

# 2D Scanner Setting Manual

## (For EC323A)

### Catalog

Catalog.....	1
I、Default Setting.....	4
1. Set Custom Defaults.....	4
2. Recall default.....	4
II、Interface setting.....	4
1. introduce.....	4
2. USB interface setting.....	4
3. RS232 Baud rate.....	6
III、Keyboard setting.....	8
1. Keyboard language setting.....	8
2. Keyboard combination configuration.....	12
3. Character Shift.....	13
IV、input/output configuration.....	14
1. Power Up Beeper.....	14
2. Power On BELCharacter.....	14
3. Trigger Click.....	14
4. Good read.....	15
5. LED.....	16
6. Power Save mode.....	16
7. Read delay.....	17
8. Trigger Modes.....	18
9. Continue Scanning Mode.....	19
10. Cell Phone Mode.....	19

# 2D Scanner Setting Manual

11. Presentation Time-Out.....	19
13. Reread Delay.....	20
15. Aimer light.....	21
17. Reverse Barcode mode.....	22
V、Data Editing.....	23
1. Prefix & Suffix.....	23
2. Prefix Setting.....	24
3. Suffix setting.....	25
4. Intercharacter and Intermessage Delays.....	26
VI、Symbologies Configuration.....	27
1. All Symbologies.....	27
2. Codabar.....	27
3. Code39.....	29
4. Interleaved 2 of 5.....	31
7. Straight 2 of 5 Industrial.....	34
8. Straight 2 of 5 IATA.....	35
9. Matrix 2 of 5.....	36
10. Code 11.....	37
11. Code 128.....	38
12. GS1-128.....	39
13. Telepen.....	40
14. UPC-A.....	41
15. UPC-E0.....	43
16. UPC-E1.....	45
17. EAN/JAN-13.....	46
18. EAN/JAN-8.....	48
19. MSI.....	50
20. GS1 DataBar Omnidirectional.....	53
21. GS1 DataBar Limited.....	53
22. GS1 DataBar Expanded.....	54
23. PDF417.....	55
24. MicroPDF417.....	56
25. GS1 Composite Codes.....	57

# 2D Scanner Setting Manual

26. TCIF Linked Code 39 (TLC39).....	58
27. QR Code.....	58
28. Data Matrix Code.....	59
29. MaxiCode.....	60
30. Aztec Code.....	61
31. Han Xin Code.....	62
32. Postal Codes.....	63
4.1Add Prefix.....	64
4.2Add Sufix.....	65
Appendix 1: Programming Digit Chart.....	67
Appendix 2: ASCII Chart.....	68
Appendix 3: Symbologies Chart.....	73

## I、 Default Setting

### 1. Set Custom Defaults



**Set Custom Defaults**

### 2. Recall default



**Recall Default**

Remark : USB interface as default setting

## II、 Interface setting

### 1. introduce

The **RS232 Interface** bar code is used when connecting to the serial port of a PC or terminal. The following **RS232 Interface** bar code also programs a carriage return (CR) and a line feed (LF) suffix, baud rate, and data format as indicated below. It also changes the trigger mode to manual.



**RS232 interface**

### 2. USB interface setting

After connecting the USB interface, USB device could be enumerated to virtual keyboard, HID POS, USB com, IBM SurePos interface. The default is USB com interface, if you need to set the scanner as other interfaces, please set as following steps:

#### (1) USB PC

Connecting the WINDOWS PC and Scan the “USB PC Keyboard” setting code, the scanner could be setting as the USB keyboard mode. This setting will add return and line break after the scanned information, if you don't want the suffix, please refer to the suffix setting chapter.



**USB PC Keyboard Setting**

#### (2) USB APPLE Keyboard

# 2D Scanner Setting Manual

---

If the scanner connect to the APPLE computer, please scan the USB APPLE keyboard setting barcode.



**USB APPLE Keyboard Setting**

## **(3) USB IBM Handheld**

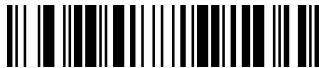
When connecting the IBM POS system, please scan the “USB IBM Handheld Setting” barcode, the engine will be recognized as handheld device.

Note: after the scanning, the POS machine need to be restart.



**USB IBM Handheld Setting**

## **(4) USB IBM**



**USB IBM**

## **(5) USB HID POS**

If the scanner need to be recognized as HID POS device, please scan the “USB HID POS” barcode.



**USB HID POS**

## **(6) USB COM**

When the application software requires the serial environment, the USB device could be recognized as USB COM device, and it needs to install the USB COM driver. Please refer the USB COM related files.



**USB COM**

## 3. RS232 Baud rate

When the engine connect the terminal through TTL/RS232, should setting the same baud rate in engine and terminal, including the transmission speed, check bit and control flow, etc. The transmission speed is the baud rate, the default value is 115200.



**300bps**



**600bps**



**1200bps**



**2400bps**



**4800bps**



**9600bps**



**19200bps**



**38400bps**



**57600bps**



**\*115200bps**

# 2D Scanner Setting Manual

---

## 4. RS232 data length

RS232 data length including the data bit, stop bit, check bit. The default is 8 data bit, 1 stop bit and no check bit.



7 data bit, 1 stop bit, no check bit



7 data bit, 2 stop bit, no check bit



\*8 data bit, 1 stop bit, no check bit



7 data bit, 1 stop bit, even check bit



7 data bit, 2 stop bit, even check bit



8 data bit, 1 stop bit, even check bit



7 data bit, 1 stop bit, odd check bit



7 data bit, 2 stop bit, odd check bit



8 data bit, 1 stop bit, odd check bit

## III、Keyboard setting

### 1. Keyboard language setting

When the engine be recognized as a keyboard input device, you need to set the different language in different country. The default language is US English.



