# Programming User's Manual
# 2D Barcode Scanner
# HT-880DPM

Restore Default

Firmware version

Firmware build time

## Content

## Enable/Disable Configuration

Scanner only can be set when configuration function is enabled.

Enable configuration function*

Disable configuration function

## Version No.

Version number

Firmware build time

## Virtuos Factory Default Setting

All the scanners have a factory default setting. Reading the "Restore Virtuos factory default" barcode will restore all the settings of the scanner to the factory default.

You are most likely to use this barcode in the following situations:

1. The scanner settings are wrong, such as scanner cannot read barcodes.
2. You have forgotten what settings you made for the scanner before, and you do not want to be affected by the previous settings.
3. The scanner is set to use a function that is not often used, and it has been used. Note: * indicates the default value

Restore Virtuos Factory Default

## Data Interface

USB-KBW*

RS232

USB-VCOM (*driver is needed)

## USB Keyboard Layout

### Control Character Escaping

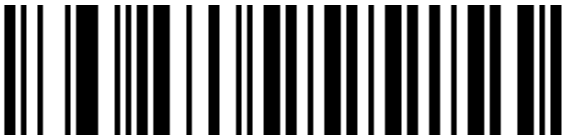
Enable escaping mode 1

Enable escaping mode 2*

Disable

## Other Character Escaping

Enable



Disable*

## CR/LF Setting (USB-KBW)

Only 0A (LF) line feed

Only 0D (CR) line feed*

0A (LF) and 0D (CR) both line feed

## USB-KBW Transfer Speed

Set the data transfer speed under USB-KBW interface. If the PC is an old version with lower performance, please choose low transfer speed to ensure the accuracy of data transfer.

Low

Middle

High*

Custom transfer speed (2 ms ~ 50 ms)

## Convert Case

Original data*

Case inversion

All convert to upper case

All convert to lower case

## Keyboard Layouts

English (United States)

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)*

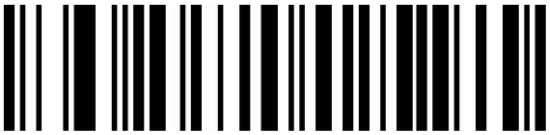
Portuguese (Portugal)

Portuguese (Brazil)

Swedish (Sweden)

Turkish Q

Turkish F



Greek (MS)

French (Belgium)

English (UK)

Hungarian

Hungarian 101-KEY

Vietnamese

Slovak

## Virtual Keyboard

Mode 1: Disable output characters between 0x20 to 0xFF by virtual keyboard.

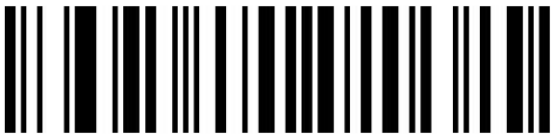
Enable output characters between 0x00~0x1F by control characters definition (refer to Appendix).

Model 2: Enable output characters between 0x20 to 0xFF by virtual keyboard.

Enable output characters between 0x00~0x1F by control characters definition (refer to Appendix).

Model 3: Enable output characters between 0x00～0xFF by virtual keyboard.

Turn off



Turn on (mode 1)*

Turn on (mode 2)

Turn on (mode 3)

## Select Host System In Virtual Keyboard Mode

WINDOWS*

MAC OS

LINUX

## Barcode Encoding Configuration

Generally, the barcodes encoding can be identified accurately.

Please set suitable encoding configuration if there have unique characters, to ensure correct data output.

Auto*

KOI8-R code

Japanese Shift-JIS

Chinese(traditional) big5

## Output Encoding Format

To output data under specified encoding format, the corresponding mode needs to be set.

English/Latin-1*

GBK (Notepad/Excel)

UNICODE (Word)

Japanese Shift-JIS (Notepad/Excel)

UTF-8

Chinese (traditional) big5 (Notepad/Excel)

## RS232 Interface Configuration

### Baud Rate

4800

9600*

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*

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

No replacement*

Please set ‘Virtual keyboard (Mode 1 or Mode 2 or Mode 3)’ if output character is ‘Ç’

Replace GS to Ç

Replace GS to |

Replace GS to ^]

Replace GS to ]

Replace GS to <GS>

**Custom GS Replacement Instruction(replace to 10 characters at most)**

Example: Replace GS character to ‘#GS#’

1. Scan ‘Custom GS replacement setting’
2. Scan ASCII hex value codes of #GS#, ASCII hex value of #GS# are 0x23 0x47 0x53 0x23 in ‘Appendix ASCII table’, then scan ‘2’ ‘3’ ‘4’ ‘7’ ‘5’ ‘3’ ‘2’ ‘3’ barcodes in the ‘Data Edit and Setting Parameter Barcodes’
3. Scan ‘Save’ in the ‘Data Edit and Setting Parameter Barcodes’

Custom GS replacement setting

## GS1 AI Output Format

Disable*

Output format 1

Output format 2

## Control Characters Output

Disable output

Enable output

## Scan Mode

### Auto Sense Mode off

Off*

### Auto Sense Mode on

On

## Repeat Barcode Detection

Setting for the interval time of decoding the same barcode, scanner will only decode the same barcode one time if not exceeding the set time.

