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# Introduction

The transmission modes of this scanner include wireless 2.4G, wireless Bluetooth and USB transmission, these modes can be switched any time. When the scanner is on, it will automatically enter the interface detection status, if the USB cable is connected to your device and recognized, the scanner will enter the wired transmission mode, other wise it would enter wireless transmission mode.

This scanner supports bluetooth HID, SPP and BLE protocols. When using 2.4G mode for transmission , the scanner is available for real-time transmission,automatic storage and mixed mode.

The design of dual treble and vibrator provide a better feedback for users even under noisy industrial environment.

We provide bases and screens for users to collocate for scanners, all sorts of collocations can be made to satisfy user's different application requirements.

# 1 Restore Factory Default

Restore factory default settings: the transmission method will be restored to HID-KBW, other parameters will be set to default.



%%SpecCode93  
Factory Default

# 2 User's Default Settings

Users can justify their settings based on the context, scan "Save as User's Default Settings" will make your current settings as user's default. If there is already a user's default setting, this operation will replace your previous settings with the new one.



%%SpecCode92  
Save as User's Default Settings

# 3 Version Info.

Checking for software version info



%%SpecCode39

## 4 Battery Capacity

Checking for battery capacity, the capacity displayed may be a tolerance of 10%.



%%SpecCode15

Battery Capacity

## 5 Bluetooth

### 5.1 Bluetooth HID Protocol

#### Manual Pairing

- 1、 Set the “Shortcut Functions of Button” as “Search Bluetooth HID”, press the button and hold it for 10 seconds to enter Bluetooth searching.(Blue&green light will flash once the searching has begun);
- 2、 Turn on Bluetooth in your device, search, select and pair “Barcode Scanner HID”, if the pairing is successful, you will hear a “beep” sound and green&flash light is always on. (The whole pairing process takes about 1min, if timeout and the pairing failed, it will automatically exit the pairing mode)

## Barcode Scanning Pairing

- 1、 First scan “Bluetooth HID”, then scan “Pairing Setting” to enter Bluetooth searching(Blue&green light will flash once the searching is begun);
- 2、 Turn on Bluetooth in your device, search, select and pair “Barcode Scanner HID”, if the pairing is successful, you will hear a “beep” sound and green&flash light is always on. (The whole pairing process takes about 1min, if timeout and the pairing failed, it will automatically exit the pairing mode)



%%SpecCodeAA  
Bluetooth HID



%%SpecCode99  
Pairing Setting

## 5.2 Bluetooth BLE Protocol

- 1、 Scan “Bluetooth BLE” to enter Bluetooth searching(Blue&green light will flash alternately once the searching has begun);
- 2、 Turn on Bluetooth in your device, search, select and pair “Barcode Scanner BLE”, if the pairing is successful, you will hear a “beep” sound and green&flash light is always on.



%%SpecCodeAC  
Bluetooth BLE

## 5.3 Bluetooth SPP Protocol

- 1、 Scan “Bluetooth SPP” to enter Bluetooth searching (blue light will flash once the searching has begun);
- 2、 Turn on the Bluetooth in the customized software, search and select “Barcode Scanner SPP”, you will hear a “beep” sound if the pairing is successful, and the blue light is always on.



%%SpecCodeAB  
Bluetooth SPP

## 5.4 Set Bluetooth Name

### How to set Bluetooth name for your scanner:

- 1、 Create a self-made barcode, in which the content should be the name you desire, this barcode will be set as the Bluetooth name for your scanner. The format of setting Bluetooth name: Bluetooth name+Protocol type, you are only allowed to change Bluetooth name, protocol type remains as it was. E.g.  
: If you want set your scanner's Bluetooth name as: Scanner, the format of Bluetooth HID name should be: Scanner HID.

( Be advised : The name can only be set up to 16 bytes. If the name of barcode exceeds 16 bytes, the scanner only takes the first 16 bytes as the Bluetooth name.)

2、 Scan“Set Bluetooth Name”, then scan the barcode you create to complete the setting.



%%SpecCodeEC  
Set Bluetooth Name



%%SpecCodeED  
Read Bluetooth name

## 5.5 Eject/hide Keyboard

When Bluetooth HID is successfully connected and the keyboard language is English, double click the button can eject or hide the HID keyboard. (this function is for IOS only)



%%SpecCode1A  
Eject/Hide HID Keyboard



%%SpecCode7B  
Turn On Keyboard Double-click Function (Default  
)





%%SpecCode7A

Turn Off Keyboard Double-tap Function

## 5.6 Immediate Mode

In immediate mode, data scanned will be directly transmitted to the receiver, there will be one short sound if the transmission is successful, meanwhile the green indicator light will flash once. If the transmission failed, there will be three short sounds and the green light will flash for three times. The data will be lost under immediate mode if the transmission failed.



