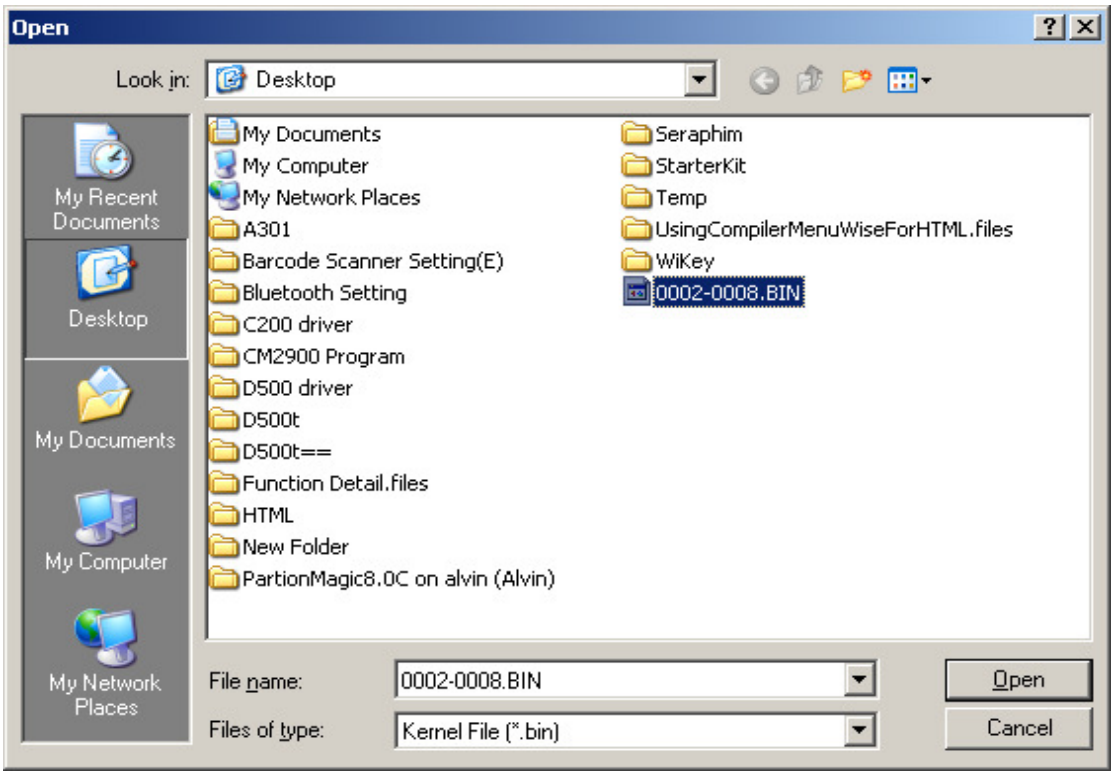
ENTER

End

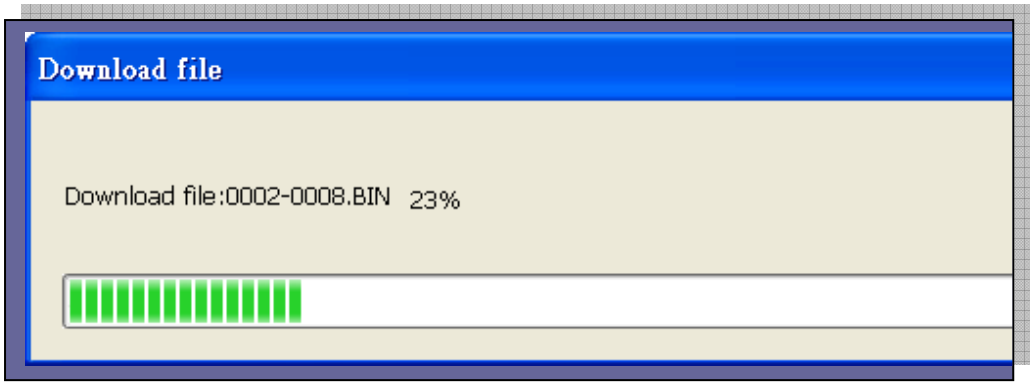
Under “**Communication → Download Kernel File**”

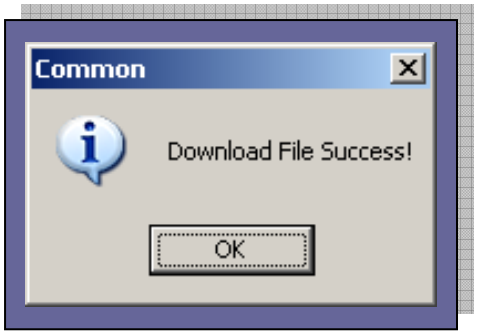


Select the kernel file (for example: 0002-0008.Bin)



Select ”Open” for firmware update

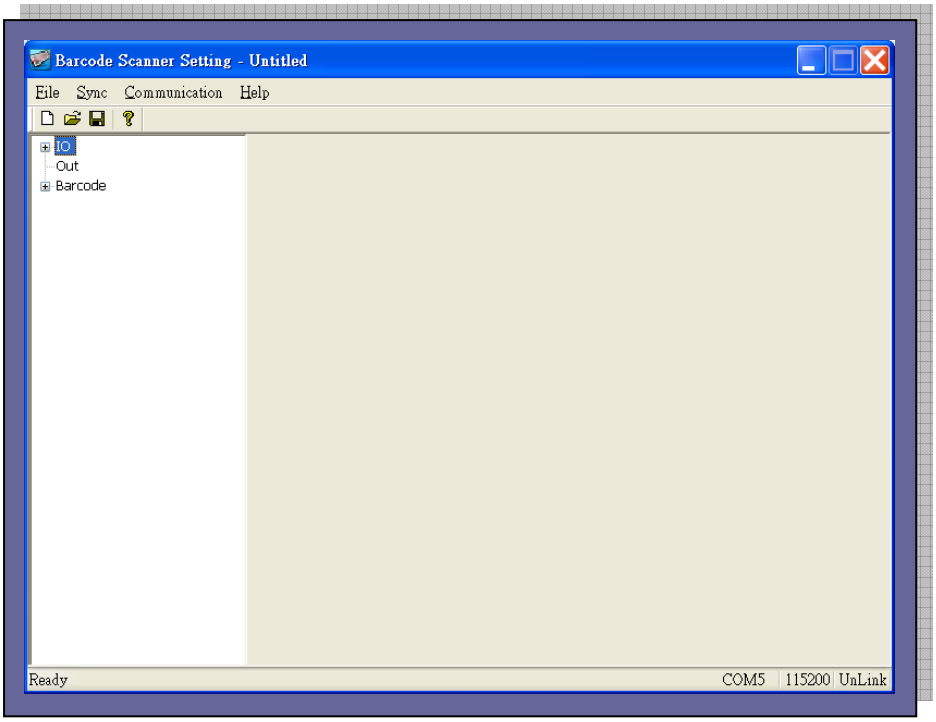




After firmware updated, please exit the software. The scanner will reboot.

6-3-2 Scanner Configuration

Open software" Barcode Scanner Setting", the file is located in the CD **(CM500\software\barcode scanner setting\scanner setting.exe)**



Connect scanner with PC by USB cable, and Set the scanner to ISP mode.
Scan below barcodes step by step to set the scanner to ISP mode.

1 . ENTER: * / $ % E N T *

2. ISP: * Z I S P *

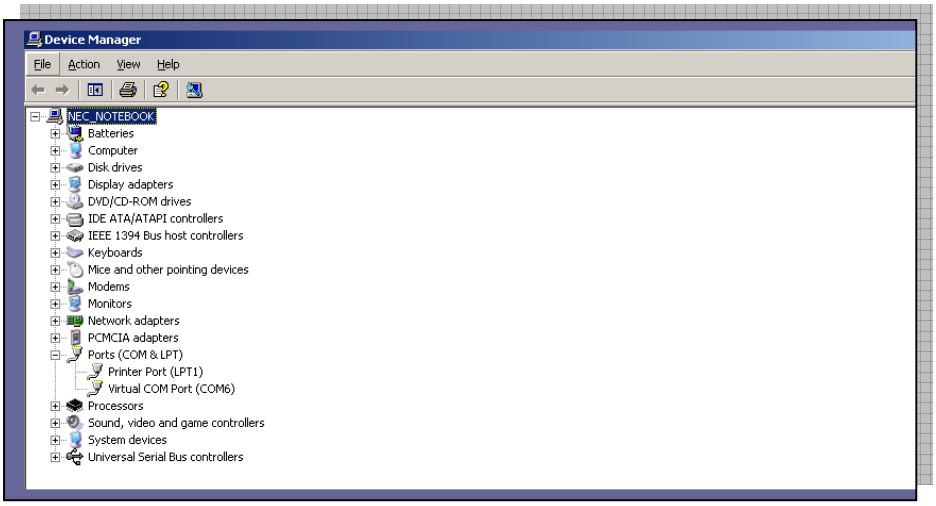
Note: ISP mode means scanner configuration mode.
Before any configuration with the software, scanner must scan above two barcodes in order to perform software configuration.

- When the scanner is in ISP mode, the PC might request for driver installation, **the driver is located in the CD (CM500\driver\ C0801.inf).**

ENTER

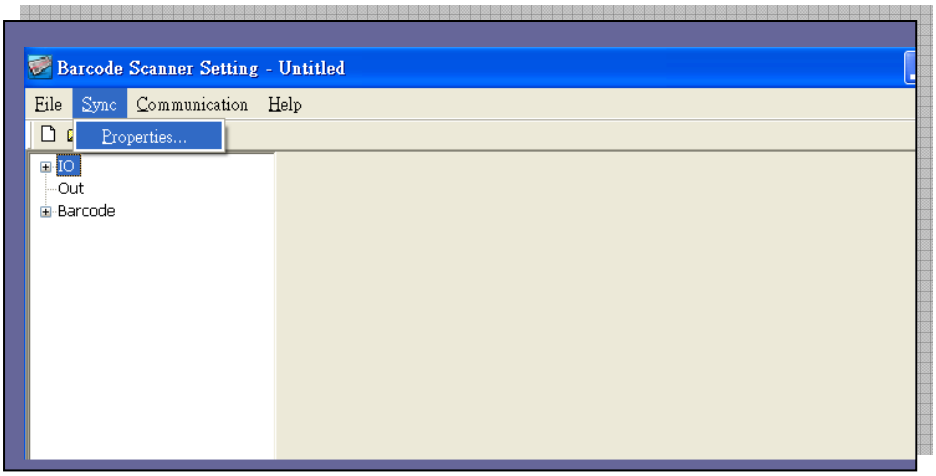
End

After the scanner scan Enter. ISP barcode, the “green” LED indicator will be flashing, then proceed to “Device Manager” to check COM Port

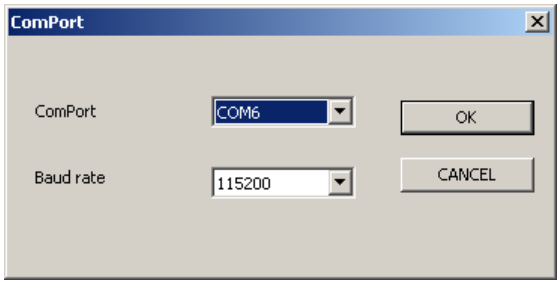


For example: The COM Port used by scanner is COM6

In barcode scanner setting software, **Sync → Properties**



And select the COM port (for example:COM6, Note: Baud rate is 115200)

