**XL-3020GSQ Scan Module**

**Full User Manual**

V1.7.3

**Content**

[Enable/Disable Configuration barcode 1](#_Toc2761)

[Version No. 1](#_Toc26600)

[Factory Default Setting 1](#_Toc30075)

[Product User Configuration 1](#_Toc27744)

[USB Keyboard Layout 2](#_Toc15751)

[Control Character Escaping 2](#_Toc10876)

[CR/LF character processing(USB Keyboard) 2](#_Toc31890)

[USB Keyboard Transfer Speed 3](#_Toc19679)

[Convert Case 4](#_Toc5115)

[Keyboard Layouts 4](#_Toc13199)

[Virtual Keyboard 8](#_Toc24393)

[Selection of Host Operating System in Virtual Keyboard Mode 9](#_Toc16680)

[Barcode Encoding Configuration 9](#_Toc7958)

[Output Encoding Format 10](#_Toc8864)

[Invoice Function 11](#_Toc2099)

[RS232 Interface Configuration 12](#_Toc28242)

[Baud Rate 12](#_Toc289)

[Data bit, Stop bit, Parity bit 13](#_Toc7200)

[GS Control Character Replacement 15](#_Toc10254)

[Control Character Output 16](#_Toc10224)

[Scan Mode 16](#_Toc19958)

[Auto Sense Mode off 16](#_Toc30932)

[Auto Sense Mode on 16](#_Toc14235)

[Repeat Barcode Detection 16](#_Toc14995)

[Center Mode 17](#_Toc15216)

[Light Configuration 18](#_Toc1146)

[LED Indicator Light 18](#_Toc19373)

[Buzzer Configuration 18](#_Toc16273)

[Volume Setting 18](#_Toc13856)

[Scanner Start Prompt Tone Setting 18](#_Toc4015)

[Successful Decoding Prompt Tone Setting 19](#_Toc28543)

[Successful Decoding Prompt Audio Frequency Setting (Tone) 19](#_Toc24069)

[Successful Decoding Prompt Duration Setting 20](#_Toc11841)

[Error Warning Prompt Frequency Setting (Tone) 20](#_Toc22800)

[Prefix and Suffix Configuration 21](#_Toc31050)

[Start Character 21](#_Toc7447)

[Terminal Character 21](#_Toc12526)

[Custom Prefix 22](#_Toc4512)

[Custom Suffix 23](#_Toc3351)

[Code ID 23](#_Toc11134)

[AIM ID 24](#_Toc8595)

[Data Edition 25](#_Toc106)

[Transmission Configuration 26](#_Toc16850)

[Field Length Configuration 26](#_Toc16451)

[Inverse color barcode selection 27](#_Toc10146)

[Non-standard Barcode Option 27](#_Toc2407)

[Barcode Type Selection 28](#_Toc7329)

[Enable/Disable All barcodes 28](#_Toc30919)

[Enable/Disable All 1D barcodes 28](#_Toc9351)

[Enable/Disable All 2D barcodes 28](#_Toc7073)

[Codabar 29](#_Toc22132)

[Code 39 30](#_Toc22535)

[Code 32(Enable code39 first) 32](#_Toc17885)

[Interleaved 2 of 5 (ITF25) 32](#_Toc19097)

[Industrial 2 of 5/IATA 35](#_Toc8156)

[Matrix 2 of 5 (4-24bit) 36](#_Toc19231)

[Code 93 36](#_Toc2018)

[Code 11 37](#_Toc5862)

[Code 128 39](#_Toc22304)

[ISBT-128 39](#_Toc22285)

[GS1-128 39](#_Toc15400)

[UPC-A 40](#_Toc10784)

[UPC-E 41](#_Toc25742)

[EAN/JAN-8 43](#_Toc21432)

[EAN/JAN-13 44](#_Toc26766)

[GS1 DataBar (RSS14) 45](#_Toc2556)

[MSI 47](#_Toc12559)

[Febraban 48](#_Toc22577)

[PDF417 50](#_Toc4719)

[Micro PDF417 50](#_Toc1720)

[QR Code 50](#_Toc27390)

[Micro QR 51](#_Toc15416)

[Data Matrix 51](#_Toc18969)

[Aztec Code 52](#_Toc26810)

[Appendix 52](#_Toc3386)

[Data and Edit barcode 52](#_Toc21250)

[Barcode ID Type Table 55](#_Toc2689)

[AIM ID Table 56](#_Toc8564)

[Visible Character ASCII Table 57](#_Toc23674)

[Control Character Set (USB keyboard mode) 58](#_Toc17209)

[Control Character Set (RS232,USB-VCP) 59](#_Toc16693)

[Configuration of Instructions and Examples 60](#_Toc906)

# Enable/Disable Configuration Barcode

Scanner can set up when enabled barcode function.In contrast, the scanner can’t set up if disabled. Need to switch on and set up again.