%%SpecCode10

Immediate Mode (Default  
)

## 5.7 Inventory Mode

### Offline Inventory Mode

In offline inventory mode, scanning the barcode then its data will be automatically saved in the memory chip inside the scanner, later there will be one short sound. If the memory is full, there will be three short sounds as warning sign and the green light will flash three times.



%%SpecCode11

Offline Inventory

## Inventory Setting

Show total amount of barcode scanned in storage:



%%SpecCode17

Upload Statistics

Upload all data in memory chip:



%%SpecCode16

Upload Data

Delete all data in memory chip (Warning: All data deleted cannot be restored , make sure you have uploaded all data and made a backup)



%%SpecCode18

Delete All Data

## 5.8 Upload Speed



%%SpecCodeB0

Fast



%%SpecCodeB1

Medium



%%SpecCodeB2  
Low



%%SpecCodeB3  
Ultra-low

## 6 2.4G ( Dongle )

### 6.1 2.4G Receiver Mode

- 1、 To enter the pairing status, first scan“2.4G Receiver Mode”, then scan “Pairing Setting”(the green light will flash).
- 2、 Plug the USB dongle into the device, when hearing a“beep”sound, it means the pairing is successful and the blue&green light is always on. (The whole pairing process takes about 1min, if timeout and the pairing failed, it will automatically exit the pairing mode);



%%SpecCodeA8  
2.4G Receiver Mode



%%SpecCode99

Pairing Setting

## 6.2 Virtual Serial Port Mode

Under the circumstances when application software requires ports, scan “USB Virtual COM” and recognize as USB Virtual COM.

(Be advised: An installed driver is require. The default settings of port is: 9600 baud rate, 8 data bits; no check bit; 1 stop bit) .



%%SpecCodeAE

USB Virtual Com

## 6.3 Immediate Mode

In immediate mode, data scanned will be directly transmitted to the receiver, there will be one short sound if the transmission is successful, meanwhile the green indicator light will flash once. If the transmission failed, there will be three short sounds and the green light will flash for three times, meanwhile the data will be lost.



%%SpecCode10

Immediate Mode

(Default)

## 6.4 Inventory Mode

### Offline Inventory Mode

In offline inventory mode, scan the barcode and its data will be automatically saved in the memory chip inside the scanner, later there will be one short sound from the scanner. If the memory is full, there will be three short sounds as warning sign and the green light will flash three times.



%%SpecCode11  
Offline Inventory Mode

### Mixed Mode

Mixed mode is the combination of immediate mode and data inventory. When the scanner is within the range of transmission, the data scanned will be immediately sent to the receiver; when the scanner is out of the range of real time transmission, the data scanned will be automatically saved in the memory chip inside the scanner.



%%SpecCode12  
Mixed Mode

### Data Inventory Setting

Show total amount of scans in storage



%%SpecCode17  
Upload Statistics

Upload all data in memory chip



%%SpecCode16  
Upload Data

Delete all data in memory chip (Warning: All data deleted cannot be restored  
, make sure you have uploaded all data and made a backup.)



%%SpecCode18  
Delete All Data

## 7 Shortcut Functions of Button

To power off, hold the button for 10 seconds



%%SpecCodeBA1500  
Hold to Power Off  
(Default)

To enter Bluetooth HID searching, hold the button for 10 seconds



%%SpecCodeBA1501  
Hold to Search for Bluetooth HID



%%SpecCode78  
Hold to Turn Off Button Functions



%%SpecCode79  
Hold to Turn On Button Functions

## 8 Sleep Time Setting



%%SpecCode30  
30s



%%SpecCode31

1 min



%%SpecCode32

2mins

(Default)



%%SpecCode33

5mins



%%SpecCode34

10mins



%%SpecCode35

30mins





%%SpecCode36

Turn Off Sleep Mode



%%SpecCode38

Initiate Sleep Mode Immediately

## 9 Keyboard Language Settings



%%SpecCode40

America

(Default)



