

# **2D Barcode Scanner User Manual**

**HF-V1.3**

# Content

Product Introduction .....	5
Quick To Use .....	5
Install Method .....	5
Quick To Use .....	5
Setting Method .....	5
Factory Default Setting .....	6
Version Information .....	6
Function Settings .....	6
Interface Selection .....	6
USB Interface .....	6
USB Virtual Serial Port .....	7
RS232 Interface .....	7
RS232 Baud Rate .....	7
Parity Check .....	8
Stop Bit .....	8
Data Bit .....	8
Scan Mode .....	8
Same Barcode Scan Delay Setting .....	8
Keyboard Function .....	9
Keyboard Language Setting .....	9
Number Lock Function .....	10
Case Conversion .....	10
Character Input Delay .....	10
Alt Emulate Keyboard .....	11
Control Character Escape .....	11
Invisible Character Output .....	11
Input Encoding Format .....	12
Output Encoding Format .....	12
GS Control Character Replacement .....	12
Data Edit .....	13
Prefix Setting .....	13
Suffix Setting .....	13
Terminator And Start Character Setting .....	14
Data Cutting .....	14
Data Bit Setting .....	15
Barcode Data 0D 0A Line Feed Setting .....	15
Code ID Prefix .....	16
Sound Settings .....	16
Decoding Prompt Sound .....	16
Decoding Prompt Sound Volume .....	16
Decoding Prompt Sound Tone .....	16
Advanced Setting .....	16
White LED Fill Light Setting .....	16

Red LED Aiming Light Setting .....	17
Scan Prompt Light Setting .....	17
Inverse Color Barcode Reading .....	17
GS1 AI Character .....	17
Barcode Function Setting .....	17
Overall Setting .....	17
Enable/Disable Reading 1D/2D Barcodes .....	18
UPC/EAN/JAN Additional Code .....	18
Codabar .....	19
Codabar Check Bit Setting .....	19
Codabar Start/End Character Sending .....	19
Set Reading Length Range For Codabar .....	19
Code 11 .....	19
Code 11 Check Bit Setting .....	20
Set Reading Length Range For Code 11 .....	20
Code 128 .....	20
Set Reading Length Range For Code 128 .....	20
GS1 128 .....	21
Code 39 .....	21
Code 39 Check Bit Setting .....	21
Code 39 Start/End Character Sending .....	21
Code 39 Full ASCII .....	21
Set Reading Length Range For Code 39 .....	22
Code 93 .....	22
Code 93 Check Bit Setting .....	22
Set Reading Length Range For Code 93 .....	22
EAN 8 .....	22
EAN 8 Check Bit Sending .....	23
EAN 8 Expand To EAN 13 .....	23
EAN 13 .....	23
EAN 13 Check Bit Sending .....	23
UPC-A .....	23
UPC-A Check Bit Sending .....	24
UPC-A Prefix Character Output Setting .....	24
UPC-E .....	24
UPC-E Check Bit Sending .....	24
UPC-E Prefix Character Output Setting .....	24
UPC-E Expand To UPC-A .....	25
Matrix 25 .....	25
Matrix Check Bit Setting .....	25
Set Reading Length Range For Matrix 25 .....	25
RSS14 .....	25
RSS-Stack .....	26
RSS-Expanded .....	26
RSS-Expanded Stack .....	26
RSS-Limited .....	26

Code 32 .....	26
Code 32 Check Bit Setting .....	27
Code 32 Start Character Setting .....	27
Interleaved 2 of 5 .....	27
Interleaved 2 of 5 Check Bit Setting .....	27
Set Reading Length Range For Interleaved 2 of 5 .....	27
Industrial 25 .....	28
Industrial 25 Check Bit Setting .....	28
Set Reading Length Range For Industrial 25 .....	28
Standard 25 .....	28
Standard 25 Check Bit Setting .....	28
Set Reading Length Range For Standard 25 .....	29
MSI .....	29
MSI Check Bit Setting .....	29
Set Reading Length Range For MSI .....	29
Plessey .....	29
Plessey Check Bit Setting .....	30
Set Reading Length Range For Plessey .....	30
DataMatrix .....	30
Set Reading Length Range For DataMatrix .....	30
QR .....	30
URL Link QR Code Reading .....	31
Set Reading Length Range For QR .....	31
Micro QR .....	31
PDF 417 .....	31
Set Reading Length Range For PDF 417 .....	31
Micro PDF .....	32
Maxicode .....	32
Set Reading Length Range For Maxicode .....	32
Aztec .....	32
Set Reading Length Range For Aztec .....	32
Han Xin Code .....	33
Set Reading Length Range For Han Xin Code .....	33
Appendix .....	33
Data Edit And Setting Parameter Barcodes .....	33
Code ID Table .....	35
Appendix ASCII table .....	36
Control Character Table(USB-KBW Mode) .....	37
Examples For Setting .....	37

