

# Barcode Scanner

## **User's Manual**

## **Notice**

- 1. Please carefully read the User Manual before using the barcode scanner.**
- 2. All software, including firmware, furnished to the user is on a licensed basis.**
- 3. The right is reserved to make changes to any software or product to improve reliability, function, or design.**
- 4. The material in this manual is subject to change without notice.**

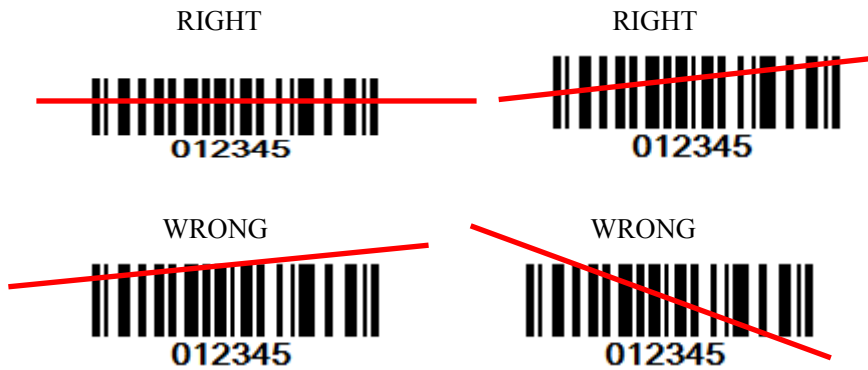
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## Scanning

When the scanner is scanning, ensure the scan line crosses every bar and space of the bar code.



the Scan Line on the bar code

## Set Defaults And Information Display

### Set Factory Defaults

If you wish to return the base unit to the entire factory default settings (radio communication setting is not included), scan the barcode "Set Defaults".

**Set Defaults**



## Communication Information and Battery Power Display

### Wireless scanner Battery Power Display



### Communication Channel and ID Number or Scanner Display



## Programming instruction

The scanner is programmed by scanning the setting barcode in the Manual. There are two kinds of Programming instructions. One of them programmed with Parameter and the other one of them without Parameter.

### Programming without Parameter

When programming without parameter, only one setting barcode is need to be scanned. For example, shut down the beeper of the scanner just scan the bar code directly.

When it is programmed successful, the scanner issue a “beep beep” sound, but issue a “beep beep beep” sounds when programmed fails.

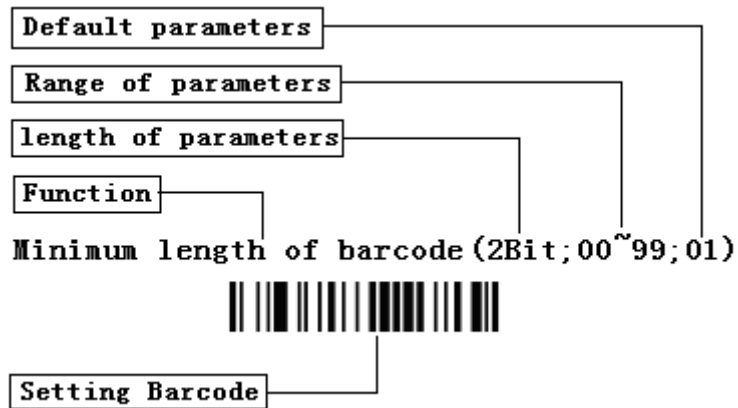
Mute



**NOTE: the factory default settings are indicated with asterisks (\*).**

## Programming with Parameter

It is need to scan more than one setting barcode to program the scanner with parameter.



Program Parameters

### The steps of programming are:

1. Scan the Function Setting Barcode. The Scanner will issue a "beep" sound, and the Red LED is on until the program is finished.
2. Scan the parameters bar code. The parameters may be one or more than one digits.

3. Scan the setting barcode “Finish Setting”. If it is programmed successful , the scanner will issue a “beep beep” sound, but issue a “beep beep beep” sound when fails.

**e.g.: Set min. code length of Code 128 to 5 chars :**

- ①: Open the manual and turn chapter "code128 ". Scan the setting bar code “Scan Min. Code Length”.

Scan Min. Code Length (2 Digits; 00~99, 1\*)



- ②: Turn to the last page of this Manual Appendix 10 Parameter bar code, scan the parameter bar code “0” and “5”:

0



5



- ③: Scan “Finish Setting”, finish the setting.

Finish Setting





## **Interface selection**

This scanner supports interfaces such as keyboard wedge, RS-232 serial wedge, and USB interface.

Typically, host is able to identify the host port type automatically. In extreme cases, host port may need setting manually if the host fails to identify it.

### **Automatic Identification\***



### **USB**



### **PS/2 Key Board**



### **RS232**



## Scanning Mode Setting

**Good-read off scanning Mode:** The trigger button must be pressed once to activate scanning. The light source of scanner stops scanning when there is a successful reading or no code is decoded after the Stand-by duration elapsed.

**Select Good-read off scanning Mode \***



**Auto-detection scanning Mode:** The scanner will start scan Automatically if any object enter the scan area. The laser light of scanner stops scanning when there is a successful reading or no code is decoded after the Stand-by duration elapsed. Once the laser light stops scanning, the present object must be remove away from the scan area to enable Auto-detect sensor.