**Keyboard Default**



**\*English (US)**



**Belgium**



**Finland**



**France**



**German**



**Italy**



**Switzerland - German**



**England**



**Danmark**



# 2D Scanner Setting Manual

---



**Norway**



**Spain**



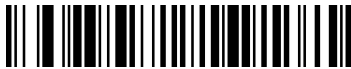
**Holland**



**Hebrew**



**Portugal**



**Latin America**



**Czech**



**Brazil**



**Greek**



**Hungary**



**Turkey**



**Poland**

# 2D Scanner Setting Manual

---



Canada(French)



Russia



Japan ASSIC



Albania



Canada (Multilingual)



Ireland



Uzbekistan (Cyrillic)



Ukraine



Kyrgyzstan (Cyrillic)



Kazakhstan



Belarus



Tartar

# 2D Scanner Setting Manual

---



**Mongolia (Cyrillic)**

# 2D Scanner Setting Manual

---

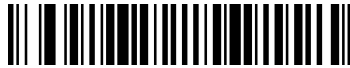
If want to allocate state type is not in the above the bar code, can be the following steps: 1: sweep "keyboard national language configuration" code; 2: sweep the appendix of numeric values in bar code (select the desired digital number decimal countries value); 3:" save "barcode scanning.



**Keyboard national language configuration**

## 2. Keyboard combination configuration

Keyboard common methods such as size and write CAPS LOCK key, the SHIFT key will affect the character information output, by setting the keyboard key combination function, you can change the output character. The normal mode for the caps lock off.



**\*Normal mode(CAPS LOCK off)**



**CAPS LOCK on**



**Shift Lock off**



### Auto check Caps Lock

In Germany, France and other countries the keyboard can be had for NumLock to achieve CAPS LOCK function



**Autocaps via NumLock**

## 3. Character Shift

Keyboard conversion, have the letter content in the output of the bar code, can be configured to output the results to all uppercase or lowercase. For example, if the code contents: ab123dE, if sweep "converted to uppercase" barcode, output the result: AB123DE; if the sweep "converted to lowercase" bar code, the output result is: abc123de; default keyboard case conversion.



**\*No Keyboard case conversion**



**All Capital**



**All Lower case**

Simulation of the input control character set, for example, to display the enter [CR], and not display ASCII characters 0D, refer to ASCII conversion table. 00-1F energy conversion, is turned off by default.



**\* Simulation of the input control character off**

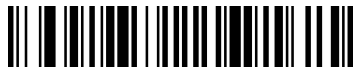


**Simulation of the input control character on**

## IV、input/output configuration

### 1. Power Up Beeper

The scanner can be programmed to beep when it's powered up. If you are using a cordless system, the base can also be programmed to beep when it is powered up. Scan the **Off** bar code(s) if you don't want a power up beep. Default = Power Up Beeper On - Scanner.



**\*Power Up Beeper On**



**Power Up Beeper Off**

### 2. Power On BELCharacter

You may wish to force the scanner to beep upon a command sent from the host. If you scan the **Beep on BEL On** bar code below, the scanner will beep every time a BEL character is received from the host. Default = Beep on BEL Off.



**Beep On BEL On**



**\*Beep On BEL Off**

### 3. Trigger Click

To hear an audible click every time the scanner trigger is pressed, scan the **Trigger Click On** bar code below. Scan the **Trigger Click Off** code if you don't wish to hear the click. (This feature has no effect on serial or automatic triggering.) Default = Trigger Click Off.



**Trigger Click On**



**\*Trigger Click Off**

## 4. Good read

### (1) Beeper – Good Read

The beeper may be programmed **On** or **Off** in response to a good read. Turning this option off only turns off the beeper response to a good read indication. All error and menu beeps are still audible. Default = Beeper - Good Read On.



**Beeper Good Read Off**



**Beeper Good Read On**

### (2) Beeper Volume



**Off**



**Low**



**Medium**



**\*High**

### (3) Beeper Pitch



**Low**



**\*Medium**



**High**

## (4) Beep duration



\* Beep 50ms



Beep 20ms

## 5. LED

The LED indicator can be programmed **On** or **Off** in response to a good read.  
Default = On.



\* LED Good read On



LED Good read Off

The number of good read beep and LED blink could be several times, and the default is once. If you want to set more than once beep or LED blink, please contact the distributor..

## 6. Power Save mode

Engine power saving mode timeout. The scan engine will power saving mode in idle after a certain period of time, if you do not let the engine for the power saving mode can be set to "time out period" for 0ms. The default time is 120000ms. user specified time. Specific operation is as follows: 1 sweep "time-out duration settings" bar code; 2 sweep accessories digital value bar code (decimal length); 3 sweep "save"

o



Time-out duration setting



## 7. Read delay

### (1) Read delay duration setting

This sets the time period before the scanner can read the same bar code a second time. Setting a reread delay protects against accidental rereads of the same bar code. Longer delays are effective in minimizing accidental rereads. Use shorter delays in applications where repetitive bar code scanning is required..



**\*No Delay**



**500ms Delay**



**1000ms Delay**



**1500ms Delay**

### (2) User Specified Reread Delay

If you want to set your own length for the reread delay, scan the bar code below, then set the delay (from 0-30,000 milliseconds)by scanning digits from the inside back cover, then scanning **Save**.



**User Specified Reread Delay**

## 8. Trigger Modes

### (1) Manual Trigger modes

When in manual trigger mode, the scanner scans until a bar code is read, or until the trigger is released. Two modes are available, **Normal** and **Enhanced**. Normal mode offers good scan speed and the longest working ranges (depth of field). Enhanced mode will give you the highest possible scan speed but slightly less range than Normal mode. Enhanced mode is best used when you require a very fast scan speed and don't require a long working range. Default = Manual Trigger-Normal.



