2D Barcode Scanner

User's Manual

V1.7

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I. Product Introduction

This user guide is only suitable for 2D barcode scanner. The purpose is to know all knowledge with barcode identification equipment for customers. This manual is mainly for the software engineers and some customers who want to know the device in further.

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

II Quick to use

2.1 Install method

For USB device, it is plug and play, no need extra power supply to identify HID device. That's convenient appropriate for Windows, Linux, Android and other system. Also, support Virtual COM port, just need an extra drive supply, which can be supported by this company or dealers to offer. The physical serial port conforms to standard RS-232 interfaces, which can directly communicate with standard RS232 device. Note ,in case of serial port, additional Power DC 5V is generally required. For details, please refer to the serial port function section. Some of models support for KB interface. Need to power off the device and plug in the device with common keyboard, then power on again and start to communicate.

2.2 Quick to use

After connecting in a short time on device, the scanner will be on by itself, include interface, power on indicate, volume indicate, configuration, parameters setting. Normally, directly pressing the button can activate decoding. In additional, some models also support automation induction trigger, serial command trigger.

2.3 Settings method

There are two methods for set up.

One method is without parameter set up which scan one barcode is ok.
Example: "enable successful reading voice prompt", or "enable Code 39".

The other method needs to set up parameter.
Example: set "98" as suffix.
Setting steps: "custom suffix", "3", "9", "3", "8","Save".

III Function settings

3.1 Basic Settings

The basic settings include default,1D and 2D all codes set up,etc.



Default



Enable All Codes



Disable All Codes



Enable All 1D Codes



Disable All 1D Codes



Enable All 2D Codes



Disable All 2D Codes



Version Information

3.2 Interface selection



UTF8 KBW



RS232



USB-KB



USB Virtual COM

3.3 Scan mode



Manual



Sense

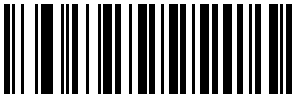


Continuous



Single Continuous

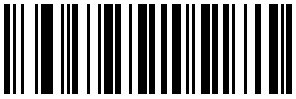
3.4 Sensitivity



Low



Medium

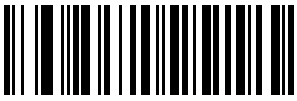


High

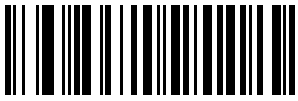
3.5 Keyboard function

The scanner is essentially an input device and can be understood as a keyboard device. Different countries use different keyboard layouts, and corresponding keyboard function.

3.5.1 Language settings



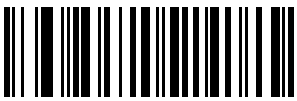
USA



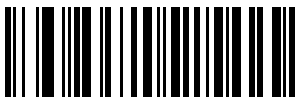
Japan



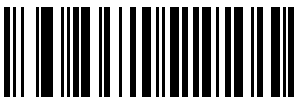
Brazil



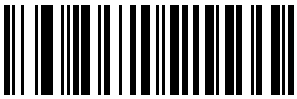
Czech



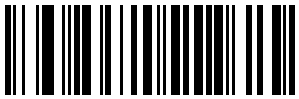
Denmark



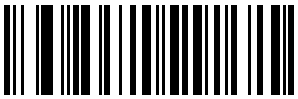
Sweden



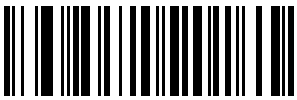
France



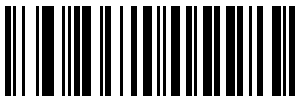
Italy



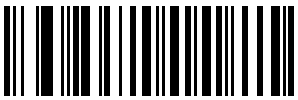
Norway



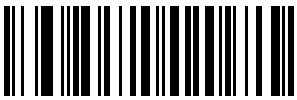
Spain



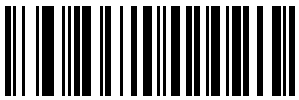
Slovakia



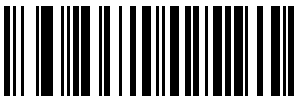
Turkey



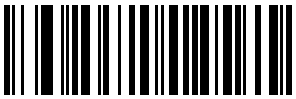
UK



Germany



Greece



Hungary



Russia



ALT

3.5.2 Caps lock Function

This function can lock “Caps lock” function key, and keep the letter format without change.



