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一、 Overview

1. 1 Barcode Default Parameter

Symbology	Read	Check	Check Transmission	Start/End Characters Transmission	Min/Max Length	Type ID
EAN13 ⁿ	√	√	√	X	(13) ²	A
EAN8 ⁿ	√	√	√	X	(8) ²	B
UPC_A ⁿ	√	√	√	X	(12) ²	C
UPC_E ⁿ	√	√	√	X	(8) ²	D
CODABAR(NW-7) ⁿ	√	-	√	-	4~70	E
CODE39 ⁿ	√	-	√	-	3~50	F
CODE93 ⁿ	√	√	√	X	1~80	G
INTERLEAVED_2OF5 ⁿ	√	-	√	X	4~80	H
STANDARD_2OF5	-	-	√	X	4~80	I
MATRIX_2OF5	-	X	X	X	6~80	J
CODE128 ⁿ	√	√	-	X	1~80	K
EAN_UCC_128 ⁿ	√	√	-	X	1~80	L
CODE11	-	√	-	X	4~80	M
CHINESE_POST	-	X	X	X	6~80	N

Note : 1. "√" means default enable," - "means default disable," ×" means parameter of this barcode type does not exist

2. Fixed length.

3. The type of barcode noted with" n" means support negative barcode decode.

二、 Command Instructions

2. 1 Barcode Command Instructions

A. Command barcode is printed via Code128 CODE B barcode.

B. Note with (*) means factory default parameter.

(a) `"/%SET"` : Enter setting mode; it will automatic log out setting mode if not scan next command barcode in 30s.



(b) Modify parameters command ; it can scan one or several command barcodes;

(c) `"/%END"` : Save & Exit.

≡、 Command Data Format






3. 1 SET & END

Command :

Enter Setting Mode	/ %SET	
Save & Exit	/ %END	




3. 2 DEFAULTS PARAMETER

Command :

	Opcode	/%SET	
Restore Factory Default	0x28	/DF	
Restore User Default	0x29	/DC	
Write User Default ¹	0x2A	/WC	
		/%END	
Note: Setting "Write User Default "Will Automatically Set With "/%END" .			

3 . 3 READ_REVISION





Command :

	<i>/%SET</i>	
Read Software Version	<i>/RV</i>	
	<i>/%END</i>	

四、 Modify Parameters Command











4 . 1 Data Output Mode

Command :

	<i>/%SET</i>	
*TTL/RS232	A0000	
*USB HID Keyboard	A0001	
	<i>/%END</i>	

4 . 2 Buzzer & LED Control


Command :

	<i>/%SET</i>	
Disable Boot Buzzer	<i>/B0000</i>	
*Enable Boot Buzzer	<i>/B0001</i>	
Enable Good Read Buzzer	<i>/B0100</i>	
*Disable Good Read Buzzer	<i>/B0101</i>	
Buzzer Volume: Low	<i>/B0200</i>	
*Buzzer Volume: Medium	<i>/B0201</i>	
Buzzer Volume: High	<i>/B0202</i>	
Enable Good Read Buzzer	<i>/B0300</i>	
*Disable Good Read Buzzer	<i>/B0301</i>	
	<i>/%END</i>	

The buzzer volume only works on when buzzer is booting or scanning successfully;








4 . 3 Serial Port Setting

Command :

	<i>/%SET</i>	
2400 Baud	<i>/C0000</i>	
4800 Baud	<i>/C0001</i>	
*9600 Baud	<i>/C0002</i>	
19200 Baud	<i>/C0003</i>	
38400 Baud	<i>/C0004</i>	
57600 Baud	<i>/C0005</i>	
115200 Baud	<i>/C0006</i>	
7 Data Bits	<i>/C0100</i>	
*8 Data Bits	<i>/C0101</i>	
*1 Stop Bit	<i>/C0200</i>	
2 Stop Bit	<i>/C0201</i>	
*No Parity	<i>/C0300</i>	
Odd Parity	<i>/C0301</i>	
Even Parity	<i>/C0302</i>	
	<i>/%END</i>	

4 . 4 Trigger Mode & Read Mode

Command :

	/ %SET	
*Single Read	/F0000	
Continuous Read	/F0001	
Disable Repeat Read	/F0100	
*Enable Repeat Read	/F0101	
Multiple Read	/F0102	
	/ %END	

Note:

Trigger mode :

Single read: When a bar code has been decoded, the reader will be turned off. The reader must be triggered again to read another label. It can be triggered via button, com port or auto sense.

