

2D Bar code Scanner User Manual

Version No.: V1.0 0911

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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



Factory Default



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.



USB Keyboard



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



7E9AA2

***Manual trigger**
Default



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).



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



7EB9B1

4.2KHz



7EB9B0

Off

2.12 Testing mode

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



FFFFC

On



FFFFD

***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



686F60

Configure bar code type 1 length



687F60

Configuration bar code type 1 byte



688F60

Configure bar code type 2 length



689F60

Configuration bar code type 2

bytes



68AF60

Configure bar code type 3 length



68BF60

Configuration bar code type 3

bytes



68CF60

Configure bar code type 4 length



68DF60

Configuration bar code type 4

bytes



68EF60

Configure bar code type 5 length



68FF60

Configuration bar code type 5

bytes



696F60

Configure bar code type 6 length

bytes

5.5 Byte codes list(decimal)



0



2



4



6



8



1



3



5



7



9



697F60

Configuration bar code type 6

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



6ABF60

Configuration suffix 1st byte



6ACF60

Configuration suffix 2nd byte



6ADF60

Configuration suffix 3rd byte



6AEF60

Configuration suffix 4th byte



6AFF60

Configuration suffix 5th byte



6B6F60

Configuration suffix 6th byte



6B7F60

Configuration suffix 7th byte



6B8F60

Configuration suffix 8th byte



6B9F60

Configuration suffix 9th byte



6BAF60

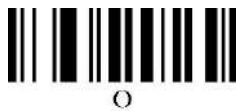
Configuration suffix 10th byte



FFFEA

Delete all suffix

5.8 Byte codes list(decimal)



0



1



2



3



4



5



6



7



8



9

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	í	193	Á	225	á
130	,	162	ç	194	Â	226	â
131	f	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	^	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	Đ	240	đ
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