Enable Configuration Function (Default)



Disable Configuration Function

# Version No.



Version Number

# Factory Default Setting

Scanning the below barcode can restore the scanner the factory default.



Restore Factory Default Configuration

# Product User Configuration

Scanning the below barcode can save current parameters as user’s configuration.



Save as User Configuration

Scanning the below barcode can restore for saved user’s configuration.



Restore User Configuration

# USB Keyboard Layout

## Control Character Escaping



Enable Escape Mode 1



Enable Escape Mode 2



Disable (Default)

## CR/LF character processing(USB Keyboard)

****

Only 0A(LF) line feed

****

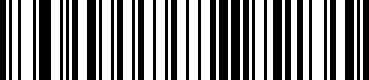
Only 0D (CR) line feed (Default)

****

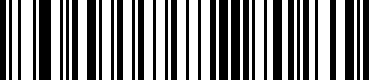
All convert to 0A (LF)/0D(CR)

## USB Keyboard Transfer Speed

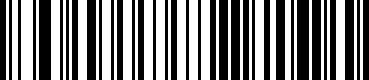
Used for set up scanning speed under USB keyboard mode. If PC in a lower function, please choose low scanning speed to make sure its accuracy.

****

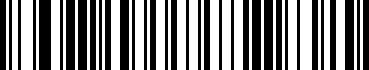
Low (Default)

****

Middle

****

High

****

Custom Sending Speed (2ms~50ms)

## Convert Case



Original Data (Default)



Case Inversion

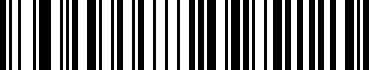


All Convert to Upper Case



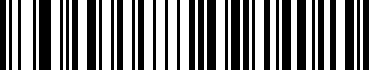
All Convert to Lower Case

## Keyboard Layouts

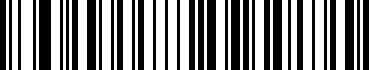


English (United States)

(Default)



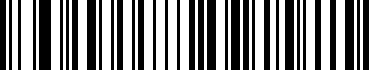
French (France)



Italian (Italy)



Italian 142 (Italy)



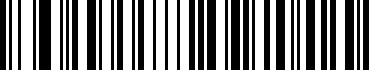
German (Germany)



Spanish (Spain)



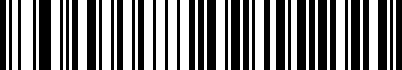
Spanish (Latin America)



Finnish



Japanese



Russian (MS)



Russian (typewriter)



Arabic (101)



Irish



Polish (214)



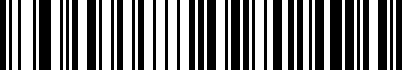
Polish (Programmers)



Dutch (Netherlands)



Czech (QWERTZ)



Portuguese (Portugal)



Portuguese (Brazil)



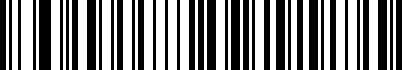
Swedish (Sweden)



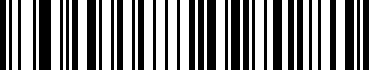
Turkish Q



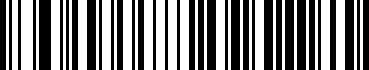
Turkish F



Greek (MS)



French (Belgium)



English (UK)

## Virtual Keyboard

Mode 1: Do not support output the characters between 0x20 to 0xFF by using the virtual keyboard, under the current keyboard layout.

The characters between 0x00~0x1F are output according to the definition of control characters (Refer to Appendix)

Model 2: Support output the characters between 0x20 to 0xFF by using the virtual keyboard. The characters between 0x00~0x1F are output according to the definition of control characters (Refer to Appendix)

Model 3: Support output the characters between 0x00～0xFF by using the virtual keyboard

****

Turn Off (Default)

****

Turn On (Mode 1)

****

Turn On (Mode 2)

****

Turn On (Mode 3)

## Selection of Host Operating System in Virtual Keyboard Mode

****

WINDOWS (Default)

****

MAC OS

****

LINUX

## Barcode Encoding Configuration

In a normal situation , the barcode encoding was identified accurately.

Please user manual to set up if encountered peculiar characters, that make sure output barcode content correctly.



Auto (Default)



GBK Code



UTF-8 Code



KOI8-R Code



Japanese Shift-JIS Code

# Output Encoding Format

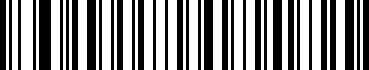
To output correctly in the specified encoding format.

For example: It’s GBK code when output in the Notepad /Excel; It’s UNICODE when output in the Word.

When output is English/Latin-1 encode format, the output mode will affected by the function switch of virtual keyboard. When output is GBK/UNICODE, the output mode will compelled to virtual keyboard.