Continuous read: The reader will produce as much data as it can decode regardless whether it is the same or not. This mode is mainly used for demonstration and diagnosis.

Read mode:



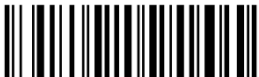







Disable repeat read: Disable continue to read the same bar code.

Enable repeat read: Enable continue to read the same bar code;

Multiple read: The same label can only be decoded again after the label has not been detected for a number of scans. This mode can only be programmed in Continuous read trigger mode

4 . 5 Timeout For Repeat Read The Same Barcode

Format :








	/ %SET	
*0ms	/F0200	
100ms	/F0201	
200ms	/F0202	
500ms	/F0205	
900ms	/F0209	
1000ms	/F0210	
1500ms	/F0215	
2000ms	/F0220	
9900ms	/F0299	
	/ %END	

Note:

The last two digits of command are decimal number. Minimum is 00 and maximum is 99, multiple of 100ms.

4 . 6 Timeout For Trigger Scan (Trigger Pin)

Command :

	/%SET	
*0ms	/F0300	
100ms	/F0301	
200ms	/F0302	
500ms	/F0305	
900ms	/F0309	
1000ms	/F0310	
1500ms	/F0315	
2000ms	/F0320	
4000ms	/F0340	
6000ms	/F0360	
9900ms	/F0399	
	/%END	

Note:

1. The last two digits of command are decimal number. Minimum is 00 and maximum is 99, multiple of 100ms.
2. When trigger scan waiting time is 0ms with low level signal, it will continuously scan unless decode or high level signal. It will not time out under this condition.
3. When trigger scan waiting time is not 0ms, it will start to scan with low level signal. It will automatically time out and stop scanning if not decode in the required wait time.

4 .7 Timeout For Trigger Scan Com Port Command/Auto Trigger

Command :





	<i>/%SET</i>	
100ms	<i>/F0401</i>	
200ms	<i>/F0402</i>	
500ms	<i>/F0405</i>	
900ms	<i>/F0409</i>	
1000ms	<i>/F0410</i>	
1500ms	<i>/F0415</i>	
2000ms	<i>/F0420</i>	
*4000ms	<i>/F0440</i>	
6000ms	<i>/F0460</i>	
9900ms	<i>/F0499</i>	
	<i>/%END</i>	

Note:

1. The last two digits of command are decimal number. Minimum is 00 and maximum is 99, multiple of 100ms.
2. Scanner will enable scan if receive com port trigger scan command or auto trigger; It will stop scanning automatically if decode or time out; It will modify timeout to 6000ms automatically if set at 0ms.

4 . 8 Auto Trigger

Command format :

	<code>/%SET</code>	
Disable	<code>/H0000</code>	
*Enable	<code>/H0001</code>	
	<code>/%END</code>	







4. 9 Barcode Setting

Command :

1 Byte	1 Byte	4 byte
0x2F	Barcode ID	Command data

4 . 9 . 1 EAN13 & UPC-A





Command :

	/%SET	
Disable Read	/IA000	
*Enable Read	/IA001	
Disable Read	/IC000	
*Enable Read	/IC001	
	/%END	

For the EAN13and UPC-A , as long as you set one, the other will take effect at the same time







4 . 9 . 2 EAN8

Command :

	<i>/%SET</i>	
Disable Read	<i>/IB000</i>	
*Enable Read	<i>/IB001</i>	
	<i>/%END</i>	

4 . 9 . 3 UPC-E

Command :

