# **User Guide** A5 Desktop User Manual

Version: V1.1.4

## Catalog

Statement			
App	licable	model comparison table	
Vers	sion Red	ord	.
Cata	alog		V
1	Start		1
1.	. 1	Manual Description	1
1.	2	Version Information	1
1.	3	Set code switch	1
1.	4	Set code content output	1
1.	5	User default settings	2
2	Commun	ication Interface	3
2.	. 1	USB HID-KBW	3
	2. 1. 1	Keyboard layout	3
	2. 1. 2	Keyboard Type	4
	2. 1. 3	Alphabetic case conversion	5
	2.1.4	Character transmission interval	5
	2.1.5	Character transfer interval quick setting	6
	2.1.6	Control character output method	6
2.	2	USB COM	6
2.	3	Serial port	7
	2.3.1	Baud rate	7
	2.3.2	Check digit	8
	2.3.3	Stop bit	8
	2.3.4	Data bits	9
2.	4	HID POS	9
3	charact	ter set	10
3.	. 1	Input character set	10
3.	2	Output character set	10
4	Reading	g mode	11
4.	1	Common reading modes	11

	4.1.1	Button Hold	11
	4. 1. 2	Single keystroke trigger	11
	4. 1. 3	Continuous Mode	
	4.1.4	auto-sensing mode	
	4. 1. 4.	1 Sensing sensitivity	
	4. 1. 4.	2 Image steady time setting	
	4. 1. 4.	3 Image steady time quick setting	
	4. 1. 5	Command Trigger Mode	
	4.2	Special reading mode	
	4. 2. 1	Screen Quick Mode	13
	4. 2. 2	Fast code reading mode	13
	4.3	Single scan time	13
	4. 3. 1	Single scan time setting	13
	4. 3. 2	Quickly set the time of a single scan	14
	4.4	Same code recognition	14
	4. 4. 1	Same code reading interval setting	14
	4. 4. 2	Same code reading interval fast setting	15
	4.5	Interval between two consecutive readings	15
	4. 5. 1	interval time setting	15
	4. 5. 2	Quickly set the length of time between scans	
	4.6	Power Control	
	4. 6. 1	Sleep mode	
	4. 6. 2	Continuous working mode	
5	Lighti	ng and aiming	17
	5.1	Lighting	17
	5.2	Aiming	17
6	Prompt	output	
	6.1	Prompt Related	
	6. 1. 1.	1 Buzzer Type	
	6. 1. 2	Volume size	
	6. 1. 3	Power On Beep	
	6. 1. 4	Setting code beep	

	6.1.5	Decoding beep	
	6.1.6	Buzzer frequency	19
	6. 1. 7	Decoding Beep Quick Setup	19
	6.1.8	Decoding beep length	20
	6.1.9	Decoding beep length quick setting	20
	6.2	Indicator light related	20
	6. 2. 1	Indicator light function type	20
	6.2.2	Decoding success indicator light	21
	<b>6.</b> 2. 2. 1	Decoding success light control method	21
	6.3	Decoding status NR output	21
7	Data Eo	liting	22
	7.1	Bar code ID	22
	7. 1. 1	AIM ID	22
	7.1.2	CODE ID	22
	7.2	Terminator	22
	7.3	Prefix	23
	7. 3. 1	Prefix Switch	23
	7.3.2	Prefix content setting	23
	7.4	Suffix	24
	7.4.1	Suffix Switch	24
	7.4.2	Suffix content setting	24
	7.5	Add prefix according to barcode type	25
	7. 5. 1	Add prefix switch according to barcode type	25
	7. 5. 2	Add prefix content setting according to barcode type	26
	7. 5. 3	Clear prefix according to barcode type	27
	7.6	Add suffix according to barcode type	28
	7.6.1	Add suffix switch according to barcode type	28
	7.6.2	Add suffix content setting according to barcode type	28
	7.6.3	Clear suffix according to barcode type	29
	7.7	Hide fixed characters	30
	7.7.1	Hide fixed character switch	30
	7.7.2	Hide fixed character settings	

	7.8	Retain barcode data according to length	
	7.8.1	Data retention switch	32
	7.8.2	Retain data start position	32
	7. 8. 3	Retain data end position	
	7.9	Hide barcode data by length	
	7.9.1	Hidden barcode data switch	
	7. 9. 2	Hide barcode data start position	
	7. 9. 3	Hide barcode data end position	34
	7.10	Hide barcode data of any length based on barcode type	
	7. 10. 1	Hide barcode data switch according to barcode type	
	7. 10. 2	Hide data start position according to barcode type	
	7. 10. 3	Hide data end position according to barcode type	
	7.11	Insert custom characters	
	7.11.1	Insert custom data switch	
	7. 11. 2	Customized Data	
	7. 11. 3	Insert Position	
	7.12	Character substitution	
	7. 12. 1	Character Substitution Switch	
	7. 12. 2	Replaced character setting	40
	7. 12. 3	Replacement character settings	41
	7.13	Line feed to carriage return	42
	7.14	URL Switch	42
	7.15	Invoicing function	42
	7. 15. 1	Invoicing function switch	42
	7. 15. 2	Invoice Type	42
	7.16	GS1 Rule Enable	43
8	Instruc	ction	44
	8.1	Format	44
	8.2	Responding	44
9	Packet	format	45
	9.1	Packet format switch	45
10	Global	operation of Bar Code	

10.1	Global Switches	
10.2	1D code global switch	
10.3	2D Code Global Switch	
10.4	1D barcode security level	
10.5	Multi-code identification	
10. 5. 1	Must be able to read multiple codes	47
10. 5. 2	Read multiple codes	47
10.6	Global inverse color switch	47
10.7	Partial inverse color switch	47
10. 7. 1	CODE128 inverse color switch	47
10.7.2	EAN/UPC inverse color switch	
10. 7. 3	ITF25 inverse color switch	
10. 7. 4	CODE39 inverse color switch	48
10. 7. 5	CODABAR inverse color switch	
10. 7. 6	CODE93 inverse color switch	
11 L Serie	es - Barcode Type Enable/Disable Configuration	
11.1	CODE128	
11. 1. 1	CODE128 switch	
11. 1. 2	CODE128 minimum length	
11. 1. 3	CODE128 maximum length	
11. 1. 4	CODE128 security level	
11.2	EAN/UCC 128/GS1 128	
11. 2. 1	GS1 128 switches	
11.2.2	GS1 128 minimum length	
11.2.3	GS1 128 maximum length	
11.3	EAN8	
11. 3. 1	EAN8 Switch	
11. 3. 2	EAN8 checksum bit transfer	
11. 3. 3	EAN8 reads 2-digit additional code	
11. 3. 4	EAN8 reads 5-digit add-on codes	
11. 3. 5	Read-only with add-on code EAN8	
11 /	FAN13	55

11 4 1	FAN13 Switch	55
11. <del>1</del> . 1	EAN12 Chooksym Bit Transfor	
11.4.2	EAN12 moods 2-digit additional and	
11.4.5	EANIS reads 2-digit additional code	
11.4.4	EANIS reads 5-digit add-on codes	
11.4.5	Read-only with additional code EANI3	
11.5	122M	
11.6		
11.7		
11. 7. 1	UPC-E switch	
11.7.2	UPC-E parity bit transfer	57
11. 7. 3	UPC-E reads 2-digit additional code	57
11. 7. 4	UPC-E reads 5-digit additional code	57
11. 7. 5	Read-only with additional code UPC-E	57
11. 7. 6	Transmission system character "0"	57
11. 7. 7	UPC-E to UPC-A	58
11. 7. 8	UPC-E1 switch	58
11. 7. 9	Transmission of country character "0"	
11.8	UPC-A	
11. 8. 1	UPC-A switch	
11.8.2	UPC-A parity bit transfer	59
11.8.3	UPC-A reads 2-digit additional code	59
11.8.4	UPC-A reads 5-digit additional code	59
11.8.5	Read-only with additional code UPC-A	59
11.8.6	Transmission system character "0"	60
11. 8. 7	Transmission of country character "0"	60
11.9	ITF25	60
11. 9. 1	ITF25 Switch	60
11. 9. 2	ITF25 check digit verification	60
11. 9. 3	ITF25 parity bit transfer	61
11. 9. 4	ITF25 minimum length	61
11. 9. 5	ITF25 maximum length	62
11 0 6	Brazilian government/bank code	62

11.10 N	EC25/C00P25	63
11. 10. 1	NEC25 Switch	63
11. 10. 2	NEC25 check digit verification	63
11. 10. 3	NEC25 parity bit transfer	63
11. 10. 4	NEC25 minimum length	63
11. 10. 5	NEC25 maximum length	64
11.11 M	ATRIX25	65
11. 11. 1	MATRIX25 Switch	65
11. 11. 2	MATRIX25 check digit verification	65
11. 11. 3	MATRIX25 checksum bit transfer	65
11. 11. 4	MATRIX25 minimum length	
11. 11. 5	MATRIX25 maximum length	67
11.12 I	ND25	67
11. 12. 1	IND25 switch	67
11. 12. 2	IND25 minimum length	68
11. 12. 3	IND25 maximum length	68
11.13 S	TD25	69
11. 13. 1	STD25 switch	69
11. 13. 2	STD25 minimum length	69
11. 13. 3	STD25 maximum length	70
11.14 C	ODE39	71
11. 14. 1	CODE39 switch	71
11. 14. 2	CCODE39 Check Bit Verification	71
11. 14. 3	CODE39 checksum bit transfer	72
11. 14. 4	CODE39 Start/end character transfer	72
11. 14. 5	ODE39 FULL ASCII Switch	72
11. 14. 6	CODE39 minimum length	72
11. 14. 7	CODE39 maximum length	73
11. 14. 8	CODE32Switch	74
11. 14. 9	CODE32 Prefix	74
11. 14. 10	CODE32 Check Bit Verification	74
11. 14. 11	CODE32 Checksum bit transfer	74

11.15	CODABAR	75
11. 15. 1	CODABAR Switch	75
11. 15. 2	2 CODABAR Check Bit Verification	75
11. 15. 3	B CODABAR Checksum bit transfer	75
11. 15. 4	4 CODABAR start/end character transfer	76
11. 15. 5	5 CODABAR start/end character format	76
11. 15. 6	6 CODABAR start/end character upper/lower case	76
11. 15. 7	7 CODABAR minimum length	76
11. 15. 8	B CODABAR maximum length	77
11.16	CODE93	78
11. 16. 1	CODE93 Switch	78
11. 16. 2	2 CODE93 minimum length	78
11. 16. 3	3 CODE93 maximum length	79
11.17	CODE11	79
11. 17. 1	CODE11 Switch	79
11. 17. 2	2 CODE11Check Bit Verification	80
11. 17. 3	B CODE11Checksum bit transfer	80
11. 17. 4	CODE11 minimum length	80
11. 17. 5	5 CODE11 maximum length	81
11. 18	MSI PLSEEY	82
11. 18. 1	MSI PLSEEYSwitch	82
11. 18. 2	2 MSI PLSEEYCheck Bit Verification	82
11. 18. 3	8 MSI PLSEEYChecksum bit transfer	82
11. 18. 4	MSI PLSEEY minimum length	83
11. 18. 5	5 MSI PLSEEY Maximum Length	83
11. 19	GS1 DATABAR/RSS	
11.20	COMPSITE	
11.21	TELEPEN	85
11.22	TRIOPTIC	85
11.23	HONG KONG 2 of 5/CHINA POST	85
11.24	PDF417	85
11. 24. 1	PDF417Switch	

11. 24. 2	2 PDF417 Forward and inverse identification	
11.25	QR	
11.25.	QR Switch	
11.25.2	QR Forward and inverse identification	
11.25.3	3 QR Mirror recognition	87
11.26	DATA MATRIX/DM	87
11 <b>. 26.</b> 2	DM Switch	
11.26.2	2 DM Forward and inverse identification	87
11.26.3	B DM Mirror recognition	
11.27	AZTEC CODE	
12 M Serie	es - Barcode Type Enable/Disable Configuration	
12.1	PHARMACODE ONE-TRACK	
12. 1. 1	PHARMACODE ONE-TRACKSwitch	
12. 1. 2	PHARMACODE ONE-TRACKBar code direction	
12. 1. 3	PHARMACODE ONE-TRACKData reversal	
12.2	CODABLOCK A	
12.3	CODABLOCK F	90
12.4	MAXI CODE	90
12.5	HAN XIN	90
12. 5. 1	HAN XIN Switch	90
12. 5. 2	HAN XIN code ECI control	90
12.6	DOTCODE	
13 H Serie	es - Barcode Type Enable/Disable Configuration	
13.1	POSTAL CODE	92
13. 1. 1	POSTAL CODESwitch	
13. 1. 2	Planet code Checksum bit transfer	92
13. 1. 3	USPS Postnet Checksum bit transfer	92
13.2	GM	
13.3	OCR	93
13. 3. 1	OCRS witch	
13. 3. 2	China ID card verification	93
Appendix A	: Digital Setup Code	

Appendix B: CODE ID	95
Appendix C: AIM ID	96
Appendix D: Instruction Set	97
Appendix E: ASCII Code Cross Reference Table	109
Appendix F: Barcode Types	113

## 1 Start

## 1.1 Manual Description

This manual, includes code settings, function settings (lighting, keypad type and restore factory settings, etc.) and interface settings. If you need to change the function you need, just scan the configuration according to the following configuration codes, all with (\*) indicate factory setting defaults.

## 1.2 Version Information

In order for the host to quickly read the version information of the current device, it can be confirmed by reading the "version information".



Version Information

#### 1.3 Set code switch

By turning on the setting code function, the parameters of the scanner can be configured by scanning the setting code.

Note: When the configuration is modified by the setup code, the whole list of current flags will be saved to the memory, i.e. the configuration configured through the serial port but not saved will also be saved together.





## 1.4 Set code content output

Whether the contents of the setting code are output or not, the parameters of the scanner can be configured by scanning the following setting code.





## 1.5 User default settings

Users can save the configuration they often use as user default settings. By scanning "Save current settings as user default settings", the current configuration information of the device can be saved as user default settings, and the new configuration information will replace the original user default settings after the operation. And by scanning "restore user default settings", the scanner can be switched to user default settings.



Save the current configuration as default



Restore user default configuration

## 2 Communication Interface

## 2.1 USB HID-KBW

When the scanner is connected to the host computer using the USB cable, the scanner can be configured as a standard keyboard input by scanning the USB KBW setup code.



#### 2.1.1 Keyboard layout

In order to make the device available to all hosts in each country, it can be set up by reading the "keyboard" of the corresponding country.