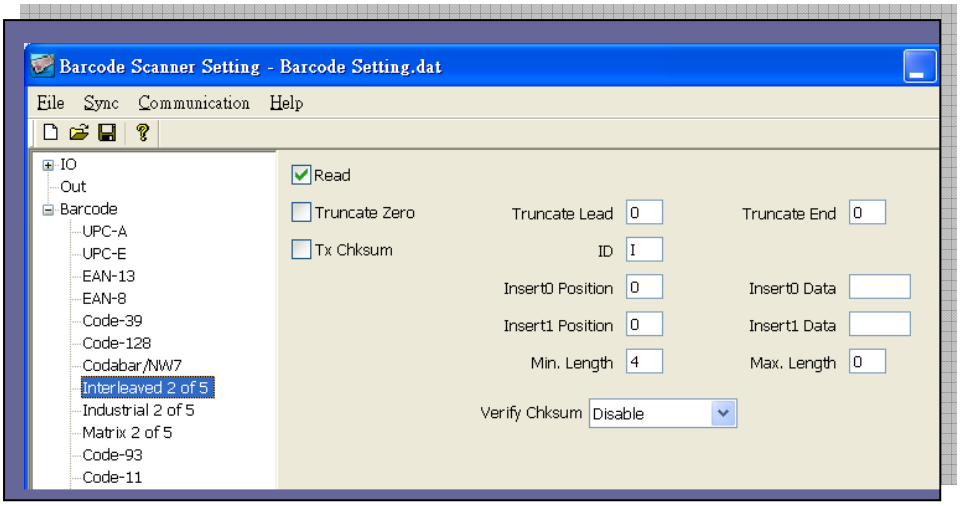


ENTER

End

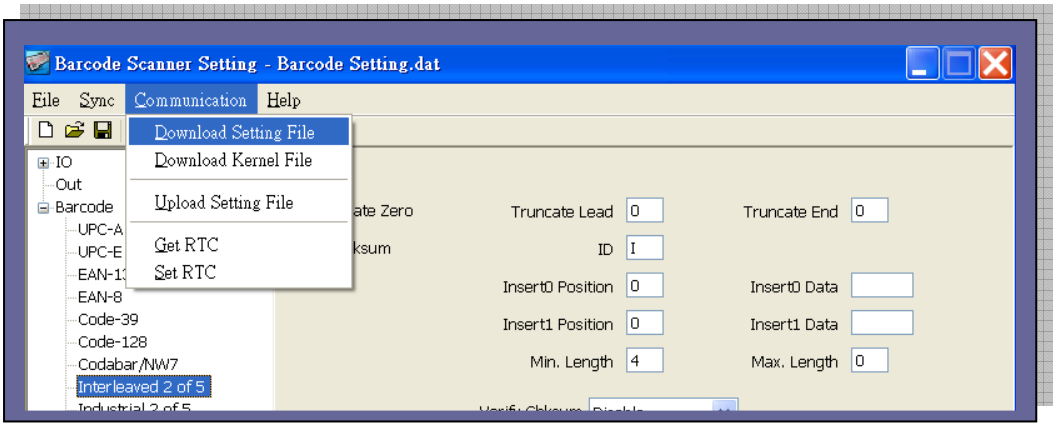
Select ”OK” for software synchronization.

User can change the settings of scanner (For example, enable Interleaved 2 of 5)



Save the “configure content” and specified a file name in your local drive.

Under communication → Download Setting File”, the settings will download to the scanner.



Exit the software will exit the barcode scanner setting configuration and scanner will reboot.

Note: For detail configuration, please refer to additional manual “barcode scanner user manual”**(CM500\manual\ barcode scanner user manual.pdf)**

Chapter 7: General configuration setting

General configuration setting

Note: It is recommended to print out the Hexadecimal / Decimal table (page: 189) for parameter setting.

7. General Configuration Setting

7-1 Host Interface

7-1-1 Factory Default

Configuration setting to restored to factory default setting

Procedure:
(1)Scan “Enter” Barcode (2)Scan “Factory Default” Barcode

7-1-2 Version

Firmware information listing, the scanner firmware information included the firmware family, the firmware version and Bluetooth module version (if scanner Bluetooth function is available).

Procedure:
(1) Scan “Enter” Barcode (2) Scan “Version” barcode

Note: Firmware version listing as below

<Family> → Scanner family category contents

0006.0001

0008.0000

0000.0000

0000.0000

<Version>

0003.0013 → Firmware version

V100-T028BT-20111027 → Bluetooth module version (this is only available for Bluetooth model).

001C97FE82B1 → Bluetooth module Mac Address

ENTER

End

7-1-3 Abort Setting

To skip or cancel current operation, your current settings will be aborted before you scan “END” barcode to finish programming.

Scan “Abort” Barcode to cancel the setting before you scan “END” barcode

7-1-4 ISP Mode

For software configuration, User must connect the scanner with PC via USB cable, and scan “Enter “, “ISP” to enter the ISP mode. (PC might request for Driver installation, please find the driver file “C0801.inf in the CD)

Procedure:
(1) Scan “Enter” Barcode (2) Scan “ISP” barcode

7- 2 Output Interface

User can connect the scanner with PC via USB cable to upload the saved barcode data, or it can be used as real time USB scanner.

There are two different output Interfaces:

(1) **USB-HID (Keyboard) Type:** With USB HID type, user can use Word, Excel or any word processing software to receive barcode data.

(2) **USB-COM (Virtual Com) Type:** With USB- COM type, user need to use terminal software to receive the barcode data.

7-2-1 USB-HID Keyboard Type

7-2-1-1 USB-HID Keyboard

With USB HID type, user can use Word, Excel or any word processing software to receive barcode data.

Procedure:
(A) Scan “Enter” Barcode (B) Scan “HID Keyboard Default” Barcode

7-2-1-2 Caps lock

Caps lock setting for the barcode data display.

Auto
Alt+Keypad
Caps lock off
Caps lock On

Procedure:
(A) Scan “Enter” Barcode
(B) Scan Caps lock barcode
(C) Scan “End” Barcode

By selecting "Caps Lock On" or "Caps Lock Off" , scanner can get Caps Lock status. If "Alt+Keypad" were selected, Caps Lock and output will be independent. The Auto function can be effect when USB HID is enable. When you set Auto, the scanner will detect the status of Keyboard Caps Lock. So the barcode data output will follow the status of Keyboard Caps Lock.

Note: When BT mode, “Auto” no work

Example Barcode data "ABCdef"

Status / Selection	Caps Lock **On**	Caps Lock **Off**
Caps Lock On	ABCdef	abcDEF
Caps Lock Off	abcDEF	ABCdef
Alt+Keypad	ABCdef	ABCdef

ENTER

End

7-2-1-3 Transmission Gap

This is the delay time setting between each barcode data characters. If the delay time setting is too high, the application program may not be able to receive all the barcode data characters due to transmission speed.

Configuration Range	Unit	Default Setting
0 ~ 0.25 sec	0.001 sec	0

Procedure:	**Example:**
(A) Scan “Enter” barcode (B) Scan Transmission gap barcode (C) Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode	If configuration is 0.02 sec, the parameter value is **0.02 sec** / **0.001 sec = 20**

ENTER

End

7-2-1-4 Transmission Delay

The delay time settings between the barcode data output, this enables the user to set the output timing between each barcode data scanned.

* 1 0 6 2 *

Configuration Range	Unit	Default Setting
0 ~ 2.5 sec	0.01 sec	0

Procedure:	**Example:**
(A) Scan “Enter” barcode (B) Scan Transmission Delay barcode (C) Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode	If configuration is 0.2 sec, the parameter value is **0.2 sec** / **0.01 sec = 20**

Example Barcode Data: "**ABCD**" Transmit Gap: **2ms**
Transmit Delay: **10ms**

1) ENTER⇨ Entry Programming

2) Transmission Gap⇨ 0⇨2⇨SET⇨ 2ms Inter-char. Delay
02*1ms(Unit)=2ms

3) Transmission Delay⇨0⇨1⇨SET⇨ 10ms Transmit Delay
01*10ms(Unit)=10ms

4) END Exit Programming

Output

A	**2ms**	B	**2ms**	C	**2ms**	D	**2ms**	**10ms**

ENTER

End

7-2-1-5 Timeout

The timeout setting for the handshaking acknowledgment from host PC, if scanner did not receive acknowledgement from the host PC, the warning sound will be active. This function is particularly useful for some application which host PC takes longer response time.

Configuration Range	Unit	Default Setting
0 ~ 4 minutes 15 sec	1 sec	3 sec

Procedure:	**Example:**
(A) Scan “Enter” barcode (B) Scan “Timeout” barcode (C) Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode	If configuration is 2 sec, the parameter value is **2 sec** / **1 sec = 2**

ENTER

End

7-2-1-6 Keyboard HID & Bluetooth HID Layout Setting

The function enables the user to specify HID keyboard & Bluetooth HID layout language. This function is applicable in USB cabled mode & Bluetooth HID Mode(Mode:3) & Bluetooth HID Dongle Mode(Mode:5).

HID Keyboard Layout setting	Bluetooth HID Layout setting
 **US**	 **US**
 UK	 UK
 JP	 JP
 FR	 FR
 GR	 GR
 IT	 IT
 SP	 SP
 PO	 PO

Procedure:
(A) Scan “Enter” Barcode (B) Scan layout barcode (C) Scan “End” Barcode

ENTER 

End 

7-2-1-7 Bluetooth SPP Dongle Keyboard Layout Setting

Note: This is only applicable with original factory Bluetooth SPP Dongle Mode(Mode:2).

Bluetooth SPP Dongle Keyboard Layout setting

Enter

US

UK

JP

FR

GR

IT

SP

PO

End

Procedure:

(A) Please make sure you have plug in the Bluetooth HID dongle to PC and successfully connect with Bluetooth connection.

(B) Scan “Enter” barcode”

(C) Scan “ Bluetooth dongle keyboard layout setting.

(D) Scan ”End” barcode

7-2-2 Virtual Com Type

7-2-2-1 Virtual Com

With USB- COM type, user needs to use terminal software to receive the barcode data.

Procedure:
(1) Scan “Enter” Barcode (2) Scan “Virtual Com Default” Barcode

7-2-2-2 Transmission gap

This is the delay time setting between each barcode data characters. If the delay time setting is too high, the application program may not be able to receive all the barcode data characters due to transmission speed.

Configuration Range	Unit	Default Setting
0 ~ 0.25 sec	0.001 sec	0

Procedure:	Example:
(A) Scan “Enter” barcode (B) Scan Transmission gap barcode (C) Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode	If configuration is 0.02 sec, the parameter value is **0.02 sec** / **0.001 sec = 20**

7-2-2-3 Transmission Delay

The delay time settings between the barcode data output, this enables the user to set the output timing between each barcode data scanned.