	/%SET	
Disable	/ID000	
*Enable	/ID001	
Enable UPC-E convert to UPC-A	/ID100	
*Disable UPC-E convert to UPC-A	/ID101	
	/%END	

4 . 9 . 4 CODABAR(NW-7)

Command :

	/%SET	
Disable Read	/IE000	
*Enable Read	/IE001	
*Not Transmit ST/SP	/IE100	
Transmit ST/SP:ABCD	/IE101	
Transmit ST/SP:abcd	/IE102	
Transmit ST/SP:TN*E	/IE103	
*Min barcode length	/IE804	
*Max barcode length	/IE970	
	/%END	

Note:

1. Min/Max barcode length includes barcode start character/end character (ABCD/abcd/TN*E).

Codabar Min/Max Barcode Length

	/%SET	
Min Barcode Length(5)	/IE805	
Min Barcode Length(6)	/IE806	
Min Barcode Length(7)	/IE807	
Min Barcode Length(8)	/IE808	
Min Barcode Length(10)	/IE810	
Min Barcode Length(12)	/IE812	
Min Barcode Length(14)	/IE814	
Min Barcode Length(16)	/IE816	
Max Barcode Length(10)	/IE910	
Max Barcode Length(12)	/IE912	
Max Barcode Length(14)	/IE914	
Max Barcode Length(16)	/IE916	
Max Barcode Length(18)	/IE918	
Max Barcode Length(20)	/IE920	
Max Barcode Length(22)	/IE922	
Max Barcode Length(24)	/IE924	
	/%END	

4 . 9 . 5 CODE 39

Command :









	/%SET	
Disable Read	/IF000	
*Enable Read	/IF001	
*Not Transmit ST/SP	/IF100	
Transmit ST/SP: *	/IF101	
*Not Check CD	/IF200	
Check CD	/IF201	
Not Transmit CD	/IF300	
*Transmit CD	/IF301	
*Disable Full ASCII code39	/IF400	
Enable Full ASCII code39	/IF401	
*Min barcode length	/IF803	
*Max barcode length	/IF950	
	/%END	

Code39 Min/Max Barcode Length

	/%SET	
Min Barcode Length(5)	/IF805	
Min Barcode Length(6)	/IF806	
Min Barcode Length(7)	/IF807	
Min Barcode Length(8)	/IF808	
Min Barcode Length(10)	/IF810	
Min Barcode Length(12)	/IF812	
Min Barcode Length(14)	/IF814	
Min Barcode Length(16)	/IF816	
Max Barcode Length(10)	/IF910	
Max Barcode Length(12)	/IF912	
Max Barcode Length(14)	/IF914	
Max Barcode Length(16)	/IF916	
Max Barcode Length(18)	/IF918	
Max Barcode Length(20)	/IF920	
Max Barcode Length(22)	/IF922	
Max Barcode Length(24)	/IF924	
	/%END	

4 . 9 . 6 CODE 93

Command :







	/%SET	
Disable Read	/IG000	
*Enable Read	/IG001	
*Not Transmit Cd	/IG100	
Transmit CD	/IG101	
*Min Barcode Length	/IG801	
*Max Barcode Length	/IG980	
	/%END	

Code93 Min/Max Barcode Length




	<i>/%SET</i>	
Min Barcode Length(2)	<i>/IG802</i>	
Min Barcode Length(4)	<i>/IG804</i>	
Min Barcode Length(6)	<i>/IG806</i>	
Min Barcode Length(8)	<i>/IG808</i>	
Min Barcode Length(10)	<i>/IG810</i>	
Min Barcode Length(12)	<i>/IG812</i>	
Min Barcode Length(14)	<i>/IG814</i>	
Min Barcode Length(16)	<i>/IG816</i>	
Max Barcode Length(10)	<i>/IG910</i>	
Max Barcode Length(12)	<i>/IG912</i>	
Max Barcode Length(14)	<i>/IG914</i>	
Max Barcode Length(16)	<i>/IG916</i>	
Max Barcode Length(18)	<i>/IG918</i>	
Max Barcode Length(20)	<i>/IG920</i>	
Max Barcode Length(22)	<i>/IG922</i>	
Max Barcode Length(24)	<i>/IG924</i>	
	<i>/%END</i>	