%%SpecCode41

Germany



%%SpecCode42

France



%%SpecCode43

Spain



**%%SpecCode44**  
**Italy**



**%%SpecCode45**  
**Japan**



**%%SpecCode47**  
**Belgian French**



**%%SpecCode48**  
**Portugal**



**%%SpecCode49**  
**The UK**



**%%SpecCode50**  
**Turkey F**



**%%SpecCode4F**  
**Turkey Q**



**%%SpecCode51**  
**Sweden& Finland**



**%%SpecCode52**  
**Mexican Spanish**



**%%SpecCode53**  
**Danish**



**%%SpecCode54**  
**Norwegian**



**%%SpecCode55**  
**Croatian&Serbian**



**%%SpecCode56**  
**Swiss German**



**%%SpecCode57**  
**Swiss French**



**%%SpecCode58**  
**Dutch**



**%%SpecCode59**  
**Hungarian**



**%%SpecCode4B**  
**Brazilian Portuguese**



**%%SpecCode4D**  
**Czech**



**%%SpecCode4E**  
**Italy 142**



**%%SpecCode5A**  
**Polish**



**%%SpecCode5B**  
**Canadian French**



**%%SpecCode5C**  
**Argentine Latin American languages**



**%%SpecCode5D**  
**Slovak**



**%%SpecCode5E**  
**Thai**



**%%SpecCode4C**  
**Russian**



**%%SpecCodeBA1400**  
**Russian Code CP1251**



**%%SpecCodeBA1401**  
**Russian Code KOI8-R**



**%%SpecCode46**  
**International Universal Keyboard**



**%%SpecCode4A**  
**German IOS Keyboard**



**%%SpecCodeB5**  
**Enter GBK、Code Page Code**



**%%SpecCodeB4**  
**Enter UTF Code**

## 10 Case Conversion



%%SpecCodeA4  
Upper case



%%SpecCodeA3  
Lower case



%%SpecCodeA6  
Upper&lower case conversion



%%SpecCodeA5  
Upper&case lower case conversion OFF

## 11 Notice Settings

### Voice Settings



%%SpecCode97

High Volume  
(Default)



%%SpecCode96  
Medium Volume



%%SpecCode95  
Low Volume



%%SpecCode94  
Mute

## Vibration Settings



%%SpecCode76  
Vibration off





%%SpecCode77

Vibration on (Default  
)

## 12 Terminator Settings



%%SpecCode9C

Enter



%%SpecCode9D

Line Feed



%%SpecCode9E

Enter+LF



%%SpecCodeA2

TAB



%%SpecCode9F

No Terminator

## 13 Data Edit

In practical application, sometimes we may need to edit the data before outputting them, in order to sort out and deal with data. Data edit includes:  
add prefix/suffix、 intercept prefix/suffix

### 13.1 Prefix/suffix Settings:

#### 13.1.1 Time Display Setting



%%SpecCodeC1

Display Time at the Front



%%SpecCodeC2

Display Time at the Back



%%SpecCodeC0

Turn Off Time Display(front&back)

#### 13.1.2 Add Prefix/suffix

How to add prefix/suffix: First scan “Set prefix” or “Set suffix”, then scan the corresponding barcode (see character table below), you may add up to 32 bytes.



%%SpecCode9A  
Set Prefix



%%SpecCode9B  
Set Suffix

### 13.1.3 Hide Prefix/suffix

How to hide bar code : First scan “Hide the front character” or “Hide the back-end character”, then scan the barcode in the character table to decide how many bytes you want to hide, you may hide up to 4 bytes.



%%SpecCodeA0  
Hide the Front Character



%%SpecCodeA1  
Hide the Back-end Character

## 13.2 GS Character Settings

How to set GS character: First scan “Set GS character convert”, then scan the corresponding setting barcode. (see character table below)



%%SpecCodeEF

Set GS Character Convert



%%SpecCodeEE

Turn off GS Character Convert

### 13.3 Escape Character Set Setting

The prefix/suffix table includes the tables of control character and displayable character. Displayable characters are those ASCII characters whose key value are over 31. Generally speaking these characters could be output by HID keyboard without being transferred.

Control characters are those characters whose key value are below 32, most of these characters must be transferred first before being output by HID keyboard. This scanner contains 5 methods of transformation, which can be converted by scanning barcode. Users are allowed to set their own escape character set based on their needs.