\* **Manual Trigger Modes-Normal**



**Manual Trigger Modes-Enhanced**

### (2) Serial Trigger Mode

You can activate the scanner either by pressing the trigger, or using a serial trigger command. When in serial mode, the scanner scans until a bar code has been read or until the deactivate command is sent. The scanner can also be set to turn itself off after a specified time has elapsed (see [Read Time-Out](#), which follows).



**Read Time-Out**

### (3) Presentation Mode

Presentation Mode uses ambient light and scanner illumination to detect bar codes. When in Presentation Mode, the LEDs remain dim until a bar code is presented to the scanner, then the aimer turns on and the LEDs turn up to read the code. If the light level in the room is not high enough, Presentation Mode may not work properly. Scan the following bar code to program your scanner for Presentation Mode.



**Presentation Mode**

### ① LED Illumination – Presentation Mode

If you wish to set the illumination LED brightness, scan one of the bar codes below. This sets the LED illumination for the scanner when it is in Presentation Mode.

# 2D Scanner Setting Manual

---



**\*LED Illumination On**



**LED Illumination Off**

## ②Presentation Sensitivity

Presentation Sensitivity is a numeric range that increases or decreases the scanner's reaction time to bar code presentation. To set the sensitivity, scan the **Sensitivity** bar code, then scan the degree of sensitivity (from 0-20) from the inside back cover, and **Save**. 0 is the most sensitive setting, and 20 is the least sensitive. Default = 1.



**Presentation Sensitivity**

## 9. Continue Scanning Mode

When in Continue Scanning Mode, the scanner's aimer goes out after a short time, but the scan illumination remains on all the time to continuously search for bar codes.



**Continue Scanning Mode**

## 10. Cell Phone Mode

When this mode is selected, your scanner is optimized to read bar codes from mobile phone or other LED displays. However, the speed of scanning printed bar codes may be slightly lower when this mode is enabled. You can enable Cell Phone Reading for either a hand held device, or for a hands-free (presentation)

application. 

**Cell phone Mode- Hand Held**



**Cell Phone Mode – Hands free**

## 11. Presentation Time-Out

If the scanner's trigger is pulled when using a presentation mode, the scanner changes to manual trigger mode. You can set the time the scanner should remain in manual trigger mode by setting the Presentation Time-Out. Once the time-out value is reached,

# 2D Scanner Setting Manual

---

(if there have been no further trigger pulls) the scanner reverts to the original presentation mode. Scan the **Presentation Time-Out** bar code, then scan the time-out duration (from 0-300,000 milliseconds) from the inside back cover, and **Save**. Default = 5,000 ms.



**Presentation Time-Out**

## 12. Read Time-Out

When the scanner is in manual trigger mode, if the scanner could not decode the pictures, it will continue decode it until reach the decode time-out. The default decode time-out is 30,000ms. Scan the **Read Time-Out** bar code, then scan the time-out duration (from 0-300,000 milliseconds) from the inside back cover, and **Save**.



**Read Time-out**

## 13. Reread Delay

This sets the time period before the scanner can read the same bar code a second time. Setting a reread delay protects against accidental rereads of the same bar code. Longer delays are effective in minimizing accidental rereads. Use shorter delays in applications where repetitive bar code scanning is required. Reread Delay only works when in a [Presentation Mode](#). Default = 750ms.



**500ms**



**750ms**



**1000ms**



**2000ms**

If you want to set your own length for the reread delay, scan the bar code below, then set the delay (from 0-30,000 milliseconds) by scanning digits from the inside back cover,

# 2D Scanner Setting Manual

---

then scanning **Save**.



**Reread Delay**

## 14. Illumination Light

If you want the illumination lights on while reading a bar code, scan the **Illumination Lights On** bar code, below. However, if you want to turn just the lights off, scan the **Illumination Lights Off** bar code. Default = Illumination Lights On.



**\*Illumination Light On**



**Illumination Light Off**

## 15. Aimer light

If you want the aimer lights on while reading a bar code, scan the **Aimer Lights On** bar code, below. However, if you want to turn just the lights off, scan the **Aimer Lights Off** bar code. Default = Aimer Lights On.

The aimer delay allows a delay time for the operator to aim the scanner before the picture is taken. Use these codes to set the time between when the trigger is pulled and when the picture is taken. During the delay time, the aiming light will appear, but the LEDs won't turn on until the delay time is over. Default = Off.



**Aimer lights Off**



**\*Aimer light On**

### Aimer delay

The aimer delay allows a delay time for the operator to aim the scanner before the picture is taken. Use these codes to set the time between when the trigger is pulled and when the picture is taken. During the delay time, the aiming light will appear, but the LEDs won't turn on until the delay time is over. Default = Off



**200ms**



**\* Off**

## 16. Total Read Mode

If there are several different barcodes in the scan area, in Total ReadMode, the scanner will try to decode all the barcodes in scan area and out put it. The default is off.



**Total Read Mode-On**



**\*Total Read Mode-Off**

## 17. Reverse Barcode mode

The reverse barcode is the barcode which space is black and bar is white. In reverse only mode, the scanner could read the reverse barcode. In normal & reverse mode, the scanner could read both normal and reverse barcode, but the scan speed will be a little slow when the barcode print quality is bad.



**Reverse Barcode Only**



**Normal & Reverse barcode**



**\* Normal Barcode Only**

## V、 Data Editing

### 1. Prefix & Suffix

When a bar code is scanned, additional information is sent to the host computer along with the bar code data. This group of bar code data and additional, user-defined data is called a “message string.” The selections in this section are used to build the user-defined data into the message string.