4 . 9 . 7 INTERLEAVED 2 OF 5

Command :







	/%SET	
Disable Read	/IH000	
*Enable Read	/IH001	
*Min Barcode Length	/IH84	
*Max Barcode Length	/IH970	
	/%END	

Interleaved 2 of 5 Min/Max Barcode Length

	<i>/%SET</i>	
Min Barcode Length(5)	<i>/IH805</i>	
Min Barcode Length(6)	<i>/IH806</i>	
Min Barcode Length(7)	<i>/IH807</i>	
Min Barcode Length(8)	<i>/IH808</i>	
Min Barcode Length(10)	<i>/IH810</i>	
Min Barcode Length(12)	<i>/IH812</i>	
Min Barcode Length(14)	<i>/IH814</i>	
Min Barcode Length(16)	<i>/IH816</i>	
Max Barcode Length(10)	<i>/IH910</i>	
Max Barcode Length(12)	<i>/IH912</i>	
Max Barcode Length(14)	<i>/IH914</i>	
Max Barcode Length(16)	<i>/IH916</i>	
Max Barcode Length(18)	<i>/IH918</i>	
Max Barcode Length(20)	<i>/IH920</i>	
Max Barcode Length(22)	<i>/IH922</i>	
Max Barcode Length(24)	<i>/IH924</i>	
	<i>/%END</i>	

4 . 9 . 8 STANDARD 2 of 5(Industrial 2 of 5)

Command :

	<i>/%SET</i>	
*Disable Read	<i>/Π000</i>	
Enable Read	<i>/Π001</i>	
*Min Barcode Length	<i>/Π804</i>	
*Max Barcode Length	<i>/Π970</i>	
	<i>/%END</i>	

Standard 2 of 5(Industrial 2 of 5) Min/Max Barcode Length

	/%SET	
Min Barcode Length(5)	/II805	
Min Barcode Length(6)	/II806	
Min Barcode Length(7)	/II807	
Min Barcode Length(8)	/II808	
Min Barcode Length(10)	/II810	
Min Barcode Length(12)	/II812	
Min Barcode Length(14)	/II814	
Min Barcode Length(16)	/II816	
Max Barcode Length(10)	/II910	
Max Barcode Length(12)	/II912	
Max Barcode Length(14)	/II914	
Max Barcode Length(16)	/II916	
Max Barcode Length(18)	/II918	
Max Barcode Length(20)	/II920	
Max Barcode Length(22)	/II922	
Max Barcode Length(24)	/II924	
	/%END	










4 . 9 . 9 MATRIX 2 of 5

Command :

	/%SET	
*Disable Read	/IJ000	
Enable Read	/IJ001	
*Min Barcode Length	/IJ806	
*Max Barcode Length	/IJ970	
Min Barcode Length(8)	/IJ808	
Min Barcode Length(10)	/IJ810	
Min Barcode Length(12)	/IJ812	
Min Barcode Length(14)	/IJ814	
Max Barcode Length(10)	/IJ910	
Max Barcode Length(12)	/IJ912	
Max Barcode Length(14)	/IJ914	
Max Barcode Length(16)	/IJ916	
Max Barcode Length(18)	/IJ918	
	/%END	

4 . 9 . 10 CODE 128 & EAN/UCC 128

Command :









	/%SET	
Disable Read	/IK000	
*Enable Read Code 128	/IK001	
Disable Read Ean/Ucc 128	/IL000	
*Enable Read Ean/Ucc 128	/IL001	
*Not Transmit CD	/IK100	
Transmit CD	/IK101	
*Min Barcode Length	/IK801	
*Max Barcode Length	/IK980	
	/%END	

