Wireless Setting Manual

for IG221/IG222

V1.0

Chapter 1 Comprehensive Settings

1.1 Wireless Version number

Use the scanner to scan the version barcode and you will view the information of current scanner version.

Version

1.2 Wireless Factory Default

All scanners have a factory default setting. The scanner's wireless properties will be set to the default state of the software with scanning the "Factory Default" setup code.

Wireless Factory Default

1.3 Wireless Sound settings

Volume of Sound


%%SpecCode94

Off


%%SpecCode95

Low


%%SpecCode96

Medium


%%SpecCode97

High*

Frequency of Sound


%%SpecCode7C

2k* HZ


%%SpecCode7D

2.7K HZ

1.4 Vibration


%%SpecCode77

On*


%%SpecCode76

Off

1.5 Battery Level

Scan the “Battery Level” setting code to check out the current battery status.


%%SpecCode15

Battery Level

1.6 Sleeping Time


%%SpecCode30

30s


%%SpecCode31

1 min


%%SpecCode32

2 min


%%SpecCode33

5 min*


%%SpecCode34

10 min


%%SpecCode35

30 min


%%SpecCode36

Never


%%SpecCode38

Sleep Immeduaely

1.7 Data Format

Use the scanner wireless 2.4G or wired USB interface to set the data input format.


%%SpecCodeB5

Codepage Mode (Notepad，Excel)*


%%SpecCodeB4

Unicode Mode (WORD)

1.8 Wireless Working Mode

The wireless scanner has two different working modes: instant upload mode and storage mode. The operation mode is switched by different setup codes.

Instant Upload Mode

Instant upload Mode is also called normal mode. In this mode, the barcodes that are scanned will be transmitted to the host device immediately.


%%SpecCode10

Instant Upload Mode*

Storage Mode

Storage Mode is also called inventory mode or warehouse mode. In storage mode, the scanner will not transmit scanned barcodes directly to the host device, but store them in the storage memory. If you need to check or clear the stored barcodes, refer to data control section. When the scanner is powered off, the barcodes stored will not get lost unless the "Clear All Barcodes Stored" setup code is scanned.

Storage Mode

1.9 Data Control

Data control is used for processing stored data.

Upload All Code

To upload the data stored in the memory, scan the "Upload All Codes" barcode to transmit data to computers or mobile devices. In whatever mode, the data stored in the memory will not be deleted when data upload succeeds unless the "Clear All Codes" is scanned.

Upload All Codes

Upload Total Count

If you wish to output the total number of barcodes scanned, scan the barcode below.

Upload Total Count

Clear All Codes

Scan the “Clear All Codes” to clear the data stored in the scanner memory.

Note: this operation will clear all stored data.

Clear All Codes

Chapter 2 Communication Settings

This scanner can not only support wireless communication, but also supports wired communication. When the scanner is wired to the scanner, the scanner will automatically switch to wired transmission.

2.1 USB-COM

USB virtual serial port supports the use of 2.4G mode wireless virtual serial port and wired USB virtual serial port.

USB-COM

2.2 Wireless 2.4G Mode

It is suitable for devices that can be plugged into a 2.4G receiver, and can directly use text output, which is equivalent to USB keyboard input.

Wireless 2.4G Mode*

2.3 Bluetooth HID Mode

It is suitable for using in devices that support Bluetooth, such as mobile phones, pads, laptops with Bluetooth, etc. After the connection is successful, you can use direct text input, which is equivalent to the virtual keyboard input method of this type of device.

Bluetooth HID Mode

2.4 Bluetooth SPP Mode

It is suitable for use in devices that support Bluetooth, such as mobile phones, pads, laptops with Bluetooth, etc. When using SPP to transparently transmit data, you need to download or develop classic Bluetooth SPP transparent transmission software before it can be used. SPP mode is suitable for mass data transmission.

Bluetooth SPP Mode

2.5 Wireless Pairing

Wireless Pairing Steps (Dongle Pairing)

Step 1: Scan the "Wireless 2.4G Mode" setup code

When setting the wireless 2.4G mode, it will give priority to connect to the last paired receiver by default.