Canada



Finland



Greece



Czech



France



Hungary



Brazil



Denmark



Austria, Germany





Italy



Norway



Romania



Spain



Turkey F



Japan



Latin America



Poland



Russia



Sweden



Netherlands



Portugal



Slovakia





United Kingdom

#### 2.1.2 Keyboard Type

Enabling the virtual keyboard allows you to output the correct data in any keyboard language mode. When using the virtual keyboard, you must make sure that the keypad numeric keys are enabled.





## 2.1.3 Alphabetic case conversion

Letter conversion, when outputting barcode with letter content, you can configure the output result to be all uppercase or all lowercase. For example, if the barcode content is: ab123dE, if you scan the "convert to uppercase" barcode, the output result will be: AB123DE; if you scan the "convert to lowercase" barcode, the output result will be: ab123de; the default case is not converted The default case is not converted.









#### 2.1.4 Character transmission interval

We can set the transmission interval between keyboard characters to improve compatibility and reduce the probability of data loss. Time interval setting range: 0-65535ms, default value: 5ms.

a) Scan "Character transmission interval" setting code



Character transmission interval

b) Scan the "digital setting code". For example, if the duration is 10ms, scan 1,0; if the duration is 100ms, scan 1, 0, 0.

c) Scan the "OK" setup code to end the setup



2.1.5 Character transfer interval quick setting











10ms



#### 2.1.6 Control character output method

Control character in ASCII code (0x00-0x20) output method selection

Output function keys: The control characters are used as custom function keys, see Appendix E for details of the functions.

30ms

Output CTRL key combination: CTRL key combination way to output control characters, see Appendix E for details of the function.

Output ALT + numeric keys: the Chinese environment to support the full control of the character output, see <u>Appendix E</u> for details of the function.



\* Output function keys



 ${\small \textit{Output CTRL key combination}}$ 



Output ALT+number keys

#### 2.2 USB COM

When the scanner and the host computer are connected by USB cable, the scanner can be configured into virtual serial output mode by scanning the USB COM setting code



#### 2.3 Serial port

Serial port is a common way to connect the scanner and the host device (such as PC, POS and other devices). When the scanner and the host computer are connected by serial line, the system adopts serial communication mode by default. When using the serial communication interface, the communication parameters between the scanner and the host device must be fully matched in the configuration to ensure smooth communication and correct content.



TTL 232 serial port

The serial communication interface of the readout module uses TTL level signals (TTL-232), which can be adapted to most system architectures. If the system requires an RS-232 form factor, additional conversion circuitry will be required externally.

The default serial communication parameters of the read/write module are shown in Table 2-1.

Parameters	Default
Baud rate	115200
Check digit	None
Data bits	8
Stop bit	1

Serial Communication Parameters Table 2-1

#### 2.3.1 Baud rate

When the module and the host computer can communicate via TTL/RS232, the same communication parameters must be set to communicate properly, including transmission rate, checksum, flow control, etc. The transmission rate is the baud rate, the default baud rate is 115200.







4800



19200



2.3.2 Check digit





1200

미됴

Ð

9600



2400



14400



Odd number



2.3.3 Stop bit





#### 2.3.4 Data bits









## 2.4 HID POS

When the device is an HID class device (if it is not an HID class device, read the HID class device configuration code first), you can read the following configuration code to select the HID-POS device class mode.



## 3 character set

## 3.1 Input character set

In order for the module to be able to read barcodes of various encoding formats, it can be set by reading the "Input Character Set".









ASCII



Japanese

## 3.2 Output character set

To allow the host computer to print Chinese data in the specified encoding format, you can set it by reading the "Output Character Set".



\*Original format



GBK



UTF8

## 4 Reading mode

#### 4.1 Common reading modes

#### 4.1.1 Button Hold

Set to key hold mode, press the key to trigger the reading, release the key to end the reading. If the reading is successful or the reading time exceeds the single reading time, the reading will be ended.



#### 4.1.2 Single keystroke trigger

Set to single key trigger mode, press the key to start reading, release the key reading will not stop, reading success or reading more than a single reading time to stop reading.



Single keystroke trigger

#### 4.1.3 Continuous Mode

After setting, no need to trigger, the scanner immediately starts to read the code, when the code is read successfully output information or single scan time is over, wait for the scan interval timeout, will automatically start the next reading code.



Continuous Mode

#### 4.1.4 auto-sensing mode

In the auto-sensing mode, the scanner will detect the brightness of the surrounding environment, and when the brightness changes, it will trigger the reading, and the reading will be successful or the reading time will exceed the single reading time to end the reading. Regardless of the last reading success or failure, re-enter the detection of the brightness of the surrounding environment



auto-sensing mode

#### 4.1.4.1 Sensing sensitivity

Sensitivity refers to the degree of change of the detected scene in the autosensing mode. When the scanner judges that the scene change degree meets the requirements, it will switch from monitoring state to reading state.



\* High sensitivity





Low sensitivity

#### Medium sensitivity

#### 4.1.4.2 Image steady time setting

Image steady time means that in the auto-sensing mode, the scanner which detects the scene change needs to wait for the image stabilization time before reading the code, steady image duration setting range: 0-65535ms, default value: 300ms.

a) Scan the "Image steady time" setting code



Image steady time

b) Scan the "digital setting code". For example, if the duration is 100ms, scan1, 0, 0; if the duration is 1005ms, scan 1, 0, 0, 5

c) Scan the "OK" setup code to end the setup



4.1.4.3 Image steady time quick setting



#### 4.1.5 Command Trigger Mode

Through the command trigger scanner reading, can be active through the command to end reading, reading success or reading time exceeds the single reading time will end reading, specific trigger command refer to <u>Appendix D</u>

[Note] Trigger and end commands are valid in any mode

#### 4.2 Special reading mode

#### 4.2.1 Screen Quick Mode

This mode is unconventional and not applicable to the general version of the product. It is suitable for the application scenario that needs to identify the screen code quickly, please contact the supplier if you need it.

#### 4.2.2 Fast code reading mode

This mode is unconventional, the general version of the product is not applicable, suitable for the application scenario that needs to quickly read barcodes on all kinds of paper media, applicable to fixed modules, scanning platform and other product forms, please contact with the supplier if there is a demand.

#### 4.3 Single scan time

The single reading time is the maximum time allowed to keep shooting reading attempts after triggering the reading, when the reading is not successful. When this length is exceeded, it will exit the reading state. The range of single reading time is: 0-65535ms, default: 5000ms.

#### 4.3.1 Single scan time setting

d) Scan the "single scan time" setting code



Single scan time

- e) Scan the "digital setting code". For example, if the duration is 100ms, scan1, 0, 0; if the duration is 1005ms, scan 1, 0, 0, 5
- f) Scan the "OK" setup code to end the setup



4.3.2 Quickly set the time of a single scan



Oms (Unlimited time)



\*5000ms

1000ms







#### 4.4 Same code recognition

In order to avoid the same barcode being read many times continuously in the continuous mode and auto-sensing mode, the scanner can be required to read the same barcode only after the set time delay; the same reading time delay means that after reading a barcode, it refuses to read the same barcode within the set time limit. Only after the time duration is exceeded, it can be read and output. The range is: 0-65535ms, default:Oms.

#### 4.4.1 Same code reading interval setting

a) Scan "Same code interval" setting code



Same code time interval

- b) Scan the "digital setting code". For example, at 100ms interval, scan 1, 0, 0; at 1005ms interval, scan 1, 0, 0, 5
- c) Scan the "OK" setup code to end the setup



4.4.2 Same code reading interval fast setting





500ms





1000ms



300ms



3000ms

#### 4.5 Interval between two consecutive readings

The interval between two consecutive readings. Regardless of the success or failure of the last reading, the next reading will be performed automatically after this time. This setting is mainly used in continuous mode

Default: 500ms, Range: 0-65535ms

#### 4.5.1 interval time setting

a) Scan the " interval time " setting code



interval time

b) Scan the "digital setting code". For example, at 100ms interval, scan 1, 0, 0;





1000ms



10000ms

#### 4.6 Power Control

0ms

2000ms

#### 4.6.1 Sleep mode

This parameter determines the power mode of the module. In sleep mode, the module goes to sleep as much as possible (it can be woken up by the wake-up command)

\*500ms

5000ms



#### 4.6.2 Continuous working mode

In continuous operation mode, the recognition module remains awake after each decoding attempt.



Continuous working mode

## 5 Lighting and aiming

## 5.1 Lighting

The illumination lamp provides auxiliary lighting for shooting and reading, and the light beam shines on the reading target to improve reading performance and adaptability to low ambient light. The user can set it to one of the following states depending on the application environment.

Lighting Normal (default setting): The illumination lights up when shooting and reading, and goes out at other times.

Lighting is always on: Illumination that glows continuously after the scanner is switched on.

No lighting: The lighting does not come on under any circumstances.





No lighting



Lighting is always on

## 5.2 Aiming

The projected aiming beam helps users to find the best reading distance when shooting and reading. Depending on the application environment, users can Choose any of the following modes.

Aiming normal (default setting): the scanner projects the aiming beam only when shooting reading.

Aiming always on: the scanner continuously projects aiming beam after powering up.

No aiming: the aiming beam is off in any case.



\* Aiming normal



No aiming



Aiming always on

## 6 Prompt output

## 6.1 Prompt Related

#### 6.1.1.1 Buzzer Type

Read the following setting codes to set the buzzer as passive or active buzzer.





#### 6.1.2 Volume size

Users can adjust the volume of the buzzer by reading the following setting codes according to the application environment and personal habits.





6.1.3 Power On Beep



6.1.4 Setting code beep



6.1.5 Decoding beep







\*Enable







## 6.1.6 Buzzer frequency

The resonant frequency of the buzzer used by the user may be different from the default frequency. You can adjust the frequency by reading the following setting code. The default is 2700Hz.

a) Scan the "Buzzer Frequency" setting code



Buzzer Frequency

- b) Scan the "digital setting code". For example, if the frequency is 1500Hz, scan 1,5,0,0; if the frequency is 2700Hz, scan 2,7,0,0
- c) Scan the  $''\mathrm{O}K''$  setup code to end the setup



6.1.7 Decoding Beep Quick Setup



1000Hz





1500Hz





2000Hz





#### 6.1.8 Decoding beep length

Users can set the length of the decoding beep according to their needs, the default is 50ms.

a) Scan the "beep length" setting code



- b) Scan the "digital setting code". For example, if the duration is 50ms, scan 5,0; if the duration is 200ms, scan 2,0,0
- c) Scan the "OK" setup code to end the setup  $% \mathcal{C}(\mathcal{C})$



6.1.9 Decoding beep length quick setting









 $200 \mathrm{ms}$ 



 $70 \mathrm{ms}$ 



300 ms

- 6.2 Indicator light related
- 6.2.1 Indicator light function type

21

6.2.2 Decoding success indicator light



Mode 0: always off when power on, light up when decoding is successful, light up for a specified time and then off

Mode 1: always light when power on, light when decoding is successful, light after the specified time

6.3 Decoding status NR output

NR is the abbreviation of NO Read, before releasing the trigger button, if the barcode cannot be decoded within the timeout period, the message "NR" is allowed to be output; when this function is disabled, even if the barcode cannot be decoded, no message can be output to the host.

\*Mode 0

Disable











Power Indicator

## 7 Data Editing

## 7.1 Bar code ID

## 7.1.1 AIM ID

AIM is the abbreviation of Automatic Identification Manufacturers (AIM), and AIM ID defines the identification code for various standard barcodes respectively (AIM ID cannot be customized by users), which is defined in <u>Appendix C</u>: AIM ID List. The scanning module can add this identification code to the barcode data after decoding, the format is: "]" + letter "C" + number "0", for example, the AIM ID of CODE128 is "]CO". ID is "]CO". Users can use AIM ID to identify different barcode types.





#### 7.1.2 CODE ID

Users can identify different barcode types by CODE ID, which uses one character for identification. See <u>Appendix B</u>: CODE ID List for specific definitions





## 7.2 Terminator

In order to enable the host to quickly distinguish the result of current decoding, the function of adding terminator can be enabled, and the recognition module adds the corresponding terminator after the decoded data.







\*CR





## 7.3 Prefix

#### 7.3.1 Prefix Switch

Prefix is a user-defined string modified before decoding information, and the prefix can be added by scanning the "enable" setting code, and the prefix can be cancelled by scanning "disable".





#### 7.3.2 Prefix content setting

Prefix setting can be used in two ways, method one requires user generated a QR code, which tends to set more prefix and is more flexible to use; method two can be scan the setting code according the manual.

#### Method I:

Add prefix setting code content format: >!010800<u>XX</u>. Where <u>XX</u> is the setting variable, <u>XX</u> using hex representation, two characters for a unit, the shortage of 0 to make up, can be arbitrarily superimposed, the maximum support for 10-bit data prefix.

For example: need to set the prefix character A, check <u>Appendix E</u> character cross-reference table, hex for 41, then set the code content: >!01080041.

For example: need to set the prefix character A B C, check <u>Appendix E</u> character table, hexadecimal 41 42 43, the set code content: >!010800**414243**.

#### Method 2:

a) Scan the "Prefix Settings" setting code



Prefix Settings

b) Scan the <u>"digital setup code"</u> in order, every two in a group.
For example: need to set the prefix character A, check the <u>appendix E</u> character comparison table, hexadecimal for 41, then scan 4 and 1, respectively

For example: need to set the prefix character ABC, check <u>Appendix E</u> character comparison table, hexadecimal for 414243, then scan 4, 1, 4, 2, 4, 3, respectively

c) Scan the "OK" setup code to end the setup.



## 7.4 Suffix

#### 7.4.1 Suffix Switch

The suffix is a user-defined string modified after decoding information, and the suffix can be added by scanning the "enable" setting code, and the suffix can be cancelled by scanning "disable".





#### 7.4.2 Suffix content setting

Suffix setting can be used in two ways, method one requires the user to generate a QR code, tends to set more, the use of more flexible; method two can be scan the setting code according the manual.

#### Method I:

Add suffix setting code content format: >!010801 $\underline{XX}$ . Where  $\underline{XX}$  is the setting variable,  $\underline{XX}$  using hexadecimal representation, two characters for a unit, the shortage of 0 to make up, can be arbitrarily superimposed, the maximum support for 10-bit suffix.

For example: you need to set the suffix character A, check <u>Appendix E</u> character cross-reference table, hexadecimal 41, then set the code content:  $\geq$ !010801<u>41</u>.

For example: need to set the suffix character ABC, check <u>Appendix E</u> character table, hexadecimal 414243, then set the code content: >!010801<u>414243</u>.