Code128 EAN/UCC128 Min/Max Barcode Length

	/%SET	
Min Barcode Length(4)	/IK802	
Min Barcode Length(6)	/IK804	
Min Barcode Length(7)	/IK806	
Min Barcode Length(8)	/IK808	
Min Barcode Length(10)	/IK810	
Min Barcode Length(12)	/IK812	
Min Barcode Length(14)	/IK814	
Min Barcode Length(16)	/IK816	
Max Barcode Length(10)	/IK910	
Max Barcode Length(12)	/IK912	
Max Barcode Length(14)	/IK914	
Max Barcode Length(16)	/IK916	
Max Barcode Length(18)	/IK918	
Max Barcode Length(20)	/IK920	
Max Barcode Length(22)	/IK922	
Max Barcode Length(24)	/IK924	
	/%END	

4 . 9 . 11 CODE 11

Command :

	/%SET	
*Disable Read	/IM000	
Enable Read	/IM001	
Not Check Cd	/IM100	
*Check CD(One Byte)	/IM101	
Check CD(Two Byte)	/IM102	
Not Transmit CD	/IM200	
*Transmit CD	/IM201	
*Min Barcode Length	/IM804	
*Max Barcode Length	/IM970	
	/%END	

Code11 Min/Max Barcode Length

	<i>/%SET</i>	
Min Barcode Length(5)	<i>/IM805</i>	
Min Barcode Length(6)	<i>/IM806</i>	
Min Barcode Length(7)	<i>/IM807</i>	
Min Barcode Length(8)	<i>/IM808</i>	
Min Barcode Length(10)	<i>/IM810</i>	
Min Barcode Length(12)	<i>/IM812</i>	
Min Barcode Length(14)	<i>/IM814</i>	
Min Barcode Length(16)	<i>/IM816</i>	
Max Barcode Length(10)	<i>/IM910</i>	
Max Barcode Length(12)	<i>/IM912</i>	
Max Barcode Length(14)	<i>/IM914</i>	
Max Barcode Length(16)	<i>/IM916</i>	
Max Barcode Length(18)	<i>/IM918</i>	
Max Barcode Length(20)	<i>/IM920</i>	
Max Barcode Length(22)	<i>/IM922</i>	
Max Barcode Length(24)	<i>/IM924</i>	
	<i>/%END</i>	











4 . 9 . 12 CHINESE POST

Command :

	/%SET	
*Disable Read	/IN000	
Enable Read	/IN001	
*Min Barcode Length	/IN806	
*Max Barcode Length	/IN970	
Min Barcode Length(8)	/IN808	
Min Barcode Length(10)	/IN810	
Min Barcode Length(12)	/IN812	
Min Barcode Length(14)	/IN814	
Max Barcode Length(10)	/IN910	
Max Barcode Length(12)	/IN912	
Max Barcode Length(14)	/IN914	
Max Barcode Length(16)	/IN916	
Max Barcode Length(18)	/IN918	
	/%END	








4 . 9 . 13 Set Positive/Negative Barcodes

Command :

	<i>/%SET</i>	
Only Enable Positive Barcodes	<i>/!1100</i>	
Only Enable Negative Bar Codes	<i>/!1101</i>	
Positive And Negative Barcodes	<i>/!1102</i>	
	<i>/%END</i>	
	<i>/%SET</i>	
Only Enable Positive Barcodes	<i>/!1100</i>	
Only Enable Negative Bar Codes	<i>/!1101</i>	
Positive And Negative Barcodes	<i>/!1102</i>	
	<i>/%END</i>	







4 . 9 . 14 All Bar Codes Setting

Command :

	/%SET	
Disable All Barcodes	I1000	
Enable All Barcodes	I1001	
*No Case Conversion	I1200	
Convert To Upper Case	I1201	
Convert To Lower Case	I1202	
	/%END	








4 . 10 Set Prefix

Command :

	<code>/%SET</code>	
*Disable Prefix	J1000	
Space	J1001	
AIM+Barcode	J1002	
ID+Barcode	J1003	
	<code>/%END</code>	

4 . 11 Set Suffix

Command :