Configuration Range	Unit	Default Setting
0-2.5 Sec	0.01 sec	0

Procedure:	**Example:**
(A) Scan “Enter” barcode (B) Scan Transmission Delay barcode (C) Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode	If configuration is 0.2 sec, the parameter value is **0.2 sec** / **0.01 sec = 20**

Example Barcode Data: "**ABCD**" Transmit Gap: **2ms**
Transmit Delay: **10ms**

1) ENTER⇨ Entry Programming

2) Transmission Gap⇨ 0⇨2⇨SET⇨ 2ms Inter-char. Delay
02*1ms(Unit)=2ms

3) Transmitssion Delay⇨0⇨1⇨SET⇨ 10ms Transmit Delay
01*10ms(Unit)=10ms

4) END Exit Programming

Output

A	2ms	B	2ms	C	2ms	D	2ms	10ms

ENTER

End

7-2-2-4 Timeout

The timeout setting for the handshaking acknowledgment from host PC, if scanner did not receive acknowledgement from the host PC, the warning sound will be active. This function is particularly useful for some application which host PC takes longer response time.

Configuration Range	Unit	Default Setting
0 ~ 4 minutes 15 sec	1 sec	3 sec

Procedure:	**Example:**
(A) Scan “Enter” barcode (B) Scan “Timeout” barcode (C) Scan parameters from Hexadecimal / Decimal table (D) Scan “OK “barcode” (E) Scan “End” barcode	If configuration is 5 sec, the parameter value is **5 sec** / **1 sec = 5**

ENTER

End

7-3 System Control

7-3-1 Power On Music

When connecting the scanner with PC via USB cable, user can configured the connection melody ON/OFF.

0A41   **Enable**
0A40   Disable

7-3-2 Good Read Beep

This configuration enables the Beep sound when the barcode data has been successfully read and decoded.

Note: this configuration is only applicable when the scanner is in USB cabled mode.

8B01   **Enable**
8B00   Disable

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER

End

7-3-3 Good Read Vibrator

This configuration enables the vibration when the barcode data has been successfully read and decoded (**this is only applicable with optional purchased Vibrator install.**)

8B21   Enable
8B20   **Disable**

7-3- 4 Transmission Length

When the barcode data length is not fixed Length (ex. Code 39), if user needs to know the length of the barcode data, this configuration enables to indicate the barcode length in front of barcode data.

8C51   Enable
8C50   **Disable**

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER

End

7-3- 5 Force Case

This configuration enables to convert all output digits to be same printing-case; even one barcode may have two kinds of case

 None
 Inverse

 Lowercase
 Uppercase

Procedure:

(A) Scan “Enter” Barcode
(B) Scan Force Case Barcode
(C) Scan “End” Barcode

7-3-6 Transmission Code ID

When scanning the barcode, User might want to know the symbology of the barcode ID, This configuration enables to display the Code ID or Sub Code ID.

 Enable
 Disable

Procedure:

(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER 

End 

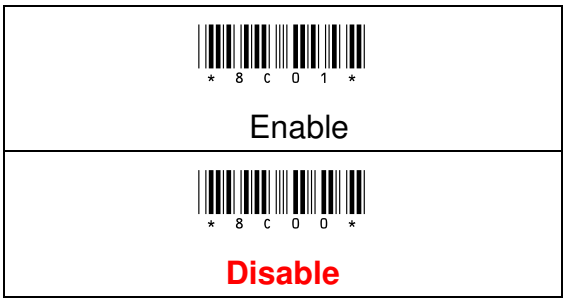
7-3-7 Code ID Position

When “Transmission Code ID” is “Enable”, user can configure the output position of Code ID or Sub Code ID (Before / After).

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “After” or “Before” Barcode
(C) Scan “End” Barcode

7-3-8 Transmission Code Name

This configuration enables to show the barcode symbology name. Symbology name will be showing in front of barcode data.



Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER

End

7- 4 Trigger Mode

When connecting the scanner and PC via USB cable, User can use the scanner as USB scanner to read the barcode in real time. The following trigger mode can be configured in USB scanner.

Note: The trigger modes only applicable in USB scanner Mode, for memory or Bluetooth mode, the trigger mode is only in" Good Read Off" mode

7- 4-1 Good Read Off

Triggering to activate scanning LED, the scanning LED will turn off when the barcode is successfully read and decoded. If there is no barcode reading while triggering on, the scanning LED will turn off in some period of time. (For the LED turn off time, it can be configured in "**Lamp Off Delay**").

Procedure:
(A) Scan "Enter" Barcode
(B) Scan "Good Read Off" Barcode
(C) Scan "End" Barcode

7- 4- 2 Momentary

The trigger acts as a switch. Triggering to activate scanning and release to stop scanning. When holding the trigger, the scanning LED will always be ON to read the different barcode continuously.

Procedure:
(A) Scan "Enter" Barcode
(B) Scan "Momentary" Barcode
(C) Scan "End" Barcode

ENTER 

End 

7- 4- 3 Alternate

The trigger acts as a toggle switch, When pressing the trigger once , the scanning LED will always on to read the barcode continuously, pressing the trigger once again, the scanning LED will turn off.

8AC5

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Alternate” Barcode
(C) Scan “End” Barcode

7- 4- 4 Timeout Off

Triggering to activate, the scanner LED will always be ON until certain period of time. The scanning LED will turn off when the time elapsed. (For the LED turn off time, it can be configured in “**Lamp Off Delay**”).

8AC3

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Timeout Off” Barcode
(C) Scan “End” Barcode

ENTER

End

7- 4- 5 Continue

This configuration enables the scanning LED always ON, this function can read the barcode continuously without triggering.

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Continue” Barcode
(C) Scan “End” Barcode

7- 4- 6 Test

This option enables the scanner to keep reading continuously, and same barcode reading is allowed without double confirm. The feature can test the scanning performance and sensitivity. (**Diagnostic mode Only**)

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Test” Barcode
(C) Scan “End” Barcode

ENTER

End

7- 5 Buzzer

This section explains the Buzzer configuration when the barcode is successfully read and decoded (note: Good read beep configuration must be enabled before buzzer setting, please refer to chapter :7-3-2), the configuration includes Beep volume, Beep tone and Beep time.

7- 5- 1 Beep Volume

Beep volume configuration enables to configure the volume of the Beep sound

Configuration Range	Default Setting
1 ~ 10	10

Procedure:
(A) Scan “Enter” barcode
(B) Scan “Beep Volume” barcode
(C) Scan parameters from Hexadecimal / Decimal table
(D) Scan “OK“ barcode
(E) Scan “End” barcode

ENTER 

End 

7- 5- 2 Beep Tone

Beep Tone configuration enables to configure the frequency of beep sound.

Configuration Range	Unit	Default Setting
100 - 5000HZ	100 HZ	2700 HZ

Procedure:	**Example:**
(A) Scan “Enter” barcode (B) Scan “Beep Tone” barcode (C) Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode	If configuration is 3000 Hz, the parameter value is **3000Hz** / **100 Hz = 30**

7- 5- 3 Beep Time

Beep time configuration enables to configure the duration of the beep sound.

Configuration Range	Unit	Default Setting
0 ~ 2.5 Sec	0.01 sec	0.1 sec

Procedure:	**Example:**
(A) Scan “Enter” barcode (B) Scan “Beep Time” barcode (C) Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode	If configuration is 0.2 sec, the parameter value is **0.2 sec** / **0.01 sec = 20**

7- 6 Standby Time

This function enables to set the duration time to turn off the main power of the scanner after scanning LED turns off.

Configuration Range	Unit	Default Setting
0 ~ 99 sec	1 sec	5 sec

Procedure:	**Example:**
(A) Scan “Enter” barcode (B) Scan “Standby Time” barcode (C) Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode	If configuration is 10 sec, the parameter value is **10 sec** / **1 sec = 10**

Note: this configuration is only applicable when the scanner is in USB cable mode.

7- 7 LED OFF Delay

When the barcode is successfully read and decoded, The Green LED indicator will be shown; user can configure the duration time for LED indicator. (**Note: when the configuration set as “0” or “00”, the Green LED will be always ON**)

Configuration Range	Unit	Default Setting
0 ~ 2.5 sec	0.01 sec	0.2 sec

Procedure:	Example:
(A) Scan “Enter” barcode (B) Scan “LED Off Delay” barcode (C) Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode	If configuration is 0.1sec, the parameter value is **0.1 sec** / **0.01 sec = 10**

Note: this configuration is only applicable when the scanner is in USB cable mode.

7- 8 LAMP OFF Delay

This enables to configure the duration time for scanning LED power off, the scanning LED will automatically turn off if duration time elapsed. This setting is only available when the trigger mode is set as” **Good read off**” or **“Timeout Off”**

* 8 1 7 2 *

Configuration Range	Unit	Default Setting
0 ~ 4 minutes 15 Sec	1 sec	5 sec

Procedure:	Example:
(A) Scan “Enter” barcode (B) Scan “LampOff Delay” barcode (C) Scan Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode	If configuration is 10 sec, the parameter value is **10 sec** / **1 sec = 10**

Note: this configuration is only applicable when the scanner is in USB cable mode.

ENTER

End

7- 9 Good Read Time

This enables to set the scanning duration time for reading the same barcode label, this function only available when the trigger mode is set in "**Continue**" or "**Momentary**" or "**Alternate**" mode.(**Note: when the configuration is set as "0" or "00", it means, no waiting time needed. User can scan the same barcode label without any delay time**).

Configuration Range	Unit	Default Setting
0 ~ 25 sec	0.1 sec	0.5 sec

Procedure:	**Example:**
(A) Scan "Enter" barcode (B) Scan "Good Read Time" barcode (C) Scan Scan parameters from Hexadecimal / Decimal table (D) Scan "OK" barcode (E) Scan "End" barcode	If configuration is 1 sec, the parameter value is **1 sec** / **0.1 sec = 10**

Note: this configuration is only applicable when the scanner is in USB cable mode.

7- 10 Setup Timeout

This configuration enables to set the duration of scanner configuration time. If user does not perform any actions after scanning the “Enter” barcode (Configuration barcode) the setting mode will automatically exit.

Configuration Range	Unit	Default Setting
0 ~ 4 minutes 15 sec	1 sec	30 sec

Procedure:	Example:
(A) Scan “Enter” barcode (B) Scan “Setup Timeout” barcode (C) Scan Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode	If configuration is 10 sec, the parameter value is **10 sec** / **1sec = 10**

7- 11 Vibrator OFF Delay

This configuration enables to set the duration of vibrating time when the barcode is successfully read and decoded. (**Note: this configuration is only applicable with optional purchased vibrator installed, and Good read Vibrator function set as “Enable” Chapter: 7-3-3**)

Configuration Range	Unit	Default Setting
0-2.5 Secs	0.01 sec	0.1 sec

Procedure:	Example:
(A) Scan “Enter” barcode (B) Scan “Vibrator Off Delay” barcode (C) Scan Scan parameters from Hexadecimal / Decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode	If configuration is 0.2 sec, the parameter value is **0.2 sec** / **0.01sec = 20**

ENTER

End

7- 12 Double Confirm

When the barcode label has been scanned, for the barcode data accuracy purpose, user can configure “Double Confirm” function to perform the data confirmation action. After the confirmation is done, then the barcode will be decoded.

7- 12-1 Double Confirm

This option enables the scanner to double confirm the barcode data, if this option is enabled, the scanner will require more times to verify the barcode data. This setting will related to the double confirm count configuration, the more confirm counts will inhibit miss-reading barcodes.

 Enable
 **Disable**

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

7- 12- 2 Double Confirm Count

This enables the user to configure the double confirm count, selecting higher value will affect the decoding speed.