#### Method 2:

a) Scan the "Suffix Settings" setting code



b) Scan the <u>"digital setting code"</u> in turn, every two as a group.
For example: need to set the suffix character A, check the <u>appendix E</u> character comparison table, hexadecimal for 41, then scan 4 and 1 respectively

For example: need to set the suffix character ABC, check <u>Appendix E</u> character comparison table, hexadecimal for 414243, then scan 4, 1, 4, 2, 4, 3

c) Scan the "OK" setup code to end the setup.



#### 7.5 Add prefix according to barcode type

#### 7.5.1 Add prefix switch according to barcode type

Prefix is a user-defined string modified before decoding information, and the prefix can be added by scanning the "enable" setting code, and the prefix can be cancelled by scanning "disable".




### 7.5.2 Add prefix content setting according to barcode type

The prefix content can be set using two methods, method one requires user generated a QR code, which tends to set more and is more flexible to use; method two can be scan the setting code according the manual.

#### Method I:

The format of the prefix setting code according to the barcode type is: >!010806<u>XXXX</u>. Where <u>XXXX</u> is the setting variable, the first two <u>XX</u> indicate the barcode type, the relevant hex value can be found according to <u>Appendix F</u>, the latter <u>XX</u> is expressed in hex, two characters are one unit, the shortage is made up by 0, and can be superimposed arbitrarily, the maximum support for 10-bit data prefix.

For example: you need to set the CODE128 barcode prefix character A, according to <u>Appendix F</u>, the hex value of CODE128 is 01, check the character comparison table in <u>Appendix E</u>, the hex value of character A is 41, then the setting code content is  $\geq$ !010806**0141**.

For example: you need to set the CODE128 barcode prefix character A B C, according to <u>Appendix F</u>, the hex value of CODE128 is 01, check <u>Appendix E</u> character comparison table, character A B C hexadecimal is 41 42 43 respectively, then the setting code content is: >!010806<u>01414243.</u>

### Method 2:

a) Scan the "Prefix Settings" setting code



 b) Set the barcode type, and scan the "<u>digital setting code</u>" in order, every two as a group.

For example: you need to set the prefix for CODE128, according to the barcode

type in <u>Appendix F</u>, the barcode type hex value of CODE128 is 01, then scan 0 and 1 respectively.

c) Set the prefix content, scan the <u>"digital setting code</u>" in turn, every two as a group.

For example: need to set the prefix character A, check the character comparison table in <u>Appendix E</u>, character A hexadecimal is 41, then scan 4 and 1 respectively.

c) Scan the "OK" setup code to end the setup



#### 7.5.3 Clear prefix according to barcode type

Clear the prefixes that have been set. Two methods can be used to clear the prefix, method one requires user generated a QR code, which tends to be more flexible to use for users with more settings; method two can be used by scanning the setting code within this manual according to the steps.

#### Method I:

Clear the prefix setting code according to the barcode type in the following format: >!010808<u>XX</u>. where <u>XX</u> is the setting variable, <u>XX</u> means the barcode type uses hexadecimal, two characters are one unit, and the shortage is made up by 0. The relevant hexadecimal value can be found according to Appendix F.

For example, if the CODE128 barcode prefix needs to be cleared, the hex value of CODE128 is 01 according to <u>Appendix F</u>, then the content of the setting code is: >!01080801.

#### Method 2:

a) Scan the "Clear Prefix" setting code



b) Clear the barcode type, scan the <u>"digital setting code"</u> in turn, every two

as a group.

For example: you need to clear CODE128 prefix, according to <u>Appendix F</u> barcode type, CODE128 barcode type hex value is 01, then scan 0 and 1 respectively.

c) Scan the "OK" setup code to end the setup.



#### 7.6 Add suffix according to barcode type

#### 7.6.1 Add suffix switch according to barcode type

The suffix is a user-defined string modified after decoding information, and the suffix can be added by scanning the "enable" setting code, and the suffix can be cancelled by scanning "disable".





#### 7.6.2 Add suffix content setting according to barcode type

Suffix content can be set using two methods, method one requires user generated a QR code, which tends to set more and is more flexible to use; method two can be set by scanning the code within this manual according to the steps.

#### Method I:

The content format of the setting code is: >!010807 $\underline{XXXX}$ . where  $\underline{XXXX}$  is the setting variable, the first two  $\underline{XX}$  indicate the barcode type, the relevant hex value can be found according to <u>Appendix F</u>, the latter  $\underline{XX}$  is expressed in hex, two characters are one unit, the shortage is made up by 0, and can be superimposed arbitrarily, the maximum support for 10-bit data suffix.

For example: you need to set CODE128 barcode suffix character A, according to <u>Appendix F</u>, the hex value of CODE128 is 01, check the character comparison table in <u>Appendix E</u>, the hex value of character A is 41, then the setting code content

#### is >!010807<u>0141</u>.

For example: you need to set CODE128 barcode suffix character A B C, according to <u>Appendix F</u>, the hexadecimal value of CODE128 is 01, check <u>Appendix E</u> character comparison table, character A B C hexadecimal is 41 42 43 respectively, then the setting code content is: >!010807<u>01414243</u>.

#### Method 2:

a) Scan the "Suffix Settings" setting code



 b) Set the barcode type, and scan the <u>"digital setting code"</u> in order, every two are a group.

For example: you need to set the suffix for CODE128, according to the barcode type in <u>Appendix F</u>, the barcode type of CODE128 is 01 in hexadecimal, then scan 0 and 1 respectively.

c) set the suffix content, scan the <u>"digital setting code"</u> in turn, every two as a group.

For example: need to set the suffix character A, check <u>Appendix E</u> character cross-reference table, character A hexadecimal for 41, then scan 4 and 1 respectively

d) Scan the "OK" setup code to end the setup



#### 7.6.3 Clear suffix according to barcode type

Clear the suffixes that have been set. Two methods can be used to clear the suffix, method one requires user generated a QR code, which tends to be more flexible to use for users with more settings, and method two allows you to scan the setting code within this manual according to the steps.

Method I:

According to the barcode type, the content of the setting code is in the following format: >!010809 $\underline{XX}$ . where XX is the setting variable,  $\underline{XX}$  indicates that the barcode type uses hexadecimal, two characters are one unit, and the shortage is made up by 0. The relevant hexadecimal value can be found according to <u>Appendix</u> <u>F</u>.

For example, if the CODE128 barcode suffix needs to be cleared, the hexadecimal value of CODE128 is 01 according to <u>Appendix F</u>, then the content of the setting code is: >!01080901.

### Method 2:

a) Scan the "Clear Suffix" setting code



Clear Suffix

 b) Clear the barcode type, and scan the "<u>digital setting code</u>" in order, every two as a group.

For example: you need to clear the CODE128 suffix, according to the barcode type in Appendix F, the barcode type of CODE128 is 01 in hexadecimal value, then scan 0 and 1 respectively.

c) Scan the "OK" setup code to end the setup



## 7.7 Hide fixed characters

This function can hide strings that the user does not need to output on demand. 7.7.1 Hide fixed character switch





7.7.2 Hide fixed character settings

Hidden fixed character settings can be used in two ways, method one requires the user to generate a QR code, tends to set more, the use of more flexible; method two can be set according to the steps to scan the code within this manual

#### Method I:

Hidden fixed character setting code content format: >!010802 $\underline{XX}$ . where  $\underline{XX}$  is the setting variable,  $\underline{XX}$  using hexadecimal representation, two characters for a unit, the shortage of 0 to make up, can be arbitrary superposition, the maximum support 20 bits.

For example, if you need to set the hidden character A, check the character comparison table in <u>Appendix E</u>, the hexadecimal is 41, then the setting code content is:  $\geq$ !010802<u>41</u>.

For example, if you need to set the hidden character ABC, check the character comparison table of <u>Appendix E</u>, the hexadecimal is 414243, then the code content is: >!010802414243.

#### Method 2:

a) Scan "Hide fixed characters" setting code



Hide fixed characters

b) Scan the "<u>number setting code</u>" in order, every two as a group.

For example: need to hide the character A, check the <u>appendix E</u> character comparison table, the hexadecimal is 41, then scan 4 and 1 respectively

For example, if you need to hide line break, check <u>Appendix E</u> character comparison table, hexadecimal is OA, then scan O and A respectively

c) Scan the "OK" setup code to end the setup



### 7.8 Retain barcode data according to length

This function allows you to retain the data needed by the user in the barcode

on demand.

7.8.1 Data retention switch







Forward Indexing

Reverse Indexing

[Note] Forward indexing (from the front end of the data as the starting position); reverse indexing (from the back end of the data as the starting position) 7.8.2 Retain data start position

The starting setup can be used in two ways, method one requires user generated a QR code, which tends to be more flexible to use for users with more settings, and method two allows you to scan the setup code within this manual according to the steps.

### Method I:

Start position setting code content format: >!00102A $\underline{XX}$ . where  $\underline{XX}$  is the setting variable, decimal range 1-65535.

For example, if the starting position is set to 11, the setting code content will be: >!00102A<u>11</u>.

#### Method 2:

a) Scan the "start position" setting code



- b) Scan the <u>"number setting code"</u>, and scan the corresponding number setting code from the first digit. For example, for the 11th digit, scan 1,1; for the 100th digit, scan 1,0,0.
- c) Scan the "OK" setup code to end the setup



7.8.3 Retain data end position

Two methods can be used to end the setup. Method 1 requires user generated a QR code, which tends to be more flexible to use for users with more settings; Method 2 can be used by scanning the setup code within this manual according to the steps.

### Method I:

End position setting code content format: >!00102B $\underline{XX}$ . where  $\underline{XX}$  is the setting variable, decimal range 1-65535.

For example, if the end position is set to 50, the content of the setting code is: >!00102B<u>50</u>.

### Method 2:

a) Scan the "end position" setting code



End position

- b) Scan the "<u>number setting code</u>", and scan the corresponding number setting code from the end of the first digit. For example, for the 50th digit, scan 5,0.
- c) Scan the "OK" setup code to end the setup  $% \mathcal{C}(\mathcal{K})$



## 7.9 Hide barcode data by length

This function can hide data in barcodes that users do not need on demand. 7.9.1 Hidden barcode data switch







Reverse Indexing

[Note] Forward indexing (from the front end of the data as the starting position); reverse indexing (from the back end of the data as the starting position) 7.9.2 Hide barcode data start position

The starting setup can be used in two ways, method one requires user generated a QR code, which tends to be more flexible to use for users with more settings, and method two allows you to scan the setup code within this manual according to the steps.

#### Method I:

Start position setting code content format: >!001027 $\underline{XX}$ . where  $\underline{XX}$  is the setting variable, decimal range 1-65535.

For example, if the starting position is set to 11, the setting code content is: >!001027<u>11</u>.

#### Method 2:

a) Scan the "start position" setting code



#### Starting position

- b) Scan the <u>"number setting code</u>", and scan the corresponding number setting code from the first digit. For example, for the 11th digit, scan 1,1; for the 100th digit, scan 1,0,0.
- c) Scan the "OK" setup code to end the setup



#### 7.9.3 Hide barcode data end position

Two methods can be used to end the setup. Method 1 requires user generated a QR code, which tends to be more flexible to use for users with more settings; Method 2 can be used by scanning the setup code within this manual according to the steps.

#### Method I:

End position setting code content format:  $\geq$ !001028<u>XX</u>. where <u>XX</u> is the setting variable, decimal range 1-65535.

For example: if the end position is set to 50, the content of the setting code

### is: >!001028**50**.

### Method 2:

a) Scan the "end position" setting code



End position

b) Scan the "number setting code", and scan the corresponding number setting code from the end of the first digit. For example, for the 11th digit, scan 1, 1.

For the 100th digit, scan 1, 0, 0.

b) Scan the "OK" setup code to end the setup



## 7.10Hide barcode data of any length based on barcode type

This function can hide the data in the barcode that the user does not need according to the barcode type on demand.

7.10.1 Hide barcode data switch according to barcode type







Reverse Indexing

[Note] Forward indexing (from the front end of the data as the starting position); reverse indexing (from the back end of the data as the starting position) 7.10.2 Hide data start position according to barcode type

The starting setup can be used in two ways, method one requires user generated a QR code, which tends to be more flexible to use for users with more settings, and method two allows you to scan the setup code within this manual according to the steps.

Method I:

The format of the starting position of the hidden data according to the barcode type is: >!01080AXXXX. Where XXXX is the setting variable, the first two XX indicate the barcode type, the relevant hexadecimal value can be found according to Appendix F  $\underline{MRF}$ , and the latter XX is expressed in hexadecimal, two characters are one unit, the shortage is made up by 0, and the length range is 0x0000-0xFFFF.

For example, if the starting position of CODE128 needs to be set to 11th digit, the hexadecimal value of CODE128 is 01 according to <u>Appendix F</u>, the hexadecimal value of 11 is OB, then the content of the setting code is: >!01080A010B.

#### Method 2:

a) Scan the "Barcode type and starting position" setting code



Bar code type and starting position

 b) Set the barcode type, and scan the "<u>numeric setting code</u>" in order, every two as a group.

For example, if you need to hide CODE128, according to the barcode type in <u>Appendix F</u>, the barcode type hexadecimal value of CODE128 is 01, then scan 0 and 1 respectively.

c) Set the starting position, and scan the "<u>digital setting code</u>" in order, every two as a group.

The use here refers to hexadecimal. For example, bit 11, hex OB, scan O, B; bit 100, hex 64, scan 6, 4.

d) Scan the "OK" setup code to end the setup



#### 7.10.3 Hide data end position according to barcode type

Two methods can be used to end the setup. Method 1 requires user generated a QR code, which tends to be more flexible to use for users with more settings; Method 2 can be used by scanning the setup code within this manual according to

the steps.

#### Method I:

The format of the end position of the hidden data according to the barcode type is: >!01080B<u>XXXX</u>. where <u>XXXX</u> is the setting variable, the first two <u>XX</u> indicate the barcode type, the relevant hexadecimal value can be found according to <u>Appendix</u> <u>F</u>, the latter <u>XX</u> is expressed in hexadecimal, two characters are one unit, the shortage is made up by 0, the length range is 0x0000-0xFFFF.

For example, if the end position of CODE128 needs to be set to 100th digit, the hexadecimal value of CODE128 is 01 according to <u>Appendix F</u>, the hexadecimal value of 100 is 64, then the content of the setting code is: >!01080B<u>0164.</u>

#### Method 2:

a) Scan the "barcode type and end position" setting code



Bar code type and end position

 b) Set the barcode type, and scan the <u>"numeric setting code"</u> in order, every two as a group.

For example, if you need to hide CODE128, according to the barcode type in <u>Appendix F</u>, the barcode type hexadecimal value of CODE128 is 01, then scan 0 and 1 respectively.

c) Set the end position, and scan the <u>"digital setting code"</u> in turn, every two groups.