500 ms

750 ms*

1 s

2 s

## Lighting

Red light

Cyclic light*

White light

## LED Indicator Light

Off

On*

# Buzzer Configuration

## Volume Setting

Low

High*

## Start Sound Setting

Off

On*

## Decode Success Sound Setting

Off

On*

## Decode Success Tone Setting

Tone 1*

Tone 2

Tone 3

Custom

## Decode Success Sound Duration Setting

Long*

Short

## Error Warning Tone Setting

Scanner will make four consecutive error warning sounds if data transmission failed, and a single error warning sound if the unrecognizable configuration code is scanned.

Low*

Middle

High

## Vibrator Setting

### Start-up Vibrator Setting

Off*

On

### Success Decoding Vibrator Setting

Off

On*

Set vibration time (ms)

# Prefix and Suffix Configuration

## Start Character

None*

STX

## Terminal Character

If you need to use LF or CR/LF, enable escape mode 1 in the Control Character Escaping chapter on page 6.

None

Enter*

LF

CR/LF

TAB

ETX

## Custom Prefix

### Output Options

Enable

Disable*

### Edit

Clear all custom prefix

Set custom prefix

(Please refer to the appendix Code ID and ASCII table for setting)

## Custom Suffix

### Output Options

Enable

Disable*

### Edit

Clear all custom suffix

Set custom suffix

(Please refer to the appendix Code ID and ASCII table for setting)

## Code ID

### Output Options

Disable*

Enable Code ID in front of code

Enable Code ID behind of code

## Edit

Set custom Code ID

(Please refer to appendix ID type table, Data Edit and Setting Parameter Barcodes)

Clear all custom Code ID

## AIM ID

Disable*

Enable AIM ID in front of barcode

Enable AIM ID behind of code

## Prefix and Suffix Sequence Setting

### Prefix

Start Character + CODE ID+ AIM ID + Custom Prefix*

Start Character + Custom Prefix + CODE ID + AIM ID

### Suffix

Custom Suffix + CODE ID + AIM ID + Terminal Character*

CODE ID + AIM ID + Custom Suffix + Terminal Character

# Data Edit

The data edit function can customize the barcode data to three fields (Start/Center/End) by configuring the Start/End field length.

Note: Custom prefix / suffix, start characters, end characters, CODE ID, AIM ID and other non-barcode contents will not be affected by the data edit function.

## Field Length Configuration

Set start part length

Set end part length

## Data Output Setting

Output the full data*

Only output the start part

Only output the center part

Only output the end part

## Inverse Color Code Setting

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

Only read normal codes

Only read inverse color codes

Read both normal & inverse color codes*

## 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*

Enable

# Barcode Type Selection

## Enable/Disable All Barcodes

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/End Character Output

Disable*

Enable

## Set Reading Length Range For Codabar

Minimum length(0~50bits)

Maximum length(0~50bits)

## Code 39

Enable*

Disable

## Code 39 Check Bit Setting

Disable*

Enable but not send check bit

Enable and send check bit

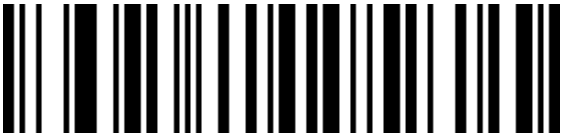
## Code 39 Full ASCII

Enable

Disable*

## Code 39 Start/End Character Output

Enable



Disable*

## Set Reading Length Range For Code 39

Minimum length(0~50bits)

Maximum length(0~50bits)

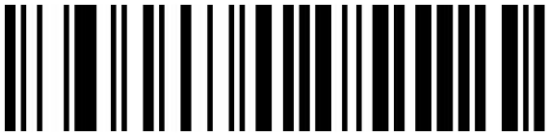
## Code 32 (Enable Code 39 First)

Enable

Disable*

## Code 32 Prefix

Enable



Disable*

## Interleaved 2 of 5 (ITF25)

Enable*

Disable

## Interleaved 2 of 5 (ITF25) Check Bit

Disable*

Enable but not send check bit

Enable and send check bit

## Interleaved 2 of 5 (ITF25) Reading Length Setting

Random length (6-50bits)*

6 Bits

8 Bits

10 Bits

12 Bits

14 Bits

16 Bits

18 Bits

20 Bits

22 Bits

24 Bits

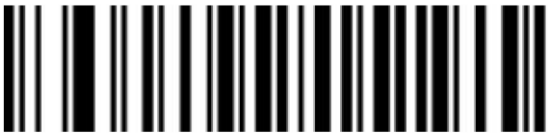
## Set Reading Length Range for Interleaved 2 of 5