Off



On

3.5.3 Number lock Function

This function can move the numeric keypad in the letter area to the keypad area and enter the numeric keypad with keypad.



Off



On

3.5.4 Character prompt

For non-visual characters, you can set the prompt tone, indicating that there are non-printable characters in the data.



Enable



Disable

3.5.5 Character delay

For some systems with slower processing speed, can set character delay.



Not Delay



Short Delay(20ms)



Long Delay(40ms)

3.5.6 Alt Emulate keyboard

This feature can simulate the ASCII mode of sending keyboard data, without the keyboard layout affection.



ALT Mode OFF



ALT Mode ON

Alt Mode Enter Status



0D->Enter



0D->ALT+13

3.5.7 Shift Function



Shift Lock Off



Shift Lock On

3.6 Serial Port function

The serial port supports the standard RS-232 interface and TTL-232 standard. The virtual serial port function is not affected by this section.

3.6.1 Baud rate



1200 bps



2400 bps



4800 bps



9600 bps



19200 bps



38400 bps



57600 bps



15200 bps

3.6.2 Parity



None



Even



Odd

3.6.3 Stop bits



1 Bit



2 Bit

3.6.4 Data bits



7 Bit



8 Bit

3.6.5 Control flow



Off



On

3.7 Data Edit

3.7.1 Prefix and Suffix settings

Prefix and suffix are the basic data edit function , including terminal characters setting are also included in this section.

Example: set “a” as prefix.

Step: “Enable custom prefix”, “set custom prefix”, “6”, “1”, “Save”.



Disable Custom Prefix



Enable Custom Prefix



Set Custom Prefix



Disable Custom Suffix



Enable Custom Suffix



Set Custom Suffix



Terminating Character 0x0D



Terminating Character 0x0D 0x0A

3.7.2 Data Intercept setting

Data intercept setting is according to the user demand of transmit characters after decoding information, which can set up cut out, bite off function, etc.

Example: set QR code 123456



First method:

Enable “Intercept On”, Enable “Forward Direction” (from left to right), Enable “Start position”, Set “1” Save.
Enable “Intercept Length”, Set”6” Save.

Second method:

Enable “Intercept On”, Enable “Reverse Direction”, Enable “Start position”, Set “3” Save.
Enable “Intercept Length”, Set”6” Save.


Intercept On


Intercept Off


Forward Direction


Reverse Direction


Start Position


Intercept Length

3.7.3 0D &0A Convert


Not Convert


0D 0A Convert 0A


0D 0A Convert 0D 0D


0D 0A Convert 0A 0A


0D 0A Ignore


0D0A Convert TAB (0X09)