#### (1) To add a Prefix or Suffix

**Step 1.** Scan the **Add Prefix** or **Add Suffix** symbol (page 5-2).

**Step 2.** Determine the 2 digit Hex value from the Symbology Chart (included in the Symbology Charts, beginning on page A-1) for the symbology to which you want to apply the prefix or suffix. For example, for Code 128, Code ID is “j” and Hex ID is “6A”.

**Step 3.** Scan the 2 hex digits from the Programming Chart inside the back cover of this manual or scan **9, 9** for all symbologies.

**Step 4.** Determine the hex value from the ASCII Conversion Chart (Code Page 1252), beginning on page A-3, for the prefix or suffix you wish to enter.

**Step 5.** Scan the 2 digit hex value from the Programming Chart inside the back cover of this manual.

**Step 6.** Repeat Steps 4 and 5 for every prefix or suffix character.

**Step 7.** To add the Code I.D., scan **5, C, 8, 0**. To add AIM I.D., scan **5, C, 8, 1**. To add a backslash (\), scan **5, C, 5, C**.

Note: To add a backslash (\) as in Step 7, you must scan 5C twice – once to create the leading backslash and then to create the backslash itself.

**Step 8.** Scan **Save** to exit and save, or scan **Discard** to exit without saving.

Repeat Steps 1-6 to add a prefix or suffix for another symbology.

#### (2) To Clear one or all prefix or suffix

You can clear a single prefix or suffix, or clear all prefixes/suffixes for a symbology. If you have been entering prefixes and suffixes for single symbologies, you can use **Clear One Prefix (Suffix)** to delete a specific character from a symbology. When you **Clear All Prefixes (Suffixes)**, all the prefixes or suffixes for a symbology are deleted.

**Step 1.** Scan the **Clear One Prefix** or **Clear One Suffix** symbol.

**Step 2.** Determine the 2 digit Hex value from the Symbology Chart (included in the [Symbology Charts](#), beginning on page A-1) for the symbology from which you want to

# 2D Scanner Setting Manual

---

clear the prefix or suffix.

**Step 3.** Scan the 2 digit hex value from the [Programming Chart](#) inside the back cover of this manual or scan **9, 9** for all symbologies.

Your change is automatically saved.

### (3) To Add a Carriage Return Suffix to All Symbologies

Scan the following bar code if you wish to add a carriage return suffix to all symbologies at once. This action first clears all current suffixes, then programs a carriage return suffix for all symbologies.



**Add CR Suffix  
All Symbologies**



**Add CR & LF Suffix  
All Symbologies**



**Add Tab Suffix  
All Symbologies**

## 2. Prefix Setting

The default is no Prefix.



**Add Prefix**



**Clear On Prefix**



**Clear All Prefix**



## 3. Suffix setting

Remark: Suffix default no suffix



**Add Suffix**



**Clear One Suffix**



**Clear All Suffix**

## 4. Intercharacter and Intermessage Delays

### (1) Intercharacter Delay

An intercharacter delay of up to 5000 milliseconds (in 5ms increments) may be placed between the transmission of each character of scanned data. Scan the **Intercharacter Delay** bar code below, then scan the number of 5ms delays, and the **Save** bar code using the [Programming Chart](#) inside the back cover of this manual.



**Intercharacter Delay**

To remove this delay, scan the **Intercharacter Delay** bar code, then set the number of delays to 0. Scan the **Save** bar code using the [Programming Chart](#) inside the back cover of this manual.

Note: Intercharacter delays are not supported in USB serial emulation.

### (2) Intermessage Delay

An intermessage delay of up to 5000 milliseconds (in 5ms increments) may be placed between each scan transmission. Scan the **Intermessage Delay** bar code below, then scan the number of 5ms delays, and the **Save** bar code using the [Programming Chart](#) inside the back cover of this manual.



**Intermessage Delay**

To remove this delay, scan the **Intermessage Delay** bar code, then set the number of delays to 0. Scan the **Save** bar code using the [Programming Chart](#) inside the back cover of this manual.

## VI、Symbologies Configuration

### 1. All Symbologies



All Symbologies On (except Post Code)



All Symbologies Off

### 2. Codabar



Recall Default

#### Codabar On/Off



\*On



Off

#### Codabar Start/Stop Characters

Start/Stop characters identify the leading and trailing ends of the bar code. You may either transmit, or not transmit Start/Stop characters. Default = Don't Transmit.



Transmit



Don't Transmit

#### Codabar Message Length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 2-60. Minimum Default = 4, Maximum Default = 60.

# 2D Scanner Setting Manual

---



**Maximum Message length**



**Minimum Message length**

## 3. Code39



Recall Default

### Code39 On/Off



\* On



Off

### Code39 Start/Stop Characters

Start/Stop characters identify the leading and trailing ends of the bar code. You may either transmit, or not transmit Start/Stop characters. Default = Don't Transmit.



Transmit



\* Don't Transmit

### Code39 Check Character

**No Check Character** indicates that the scanner reads and transmits bar code data with or without a check character. When Check Character is set to **Validate, but Don't Transmit**, the unit only reads Code 39 bar codes printed with a check character, but will not transmit the check character with the scanned data. When Check Character is set to **Validate and Transmit**, the scanner only reads Code 39 bar codes printed with a check character, and will transmit this character at the end of the scanned data. Default = No Check Character.



\*No Check Character



# 2D Scanner Setting Manual

Validate, but Don't Transmit



**Validate and Transmit**

## Code39 Message Length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 0-48. Minimum Default = 0, Maximum Default = 48.