Minimum length(0~50bits)

Maximum length(0~50bits)

## Industrial 2 of 5

Enable



Disable*

## Set Reading Length Range for Industrial 2 of 5

Minimum length(0~50bits)

Maximum length(0~50bits)

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

Enable

Disable*

## Set Reading Length Range for Matrix 2 of 5

Minimum length(0~50bits)

Maximum length(0~50bits)

## Code 93

Enable*

Disable

## Set Reading Length Range for Code 93

Minimum length(0~50bits)

Maximum length(0~50bits)

## Code 11

Enable

Disable*

## Code 11 Check Bit Output

Enable

Disable*

## Code 11 Check Bit Setting

Disable*

1 Bit

2 Bits

## Set Reading Length Range for Code 11

Minimum length(0~50bits)

Maximum length(0~50bits)

## Code 128

Enable*

Disable

## Code 128 Leading 0 Filtering

Disable

Enable

## GS1-128

Enable*

Disable

## ISBT

Enable*

Disable

## Set Reading Length Range for Code 128

Minimum length(0~50bits)

Maximum length(0~50bits)

## UPC-A

Enable*

Disable

## UPC-A Check Bit Output

Enable*

Disable

## UPC-A Leading Characters

UPC-A convert to EAN-13 (Output Country Code + System Characters)

Output system characters*

Disable

## UPC-E

Enable*

Disable

## UPC-E Check Bit Output

Enable*

Disable

## UPC-E Expand to UPC-A

Enable

Disable*

## UPC-E Leading Characters

Output country code + system characters

Output system characters*

Disable

## EAN/JAN-8

Enable*

Disable

## EAN-8 Convert to EAN-13

Disable*

Enable

## EAN-8 Check Bit Output

Enable*

Disable

## EAN/JAN-13

Enable*

Disable

## EAN 13 Check Bit Output

Enable*

Disable

## UPC/EAN/JAN Additional Code

Disable reading UPC/EAN/JAN with additional codes*

Only read UPC/EAN/JAN with additional code

Adaptive reading UPC/EAN/JAN with additional codes


## EAN13 Convert to ISBN

Enable

Disable*

## EAN13 Convert to ISSN

Enable

Disable*

## GS1 DataBar (RSS14)

Enable

Disable*

## GS1 DataBar Limited

Enable

Disable*

## GS1 DataBar Expanded

Enable

Disable*

## MSI

Enable

Disable*

## Set Reading Length Range for MSI

Minimum length(0-50digits)

Maximum length(0-50digits)

## MSI Check Bit Output

Enable

Disable*

## MSI Check Bit Setting

1 check bit*

2 check bits

## MSI 2 Check Bits Option

MOD10/MOD10

MOD10/MOD11

## PDF417

Enable*

Disable

## Set Reading Length Range for PDF417

Minimum length

Maximum length

## Micro PDF417

Enable*

Disable

## Set Reading Length Range for Micro PDF417

Minimum length

Maximum length

## QR Code

Enable*

Disable

## QR Code URL Link

Disable

Enable*

## Set Reading Length Range for QR

Minimum length

Maximum length

## Micro QR

Enable*

Disable

## Set Reading Length Range for Micro QR

Minimum length

Maximum length

## Data Matrix

Enable*

Disable

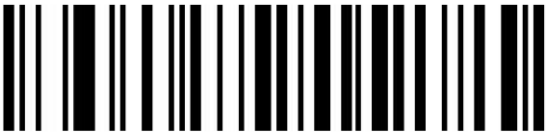
## Set Reading Length Range for Data Matrix

Minimum length

Maximum length

## Aztec Code

Enable



Disable*

## Set Reading Length Range for Aztec

Minimum length

Maximum length

## Maxicode

Enable

Disable*

## Set Reading Length Range for Maxicode

Minimum length

Maximum length

# Appendix

## Data Edit and Setting Parameter Barcodes

0

1

2

3

4

5

6

7

8

9

A

B

C

D

E

F

Cancel current setting

Cancel the string data of previous setting

Cancel the data of previous setting

Save

## Barcode Type ID 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 | Hexadectimal | Character | Decimal | Hexadectimal | 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 Setting (USB-KBW)

| Decimal | Hexadecimal | Key Value (disable CODE ID escaping) | Key Value (enable CODE ID escaping) |
|---|---|---|---|
| 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 (Output is influenced by the configuration of CR/LF) | Ctrl+J |
| 11 | 0B | Caps Lock | Ctrl+K |
| 12 | 0C | Print Screen | Ctrl+L |
| 13 | 0D | Enter (Output is influenced by the configuration of CR/LF) | 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 |