Configuration Range	Default Setting
1-10	2

Procedure:
(A) Scan “Enter” barcode
(B) Scan “Double Confirm Count” barcode
(C) Scan Scan parameters from Hexadecimal / Decimal table
(D) Scan “OK“ barcode
(E) Scan “End” barcode

ENTER 

End 

7- 13 Global Min./ Max. Length

When configuring the “Min. length” of barcode digits, if the barcode label digit is less than the configured “Min. length”, the barcode label will not be decoded.

If configuring the “Max. length” of the barcode digits, if the barcode label digit is greater than the configured “Max. length”, The barcode label will not be decoded.

Please note that the values setting will not affect in some fixed length symbologies (i.e. UPC and EAN).

There are few combinations for the setting:

(1) If Min. Length is 0 and Max Length is 0, the barcode data length is not limited.

(2) If Min. Length is 0 and Max. Length is not 0, the barcode data will decode by the length is under the Max. length.

(3) If Max. Length is 0 and Min. Length is not 0, the barcode data will decode by the length is over the Min. length.

(4) If Min. Length and Max Length are specified, and Min. length = Max. Length, the barcode data will only decoded by the length of Min. Length value.

(5) If Min. Length and Max Length are specified, and Min. length < Max. Length, the barcode data will decoded by the length is between the Min. Length and the Max. Length

(6) If Min. Length and Max Length are specified, and Min. length > Max. Length, the barcode data will only decoded by the length of two specified value of Min. Length and Max. Length

7- 13-1 Global Min. Length

This function enables to set the minimum barcode length, if the barcode length is less than configured Min. length, the barcode will not be decoded. If configured value is 0, it means no limits in min length.

Configuration Range	Default Setting
0-64	0

Procedure:

(A) Scan “Enter” barcode
(B) Scan “Global Min. length” barcode
(C) Scan Scan parameters from Hexadecimal / Decimal table
(D) Scan “OK“ barcode
(E) Scan “End” barcode

7- 13-2 Global Max. Length

This function enables to set the maximum barcode length, if the barcode length is greater than configured maximum length, the barcode will not be decoded. If configured value is 0, it means no limits in max length.

Configuration Range	Default Setting
0-64	0

Procedure:

(A) Scan “Enter” barcode
(B) Scan “Global Max. length” barcode
(C) Scan Scan parameters from Hexadecimal / Decimal table
(D) Scan “OK“ barcode
(E) Scan “End” barcode

7- 14 Set Date & Time

This function is to set the scanner time stamp, the default format is (YYMMDDHHMM)

ZCLK

Example:
For the example, setting the scanner date and time as 2012/8/30 13:30 (1) Scan “Enter” barcode (2) Scan “Set Date & time” barcode (please refer to Hexadecimal / Decimal table (3) Scan Decimal Barcode “1”=>”2”=>”0”=>”8”=>”3”=>”0”=>”1”=>”3”=>”3”=>”0” =>”OK”. (as 2012/8/30,13:30) (4) Scan “End” barcode

ENTER

End

Chapter 8: Symbology Settings

Symbology Settings

8. Symbology Settings

8 - 1 Barcode Symbologies Default setting

Barcode type	Read	Length		Truncate		Code ID/	Sub Code ID
		Min.	Max	Lead	End		
UPC-A	Enable	—	—	0	0	A	—
UPC-E	Enable	—	—	0	0	E	E
EAN-13	Enable	—	—	0	0	F	F
EAN-8	Enable	—	—	0	0	FF	FF
Code-39	Enable	0	0	0	0	M	M
Codebar/NW7	Enable	0	0	0	0	N	—
Code-128	Enable	0	0	0	0	K	K
Interleaved 2 of 5	Disable	4	0	0	0	I	—
Industrial 2 of 5	Disable	4	0	0	0	H	—
Matrix 2 of 5	Disable	4	0	0	0	G	—
Code-93	Disable	0	0	0	0	L	—
Code-11	Disable	0	0	0	0	O	—
MSI/Plessey	Disable	0	0	0	0	P	—
UK/Plessey	Disable	0	0	0	0	R	—
Telepen	Disable	0	0	0	0	S	—
RSS(GS1 DataBar)14	Disable	—	—	0	0	T	—
RSS(GS1 DataBar) Limited	Disable	—	—	0	0	U	—
RSS(GS1 DataBar)14 Stack	Disable	—	—	0	0	V	—
RSS(GS1 DataBar) Expansion	Disable	—	—	0	0	W	—
RSS(GS1 DataBar) Expansion Stack	Disable	—	—	0	0	X	—

8 - 2 UPC-A

8- 2-1 Read

UPC-A barcode symbology configuration

 **Enable**
 Disable

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

8- 2-2 Add – on Type

The add-on barcode is the supplemental 2 or 5 characters for WPC code. User can configure, Add-on2, Add-on5 or Add-on2+5 supplemental characters.

 **None**
 Add-on 2
 Add-on 5
 Add-on 2+5

Procedure:
(A) Scan “Enter” Barcode
(B) Scan Add-on Type Barcode
(C) Scan “End” Barcode

ENTER 

End 

8- 2- 3 Wait Add – on

It is recommended to set Enable if you want the UPC can be output with add-on code together. Please enable this function first and refer Wait Add-on count for the reading of Add-on code (**Chapter 9-5**).

 Enable
 **Disable**

8- 2- 4 Transmission Checksum

The option enables to display the check digits.

 **Enable**
 Disable

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER 

End 

8- 3 UPC-E

8- 3-1 Read

UPC-E barcode symbology configuration

 **Enable**
 Disable

8- 3-2 Wait Add-On

It is recommended to set Enable if you want the UPC can be output with add-on code together. Please enable this function first and refer Wait Add-on count for the reading of Add-on code(**Chapter: 9-5**).

 Enable
 **Disable**

Procedure:
(A) Scan “Enter” Barcode (B) Scan “Enable” or “Disable” Barcode (C) Scan “End” Barcode

ENTER 

End 

8- 3-3 Add-On Type

The add-on barcode is the supplemental 2 or 5 characters for WPC code. User can configure, Add-on2, Add-on5 or Add-on2+5 supplemental characters.

None
Addon5

Addon2
Addon2+5

Procedure:
(A) Scan “Enter” Barcode
(B) Scan Add-on Type Barcode
(C) Scan “End” Barcode

8- 3- 4 Expansion

This expansion function is for UPC-E and EAN-8 only. It will extend the barcode to be 13-digits by “0“.

Enable
Disable

Procedure:	Example:
(A) Scan “Enter” Barcode (B) Scan “Enable” or “Disable” Barcode (C) Scan “End” Barcode	Example Barcode data: "01236547" Output "0012360000057"

ENTER

End

8- 3- 5 Transmission Checksum

The option enables to display the check digits.

BA61   **Enable**
BA60   Disable

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER

End

8- 4 EAN- 13

8- 4- 1 Read

EAN-13 barcode symbology configuration

CA71   **Enable**
CA70   Disable

8- 4- 2 Wait Add-On

It is recommended to set Enable if you want the UPC can be output with add-on code together. Please enable this function first and refer Wait Add-on count for the reading of Add-on code (**Chapter:9-5**).

CA01   Enable
CA00   **Disable**

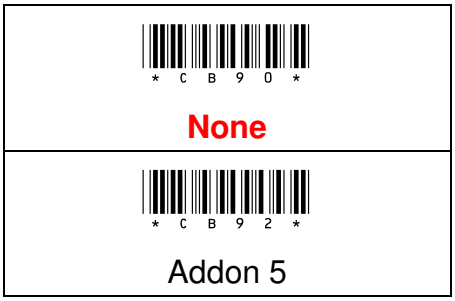
Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

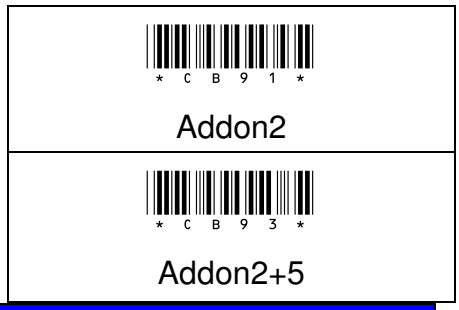
ENTER

End

8- 4- 3 Add-On Type

The add-on barcode is the supplemental 2 or 5 characters for WPC code. User can configure, Add-on2, Add-on5 or Add-on2+5 supplemental characters.

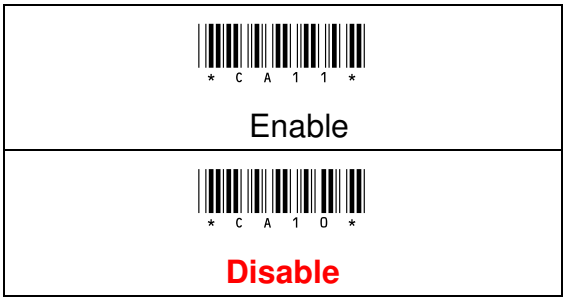




Procedure:
(A) Scan “Enter” Barcode (B) Scan Add-on Type Barcode (C) Scan “End” Barcode

8- 4- 4 ISBN / ISSN Conversion

The ISBN (International Standard Book Number) and ISSN (International Standard Serial Number) are especial barcode for books and magazines. The ISBN has 10 digits with leading "978" and the ISSN has 8 digits with leading "977" of EAN-13 symbology.



Procedure:	Example:
(A) Scan “Enter” Barcode (B) Scan “Enable” or “Disable” Barcode (C) Scan “End” Barcode	Example Barcode data "9789572222720" **Output:** "9572222724" Example Barcode data "9771019248004" **Output:** "10192484"

ENTER

End

8- 4- 5 Transmission Checksum

The option enables to display the check digits.

CA61   **Enable**
CA60   Disable

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER

End

8- 5 EAN-8

8- 5- 1 Read

EAN-8 barcode symbology configuration.

DA71   **Enable**
DA70   Disable

8- 5- 2 Wait Add-On

It is recommended to set Enable if you want the UPC can be output with add-on code together. Please enable this function first and refer Wait Add-on count for the reading of Add-on code(**Chapter 9-5**).

DA01   Enable
DA00   **Disable**

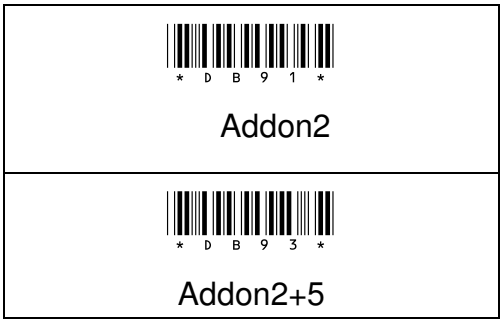
Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER

End

8- 5- 3 Add-On Type

The add-on barcode is the supplemental 2 or 5 characters for WPC code. User can configure, Add-on2, Add-on5 or Add-on2+5 supplemental characters.