The use here refers to hexadecimal. For example, 11th digit, hex OB, scan O, B; 100th digit, hex 64, scan 6, 4.

d) Scan the "OK" setup code to end the setup



### 7.11Insert custom characters

This function allows you to insert user-defined data at any position in the

barcode data according to the requirements.

7.11.1 Insert custom data switch





### 7.11.2 Customized Data

Custom data can be used in two ways, method one requires user generated a QR code, which tends to set more users and is more flexible to use; method two can be set by scanning the code within this manual according to the steps

### Method I:

Custom insert data setting code content format::>!010803 $\underline{XX}$ . Where  $\underline{XX}$  is the setting variable,  $\underline{XX}$  using hexadecimal representation, two characters for a unit, the shortage of 0 to make up, can be arbitrary superposition, the maximum support for 20 bits of self-defined data.

For example: you need to insert custom data A, check <u>Appendix E</u> character crossreference table, hexadecimal is 41, then the setting code content is: >!010803<u>41</u>.

For example: need to insert custom data ABC, check <u>Appendix E</u> character comparison table, hexadecimal for 414243, then set the code content: >!010803**414243**.

### Method 2:

a) Scan the "Custom Data" setup code



b) Scan the <u>"digital setup code</u>" in order, every two in a group.

- For example: need to insert custom data A, check the <u>appendix E</u> character cross-reference table, hexadecimal for 41, then scan 4 and 1, respectively For example: need to insert custom data ABC, check <u>Appendix E</u> character cross-reference table, hexadecimal is 414243, then scan 4, 1, 4, 2, 4, 3, respectively
- c) Scan the "OK" setup code to end the setup



### 7.11.3 Insert Position

Insert location settings can be used in two ways, method one requires user generated a QR code, which tends to set more and is more flexible to use; method two can be set by scanning the code within this manual according to the steps.

### Method I;

Insert position setting code content format: >!00102EXX. where XX is the setting variable, decimal range 1-65535.

For example, if the insertion position is set to  $11^{th}$  digit, the content of the setting code is: >!00102E<u>11</u>.

### Method 2:

a) Scan the "Insert Location" setting code



b) Scan the <u>"numeric setting code"</u>, insert the position, and scan the corresponding numeric setting code. For example, for the 11th position, scan 1,1.

For the 100th position, scan 1,0,0.

b) Scan the "OK" setup code to end the setup



## 7.12 Character substitution

This function can replace the data within the original string with any data as required.

### 7.12.1 Character Substitution Switch





### 7.12.2 Replaced character setting

The replaced characters can be set using two methods, method one requires the user to generate a QR code, which tends to set more users and is more flexible to use; method two can be set by scanning the code in this manual according to the steps

### Method I:

The content of the replaced character setting code format: >!010804 $\underline{XX}$ . where  $\underline{XX}$  is the setting variable,  $\underline{XX}$  using hexadecimal representation, two characters for a unit, the shortage of 0 to make up, can be arbitrary superposition, the maximum support 20 bits.

For example: the replaced character A, check <u>Appendix E</u> character crossreference table, hexadecimal is 41, then the set code content is: >!010804**41**.

For example: the replaced character ABC, check the <u>appendix E</u> character comparison table, hexadecimal 414243, then set the code content: >!010804<u>414243</u>.

### Method 2:

a) Scan "replaced character" setting code



Replaced characters

b) Scan the "digital setup code" in order, every two in a group.

For example: the replaced character A, check the <u>appendix E</u> character comparison table, hexadecimal 41, then scan 4 and 1, respectively

For example: the replaced character Line Feed, check the <u>Appendix E</u> character cross-reference table, hexadecimal OA, then scan O and A, respectively

c) Scan the "OK" setup code to end the setup  $% \mathcal{C}(\mathcal{C})$ 



#### 7.12.3 Replacement character settings

Replacement character settings can be used in two ways, method one requires the user to generate a QR code, tends to set more users, the use of more flexible; method two can be set according to the steps to scan the code within this manual

#### Method I:

Replacement character setting code content format: >!010805<u>XX</u>. Where <u>XX</u> is the setting variable, <u>XX</u> using hexadecimal representation, two characters for a unit, the shortage of 0 to make up, can be arbitrary superposition, the maximum support 20 bits.

For example: character A replaces the original data, check <u>Appendix E</u> character comparison table, hexadecimal is 41, then the set code content is: >!010805<u>41</u>.

For example: character ABC replace the original data, check <u>Appendix E</u> character comparison table, hexadecimal 414243, then set the code content: >!010805**414243**.

#### Method 2:

a) Scan "replacement character" setting code



Replacement characters

b) Scan the "digital setup code" in order, every two in a group.

For example: character A replace the original data, check <u>Appendix E</u> character comparison table, hexadecimal 41, then scan 4 and 1, respectively

For example: character line feed replaces the original data, check <u>Appendix E</u> character cross-reference table, hexadecimal OA, then scan O and A, respectively

c) Scan the "OK" setup code to end the setup



## 7.13 Line feed to carriage return

Line feeds (\n) and carriage return line feeds (\r\n) are converted to carriage returns (\r).





## 7.14 URL Switch

This function can disable the recognition of barcodes with web address information according to the requirements to prevent the barcodes with web address information from being scanned by mistake when scanning the barcodes of products, or for some other special applications.





## 7.15 Invoicing function

In order to make the module work properly in the invoicing system, users can scan the following configuration codes to achieve invoice code format conversion and output.

[Note]This function supports Alipay QR code invoicing, does not support WeChat
QR code invoicing
7.15.1 Invoicing function switch





7.15.2 Invoice Type





## 7.16 GS1 Rule Enable

Enables the GS1 rule to enclose AI segments in parentheses.





# 8 Instruction

## 8.1 Format

Command	composition:	The	command	uses	ASCII	strings	and is	s composed as	follows
S	etting Code		Insti	ructior	п Туре		Check	ksum default us	es "99"

### 指令类型

Instruction Type	Instruction
Permanent setup command	Set code + ">;99'"
Temporary setup command	Set code + "^;99"
Query command	Set code + "?;99"
Return command is correct	Set code + "\$;99"
Return command error	Set code + "*;99"

### For example: set the end character to carriage return, the setting code is >!0010201.

Function	Send	Return correctly	Error return	Remarks
Setup Instructions	>!0010201.>;99	>!0010201.\$;99	>!0010201.*;99	
Query command	>!0010201.?;99	>!001020X.\$;99	>!0010201.*;99	The value of the X query

### 8.2 Responding

When this option is selected and data is sent, the read module expects a response from the host. The scanner can also send an answer message to the host.





# 9 Packet format

#### Package format

Identifier	Setting code type	Data format	Parameter	length	Barcode type	data	Check
>!	3	2	0004			variable	

name	lenght	Description
Identifier	2 bit	">!",
Setting code type	1 bit	"3"
Data format	1 bit	2: Data Stream
Parameter	4 bit	HexStr,0004
length	4 bit	HexStr,高 2 字符在前,低 2 字符在后,不包含校验位
Barcode type	1 bit	Type of bar code, data stream format, see Appendix F
data	Variable bytes	The base number is determined by the data format
check	2 bit	HexStr, XOR checksum, "99" means no checksum

## 9.1 Packet format switch

When enabled, the decoded data will be sent in packet format





45

# 10 Global operation of Bar Code

10.1 Global Switches



10.2 1D code global switch



10.3 2D Code Global Switch





Enable



Enable



Enable

Level 2

# 10.4 1D barcode security level

In order to solve the problem of bar code error in extreme cases, here are 5 security levels, the higher the level of the reading experience is relatively worse









10.5 Multi-code identification  $\$ 

Special application scenario, need to read more than one barcode at a time, read the following setting code, which will set Enable/Disable multi-code reading. 10.5.1 Must be able to read multiple codes





LIIdD16

10.5.2 Read multiple codes











3pc



10.6 Global inverse color switch

Reading the following setting code will set the barcode inverse color Enable/Disable reading.

[Note] The global inverse color switch will have a greater impact on the performance of the reading device, and the commonly used barcode has a separate inverse color switch, so it is recommended to open it separately.





## 10.7 Partial inverse color switch

### 10.7.1 CODE128 inverse color switch

Reading the following setting code will set the CODE128 barcode Enable/Disable inverse color recognition. This setting is also valid for GS1-128



## 10.7.2 EAN/UPC inverse color switch

Read the following setting code, which will set the EAN/UPC barcode Enable/Disable inverse color recognition



\*Disable

## 10.7.3 ITF25 inverse color switch

Read the following setting code, which will set the ITF25 barcode Enable/Disable inverse color recognition



## 10.7.4 CODE39 inverse color switch

Reading the following setting code will set the CODE39 barcode Enable/Disable inverse color recognition



## 10.7.5 CODABAR inverse color switch

Read the following setting code, which will set the CODABAR barcode Enable/Disable inverse color recognition





Enable





\*Disable

Enable

### 10.7.6 CODE93 inverse color switch

Reading the following setting code will set the CODE93 barcode Enable/Disable inverse color recognition





## 11 L Series - Barcode Type Enable/Disable Configuration

## 11.1 CODE128

### 11.1.1 CODE128 switch

Reading the following setup code will set the CODE128 barcode Enable/Disable reading.





#### 11.1.2 CODE128 minimum length

CODE128 minimum length setting can be used in two ways, method one requires user generated a QR code, which tends to set more and is more flexible to use; method two can be set by scaning the code within this manual according to the steps.

#### Method I:

CODE128 minimum length setting code content format: >!000012 $\underline{XX}$ . where  $\underline{XX}$  is the setting variable, decimal range 0-255.

For example, if the minimum length of CODE128 is set to 2, then the code content is: >!000012<u>2</u>.

For example, if the minimum length of CODE128 is set to 12, then the code content is: >!00001212.

### Method 2:

a) Scan the "CODE128 minimum length" setting code



#### CODE128 minimum length

- b) Scan the "<u>number setting code</u>". For example, if the minimum length is 2 digits, scan 2; if the minimum length is 12 digits, scan 1, 2
- c) Scan the "OK" setup code to end the setup



### 11.1.3 CODE128 maximum length

CODE128 maximum length setting can be used in two ways, method one requires the user to generate a QR code, which tends to set more and is more flexible to use; method two can be set by scaning the code within this manual according to the steps.

### Method I:

CODE128 maximum length setting code content format: >!000013 $\underline{XX}$ . where  $\underline{XX}$  is the setting variable, decimal range 0-255.

For example, if the maximum length of CODE128 is set to 9, then the code content is: >!000012<u>9</u>.

For example, if the maximum length of CODE128 is set to 20, then the code content is: >!000012<u>20</u>.

### Method 2:

a) Scan the "CODE128 maximum length" setting code



CODE128 maximum length

- b) Scan the "<u>number setting code</u>". For example, if the maximum length is 9 digits, scan 9; if the maximum length is 20 digits, scan 2, 0
- c) Scan the "OK" setup code to end the setup



### 11.1.4 CODE128 security level

The higher the barcode security level, the lower the false code rate, and the reading effect will be affected to a certain extent







## 11.2EAN/UCC 128/GS1 128

## 11.2.1 GS1 128 switches

Reading the following setup code will set the GS1 128 barcode Enable/Disable reading.





## 11.2.2 GS1 128 minimum length

GS1 128 minimum length setting can be used in two ways, method one requires user generated a QR code, which tends to set more and is more flexible to use; method two can be set by scaning the code within this manual according to the steps.

## Method I:

GS1 128 minimum length setting code content format: >!000022 $\underline{XX}$ . where  $\underline{XX}$  is the setting variable, decimal range 0-255.

For example, if the minimum length of GS1 128 is set to 2, then the content of the setting code is: >!000022**2**.

For example, if the minimum length of GS1 128 is set to 12, the code content is: >!000022<u>12</u>.

## Method 2:

a) Scan "GS1 128 minimum length" setting code



GS1 128 minimum length

b) Scan the "<u>number setting code</u>". For example, if the minimum length is 2 digits, scan 2; if the minimum length is 12 digits, scan 1, 2

c) 扫 Describe the "OK" setting code to end the setup



#### 11.2.3 GS1 128 maximum length

GS1 128 maximum length setting can use two methods, method one requires user generated a QR code, which tends to set more users and is more flexible to use; method two can scan the setting code within this manual according to the steps.

Method 1:

GS1 128 maximum length setting code content format: >!000023 $\underline{XX}$ . where  $\underline{XX}$  is the setting variable, decimal range 0-255.

For example, if the maximum length of GS1 128 is set to 9, then the content of the setting code is:  $\geq 000023\underline{9}$ .

For example, if the maximum length of GS1 128 is set to 20, then the code content is: >!000023<u>20</u>.

#### Method 2:

a) Scan the "GS1 128 maximum length" setting code



GS1 128 maximum length

- b) Scan the "<u>number setting code</u>". For example, if the maximum length is 9 digits, scan 9; if the maximum length is 20 digits, scan 2, 0
- c) Scan the "OK" setup code to end the setup



### 11. 3EAN8

### 11.3.1 EAN8 Switch

Read the following setting code, which will set the EAN8 barcode Enable/Disable reading

54

## 11.3.2 EAN8 checksum bit transfer

Reading the following setup code will set whether the EAN8 transmits the parity

bit or not.

## 11.3.3 EAN8 reads 2-digit additional code

Reading the following setting code will set whether the EAN8 with 2-digit additional code can be read or not.

Reading the following setting code will set whether the EAN8 of the 5-digit

11.3.4 EAN8 reads 5-digit add-on codes

additional code can be read.

11.3.5 Read-only with add-on code EAN8

Reading the following setting code will set whether to read only EAN8 with additional code





\*Disable







\*Enable



Disable

\*Disable





55

Enable

11.4EAN13

11.4.1 EAN13 Switch

\*Disable

Read the following setting code, which will set the EAN13 barcode Enable/Disable reading

11.4.2 EAN13 Checksum Bit Transfer

Disable

Reading the following setup code will set whether the EAN13 transmits the parity

bit or not.

## 11.4.3 EAN13 reads 2-digit additional code

Reading the following setting code will set the EAN13 that can read the 2-digit

additional code.

## 11.4.4 EAN13 reads 5-digit add-on codes

Reading the following setting code will set whether the EAN13 with 5-digit additional code can be read.



\*Disable



\*Enable







Disable

## 11.4.5 Read-only with additional code EAN13

Reading the following setting code will set whether to read only EAN13 with additional code.