Wireless 2.4G Mode

Step 2: Scan the "Forced Pairing" setup code to enter the pairing state, and the blue LED1 flashes quickly.

Forced Pairing

Step 3: Plug in Dongle (receiver) and hear a beep, indicating that the connection and pairing is successful. Blue LED2 is always on.

Bluetooth HID Pairing Steps

Step 1: Scan the "Bluetooth HID Mode" setup code

When setting the wireless bluetooth HID mode, it will give priority to connect to the last paired bluetooth by default.

Bluetooth HID Mode

Step 2: Scan the "Forced Pairing" setup code to enter the pairing state, and the blue LED1 and blue LED2 flash alternately.

Forced Pairing

Step 3: Turn on Bluetooth in the device and search for "BarCode Bluetooth HID".

Step 4: Click "BarCode Bluetooth HID" Bluetooth device to enter the pairing state.

Step 5: When you hear a beep, it means the connection and pairing is successful, and the blue LED2 is always on.

Bluetooth SPP Pairing Steps

Step 1: Scan the "Bluetooth SPP Mode" setup code

When setting the wireless Bluetooth SPP mode, it will automatically enter the SPP mode and enter the broadcast state by default. You can directly click the BarCode Bluetooth SPP device in the SPP software to pair

%%SpecCodeAB

Bluetooth SPP Mode

Step 2: Search for "BarCode Bluetooth SPP" in the SPP transparent transmission software.

Step 3: Click the "BarCode Bluetooth SPP" Bluetooth device to enter the pairing state.

Step 4: When you hear a beep, it means the connection and pairing is successful, and the blue LED2 is on.

2.6 Bluetooth Mode Function Setting

Press and hold for 8s to enter HID Mode

When using a Bluetooth barcode, turn on and hold for 8 seconds to enter the Bluetooth HID search.


%%SpecCode79

On*


%%SpecCode78

Off

2.7 Bluetooth HID Upload Speed

When using Bluetooth HID to connect to a Bluetooth host, the upload speed of the Bluetooth scanner can be adjusted according to the response capability of the Bluetooth host. If the uploaded content is messy or missing, please lower the speed.


%%SpecCodeB0

Fast


%%SpecCodeB1

Medium*


%%SpecCodeB2

Slow


%%SpecCodeB3

Very slow

2.8 National Keyboard Layout

The keyboard key arrangement, symbols, etc. corresponding to different national languages are not same. The scanner can be virtualized into different national keyboard standards according to actual needs. The keyboard layout setting is applicable to the HID communication interface mode. The default is "American English keyboard".


%%SpecCode40

America English*


%%SpecCode41

German


%%SpecCode42

French


%%SpecCode43

Spanish


%%SpecCode44

Italian


%%SpecCode45

Japanese


%%SpecCode47

Belgian French


%%SpecCode48

Portuguese


%%SpecCode49

British English


%%SpecCode4A

German IOS keyboard


%%SpecCode4B

Brazilian Portuguese


%%SpecCode4C

Russian


%%SpecCode4D

Czech


%%SpecCode4E

Italy 142


%%SpecCode4F

Turkey Q


%%SpecCode50

Turkey F


%%SpecCode51

Sweden / Finland


%%SpecCode52

Mexican Spanish


%%SpecCode53

Denmark


%%SpecCode54

Norwegian


%%SpecCode55

Croatian/Serbian


%%SpecCode56

Swiss German


%%SpecCode57

Swiss French


%%SpecCode58

Dutch


%%SpecCode59

Hungarian


%%SpecCode5A

Polish


%%SpecCode5B

Canadian French


%%SpecCode5C

Argentina (Latin American)

Slovak

Thai

International keyboard

Note: The international keyboard supports all minority languages on the PC side。

2.9 Case Conversion

By setting the character case conversion function of the scanner, the English letters of the scanner output data can be case-converted.

For example: The content of the barcode is aBC123, scan "Lower", the data obtained by the host will be "abc123". The default is Normal.