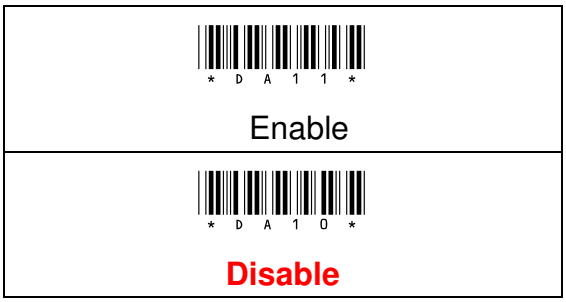


Procedure:
(A) Scan “Enter” Barcode
(B) Scan Add-on Type Barcode
(C) Scan “End” Barcode

8- 5- 4 Expansion

This expansion function is for UPC-E and EAN-8 only. It will extend the barcode to be 13-digits by “0“.

Example Barcode "01236547" Output "0012360000057"



Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

8- 5- 5 Transmission Checksum

The option enables to display the check digits.

DA61   **Enable**
DA60   Disable

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER

End

8- 6 Code- 39

8- 6-1 Read

Code-39 barcode symbology configuration.

EA71   **Enable**
EA70   Disable

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

8- 6-2 Type

The Full ASCII function is an enhanced setting for Code-39 which is with total 128 digits to represent Full ASCII code. It must be combined by either one of +, %, $ or / and one of alpha character (A to Z).

EB90   **Standard**
EB91   Full ACSII

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Standard” or “Full ACSII” Barcode
(C) Scan “End” Barcode

ENTER

End

8- 6-3 Code 32 Translation

The Code-32 symbology (Italian Pharmaceutical) is another version of Code-39 which maximum can be 10 digits and can be 0 – 9 digits. The leading A is an optional character and can be set to be transmitted or not.

EBA0 **None**
EBA2 Code-32 with ‘A’

EBA1 Code-32

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Format” Barcode
(C) Scan “End” Barcode

8- 6-4 Transmission Start/ End

The Start and End character of Code-39 with "*". You can transmit all data digits including two "*" by set “Enable”.

EA21 Enable
EA20 **Disable**

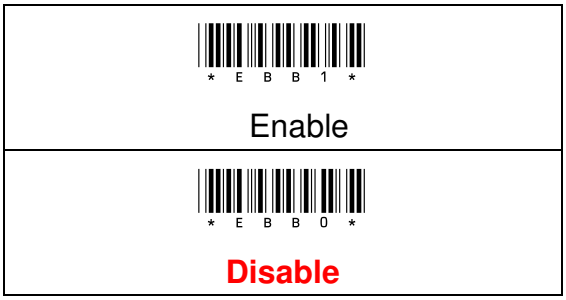
Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER

End

8- 6-5 Checksum Verification

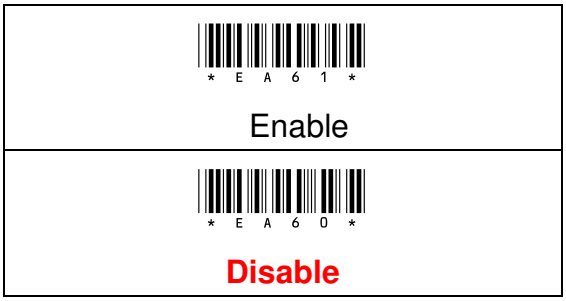
The option enables to verify the check digits, if this option is enable, any barcodes without check digits will not be able to scan.
The checksum of Code-39 is optional and it is made the sum module 43 as the numerical value of the data digits.



Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

8- 6-6 Transmission Checksum

The option enables to display the check digits.

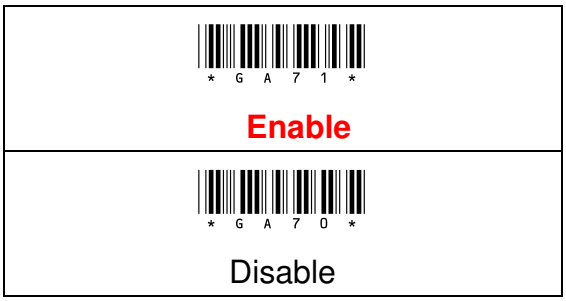


Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

8- 7 Codabar / NW7

8- 7-1 Read

Codabar /NW7 barcode symbology configuration.

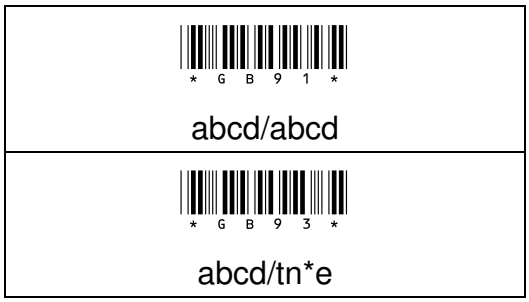


Procedure:

(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

8- 7- 2 Start/ End Symbol types

The Codabar has four kinds of Start/End patterns; you may choose one to match your application.



Procedure:

(A) Scan “Enter” Barcode
(B) Scan Type Barcode
(C) Scan “End” Barcode

ENTER

End

8- 7- 3 Same Start/ End Pair

Sometimes, the Codabar requires only same Start/End pattern can be decoded.

Enable
Disable

8- 7-4 Transmission Start/ End

Configuration of transmit all data digits including Start/End

Enable
Disable

8- 7- 5 Checksum Verification

The option enables to verify the check digits, if this option is enable, any barcodes without check digits will not be able to scan

The checksum is made as the sum module 16 of the numerical values of all data digits.

Enable
Disable

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER

End

8- 7-6 Transmission Checksum

The option enables to display the check digits.

GA61   Enable
GA60   **Disable**

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER

End

8- 8 Code 128

8- 8- 1 Read

Code- 128 barcode symbology configuration.

FA71 **Enable**
FA70 Disable

8- 8- 2 Type

The Code-128 can be translated to UCC-128 format if it starts with FNC1 character. The first FNC1 will be translated to "]C1", and next to be a connection code as <GS>

UCC-128 data format:

]C1	Data	<GS>	Data	Checksum

FB90 **Standard**
FB91 UCC-128
FB92 GS-128

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Standard” or “UCC-128” Barcode
(C) Scan “End” Barcode

ENTER

End

8- 8- 3 Checksum Verification

The option enables to verify the check digits, if this option is enable, any barcodes without check digits will not be able to scan.
The checksum is presented as the sum module 103 of all data digits.

 **Enable**
 Disable

8- 8- 4 Transmission Checksum

The option enables to display the check digits.

 Enable
 **Disable**

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER 

End 

8- 8- 5 Connection Data

When “Type” is set “UCC-128”, you can set connection data. If the value is configured as “Null” , it will show default value”<GS>”, if the value is not configured “Null” will refers to ASCII table for related setting.

Configuration Range	Length	Default Setting
Please refer to ASCII table	2 digits	()

Example:

e.g. Set Connection data to “AB”

(A) Scan “Enter” Barcode

(B) Scan Connection data Barcode

(C) Scan Hexadecimal barcode table =>“4”,”1”,”4”,”2”,”OK”

(means set “Connection data “ value to “AB”, please refer to ASCII Code table)

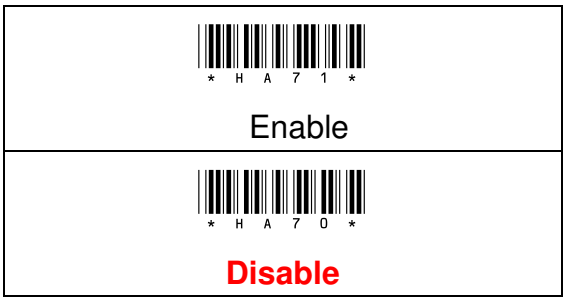
(D) Scan “End” barcode

Connection data will show “AB”

8- 9 Interleaved 2 of 5

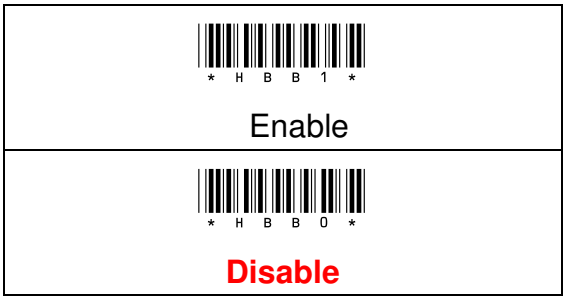
8- 9- 1 Read

Interleaved 2 of 5 barcode symbology configuration



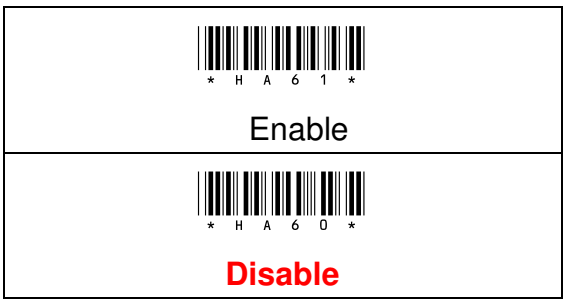
8- 9- 2 Checksum Verification

The option enables to verify the check digits, if this option is enable, any barcodes without check digits will not be able to scan
The checksum is made the sum module 10 as the numerical values of all data digits.



8- 9- 3 Transmission Checksum

The option enables to display the check digits.



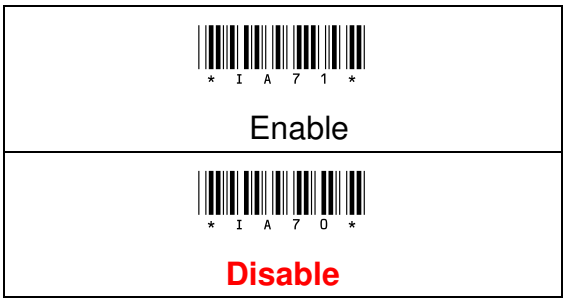
Procedure:

(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

8-10 Industrial 2 of 5

8- 10-1 Read

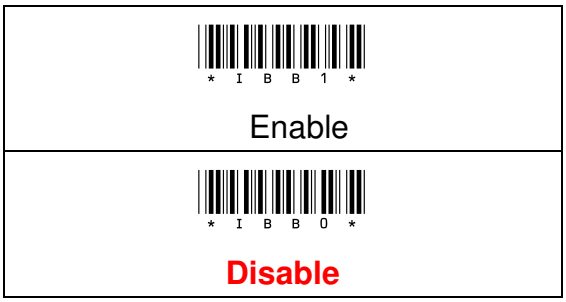
Industrial 2 of 5 barcode symbology configuration.



8- 10- 2 Checksum Verification

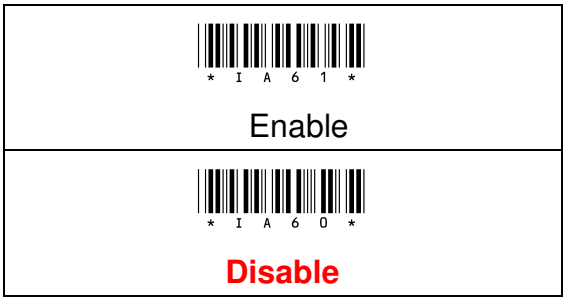
The option enables to verify the check digits, if this option is enable, any barcodes without check digits will not be able to scan

The checksum is made the sum module 10 as the numerical values of all data digits.



8- 10 - 3 Transmission Checksum

The option enables to display the check digits.



Procedure:

(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER 

End 

8- 11 Matrix 2 of 5

8- 11 - 1 Read

Matrix 2 of 5 barcode symbology configuration.

Enable

Disable

8- 11 - 2 Checksum Verification

The option enables to verify the check digits, if this option is enable, any barcodes without check digits will not be able to scan.
The checksum is made the sum module 10 as the numerical values of all data digits.