****

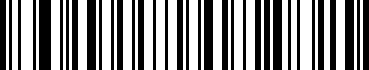
English/Latin-1 (Default)



GBK (Notepad/excel)



UNICODE (Word)



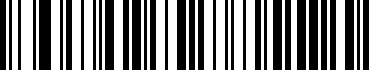
Japanese Shift-JIS code



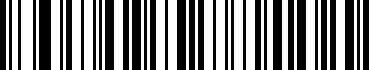
UTF-8 code

# Invoice Function

### Switch On/Off Invoice Function



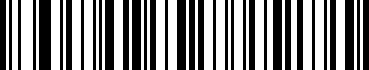
OFF (Default)



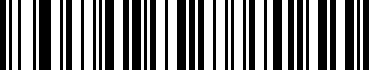
On

To ensure the correct output of the invoice content, when switch on the invoice code function, please configure the Chinese character output mode to GBK code (Notepad/Excel), and at the same time switch off like Code ID, User-defined prefix/suffix, and starting character to change original barcode content function.

### Invoice Type



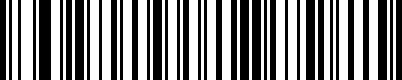
VAT Invoice (Special) (Default)



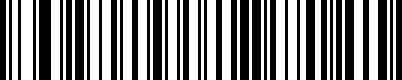
VAT Invoice (Normal)

# RS232 Interface Configuration

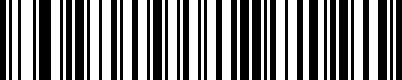
## Baud Rate



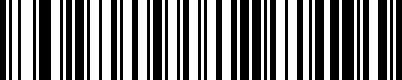
4800



9600 (Default)



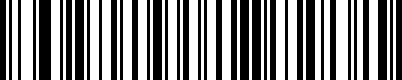
19200



38400



57600



115200

## Data bit, Stop bit, Parity bit



7 Bit, 1 Stop Bit, No Parity



7 Bit,1 Stop Bit, Even Parity



7 Bit,1 Stop Bit, Odd Parity



7 Bit, 2 Stop Bit, No Parity



7 Bit, 2 Stop Bit, Even Parity



7 Bit,2 Stop Bit, Odd Parity



8 Bit,1 Stop Bit, No Parity(Default)



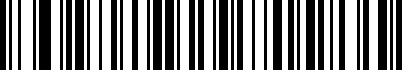
8 Bit,1 Stop Bit, Even Parity



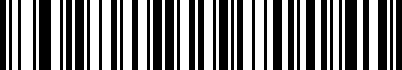
8 Bit,1 Stop Bit, Odd Parity



8 Bit,2 stop Bit, No Parity



8 Bit,2 Stop Bit, Even Parity



8 Bit,2 Stop Bit, Odd Parity

# GS Control Character Replacement

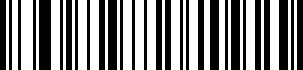
****

Do Not Replace (Default)

If output character is “Ç”, please scan” Virtual keyboard (Mode 1 or Mode 2 or Mode 3)” first.

****

Replace Ç

****

Replace |

****

Replace ^]

****

Replace ]

****

Replace <GS>

## Control Character Output



Disable



Enable(Default)

# Scan Mode

## Auto Sense Mode off

Scanning by pressing the trigger when auto sense mode is off. It’s default mode.



Off (Default)

## Auto Sense Mode on

The scan engine can sense barcode for decoding automatically.



On

## Repeat Barcode Detection

Using for decoding same barcode of interval time, it will decode only one time if not exceeded set time.



500ms



750ms (Default)



1s



2s

# Center Mode

When center mode is turned on, the scan engine only reads the barcode located in the center area, this configuration is disabled as default.



Off(Default)



On

# Light Configuration

## LED Indicator Light



Off



On (Default)

# Buzzer Configuration

## Volume Setting

****

Low



High (Default)

## Scanner Start Prompt Tone Setting



Off



On (Default)

## Successful Decoding Prompt Tone Setting



Off



On (Default)

## Successful Decoding Prompt Audio Frequency Setting (Tone)



1 (Default)



2



3

****

Custom

## Successful Decoding Prompt Duration Setting



Long (Default)



Short

## Error Warning Prompt Frequency Setting (Tone)

There will be four consecutive error warning tones if data transmission fails, and a single error warning tone when the unrecognized configuration code is scanned.



Low (Default)



Middle



High

# Prefix and Suffix Configuration

## Start Character



None (Default)



STX

## Terminal Character



None



Enter



LF



CR/LF (Default)



TAB



ETX

## 

## Custom Prefix

### Output Options



On



Off (Default)

### Edit



Clear All Custom Prefix

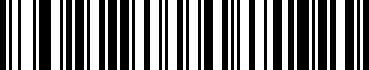


Set Custom Prefix

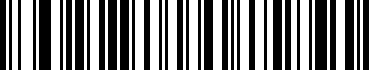
(Please set up ID Table ,Data, and edit barcode refer to the appendix after scanning.)

## Custom Suffix

### Output Options



On



Off (Default)

### Edit



Clear All Custom Suffix



Set Custom Suffix

(Please set up ID Table ,Data, and edit barcode refer to the appendix after scanning.)