**Select Auto-detection scan**



**Press Scanning Mode:** It can continue scan barcode when the button is continuing pressed.

**Press Scanning Mode**



**Click Scanning Mode:** When the button is click, the scanner will keep scanning the barcode until the barcode is reader or the Stand-by duration elapsed.

**Click Scanning Mode**



**Continuous Scanning mode:** the scan engine is always scanning and decoding. The module will read the barcode which gets into the scanning area automatically. Only when the barcode that has been read gets out of the scanning area, the module can read the next barcode.

**Select Continuous Scanning mode**



**Auto Continue mode:** The scanner will start continuous scan Automatically if any object enter the scan area. When there is no bar code is read for half a minute, the scanner shutdown the laser line and exit continuous scanning mode.

**Auto Continue mode**



## Keyboard wedge

### Keyboard type

IBM AT, PS/2 \*



Other (Reserved)



### Keyboard layout

USA \*



Italian



French



Turkish F



Turkish Q



## Clock period

According to the PS2 protocol, the clock is provided by the device, e.g. keyboard or scanner, with the period between 60us to 200us.

60 uS



80 uS\*



100 uS



200 uS



## Delay-after-compound-key

In some rare occasions, machine with low speed PS2 communication port would require a free time gap following the press/release of the compound key (Shift, Ctrl or Alt). 0 mS\*



10 mS



20 mS



40 mS



80 mS



## Numeric key:

Alphabetic key \*

Numeric keypad

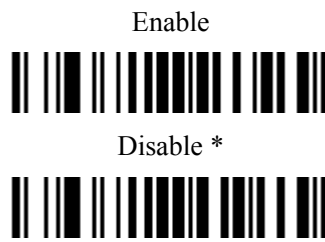


Alt+ keypad



## Power-on simulation

All of the PCs check the keyboard status during power-on self test. It simulates keyboard timing and passes keyboard present status to the PC during power-on.



## Inter-character delay

This delay is inserted after each data character transmitted.



40 mS



80 mS



**Inter-byte delay:**

This delay is inserted after each byte transmitted. Normally a character is comprised of three or above bytes.

1 mS\*



2 mS



4 mS



8 mS





## Caps Lock reversion

By setting enable, the status of Caps Lock key (i.e. being pressed ON or OFF) on the keyboard is simulated in a reversion status.

Enable Caps Lock \*



Disable Caps Lock



## Caps Lock override

If this function is enabled, on AT or AT notebook hosts, the keyboard ignores the state of the Caps Lock key. Therefore, an 'A' in the bar code is sent as an 'A' no matter what the state of the keyboard's Caps Lock key

Enable



Disable\*



## USB interface

### USB device type

HID Keyboard\*



Virtual RS232 Port (reserved)



IBM Table Top USB



IBM Hand-Held USB



USB OPOS Hand-Held



## USB Keyboard layout

USA\*



German



French



Other



## USB Keystroke Delay

No Delay\*



20mS



40mS



## USB CAPS Lock Override

Enable\*



Disable



## USB Ignore Unknown Characters

Enable



Disable\*



## Emulate Keypad

Enable this to send all characters as ASCII sequences over the numeric keypad. For example, ASCII A transmits as “ALT make” 0 6 5 “ALT Break

Enable



Disable\*



## Simulated Caps Lock

Enable this to invert the upper and lower case characters on the scanned bar code as if the Caps Lock state is enabled on the keyboard. This inversion occurs regardless of the keyboard's Caps Lock state

Enable



Disable\*



## USB Keyboard FN 1 Substitution

This option applies only to the USB HID Keyboard Emulation device. When enabled, this allows replacing any FN 1 characters in an EAN 128 bar code with a Key Category and value chosen by the user.

Enable



Disable\*



# RS-232 Interface

## Baud Rate

2400



4800



9600\*



19200



38400



57600



## Handshaking

**None:** Scan the bar code below if no Hardware Handshaking is desired

None (Default)



**Standard RTS/CTS:** Scan the bar code below to select Standard RTS/CTS Hardware Handshaking.

Standard RTS/CTS



**RTS/CTS Option 1:** When RTS/CTS Option 1 is selected, the scanner asserts RTS before transmitting and ignores the state of CTS. The scanner de-asserts RTS when the transmission is complete.

RTS/CTS Option 1



**RTS/CTS Option 2:** When Option 2 is selected, RTS is always high or low (user-programmed logic level). However, the scanner waits for CTS to be asserted before transmitting data. If CTS is not asserted within Host Serial Response Time-out, the scanner issues an error indication and discards the data

RTS/CTS Option 2





**RTS/CTS Option 3:** When Option 3 is selected, the scanner asserts RTS prior to any data transmission, regardless of the state of CTS. The scanner waits up to Host Serial Response Time-out for CTS to be asserted. If CTS is not asserted during this time, the scanner issues an error indication and discards the data. The scanner de-asserts RTS when transmission is complete.

RTS/CTS Option 3



**ACK/NAK:** When this option is selected, after transmitting data, the scanner expects either an ACK or NAK response from the host. When a NAK is received, the scanner transmits the same data again and waits for either an ACK or NAK. After three unsuccessful attempts to send data when NAKs are received, the scanner issues an error indication and discards the data.

ACK/NCK



**ENQ:** When this option is selected, the scanner waits for an ENQ character from the host before transmitting data. If an ENQ is not received within the Host Serial Response Time-out, the scanner issues an error indication and discards the data. The host must transmit an ENQ character at least every Host Serial Response Time-out to prevent transmission errors.