# Product Introduction

This user guide is only suitable for 2D barcode scanner. The purpose is to enable users to fully master the use of the scanner. This manual is mainly for the software engineers and some customers who want to know the device in further.

The 2D barcode scanner can read all kinds of main 1D and 2D codes, including:

1D: Codabar、Code11、Code39、Code32、Interleaved 2 of 5、Industrial 2 of 5、Matrix 2 of 5、Code93、Code128、GS1-128、UPC-A、UPC-E、EAN 8、EAN 13、ISBN、ISSN、GS1 DataBar (RSS14)、GS1 DataBar Limited、GS1 DataBar Expanded、MSI、Standard 25、Plessey

2D: PDF417、Micro PDF417、QR Code、Micro QR、Data Matrix、Aztec Code、Hanxin code、Maxicode

This manual lists the main function of the scanner, including: barcode reading, supported barcode type, data edit, command setting and advanced setting.

The product has been configured with parameters suitable for most common application functions before packing. In most cases, users can use it directly without making any adjustments. The default functions and parameters are listed in the appendix of this manual for reference. The options marked with "\*" in the setting code also represent the default functions or parameters.

## Quick To Use

### Install Method

For USB cable version scanners, it is plug and play, no need extra driver or power supply. That's convenient appropriate for Windows, Linux, Android and other system. It also support Virtual COM port, just need an extra driver supply, which can be offered by manufacturer or dealers. The physical serial port conforms to standard RS-232 interfaces, which can directly communicate with standard RS232 device. Please note an additional DC 5V power supply is generally required for RS232 interface. For details, please refer to the serial port function section.

### Quick To Use

The scanner will startup in a short time after connecting to a power supply, scanner will automatically load the preset settings during startup, including interface, power on indication, volume indication, configuration, parameters setting. Normally, pressing the button can activate decoding. If the decoding is completed, the device will turn off reading, output data, sound or LED prompt (depending on the settings). In additional, the scanner also supports automation induction trigger, serial command trigger.

### Setting Method

There are two methods for set up.

One method is scanning a barcode to finish setting.

Example: "Decoding sound tone 1", or "Enable code 39".

The other method needs to set up parameters.

Example: set "98" as suffix.

Setting steps: "Custom suffix", "3", "9", "3", "8", "Save".

## Factory Default Setting

All the scanners have a factory default setting. Reading the "Restore 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 can not 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.

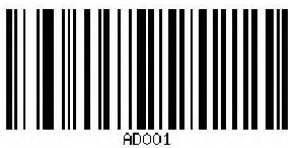
Note: \* indicates the default value



Restore factory default

## Version Information

The version number information is the current firmware version, and the device information includes the current version built time, firmware version, hardware information, device name, and SN number.



Version information



Device information

## Function Settings

### Interface Selection

#### USB Interface

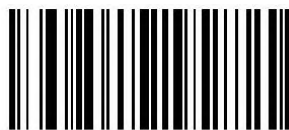
When setting the USB interface, the scanner can be simulated as a HID-KBW device. In this mode, the scanner will become a virtual keyboard to send data to the host.



USB-KBW\*

## USB Virtual Serial Port

If the application of the host using the serial communication method to receive data, the scanner can be set to the USB-VCOM mode. This function requires the installation of the corresponding driver on the host.



USB-VCOM

## RS232 Interface

The scanner with RS232 cable communicates with the host through the serial communication interface. It supports receiving reading data, issuing commands to control the scanner, and changing the function parameters of the scanner.



RS232

## RS232 Baud Rate

The RS232 baud rate setting is only used in RS232 interface, It means sending data from the scanner to the host at a specified rate. The host must be set to the same baud rate as the scanner.



BA030  
9600\*



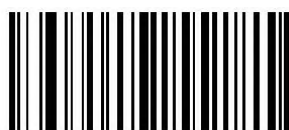
BA000  
1200



BA010  
2400



BA020  
4800



BA040  
19200



BA050  
38400



BA060  
57600



BA070  
115200



BA080  
25600

## Parity Check

Parity check provides an efficient method of checking character bit patterns.