## Other Characters Escaping (USB-KBW)

| Decimal | Hexadecimal | Character |
|---|---|---|
| 129 | 81 | F13 |
| 130 | 82 | F14 |
| 131 | 83 | F15 |
| 132 | 84 | F16 |
| 133 | 85 | F17 |
| 134 | 86 | F18 |
| 135 | 87 | F19 |
| 136 | 88 | F20 |
| 137 | 89 | F21 |
| 138 | 8A | F22 |
| 139 | 8B | F23 |
| 140 | 8C | F24 |

## Examples For Setting

### Examples for Custom Prefix and Suffix:

The max number of characters for prefix/suffix are 10 characters. (In order to make sure the prefix and suffix to be output normally, please enable custom prefix or suffix first)

**Example 1.1:**

Set ’XYZ’ as prefix for all codes

Before setting, please search HEX value for all codes and it’s ‘99’ (Appendix: Barcode Type ID Table); ‘X’, ‘Y’, ‘Z’ HEX value is ‘58’, ‘59’ and ‘5A’ (Appendix: Visible Character ASCII Table)

Steps: Set ‘Custom Prefix’; Set ‘9’, ‘9’, ‘5’, ‘8’, ‘5’, ‘9’, ‘5’, ‘A’, ‘Save’(Appendix: Data Edit and Setting Parameter Barcodes).

If you need to revise the scanned data before save, please scan ‘Cancel the data of previous setting’ or ‘Cancel the string data of previous setting’ to reset.

If you need to give up setting, please scan ‘Cancel current setting’.

**Example 1.2:**

Set ”R” as prefix for QR

Before setting, please search HEX value for QR code and it’s ‘51’(Appendix: Barcode Type ID Table); ‘R’ HEX value is ‘52’ (Appendix: Visible Character ASCII Table)

Steps: Set ‘custom prefix’; Set ‘5’, ‘1’, ‘5’, ‘2’, ‘Save’(Appendix: Data Edit and Setting Parameter Barcodes).

**Example 1.3:**

Cancel Custom prefix for QR code

Steps: Set ’Custom prefix’, Set ‘5’, ‘1’, ‘Save’.

Note: If setting prefix for all QR codes, it will cover prefix settings for all QR codes prefix.

In contrast, if you need to cancel all prefix/suffix for all barcodes, please set ‘Clear all custom prefix’ and ‘Clear all custom suffix’.

**Example 1.4:**

Set ’F13’ as prefix for all codes

Before setting, please search HEX value for all codes and it’s ‘99’ (Appendix: Barcode Type ID Table); ‘F13’ HEX value is ‘81’(Appendix: Other Character Escaping)

Steps: Set ‘Enable Other Character Escaping’ ‘Custom prefix-Enable’, ‘Set custom prefix’, Set ‘9’, ‘9’, ‘8’, ‘1’, ‘Save’ (Appendix: Data Edit and Setting Parameter Barcodes).

#### Examples for Barcode Reading Length Setting

When setting the minimum reading length of a barcode, you need to ensure that the minimum length you set is not longer than the current maximum length setting, otherwise an error will be prompted. Similarly, when setting the maximum reading length of a barcode, you need to ensure that the maximum length you set is not less than the current minimum length setting.

Ex1: Set the reading length of Code128 as 4-12 characters

“Minimum length(0~50bits)”----------Set Reading Length Range For Code 128

“4”----------Data Edit and Setting Parameter Barcodes

“Save”----------Data Edit and Setting Parameter Barcodes

“Maximum length(0~50bits)”----------Set Reading Length Range For Code 128

“1”----------Data Edit and Setting Parameter Barcodes

“2”----------Data Edit and Setting Parameter Barcodes

“Save”----------Data Edit and Setting Parameter Barcodes

### Example for USB-KBW Transfer Speed Configuration

If the PC is an old version with lower performance, please choose low transfer speed to ensure the accuracy of data transfer, such as: 50ms

Steps: Set ‘Custom transfer speed’, Set ‘5’, ‘0’, Set ‘Save’.

#### Warning Sound

The scanner will make continuous 4 times error warning sound when data transferring is abnormal. Please check if the cable connection is normal.

**Read Skills**

To get a good reading performance, the aiming light needs to be aimed at the center of barcode, and it can be aimed in any directions for convenient reading.

To read barcode correctly, if barcode is small, the scan window of the scanner needs to be closed to the barcode, if barcode is big, the scan window of the scanner needs to be far away from the barcode.

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

## Safety

Please don’t use aiming light of the scanner to aim at eyes directly, to avoid causing any hurt or unwell feelings.