## Code ID

### Output Options



Off (Default)



Enable Code ID Before Barcode



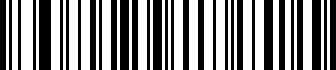
Enable Code ID After Barcode

### Edit



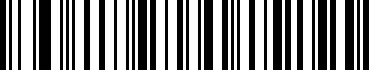
Set Custom Code ID

(Please set up ID Table ,Data, and edit barcode refer to the appendix after scanning.)

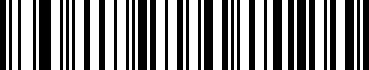


Clear All Custom Code ID

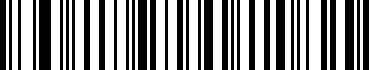
## AIM ID



Off (Default)



Enable AIM ID Before Barcode



Enable AIM ID After Barcode

### Barcode Prefix and Suffix Order Selection

### Prefix



Start Character+CODE ID+AIM ID+Custom Prefix (Default)



Start Character+ Custom Prefix + CODE ID+AIM ID

### Suffix



Custom Suffix+CODE ID+AIM ID+Terminal Character (Default)



CODE ID+AIM ID+Custom Suffix+Terminal Character

# Data Edition

The Data editing function can customize the barcode content into the three fields of Start/Center/End by configuring the Start/End field length.

Please configure the length of the Start/End field and the transport configuration according to the actual needs.

Note: Custom presuffix, start, end, CODE ID, AIM ID and other non-barcode content will not be affected by the data editing function.

## Transmission Configuration



Transfer the full Data field



Only transfer the Start field



Only transfer the Center field



Only transfer the End field

## Field Length Configuration



Set Start field length



Set End field length

# Inverse color barcode selection

**(Only 1D/DataMatrix/Aztec)**

****

Normal Color



Inverse Color



Both (Normal/Inverse)

# Non-standard Barcode Option

When non-standard barcode decoding enabled, scanner can be better compatible with some non-standard barcodes, but the probability of reading errors will increase.

****

Disable(Default)



Enable

# Barcode Type Selection

## Enable/Disable All barcodes

Enable all barcodes will low down decoding speed. So, we suggest you switch on scanner when needed. (Default is switch on state)



Enable All



Disable All

## Enable/Disable All 1D barcodes



Enable All



Disable All

## Enable/Disable All 2D barcodes



Enable All



Disable All

## Codabar



Enable



Disable

### Codabar Start/Terminal Character

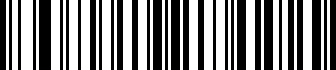


Don’t Send Codabar Start/Terminal Character (Default)

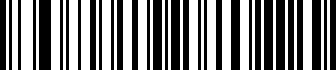


Send Codabar Start/Terminal Character

### Set Length Range for Codabar

****

Minimum Length (0~50bit)

****

Maximum Length (0~50bit)

## Code 39



Enable



Disable

### Code 39 Parity Check



Disable (Default)



Enable But Not Transfer



Enable & Transfer

### Code 39 Full ASCII

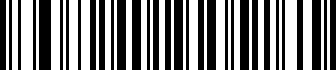
****

Enable

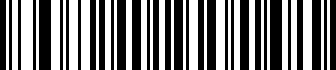
****

Disable (Default)

### Code 39 Start/Terminal Character

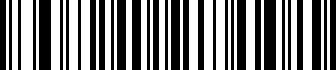
****

Don’t Send Code 39 Start/Terminal Character(Default)

****

Send Code 39 Start/Terminal Character

### Set Length Range for Code 39

****

Minimum Length (0~50bit)

****

Maximum (0~50bit)

## Code 32(Enable code39 first)

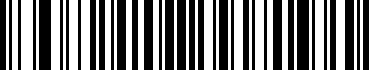


Enable

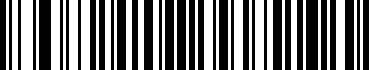


Disable

### Code 32 Prefix

****

Enable

****

Disable(Default)

## Interleaved 2 of 5 (ITF25)



Enable



Disable

### Interleaved 2 of 5 (ITF25) Check Bit



Disable Check Bit (Default)



Enable Check and Don’t Send Check Bit



Enable Check & Send Check Bit

### Interleaved 2 of 5 (ITF25) Length Selection

****

Random Length (6-50bits) (Default)

****

6 Bits

****

8 Bits

****

10 Bits

****

12 Bits

****

14 Bits

****

16 Bits

****

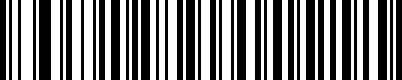
18 Bits

****

20 Bits

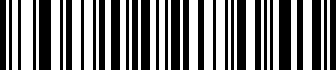
****

22 Bits

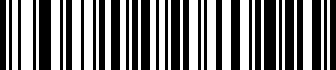
****

24 Bits

### Set Length Range for Interleaved 2 of 5

****

Minimum (0~50bits)