None\*



Even parity



Odd parity

## Stop Bit

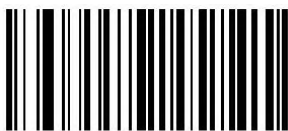


1 bit\*

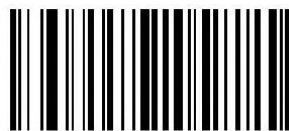


2 bits

## Data Bit

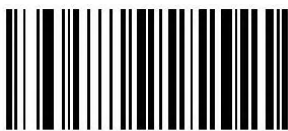


8 bits\*



7 bits

## Scan Mode



Manual\*



Auto sense

## Same Barcode Scan Delay Setting

The scanner will delay read when it reading the same barcode, the delay time is calculated from scan window leaving the barcode.



200ms\*



500ms



1s





DNO16

5s



DNO17

10s



DNO18

30s

## Keyboard Function

## Keyboard Language Setting



JD200

USA\*



JD201

Japan



JD202

Brazil



JD203

Czech



JD204

Denmark



JD205

Sweden



JD206

France



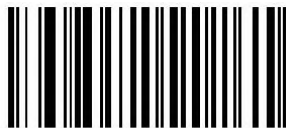
JD207

Italy



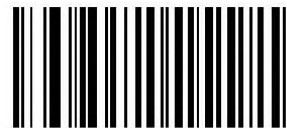
JD208

Norway



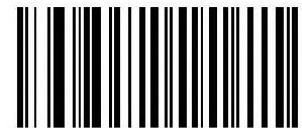
JD209

Spain



JD210

Slovakia



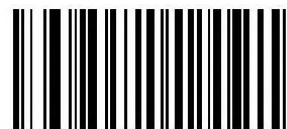
JD211

Turkey Q



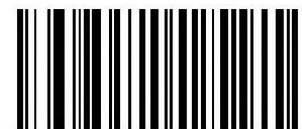
JD212

UK



JD213

Germany



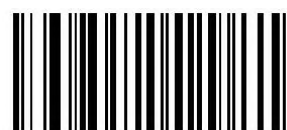
JD214

Greece



JD215

Hungary



JD216

Turkey (F)



JD217

Finland



Russia



Netherlands

## Number Lock Function

Enabling this function can move the numeric keypad in the letter area to the keypad area and input the number with keypad.



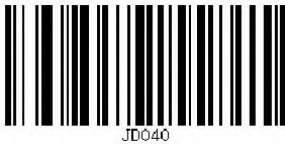
Number lock on



Number lock off \*

Note: Before enabling this function, please make sure that the Number Lock of the host is turned on. If the "Alt Emulate Keyboard Mode" is turned on, this function will be invalid.

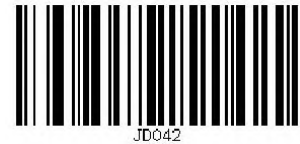
## Case Conversion



No Conversion\*



All convert to upper case

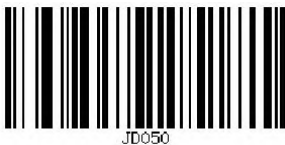


All convert to lower case

## Character Input Delay

The time interval between key pressing during character input, from the last key release to the next key press.

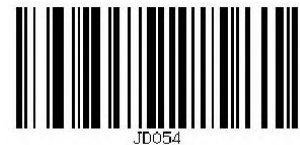
Note: The default interval 5ms is to be compatible with hosts with different performance and operating systems and ensure data output stability. You need to set longer delay time if the data still lost due to slow running of system.



No delay



Delay 5ms\*



Delay 10ms



Delay 20ms



Delay 40ms

## Alt Emulate Keyboard

In order to enable the scanner to input any ASCII characters (hexadecimal 0x00 to 0xFF) in any keyboard languages, the keyboard can be set to Alt Emulate Keyboard mode. When using this mode to send characters, the speed will be slow because more data to be sent.



Alt emulate keyboard off \*



Alt emulate keyboard on

## Control Character Escape

The control characters escape output rules by this product cannot be recognized in some systems or software. You can achieve this function by setting the control character escape.