%%SpecCodeBA0000

Set escape character set 0



%%SpecCodeBA0001  
Set escape character set 1



%%SpecCodeBA0002  
Set escape character set 2

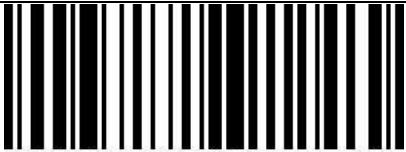




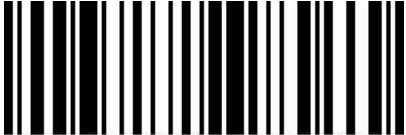
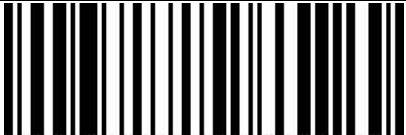
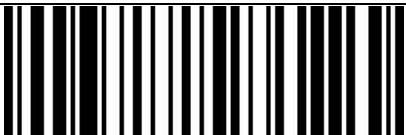
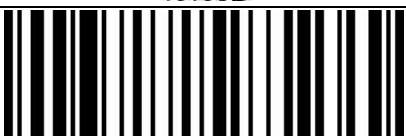
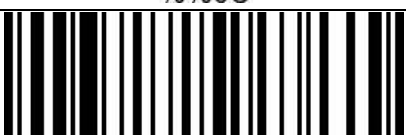





%%SpecCodeBA0003  
Set escape character set 3

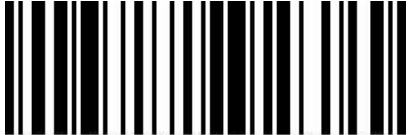

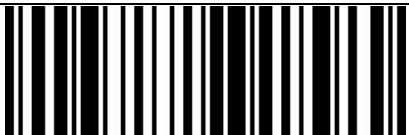

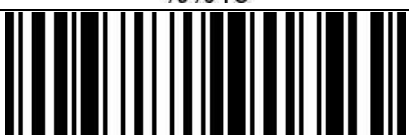







%%SpecCodeBA0004  
Set escape character set 4

# 14 Control Character Table

De ci ma l	ASC II	Chara cter set 0	Chara cter set 1	Chara cter set 2	Charac ter set 3	Chara cter set4	Setting Barcode
1	SOH	NULL	Home	Ctrl+A	Alt+00 1	Enter( Key pade)	 %%01
2	STX	Ctrl+B	End	Ctrl+B	Alt+00 2	Cap Lock	 %%02
3	ETX	Ctrl+C	Up Arrow	Ctrl+C	Alt+00 3	Right Arrow	 %%03
4	EOT	NULL	Down Arrow	Ctrl+D	Alt+00 4	Up Arrow	 %%04
5	ENQ	NULL	Left Arrow	Ctrl+E	Alt+00 5	NULL	 %%05
6	ACK	NULL	Right Arrow	Ctrl+F	Alt+00 6	NULL	 %%06
7	BEL	NULL	Shift+ Tab	Ctrl+G	Alt+00 7	Enter	 %%07
8	BS	Back Space	Back Space	Back Space	Alt+00 8	Left Arrow	 %%08








9	HT	Tab	Tab	Tab	Alt+00 9	Tab	 %%09
10	LF	Enter	Enter	Ctrl+P	Alt+01 0	Down Arrow	 %%0A
11	VT	NULL	NULL	Ctrl+ Q	Alt+01 1	Tab	 %%0B
12	FF	NULL	NULL	Ctrl+ R	Alt+01 2	delete	 %%0C
13	CR	Enter	Enter	Enter	Alt+01 3	Enter	 %%0D
14	S0	F1	Page Up	Ctrl+ N	Alt+01 4	Insert	 %%0E
15	S1	F2	Page Down	Ctrl+ O	Alt+01 5	Esc	 %%0F
16	DLE	F3	F11	Ctrl+P	Alt+01 6	F11	 %%10
17	DC1	F4	NULL	Ctrl+ Q	Alt+01 7	Home	 %%11
18	DC2	F5	NULL	Ctrl+ R	Alt+01 8	Print Scree n	 %%12

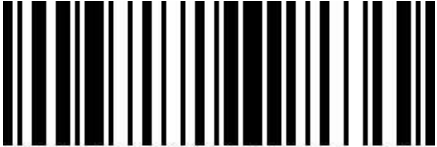







19	DC3	F6	NULL	Ctrl+S	Alt+01 9	Back Space	 %%13
20	DC4	F7	NULL	Ctrl+T	Alt+02 0	Shift tab	 %%14
21	NAK	F8	F12	Ctrl+ U	Alt+02 1	F12	 %%15
22	SYN	F9	F1	Ctrl+V	Alt+02 2	F1	 %%16
23	TB	F10	F2	Ctrl+ W	Alt+02 3	F2	 %%17
24	CAN	F11	F3	Ctrl+X	Alt+02 4	F3	 %%18
25	EM	F12	F4	Ctrl+Y	Alt+02 5	F4	 %%19
26	SUB	NULL	F5	Ctrl+Z	Alt+02 6	F5	 %%1A
27	Esc	Esc	F6	Ctrl+[	Alt+02 7	F6	 %%1B
28	FS	ALT+0 28	F7	Ctrl+\	Alt+02 8	F7	 %%1C