****

Maximum (0~50bits)

## Industrial 2 of 5/IATA

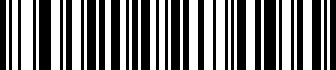


Enable

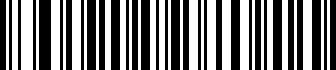


Disable

### Set Length Range for Industrial 2 of 5

****

Minimum (0~50bits)

****

Maximum (0~50bits)

## Matrix 2 of 5 (4-24bit)

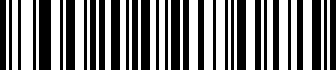


Enable

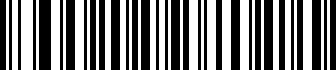


Disable

### Set Length Range for Matrix 2 of 5

****

Minimum (0~50bits)

****

Maximum (0~50bits)

## Code 93

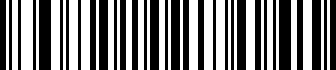


Enable

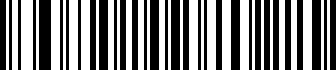


Disable

### Set Length Range for Code 93

****

Minimum (0~50bits)

****

Maximum (0~50bits)

## Code 11

****

Enable

****

Disable (Default)

### Code 11 Parity Check Output

****

Enable

****

Disable (Default)

### Code 11 Parity Selection

****

Disable (Default)

****

1 Bits

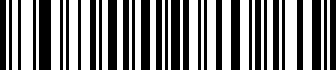
****

2 Bits

### Set Length Range for Code 11

****

Minimum (0~50bits)

****

Maximum (0~50bits)

## Code 128

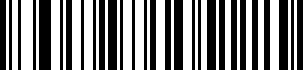


Enable



Disable

## ISBT-128



Disable



Enable

## GS1-128

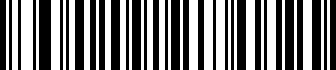


Enable

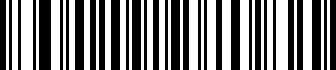


Disable

### Set Length Range for CODE-128

****

Minimum (0~50bits)

****

Maximum (0~50bits)

## UPC-A



Enable



Disable

### UPC-A Check Bit

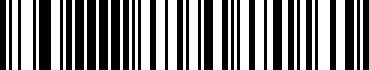


Send UPC-A Check Bit (Default)

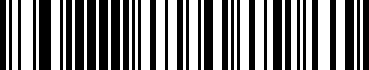


Don’t Send UPC-A Check Bit

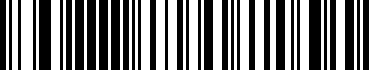
### UPC-A Leading Digits

****

Send UPC-A Country Code+System Digits(Convert to EAN-13)

****

Send UPC-A System Digits(Default)

****

Don’t Send UPC-A System Digits

## UPC-E



Enable



Disable

### UPC-E Check Bit



Send UPC-E Check Bit (Default)



Don’t send UPC-E Check bit

### UPC-E Expand to UPC-A

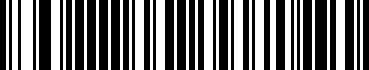
****

Enable

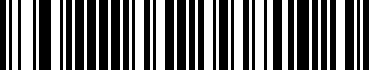
****

Disable (Default)

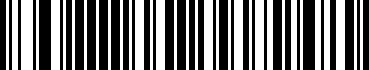
### UPC-E Leading Digits

****

Send UPC-E Country Code+System Digits

****

Send UPC-E System Digits(Default)

****

Don’t Send UPC-E System Digits

## EAN/JAN-8

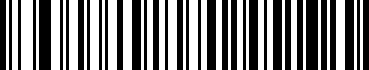


Enable

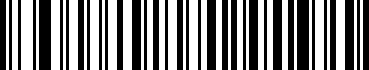


Disable

### EAN-8 Convert to EAN-13

****

Disable EAN-8 convert to EAN-13(Default)

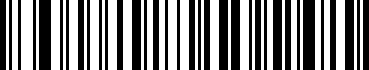
****

Enable EAN-8 convert to EAN-13

### EAN-8 Check Bit

****

Send EAN-8 Check Bit(Default)

****

Don’t Send EAN-8 Check Bit

## EAN/JAN-13

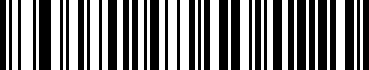


Enable

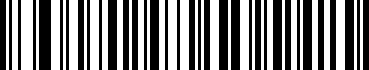


Disable

### EAN-13 Check Bit

****

Send EAN13 Check Bit (Default)

****

Don’t Send EAN13 Check Bit

### UPC/EAN/JAN Additional Code



Ignore Additional Code(Default)



Decode Additional Code



Adaptive Additional Code

### EAN13 Convert to ISBN



Enable



Disable (Default)

### EAN13 Convert to ISSN



Enable



Disable (Default)