The following escape will be operated after successful decoding:

1. Press and hold the "CTRL" key
2. Press the letter keys on the keyboard in sequence according to the character escape (check the appendix for details)
3. Release the "CTRL" key



Control character escape off\*



Control character escape on

## Invisible Character Output

Example: The following QR code has 'CR' invisible character:



123«CR»456

The default output data: 123

456

Ignore invisible characters: 123456

Note: If the barcode contains 0x0A characters, LF cannot be displayed in WINDOWS. Please set 0x0A to replace 0x0D (Enter).



Don't ignore invisible characters\*



Ignore invisible characters

## Input Encoding Format

Select the encoding format for creating the code (if it is PDF417, QR Code, Data Matrix, etc.). After setting, the code can be correctly recognized. UTF-8 and Shift-JIS encoding format barcodes are automatically recognized as default.



UTF-8



GBK



Automatic\*



KOI-8



BIG5



JIS

## Output Encoding Format

If the data the host receiving does not display the correct characters, the barcode could be created by a different encoding format.



USA\*



GBK



Unicode



Shift-JIS

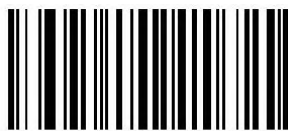


UTF-8

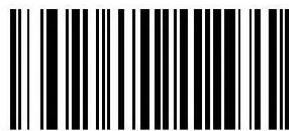


BIG5

## GS Control Character Replacement



No replacement\*



Replace GS to Ç



Replace GS to |



Replace GS to ^]



Replace GS to ]



Replace GS to <GS>



Enable custom GS replacement



Custom GS replacement setting

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

Example: Replace GS character to '#GS#'

1. Scan 'Enable custom GS replacement'
2. Scan 'Custom GS replacement setting'
3. 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'
4. Scan 'Save' in the 'Data Edit And Setting Parameter Barcodes'

## Data Edit

### Prefix Setting

Example: set "a" as prefix(hexadecimal value of a is 61).

Step:

- "Enable custom prefix setting",
- "Custom prefix setting",
- "6", (data edit parameter table)
- "1", (data edit parameter table)
- "Save".(data edit parameter table)



Disable custom prefix setting\*



Enable custom prefix setting



Custom prefix setting

### Suffix Setting

Example: set "a" as suffix(hexadecimal value of a is 61).

Step:

- "Enable custom suffix setting",
- "Custom suffix setting",
- "6", (data edit parameter table)
- "1", (data edit parameter table)

“Save”.(data edit parameter table)



Disable custom suffix setting\*



Enable custom suffix setting



Custom suffix setting

## Terminator And Start Character Setting

The terminator is at the end of the data, and the start character is at the front of the data. The key value of the terminator ETX is End, and the key value of the start character STX is Home.



No terminator



Terminator Enter\*  
(0x0D)



Terminator(CR/LF)  
(0x0D 0x0A)



Terminator TAB



Terminator ETX



Terminator LF  
(0x0A)



No start character\*



Start character STX

## Data Cutting



Send full data\*



Send start field of data



Send middle field of data



Send end field of data



Send start+middle field of data



Send start+end field of data



Send middle+end field of data

## Data Bit Setting

The data edit function can cut the barcode data into three fields: start/middle/end fields by configuring the data length of the start/end fields. Please set the length and sending of the start/end fields according to actual needs. Note: Customized prefix and suffix, start character, terminator, CODE ID, AIM ID and other non original data are not affected by the data edit function.

Example: Set the start field as 2 characters, set the end field as 3 characters, send middle field data.



Steps:

“Set start field length”

“2”, (data edit parameter table)

“Save”.(data edit parameter table)

“Set end field length”

“3”, (data edit parameter table)

“Save”.(data edit parameter table)

“Send middle field of data”



Set start field length



Set end field length

## Barcode Data 0D 0A Line Feed Setting



Only 0A line feed



Only 0D line feed\*



0A 0D both line feed

## Code ID Prefix

After turning on Code ID, the corresponding Code ID prefix will appear in the output data. For details, please refer to the appendix.