ENQ



**ACK/NAK with ENQ:** This combines the two previous options. For re-transmissions of data, due to a NAK from the host, an additional ENQ is not required.

**ACK/NCK with ENQ**



**XON/XOFF:** An XOFF character turns the scanner transmission off until the scanner receives an XON character. There are two situations for XON/XOFF:

- XOFF is received before the scanner has data to send. When the scanner has data to send, it waits up to Host Serial Response Time-out for an XON character before transmission. If the XON is not received within this time, the scanner issues an error indication and discards the data.
- XOFF is received during a transmission. Data transmission then stops after sending the current byte. When the scanner receives an XON character, it sends the rest of the data message. The scanner waits up to 30 seconds for the XON

**XON/XOFF**



**RTS Line State**

Host: Low RTS (Default)



Host: High RTS &RH



## Host Serial Response Time-out

2 sec (Default)



5 sec



7.5 sec



10 sec



## Data Bits

7-Bit



8-Bit (Default)



## Stop Bit Select

1 Stop Bit (Default)



2 Stop Bit



## Parity

None (Default)



Odd



Even



Select Mark parity and the parity bit is always 1.

Mark



Select Space parity and the parity bit is always 0.

Space



## Inter character Delay

This parameter specifies the inter character delay inserted between character transmissions.

0mS



5mS



25mS



50mS



75mS



99mS



## Global Settings

### Element amendment

Enable Element amendment \*



Disable Element amendment



### Printable character Output only

Enable



Disable\*



### Decoder optimization

Enable Decoder optimization \*



Disable Decoder optimization



## Save Power

Enable\*



Disable



## Standby duration

2 second



5 second \*



10 second



20 second



## Double confirm

Disable Double confirm\*



2 Times



5 Times



10 Times



## Same barcode delay time

If a barcode has been scanned and output once successfully, the laser beam must be off or moved away from the barcode beyond delay time to active scanning the same barcode. When this feature is set to be “0xFF”, then the delay time is indefinite.

Same barcode delay time (2 Digits;00~99;00\*)





## Global Max./Min. code length

Global Max. code length (2 Digits;00~99;99\*)



Global Min. code length (2 Digits;00~99;XX\*)



## Global G1-G6 string selection

Global Insert String 1(1 Digits; 0~6; 0\*)



Global Insert String 2(1 Digits; 0~6; 0\*)



## Decode UPC/EAN Only With Supplementals

Enable



Disable \*



# Indication

## Volume of beeper

High\*



Middle



Low



Mute



## Beep tone

High Tone



Middle Tone \*



Low Tone



## Wire Less Communication Setting

### Unpair the scanner from host

Unpair the scanner from host



### Pair Scanner with Host

Pairing is the process by which a scanner initiates communication with a host. The scanner with the Host pairing as follows:

1. Connect the scanner to the Host with the Charging Cable.
2. Press the "Pairing Button" until the Scanner issued a "beep beep" sound.

**NOTE: A host is able to work with as more as 99 scanners at the same time.**

### Clear the Buffer of Scanner

Scan the setting bar code below will clear the bar code data save in the scanner buffer.

Clear the Buffer of Scanner



## Wire Less Channel

When there are more than one host work in the same Space, every host has to work in different channel. Channel is set as follows:

1. Open a Notepad or other text editor.
2. Press the "Channel Settings button" to change the channel of a host, and the channel NO will be displayed in the screen.

## Scanner ID

Set the Scanner ID (2 Digits; 00~99; 00\*)



## Add Scanner ID as Prefix

**If this item is enabled, the scanner will add its ID as prefix of every barcode. E.g. When scan the bar code “12345”,if the ID of the scanner is “15”,and the output barcode data will be “ID1512345”.**

**NOTE: The ID of a scanner can be set manually or assigned by the host automatically. Every scanner work with the same Host can't be with the same ID.**

Enable Add Scanner ID as Prefix



Disable Add Scanner ID as Prefix \*



## Power off Interval

Power Off Interval (2 Digits; 00~99seconds; 15seconds\*) 4



Shut down the Scanner Immediately



## RF operating mode:

### NO-Store Mode:

Do not batch data. The scanner attempts to transmit every scanned barcode. If the transmission is failed, the barcode data is ignored and issued a "beep beep beep" sound.

### Auto-store Mode:

The scanner starts storing barcode data when it loses its connection to a host (for example, when a user holding the scanner walks out of range). Data transmission is triggered by reestablishing the connection with host (for example, when a user holding the scanner walks back into range).