## GS1 DataBar (RSS14)



Enable



Disable

### GS1 DataBar Limited



Enable



Disable

### GS1 DataBar Expanded



Enable



Disable

### GS1 Composite

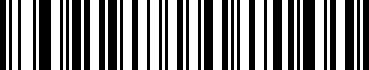
****

Enable

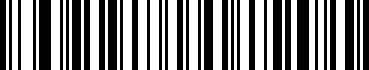
****

Disable(Default)

## MSI

****

Enable

****

Disable(Default)

### MSI Check Bit

****

Send MSI Check Bit

****

Don’t Send MSI Check Bit(Default)

### MSI Check Bit Option

****

1 Check Bit(Default)

****

2 Check Bits

### MSI 2 Check Bits Option

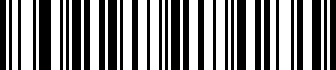
****

MOD10/MOD10(Default)

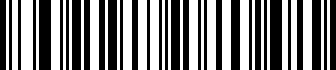
****

MOD10/MOD11

### MSI Code Reading Length Setting

****

Minimum Reading Length(0-50digits)

****

Maximum Reading Length(0-50digits)

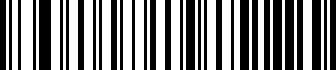
## Febraban

Note: Please disable AIM ID function before opening Febraban function.

### Enable/Disable Febraban Code(ITF25)

****

Enable

****

Disable(Default)

### Enable/Disable Febraban code(Code128)

****

Enable

****

Disable(Default)

### Febraban Check Bit

****

Enable Check Bit

****

Disable Check Bit(Default)

## PDF417



Enable



Disable

## Micro PDF417

****

Enable

****

Disable

## QR Code



Enable



Disable

### QR Code URL Link

****

Disable

****

Enable

## Micro QR



Enable



Disable

## Data Matrix



Enable



Disable

## Aztec Code



Enable



Disable

# Appendix

## Data and Edit barcode



0



1



2



3



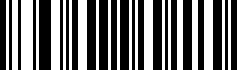
4



5



6



7



8



9



A



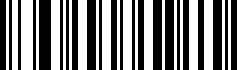
B



C



D



E



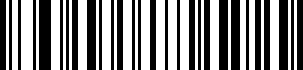
F



Cancel Current Setting



Cancel A String of Data from Previous Read



Cancel The Data from Previous Read



Save

# Barcode ID Type Table

|  |  |  |
| --- | --- | --- |
| Code type | HEX | CODE |
| All codes | 99 |  |
| Codabar | 61 | a |
| Code128 | 6A | j |
| Code32 | 3C | < |
| Code93 | 69 | i |
| Code39 | 62 | b |
| Code11 | 48 | H |
| EAN-13 | 64 | d |
| EAN-8 | 64 | d |
| GS1 DataBar | 52 | R |
| GS1-128 (EAN-128) | 6A | j |
| 2 of 5 |  |  |
| Interleaved 2 of 5 | 65 | e |
| Matrix 2 of 5 | 76 | v |
| Industry 2 of 5/IATA | 44 | D |
| UPC-A | 63 | c |
| UPC-E | 63 | c |
| ISBN | 42 | B |
| ISSN | 6E | n |
| MSI | 6D | m |
| Aztec Code | 7A | z |
| DataMatrix | 75 | u |
| PDF417 | 72 | r |
| Micro PDF417 | 53 | S |
| QR Code | 51 | Q |
| Micro QR Code | 51 | Q |

## AIM ID Table

|  |  |  |
| --- | --- | --- |
| Code type | AIM ID | Description |
| Codabar | ]Fm | m：0~1 |
| Code128 | ]C0 | m：0，1，2，4 |
| Code32 | ]A0 |  |
| Code93 | ]G0 |  |
| Code39 | ]Am | m：0，1，3，4，5，7 |
| Code11 | ]Hm | m：0，1，3，8，9 |
| EAN-13 / EAN-8 | ]Em | m：0，1，3，4 |
| GS1 DataBar | ]e0 |  |
| GS1-128 (EAN-128) | ]C1 |  |
| Interleaved 2 of 5 | ]Im | m：0，1，3 |
| Matrix 2 of 5 | ]X0 |  |
| Industry 2 of 5 | ]S0 |  |
| UPC-A / UPC-E | ]Em | m：0，3 |
| ISBN | ]X0 |  |
| ISSN | ]X0 |  |
| Aztec Code | ]z0 |  |
| DataMatrix | ]dm | m: 0~6 |
| PDF417 / Micro PDF417 | ]Lm | m: 0~5 |
| QR Code / Micro QR Code | ]Qm | m: 0~6 |