Disable\*



Enable

## Sound Settings

### Decoding Prompt Sound



Off



On\*

### Decoding Prompt Sound Volume



High volume\*



Low volume

### Decoding Prompt Sound Tone



Tone 1



Tone 2



Tone 3

## Advanced Setting

### White LED Fill Light Setting

Note: Turning off fill light may affect reading performance



CA000



CA020



On\*

Off

## Red LED Aiming Light Setting



CB000

On\*



CB020

Off

## Scan Prompt Light Setting



AH040

On\*



AH030

Off

## Inverse Color Barcode Reading



AB260

Only read normal codes\*



AB262

Read both normal & inverse codes

## GS1 AI Character

Read barcodes containing GS1 AI characters, such as GS1-128, GS1-DM, GS1-Databar, and medical UDI barcodes, and output AI characters containing brackets. For example:



(01) 0 0000123 00001 7 (17) 240601

GS1-DM



(01) 0 0000123 00001 7

GS1-128



EN050

No processing



EN060

Output including bracket



EN070

Output including bracket+LF

## Barcode Function Setting

### Overall Setting

Each type of barcode has its own unique features. The settings in this chapter can be used to adjust the scanner

to adapt to these feature changes.

The fewer barcode types turned on "Enable Reading", the faster the scanner will read. Disabling some barcode types can improve reading performance.

## Enable/Disable Reading 1D/2D Barcodes



Enable all 1D barcodes



Disable all 1D barcodes



Enable all 2D barcodes



Disable all 2D barcodes

## UPC/EAN/JAN Additional Code



Disable reading UPC/EAN/JAN with additional codes\*



Adaptive reading UPC/EAN/JAN with additional codes



Only read UPC/EAN/JAN with additional codes



— Disable reading UPC/EAN/JAN with additional codes\*

— Only read UPC/EAN/JAN with additional codes

— Adaptive reading UPC/EAN/JAN with additional codes

## Codabar



EJO10

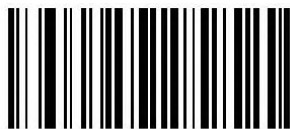
Disable



EJO20

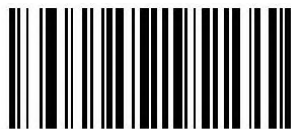
Enable\*

## Codabar Check Bit Setting



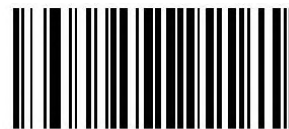
EJO50

Disable\*



EJO60

Enable but not send check bit



EJO70

Enable & send check bit

## Codabar Start/End Character Sending



EJO80

Enable



EJO90

Disable\*

## Set Reading Length Range For Codabar



EJO30

Minimum length(0~50bits)



EJO40

Maximum length(0~50bits)

## Code 11



FIO10

Disable\*



FIO20

Enable

## Code 11 Check Bit Setting



Disable\*



Enable but not send check bit



Enable & send check bit



1 check bit, MOD11



2 check bits, MOD10/MOD11

## Set Reading Length Range For Code 11



Minimum length(0~50bits)



Maximum length(0~50bits)

## Code 128



Enable



Disable\*

## Set Reading Length Range For Code 128



Minimum length(0~50bits)



Maximum length(0~50bits)

## GS1 128



Disable\*



Enable

## Code 39



Disable



Enable\*

## Code 39 Check Bit Setting



Disable\*



Enable but not send check bit



Enable & send check bit

## Code 39 Start/End Character Sending



Disable\*



Enable

## Code 39 Full ASCII



Enable



Disable\*

## Set Reading Length Range For Code 39



Minimum length(0~50bits)



Maximum length(0~50bits)

## Code 93



Disable\*



Enable

## Code 93 Check Bit Setting



Disable\*



Enable but not send check bit



Enable & send check bit

## Set Reading Length Range For Code 93



Minimum length(0~50bits)



Maximum length(0~50bits)

## EAN 8



Disable



Enable\*

## EAN 8 Check Bit Sending



Disable



Enable\*

## EAN 8 Expand To EAN 13



Enable

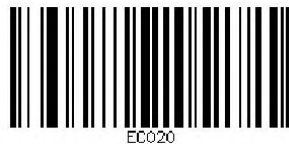


Disable\*

## EAN 13



Disable

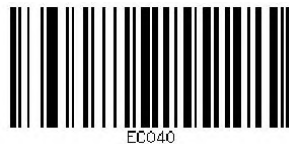


Enable\*

## EAN 13 Check Bit Sending



Disable



Enable\*

## UPC-A



Disable



Enable\*

## UPC-A Check Bit Sending



Disable



Enable\*

## UPC-A Prefix Character Output Setting



No prefix



System character\*



System character and country code

## UPC-E



Disable



Enable\*

## UPC-E Check Bit Sending



Disable



Enable\*

## UPC-E Prefix Character Output Setting



No prefix



System character\*



System character and country code



## UPC-E Expand To UPC-A



Disable\*



Enable

## Matrix 25



Disable



Enable\*

## Matrix Check Bit Setting



Disable\*



Enable but not send check bit



Enable & send check bit

## Set Reading Length Range For Matrix 25



Minimum length(0~50bits)