## 11.5 ISSN

Read the following setting code, the ISSN barcode Enable/Disable reading will be set

[Note] Disable ISSN, ISSN will be treated as EAN13





## 11.6 ISBN

Read the following setting code, which will set the Enable/Disable reading of ISBN barcode

[Note] Disable ISBN, ISBN will be treated as EAN13





## 11.7 UPC-E 11.7.1 UPC-E switch

Read the following setting code, which will set the UPC-E barcode Enable/Disable

reading





57

\*Enable

Disable

## 11.7.2 UPC-E parity bit transfer

Reading the following setup code will set whether the UPC-E transmits the parity bit or not.

## 11.7.3 UPC-E reads 2-digit additional code

Reading the following setting code will set whether the UPC-E can read the 2digit additional code.

## 11.7.4 UPC-E reads 5-digit additional code

Reading the following setting code will set whether the UPC-E can read the 5digit additional code.

## 11.7.5 Read-only with additional code UPC-E

Reading the following setting code will set whether to read only UPC-E with additional code.

11.7.6 Transmission system character "0"

\*Disable



\*Disable



\*Enable





Enable





Reading the following setting code will set whether the UPC-E transmits the system character "0" or not.





## 11.7.7 UPC-E to UPC-A

Reading the following setting code will set whether UPC-E is converted to UPC-

A or not.





## 11.7.8 UPC-E1 switch

Reading the following setting code will set whether to read the UPC-E1 or not.



## 11.7.9 Transmission of country character "0"

Read the following setting code, which will set whether the UPC-E transmits the country character "0" or not.





## 11.8UPC-A

## 11.8.1 UPC-A switch

Read the following setting code, which will set the UPC-A barcode Enable/Disable reading



59

## 11.8.2 UPC-A parity bit transfer

Reading the following setup code will set whether the UPC-A transmits parity

bits or not.

## 11.8.3 UPC-A reads 2-digit additional code

Reading the following setting code will set whether the UPC-A can read the 2digit additional code.

11.8.4 UPC-A reads 5-digit additional code

Reading the following setting code will set whether the UPC-A can read the 5-

digit additional code.

\*Disable

### 11.8.5 Read-only with additional code UPC-A

Reading the following setting code will set whether to read only UPC-A with additional code.

ΠŶ		
*Disable		



\*Enable

\*Enable







Disable



## 11.8.6 Transmission system character "0"

Reading the following setting code will set whether the UPC-A transmits system

characters or not.

## 11.8.7 Transmission of country character "0"

Read the following setting code to set whether UPC-E transmits the country character "O" or not. (It will be set whether to transfer UPC-A to EAN13 or not)

# 11.9ITF25

## 11.9.1 ITF25 Switch

Reading the following setup code will set the ITF25 barcode Enable/Disable reading.

## 11.9.2 ITF25 check digit verification

Reading the following setup code will set whether the ITF25 check digit is validated or not.

60



\*Disable





\*Enable



Enable



Disable





## 11.9.3 ITF25 parity bit transfer

Reading the following setting code will set whether the ITF25 parity bit is transmitted or not.

[Note] Enable transmit parity bit, please enable parity bit verification function first





## 11.9.4 ITF25 minimum length

ITF25 minimum length setting can be used in two ways, method one requires user generated a QR code, which tends to set more users and is more flexible to use; method two can follow the steps to scan the setting code within this manual.

### Method 1:

ITF25 minimum length setting code content format: >!0000B3 $\underline{XX}$ . where  $\underline{XX}$  is the setting variable, decimal range 0-255.

For example, if the minimum length of ITF25 is set to 2, the code content is: >!0000B32.

For example, if the minimum length of ITF25 is set to 12, then the set code content is: >!0000B3<u>12</u>.

### Method 2:

a) Scan the "ITF25 minimum length" setting code



ITF25 minimum length

b) Scan the "<u>number setting code</u>". For example, if the minimum length is 2
digits, scan 2; if the minimum length is 12 digits, scan 1, 2

c) Scan the "OK" setup code to end the setup



#### 11.9.5 ITF25 maximum length

ITF25 maximum length setting can be used in two ways, method one requires a user-generated QR code, which tends to set more users and is more flexible to use; method two can be set by scanning the code within this manual according to the steps.

#### Method 1:

ITF25 maximum length setting code content format:  $>!0000B4\underline{XX}$ . where  $\underline{XX}$  is the setting variable, decimal range 0-255.

For example, if the maximum length of ITF25 is set to 9, then the set code content is: >!0000B4<u>9</u>.

For example, if the maximum length of ITF25 is set to 20, then the set code content is: >!0000B4<u>20</u>.

#### Method 2:

a) Scan the "ITF25 maximum length" setting code



ITF25 maximum length

- b) Scan the "<u>number setting code</u>". For example, if the maximum length is 9 digits, scan 9; if the maximum length is 20 digits, scan 2, 0
- c) Scan the "OK" setup code to end the setup



11.9.6 Brazilian government/bank code

11.10 NEC25/COOP25

\*Disable

#### 11.10.1 NEC25 Switch

Reading the following setup code will set the NEC25 barcode Enable/Disable

reading.

#### 11.10.2 NEC25 check digit verification

Reading the following setup code will set whether the NEC25 check digit is validated or not.

#### 11.10.3 NEC25 parity bit transfer

Reading the following setting code will set whether the NEC25 parity bits are transmitted or not.

[Note]Enable transmit parity bit, please enable parity bit verification function first

#### 11. 10. 4 NEC25 minimum length

\*Disable

NEC25 minimum length setting can be used in two ways, method one requires user









Enable

Enable





\*Disable



generated a QR code, which tends to set more and is more flexible to use; method two can follow the steps to scan the setting code within this manual.

#### Method 1:

NEC25 minimum length setting code content format: >!000103XX. Where XX is the setting variable, decimal range 0-255.

For example, if the minimum length of NEC25 is set to 2, the code content is: >!000103<u>2</u>.

For example, if the minimum length of NEC25 is set to 12, the code content is: >!000103<u>12</u>.

#### Method 2:

a) Scan the "NEC25 minimum length" setting code



NEC25 minimum length

- b) Scan the "number setting code". For example, if the minimum length is 2 digits, scan 2; if the minimum length is 12 digits, scan 1, 2
- c) Scan the "OK" setup code to end the setup



#### 11.10.5 NEC25 maximum length

NEC25 maximum length setting can be used in two ways, method one requires user generated a QR code, which tends to set more users and is more flexible to use; method two can follow the steps to scan the setting code within this manual.

#### Method 1:

NEC25 maximum length setting code content format: >!000104<u>XX</u>. Where <u>XX</u> is the setting variable, decimal range 0-255.

For example, if the maximum length of NEC25 is set to 9, then the code content is: >!0001049.

For example, if the maximum length of NEC25 is set to 20, then the code content

#### is: >!000104<u>20</u>.

#### Method 2:

a) Scan the "NEC25 maximum length" setting code



NEC25 maximum length

- b) Scan the "number setting code". For example, if the maximum length is 9 digits, scan 9; if the maximum length is 20 digits, scan 2, 0
- c) Scan the "OK" setup code to end the setup  $% \mathcal{C}(\mathcal{C})$



#### 11.11 MATRIX25

#### 11.11.1 MATRIX25 Switch

Reading the following setup code will set the MATRIX25 barcode Enable/Disable reading.





#### 11.11.2 MATRIX25 check digit verification

Reading the following setup code will set whether the MATRIX25 check digit is validated or not.





#### 11.11.3 MATRIX25 checksum bit transfer

Reading the following setting code will set whether the MATRIX25 parity bits

are transmitted or not.

[Note] Enable transmit parity bit, please enable parity bit verification function first





#### 11.11.4 MATRIX25 minimum length

MATRIX25 minimum length setting can be used in two ways, method one requires user generated a QR code, which tends to set more and is more flexible to use; method two can be set by scanning the setting code within this manual according to the steps.

#### Method 1:

MATRIX25 minimum length setting code content format: >!000113 $\underline{XX}$ . where  $\underline{XX}$  is the setting variable, decimal range 0-255.

For example, if the minimum length of MATRIX25 is set to 2, the code will read: >!0001132.

For example, if the minimum length of MATRIX25 is set to 12, then the set code content is: >!00011312.

#### Method 2:

a) Scan the "MATRIX25 minimum length" setting code



#### MATRIX25 minimum length

- b) Scan the "<u>number setting code</u>". For example, if the minimum length is 2 digits, scan 2; if the minimum length is 12 digits, scan 1, 2
- c) Scan the "OK" setup code to end the setup



#### 11.11.5 MATRIX25 maximum length

MATRIX25 maximum length setting can be used in two ways, method one requires a user-generated QR code, which tends to set more users and is more flexible to use; method two can be set by scanning the setting code within this manual according to the steps.

#### Method 1:

MATRIX25 maximum length setting code content format: >!000114<u>XX</u>. where <u>XX</u> is the setting variable, decimal range 0-255.

For example, if the maximum length of MATRIX25 is set to 9, then the set code content is: >!000114<u>9</u>.

For example, if the maximum length of MATRIX25 is set to 20, then the set code content is: >!000114<u>20</u>.

#### Method 2:

a) Scan the "MATRIX25 maximum length" setting code



MATRIX25 maximum length

- b) Scan the "<u>number setting code</u>". For example, if the maximum length is 9 digits, scan 9; if the maximum length is 20 digits, scan 2, 0
- c) Scan the "OK" setup code to end the setup



#### 11.12 IND25

#### 11.12.1 IND25 switch

Reading the following setup code will set the IND25 barcode Enable/Disable reading.





#### 11.12.2 IND25 minimum length

IND25 minimum length setting can be used in two ways, method one requires user generated a QR code, which tends to set more and is more flexible to use; method two can be set by scanning the code within this manual according to the steps.

Method 1:

IND25 minimum length setting code content format: >!000123 $\underline{XX}$ . where  $\underline{XX}$  is the setting variable, decimal range 0-255.

For example, if the minimum length of IND25 is set to 2, then the code content is: >!0001232.

For example, if the minimum length of IND25 is set to 12, then the code content is: >!00012312.

#### Method 2:

a) Scan the "IND25 minimum length" setting code



#### IND25 minimum length

- b) Scan the "<u>number setting code</u>". For example, if the minimum length is 2 digits, scan 2; if the minimum length is 12 digits, scan 1, 2
- c) Scan the "OK" setup code to end the setup



#### 11.12.3 IND25 maximum length

IND25 maximum length setting can be used in two ways, method one requires user generated a QR code, which tends to set more and is more flexible to use; method

two can be set by scanning the code within this manual according to the steps.

#### Method 1:

IND25 maximum length setting code content format: >!000124<u>XX</u>. where <u>XX</u> is the setting variable, decimal range 0-255.

For example: IND25 maximum length is set to 9, then the set code content is: >!0001249.

For example, if the maximum length of IND25 is set to 20, then the set code content is: >!000124<u>20</u>.

#### Method 2:

a) Scan the "IND25 maximum length" setting code



IND25 maximum length

- b) Scan the "<u>number setting code</u>". For example, if the maximum length is 9 digits, scan 9; if the maximum length is 20 digits, scan 2, 0
- c) Scan the "OK" setup code to end the setup



#### 11.13 STD25

#### 11.13.1 STD25 switch

Reading the following setup code will set the STD25 barcode Enable/Disable reading.





#### 11.13.2 STD25 minimum length

STD25 minimum length setting can be used in two ways, method one requires user

generated a QR code, which tends to set more and is more flexible to use; method two can be set by scanning the setting code within this manual according to the steps.

#### Method 1:

STD25 minimum length setting code content format: >!000133 $\underline{XX}$ . Where  $\underline{XX}$  is the setting variable, decimal range 0-255.

For example, if the minimum length of STD25 is set to 2, then the code content is: >!000133<u>2</u>.

For example, if the minimum length of STD25 is set to 12, then the set code content is: >!000133<u>12</u>.

#### Method 2:

a) Scan the "STD25 minimum length" setting code



STD25 minimum length

- b) Scan the "<u>number setting code</u>". For example, if the minimum length is 2 digits, scan 2; if the minimum length is 12 digits, scan 1, 2
- c) Scan the "OK" setup code to end the setup



#### 11.13.3 STD25 maximum length

STD25 maximum length setting can be used in two ways, method one requires user generated a QR code, which tends to set more and is more flexible to use; method two can be set by scanning the setting code within this manual according to the steps.

#### Method 1:

STD25 maximum length setting code content format:  $>!000134\underline{XX}$ . where  $\underline{XX}$  is the setting variable, decimal range 0-255.

For example, if the maximum length of STD25 is set to 9, the set code content

#### will be: >!000134<u>9</u>.

For example, if the maximum length of STD25 is set to 20, then the set code content is: >!000134**20**.

#### Method 2:

a) Scan the "STD25 maximum length" setting code



#### STD25 maximum length

- b) Scan the "<u>number setting code</u>". For example, if the maximum length is 9 digits, scan 9; if the maximum length is 20 digits, scan 2, 0
- c) Scan the  $''\mathrm{O}K''$  setup code to end the setup



#### 11.14 CODE39

#### 11.14.1 CODE39 switch

Reading the following setting code will set the CODE39 barcode Enable/Disable reading





#### 11.14.2 CCODE39 Check Bit Verification

Reading the following setup code will set whether the CODE39 check digit is validated or not.





Enable

#### 11.14.3 CODE39 checksum bit transfer

Reading the following setting code will set whether the CODE39 parity bit is transmitted or not.

[Note]Enable transmit parity bit, please enable parity bit verification function first





#### 11.14.4 CODE39 Start/end character transfer

Reading the following setup code will set whether the CODE39 start/end character

is transmitted or not.





#### 11.14.5 ODE39 FULL ASCII Switch

Reading the following setup code will set the CODE39 FULL ASCII barcode Enable/Disable reading.





#### 11.14.6 CODE39 minimum length

CODE39 minimum length setting can be used in two ways, method one requires user generated a QR code, which tends to set more and is more flexible to use; method two can be set by scanning the code within this manual according to the steps.

#### Method 1:

CODE39 minimum length setting code content format:  $>!000145\underline{XX}$ . where  $\underline{XX}$  is the setting variable, decimal range 0-255.

For example, if the minimum length of CODE39 is set to 2, then the code content

#### is: >!000145<u>2</u>.

For example, if the minimum length of CODE39 is set to 12, then the code content is: >!00014512.

#### Method 2:

a) Scan the "CODE39 minimum length" setting code



#### CODE39 minimum length

- b) Scan the "<u>number setting code</u>". For example, if the minimum length is 2 digits, scan 2; if the minimum length is 12 digits, scan 1, 2
- c) Scan the "OK" setup code to end the setup  $% \mathcal{O}(\mathcal{K})$



#### 11.14.7 CODE39 maximum length

CODE39 maximum length setting can be used in two ways, method one requires user generated a QR code, which tends to set more and is more flexible to use; method two can be set by scanning the setting code inside this manual according to the steps.