**Maximum Message length**



**Minimum Message length**

## Full ASCII On/Off



**Full ASCII On**



**\* Full ASCII Off**

This function allows the scanner to append the data from several Code 39 bar codes together before transmitting them to the host computer. When the scanner encounters a Code 39 bar code with the append trigger character(s), it buffers Code 39 bar codes until it reads a Code 39 bar code that does not have the append trigger. The data is then transmitted in the order in which the bar codes were read (FIFO). Default = Off.



**Code 39 Append On**



**\*Code 39 Append Off**

## 4. Interleaved 2 of 5

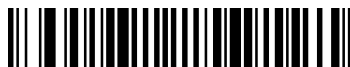


**Recall Default**

### Interleaved 2 of 5 On/Off



**\*On**



**Off**

### Interleaved 2 of 5 Check Character



**\* No Check Character**



**Validate, but Don't Transmit**



**Validate and Transmit**

### Interleaved 2 of 5 Message Length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 2-80. Minimum Default =2, Maximum Default = 80.



**Maximum Message length**



**Minimum Message length**

# 2D Scanner Setting Manual

---

## 5. NEC 2 of 5



**Default NEC 2 of 5 setting**

### NEC 2 of 5 On/Off



**\* On**



**Off**

### NEC 2 of 5 Check Character



**\* No Check Character**



**Validate, but Don't Transmit**



**Validate and Transmit**

### NEC 2 of 5 Message Length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 2-80. Minimum Default = 2, Maximum Default = 80.



**Maximum Message length**



**Minimum Message length**



# 2D Scanner Setting Manual

---

## 6. Code93



**Default Code93 setting**

### Code93 On/Off



**\*On**



**Off**

### Code93 Message Length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 0-80. Minimum Default = 0, Maximum Default = 80.



**Maximum Message length**



**Minimum Message length**

## 7. Straight 2 of 5 Industrial

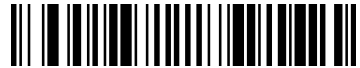


Default Straight 2 of 5 setting

### Straight 2 of 5 Industrial On/Off



On



\*Off

### Straight 2 of 5 Industrial Message length 信息长度

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 4-48. Minimum Default = 4, Maximum Default = 48.



Maximum Message length



Minimum Message length

## 8. Straight 2 of 5 IATA



Default Straight 2 of 5 IATA setting

### Straight 2 of 5 IATA On/Off



On



\*Off

### Straight 2 of 5 IATA Message length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 4-80. Minimum Default = 4, Maximum Default =



Maximum Message length



Minimum Message length

## 9. Matrix 2 of 5



Default Matrix 2 of 5 setting

### Matrix 2 of 5 On/Off



On



\*Off

### Matrix 2 of 5 Message length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 4-80. Minimum Default = 4, Maximum Default =



Maximum Message length



Minimum Message length

## 10. Code 11



**Default Code 11 setting**

### Code 11 On/Off



**On**



**\*Off**

### Code 11 Check Digit



**One Check Digit**



**Two Check Digits**

### Code 11 Message length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 1-80. Minimum Default = 1, Maximum Default = 80.



**Maximum Message length**



**Minimum Message length**

# 2D Scanner Setting Manual

---

## 11. Code 128



Default Code 128 setting

### Code 128 On/Off



\*On



Off

### ISBT Code On/Off



ISBT Code On



\*ISBT Code Off

### Code 128 Message length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 1-48. Minimum Default = 1, Maximum Default = 48.



Maximum Message Length



Minimum Message Length

## 12. GS1-128



**Default GS1-128 setting**

### GS1-128 On/Off



**\*On**



**Off**

### GS1-128 Message Length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 1-80. Minimum Default = 1, Maximum Default = 80.



**Maximum Message Length**



**Minimum Message Length**

## 13. Telepen



**Default Telepen setting**

### Telepen On/Off



**On**



**\*Off**

### Telepen Message Length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 1-60. Minimum Default = 1, Maximum Default = 60.



**Maximum Message Length**



**Minimum Message Length**



## 14. UPC-A



Default UPC-A setting

### UPC-A On/Off



\*On



Off

### UPC-A Check Digit

This selection allows you to specify whether the check digit should be transmitted at the end of the scanned data or not. Default = On.



\* On



Off

### UPC-A Number System

The numeric system digit of a U.P.C. symbol is normally transmitted at the beginning of the scanned data, but the unit can be programmed so it will not transmit it. Default = On.



\*On



Off

### UPC-A Addenda

This selection adds 2 or 5 digits to the end of all scanned UPC-A data. Default = Off for both 2 Digit and 5 Digit Addenda.



2 Digit Addenda On

# 2D Scanner Setting Manual

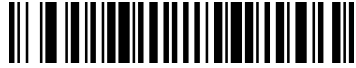
---



**\* 2 Digit Addenda Off**



**5 Digit Addenda On**



**\*5 Digit Addenda Off**

## **UPC-A Addenda Required**

When **Required** is scanned, the scanner will only read UPC-A bar codes that have addenda. You must then turn on a 2 or 5 digit addenda listed. Default = Not Required.



**Required**



**\*Not Required**

## **UPC-A Addenda Separator**

When this feature is on, there is a space between the data from the bar code and the data from the addenda. When turned off, there is no space. Default = On.



**\*On**



**Off**

## 15. UPC-E0



Default UPC-E0 setting

### UPC-E0 On/Off



\*On



Off

### UPC-E0 Expand On/Off



On



\* Off



UPC-E0 Addenda Required



UPC-E0 Addenda Not Required



\* UPC-E0 Addenda Separator On



UPC-E0 Addenda Separator Off

# 2D Scanner Setting Manual

---

## UPC-E0 Check Digit

Check Digit specifies whether the check digit should be transmitted at the end of the scanned data or not. Default = On.