Maximum length(0~50bits)

## RSS14

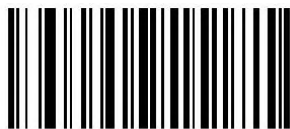


Disable

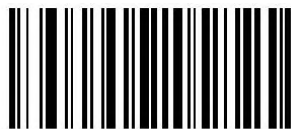


Enable\*

## RSS-Stack

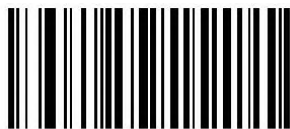


Disable

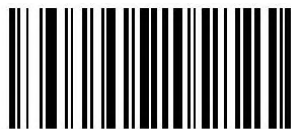


Enable\*

## RSS-Expanded

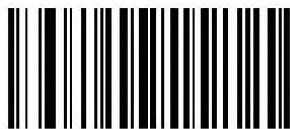


Disable

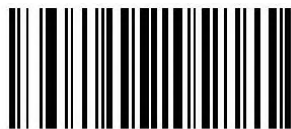


Enable\*

## RSS-Expanded Stack



Disable



Enable\*

## RSS-Limited



Disable



Enable\*

## Code 32



Disable



Enable\*

## Code 32 Check Bit Setting



Disable\*



Enable but not send check bit



Enable & send check bit

## Code 32 Start Character Setting



Enable



Disable\*

## Interleaved 2 of 5



Disable



Enable\*

## Interleaved 2 of 5 Check Bit Setting



Disable\*



Enable but not send check bit



Enable & send check bit

## Set Reading Length Range For Interleaved 2 of 5



Minimum length(0~50bits)

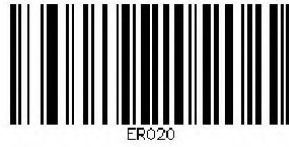


Maximum length(0~50bits)

## Industrial 25



Disable



Enable\*

## Industrial 25 Check Bit Setting



Disable



Enable but not send check bit



Enable & send check bit

## Set Reading Length Range For Industrial 25



Minimum length(0~50bits)



Maximum length(0~50bits)

## Standard 25



Disable



Enable\*

## Standard 25 Check Bit Setting



Disable\*



Enable but not send check bit



Enable & send check bit

## Set Reading Length Range For Standard 25



Minimum length(0~50bits)



Maximum length(0~50bits)

## MSI



Disable\*



Enable

## MSI Check Bit Setting



Disable\*



Enable but not send check bit



Enable & send check bit



1 Check Bit MOD10



2 Check Bits MOD10



MOD10/MOD11 Both

## Set Reading Length Range For MSI



Minimum length(0~50bits)



Maximum length(0~50bits)

## Plessey



Disable\*



Enable

## Plessey Check Bit Setting



Disable\*



Enable but not send check bit

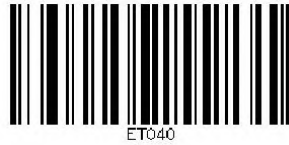


Enable & send check bit

## Set Reading Length Range For Plessey



Minimum length(0~50bits)



Maximum length(0~50bits)

## DataMatrix



Disable



Enable\*

## Set Reading Length Range For DataMatrix



Minimum length(0~50bits)



Maximum length(0~50bits)

## QR



Disable



Enable\*

## URL Link QR Code Reading



Enable\*



Disable

## Set Reading Length Range For QR



Minimum length(0~50bits)



Maximum length(0~50bits)

## Micro QR



Disable\*



Enable

## PDF 417



Disable



Enable\*

## Set Reading Length Range For PDF 417



Minimum length(0~50bits)



Maximum length(0~50bits)

## Micro PDF



Disable\*



Enable

## Maxicode



Disable\*



Enable

## Set Reading Length Range For Maxicode



Minimum length(0~50bits)



Maximum length(0~50bits)

## Aztec



Disable\*



Enable

## Set Reading Length Range For Aztec



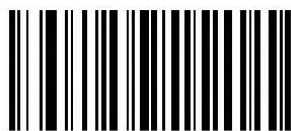
Minimum length(0~50bits)



Maximum length(0~50bits)