Normal*

Upper

Lower

Inverse

Note: This parameter is only valid in standard keyboard input mode and keyboard emulation input control character mode.

Chapter 3 Data Editting

3.1 GS Replacement function

After using the GS replacement function, the GS can be replaced with other characters, which is convenient for the host device to display. When you need to display GS characters, you can set GS to be replaced with 1D of the ASCII code character table.

Custom GS Replacement

Step 1: Scan the "Custom GS Replacement" setup code

Custom GS Replacement

Step 2: Query "Appendix-ASCII code character table" to find the barcode corresponding to the character to be replaced and scan it.

Example:

Replace GS characters with characters that can be displayed” |”

Step 1: Scan the "Custom GS Replacement" setup code.

Step 2: Query the "Appendix-ASCII code character table" to find the barcode corresponding to the "|" character and scan it.

Cancel GS Replacement

Cancel GS Replacement

3.2 Custom Prefix/Suffix

This product supports up to 32-byte prefix and 32-byte suffix setting.

Add Custom Prefix

Step 1: Scan “Add Custom Prefix” Setup Code

Add Custom Prefix

Step 2: According to the content that needs to be added, query the "ASCII code character table" and scan the setup code corresponding to the custom prefix.

Example:
Original barcode is "ABC123", add custom "789", and output "789ABC123"

Step 1: Scan the "Add custom prefix" setting code;

Step 2: According to the content that needs to be added, query the "ASCII code character table" and scan the setup codes corresponding to "7", "8", and "9".

Clear Custom Prefix

Refer to Adding Custom Prefix Setting and follow the steps below to clear the custom prefix.

Step 1: Scan the "Add custom prefix" setup code;

Step 2: Scan the setup code of "Exit Setting Mode" in "Appendix-Enter/Exit Setting";

Or you can directly scan and restore factory values to clear custom prefixes.

Add Custom Suffix

Step 1: Scan “Add Custom Suffix” Setup Code

%%SpecCode9B

Add Custom Suffix

Step 2: According to the content that needs to be added, query the "ASCII code character table" and scan the setup code corresponding to the custom suffix.

Example:

Original barcode is "ABC123", add custom "XYZ", and output "ABC123XYZ"

Step 1: Scan the "Add custom suffix" setup code;

Step 2: According to the content that needs to be added, query the "ASCII code character table" and scan the setup codes corresponding to "X", "Y", and "Z";

Clear Custom Suffix

Refer to the setting of adding custom suffix and follow the steps below to clear the custom suffix.

Step 1: Scan the "Add custom suffix" setup code.

Step 2: Scan the setup code of "Exit Setting Mode" in "Appendix-Enter/Exit Setting".

Or you can directly scan and restore factory default to clear custom suffixes.

3.3 Hide First/Last Characters

Follow the steps below to set the number of digits for the characters before and after hiding, up to 16 digits.

Step 1: Scan the setup code of "Hide first characters" or "Hide last characters"

Hide first characters

Hide last characters

Step 2: Scan the barcode corresponding to 01-16 in "Appendix-ASCII code character table" according to the number of prefix or suffix characters that need to be hidden.

Hide 1 character

Hide 2 characters

Hide 3 characters

Hide 4 characters

Clear Hidden characters

Step 1: Scan the setup code of "Hide first characters" or "Hide last characters";

Step 2: Scan the setup code of "Exit Setting Mode" in "Appendix-Enter/Exit Setting";

Or you can directly scan and restore factory ddefault to clear custom prefixes.

3.4 Terminator

The terminator is used to mark the end of a complete data message. Choose to scan the appropriate end character to set the barcode according to your needs, the default is Enter.


%%SpecCode9C

<CR>(0x0D)*


%%SpecCode9D

<LF>(0x0A)


%%SpecCode9E

<CR><LF>(0x0D,0x0A)


%%SpecCodeA2

<HT>(0x09)


%%SpecCode9F

NONE

3.5 Clock Function

You can set the current time and send it to the output device together with the barcode by setting the clock function.