Enable

Disable

8- 11 - 3 Transmission Checksum

The option enables to display the check digits.

Enable

Disable

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER 

End 

8- 12 Code 93

8- 12 - 1 Read

Code-93 barcode symbology configuration.

 Enable
 **Disable**

8- 12 - 2 Transmission Checksum

The option enables to display the check digits.

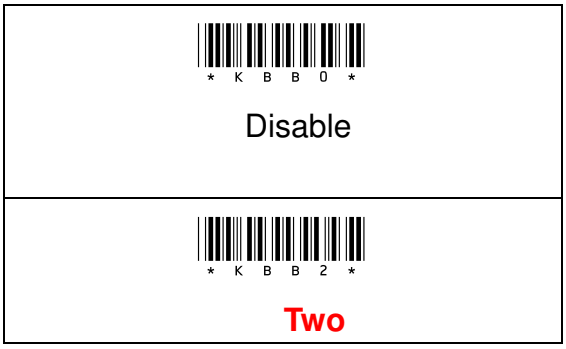
 Enable
 **Disable**

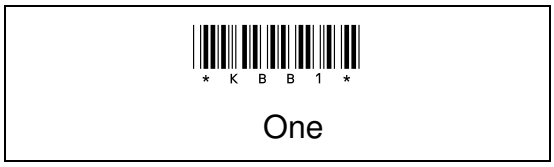
Procedure:
(A) Scan “Enter” Barcode (B) Scan “Enable” or “Disable” Barcode (C) Scan “End” Barcode

8- 12 - 3 Checksum Verification

The option enables to verify the check digits, if this option is enable, any barcodes without check digits will not be able to scan.

The checksum is presented as the sum module 47 of all data digits.





Procedure:

(A) Scan “Enter” Barcode
(B) Scan “Disable” or “One” or “Two” Barcode
(C) Scan “End” Barcode

ENTER

End

8- 13 Code 11

8- 13 - 1 Read

Code 11 barcode symbology configuration.

 *LA71* Enable
 *LA70* **Disable**

8- 13 - 2 Checksum Transmission

The option enables to verify the check digits, if this option is enable, any barcodes without check digits will not be able to scan.

By setting Enable, checksum1 and checksum2 will be transmitted upon your selected checksum verification method.

 *LA61* Enable
 *LA60* **Disable**

Procedure:
(A) Scan “Enter” Barcode (B) Scan “Enable” or “Disable” Barcode (C) Scan “End” Barcode

ENTER 

End 

8- 13 - 3 Checksum Verification

The checksum is presented as the sum module 11 of all data digits.

LBB0 Disable	*LBB1* One
LBB2 **Two**	

Procedure:

(A) Scan “Enter” Barcode

(B) Scan “Disable” or “One” or “Two” Barcode

(C) Scan “End” Barcode

ENTER

End

8- 14 MSI / Plessey

8- 14 - 1 Read

MSI / Plessey barcode symbology configuration

 Enable
 **Disable**

8- 14 - 2 Transmission Checksum

The option enables to display the check digits.

 Enable
 **Disable**

Procedure:
(A) Scan “Enter” Barcode (B) Scan “Enable” or “Disable” Barcode (C) Scan “End” Barcode

ENTER 

End 

8- 14 - 3 Checksum Verification

The option enables to verify the check digits, if this option is enable, any barcodes without check digits will not be able to scan.

The MSI/Plessey has one or two optional checksum characters. The checksum is presented by 3 kinds of method as Mod 10, Mod 10/10 and Mod 11/10. The checksum1 and checksum2 will be calculated as the sum module 10 or 11 of the data digits.

 Disable
 Mod 10/10
 Mod 11/10
 **Mod 10**

Procedure:
(A) Scan “Enter” Barcode
(B) Scan Verify Checksum Barcode
(C) Scan “End” Barcode

ENTER 

End 

8- 15 UK / Plessey

8- 15 - 1 Read

UK/ Plessey barcode symbology configuration

NA71   Enable
NA70   **Disable**

8- 15 - 2 Verify Checksum

The option enables to verify the check digits, if this option is enable, any barcodes without check digits will not be able to scan.

NBB1   **Enable**
NBB0   Disable

8- 15 - 3 Transmission Checksum

The option enables to display the check digits.

NA61   Enable
NA60   **Disable**

Procedure:

(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER

End

8- 16 Telepen

8- 16 - 1 Read

Telepen barcode symbology configuration

 Enable
 **Disable**

8- 16 - 2 Checksum Verification

The option enables to verify the check digits, if this option is enable, any barcodes without check digits will not be able to scan.

The option enables to verify the check digits, if this option is enable, any barcodes without check digits will not be able to scan.

 **Enable**
 Disable

Procedure:
(A) Scan “Enter” Barcode (B) Scan “Enable” or “Disable” Barcode (C) Scan “End” Barcode

ENTER 

End 

8- 16 - 3 Type

Telepen can be transmitted by Numeric and ASCII format. Characters can be mixed the both format in Telepen barcode. By setting Auto Switching, data can be converted between Numeric and Full ASCII by character <DEL>($7F_{16}$)automatically.

Numeric

Auto switching

ASCII

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Numeric” or “ASCII” or “Auto switching” Barcode
(C) Scan “End” Barcode

8- 16 - 4 Transmission Checksum

The option enables to display the check digits

Enable

Disable

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

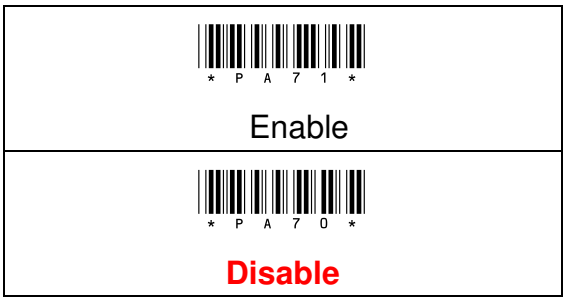
ENTER

End

8- 17 RSS (GS1 DataBar) 14

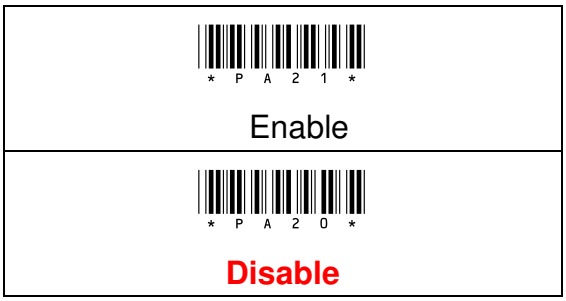
8- 17 - 1 Read

RSS(GS1 DataBar)14 barcode symbology configuration



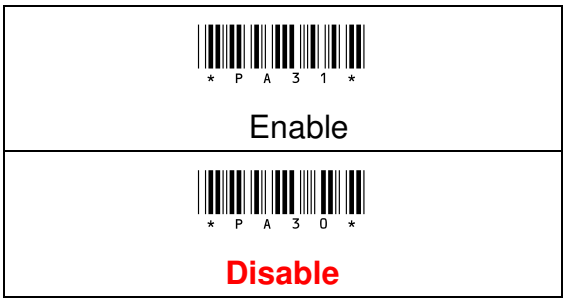
8- 17 - 2 Code Mark

For the output of “]e0”, Code Mark function needs to be Enable.



8- 17 - 3 Application ID

For the output of “01”, Application ID function needs to be Enable.



Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER

End

8- 17 - 4 Transmission Checksum

The option enables to display the check digits.

Enable

Disable

Procedure:

(A) Scan “Enter” Barcode

(B) Scan “Enable” or “Disable” Barcode

(C) Scan “End” Barcode

ENTER

End

8- 18 RSS (GS1 DataBar) Limited

8- 18 - 1 Read

RSS(GS1 DataBar) Limited barcode symbology configuration.

 Enable
 **Disable**

8- 18 - 2 Code Mark

For the output of “]e0”, Code Mark function needs to be Enable.

 Enable
 **Disable**

8- 18 - 3 Application ID

For the output of “01”, Application ID function needs to be Enable.

 Enable
 **Disable**

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER 

End 

8- 18 - 4 Transmission Checksum

The option enables to display the check digits.

QA61   Enable
QA60   **Disable**

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER

End

8- 19 RSS (GS1 DataBar) 14 Stack

8- 19 - 1 Read

RSS (GS1 DataBar)14 Stack barcode symbology configuration.

 Enable
 **Disable**

8- 19 - 2 Code Mark

For the output of “]e0” , Code Mark function needs to be Enable.

 Enable
 **Disable**

Procedure:
(A) Scan “Enter” Barcode (B) Scan “Enable” or “Disable” Barcode (C) Scan “End” Barcode

ENTER 

End 

8- 19 - 3 Application ID

For the output of “01”, Application ID function needs to be Enable.

RA31   Enable
RA30   **Disable**

8- 19 - 4 Transmission Checksum

The option enables to display the check digits.

RA61   Enable
RA60   **Disable**

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

8- 20 RSS (GS1 DataBar) Expansion

8- 20 - 1 Read

RSS(GS1 DataBar) Expansion barcode symbology configuration.

 Enable
 **Disable**

8- 20 - 2 Code Mark

For the output of “]e0” , Code Mark function must be Enable.

 Enable
 **Disable**

Procedure:
(A) Scan “Enter” Barcode (B) Scan “Enable” or “Disable” Barcode (C) Scan “End” Barcode

ENTER 

End 

8- 20 - 3 Application ID

For the output of “01”, Application ID function must be Enable.

SA31 Enable
SA30 **Disable**

8- 20 - 4 Transmission Checksum

The option enables to display the check digits.

SA61 Enable
SA60 **Disable**

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER

End

8- 21 RSS (GS1 DataBar) Expansion Stack

8- 21 - 1 Read

RSS(GS1 DataBar) Expansion barcode symbology configuration.

TA71   Enable
TA70   **Disable**

8- 21 - 2 Code Mark

For the output of “]e0” , Code Mark function must be Enable.

TA21   Enable
TA20   **Disable**

Procedure:
(A) Scan “Enter” Barcode (B) Scan “Enable” or “Disable” Barcode (C) Scan “End” Barcode

ENTER

End

8- 21 - 3 Application ID

For the output of “01” , Application ID function must be Enable.

TA31 Enable
TA30 **Disable**

8- 21 - 4 Transmission Checksum

The option enables to display the check digits.

TA61 Enable
TA60 **Disable**

Procedure:
(A) Scan “Enter” Barcode (B) Scan “Enable” or “Disable” Barcode (C) Scan “End” Barcode

ENTER

End

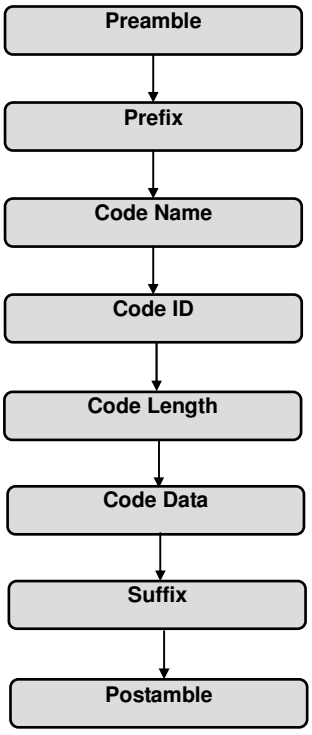
Chapter 9: Output Format Settings

Output Format Settings

(1) Add Code ID/or Sub Code ID in front of the barcode data
(2) Set the length range of the barcode data
(3) Set the truncate length of the barcode data
(4) Add Preamble/Postamble, Prefix/Suffix data before transmission

9. Output Format Settings

9 - 1 String Output Flow Chart



9 - 2 Preamble / Postamble

9 - 2-1 Transmission Preamble

This option enables to append data in front of the barcode data to be transmitted. Please refer to the string output flow chart.