#### Method 1:

CODE39 maximum length setting code content format:  $>!000146\underline{XX}$ . where  $\underline{XX}$  is the setting variable, decimal range 0-255.

For example, if the maximum length of CODE39 is set to 9, the code content will be: >!000146**9**.

For example, if the maximum length of CODE39 is set to 20, then the code content is: >!00014620.

#### Method 2:

a) Scan the "CODE39 maximum length" setting code



#### CODE39 maximum length

- b) Scan the "<u>numeric setting code</u>". For example, if the maximum length is 9bit, scan 9; if the maximum length is 20-bit, scan 2, 0
- c) Scan the "OK" setup code to end the setup



#### 11.14.8 CODE32Switch

Read the following setting code to convert Enable/DisableCODE39 to the CODE32 setting





#### 11.14.9 CODE32 Prefix

Reading the following setup code will set whether CODE32 Prefix is transmitted or not.





#### 11.14.10 CODE32 Check Bit Verification

Reading the following setup code will set whether the CODE32 checksum bit is validated or not.





#### 11.14.11 CODE32 Checksum bit transfer

Reading the following setting code will set whether CODE32 check-bit is

transmitted or not.

[Note] To enable the transmission of check bits, please enable the Check Bit Verification function first.



\*Disable

#### 11.15 CODABAR

11.15.1 CODABAR Switch

which will set the CODABAR Read the following setting code, barcode Enable/Disable reading





Enable

#### 11.15.2 CODABAR Check Bit Verification

Reading the following setup code will set whether the CODABAR check digit is validated or not.





11.15.3 CODABAR Checksum bit transfer

> Read the following setting code, which will set whether CODABAR check-bit is transmitted or not.

> [Note] Enable Transfer Check Bit, please enable Check Bit Verification function first.





#### 11.15.4 CODABAR start/end character transfer

Reading the following setup code will set whether the CODABAR start character/end character is transmitted or not.





11.15.5 CODABAR start/end character format

Reading the following setup code will set the CODABAR start character/end character format.



\*Common ABCD format

#### 11.15.6 CODABAR start/end character upper/lower case

Reading the following setting code will set the CODABAR start/end character to be Capital letters or Lowercase.





ABCD/TN\*E format

#### 11.15.7 CODABAR minimum length

CODABAR minimum length can be set using two methods, Method 1 requires users generate a QR code, which tends to set more and is more flexible to use; Method 2 can be set according to the steps to scan the setting code in this manual.

#### Method 1:

CODABAR minimum length setting code content format:  $\geq$ !000156<u>XX</u>. where <u>XX</u> is the setting variable, decimal range 0-255.

For example, if the minimum length of CODABAR is set to 2, then the code content is: >!000156<u>2</u>.

For example, if the minimum length of CODABAR is set to 12, then the code content is: >!00015612.

#### Method 2:

a) Scan the "CODABAR minimum length" setting code



CODABAR minimum length

- b) Scan the "<u>numeric setting code</u>". For example, if the minimum length is 2bit, scan 2; if the minimum length is 12-bit, scan 1, 2
- c) Scan the "OK" setup code to end the setup



#### 11.15.8 CODABAR maximum length

CODABAR maximum length setting can be used in two ways, Method 1 requires user generated a QR code, which tends to set more and is more flexible to use; Method 2 can be set according to the steps to scan the setting code in this manual.

#### Method 1:

CODABAR maximum length setting code content format: >!000157 $\underline{XX}$ . where  $\underline{XX}$  is the setting variable, decimal range 0-255.

For example, if the CODABAR maximum length is set to 9, the set code content is: >!0001579.

For example, if the CODABAR maximum length is set to 20, the code will read: >!000157**20**.

#### Method 2:

a) Scan "CODABAR maximum length" setting code



CODABAR maximum length

b) Scan the "<u>numeric setting code</u>". For example, if the maximum length is 9-

bit, scan 9; if the maximum length is 20-bit, scan 2, 0

c) Scan the "OK" setup code to end the setup



#### 11.16 CODE93

11.16.1 CODE93 Switch

Reading the following setup code will set the CODE93 barcode Enable/Disable reading.





#### 11.16.2 CODE93 minimum length

CODE93 minimum length setting can be used in two ways, Method 1 requires user generated a QR code, which tends to set more and is more flexible to use; Method 2 can be set by scanning the setting code in this manual according to the steps.

#### Method 1:

CODE93 minimum length setting code content format: >!000163 $\underline{XX}$ . where  $\underline{XX}$  is the setting variable, decimal range 0-255.

For example, if CODE93 minimum length is set to 2, then the code content is: >!0001632.

For example, if CODE93 minimum length is set to 12, then the code content is: >!00016312.

#### Method 2:

a) Scan "CODE93 minimum length" setting code



CODE93 minimum length

b) Scan the "numeric setting code". For example, if the minimum length is 2-

bit, scan 2; if the minimum length is 12-bit, scan 1, 2

c) Scan the "OK" setup code to end the setup



#### 11.16.3 CODE93 maximum length

CODE93 maximum length setting can be used in two ways, Method 1 requires user generated a QR code, which tends to be more flexible for users with more settings, and Method 2 can be used by scanning the setting code in this manual according to the steps.

#### Method 1:

CODE93 maximum length setting code content format: >!000164<u>XX</u>. where <u>XX</u> is the setting variable, decimal range 0-255.

For example, if CODE93 maximum length is set to 9, then the code content is: >!000164<u>9</u>.

For example: CODE93 maximum length is set to 20, then the set code content is: >!000164<u>20</u>.

#### Method 2:

a) 扫描 "CODE93 最大长度 "设置码



CODE93 maximum length

- b) Scan the "<u>numeric setting code</u>". For example, if the maximum length is 9bit, scan 9; if the maximum length is 20-bit, scan 2, 0
- c) Scan the "OK" setup code to end the setup



11.17 CODE11

11.17.1 CODE11 Switch

Reading the following setup code will set the CODE11 barcode Enable/Disable

reading.





#### 11.17.2 CODE11Check Bit Verification

Reading the following setup code will set whether the CODE11 checksum-bit is validated or not.





1-bit checksum



2-bit checksum

#### 11.17.3 CODE11Checksum bit transfer

Reading the following setup code will set whether the CODE11 checksum-bit is transmitted or not.

[Note]Enable Transfer Check Bit, please enable Check Bit Verification function first.





#### 11.17.4 CODE11 minimum length

CODE11 minimum length setting can be used in two ways, Method 1 requires user generated a QR code, which tends to set more and is more flexible to use; Method 2 can be set by scanning the setting code in this manual according to the steps.

#### Method 1:

CODE11 minimum length setting code content format: >!000173 $\underline{XX}$ . where  $\underline{XX}$  is the setting variable, decimal range 0-255.

For example, if CODE11 minimum length is set to 2, then the code content is: >!000173<u>2</u>.

For example, if CODE11 minimum length is set to 12, then the code content is: >!00017312.

#### Method 2:

a) Scan "CODE11 minimum length" setting code



CODE11 minimum length

- b) Scan the "<u>numeric setting code</u>". For example, if the minimum length is 2bit, scan 2; if the minimum length is 12-bit, scan 1, 2
- c) Scan the "OK" setup code to end the setup



#### 11.17.5 CODE11 maximum length

CODE11 maximum length setting can be used in two ways, Method 1 requires user generated a QR code, which tends to be more flexible for users with more settings; Method 2 can be used by scanning the setting code in this manual according to the steps.

#### Method 1:

CODE11 maximum length setting code content format: >!000174<u>XX</u>. where <u>XX</u> is the setting variable, decimal range 0-255.

For example, if CODE11 maximum length is set to 9, then the code content is: >!0001749.

For example: CODE11 maximum length is set to 20, then the set code content is: >!000174<u>20</u>.

#### Method 2:

a) Scan "CODE11 maximum length" setting code



- b) Scan the "<u>numeric setting code</u>". For example, if the maximum length is 9bit, scan 9; if the maximum length is 20-bit, scan 2, 0
- c) Scan the  $''\mathrm{O}K''$  setup code to end the setup



#### 11.18 MSI PLSEEY

#### 11.18.1 MSI PLSEEYSwitch

Reading the following setup code will set the MSI PLSEEY barcode Enable/Disable reading.





#### 11.18.2 MSI PLSEEYCheck Bit Verification

Reading the following setup code will set whether the MSI PLSEEY checksum-bit is validated or not.







\*MOD10Single character checksum MOD10/MOD10Double character checksum

MOD10/MOD11Double character checksum

#### 11.18.3 MSI PLSEEYChecksum bit transfer

Read the following setting code, which will set whether MSI PLSEEY check-bit is transmitted or not.

[Note] To enable the transmission of check-bit, please enable the Check Bit Verification function first.





#### 11.18.4 MSI PLSEEY minimum length

MSI PLSEEY minimum length setting can be used in two ways, method one requires user generated a QR code, which tends to set more and is more flexible to use; method two can follow the steps to scan the setting code inside this manual.

#### Method 1:

MSI PLSEEY minimum length setting code content format: >!000193 $\underline{XX}$ . where  $\underline{XX}$  is the setting variable, decimal range 0-255.

For example, if the minimum length of MSI PLSEEY is set to 2, then the content of the setting code is: >!0001932.

For example, if the minimum length of MSI PLSEEY is set to 12, then the set code content is >!000193<u>12</u>.

#### Method 2:

a) Scan "MSI PLSEEY minimum length" setting code



MSI PLSEEY minimum length

- b) Scan the "numeric setting code". For example, if the minimum length is 2bit, scan 2; if the minimum length is 12-bit, scan 1, 2
- c) Scan the "OK" setup code to end the setup



#### 11.18.5 MSI PLSEEY Maximum Length

MSI PLSEEY maximum length setting can be used in two ways, method one requires user generated a QR code, which tends to set more and is more flexible to use; method two can follow the steps to scan the setting code within this manual.

#### Method 1:

MSI PLSEEY maximum length setting code content format: >!000194<u>XX</u>. where <u>XX</u> is the setting variable, decimal range 0-255.

For example, if the maximum length of MSI PLSEEY is set to 9, the content of

the setting code is: >!000194<u>9</u>.

For example, if the maximum length of MSI PLSEEY is set to 20, then the set code content is: >!00019420.

#### Method 2:

a) Scan "MSI PLSEEY maximum length" setting code



MSI PLSEEY Maximum Length

- b) Scan the "<u>numeric setting code</u>". For example, if the maximum length is 9bit, scan 9; if the maximum length is 20-bit, scan 2, 0
- c) Scan the "OK" setup code to end the setup  $% \mathcal{O}(\mathcal{K})$



#### 11.19 GS1 DATABAR/RSS

Reading the following setup code will set the GS1 DATABAR barcode Enable/Disable reading.





## 11.20 COMPSITE

Read the following setting code, which will set the COMPSITE barcode Enable/Disable reading.

[Note] Enable COMPSITE composite code, please first Enable the individual corresponding code





Enable

\*Disable

## 11.21 TELEPEN

Reading the following setting code will set the TELEPEN barcode Enable/Disable reading.

#### 11.22 TRIOPTIC

Reading the following setting code will set the TRIOPTIC barcode Enable/Disable reading.

## 11.23 HONG KONG 2 of 5/CHINA POST

Reading the following setup code will set the HONG KONG 2 of 5 barcode Enable/Disable reading.



#### 11.24.1 PDF417Switch

\*Disable

Reading the following setup code will set the PDF417 barcode Enable/Disable reading.

85







Enable









#### 11.24.2 PDF417 Forward and inverse identification

Reading the following setup code will set whether the forward/inverse PDF417 code can be read or not.









Positive inverse color are readable

## 11.25 QR

#### 11.25.1 QR Switch

Reading the following setup code will set the QR barcode Enable/Disable reading.





#### 11.25.2 QR Forward and inverse identification

Reading the following setting code will set whether the forward/inverse color QR code can be read or not.



\*Read only positive colors





Read-only inverse color



Positive inverse color are readable

## Read-only inverse color

86

87

Read only positive color (reverse color code)

#### 11.25.3 QR Mirror recognition

Reading the following setting code will set whether the mirror QR code can be read or not



Disable

#### 11.26.1 DM Switch

Reading the following setting code will set the DM barcode Enable/Disable reading.

DM Forward and inverse identification

Reading the following setting code will set whether the forward/inverse DM code can be read or not.

\*Read only forward colors

Disable

11.26.2

11.26.3

DM Mirror recognition

Reading the following setting code will set whether the mirror DM code can be read or not









Forward inverse color are readable





Read-only inverse color

\*Disable

Enable

## 11.27 AZTEC CODE

Reading the following setup code will set the AZTEC CODE barcode Enable/Disable reading.





## 12 M Series - Barcode Type Enable/Disable Configuration

The M series supports all the code systems of the L series and adds the code systems listed in this section to the L series

#### 12.1 PHARMACODE ONE-TRACK

#### 12.1.1 PHARMACODE ONE-TRACKSwitch

Reading the following setup code will set the PHARMACODE ONE-TRACK barcode Enable/Disable reading.

#### 12.1.2 PHARMACODE ONE-TRACKBar code direction

Reading the following setup code will set the PHARMACODE ONE-TRACK barcode horizontal/vertical orientation.

12.1.3 PHARMACODE ONE-TRACKData reversal Reading the following setup code will set the PHARMACODE ONE-TRACK barcode data

Enable/Disable upside down.

\*Disable

#### 12.2 CODABLOCK A

Reading the following setting code will set the CODABLOCK A barcode Enable/Disable reading.



\*Disable









# \*Disable

## 12.3 CODABLOCK F

Reading the following setting code will set the CODABLOCK F barcode Enable/Disable reading.





## 12.4 MAXI CODE

Reading the following setting code will set the MAXI CODE barcode Enable/Disable reading.





## 12.5 HAN XIN

## 12.5.1 HAN XIN Switch

Reading the following setting code will set the HAN XIN barcode Enable/Disable reading.





## 12.5.2 HAN XIN code ECI control

Reading the following setting code will set whether the HAN XIN code outputs

ECI or not





#### 12.6 DOTCODE

Read the following setting code, which will set the DOTCODE barcode Enable/Disable reading





Enable

## 13 H Series - Barcode Type Enable/Disable Configuration

The H series supports all the code systems of the M series and adds the code systems listed in this section to the M series

#### 13.1 POSTAL CODE

#### 13.1.1 POSTAL CODESwitch

Reading the following setting code will set the POSTAL CODEEnable/Disable literacy.