3.7.4 Convert Case



Not Convert



All to Convert Upper Case



All To Convert Lower Case

3.7.5 AIM Function



AIM Disable



AIM Enable

3.8 Sound Settings

Starting-up indicator



Off



On

3.8.1 Decode indicator



Off



On



High



Medium



Low

3.8.2 Decode Indicate type



Type1



Type2



Type3

3.9 Advance function settings

3.9.1 Illumination



Always On



Flashing



Off

3.9.2 Aiming



Always On



Flashing



Off

3.9.3 Scan Delay Function



Delay one time



Parameter Setting

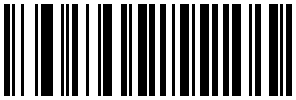


Delay Off

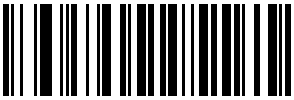


Delay on

3.9.4 Same barcode decode delay function



Off



On



Parameter Setting

3.9.5 Anti-color code read



Only Read Black Code



Only Read Anti-color Code



Read Black And Anti-color Code Both

IV Barcode function settings

4.1 Code 128



Disable EAN128



Enable EAN128



Disable Code128



Enable Code128



Set The Minimum Length



Set The Maximum Length

4.2 EAN-8



Disable EAN-8



Enable EAN-8



Not Transmit Check Digit



Transmit Check Digit



Not Convert EAN-8 To EAN-13



Convert EAN-8 To EAN-13



Disable 2-Digit Add-On Code



Enable 2-Digit Add-On Code



Disable 5-Digit Add-On Code



Enable 5-Digit Add-On Code

4.3 EAN13



Disable ISBN



Enable ISBN



ISBN Send 13 Digits



ISBN Send 10 Digits



ISSN On



ISSN Off



Disable EAN-13



EnableEAN-13



Not Transmit Check Digit



Transmit Check Digit



Disable 2-Digit Add-On Code



Enable 2-Digit Add-On Code



Disable 5-Digit Add-On Code



Enable 5-Digit Add-On Code

4.4 UPC-E



Disable UPC-E



Enable UPC-E



Not Transmit Check Digit



Transmit Check Digit



Not Transmit System Character”0”



Transmit System Character



Not Convert UPC-E To UPC-A



Convert UPC-E To UPC-A



Transmit UPC-E To UPC-A



Transmit UPC-E Country Code + System Character



Disable 2-Digit Add-On Code



Enable 2-Digit Add-On Code



Disable 5-Digit Add-On Code



Enable 5-Digit Add-On Code

4.5 UPC-A



Disable UPC-A



Enable UPC-A



Not Transmit Check Digit



Transmit Check Digit



No Transmit System Character”0”



Transmit System Character”0”



No Preamble



Disable 2-Digit Add-On Code



Enable 2-Digit Add-On Code



Disable 5-Digit Add-On Code



Enable 5-Digit Add-On Code

4.6 Interleaved 25



Disable Interleaved 25



Enable Interleaved 25



Set The Minimum Length



Set The Maximum Length



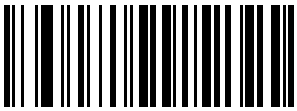
Not Check



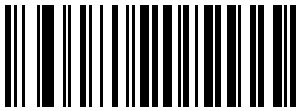
Check, Not Transmit Check Digit



Check, Transmit Check digit



ITF14 Transmit Check Digit



ITF14 Not Transmit Check Digit



ITF16 Transmit Check Digit



ITF16 Not Transmit Check Digit

4.7 MATRIX 25



Disable Matrix 25



Enable Matrix 25



Set The Minimum Length



Set The Maximum Length



Not Check



Check, Not Transmit Check Digit



Check, Transmit Check Digit

4.8 CODE 39



Disable CODE 39



Enable CODE 39



Set The Minimum Length



Set The Maximum Length



Not Check



Check



Not Transmit Start-Stop Character



Transmit Start-Stop Character

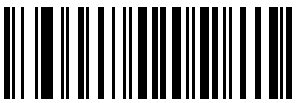


Full ASCII code39



Standard code 39

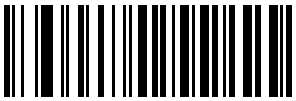
4.9 CODE 32



Enable Code32



Disable Code32



Enable Prefix “0”



Disable Prefix”0”