**\* On**



**Off**



**\*UPC-E0 Leading Zero On**



**UPC-E0 Leading Zero Off**



**2 Digit Addenda On**



**\*2 Digit Addenda Off**



**5 Digit Addenda On**



**\*5 Digit Addenda Off**

## 16. UPC-E1

UPC-E1 On/Off



On



\*Off

## 17. EAN/JAN-13



Default EAN/JAN-13 setting

### EAN/JAN-13 On/Off



\*On



Off

### EAN/JAN-13 Check Digit

This selection allows you to specify whether the check digit should be transmitted at the end of the scanned data or not. Default = On.



\*On



Off

### EAN/JAN-13 Addenda

This selection adds 2 or 5 digits to the end of all scanned EAN/JAN-13 data. Default = Off for both 2 Digit and 5 Digit Addenda.



2 Digit Addenda On



\* 2 Digit Addenda Off



5 Digit Addenda On



\*5 Digit Addenda Off

# 2D Scanner Setting Manual

---

## EAN/JAN-13 Addenda Required

When **Required** is scanned, the scanner will only read EAN/JAN-13 bar codes that have addenda. Default = Not Required.



**Required**



**\*Not Required**

## EAN/JAN-13 Addenda Separator

When this feature is **On**, there is a space between the data from the bar code and the data from the addenda. When turned **Off**, there is no space. Default = On.



**\*On**



**Off**

## ISBN Translate

When **On** is scanned, EAN-13 Bookland symbols are translated into their equivalent ISBN number format. Default = Off.



**On**



**\*Off**

## 18. EAN/JAN-8



Default EAN/JAN-8 setting

### EAN/JAN-8 On/Off



\*On



Off

### EAN/JAN-8 Check digit

This selection allows you to specify whether the check digit should be transmitted at the end of the scanned data or not. Default = On.



\*On



Off

### EAN/JAN-8 Addenda

This selection adds 2 or 5 digits to the end of all scanned EAN/JAN-8 data. Default = Off for both 2 Digit and 5 Digit Addenda.



2 Digit Addenda On



\* 2 Digit Addenda Off



5 Digit Addenda On



\*5 Digit Addenda Off



# 2D Scanner Setting Manual

---

## EAN/JAN-8 Addenda Required

When **Required** is scanned, the scanner will only read EAN/JAN-8 bar codes that have addenda. Default = Not Required.



**Required**



**\*Not Required**

## EAN/JAN-8 Addenda Separator

When this feature is **On**, there is a space between the data from the bar code and the data from the addenda. When turned **Off**, there is no space. Default = On.



**\* On**



**Off**

## 19. MSI



Default MSI setting

### MSI On/Off



On



\*Off

### MSI Check Character

Different types of check characters are used with MSI bar codes. You can program the scanner to read MSI bar codes with Type 10 check characters. Default = Validate Type 10, but Don't Transmit.

When Check Character is set to **Validate Type 10/11 and Transmit**, the scanner will only read MSI bar codes printed with the specified type check character(s), and will transmit the character(s) at the end of the scanned data.

When Check Character is set to **Validate Type 10/11, but Don't Transmit**, the unit will only read MSI bar codes printed with the specified type check character(s), but will not transmit the check character(s) with the scanned data.



\* Validate Type 10, but Don't Transmit



Validate Type 10 and Transmit



Validate 2 Type 10 Characters, but Don't Transmit



Validate 2 Type 10 Characters and Transmit

## 2D Scanner Setting Manual

---



**Validate Type 10 then Type 11  
Character, but Don't Transmit**



**Validate Type 10 then Type 11  
Character and Transmit**



**Disable MSI Check Characters**

# 2D Scanner Setting Manual

---

## MSI Message Length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 4-48. Minimum Default = 4, Maximum Default = 48.



**Maximum Message Length**



**Minimum Message Length**

## 20. GS1 DataBar Omnidirectional



Default GS1 DataBar Omnidirectional setting

### GS1 DataBar Omnidirectional On/Off



\*On



Off

## 21. GS1 DataBar Limited



默认配置(919000.)

### GS1 DataBar Limited On/Off



\*使能(9190011.)



Off(9190010.)

## 22. GS1 DataBar Expanded



Default GS1 DataBar Expanded setting

### GS1 DataBar Expanded On/Off



\*On



Off

### GS1 DataBar Expanded Message Length

Scan the bar codes below to change the message length. Refer to [Message Length Description](#) (page 7-1) for additional information. Minimum and Maximum lengths = 4-74. Minimum Default = 4, Maximum Default = 74.



Maximum Message Length



Minimum Message Length

## 23. PDF417



**Default PDF417 setting**

### PDF417 On/Off



**\*On**



**Off**

### PDF417 Message Length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 1-2750. Minimum Default = 1, Maximum Default = 2750.



**Maximum Message Length**



**Minimum Message Length**

## 24. MicroPDF417



**Default Micro PDF417 setting**

### MicroPDF417 On/Off



**On**



**\*Off**

### MicroPDF417 Message Length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 1-366. Minimum Default = 1, Maximum Default = 366.



**Maximum Message Length**



**Minimum Message Length**



## 25. GS1 Composite Codes

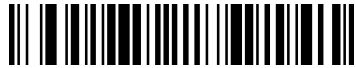


Default GS1 Composite setting

### GS1 Composite Codes On/Off



On



\*Off

### UPC/EAN Version

Scan the **UPC/EAN Version On** bar code to decode GS1 Composite symbols that have a U.P.C. or an EAN linear component. (This does not affect GS1 Composite symbols with a GS1-128 or GS1 linear component.) Default = UPC/EAN Version Off.