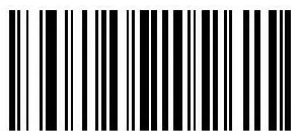


## Han Xin Code



FT010

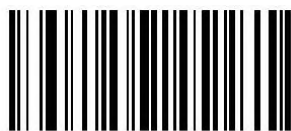
Disable\*



FT020

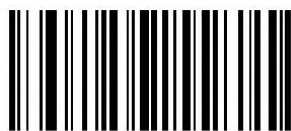
Enable

## Set Reading Length Range For Han Xin Code



FT030

Minimum length(0~50bits)

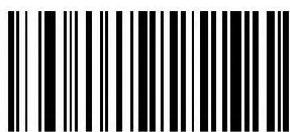


FT040

Maximum length(0~50bits)

## Appendix

### Data Edit And Setting Parameter Barcodes



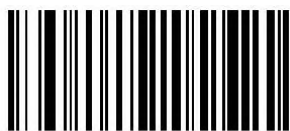
AR000

0



AR010

1



AR020

2



AR030

3



AR040

4



AR050

5



AR060

6



AR070

7



AR080

8



AR090

9



AR100

A



AR110

B



AR120

C



AR130

D



AR140

E



AR150

F



AR160

Save



AR170

Cancel 1 data of current setting



AR190

Cancel all data of current setting

## Code ID Table

Code Type	CODE ID	Code Type	CODE ID
UPC-A	c	INDU-25	D
UPC-E	c	STANDARD-25	d
EAN-8	d	CODABAR	a
EAN-13	d	MSI	m
ISSN	n	PLESSEY	n
ISBN	B	RSS LIM	y
CODE-128	j	RSS EXP	y
GS1-128	j	RSS EXP	y
ISBT-128	j	RSS ST	y
CODE-39	j	QR	Q

CODE-93	i	Micro QR	Q
CODE-32	j	Micro PDF417	S
ITF-25	e	PDF417	r
ITF-6	e	DM	u
ITF-14	e	MAXICODE	x
INT-25	e	AZTEC	z
MATRIX-25	v	Han Xin CODE	h
CODE-11	H		

## Appendix ASCII table

DEC	HEX	Character	DEC	HEX	Character	DEC	HEX	Character
32	20	<SPACE>	64	40	@	96	60	`
33	21	!	65	41	A	97	61	a
34	22	"	66	42	B	98	62	b
35	23	#	67	43	C	99	63	c
36	24	\$	68	44	D	100	64	d
37	25	%	69	45	E	101	65	e
38	26	&	70	46	F	102	66	f
39	27	'	71	47	G	103	67	g
40	28	(	72	48	H	104	68	h
41	29	)	73	49	I	105	69	i
42	2A	*	74	4A	J	106	6A	j
43	2B	+	75	4B	K	107	6B	k
44	2C	,	76	4C	L	108	6C	l
45	2D	-	77	4D	M	109	6D	m
46	2E	.	78	4E	N	110	6E	n
47	2F	/	79	4F	O	111	6F	o
48	30	0	80	50	P	112	70	p
49	31	1	81	51	Q	113	71	q
50	32	2	82	52	R	114	72	r
51	33	3	83	53	S	115	73	s
52	34	4	84	54	T	116	74	t
53	35	5	85	55	U	117	75	u
54	36	6	86	56	V	118	76	v
55	37	7	87	57	W	119	77	w
56	38	8	88	58	X	120	78	x
57	39	9	89	59	Y	121	79	y
58	3A	:	90	5A	Z	122	7A	z
59	3B	;	91	5B	[	123	7B	{
60	3C	<	92	5C	\	124	7C	
61	3D	=	93	5D	]	125	7D	}
62	3E	>	94	5E	^	126	7E	~
63	3F	?	95	5F	_			

## Control Character Table(USB-KBW Mode)

DEC	HEX	Key Value(Disable Control Character Escape)	Key Value(Enable Control Character Escape)
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	PageUp	Ctrl+E
6	06	PageDown	Ctrl+F
7	07	ESC	Ctrl+G
8	08	Backspace	Ctrl+H
9	09	Tab	Ctrl+I
10	0A	Enter(Output will be influenced by CR/LF settings)	Ctrl+J
11	0B	Caps Lock	Ctrl+K
12	0C	Print Screen	Ctrl+L
13	0D	Enter(Output will be influenced by CR/LF settings)	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+_

## Examples For Setting

Example of 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