## Visible Character ASCII Table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Decimal | Hexadecimal | Character | Decimal | Hexadecimal | Character |
| 32 | 20 | <SPACE> | 80 | 50 | P |
| 33 | 21 | ! | 81 | 51 | Q |
| 34 | 22 | “ | 82 | 52 | R |
| 35 | 23 | # | 83 | 53 | S |
| 36 | 24 | $ | 84 | 54 | T |
| 37 | 25 | % | 85 | 55 | U |
| 38 | 26 | & | 86 | 56 | V |
| 39 | 27 | ‘ | 87 | 57 | W |
| 40 | 28 | ( | 88 | 58 | X |
| 41 | 29 | ) | 89 | 59 | Y |
| 42 | 2A | \* | 90 | 5A | Z |
| 43 | 2B | + | 91 | 5B | [ |
| 44 | 2C | , | 92 | 5C | \ |
| 45 | 2D | - | 93 | 5D | ] |
| 46 | 2E | . | 94 | 5E | ^ |
| 47 | 2F | / | 95 | 5F | \_ |
| 48 | 30 | 0 | 96 | 60 | ` |
| 49 | 31 | 1 | 97 | 61 | a |
| 50 | 32 | 2 | 98 | 62 | b |
| 51 | 33 | 3 | 99 | 63 | c |
| 52 | 34 | 4 | 100 | 64 | d |
| 53 | 35 | 5 | 101 | 65 | e |
| 54 | 36 | 6 | 102 | 66 | f |
| 55 | 37 | 7 | 103 | 67 | g |
| 56 | 38 | 8 | 104 | 68 | h |
| 57 | 39 | 9 | 105 | 69 | i |
| 58 | 3A | : | 106 | 6A | j |
| 59 | 3B | ; | 107 | 6B | k |
| 60 | 3C | < | 108 | 6C | l |
| 61 | 3D | = | 109 | 6D | m |
| 62 | 3E | > | 110 | 6E | n |
| 63 | 3F | ? | 111 | 6F | o |
| 64 | 40 | @ | 112 | 70 | p |
| 65 | 41 | A | 113 | 71 | q |
| 66 | 42 | B | 114 | 72 | r |
| 67 | 43 | C | 115 | 73 | s |
| 68 | 44 | D | 116 | 74 | t |
| 69 | 45 | E | 117 | 75 | u |
| 70 | 46 | F | 118 | 76 | v |
| 71 | 47 | G | 119 | 77 | w |
| 72 | 48 | H | 120 | 78 | x |
| 73 | 49 | I | 121 | 79 | y |
| 74 | 4A | J | 122 | 7A | z |
| 75 | 4B | K | 123 | 7B | { |
| 76 | 4C | L | 124 | 7C | | |
| 77 | 4D | M | 125 | 7D | } |
| 78 | 4E | N | 126 | 7E | ~ |
| 79 | 4F | O |  |  |  |

## Control Character Set (USB keyboard mode)

|  |  |  |  |
| --- | --- | --- | --- |
| Decimal | Hexadecimal | Corresponding Key Value (Disable CODE ID) | Corresponding Key Value (Enable CODE ID) |
| 0 | 00 | reserve | Ctrl+@ |
| 1 | 01 | Insert | Ctrl+A |
| 2 | 02 | Home | Ctrl+B |
| 3 | 03 | End | Ctrl+C |
| 4 | 04 | Delete | Ctrl+D |
| 5 | 05 | Page Up | Ctrl+E |
| 6 | 06 | Page Down | Ctrl+F |
| 7 | 07 | ESC | Ctrl+G |
| 8 | 08 | Backspace | Ctrl+H |
| 9 | 09 | Tab | Ctrl+I |
| 10 | 0A | Enter（The configuration of CRLF processing decide how it express） | Ctrl+J |
| 11 | 0B | Caps Lock | Ctrl+K |
| 12 | 0C | Print Screen | Ctrl+L |
| 13 | 0D | Enter（The configuration of CRLF processing decide how it express） | Ctrl+M |
| 14 | 0E | Scroll Lock | Ctrl+N |
| 15 | 0F | Pause/Break | Ctrl+O |
| 16 | 10 | F11 | Ctrl+P |
| 17 | 11 | Direction key ↑ | Ctrl+Q |
| 18 | 12 | Direction key ↓ | Ctrl+R |
| 19 | 13 | Direction key ← | Ctrl+S |
| 20 | 14 | Direction key → | Ctrl+T |
| 21 | 15 | F12 | Ctrl+U |
| 22 | 16 | F1 | Ctrl+V |
| 23 | 17 | F2 | Ctrl+W |
| 24 | 18 | F3 | Ctrl+X |
| 25 | 19 | F4 | Ctrl+Y |
| 26 | 1A | F5 | Ctrl+Z |
| 27 | 1B | F6 | Ctrl+[ |
| 28 | 1C | F7 | Ctrl+\ |
| 29 | 1D | F8 | Ctrl+] |
| 30 | 1E | F9 | Ctrl+^ |
| 31 | 1F | F10 | Ctrl+\_ |