On



\* Off

### GS1 Composite Codes Message Length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 1-2435. Minimum Default = 1, Maximum Default = 2435.



Maximum Message Length



Minimum Message Length

# 2D Scanner Setting Manual

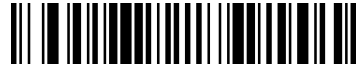
---

## 26. TCIF Linked Code 39 (TLC39)

TCIF Linked Code 39 On/Off



On)



Off

## 27. QR Code



Default QR setting

QR Code On/Off



\*On



Off

QR Code Message Length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 1-7089. Minimum Default = 1, Maximum Default = 7089.



Maximum Message Length



Minimum Message Length

## 28. Data Matrix Code



**Default Data Matrix setting**

### Data Matrix CodeOn.Off



**\*On**



**Of**

### Data Matrix Code Message Length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 1-3116. Minimum Default = 1, Maximum Default = 3116.



**Maximum Message Length**



**Minimum Message Length**

## 29. MaxiCode



**Default MaxiCode setting**

### MaxiCode On/Off



**On**



**\*Off**

### MaxiCode Message Length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 1-150. Minimum Default = 1, Maximum Default = 150.



**Maximum Message Length**



**Minimum Message Length**

## 30. Aztec Code



Default Aztec Code setting

### Aztec Code On/Off



\*On



Off

### Aztec Code Message Length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 1-3832. Minimum Default = 1, Maximum Default = 3832.



Maximum Message Length)



Minimum Message Length

## 31. Han Xin Code



Default Han Xin Code setting

### Han Xin Code On/Off



On



\*Off

### Han Xin Code Message Length

- Scan the bar codes below to change the message length. Minimum and Maximum lengths = 1-7833. Minimum Default = 1, Maximum Default = 7833.



Maximum Message Length



Minimum Message Length

# 2D Scanner Setting Manual

---

## 32. Postal Codes

The following lists the possible 2D postal codes, and 2D postal code combinations that are allowed. Only one 2D postal code election can be active at a time. If you scan a second 2D postal code selection, the first selection is overwritten. Default = 2D Postal Codes Off.



**\* 2D Postal Codes Off**

### (1) China Post (Hong Kong 2 of 5)



**Default China Post setting**

#### China Post (Hong Kong 2 of 5) On/Off



**On**



**\*Off**

#### China Post (Hong Kong 2 of 5) Message Length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 2-80. Minimum Default = 4, Maximum Default = 80.



**Maximum Message Length**



**Minimum Message Length**

### (2) Korea Post



**Default Korea Post setting**

# 2D Scanner Setting Manual

---

## Korea Post On/Off



On



\*Off

## Korea Post Message Length

Scan the bar codes below to change the message length. Minimum and Maximum lengths = 2-80. Minimum Default = 4, Maximum Default = 48.



Maximum Message Length



Maximum Message Length

## Korea Post Check Digit

This selection allows you to specify whether the check digit should be transmitted at the end of the scanned data. Default = Don't Transmit.



Transmit Check Digit



\*Don't Transmit Check Digit

## 4.1 Add Prefix

Generate Configuration Barcode

1. Tool: A barcode generation tool is needed, such as bartender or other tools which can be found on the internet.
2. Type: Configuration barcode is a Code128 barcode.
3. Command:

**^388900299 + ASCII Code(s).**

^388900299            the fix part of the command



## 2D Scanner Setting Manual

---

ASCII Code(s). ASCII codes(s) of prefix(s) that will be added, please note that punctuation mark . is required.

For example, if prefix A is going to be added, following is the command  
^38890029941.



8890029941.

If prefixes ABC are going to be added, command will be following:

^388900299414243



88900299414243.

Scan the barcode generated in the step 3, then scan 800002. The command will work.  
Enjoy!



800002.

### 4.2 Add Suffix

Generate Configuration Barcode

1. Tool: A barcode generation tool is needed, such as bartender or other tools which can be found on the internet.
2. Type: Configuration barcode is a Code128 barcode.
3. Command:

**^388800299 + ASCII Code(s).**

^388800299 the fix part of the command

ASCII Code(s). ASCII codes(s) of prefix(s) that will be added, please note that punctuation mark . is required.

## 2D Scanner Setting Manual

---

For example, if prefix A is going to be added, following is the command  
^38880029941.



8880029941.

If prefixes ABC are going to be added, command will be following:

^388800299414243



88800299414243.

Scan the barcode generated in the step 3, then scan 800002. The command will work.  
Enjoy!



800002.

# Appendix 1: Programming Digit Chart

---

## Appendix 1: Programming Digit Chart



0



1



2



3



4



5



6



7



8



9



A



B



C



D



E



F



Save



Cancel

## Appendix 2: ASCII Chart

### Appendix 2: ASCII Chart

Decimal	Dexadecimal	Character
0	0	NULL
1	1	START OF HEADING (SOH)
2	2	START OF TEXT (STX)
3	3	END OF TEXT (ETX)
4	4	END OF TRANSMISSION (EOT)
5	5	END OF QUERY (ENQ)
6	6	ACKNOWLEDGE (ACK)
7	7	BEEP (BEL)
8	8	BACKSPACE (BS)
9	9	HORIZONTAL TAB (HT)
10	A	LINE FEED (LF)
11	B	VERTICAL TAB (VT)
12	C	FF (FORM FEED)
13	D	CR (CARRIAGE RETURN)
14	E	SO (SHIFT OUT)
15	F	SI (SHIFT IN)
16	10	DATA LINK ESCAPE (DLE)
17	11	DEVICE CONTROL 1 (DC1)
18	12	DEVICE CONTROL 2 (DC2)
19	13	DEVICE CONTROL 3 (DC3)
20	14	DEVICE CONTROL 4 (DC4)
21	15	NEGATIVE ACKNOWLEDGE-MENT (NAK)
22	16	SYNCHRONIZE (SYN)
23	17	END OF TRANSMISSION BLOCK (ETB)
25	19	END OF MEDIUM (EM)
26	1A	SUBSTITUTE (SUB)
27	1B	ESCAPE (ESC)
28	1C	FILE SEPARATOR (FS) RIGHT ARROW
29	1D	GROUP SEPARATOR (GS) LEFT ARROW
Decimal	Dexadecimal	Character