%%SpecCode1B

Show current time


%%SpecCodeC1

Add time before barcode


%%SpecCodeC2

Add time after barcode


%%SpecCodeC0

Close time before or after barcode

3.6 Control character set escape settings

Escape character set 0*

Escape character set 1

Escape character set 2

Escape character set 3

Escape character set 4

Chapter 4 Appendix

4.1 Appendix-LED indicator description

Basic function description of indicator light:

Blue LED2	Used to indicate whether the wireless is connected or not, if it is connected, it is always on, if the connection is disconnected, it will be off.
Blue LED1	The scan code indicator light flashes briefly when the barcode is successfully scan.
Red LED3	The red light is always on to indicate that it is charging, and the red light is off to indicate that it is fully charged or not connected to charge
Blue light 2 is off, blue light 1 flashes quickly	2.4G/Virtual Bluetooth mode pairing status
Blue light 1 is off, blue light 2 flashes quickly	Pairing status in SPP mode
Blue light 1 and blue light 2 flash alternately and quickly	Pairing status in HID mode

Note: This part of the lighting description is slightly different according to different product configurations. If you need more information, please contact the supplier.

4.2 Appendix-description of buzzer sound

One long tone (low first and then high)	Indicates that the power is on
One long tone (high first and then low)	Indicates that the power is off
One short tone (low frequency)	Indicates that the normal barcode is scanned, or the pairing is successful, or the wireless connection is successful.
One short tone (low first and then high)	Indicates that the scanned data is stored in the storage area
One short tone (high first and then low)	Indicates that the setup code was scanned
Three short tones (low frequency)	Indicates that the wireless transmission failed or the buffer is full
Five short tones (low frequency)	Indicates that it need to be charged
Two short tones (low frequency)	Indicates wireless disconnection
Two short tones (high frequency)	Indicates that the scanned setup code does not work

4.3 Appendix-Enter/Exit Settings

%%EnterSet

Enter setting mode

%%ExitSet

Exit setting mode

4.4 Appendix-Control Character List

Note: The setting code of the control character table refers to the corresponding setting code of 01-31 in the ASCII character table。

HEX	Decimal	ASCII	character set 0	character set 1	character set 2	character set 3	character set 4
01	01	SOH	NULL	Home	Ctrl+A	Alt+001	Enter on the keypad
02	02	STX	Ctrl+B	End	Ctrl+B	Alt+002	Cap Lock
03	03	ETX	Ctrl+C	Up Arrow	Ctrl+C	Alt+003	Right Arrow
04	04	EOT	NULL	Down Arrow	Ctrl+D	Alt+004	Up Arrow
05	05	ENQ	NULL	Left Arrow	Ctrl+E	Alt+005	NULL
06	06	ACK	NULL	Right Arrow	Ctrl+F	Alt+006	NULL
07	07	BEL	NULL	Shift+Tab	Ctrl+G	Alt+007	Enter
08	08	BS	Back Space	Back Space	Back Space	Alt+008	Left Arrow
09	09	HT	Tab	Tab	Tab	Alt+009	Tab
0A	10	LF	Enter	Enter	Ctrl+P	Alt+010	Down Arrow
0B	11	VT	NULL	NULL	Ctrl+Q	Alt+011	Tab
0C	12	FF	NULL	NULL	Ctrl+R	Alt+012	delete
0D	13	CR	Enter	Enter	Enter	Alt+013	Enter
0E	14	S0	F1	Page Up	Ctrl+N	Alt+014	Insert
0F	15	S1	F2	Page Down	Ctrl+O	Alt+015	Esc
10	16	DLE	F3	F11	Ctrl+P	Alt+016	F11
11	17	DC1	F4	NULL	Ctrl+Q	Alt+017	Home
12	18	DC2	F5	NULL	Ctrl+R	Alt+018	Print Screen
13	19	DC3	F6	NULL	Ctrl+S	Alt+019	Back Space
14	20	DC4	F7	NULL	Ctrl+T	Alt+020	Shift tab
15	21	NAK	F8	F12	Ctrl+U	Alt+021	F12
16	22	SYN	F9	F1	Ctrl+V	Alt+022	F1
17	23	TB	F10	F2	Ctrl+W	Alt+023	F2
18	24	CAN	F11	F3	Ctrl+X	Alt+024	F3
19	25	EM	F12	F4	Ctrl+Y	Alt+025	F4
1A	26	SUB	NULL	F5	Ctrl+Z	Alt+026	F5
1B	27	Esc	Esc	F6	Ctrl+[	Alt+027	F6
1C	28	FS	ALT+028	F7	Ctrl+\	Alt+028	F7
1D	29	GS	ALT+029	F8	Ctrl+]	Alt+029	F8
1E	30	RS	NULL	F9	Ctrl+^	Alt+030	F9
1F	31	US	NULL	F10	Ctrl+_	Alt+031	F10