8C61   **Enable**
8C60   Disable

Procedure:

(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER

End

9 - 2- 2 Transmission Postamble

This option enables to append data behind of the barcode data to be transmitted. Please refer to the string output flow chart.

 **Enable**
 Disable

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

9 - 2- 3 Preamble Data

There is control digits can be programmed as Preamble. It will be appended automatically when each barcode is decoded. The string of Preamble data will be before the barcode data.

Configuration	Max. Configurable Length	Default Setting
Please refer” ASCII Code Table”	8 digits	NULL

Example:
Append the code “<CR> <LF>” before barcode transmitted.
(1) Scan “Enter” Barcode
(2) Scan “Preamble data” Barcode
(3) Scan Hexadecimal Barcode =>”0” =>”D” =>”0” =>”A” =>”OK”
(This means set the Preamble Data value to “<CR> <LF>”) Please refer to ASCII table.
(4) Scan “End“ Barcode
Note: Please make sure “Transmission Preamble “ must be enabled before setting, please refer to 9-2-1

ENTER 

End 

9 - 2- 4 Postamble Data

Generally, your application needs to append a carriage return character to finish data transmission. Or you may set the Postamble to be Disable to have your application without any control characters appended after data transmission. The factory default of Postamble Data is <CR> and <LF>. The string of Postamble data will be behind the barcode data.

Configuration	Max. Configurable Length	Default Setting
Please refer" ASCII Code Table"	8 digits	(<CR> <LF>)

Example:

Append the code "<CR> <LF>" after barcode transmitted.

(1) Scan "Enter" barcode

(2) Scan "Postamble data" barcode

(3) Scan Hexadecimal barcode =>"0" =>"D" =>"0" =>"A" =>"OK"

(means set the Postamble Data value to "<CR> <LF>") Please refer to ASCII table.

(4) Scan "End" barcode.

Note: Please make sure "Transmission Postamble "must be enabled before the setting, please refer to 9-2-2.

Note: In the Bluetooth HID Mode(Mode:3) & Bluetooth HID Dongle Mode(Mode:5), user can set with "Ctrl +" and "Alt + " .

9 - 3 Prefix / Suffix

User can also append characters between the preamble data and barcode data or between barcode data and the Postamble data, prefix data or suffix data is configurable. Please refer to the string output flow chart.

9 - 3- 1 Prefix Data

Appending characters behind the preamble data and before the barcode data, prefix data can be configured. The string of prefix data will be behind the preamble data and before the barcode data. The prefix data can be set up to 8 characters. Please refer to the string output flow chart.

Configuration	Max. Configurable Length	Default Setting
Please refer" ASCII Code Table"	8 digits	NULL

Example:

Append a string "ABCD" before each barcode transmission

(1) Scan "Enter" Barcode

(2) Scan "Prefix data" Barcode

(3) Scan Hexadecimal Barcode table

→"4"→"1"→"4"→"2"→"4"→"3"→"4"→"4"→"OK" (This means set "Prefix data" value to "ABCD") please refer to ASCII table.

(4) Scan "End" Barcode

ENTER 

 End

9 - 3- 2 Suffix Data

Appending characters behind the barcode data and before the postamble data., suffix data is configurable. The string of suffix data will be behind the barcode data and before the postamble data. The suffix data can be set up to 8 characters. Please refer to sting output flow chart.

Configuration	Max. Configurable Length	Default Setting
Please refer" ASCII Code Table"	8 digits	NULL

Example:

Append a string "EFGH" after each barcode transmission

(1) Scan "Enter" Barcode

(2) Scan "Suffix data" Barcode

(3) Scan Hexadecimal Barcode

→"4"→"5"→"4"→"6"→"4"→"7"→"4"→"8"→"OK" (This means set "Suffix data" value to "EFGH"), please refer to ASCII table

(4) Scan "End" Barcode

9 - 4 Code ID/ Sub Code ID

9 - 4 -1 Code ID Setting

The Code ID is a character that represents the barcode symbology when barcode has been successfully decoded. It will be display in front or behind barcode data (Code ID Position can be configured). There are some symbobolgies(i.e. EAN-8) include 2 Code ID. If your application needs Code ID, please configure the “Transmission Code ID” as “Enable”.

Code ID for UPC-A

Code ID for UPC-E

Code ID for EAN-13

Code ID for EAN-8

Code ID for Code-39

Code ID for Codebar/NW7

Code ID for Code-128

Code ID for Interleaved 2 of 5

Code ID for Industrial 2 of 5

Code ID for Matrix 2 of 5

Code ID for Code-93

Code ID for Code-11

Code ID for MSI/Plessey

Code ID for UK/Plessey

ENTER 

End 

Code ID for Telepen

Code ID for RSS(GS1

Code ID for RSS(GS1 DataBar) Limited

Code ID for RSS(GS1 DataBar)14 Stack

Code ID for RSS(GS1 DataBar) Expansion

Code ID for RSS(GS1 DataBar) Expansion Stack

Configuration	Max. Configurable Length	Default Setting
Please refer" ASCII Code Table"	2 digits	Please refer to 8-1 section for default value.

Example:

Change UPC-A Code ID to "B"

(A) Scan "Enter" Barcode

(B) Scan "Code ID for UPC-A" Barcode

(C) Scan parameters from Hexadecimal Barcode table →"4"→"2"→ "OK"
(This means set UPC-A Code ID to "B"), please refer to ASCII table.

(D) Scan "End" Barcode

9 - 4 -2 Sub Code ID Setting

Under the circumstances list below, the “Sub Code ID” will substitute with “Code ID”.

1. ”Expansion” for UPC-E is set as ”Enable”
2. ”ISBN/ISSN Conversion” for EAN-13 is set as ”Enable”
3. ”Expansion” for EAN-8 is set as ”Enable”
4. ”Code 32 translation” for Code-39 is set as ”Code-32” or ”Code-32 with’A’, and “ Type” for Full ASCII.
5. ”Type” for Code-128 to be set ”UCC-128” or ”GS-128”

It will be prefixed in front or behind the barcode data (Code ID Position can be configured). There are some symbologies (i.e. EAN-8) include 2 Sub Code ID. If your application needs Sub Code ID, please enable the “Transmission Code ID” function.

Sub Code ID for UPC-E

Sub Code ID for EAN-13

Sub Code ID for EAN-8

Sub Code ID for Code-39

Sub Code ID for Code-128

Configuration	Max. Configurable Length	Default Setting
Please refer” ASCII Code Table”	2 digits	Please refer to 8-1 section for default value.

ENTER

End

Procedure:
(A) Scan “Enter” barcode (B) Scan Sub Code ID barcode (C) Scan parameters from Hexadecimal/ decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode

9 – 5 Wait Add-on Count

This setting is used for WPC add-on code, such as UPC-A, UPC-E, EAN-13 and EAN-8. The WPC code must be decoded first, then Add-on code. Add-on code may not be decoded with WPC at the same time. Therefore, you can set wait add-on count to force the add-on code must be output with WPC code together.

Configuration Range	Default setting
0 ~ 99	10

Procedure:
(A) Scan “Enter” barcode (B) Scan “Wait Addon Count” barcode (C) Scan parameters from Hexadecimal/ decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode

ENTER 

End 

9 – 6 Min. / Max. Length

Some symbologies has its own Min./Max. Barcode Length. They can be configured to qualify data entry. The length is defined by the actual barcode length transmitted. If the barcode length is less than min. length, or over the max. length, the barcode data will not be output.

There are few combinations for the setting:

(1) If Min. Length is 0 and Max Length is 0, the barcode data length is not limited.

(2) If Min. Length is 0 and Max. Length is not 0, the barcode data will decode by the length is under the Max. length.

(3) If Max. Length is 0 and Min. Length is not 0, the barcode data will decode by the length is over the Min. length.

(4) If Min. Length and Max Length are specified, and Min. length = Max. Length, the barcode data will only decoded by the length of Min. Length value.

(5) If Min. Length and Max Length are specified, and Min. length < Max. Length, the barcode data will decoded by the length is between the Min. Length and the Max. Length

(6) If Min. Length and Max Length are specified, and Min. length > Max. Length, the barcode data will only decoded by the length of two specified value of Min. Length and Max. Length

9 - 6 -1 Min. Length

This function is to configure the Min. barcode length, if the barcode length is less than Min. length, the barcode will not be decoded. If value is 0, means there is no restriction in Min. length.

Note: the configuration of Min. Length only works when

1. **Min. Length value and Global Min. length value ≠ 0 AND Min. Length > Global Min. Length,**
2. **Min. Length value ≠ 0 and Global Min. length value = 0**

Min. Length for Code-39

Min. Length for Code-128

Min. Length for Industrial 2 of 5

Min. Length for Code-93

Min. Length for MSI/Plessey

Min. Length for Telepen

Min. Length for Codebar/NW7

Min. Length for Interleaved 2 of 5

Min. Length for Matrix 2 of 5

Min. Length for Code-11

Min. Length for UK/Plessey

ENTER

End

Configuration Range	Default setting
0 ~ 64	Please refer to 8-1 section for default value.

Procedure:
(A) Scan “Enter” barcode (B) Scan “Min. Length” barcode (C) Scan parameters from Hexadecimal/ decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode

ENTER

End

9 - 6- 2 Max. Length

This function is to configure the Max. barcode length, if the barcode length is greater than Max. length, the barcode will not be decoded. If value is 0,means no restriction in Max. length.

Note: The configuration of Max. Length only works only when
1) Max. Length value and Global Max. length value≠0. AND Max. Length < Global Max. Length.

2) Max. Length value ≠ 0 and Global Max. length value = 0.

Max. Length for Code-39

Max. Length for Code-128

Max. Length for Industrial 2 of 5

Max. Length for Code-93

Max. Length for MSI/Plessey

Max. Length for Telepen

Max. Length for Codebar/NW7

Max. Length for Interleaved 2 of

Max. Length for Matrix 2 of 5

Max. Length for Code-11

Max. Length for UK/Plessey

ENTER

End

Configuration Range	Default setting
0 ~ 64	Please refer to 8-1 section for default value.

Procedure:
(A) Scan “Enter” Barcode (B) Scan “Max. Length” Barcode (C) Scan parameters from Hexadecimal/ decimal table (D) Scan “OK“ barcode (E) Scan “End” barcode

ENTER

End

9 - 7 Truncate Zero

When the barcode leading have “0”, you can configured this function to truncate all leading "0" of barcode.