Transmit Check Digit



Not Transmit Check Digit

4.10 CODABAR



Disable Codabar



Enable Codabar



Set The Minimum Length



Set The Maximum Length



Not check



Check, Not Transmit Check Digit



Transmit Check Digit



Not Transmit Start-Stop Characters



Transmit Start-Stop Characters



ABCD As Start-Stop Character



ABCD/TNE As Start-Stop Character



Start-Stop Characters In Upper Case



Start-stop Characters In Lower Case

4.11 CODE 93



Disable Code 93



Enable Code 93



Set The Minimum Length



Set The Maximum Length



No Check



Check, Not Transmit Check Digit



Check, Transmit Check Digit

4.12 RSS



Disable RSS



Enable RSS



Not Transmit AL(01)Character



Transmit AL(01) Character

4.13 Industrial 25



Disable Industrial 25



Enable Industrial 25



Set The Minimum Length



Set The Maximum Length



No Check



Check, Not Transmit Check Digit



Check, Transmit Check Digit

4.14 Standard 25



Disable Standard 25



Enable Standard 25



Set the Minimum Length



Set the Maximum Length



No Check



Check, Not Transmit Check Digit



Check, Transmit Check Digit

4.15 Plessey



Disable Plessey



Enable Plessey



Set The Minimum Length



Set The Maximum Length



No Check



Check, Not Transmit Check Digit



Check, Transmit Check Digit

4.16 MSI



Disable MSI



Enable MSI



Set The Minimum Length



Set The Maximum Length



No Check



Single Check Digit,MOD10



Double Check Digit:MOD10



Double Check Digit,MOD10/MOD11



Not Transmit Check Digits



Transmit Check Digits

4.17 QR



Disable QR



Enable QR



Set The Minimum Length



Set The Maximum Length



Read Single QR Only



Read Double QR Only



Enable http://https://www.



Disable http://https://www.

4.18 PDF 417



Disable PDF417



Enable PDF417



Set The Minimum Length



Set The Maximum Length



Read Single PDF417 Only



Read Double PDF417 Only

4.19 DM



Disable Data Matrix



Enable Data Matrix



Set The Minimum Length



Set The Maximum Length



Read Single Data Matrix Only



Read Double Data Matrix Only

4.20 Aztec

Aztec is common use for 2D barcode on transport industry.



ON



OFF

4.21 Maxicode

Maxicode is common use for 2D barcode on express, such as: UPS



ON



OFF

Appendix I Factory Defaults Table

Default function parameter setting			
Serial number	**Item name**	**Name**	**Default Value**
1	Select Interface		USB-KB
2	Scan mode	Scanner	Manual
3		Omni-directional scanner	Auto-induction
4	Induction sensitivity adjust		Commonly
5	Language setting		USA
6	Caps lock		OFF
7	Number lock		OFF
8	Serial Port Function	Baud rate	9600
9		Parity bit	None
10		Stop bit	1 stop bit
11		Data bit	8 bit
12	Edit Data	Terminal Character	Enter (0×0D)
13		Convert Case	No Convert
14		AIM Function	OFF
15	Sound setting	Decode indicator	High Type 1
16	Light Illumination	Illumination	Flashing
17		Aiming	Flashing
18	Other	One time Barcode Scan Delay On	15s
19		Anti-color code read	Only Read Anti-color Code

Default function parameter setting					
TYPES	**Read**	**Verify check**	**Transmit checking dig**	**Mininum length**	**Maximun length**
Code128	YES	YES	YES	1	255
EAN-8	YES	YES	YES	8	8
EAN-13	YES	YES	YES	13	13
UPC-E	N	YES	YES	7	7
UPC-A	YES	YES	YES	12	12
Interleave 2 5	YES	YES	YES	6	255
MatriX2 5	N	YES	YES	6	255
Code39	YES	YES	YES	1	255
Code32	NO	NO	NO	8	8
Codabar	YES	YES	YES	4	255

Code93	YES	YES	NO	1	255
RSS	YES	NO	NO	1	255
Industrial 2 5	YES	YES	YES	6	255
Standard 2 5	YES	NO	NO	6	255
Plessey	NO	NO	NO	4	60
MSI	NO	NO	NO	6	32
QR	YES	NO	NO		
PDF417	YES	NO	NO		
DM	YES	NO	NO		

Appendix II Code ID Table

When the setting parameter turns on the function of CODE ID, the corresponding barcode data will be preceded by CID CODE, as shown below:

Barcode type	CID
UPCA	A
UPCE	B
EAN8	C
EAN13	D
ISSN	E
ISBN	F
CODE 128	G
GS1 128	H
ISBT128	J
CODE 39	K
CODE 93	L
CODE 11	M
ITF 25	N
ITF 6	O
ITF 14	P
MATRIX 25	S
IN 25	U
STANDARD 25	V
CODABAR	W
UK	X
MSI	Y
GS1	Z