**Manual Transmission Mode** : Data transmission is triggered by scanning “**Start transfer Bar Code Data**” .

Auto-Store Mode\*



NO-Store Mode



Manual Transmission Mode



**Start transfer Bar Code Data (for Manual Transmission Mode)**



## **Wire Less Communication Inter-character delay**

Scan Wire Less Communication Inter-character delay (2 Digits;  
0.0~9.9seconds; 0.5seconds\*)



## **EAN-13 and ISBN/ISSN**

### **Enable/Disable EAN-13**

Enable EAN-13\*



Disable EAN-13



### **EAN-13 Check Digit Verification**

Enable EAN-13 Check Digit Verification \*



Disable EAN-13 Check Digit Verification



### **EAN-13 Check Digit Transmission**

Transmit EAN-13 Check Digit\*



Do Not Transmit EAN-13 Check Digit



## Supplement Digits

2 Digits



5 Digits



2 Digits or 5 Digits



None\*



## ISBN/ISSN Conversion

Convert EAN-13 to ISBN/ISSN



Do Not Convert EAN-13 to ISBN/ISSN\*





## Code ID setting

Code ID is a one-or-two-character string used to represent the symbol upon a succeeding reading. If you want application to transmit Code ID, you must set Code ID transmission to be enabled. Refer to the chapter of

Scan Code ID (2Bit; 00~FF; 65\* 'e') C



## Insert String 1 Selection

Scan one digit's parameter (0~6) that: 0: no string insert to the barcode; 1~6: insert to the barcode G1~G6 to the barcode.

Scan Insert String 1 (1Bit; 0~6; 0\*)



## Insert String 2 Selection

Scan Insert String 2 (1 Digit; 0~6; 0\*)



# EAN-8

## Enable/Disable EAN-8

Enable EAN-8\*



Disable EAN-8



## EAN-8 Check Digit Verification

Enable EAN-8 Check Digit Verification \*



Disable EAN-8 Check Digit Verification



## EAN-8 Check Digit Transmission

Transmit EAN-8 Check Digit L\*



Do Not Transmit EAN-8 Check Digit



## Supplement Digits

2 Digits



5 Digits



2 Digits or 5 Digits



None\*



## Expand EAN-8 to EAN-13

Expand EAN-8 to EAN-13



Do Not Convert EAN-8 to EAN-13\*



## Code ID setting (“d”)

Scan Code ID (2 Digits; 00~FF; 64\*)



## Insert String 1 Selection

Scan Insert String 1 (1 Digit; 0~6; 0\*)



## Insert String 2 Selection

Scan Insert String 2 (1 Digit; 0~6; 0\*)



# UPC-A

## Enable/Disable UPC-A

Enable UPC-A 0\*



Disable UPC-A



## UPC-A Check Digit Verification

Enable UPC-A Check Digit Verification \*



Disable UPC-A Check Digit Verification



## UPC-A Check Digit Transmission

Transmit UPC-A Check Digit \*



Do Not Transmit UPC-A Check Digit



## Supplement Digits

2 Digits



5 Digits



2 Digits or 5 Digits



None \*



## UPC-A Truncation/Expansion

Expand UPC-A to EAN-13



Truncate leading zeros



None\*



## Code ID setting (“b”)

Scan Code ID (2 Digits; 00~FF; 62\*)



## Insert String 1 Selection

Scan Insert String 1 (1 Digit; 0~6; 0\*)



## Insert String 2 Selection

Scan Insert String 2 (1 Digit; 0~6; 0\*)



# UPC-E

## Enable/Disable UPC-E



## UPC-E Check Digit Verification

Enable UPC-E Check Digit Verification \*



Disable UPC-E Check Digit Verification



## UPC-E Check Digit Transmission

Transmit UPC-E Check Digit \*



Do Not Transmit UPC-E Check Digit





## Supplement Digits

2 Digits



5 Digits



2 Digits or 5 Digits



None\*



## UPC-E Truncation/Expansion

Truncate leading zeros



Expand UPC-E to EAN-13



Expand UPC-E to UPC-A



None\*



## Code ID setting (“c”)

Scan Code ID (2 Digits; 00~FF; 63\*)



## Insert String 1 Selection

Scan Insert String 1 (1 Digit; 0~6; 0\*)



## Insert String 2 Selection

Scan Insert String 2 (1 Digit; 0~6; 0\*)



## Code128 C

### Enable/Disable Code128

Enable Code 128\*



Disable Code 128



### Code128 Check Digit Verification

Enable Code 128 Check Digit Verification \*



Disable Code 128 Check Digit Verification



### Code 128 Check Digit Transmission

Transmit Code 128 Check Digit \*



Do Not Transmit Code 128 Check Digit



## Code128 Length

Scan Max. Code Length (2 Digits; 00~99; 99\*)



Scan Min. Code Length (2 Digits; 00~99, 1\*)



## Code ID setting(“g”)

Scan Code ID (2 Digits; 00~FF; 67\*)



## Insert String 1 Selection

Scan Insert String 1 (1 Digit; 0~6; 0\*)



## Insert String 2 Selection

Scan Insert String 2 (1 Digit; 0~6; 0\*)



## UCC/EAN 128

### Enable/Disable UCC/EAN 128

Enable\*



Disable



### UCC/EAN 128 Check Digit Verification

Enable\*



Disable



### UCC/EAN 128 Check Digit Transmission

Transmit UCC/EAN 128 Check Digit \*



Do Not Transmit UCC/EAN 128 Check Digit



## UCC/EAN 128 Length

Scan Max. Code Length (2 Digits; 00~99; 99\*)



Scan Min. Code Length (2 Digits; 00~99, 1\*)



## Code ID setting ( 'g' )

Scan Code ID (2 Digits; 00~FF; 67\*)



## Insert String 1 Selection

Scan Insert String 1 (1 Digit; 0~6; 0\*)



## Insert String 2 Selection

Scan Insert String 2 (1 Digit; 0~6; 0\*)