	/%SET	
*Disable Suffix	J2000	
0x0d As Suffix	J2001	
0x0a As Suffix	J2002	
0x0d 0x0a As Suffix	J2003	
Tab(0x09) As Suffix	J2004	
	/%END	

五、 Attachments

Attachments 1 Barcode Test Card

Attachments 2 ASCII Code Chart

Decimal	Octal	Hexadecimal	Character	Description
0	0	00	NUL	
1	1	01	SOH	start of header
2	2	02	STX	start of text
3	3	03	ETX	end of text
4	4	04	EOT	end of transmission
5	5	05	ENQ	enquiry
6	6	06	ACK	acknowledge
7	7	07	BEL	bell
8	10	08	BS	backspace
9	11	09	HT	horizontal tab
10	12	0A	LF	line feed
11	13	0B	VT	vertical tab
12	14	0C	FF	form feed
13	15	0D	CR	carriage return
14	16	0E	SO	shift out
15	17	0F	SI	shift in
16	20	10	DLE	data link escape
17	21	11	DC1	no assignment, but usually XON
18	22	12	DC2	
19	23	13	DC3	no assignment, but usually XOFF
20	24	14	DC4	
21	25	15	NAK	negative acknowledge
22	26	16	SYN	synchronous idle
23	27	17	ETB	end of transmission block
24	30	18	CAN	cancel
25	31	19	EM	end of medium
26	32	1A	SUB	substitute

27	33	1B	ESC	escape
28	34	1C	FS	file separator
29	35	1D	GS	group separator
30	36	1E	RS	record separator
31	37	1F	US	unit separator
32	40	20	SPC	Space
33	41	21	!	
34	42	22	"	
35	43	23	#	
36	44	24	\$	
37	45	25	%	
38	46	26	&	
39	47	27	'	
40	50	28	(
41	51	29)	
42	52	2A	*	
43	53	2B	+	
44	54	2C	,	
45	55	2D	-	
46	56	2E	.	
47	57	2F	/	
48	60	30	0	
49	61	31	1	
50	62	32	2	
51	63	33	3	
52	64	34	4	
53	65	35	5	
54	66	36	6	
55	67	37	7	
56	70	38	8	
57	71	39	9	
58	72	3A	:	

59	73	3B	;	
60	74	3C	<	
61	75	3D	=	
62	76	3E	>	
63	77	3F	?	
64	100	40	@	
65	101	41	A	
66	102	42	B	
67	103	43	C	
68	104	44	D	
69	105	45	E	
70	106	46	F	
71	107	47	G	
72	110	48	H	
73	111	49	I	
74	112	4A	J	
75	113	4B	K	
76	114	4C	L	
77	115	4D	M	
78	116	4E	N	
79	117	4F	O	
80	120	50	P	
81	121	51	Q	
82	122	52	R	
83	123	53	S	
84	124	54	T	
85	125	55	U	
86	126	56	V	
87	127	57	W	
88	130	58	X	
89	131	59	Y	
90	132	5A	Z	

91	133	5B	[
92	134	5C	\	
93	135	5D]	
94	136	5E	^	
95	137	5F	_	
96	140	60	`	
97	141	61	a	
98	142	62	b	
99	143	63	c	
100	144	64	d	
101	145	65	e	
102	146	66	f	
103	147	67	g	
104	150	68	h	
105	151	69	i	
106	152	6A	j	
107	153	6B	k	
108	154	6C	l	
109	155	6D	m	
110	156	6E	n	
111	157	6F	o	
112	160	70	p	
113	161	71	q	
114	162	72	r	
115	163	73	s	
116	164	74	t	
117	165	75	u	
118	166	76	v	
119	167	77	w	
120	170	78	x	
121	171	79	y	
122	172	7A	z	

123	173	7B	{	
124	174	7C		
125	175	7D	}	
126	176	7E	~	
127	177	7F	DEL	delete

Attachment 3 Revised Version

Revised Time	Version	Comment
2012.5.3	V1.1	Sim3wn
2012.8.1	V2.1	Sim3wn
2013.2.27	V2.2	Sim3wn
2013.3.26	V2.3	Sim3wn