Appendix III ASCII Table

BIN	DEC	HEX	COM
0000 0000	0	0	NUL
0000 0001	1	1	SOH
0000 0010	2	2	STX
0000 0011	3	3	ETX
0000 0100	4	4	EOT
0000 0101	5	5	ENQ
0000 0110	6	6	ACK
0000 0111	7	7	BEL
0000 1000	8	8	BS
0000 1001	9	9	HT
0000 1010	10	0A	LF
0000 1011	11	0B	VT
0000 1100	12	0C	FF
0000 1101	13	0D	CR
0000 1110	14	0E	SO
0000 1111	15	0F	SI
0001 0000	16	10	DLE
0001 0001	17	11	DC1
0001 0010	18	12	DC2
0001 0011	19	13	DC3
0001 0100	20	14	DC4
0001 0101	21	15	NAK
0001 0110	22	16	SYN
0001 0111	23	17	ETB
0001 1000	24	18	CAN
0001 1001	25	19	EM
0001 1010	26	1A	SUB
0001 1011	27	1B	ESC
0001 1100	28	1C	FS
0001 1101	29	1D	GS
0001 1110	30	1E	RS
0001 1111	31	1F	US

0010 0000	32	20	（SPACE）
0010 0001	33	21	!
0010 0010	34	22	"
0010 0011	35	23	#
0010 0100	36	24	$
0010 0101	37	25	%
0010 0110	38	26	&
0010 0111	39	27	'
0010 1000	40	28	(
0010 1001	41	29	)
0010 1010	42	2A	*
0010 1011	43	2B	+
0010 1100	44	2C	,
0010 1101	45	2D	-
0010 1110	46	2E	.
0010 1111	47	2F	/
0011 0000	48	30	0
0011 0001	49	31	1
0011 0010	50	32	2
0011 0011	51	33	3
0011 0100	52	34	4
0011 0101	53	35	5
0011 0110	54	36	6
0011 0111	55	37	7
0011 1000	56	38	8
0011 1001	57	39	9
0011 1010	58	3A	:
0011 1011	59	3B	;
0011 1100	60	3C	<
0011 1101	61	3D	=
0011 1110	62	3E	>
0011 1111	63	3F	?
0100 0000	64	40	@
0100 0001	65	41	A
0100 0010	66	42	B
0100 0011	67	43	C
0100 0100	68	44	D
0100 0101	69	45	E
0100 0110	70	46	F
0100 0111	71	47	G
0100 1000	72	48	H
0100 1001	73	49	I
0100 1010	74	4A	J

0100 1011	75	4B	K
0100 1100	76	4C	L
0100 1101	77	4D	M
0100 1110	78	4E	N
0100 1111	79	4F	O
0101 0000	80	50	P
0101 0001	81	51	Q
0101 0010	82	52	R
0101 0011	83	53	S
0101 0100	84	54	T
0101 0101	85	55	U
0101 0110	86	56	V
0101 0111	87	57	W
0101 1000	88	58	X
0101 1001	89	59	Y
0101 1010	90	5A	Z
0101 1011	91	5B	[
0101 1100	92	5C	\
0101 1101	93	5D	]
0101 1110	94	5E	^
0101 1111	95	5F	_
0110 0000	96	60	`
0110 0001	97	61	a
0110 0010	98	62	b
0110 0011	99	63	c
0110 0100	100	64	d
0110 0101	101	65	e
0110 0110	102	66	f
0110 0111	103	67	g
0110 1000	104	68	h
0110 1001	105	69	i
0110 1010	106	6A	j
0110 1011	107	6B	k
0110 1100	108	6C	l
0110 1101	109	6D	m
0110 1110	110	6E	n
0110 1111	111	6F	o
0111 0000	112	70	p
0111 0001	113	71	q
0111 0010	114	72	r
0111 0011	115	73	s
0111 0100	116	74	t
0111 0101	117	75	u

0111 0110	118	76	v
0111 0111	119	77	w
0111 1000	120	78	x
0111 1001	121	79	y
0111 1010	122	7A	z
0111 1011	123	7B	{
0111 1100	124	7C	|
0111 1101	125	7D	}
0111 1110	126	7E	~
0111 1111	127	7F	DEL

Appendix IV Set parameter table



0



1



2



3



4



5



6



7



8



9



A



B



C



D



E



F



Save



Cancel One Digit



Cancel A Group Of Digits



Cancel All Digits