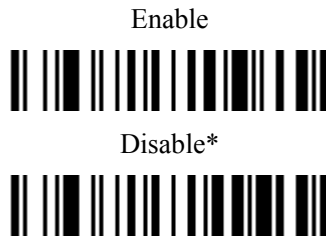


# Code 39

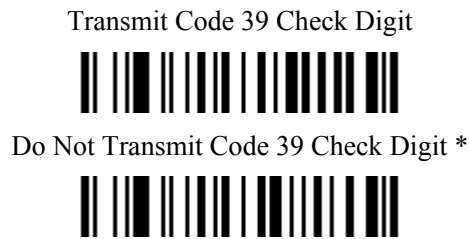
## Enable/Disable Code 39



## Code 39 Check Digit Verification



## Code 39 Check Digit Transmission



## Code 39 Full ASCII Conversion

Enable Code 39 Full ASCII



Disable Code 39 Full ASCII \*



## Start/End transmission

Enable Code 39 Start/End transmission



Disable Enable Code 39 Start/End transmission \*



## Convert Code 39 to Code 32

Enable Convert Code 39 to Code 32



Disable Convert Code 39 to Code 32\*





## Code 32 Prefix “A” transmission

Enable Code 32 Prefix “A” transmission



Disable Code 32 Prefix “A” transmission\*



## “\*” as data character

Enable



Disable\*



## Code39 Length

Scan Max. Code Length (2 Digits; 00~99; 99\*)



Scan Min. Code Length (2 Digits; 00~99; 1\*)



## Code ID setting ( 'a' )

Scan Code ID ( 2 Digits; 00~FF; 61\* )



## Insert String 1 Selection

Scan Insert String 1 ( 1 Digit; 0~6; 0\* )



## Insert String 2 Selection

Scan Insert String 2 ( 1 Digit; 0~6; 0\* )



## Code 93

### Enable/Disable Code 93

Enable\*



Disable



### Code 93 Check Digit Verification

Enable Code 93 Check Digit Verification \*



Disable Code 93 Check Digit Verification



### Code 93 Check Digit Transmission

Transmit Code 93 Check Digit \*\*



Do Not Transmit Code 93 Check Digit



## Code 93 Full ASCII Conversion

Enable Code 93 Full ASCII



Disable Code 93 Full ASCII \*



## Code 93 Length

Scan Max. Code Length (2 Digits; 00~99; 99\*)



Scan Min. Code Length (2 Digits; 00~99, 1\*)



## Code ID setting ( 'h' )

Scan Code ID (2 Digits; 00~FF; 68\*)



## Insert String 1 Selection

Scan Insert String 1 (1 Digit; 0~6; 0\*)



## Insert String 2 Selection

Scan Insert String 2 (1 Digit; 0~6; 0\*)



## Interleaved 2 of 5

Interleaved 2 of 5

Data digits (Variable)	Check digit (one bit ,optional)
------------------------	---------------------------------

### Enable/Disable Format of Interleaved

Enable\*



Disable



### Interleaved 2 of 5 Check Digit Verification

Enable



Disable\*



## Interleaved 2 of 5 Check Digit Transmission

Transmit Interleaved 2 of 5 Check Digit



Do Not Transmit Interleaved 2 of 5 Check Digit \*



## Interleaved 2 of 5 Length

Scan Max. Code Length (2 Digits; 00~99; 99\*)



Scan Min. Code Length (2 Digits; 00~99, 1\*)



## Code ID setting ( 'i' )

Scan Code ID (2 Digits; 00~FF; 69\*)



## Insert String 1 Selection

Scan Insert String 1 (1 Digit; 0~6; 0\*)



## Insert String 2 Selection

Scan Insert String 2 (1 Digit; 0~6; 0\*)





## **Industrial 2 of 5**

### **Enable/Disable Industrial 2 of 5**

Enable\*



Disable



### **Industrial 2 of 5 Check Digit Verification**

Enable



Disable \*



## Industrial 2 of 5 Check Digit Transmission

Transmit Industrial 2 of 5 Check Digit



Do Not Transmit Industrial 2 of 5 Check Digit \*



## Industrial 2 of 5 Length

Scan Max. Code Length (2 Digits; 00~99; 99\*)



Scan Min. Code Length (2 Digits; 00~99, 1\*)



## Code ID setting ( 'j' )

Scan Code ID ( 2 Digits; 00~FF; 6A\* )



## Insert String 1 Selection

Scan Insert String 1 ( 1 Digit; 0~6; 0\* )



## Insert String 2 Selection

Scan Insert String 2 ( 1 Digit; 0~6; 0\* )

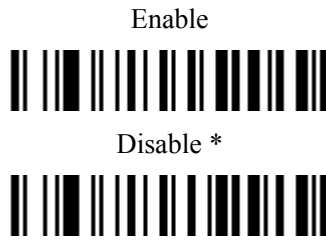


## Matrix 2 of 5

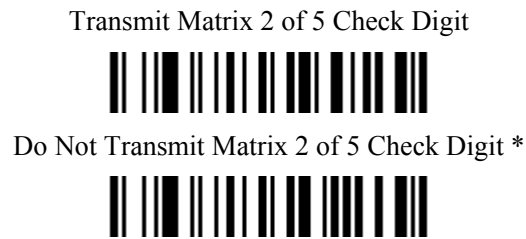
### Enable/Disable Matrix 2 of 5



### Matrix 2 of 5 Check Digit Verification



### Matrix 2 of 5 Check Digit Transmission



## Matrix 2 of 5 Length

Scan Max. Code Length (2 Digits; 00~99; 99\*)



