2D Bar code Scanner User Manual

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1. Getting Start

1.1 About this manual

This user manual includes bar code type settings, function settings (lighting, keyboard type, and factory default, etc.), and interface settings. If you need to use other functions, please Scan the corresponding configuration code accordingly as below.

With (*) means factory default setting.

1.2 Factory Default Settings

FFFFFE

Factory Default

FFFF6A

Version No.

1.3 Interface Selections

Scan the "USB keyboard" bar code to identify it as a USB keyboard interface.

When the serial port is required, the user needs to install the driver to realize the function of identifying the USB interface as USB COM.

FFBFFE

USB Keyboard

FFBFFD

USB COM

2. Function Mode Settings

2.01 About function mode setting

This chapter can configure the function mode of the device, including working mode (such as image brightness reverse, lighting settings, illumination configuration, LED indicator setting and speaker settings, etc.)

Please Scan the corresponding configuration code accordingly as below.

2.02 Working mode

7E9AA0

Auto-detection

2.03 Automatic Scanning Sensitivity

Remarks:

The sensitivity of automatic scanning mode is 15 levels, 1 means the highest, and 15 means the lowest.

B67A61

B67A62

B67A63

B67A64

2.04 Interval Time Settings

Set the interval time of the same bar code in automatic scanning mode.

The same bar code time can be set to 1-127 (the minimum is 1, the maximum is 127).

7EFD61

50ms

7EFD62

100ms

7EFD63

150ms

7EFD64

200ms

7EFD65

250ms

7EFD66

300ms

2.05 Bar code types On/Off


FFFEFD

All types On


FFFEFC

All types Off


FFFEFB

All 1D bar code types On


FFFEFA

All 1D bar code types Off


FFFEF9

All 2D bar code types On


FFFEF8

All 2D bar code types Off

2.06 QR mirror image


A86761

Enable


A86760

***Disable**

2.07 DATAMATRIX mirror image


A7F7D1

Enable


A7F7D0

***Disable**

2.08 Mirror image for all types of bar code


A6D871

Enable


A6D870

***Disable**

2.09 Black and white reverse


B677A1

Black & white reverse on


B677A0

*** Black & white reverse off**

2.10 LED settings


B66771

***Aiming light enable**


B66770

Aiming light disable

B66781

***Illumination enable**

B66891

Illumination disable

B66890

***Led indicator on**

B66780

Led indicator reverse

B66892

Led indicator off

B66893

Led indicator keeps lighting up

2.11 Beeper setting

B667D0

***On**

B667D1

Off

2.11-1 Beeper duration

7EA7A0

Normal

7EA7A1

Short

7EB9B7

2.7KHz

7EB9B6

1.6KHz

7EB9B5

2.0KHz

7EB9B4

2.4KHz

7EB9B3

3.1KHz

7EB9B2

3.5KHz

7EB9B11

4.2KH

7EB9B0

Off

2.12 Testing mode

After being configured to test mode, the device will automatically trigger decoding every second.

FFFFFC

On

FFFFFD

***Off**

2.13 Sleep Mode

When making a configuration bar code, add "^ 3" character before the digital command, such as ^ 3ADBE6X (X means sleep time), and the configuration bar code should be code128 type.

ADBE610

10s

ADBE6100

100s

2.14 Multiple-level illumination setting

ADC960

Level 1

ADC961

Level 2

ADC962

Level 3

2.15 Timeout settings

B6AE620

30s

B6AE640

60s

B6AE680

120s

B6AE6120

180s

B6AE6160

240s

B6AE6200

300s

2.16 Interface setting

2.16-1 RS232 interface

FFBFFF

RS 232

2.16-2 RS232 baud rate

7BEA60

300

7BEA61

600

7BEA63

2400

7BEA64

4800

7BEA65

*9600

7BEA67

19200

7BEA68

38400

7BEA69

57600

7BEA610

115200

2.17 Data digit

7C6790

7 digits

7C6791

8 digits

2.17-1 Stop digit

7C67A0

2 digits

7C67A1

1 digit

2.17-2 Check digit setting

7C69B0

O

7C69B1

S

7C69B2

E

7C69B3

M

7C69B4

N

3. Output setting

3.1 About output setting

This chapter can configure the output of the bar code scanner, including carriage return/line feed, adding prefix/suffix, setting bar code length, removing bar code digits (start/end removal), and multiple-national keyboard switching settings.