Example: Barcode "00054321"=>Output "54321"

Truncate Zero for UPC-A:

Enable

Disable

Truncate Zero for EAN-13:

Enable

Disable

Truncate Zero for Code-39:

Enable

Disable

Truncate Zero for UPC-E:

Enable

Disable

Truncate Zero for EAN-8:

Enable

Disable

Truncate Zero for Codebar/NW7:

Enable

Disable

ENTER

End

Truncate Zero for Code-128:

Enable

Disable

Truncate Zero for Industrial 2 of 5:

Enable

Disable

Truncate Zero for Code-93:

Enable

Disable

Truncate Zero for MSI/Plessey:

Enable

Disable

Truncate Zero for Interleaved 2 of 5:

Enable

Disable

Truncate Zero for Matrix 2 of 5:

Enable

Disable

Truncate Zero for Code-11:

Enable

Disable

Truncate Zero for UK/Plessey:

Enable

Disable

ENTER 

End 

Truncate Zero for Telepen:

Enable

Disable

Truncate Zero for RSS(GS1 DataBar) Limited:

Enable

Disable

Truncate Zero for RSS(GS1 DataBar) Expansion:

Enable

Disable

Truncate Zero for RSS(GS1 DataBar)14:

Enable

Truncate Zero for RSS(GS1 DataBar)14 Stack:

Enable

Disable

Truncate Zero for RSS(GS1 DataBar) Expansion Stack:

Enable

Disable

Procedure:
(A) Scan “Enter” Barcode
(B) Scan “Enable” or “Disable” Barcode
(C) Scan “End” Barcode

ENTER

End

9 - 8 Truncate Leading

The leading characters of barcode data will be truncated when these values are set to non zero. It will be output nothing except beeps if the truncate value is more than barcode data digits or overlap with the Ending. The maximum value of truncate digits is 15.

Truncate leading for UPC-A

Truncate leading for EAN-13

Truncate leading for Code-39

Truncate leading for Code-128

Truncate leading for Industrial 2 of 5

Truncate leading for Code-93

Truncate leading for MSI/Plessey

Truncate leading for UPC-E

Truncate leading for EAN-8

Truncate leading for Codebar/NW7

Truncate leading for Interleaved 2 of 5

Truncate leading for Matrix 2 of 5

Truncate leading for Code-11

Truncate leading for UK/Plessey

Truncate leading for Telepen

Truncate leading for RSS(GS1 DataBar)14

Truncate leading for RSS(GS1 DataBar) Limited

Truncate leading for RSS(GS1 DataBar)14 Stack

Truncate leading for RSS(GS1 DataBar) Expansion

Truncate leading for RSS(GS1 DataBar) Expansion Stack

Configuration Range	Default setting
0 ~ 30	Please refer to 8-1 section for default value.

Procedure:
(A) Scan “Enter” barcode
(B) Scan “Truncate Lead” barcode
(C) Scan parameters from Hexadecimal/ decimal table
(D) Scan “OK“ barcode
(E) Scan “End” barcode

ENTER

End

9 - 9 Truncate Ending

The ending characters of barcode data will be truncated when these values are set to non zero. It will be output nothing except beeps if the truncate value is more than barcode data digits or overlap with the leading. The maximum value of truncate digits is 15.

Truncate Ending for UPC-A

Truncate Ending for EAN-13

Truncate Ending for Code-39

Truncate Ending for Code-128

Truncate Ending for Industrial 2 of 5

Truncate Ending for Code-93

Truncate Ending for MSI/Plessey

Truncate Ending for UPC-E

Truncate Ending for EAN-8

Truncate Ending for Codebar/NW7

Truncate Ending for Interleaved 2 of 5.

Truncate Ending for Matrix 2 of 5

Truncate Ending for Code-11

Truncate Ending for UK/Plessey

Truncate Ending for Telepen

Truncate Ending for RSS(GS1 DataBar)14

Truncate Ending for RSS(GS1 DataBar) Limited

Truncate Ending for RSS(GS1 DataBar)14 Stack

Truncate Ending for RSS(GS1 DataBar) Expansion

Truncate Ending for RSS(GS1 DataBar) Expansion Stack

Configuration Range	Default setting
0 ~ 30	Please refer to 8-1 section for default value.

Procedure:
(A) Scan “Enter” barcode
(B) Scan “Truncate End” barcode
(C) Scan parameters from Hexadecimal/ decimal table
(D) Scan “OK“ barcode
(E) Scan “End” barcode

9 - 10 Insert 0 Position

When adding data to the barcode data, insert position and insert data function must be configured.
If the insert position is configured as 0, the character will insert in the front of the barcode data.

Note: if insert position is configured as 255, the inserted position will be behind the barcode.

Insert0 Position for UPC-A

Insert0 Position for UPC-E

Insert0 Position for EAN-13

Insert0 Position for EAN-8

Insert0 Position for Code-39

Insert0 Position for Codebar/NW7

Insert0 Position for Code-128

Insert0 Position for Interleaved 2 of 5

Insert0 Position for Industrial 2 of 5

Insert0 Position for Matrix 2 of 5

Insert0 Position for Code-93

Insert0 Position for Code-11

ENTER 

End 

Insert0 Position for MSI/Plessey

Insert0 Position for Telepen

Insert0 Position for RSS(GS1 DataBar) Limited

Insert0 Position for RSS(GS1 DataBar) Expansion

Insert0 Position for UK/Plessey

Insert0 Position for RSS(GS1 DataBar)14

Insert0 Position for RSS(GS1 DataBar)14 Stack

Insert0 Position for RSS(GS1 DataBar) Expansion Stack

Configuration Range	Default setting
0 ~ 255	0

Procedure:

(A) Scan “Enter” barcode
(B) Scan Insert0 Position barcode table
(C) Scan parameters from Hexadecimal/ decimal table
(D) Scan “OK“ barcode
(E) Scan “End” barcode

ENTER

End

9 - 11 Insert 1 Position

When adding data to the barcode data, insert position and insert data function must be configured.

If insert position is configured as 1, the character will be inserted behind the first barcode digit. The insert position value can be configured according to user preferences.

Note: if insert position is configured as 255, the inserted position will be behind the barcode.

Insert1 Position for UPC-A

Insert1 Position for EAN-13

Insert1 Position for Code-39

Insert1 Position for Code-128

Insert1 Position for Industrial 2 of 5

Insert1 Position for Code-93

Insert1 Position for UPC-E

Insert1 Position for EAN-8

Insert1 Position for Codebar/NW7

Insert1 Position for Interleaved 2 of 5

Insert1 Position for Matrix 2 of 5

Insert1 Position for Code-11

ENTER

End

Insert1 Position for MSI/Plessey

Insert1 Position for Telepen

Insert1 Position for RSS(GS1 DataBar) Limited

Insert1 Position for RSS(GS1 DataBar) Expansion

Insert1 Position for UK/Plessey

Insert1 Position for RSS(GS1 DataBar)14

Insert1 Position for RSS(GS1 DataBar)14 Stack

Insert1 Position for RSS(GS1 DataBar) Expansion Stack

Configuration Range	Default setting
0 ~ 255	0

Procedure:
(A) Scan “Enter” barcode
(B) Scan Insert1 Position barcode
(C) Scan parameters from Hexadecimal/ decimal table
(D) Scan “OK“ barcode
(E) Scan “End” barcode

ENTER 

End 

9 - 12 Insert 0 Data

This function can append one or two characters into the barcode data.
But please make sure the value of insert position can not be greater than the length of barcode Otherwise, setting will be no effect.

Insert0 Data for UPC-A

Insert0 Data for UPC-E

Insert0 Data for EAN-13

Insert0 Data for EAN-8

Insert0 Data for Code-39

Insert0 Data for Codebar/NW7

Insert0 Data for Code-128

Insert0 Data for Interleaved 2 of 5

Insert0 Data for Industrial 2 of 5

Insert0 Data for Matrix 2 of 5

Insert0 Data for Code-93

Insert0 Data for Code-11

Insert0 Data for MSI/Plessey

Insert0 Data for UK/Plessey

Insert0 Data for Telepen

Insert0 Data for RSS(GS1 DataBar) Limited

Insert0 Data for RSS(GS1 DataBar) Expansion

Insert0 Data for RSS(GS1 DataBar)14

Insert0 Data for RSS(GS1 DataBar)14 Stack

Insert0 Data for RSS(GS1 DataBar) Expansion Stack

Configuration	Max. Configurable Length	Default Setting
Please refer" ASCII Code Table"	2 digits	Null

Procedure:
(A) Scan "Enter" barcode
(B) Scan Insert0 data barcode
(C) Scan parameters from Hexadecimal/ decimal table
(D) Scan "OK" barcode
(E) Scan "End" barcode

ENTER

End

9 - 13 Insert 1 Data

This function can append one or two characters into the barcode data.
But please make sure the value of insert position can not be greater than the length of barcode Otherwise, setting will be no effect.

Insert1 Data for UPC-A

Insert1 Data for EAN-13

Insert1 Data for Code-39

Insert1 Data for Code-128

Insert1 Data for Industrial 2 of 5

Insert1 Data for Code-93

Insert1 Data for MSI/Plessey

Insert1 Data for UPC-E

Insert1 Data for EAN-8

Insert1 Data for Codebar/NW7

Insert1 Data for Interleaved 2 of 5

Insert1 Data for Matrix 2 of 5

Insert1 Data for Code-11

Insert1 Data for UK/Plessey

Insert1 Data for Telepen

Insert1 Data for RSS(GS1 DataBar)

Insert1 Data for RSS(GS1 DataBar)

Insert1 Data for RSS(GS1 DataBar)14

Insert1 Data for RSS(GS1

Insert1 Data for RSS(GS1 DataBar)

Configuration	Max. Configurable Length	Default Setting
Please refer" ASCII Code Table"	2 digits	Null

Procedure:
(A) Scan "Enter" barcode
(B) Scan Insert1 data barcode
(C) Scan parameters from Hexadecimal/ decimal table
(D) Scan "OK" barcode
(E) Scan "End" barcode

ENTER 

End 

Appendix: Hexadecimal / Decimal Table

Hexadecimal / Decimal TABLE

0

1

2

3

4

5

6

7

8

9

A

B

C

D

E

F

OK

ENTER 

End 

Appendix: ASCII Code Table

H / L	2	3	4	5	6	7
0	SP	0	@	P	`	p
1	!	1	A	Q	a	q
2	“	2	B	R	b	r
3	#	3	C	S	c	s
4	$	4	D	T	d	t
5	%	5	E	U	e	u
6	&	6	F	V	f	v
7	‘	7	G	W	g	w
8	(	8	H	X	h	x
9	)	9	I	Y	i	y
A	*	:	J	Z	j	z
B	+	;	K	[	k	{
C	,	<	L	\	l	|
D	-	=	M	]	m	}
E	.	>	N	^	n	~
F	/	?	O	_	o	DEL

H / L	0 (*)	1 (*)	0	1
0	Null		NUL	DLE
1	Up	F1	SOH	DC1
2	Down	F2	STX	DC2
3	Left	F3	ETX	DC3
4	Right	F4	EOT	DC4
5	PgUp	F5	ENQ	NAK
6	PgDn	F6	ACK	SYN
7		F7	BEL	ETB
8	Bs	F8	BS	CAN
9	Tab	F9	HT	EM
A		F10	LF	SUM
B	Home	Esc	VT	ESC
C	End	F11	FF	FS
D	Enter	F12	CR	GS
E	Insert	Ctrl+	SO	RS
F	Delete	Alt+	SI	US

(*) For keyboard wedge only.