Scan Min. Code Length (2 Digits; 00~99, 1\*)



## Code ID setting ( 'x' )

Scan Code ID (2 Digits; 00~FF; 78\*)



## Insert String 1 Selection

Scan Insert String 1 (1 Digit; 0~6; 0\*)



## Insert String 2 Selection

Scan Insert String 2 (1 Digit; 0~6; 0\*)



# Codabar

## Enable/Disable Codabar

Enable\*



Disable



## Codabar Check Digit Verification

Enable



Disable\*



## Codabar Check Digit Transmission

Transmit **Codabar** Check Digit



Do Not Transmit **Codabar** Check Digit \*



## Start/End type

ABCD/ABCD \*



abcd/abcd



ABCD/TN\*E



abcd/tn\*e



## Start/End transmission

Enable



Disable \*



## Codarbar Length

Scan Max. Code Length (2 Digits; 00~99; 99\*)



Scan Min. Code Length (2 Digits; 00~99, 1\*)



## Code ID setting ('k')

Scan Code ID (2 Digits; 00~FF; 6B\*)



## Insert String 1 Selection

Scan Insert String 1 (1 Digit; 0~6; 0\*)



## Insert String 2 Selection

Scan Insert String 2 (1 Digit; 0~6; 0\*)





# Code 11

## Enable/Disable Code 11

Enable\*



Disable



## Code 11 Check Digit Verification

Enable 1bit check Digit \*



Enable 2 bit check Digit



Disable check Digit



## Code 11 Check Digit Transmission

Transmit **Code11** Check Digit



Do Not Transmit **Code11** Check Digit \*



## Code 11 Length

Scan Max. Code Length (2 Digits; 00~99; 99\*)



Scan Min. Code Length (2 Digits; 00~99, 4\*)



## Code ID setting ('m')

Scan Code ID (2 Digits; 00~FF; 6D\*)



## Insert String 1 Selection

Scan Insert String 1 (1 Digit; 0~6; 0\*)



## Insert String 2 Selection

Scan Insert String 2 (1 Digit; 0~6; 0\*)



## MSI/Plessey

### Enable/Disable MSI/Plessey

Enable \*0



Disable



## MSI/Plessey Check Digit Verification

Enable 1 digit (Mod10)



Enable 2 digit (Mod10/10)



Enable 2 digit (Mod11/10)



Disable\*



## MSI/Plessey Check Digit Transmission

Transmit MSI/Plessey Check Digit



Do Not Transmit MSI/Plessey Check Digit \*



## MSI/Plessey Length

Scan Max. Code Length (2 Digits; 00~99; 99\*)



Scan Min. Code Length (2 Digits; 00~99, 4\*)



## Code ID setting ('f')

Scan Code ID (2 Digits; 00~FF; 66\*)



## Insert String 1 Selection

Scan Insert String 1 (1 Digit; 0~6; 0\*)



## Insert String 2 Selection

Scan Insert String 2 (1 Digit; 0~6; 0\*)



## UK/Plessey

Check digit verification: The UK/Plessey has two optional check digits. The check digit 1 and check digit 2 will be calculated as the sum module 10 or 11 of the data digits.

### Enable/Disable UK /Plessey

Enable \*



Disable



### UK/Plessey Check Digit Verification

Enable\*



Disable



## UK /Plessey Check Digit Transmission

Transmit UK /Plessey Check Digit



Do Not Transmit UK /Plessey Check Digit \*



## UK/Plessey Length

Scan Max. Code Length (2 Digits; 00~99; 99\*)



Scan Min. Code Length (2 Digits; 00~99, 1\*)



## Code ID setting ('u')

Scan Code ID (2 Digits; 00~FF; 75\*)



## Insert String 1 Selection

Scan Insert String 1 (1 Digit; 0~6; 0\*)



## Insert String 2 Selection

Scan Insert String 2 (1 Digit; 0~6; 0\*)





## GS1 DataBar (GS1 DataBar Truncated)

GS1 DataBar Truncated is structured and encoded the same as the standard GS1 DataBar format, except its height is reduced to a 13 modules minimum; while GS1 DataBar should have a height greater than or equal to 33 modules.

### Enable/Disable GS1 DataBar

Enable \*



Disable



### Conversion

Convert GS1 DataBar to UCC/EAN 128



Convert GS1 DataBar to UPC-A or EAN-13



Disable Conversion \*



## Code ID setting ('r')

Scan Code ID (2 Digits; 00~FF; 72\*)



## Insert String 1 Selection

Scan Insert String 1 (1 Digit; 0~6; 0\*)



## Insert String 2 Selection

Scan Insert String 2 (1 Digit; 0~6; 0\*)



# GS1 DataBar Limited

## Enable/Disable GS1 DataBar Limited

Enable\*



Disable



## Conversion

Convert **GS1 DataBar Limited** UCC/EAN 128



Convert **GS1 DataBar Limited** UPC-A OR EAN-13



Disable Conversion\*



## Code ID setting ('s')

Scan Code ID (2 Digits; 00~FF; 73\*)



## Insert String 1 Selection

Scan Insert String 1 (1 Digit; 0~6; 0\*)