Please scan the corresponding configuration code accordingly as below.

3.2 Carriage return/Line feed setting

7CC791

Add carriage return

7CC790

Remove carriage return

7CC781

Add line feed

7CC780

Remove Line feed

3.3 Remove the barcode from the front/the end

The front and the end bar codes can be removed at the same time. For example, the number of digits of the bar code "B68E6X" is removed from the beginning (X is the number of digits to be removed, and the last 1 represents one bit removed. If it is 2, remove two digits, if it is 0, it is normal.

B68E61

Remove 1 digit of barcode from the front

Remove the number of digits of the barcode "B6BE6X" from the end (X is the number of digits to be removed, the last 1 represents one digit removed if it is 2 remove two digits, if it is 0, it will not be removed normally.

B6BE61

Remove the barcode 1 digit from the end

Note: You can remove the front and the end barcode at the same time

3.4 Keep data from the front/end

You can only choose to keep the front or the end digit, not both. Scan "AC8760" from the digits of the reserved barcode at the front, scan "AC8761" from the digits of the reserved barcode at the end, and then scan the barcode with the reserved digits.

AC8760

Keep the front data

AC8761

Keep the end data

B69E69

Keep 9-bit data

"B69E6X" X is the number of bits of reserved data. For example, if 9 bits are reserved, it is B69E69. Up to 255 bits can be reserved.

3.5 Bar code length setting

The length of the bar code could be set from 1 to 255 (minimum length is 1 and the maximum length is 255).

When making a configuration bar code, add "^ 3" character before the digit command, such as ^ 367EE6X (X indicates the length of bar code), the configuration bar code should be code128 type.

67EE61

Length of 1

67EE6255

Length of 255

67FE60

Bar code length lock

3.6 Add-on code setting


6787D1

Enable optional 2 digits Add-ons


6787D0

*** Disable optional 2 digits Add-ons**

Default


6787C1

Enable optional 5 digits Add-ons


6787C0

*** Disable optional 5 digits Add-ons**

Default


678791

All UPC/EAN codes add additional codes

678790

*** Add-on code must have off**

(UPC/EAN)

Default

3.7 Chinese output setting for USB keyboard mode

USB keyboard mode could output Chinese Characters, scan the corresponding configuration code as below to set the Chinese output. (The default setting of the Chinese version is not open, and can be switched into other languages)

A67960

***Default**

A67961

For MS Word, QQ，Not for MS Excel, MS Notebook

A67962

For MS Excel, MS Notebook，Not for MS Word, QQ

3.8 Keyboard language setting

7C8A60

Belgium

7C8A61

British

7C8A62

France


7C8A63

Germany


7C8A64

Italy


7C8A65

Spain


7C8A66

USA


7C8A68

Singapore


7C8A69

Salvatore


7C8A610

Japan


7C8A611

Sierra Leone


7C8A612

Turkey


7C8A613

Russia


7C8A614

Hungary


7C8A615

Russian (Russia)


A69E616

Thailand

3.8 ASCII alt code setting

You may need to output the characters in the form of ASCII code, at which time you could configure the corresponding configuration code as instruction.


A6A761

Alt code mode on


A6A760

Alt code mode off

A6A771

4 digits alt code on

A6A770

4 digits alt code off

3.10 Case switching

A68861

All lower case

A68862

All higher case

A68860

Default case setting

4. Bar code types setting

4.1 About bar code types

This chapter is about the configuration of bar code types for scanners, including UPC/EAN, Coda bar code, Code39, Full ASCII Code39, Interleaved 2 of 5, Code93, UPC-A, GS1 Data Bar Omnidirectional, GS1 Data Bar Expanded, PDF 117, QR Code, HK 2 of 5 (post) and Airline 2 of 5 and other supporting bar code configurations, please scan the corresponding configuration code accordingly as below.

With (*) means factory default settings.