## Appendix 2: ASCII Chart

30	1E	RECORD SEPARATOR (RS) UP ARROW
31	1F	UNIT SEPARATOR (US) DOWN ARROW
32	20	<SPACE>
33	21	!
34	22	"
35	23	#
36	24	\$
37	25	%
38	26	&
39	27	'
40	28	(
41	29	)
42	2A	*
43	2B	+
44	2C	,
45	2D	-
46	2E	.
47	2F	/
48	30	0
49	31	1
50	32	2
52	34	4
53	35	5
54	36	6
55	37	7
56	38	8
57	39	9
58	3A	:
59	3B	;
60	3C	<
61	3D	=
<b>Decimal</b>	<b>Dexadecimal</b>	<b>Character</b>

## Appendix 2: ASCII Chart

62	3E	>
63	3F	?
64	40	@
65	41	A
66	42	B
67	43	C
68	44	D
69	45	E
70	46	F
71	47	G
72	48	H
73	49	I
74	4A	J
75	4B	K
76	4C	L
77	4D	M
79	4F	O
80	50	P
81	51	Q
82	52	R
83	53	S
84	54	T
85	55	U
86	56	V
87	57	W
88	58	X
89	59	Y
90	5A	Z
91	5B	[
92	5C	\
93	5D	]
Decimal	Dexadecimal	Character

## Appendix 2: ASCII Chart

94	5E	^
95	5F	_
96	60	`
97	61	a
98	62	b
99	63	c
100	64	d
101	65	e
102	66	f
103	67	g
104	68	h
106	6A	j
107	6B	k
108	6C	l
109	6D	m
110	6E	n
111	6F	o
112	70	p
113	71	q
114	72	r
115	73	s
116	74	t
117	75	u
118	76	v
119	77	w
120	78	x
121	79	y
122	7A	z
123	7B	{
124	7C	
125	7D	}
Decimal	Dexadecimal	Character

## Appendix 2: ASCII Chart

---

126	7E	~
127	7F	<DEL>
128		



# Appendix 3: Symbolologies Chart

## Appendix 3: Symbolologies Chart

Symbolologies	AIM ID	AIM ID Setting	CODE ID	CODE IDHex
All Symbolologies				99
Code128	]Cm	0,1,2,4	j	6A
GS1-128	]C1			49
EAN-13	]E0		d	64
EAN-13 with Add-On	]E3		d	64
EAN-13 with Extended Coupon Code	]E3		d	64
EAN-8	]E4		D	44
EAN-8 with Add-On	]E3		D	44
Matrix 2 of 5	]X0		m	6D
Code49	]Tm	0,1,2,4	l	6C
Code 32	]X0			<3C
Code 39	]Am	0,1,3,4,5,7	b	62
British Post	]X0		B	42
Canadian Post	]X0		C	43
China Post	]X0		Q	51
Han Xin	]X0		H	48
Codebar	]Fm	0-1	a	61
Codablock A	]O6	0,1,4,5,6	V	56
Codablock F	]Om	0,1,4,5,6	q	71
Code 11	]H3		h	68
Data Matrix	]dm	0-6	w	77
Australian Post	]X0		A	41
Aztec Code	]zm	0-9,A-C	z	7A
GS1 Composite	]em	0-3	y	79
GS1 DataBar	]em	0	y	79

## Appendix 3: Symbolologies Chart

Symbolog ies	AIM ID	AIM ID Setting	CODE ID	CODE IDHex
InfoMail	]X0		,	2c
Intelligent Mail Barcode	]X0		M	4D
Interleaved 2 of 5	]Im	0,1,3	e	65
Japanese Post	]X0			4A
KIX (Netherlands) Post	]X0		K	4B
Korea Post	]X0		?	3F
MaxiCode	]Um	0-3	x	7 8
MicroPDF417	]Lm	3-5	R	52
MSI	]Mm	0	g	67
NEC 2 of 5	]X0		Y	59
OCR MICR (E 13 B)	]o3		O	4F
OCR SEMI Font	]o3		O	4F
OCR-A	]o1		O	4F
OCR-B	]o2		O	4F
PDF417	]Lm	0-2	r	72
Planet Code	]X0		L	4C
Postal-4i	]X0		N	4E
Postnet	]X0		P	50
Straight 2 of 5 IATA	]Rm	0,1,3	f	66
Straight 2 of 5 Industrial	]S0		f	66
TCIF Linked Code 39 (TLC39)	]L2		T	54
Telepen	]Bm		t	54
UPC-A	]E0		c	63
UPC-A with Add-On	]E3		c	63

## Appendix 3: Symbologies Chart

Symbologies	AIM ID	AIM ID Setting	CODE ID	CODE IDHex
UPC-A with Extended Coupon Code	JE3		c	63
UPC-E	JE0		E	45
UPC-E with Add-On	JE3		E	45
UPC-E1	JX0		E	45