## Insert String 2 Selection

Scan Insert String 2 (1 Digit; 0~6; 0\*)





Scan Code ID (2 Digits; 00~FF; 70\*)



### Insert String 1 Selection

Scan Insert String 1 (1 Digit; 0~6; 0\*)



### Insert String 2 Selection

Scan Insert String 2 (1 Digit; 0~6; 0\*)



## Advanced Bar Code Data Formatting

Format of barcode data transmission:

Prefix	Code	Preamble	Code	Code	Code	Code	Postamble	Suffix
--------	------	----------	------	------	------	------	-----------	--------

	name		ID	length	data	ID		
--	------	--	----	--------	------	----	--	--

## Suffix Quick Setup

CR \*L0



LF



CR & LF



None



## Prefix

Transmit Prefix:



Do Not Transmit Prefix \*



Scan Prefix (0~16 Chars, 2 Digits /Char; 00~FF; 00\*)



## Suffix

The default Suffix is CR.

Transmit Suffix \*



Do Not Transmit Suffix



Scan Suffix (0~22 Chars, 2 Digits /Char; 00~FF; 00\*)



## Preamble

Transmit Preamble



Do Not Transmit Preamble \*





Scan preamble (0~16 Chars, 2 Digits /Char; 00~FF; 00\*)



## Postamble

Transmit Postamble



Do Not Transmit Postamble \*



Scan Postamble (0~16 Chars, 2 Digits /Char; 00~FF; 00\*)



## Code ID

Transmit Proprietary ID



Transmit AIM ID



Do Not Transmit Code ID\*



### Code ID position

Before code data

After code data \*



### Code name transmission

Transmit Code name



Do Not Transmit Code name \*



### Code length transmission

Transmit Code length

Do Not Transmit Code length \*



## Case conversion:

The characters within code data or the whole output string can be set in either upper case or lower case

Disable\*



Upper (data only)



Lower (data only)



Upper (whole string)



Lower (whole string)



## Insert String G1 Setting

Scan Inert String G1 (0~16 Chars, 2 Digits /Char; 00~FF; 00\*)



Scan the Position of G1 (2 Digits; 00~99; 00\*)



### **Insert String G2 Setting**

Scan Inert String G2 (0~16 Chars, 2 Digits /Char; 00~FF; 00\*)



Scan the Position of G2 (2 Digits; 00~99; 00\*)



### **Insert String G3 Setting**

G3 is also used as the string to be replaced when the replace function is enabled.

Scan Inert String G3 (0~16 Chars, 2 Digits /Char; 00~FF; 00\*)



Scan the Position of G3 (2 Digits; 00~99; 00\*)



### **Insert String G4 Setting**

G4 is also used as the string to replace G3 in a bar code data when the replace function is enabled.

Scan Inert String G4 (0~16 Chars, 2 Digits /Char; 00~FF; 00\*)



Scan the Position of G4 (2 Digits; 00~99; 00\*)



## FN1 substitution string setting

The FN1 character (0x1D) in an UCC/EAN128 barcode, or a Code 128 barcode, or a GS1 DataBar barcode can be substituted with a defined string.

Enable FN1 Substitution



Disable FN1 Substitution \*



Scan FN1 substitution string setting (0~4 Chars, 2 Digits /Char; 00~FF; 00\*)



## Truncate leading G5 String setting

By setting G5, a defined leading character or string can be truncated. G5 can also be set to be repeated.

Scan G5 String (0~16 Chars, 2 Digits /Char; 00~FF; 00\*)



Truncate leading G5 string setting (2 Digits; 00~99; 01\*)



## Truncate ending G6 string setting

By setting G6, a defined ending character or string can be truncated. G5 can also be set to be repeated.

Scan G6 String (0~16 Chars, 2 Digits /Char; 00~FF; 00\*)



Scan Repeat of a G6 String (2 Digits; 00~99; 01\*)



## Replace String Setting

Replace G3 string to G4 string in barcode data.

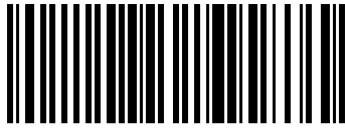
Enable



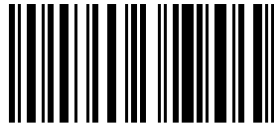
Disable \*



**Test Bar Code**



00012345000



1234567890



## Appendix 2 Default setting for each barcode

Table 2 Default setting for each barcode

Code type	Read enable	Check digit verification	Check digit transmission	Min. code length	Proprietary code ID	AIM
EAN-13	√	√	√	(13)	e	]Em
EAN-8	√	√	√	(8)	d	]Em