[Note] By default, only one type of postal code can be enabled at a time.





Intelligent Mail Bar





Australian



Japanese Post



USPS Postnet



Royal Mail (RM4CSS)



KIX Post

#### 13.1.2 Planet code Checksum bit transfer

Read the following setup code, which will set the Planet code checksum-bit Enable/Disable transmission.





#### 13.1.3 USPS Postnet Checksum bit transfer

Reading the following setup code will set the USPS Postnet checksum bit

Enable/Disable transmission.



Reading the following setting code will set the GM barcode Enable/Disable reading.

13.3 OCR

 $13.\,3.\,1$  OCRS witch

Read the following setting code, which will set the OCR character Enable/Disable reading.

[Note] Only support Chinese ID card recognition

13.3.2 China ID card verification

\*Disable

\*Disable

The following setting code will be read to set the ID verification

Enable/Disable







\*Enable





Disable

## Appendix A: Digital Setup Code

The appendix contains the numbers O-9; the letters A-F; cancel; and the OK setting code.





3







9



С



F

























Cancel

# Appendix B: CODE ID

Code	Bar Code Type
С	CODE128/EAN/UCC 128/GS1-128
F	CODE39/CODE32
J	CODE11
В	CODABAR
К	CODE93
Е	EAN13/EAN8/ISBN/ISSN
U	UPC-A/UPC-E
Ι	ITF25
D	IND25
S	STD25
М	MATRIX25
Ν	NEC25/C00P25
Р	MSI PLSEEY
Т	TELEPEN
А	PHARMACODE ONE-TRACK
W	TRIOPTIC
Н	HONG KONG 2 of 5/CHINA POST
R	GS1 DATABAR/RSS
q	QR/MICRO QR
р	PDF 417/MICRO FDF 417
d	DATA MATRIX/DM
а	AZTEC CODE
h	HAN XIN
m	MAXI CODE
t	DOTCODE
g	GM
0	OCR
k	CODABLOCK A
f	CODABLOCK F
n	POSTAL CODE

# Appendix C: AIM ID

Bar Code Type	AIM ID	Description
CODE128/EAN/UCC 128/GS1-128	]Cm	0, 1, 2, 4
CODE39	] Am	0, 1, 3, 4, 5, 7
CODE32	]XO	
CODE11	]Hm	0, 1, 3
CODABAR	]Fm	0-1
CODE93	]Gm	0-9, A-Z, a-m
EAN13	]E0	
EAN8	]E4	
ISSN		
ISBN	]E0	
UPC-A	]E0	
UPC-E	]E0	
UPC-E1	]E1	
ITF25	]Im	0, 1, 3
IND25	]SO	
STD25	]Rm	0, 1, 3
MATRIX25	]XO	
NEC25/COOP25	]XO	
MSI PLSEEY	] Mm	0,1
TELEPEN	]Bm	
PHARMACODE ONE-TRACK		
TRIOPTIC		
QR	] Qm	0-6
MICRO QR	] Qm	
PDF 417	]Lm	0-2
MICRO FDF 417	]Lm	3, 4, 5
DATA MATRIX/DM	]dm	0-6
AZTEC CODE	]zm	0-9, A-C
HAN XIN	] X O	
MAXI CODE	]Um	0-3
DOTCODE	] X O	
GM	] X O	
CODABLOCK A	]06	0, 1, 4, 5, 6
CODABLOCK F	]Om	0, 1, 4, 5, 6
GS1 DATABAR/RSS	]e0	

# Appendix D: Instruction Set

Paramete	er Name	Instruction Set	
	Factory Configuration	>!0016000.>;99	
Configuration	Default Configuration	>!0016001.>;99	
	Save the current		
	configuration as the default	>!0016010.>;99	
	configuration		
Version Information	>!0006000.>;99		
Setup Code Switch	Enable	>!0010211.>;99	
	Disable	>!0010210.>;99	
Setup code data transmission	Enable	>!0010221.>;99	
	Disable	>!0010220.>;99	
	USB KBW	>!0010061.>;99	
Communication Interface	Serial port	>!0010060.>;99	
	USB COM	>!0010062.>;99	
	HID POS	>!0010063.>;99	
	United States	>!00100B0.>;99	
	Belgium	>!00100B2.>;99	
	Brazil	>!00100B3.>;99	
	Canada	>!00100B4.>;99	
	Czechoslovakia	>!00100B5.>;99	
	Denmark	>!00100B6.>;99	
	Finland	>!00100B7.>;99	
	France	>!00100B8.>;99	
	Austria, Germany	>!00100B9.>;99	
	Greece	>!00100B10.>;99	
	Hungary	>!00100B11.>;99	
	Israel	>!00100B12.>;99	
Country Kowhoordo	Italy	>!00100B13.>;99	
Country Reyboards	Latin America	>!00100B14.>;99	
	Netherlands	>!00100B15.>;99	
	Norway	>!00100B16.>;99	
	Poland	>!00100B17.>;99	
	Portugal	>!00100B18.>;99	
	Romania	>!00100B19.>;99	
	Russia	>!00100B20.>;99	
	Slovakia	>!00100B21.>;99	
	Spain	>!00100B22.>;99	
	Sweden	>!00100B23.>;99	
	Switzerland	>!00100B24.>;99	
	Turkey F	>!00100B25.>;99	
	Turkey Q	>!00100B26.>;99	
	United Kingdom	>!00100B27.>;99	
--------------------------	-------------------------	--------------------	--
	Japan	>!00100B28.>;99	
	Standard keyboard	>!00100E0.>;99	
Keyboard Type	Virtual Keyboard	>!00100E1.>;99	
	Oms	>!00100C0.>;99	
	5ms	>!00100C5.>;99	
Character transmission	10ms	>!00100C10.>;99	
interval	20ms	>!00100C20.>;99	
	30ms	>!00100C30.>;99	
	50ms >!00100C50.>;99		
	Output function keys	>!0010310.>;99	
	Output Ctrl key	X10010211 X:00	
Control character output	combination	/!0010311. /;99	
method	Output Alt+number keys	>!0010312.>;99	
	Output CR and down keys	>10010313 >.99	
	only	/ .0010010. / , 00	
	600	>!0010071.>;99	
	1200	>!0010072.>;99	
	2400	>!0010073.>;99	
	4800	>!0010074.>;99	
Baud rate	9600	>!0010075.>;99	
Daud Tate	14400	>!0010076.>;99	
	19200	>!0010077.>;99	
	38400	>!0010078.>;99	
	57600	>!0010079.>;99	
	115200	>!00100710.>;99	
	No validity	>!0010090.>;99	
Check digit	Odd number	>!0010091.>;99	
	Even number	>!0010092.>;99	
Stop hit	1-bit	>!00100A0.>;99	
	2-bit	>!00100A2.>;99	
	5 bit	>!0010080.>;99	
Data hits	6 bit	>!0010081.>;99	
	7 bit	>!0010082.>;99	
	8 bit	>!0010083.>;99	
Handahako	АСК	>!0010381.>;99	
handshake	NAK	>!0010380.>;99	
	Auto	>!00101C0.>;99	
	GBK	>!00101C1.>;99	
Input character set	UTF-8	>!00101C2.>;99	
	ASCII	>!00101C3.>;99	
	ShIFTJIS Japanese	>!00101C4.>;99	
Output character set	Raw data	>!00101D0.>;99	

	GBK	>!00101D1.>;99
	UTF-8	>!00101D2. >;99
	Button Hold	>!0010000.>;99
	Single keystroke trigger	>!0010001.>;99
Reading mode	Continuous Mode	>!0010002.>;99
	Induction mode	>!0010003.>;99
	Extra sensitive	>!0010050.>;99
	High sensitivity	>!0010051.>;99
Sensing sensitivity	Medium sensitivity	>!0010058.>;99
	Low sensitivity	>!00100515.>;99
	100ms	>!001004100.>;99
	200ms	>!001004200.>;99
Induction Steady Image	300ms	>!001004300.>;99
Duration	400ms	>!001004400.>;99
	500ms	>!001004500.>;99
	1000ms	>!0010041000.>;99
Commond Traingent	Start decode	>!200000.>;99
Command Irigger	Stop decode	>!200001.>;99
Device Reset	Reset	>!200002.>;99
	Oms	>!0010030.>;99
	100ms	>!001003100.>;99
Sama anda racamitian	300ms	>!001003300.>;99
Same code recognition	500ms	>!001003500.>;99
	1000ms	>!0010031000.>;99
	3000ms	>!0010033000.>;99
	Oms (Infinite length)	>!0010010.>;99
	1000ms	>!0010011000.>;99
Single scan time	2000ms	>!0010012000.>;99
Single Scan time	3000ms	>!0010013000.>;99
	5000ms	>!0010015000.>;99
	10000ms	>!00100110000.>;99
	Oms (No interval)	>!0010020.>;99
	500ms	>!001002500.>;99
Length of time between	1000ms	>!0010021000.>;99
scans	2000ms	>!0010022000.>;99
	5000ms	>!0010025000.>;99
	10000ms	>!00100210000.>;99
Power mode	Dormancy	>!0010251.>;99
	持续电源	>!0010250.>;99
	Lighting General	>!0010150.>;99
Lighting	No lighting	>!0010151.>;99
	Lighting is always on	>!0010152.>;99
Aiming	Targeting General	>!0010160.>;99

	No aim	>10010161 >.99
	Aim for the constant	/
light		>!0010162.>;99
	Activo Buzzor	>10010111 >.00
Honeyware Type	Passivo buzzer	>100101110 >:99
		>100101026500 >:00
	1000HZ	>1001030300. >;99
	1000Hz	>!0010361000. >;99
Buzzer Frequency	1500Hz	>!0010361500. >;99
	2000Hz	>!0010362000. >;99
	2500Hz	>!0010362500. >;99
	2700Hz	>!0010362700.>;99
	Low	>!00101040.>;99
Volumo	Medium	>!00101070.>;99
	High	>!001010100.>;99
	Quiet	>!0010100.>;99
	Audible	>!0010120.>;99
Power On Beep	No sound	>!0010121.>;99
	Audible	>!0010140.>;99
Set code beep	No sound	>!0010141.>;99
	No sound	>!0010130.>;99
Decoding beep	Audible	>!0010131.>;99
	50ms	>!00103750.>;99
	70ms	>!00103770.>;99
	100ms	>!001037100. >;99
Decoding beep length	150ms	>!001037150. >;99
	200ms	>!001037200. >;99
	300ms	>!001037300. >:99
	Decoding Tips	>!0010170.>:99
Cue light type	Power Tips	>!0010171.>:99
Decoding success light	Open	>!0010181.>:99
Switch Close		>!0010180. > 99
Decoding success light	Power on long extinguish	>!0010190 >:99
control method Power on long light		>!0010191.>:99
	Output NR	>!0010241 >:99
Decoding status NR output	No output NR	>!0010240 >:99
	AddATM TD	>!00101B1 >:99
AIM ID	Not added AIM ID	>100101B0 >:99
CODE ID	AddCODE id	>10010101 >:00
	Not addadCODE id	>10010140 >:00
	No. termineter	>10010100. >, 33
		×:0010200. ×;39
Terminator		> 10010201. >;99
		>!0010202.>;99
	TAB	>!0010203.>;99

Letter uppercase and	Normal output	>!00100D0.>;99
	All Capital letters	>!00100D1.>;99
	All lowercase	>!00100D2.>;99
lowercase conversion	Upper and lower case	
	reversal	>!00100D3.>;99
D. of	Add Prefix	>!00101E1.>;99
Prefix	Do not add Prefix	>!00101E0. >;99
Example of Prefix content	Add PrefixA (hex 41)	>!010800 <b>41.</b> >;99
setting	Add PrefixAB(hex 41 42)	>!010800414243.>;99
0.00	Add Suffix	>!00101F1.>;99
SUITIX	No Suffix added	>!00101F0.>;99
	Add suffix A (hex 41)	>!010801 <u>41</u> .>;99
example of sullix content	Add suffix AB (hex 41	\1010901 <b>414949</b> \.00
Setting	42)	/!010801 <u>414243</u> . /;99
Hide fixed character	EnableHide	>!00102C1.>;99
Switch	DisableHide	>!00102C0.>;99
Example of hidden fixed	Hide character A	>!010802 <u>41</u> .>;99
character content setting	Hide line feed function	1010802 <b>04</b> 1.00
	keys	//010002 <u>0A</u> ./,39
Rotain barcodo data	Disable	>!0010290.>;99
according to length	Forward Indexing	>!0010291.>;99
according to rength	Inverted Phase Index	>!0010292.>;99
Example of starting position of reserved data	Reserved from the 11th	>100102411 >.99
	position	/:00102A <u>11</u> ./,59
	Reserved from the 100th	>1001024100 >.99
	position	7.00102A <u>100</u> .7,33
	11th place end	>!00102B <b>11</b> >·99
Example of reserved data	reservation	······
end position	100th place end	>!00102B <b>100</b> . >:99
	reservation	······
Hide barcode data by	Disable	>!0010260.>;99
length	Forward Indexing	>!0010261.>;99
	Inverted Phase Index	>!0010262.>;99
Example of hiding the	11-bit start hiding	>!001027 <u>11</u> .>;99
starting position of data	100-bit start hiding	>!001027 <u>100</u> .>;99
Example of hidden data end	11-bit End Hide	>!001028 <u>11</u> .>;99
position	100-bit End Hide	>!001028 <u>100</u> .>;99
Insert custom character	Disableinsertion	>!00102D0.>;99
Switch	Enableinsertion	>!00102D1.>;99
Custom insert data example	Insert character A	>!010803 <u>41</u> .>;99
	Insert character ABC	>!010803 <u>414243</u> .>;99
Example of insertion	Insert from before the	>!00102F <b>5</b> >:99
position setting	5th bit of data	/