## Control Character Set (RS232,USB-VCP)

|  |  |  |
| --- | --- | --- |
| Decimal | Hexadecimal | Character |
| 0 | 00 | NUL |
| 1 | 01 | SOH |
| 2 | 02 | STX |
| 3 | 03 | ETX |
| 4 | 04 | EOT |
| 5 | 05 | ENQ |
| 6 | 06 | ACK |
| 7 | 07 | BEL |
| 8 | 08 | BS |
| 9 | 09 | HT |
| 10 | 0A | LF |
| 11 | 0B | VT |
| 12 | 0C | FF |
| 13 | 0D | CR |
| 14 | 0E | SO |
| 15 | 0F | SI |
| 16 | 10 | DLE |
| 17 | 11 | DC1 |
| 18 | 12 | DC2 |
| 19 | 13 | DC3 |
| 20 | 14 | DC4 |
| 21 | 15 | NAK |
| 22 | 16 | SYN |
| 23 | 17 | ETB |
| 24 | 18 | CAN |
| 25 | 19 | EM |
| 26 | 1A | SUB |
| 27 | 1B | ESC |
| 28 | 1C | FS |
| 29 | 1D | GS |
| 30 | 1E | RS |
| 31 | 1F | US |

## Configuration of Instructions and Examples

### Example for user-defined prefix and suffix:

You can edit 10 characters as prefix or suffix. (In order to make sure the prefix and suffix can output normally, please enable user-defined prefix or suffix first)

**Example 1.1:**

Set” XYZ” as prefix on all codes

Before set up , please search HEX value for all codes is ”99” (Appendix: barcode type ID Table); find “X””Y””Z” HEX value is “58””59””5A” (Appendix:Visible Character ASCII Table)

Step: Set “User-defined Prefix”; Set “ 9””9””5””8””5””9””5””A” (Appendix: data and edit barcode); Set”Save”.

If you want to revise the scanned barcode before save, please set up “Cancel the data from previous read” or”Cancel a string of data from previous read” to reset. If you want to give up setting scan , then scan” Cancel current setting”.

**Example 1.2:**

Set ”R” as prefix on QR

Before set up, please search HEX value for QR code is “51”(Appendix: barcode type ID Table); find”R” HEX value is “52” (Appendix:Visible Character ASCII Table)

Step: Set “ Custom prefix”; Set”5””1””5””2” (Appendix: data and edit barcode); Set” Save”.

**Example 1.3:**

Cancel Custom prefix in QR code

Step: Set” Custom prefix”; Set”5””1”; Set” Save”

Note: If set up prefix on all QR codes, it will default all QR codes prefix after set up.

In contrast, if cancel all prefix / suffix on barcodes, please set “ Clear All Custom Prefix” and “Clear All Custom Suffix”.

### Example for barcode length range configuration

Please sure it not bigger than current maximum length range when set up minimum length. Otherwise, it will show error. In the same way, must be make sure it’s not smaller than current minimum length range when set up maximum length.

**Example 2.1:**

Set Code 128 length range is 4-12bit

Step: Set ”Code 128 Minimum（0~50bit）”; Set”4”; Set “Save” Set ”Code 128 Maximum (0+-50bit)”; Set”1””2”; Set ”Save”

**Example 2.2:**

Set Interleaved 2 of 5 length is 14bit

It can set up by “ITF25 14bit”, through barcode length range of Maximum /Minimum to set,too.

Step: Set” Interleave 2 of 5 Minimum（0~50bit）”; Set”1””4”; Set”Save” Set” Interleave 2 of 5 Maximum (0+50bit)”; Set”1””4”; Set”Save”

**Example 2.3:**

Set Code 39 length is random length

Step: Set” Code 39 Minimum（0~50bit）”; Set”0” ; Set”Save” Set”Code 39 Maximum (0+50bit)”; Set”0”; Set ”Save”

### Example for USB keyboard transmit speed configuration

If PC in a lower function, it will appear error status. Need to set up a slow scanning speed with customized under USB keyboard mode. Such as: 50ms

Step: Set”Custom Sending Speed”; Set”5””0”;Set”Save”

**Warning Tone**

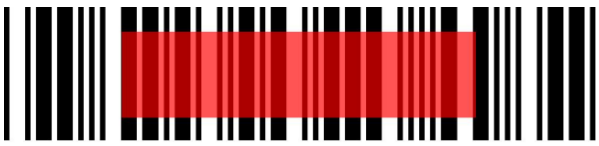
It will appear error warning for 4 times in a continue while transfer failure barcode. Please check if it’s normal work when appear this situation.

**Read Skills**

To get a good reading performance, a beam of aim light from scanner should be aimed at the centre of barcode, support to aim in any directions for read convenient,too.

More nearly barcode, the beam of aim light is smaller; More further barcode, the beam of aim light bigger. For reading barcode correctly, if barcode is small, the scanner should be close to barcode, if barcode is big, the scanner should be farther to barcode.

If the barcode is highly reflective (for example: coated surface), please adjust the scanner angle to read it successfully.

**Safety**

Please not direct aim eye when the scanner has a strong ray of light, to avoid causing any hurt or unwell.