29	GS	ALT+0 29	F8	Ctrl+]	Alt+02 9	F8	 %%1D
30	RS	NULL	F9	Ctrl+^	Alt+03 0	F9	 %%1E
31	US	NULL	F10	Ctrl+_	Alt+03 1	F10	 %%1F

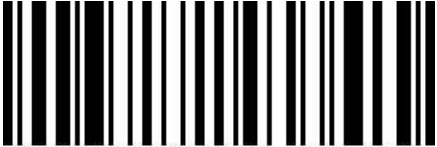
# 15 Displayable Character Table

Decimal	ASCII	Corresponding Barcode
32	Space	 %%20
33	!	 %%21
34	"	 %%22
35	#	 %%23
36	\$	 %%24
37	%	 %%25
38	&	 %%26

39	'	 %%27
40	(	 %%28
41	)	 %%29
42	*	 %%2A
43	+	 %%2B
44	,	 %%2C
45	-	 %%2D
46	.	 %%2E

47	/	 %%2F
48	0	 %%30
49	1	 %%31
50	2	 %%32
51	3	 %%33
52	4	 %%34
53	5	 %%35
54	6	 %%36

55	7	 %%37
56	8	 %%38
57	9	 %%39
58	:	 %%3A
59	;	 %%3B
60	<	 %%3C
61	=	 %%3D

62	>	 %%3E
----	---	--

63	?	 %%3F
----	---	--

64	@	 %%40
----	---	--






65	A	 %%41
----	---	---

66	B	 %%42
----	---	--

67	C	 %%43
----	---	--

68	D	 %%44
----	---	--





SFF69	<b>E</b>	 %%45
70	<b>F</b>	 %%46

71	<b>G</b>	 %%47
72	<b>H</b>	 %%48
73	<b>I</b>	 %%49
74	<b>J</b>	 %%4A
75	<b>K</b>	 %%4B

76	<b>L</b>	 %%4C
77	<b>M</b>	 %%4D
78	<b>N</b>	 %%4E

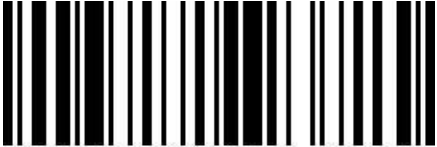






79	<b>O</b>	 %%4F
80	<b>P</b>	 %%50
81	<b>Q</b>	 %%51
82	<b>R</b>	 %%52

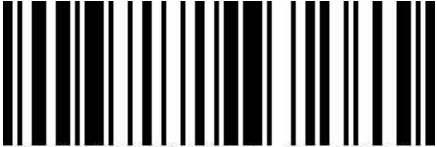












83	<b>S</b>	 %%53
84	<b>T</b>	 %%54
85	<b>U</b>	 %%55
86	<b>V</b>	 %%56

87	<b>W</b>	 %%57
88	<b>X</b>	 %%58
89	<b>Y</b>	 %%59

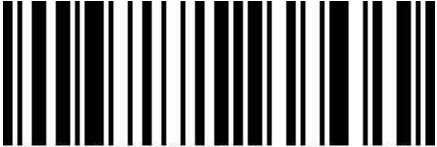
90	z	 %%5A
91	[	 %%5B
92	\	 %%5C
93	]	 %%5D
94	^	 %%5E
95	_	 %%5F
96	`	 %%60

97	<b>a</b>	 %%61
98	<b>b</b>	 %%62
99	<b>c</b>	 %%63
100	<b>d</b>	 %%64
101	<b>e</b>	 %%65
102	<b>f</b>	 %%66
103	<b>g</b>	 %%67

104	<b>h</b>	 %%68
105	<b>i</b>	 %%69
106	<b>j</b>	 %%6A
107	<b>k</b>	 %%6B
108	<b>l</b>	 %%6C
109	<b>m</b>	 %%6D
110	<b>n</b>	 %%6E

111	<b>o</b>	
112	<b>p</b>	
113	<b>q</b>	
114	<b>r</b>	
115	<b>s</b>	
116	<b>t</b>	
117	<b>u</b>	
118	<b>v</b>	

119	<b>w</b>	 %%77
120	<b>x</b>	 %%78
121	<b>y</b>	 %%79
122	<b>z</b>	 %%7A
123	<b>{</b>	 %%7B
124	<b> </b>	 %%7C
125	<b>}</b>	 %%7D

126	~	 %%7E
-----	---	--

127	<b>DEL</b>	 %%7F
164	▣	 %%A4
199	Ç	 %%C7
231	ç	 %%E7