4.2 Bar code types setting

4.2.01. Airline 2 of 5

6667A1

Enable

6667A0

***Disable**

4.2.02. Aztec Code

66C761

Enable

66C760

***Disable**

66C771

Black & White reversed Aztec enable

66C770

*** Black & White reversed Aztec disable**

4.2.03. Coda bar

6677A1

***Enable**

6677A0

Disable


9EF880

***No Check digit**


9EF881

Open check digit


9EF882

Open and output the check digit

4.2.04 Initial and ending characters output


6DD7D1

On


6DD7D0

*** Off**

4.2.05. Coda block A


8CA761

Enable


8CA760

***Disable**

4.2.06. Coda block F

8CA771

Enable

8CA770

***Disable**

4.2.07. Code 128

667791

***Enable**

667790

Disable

4.2.08. Code 11

666791

Enable

666790

***Disable**


6E67B0

***1 check digit**


6E67B1

2 check digit


6DD791

Check digit output


6DD790

*** Check digit output off**

4.2.09. Code 32


6687B1

Enable


6687B0

***Disable**

4.2.10. Code 39

667771

***Enable**

667770

Disable

9F6862

Check digit on

9F6860

***No check digit**

9F6861

Check digit on and output

9F6781

Initial and ending digit output

9F6780

***Initial and ending digit output off**

4.2.11. Code 93


667781

Enable


667780

***Disable**

4.2.12. Composite


A66761

Enable


A66760

***Disable**

4.2.13. Data Matrix Code


66B791

***Enable**


66B790

Disable

66B781

Black & white reversed DM code enable

66B780

*** Black & white reversed DM code disable**

4.2.14. EAN/UPC

6677C1

***Enable**

6677C0

Disable

4.2.15. EAN-8

6687A1

***Enable**

6687A0

Disable


6DF761

*** EAN-8 check digit output**


6DF760

EAN-8 check digit output off


6DB781

EAN-8 transform to EAN-13


6DB780

*** EAN-8 transform to EAN-13 disable**

4.2.16. EAN-13


668771

***Enable**


668770

Disable


6DF781

*** EAN-13 check digit output**


6DF780

EAN-13 check digit output off

4.2.17. Full ASCII Code39


6687D1

Enable


6687D0

***Disable**

4.2.18. GS1 Data Bar Expanded


66A7B1

Enable


66A7B0

***Disable**

4.2.19. GS1 Data Bar Limited

66A7A1

Enable

66A7A0

***Disable**

4.2.20. GS1 Data Bar Omnidirectional

66A791

Enable

66A790

***Disable**

4.2.21. HAN XIN

8D9771

Enable

8D9770

***Disable**

4.2.22. Hong Kong 2 of 5(China Post)


6697C1

Enable


6697C0

***Disable**

Notice: When reading a postal, all other postal needs close.

4.2.23. Interleaved 2 of 5


6677B1

***Enable**


6677B0

Disable


9EF862

Check digit on


9EF860

***Check digit off**


9EF861

Check digit on and output

4.2.24. Matrix 2 of 5


6667B1

Enable


6667B0

***Disable**


6DE781

Matrix 2 of 5 check digit output


6DE780

*** Matrix 2 of 5 check digit output off**

4.2.25. Maxi code


66C7A1

Enable


66C7A0

***Disable**

4.2.26. MicroPDF417


66A7D1

Enable


66A7D0

***Disable**

4.2.27. Micro QR Code


66C7B1

Enable


66C7B0

***Disable**


66C7C1

Black & white reversed micro QR enable


66C7C0

*** Black & white reversed micro QR disable**

4.2.28. MSI


668781

Enable


668780

***Disable**

4.2.29. PDF417


666761

***Enable**


666760

Disable

4.2.30. Pharmacology


ACF7B1

Enable


ACF7B0

***Disable**

4.2.31. QR Code


66C781

***Enable**


66C780

Disable


66C791

Black and white reversed QR enable


66C790

*** Black and white reversed QR Disable**


A6E760

***Web site address on**


A6E761

Web site address off

4.2.32. Straight 2 of 5 Industrial


667761

Enable


667760

***Disable**

4.2.33. Telepen


6667D1

Enable


6667D0

***Disable**

4.2.34. Trioptic Code


669781

Enable


669780

***Disable**

4.2.35. UPC-A


6687C1

***Enable**


6687C0

Disable


6DB7D1

***UPC-A check digit output**

6DB7D0

UPC-A check digit output off

6DB771

***UPC-A number system digit output**

6DB770

UPC-A number system digit output off

6DB7A1

UPC-A transform to EAN-13

6DB7A0

***UPC-A transform to EAN-13 off**

4.2.36. UPC-E

668761

***Enable**

668760

Disable

6DB7C0

***UPC-E check digit output off**

6DB7C1

UPC-E check digit output


6DB790

***UPC-E outputs the first character off**


6DB791

UPC-E outputs the first character


6DB7B1

UPC-E expand to 12 digit


6DB7B0

*** UPC-E expand to 12 digits off**

5. Special function setting

5.1 About special function setting

This chapter enumerates some configuration examples of equipment used, specifies the configuration method of special functions, which is convenient for users to operate the scanner. The configuration of special functions could be set by scanning the corresponding configuration bar codes in the instruction.