4.5 Appendix-ASCII code character table

Note: 01-31 are invisible characters. Please refer to "Appendix-Control Character List" to set the escape character set. 32-127 are visible characters. This part of the characters can generally be directly output through the HID keyboard without escaping.

Hexadecimal	ASCII	character	1D setup code	2D setup code
01	01	SOH		
02	02	STX		
03	03	ETX		
04	04	EOT		
05	05	ENQ		
06	06	ACK		
07	07	BEL		
08	08	BS		
09	09	HT		
0A	10	LF		
0B	11	VT		
0C	12	FF		
0D	13	CR		
0E	14	S0		
0F	15	S1		
10	16	DLE		

11	17	DC1	%%11	%%11
12	18	DC2	%%12	%%12
13	19	DC3	%%13	%%13
14	20	DC4	%%14	%%14
15	21	NAK	%%15	%%15
16	22	SYN	%%16	%%16
17	23	TB	%%17	%%17
18	24	CAN	%%18	%%18
19	25	EM	%%19	%%19
1A	26	SUB	%%1A	%%1A
1B	27	Esc	%%1B	%%1B
1C	28	FS	%%1C	%%1C
1D	29	GS	%%1D	%%1D
1E	30	RS	%%1E	%%1E
1F	31	US	%%1F	%%1F
20	32	SP	%%20	%%20
21	33	!	%%21	%%21
22	34	"	%%22	%%22
23	35	#	%%23	%%23
24	36	$	%%24	%%24
25	37	%	%%25	%%25

26	38	&		
27	39	`		
28	40	(		
29	41	)		
2A	42	*		
2B	43	+		
2C	44	,		
2D	45	-		
2E	46	.		
2F	47	/		
30	48	0		
31	49	1		
32	50	2		
33	51	3		
34	52	4		
35	53	5		
36	54	6		
37	55	7		
38	56	8		
39	57	9		
3A	58	:		

3B	59	;		
3C	60	<		
3D	61	=		
3E	62	>		
3F	63	?		
40	64	@		
41	65	A		
42	66	B		
43	67	C		
44	68	D		
45	69	E		
46	70	F		
47	71	G		
48	72	H		
49	73	I		
4A	74	J		
4B	75	K		
4C	76	L		
4D	77	M		
4E	78	N		
4F	79	O		

50	80	P		
51	81	Q		
52	82	R		
53	83	S		
54	84	T		
55	85	U		
56	86	V		
57	87	W		
58	88	X		
59	89	Y		
5A	90	Z		
5B	91	[		
5C	92	\		
5D	93	]		
5E	94	^		
5F	95	_		
60	96	'		
61	97	a		
62	98	b		
63	99	c		
64	100	d		

65	101	e		
66	102	f		
67	103	g		
68	104	h		
69	105	i		
6A	106	j		
6B	107	k		
6C	108	l		
6D	109	m		
6E	110	n		
6F	111	o		
70	112	p		
71	113	q		
72	114	r		
73	115	s		
74	116	t		
75	117	u		
76	118	v		
77	119	w		
78	120	x		
79	121	y		

7A	122	z		
7B	123	{		
7C	124	|		
7D	125	}		
7E	126	~		
7F	127	DEL		
C7	199	Ç		
E7	231	ç