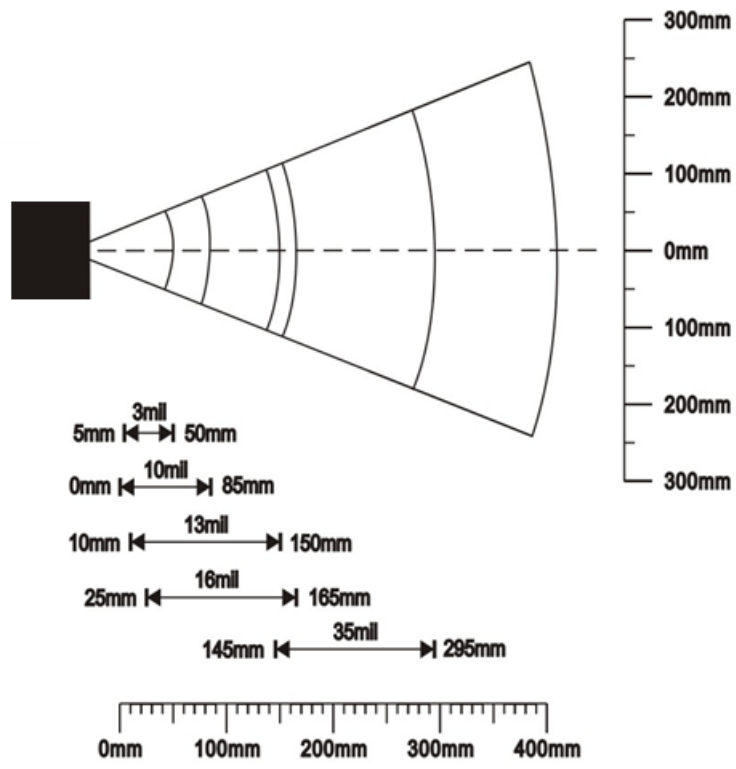
<b>ISBN/ISSN1</b>	√	√	√	(13)	e	]Em
<b>UPC-A</b>	√	√	√	(12)	b	]Em
<b>UPC-E</b>	√	√	√	(8)	c	]Em
<b>Code 128</b>	√	√	-	1	g	]Cm
<b>UCC/EAN 128</b>	√	√	-	1	q	]Cm
<b>Code 93</b>	√	√	-	1	h	]Gm
<b>Code 39</b>	√	-	-	1	a	]Am
<b>Code 11</b>	√	√	-	4	m	-
<b>Interleaved 2 of 5</b>	√	-	-	6	i	]Im
<b>Industrial 2 of 5</b>	√	-	-	4	j	]Im
<b>Matrix 2 of 5</b>	√	-	-	6	x	]Im
China Post	√	√	-	(11)	y	]Im
<b>Codabar</b>	√	-	-	5	k	]Fm
<b>MSI/Plessey</b>	√	-	-	4	f	]Mm
<b>UK/Plessey</b>	√	-	-	1	u	]Mm
<b>GS1 DataBar</b>	√	-	-	(16)	r	]em
<b>GS1 DataBar Truncated3</b>	√	-	-	(16)	r	]em
<b>GS1 DataBar Limited</b>	√	-	-	(16)	s	]em
<b>GS1 DataBar Expanded</b>	√	-	-	1	p	]em
<b>PDF417</b>	-	-	-	1	n	]Lm
<b>MicroPDF417</b>	-	-	-	1	w	]Lm

**NOTE:**

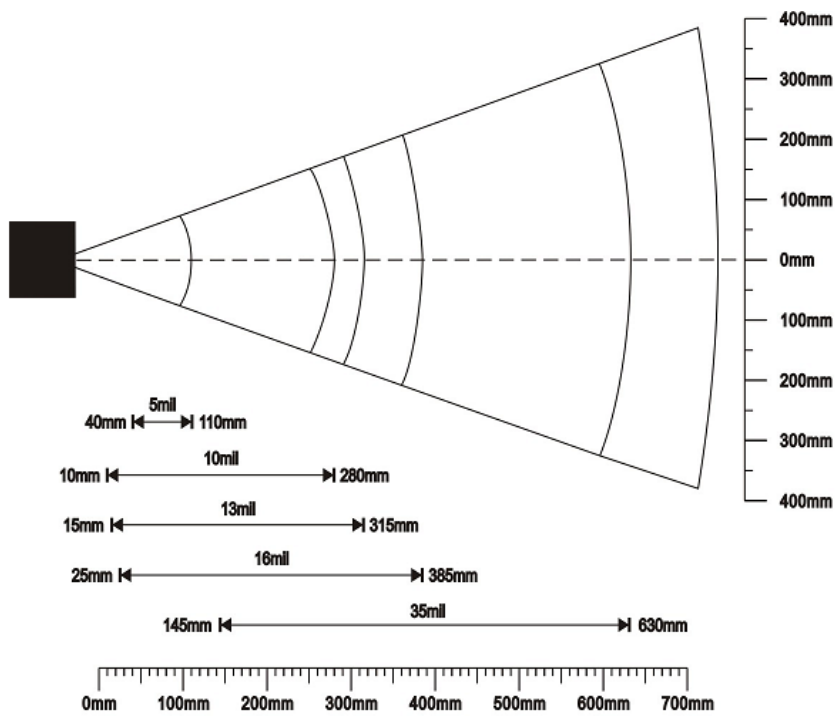
- 1 The settings for ISBN/ISSN and EAN-13 must be the same.
- 2 Fixed-length barcodes.
- 3 The settings for GS1 DataBar Truncated and GS1 DataBar must be the same.

## **Appendix 4 Decode zone**

### **High-Density series**



## Long-Range series



## Appendix 6 ASCII Table

Table 3 Function Keys

H L	P/S2 keyboard/USB		RS-232	
	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	SUB
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

Table 4 Chars

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

Example: ASCII “!” = “21”。

## Appendix 8 Parameter bar code

0 %N0



1 %N1



2



3



4



5



6



7



8



9



A



B



C



D



E



F



Finish Setting