5.2 Interleaved 2 of 5 suffix setting


A6A7D1

On


A6A7D0

Off

5.3 Invoice information bar code setting

Scan the following configuration bar codes in turn:


A67962

For MS Notebook and Excel, not for MS Word


A6C791

On


A6C790

Off

5.4 Bar code length locking configuration

Add a length locking configuration process for a single bar code type:

Example 1

Lock the code 128 type length to 10 digits. Look-up the bar code types table, the code 128 number is 083.

1. Scan the "enter/exit the program mode" setting code, enter the program mode
2. Scan the "setting the bar code length – type 1" code
3. Scan the byte code "0" ," 1" ," 0" in turn
4. Scan the "setting the bar code types" code
5. Scan the byte code "0" ," 8" ," 3" in turn
6. Scan the "enter/exit the program mode" setting code, exit the program mode

Add length locking for 2 different bar code types:

Example 2

1. Scan the "enter/exit the program mode" setting code, enter the program mode
2. Scan the "setting the bar code length – type 1" code for bar code type 1
3. Scan the 3 byte-codes in turn
4. Scan the "setting the bar code types – type 1" code for bar code type 1
5. Scan the 3 byte-codes in turn
6. Scan the "setting the bar code length – type 2" code for bar code type 2
7. Scan the 3 byte-codes in turn
8. Scan the "setting the bar code types – type 2" code for bar code type 2
9. Scan the 3 byte-codes in turn
10. Scan the "enter/exit the program mode" setting code, exit the program mode


FFFFFF

Enter/Exit the program mode

Configure bar code type 1 length

Configuration bar code type 1 byte

Configure bar code type 2 length

Configuration bar code type 2 bytes

Configure bar code type 3 length

Configuration bar code type 3 bytes

Configure bar code type 4 length

Configuration bar code type 4 bytes

Configure bar code type 5 length

Configuration bar code type 5 bytes

696F60

Configure bar code type 6 length

697F60

Configuration bar code type 6 bytes

5.5 Byte codes list(decimal)

0

1

2

3

4

5

6

7

8

9

5.6 Bar code Types Table

Bar code No.	Bar code type
002	UPC-E
003	EAN-8
004	UPC-A
005	EAN-13
080	CODE 39
081	CODABAR
082	INTERLEAVED 2 OF 5
083	CODE 128
084	CODE 93
091	MSI
092	CODE 11
093	AIRLINE 2 OF 5
094	MATRIX 2 OF 5
095	TELEPEN
096	UK PLESSEY
097	AIRLINE(13 DIGITS)
098	STANDARD 2 OF 5
099	TRIOPTIC
101	RSS14
102	RSS LIMIT
103	RSS EXT
104	PDF417
105	MICRO PDF417
106	DATA MATRIX
107	AZTEC
108	QR
109	MAXICODE

5.7 Add prefix/suffix (maximum 10 characters)

The process to add prefix:

Example 1, add a one-byte prefix and the character is "(" , the ASCII code decimal number is 040.

1. Scan the "enter/exit the program mode" setting code, enter the program mode
2. Scan the "byte 1 prefix setting" bar code
3. Scan the byte-code "0" ," 4" ," 0"
4. Scan the "enter/exit the program mode" setting code, exit the program mode

The process to add suffix:

Example 2, add a one-byte suffix and the character is ")", the ASCII code decimal number is 041.

1. Scan the "enter/exit the program mode" setting code, enter the program mode
2. Scan the "byte 1 suffix setting" bar code
3. Scan the byte-code "0","4","1"
4. Scan the "enter/exit the program mode" setting code, exit the program mode

The process to add multiple prefixes:

Example 3, add multiple prefixes

1. Scan the "enter/exit the program mode" setting code, enter the program mode
2. Scan the "byte 1 prefix setting" bar code
3. Scan the byte-code for the byte 1 prefix
4. Scan the "byte 2 prefix setting" bar code
5. Scan the byte-code for the byte 2 prefix
6. Scan the "enter/exit the program mode" setting code, exit the program mode

The process to add multiple suffixes:

Similar to add multiple prefixes

Delete all the prefix:

Scan the "Delete all prefix" setting code

Delete all the suffix:

Scan the "Delete all suffix" setting code


FFFFFF

Enter/Exit the program mode


69BF60

Configure the 1st byte of the prefix


69CF60

Configure the 2nd byte of the prefix


69DF60

Configure the 3rd byte of the prefix


69EF60

Configure the 4th byte of the prefix


69FF60

Configure the 5th byte of the prefix


6A6F60

Configure the 6th byte of the prefix


6A7F60

Configure the 7th byte of the prefix


6A8F60

Configure the 8th byte of the prefix


6A9F60

Configure the 9th byte of the prefix


6AAF60

Configure the 10th byte of the prefix


FFFFEB

Delete all prefix

Configuration suffix 1st byte

Configuration suffix 2nd byte

Configuration suffix 3rd byte

Configuration suffix 4th byte

Configuration suffix 5th byte

Configuration suffix 6th byte

Configuration suffix 7th byte

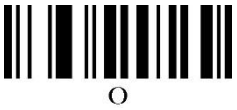
Configuration suffix 8th byte

Configuration suffix 9th byte

Configuration suffix 10th byte

Delete all suffix

5.8 Byte codes list(decimal)



Appendix: ASCII List

Decimal number	Character	Decimal number	Character	Decimal number	Character	Decimal number	Character
000	NUL	032	SP	064	@	096	‘
001	SOH	033	!	065	A	097	a
002	STX	034	"	066	B	098	b
003	ETX	035	#	067	C	099	c
004	EOT	036	$	068	D	100	d
005	ENQ	037	%	069	E	101	e
006	ACK	038	&	070	F	102	f
007	BEL	039	`	071	G	103	g
008	BS	040	(	072	H	104	h
009	HT	041	)	073	I	105	i
010	LF	042	*	074	J	106	j
011	VT	043	+	075	K	107	k
012	FF	044	,	076	L	108	l
013	CR	045	—	077	M	109	m
014	SOH	046	.	078	N	110	n
015	SI	047	/	079	O	111	o
016	DLE	048	0	080	P	112	p
017	DC1	049	1	081	Q	113	q
018	DC2	050	2	082	R	114	r
019	DC3	051	3	083	S	115	s
020	DC4	052	4	084	T	116	t
021	NAK	053	5	085	U	117	u
022	SYN	054	6	086	V	118	v
023	ETB	055	7	087	W	119	w
024	CAN	056	8	088	X	120	x
025	EM	057	9	089	Y	121	y
026	SUB	058	:	090	Z	122	z
027	ESC	059	;	091	[	123	{
028	FS	060	<	092	\	124	|
029	GS	061	=	093	]	125	}
030	RS	062	>	094	^	126	~
031	US	063	?	095	_	127	DEL

ASCII extended（CP-1252）

Decimal number	Character	Decimal number	Character	Decimal number	Character	Decimal number	Character
128	€	160		192	À	224	à
129		161	¡	193	Á	225	á
130	‚	162	¢	194	Â	226	â
131	*ƒ*	163	£	195	Ã	227	ã
132	„	164	¤	196	Ä	228	ä
133	…	165	¥	197	Å	229	å
134	†	166	¦	198	Æ	230	æ

135	‡	167	§	199	Ç	231	ç
136	ˆ	168	¨	200	È	232	è
137	‰	169	©	201	É	233	é
138	Š	170	ª	202	Ê	234	ê
139	‹	171	«	203	Ë	235	ë
140	Œ	172	¬	204	Ì	236	ì
141		173		205	Í	237	í
142	Ž	174	®	206	Î	238	î
143		175	¯	207	Ï	239	ï
144		176	°	208	Ð	240	ð
145	‘	177	±	209	Ñ	241	ñ
146	’	178	²	210	Ò	242	ò
147	“	179	³	211	Ó	243	ó
148	”	180	´	212	Ô	244	ô
149	·	181	µ	213	Õ	245	õ
150	–	182	¶	214	Ö	246	ö
151	—	183	·	215	×	247	÷
152	˜	184	¸	216	Ø	248	ø
153	™	185	¹	217	Ù	249	ù
154	š	186	º	218	Ú	250	ú
155	›	187	»	219	Û	251	û
156	œ	188	¼	220	Ü	252	ü
157		189	½	221	Ý	253	ý
158	ž	190	¾	222	Þ	254	þ
159	Ÿ	191	¿	223	ß	255	ÿ