	Insert from before the	>!00102E <u><b>20</b></u> . >;99	
	20th bit of data		
Character replacement	Disable replacement	>!00102F0.>;99	
function Switch	Enable replacement	>!00102F1.>;99	
Example of replaced	A character is replaced	>!010804 <u>41</u> .>;99	
characters	Line feed keys are replaced	>!010804 <u>0A</u> . >;99	
	Replace character with B	>!010805 <u>41</u> .>;99	
Example of replacement characters	Replace character with AC	>!010804 <u><b>4143</b></u> .>;99	
	Scan the URL code	>!0010330.>;99	
Website Switch	Disable Web Code	>!0010331.>;99	
	Disable	>!0010340.>;99	
Involcing function Switch	Enable	>!0010341.>;99	
т. т. т.	VAT Special Invoice	>!0010350.>;99	
Invoice lype	VAT General Invoice	>!0010351.>;99	
	EnableOpen GS1 rules	>!0010321.>;99	
GSI KulesSwitch	DisableOpen GS1 rules	>!0010320.>;99	
	Disable	>!0005020.>;99	
Global Switch	Enable	>!0005021.>;99	
	Disable	>!0005000.>;99	
ID Global Switch	Enable	>!0005001.>;99	
	Disable	>!0005010.>;99	
2D Global Switch	Enable	>!0005011.>;99	
Global inverse color	Disable	>!0005030.>;99	
switch	Enable	>!0005031.>;99	
1001	Disable	>!0000150.>;99	
1281nverse color switch	Enable	>!0000151.>;99	
CODE20; marging and an	Disable	>!00014B0.>;99	
CODESAINVERSE COTOF	Enable	>!00014B1.>;99	
EAN/UPCinverse color	Disable	>!0000560.>;99	
switch	Enable	>!0000561.>;99	
CODEQ2; pueros seler switch	Disable	>!0001650.>;99	
Codessinverse color switch	Enable	>!0001651.>;99	
CODABARinverse color	Disable	>!0001580.>;99	
switch	Enable	>!0001581.>;99	
ITESE:	Disable	>!0000B50.>;99	
11F251nverse color switch	Enable	>!0000B51.>;99	
CODE199Dere ende arritek	Disable	>!0000100.>;99	
UUDE120Dar CODE SWITCh	Enable	>!0000101.>;99	
CODE128Minimum length	2-bit CODE128	>!000012 <u>2</u> .>;99	
setting example	11-bit CODE128	>!000012 <u>11</u> .>;99	
	12-bit CODE128	>!000013 <u>12</u> .>;99	

CODE128Example of maximum	90.1.1. CODE199	N100001200 N.00	
length setting	20-bit CODE128	>!000013 <u>20</u> . >;99	
	低	>!0000140.>;99	
CODE128Security Level	中	>!0000141.>;99	
	高	>!0000142.>;99	
	Disable	>!0000200.>;99	
GS1-128Bar code switch	Enable	>!0000201.>;99	
GS1-128Minimum length	2-bit GS1-128	>!000022 <u>2</u> .>;99	
setting example	11-bit GS1-128	>!000022 <u>11</u> .>;99	
GS1-128Example of maximum	12-bit GS1-128	>!000023 <u>12</u> .>;99	
length setting	20-bit GS1-128	>!000023 <u>20</u> .>;99	
CODE20 Por and switch	Disable	>!0001400.>;99	
CODE39 Bar Code Switch	Enable	>!0001401.>;99	
CODE20 EUL ASCIISmitch	Disable	>!0001440.>;99	
CODE39 FOLL ASCITSWITCH	Enable	>!0001441.>;99	
CODE39 Check Bit	Disable	>!0001410.>;99	
Verification	Enable	>!0001411.>;99	
CODE39 Checksum bit	Disable	>!0001420.>;99	
transfer	Enable	>!0001421.>;99	
CODE39 Start/end character	Disable	>!0001430.>;99	
transfer	Enable	>!0001431.>;99	
CODE39Minimum length	5-bit CODE20	N10001455 N:00	
example	5 DIT CODE39	······································	
CODE39Maximum length	12-hi+CODE39	>100014619 >.99	
example		7.000110 <u>12</u> .7,33	
CODF32Bar code switch	Disable	>!0001470.>;99	
	Enable	>!0001471.>;99	
CODF32 Prefix	Disable	>!0001480.>;99	
	Enable	>!0001481.>;99	
CODE32 Check Bit	Disable	>!0001490.>;99	
Verification	Enable	>!0001491.>;99	
CODE32 Checksum bit	Disable	>!00014A0.>;99	
transfer	Enable	>!00014A1.>;99	
FAN13 Bar code switch	Disable	>!0000600.>;99	
	Enable	>!0000601.>;99	
EAN13 Checksum bit	Disable	>!0000610.>;99	
transfer	Enable	>!0000611.>;99	
EAN13+2-digit additional	Disable	>!0000620.>;99	
code Enable		>!0000621.>;99	
EAN13+5-digit additional	Disable	>!0000630.>;99	
code	Enable	>!0000631.>;99	
Read-only with additional	Disable	>!0000640.>;99	
code EAN13	Enable	>!0000641.>;99	

EAN8 Bar code switch	Disable	>!0000500.>:99
	Enable	>!0000501.>;99
EAN8Checksum bit transfer	Disable	>!0000510.>;99
	Enable	>!0000511.>;99
EAN8+2-digit additional	Disable	>!0000520.>;99
code	Enable	>!0000521.>;99
EAN8+5-digit additional	Disable	>!0000530.>;99
code	Enable	>!0000531.>;99
Read-only with additional	Disable	>!0000540.>;99
code EAN8	Enable	>!0000541.>;99
	Disable	>!0000700.>;99
ISSNBar code switch	Enable	>!0000701.>;99
	Disable	>!0000800.>;99
ISBNBar code switch	Enable	>!0000801.>;99
	Disable	>!0000A00.>;99
UPC-A Bar code switch	Enable	>!0000A01.>;99
	Disable	>!0000A10.>;99
UPC-AChecksum bit transfer	Enable	>!0000A11.>;99
UPC-A+2-digit additional	Disable	>!0000A20.>;99
code	Enable	>!0000A21.>;99
UPC-A + 5-digit additional	Disable	>!0000A30.>;99
code	Enable	>!0000A31.>;99
Read-only with additional	Disable	>!0000A40.>;99
code UPC-A	Enable	>!0000A41.>;99
Transmission system	Disable	>!0000A50.>;99
character	Enable	>!0000A51.>;99
IIDC-FRom and amitab	Disable	>!0000900.>;99
OFC-EDAI COUE SWITCH	Enable	>!0000901.>;99
UDC-Echookoum hit transfor	Disable	>!0000910.>;99
	Enable	>!0000911.>;99
UPC-E + 2-digit additional	Disable	>!0000920.>;99
code	Enable	>!0000921.>;99
UPC-E + 5-digit additional	Disable	>!0000930.>;99
code	Enable	>!0000931.>;99
UPC-E to UPC-A	Disable	>!0000940.>;99
	Enable	>!0000941.>;99
UPC-E to UPC-A	Disable	>!0000960.>;99
	Enable	>!0000961.>;99
Transmission system	Disable	>!0000950.>;99
character0	Enable	>!0000951.>;99
IIPC-F1Bar code switch	Disable	>!0000970.>;99
	Enable	>!0000971.>;99
CODE93 Bar code switch	Disable	>!0001600.>;99

	Enable	>!0001601.>;99	
CODE93Minimum length		>1000162 <b>5</b> >.00	
example	5-011CODE93	>!000163 <u>5</u> .>;99	
CODE93Maximum length	19 h; +CODE02	N1000164 <b>19</b> N:00	
example	12 DITCODE95	7:000104 <u>12</u> .7;39	
CODABAR Bar code switch	Disable	>!0001500.>;99	
CODADAR DAI COUE SWITCH	Enable	>!0001501.>;99	
CODABARCheck Bit	Disable	>!0001510.>;99	
Verification	Enable	>!0001511.>;99	
CODABARChecksum bit	Disable	>!0001520.>;99	
transfer	Enable	>!0001521.>;99	
CODABARStart/end character	Disable	>!0001530.>;99	
transfer	Enable	>!0001531.>;99	
CODABARStart/end character	ABCD/TN*E Format	>!0001541.>;99	
format	Common ABCD format	>!0001540.>;99	
CODABAR 起始/Case	Lowercase	>!0001551.>;99	
sensitive terminator	Capital letters	>!0001550.>;99	
CODABARMinimum length		× 10001505 × 00	
example	5-bit CODABAR	>!000156 <u>5</u> . >;99	
CODABARMaximum length		N 100015510 N 00	
example	12-bit CODABAR	>!000157 <u>12</u> . >;99	
ITF25 Bar code switch	Disable	>!0000B00.>;99	
	Enable	>!0000B01.>;99	
ITF25Check Bit	Disable	>!0000B10.>;99	
Verification	Enable	>!0000B11.>;99	
ITE25Choolegum hit torrad	Disable	>!0000B20.>;99	
IIF25Checksum bit transfer	Enable	>!0000B21.>;99	
ITF25Minimum length	5 h;+ ITE95	N10000P2E N:00	
example	5-DIT 11F25	/!0000b3 <u>5</u> ./;99	
ITF25Maximum length	10 L:+ ITE95	>10000P419 >.00	
example	12 DIT 11125	>!0000B4 <u>12</u> .>;99	
MATDIN25 Don code amitab	Disable	>!0001100.>;99	
MAIRIX25 Bar code switch	Enable	>!0001101.>;99	
MATRIX25Check Bit	Disable	>!0001110.>;99	
Verification	Enable	>!0001111.>;99	
MATRIX25Checksum bit	Disable	>!0001120.>;99	
transfer	Enable	>!0001121.>;99	
MATRIX25Minimum length	5 bit MATDINGE	N10001125 N.00	
example	JULI MAIKIXZO	/:000113 <u>0</u> . /;39	
MATRIX25Maximum length	19 bit MATDING	N1000114 <b>10</b> N:00	
example	12-bit MAIRIX25	/:000114 <u>12</u> . /;99	
CTDOF Dore and a set of	Disable	>!0001300.>;99	
SID25 Bar code switch	Enable	>!0001301.>;99	

STD25Max1mum length     12-bit     STD25     >!000134 <u>12</u> .     >;99		
Disable >!0001200.>;99		
IND25 Bar code switch Enable >!0001201.>;99	>!0001201.>:99	
IND25Minimum length example5-bit IND25>:0001235.>;99		
IND25Maximum length example12-bit IND25>:00012412.>;99		
NEC25 Bar code switch Disable >!0001000.>;99		
Enable >!0001001.>;99		
NEC25Check Bit Disable >!0001010.>;99		
Verification Enable >!0001011.>;99		
Disable >!0001020.>;99		
Enable >!0001021.>;99		
NEC25Minimum length example5-bit NEC25>!0001035.>;99		
NEC25Maximum length example12-bit NEC25>!00010412.>;99		
HK25/ChinaPost/Datalogic25Disable>!0001F90.>;99		
Bar code switchEnable>!0001F91.>;99		
Disable >!0001700.>;99		
Enable >!0001710.>;99		
No calibration >!0001710.>;99		
CODEFICNECK Bit 1-bit checksum >!0001711.>;99		
2-bit checksum >!0001712.>;99		
CODE11Checksum bit Disable >!0001720.>;99		
transfer Enable >!0001721.>;99		
CODE11Minimum length example5-bit CODE11>!0001735.>;99		
CODE11Maximum length example12-bit CODE11>!00017412.>;99		
MSI PISEEV Bar and switch Disable >!0001900.>;99		
Enable >!0001901.>;99		
MOD10 Single character checksum		
MSI PLESSYCheck Bit MOD10/MOD10 Double >!0001912.>;99 Verification		
MOD10/MOD11 Double character checksum >!0001913.>;99		
MSI PLESSYChecksum bit Disable >!0001921.>;99		
transfer Enable >!0001920.>;99		

MSIPLESSYMinimum length	5-bit MSIPLESSY	>!000193 <u>5</u> . >;99
MSIPLESSYMaximum length		
example	12-bit MSIPLESSY	>!000194 <u>12</u> .>;99
	Disable	>!0001B90. >;99
TELEPEN Switch	Enable	>!0001B91.>:99
PHARMACODE ONE-TRACK	Disable	>!0001C00. >:99
Switch	Enable	>!0001C01.>;99
	Horizontal	>!0001C10. >;99
Bar code direction	Vertical	>!0001C11.>;99
	Disable	>!0001C20.>;99
Data reversal	Enable	>!0001C21.>;99
	Disable	>!0001C90.>;99
TRIOPTIC Code Switch	Enable	>!0001C91.>;99
Brazilian bank codeBar	Disable	>!0000B60.>;99
code switch	Enable	>!0000B61.>;99
	Disable	>!0003100.>;99
QR Bar code switch	Enable	>!0003101.>;99
	Read only positive	>!0003120.>;99
	Read only reverse	>!0003121.>;99
QRForward and reverse	Read only reverseBoth	
Identification	forward and reverse	>!0003122.>;99
	directions	
	Disable	>!0003140.>;99
QRMITTOT recognition	Enable	>!0003141.>;99
	Disable >!0003200.>;99	
DMBar code switch	Enable	>!0003201.>;99
	Read only positive	>!0003220.>;99
DME armand and nowange	Read only reverse	>!0003221.>;99
identification	Read only reverseBoth	
	forward and reverse	>!0003222.>;99
	directions	
DMMirror recognition	Disable	>!0003240.>;99
DMMIIIOI Tecognition	Enable	>!0003241.>;99
DDE417Por and amitab	Disable	>!0003000.>;99
FDF417Bar code Switch	Enable	>!0003001.>;99
	Read only positive	>!0003020.>;99
PDF417Forward and reverse identification	Read only reverseBoth	
	forward and reverse	>!0003022.>;99
	directions	
ATTEC CODED 1	Disable	>!0003400.>;99
ALIEU UUDEDAR CODE SWITCH	Enable	>!0003401.>;99
	Disable	>!0001A00.>;99

GS1 DATABAR Bar code	Enable	>!0001A01.>;99
switch	D: 11	
COMPSITEBar code switch	Disable	>!0001B00. >;99
	Enable >!0001B01.>;99	
HAN XIN Bar code switch	Disable	>!0003500.>;99
	Enable	>!0003501.>;99
HAN XIN Code ECI Control	No ECI output	>!0003530.>;99
	Output ECI	>!0003531.>;99
MAXI CODE Bar code switch	Disable	>!0003300.>;99
MAAI CODE DAI COUE SWITCH	Enable	>!0003301.>;99
DOTCODE Por and aritab	Disable	>!0003700.>;99
borcobe bar code switch	Enable	>!0003701.>;99
	Disable	>!0001D00.>;99
CUDABLOCK ABar code switch	Enable	>!0001D01.>;99
	Disable	>!0001D90.>;99
CODABLOCK FBar code switch	Enable	>!0001D91.>;99
	Disable >!0003600.>;99	
GM code Bar code switch	Enable	>!0003601.>;99
	Disable	>!0001E00.>;99
	Australian	>!0001E01.>;99
	Royal Mail (RM4CSS)	>!0001E02.>;99
	Intelligent Mail Bar	>!0001E05.>;99
POSTAL CODEBar code switch	Japanese Post	>!0001E06. >;99
	KIX Post	>!0001E07.>;99
	Planet code	>!0001E08. >;99
	USPS Postnet	>!0001E09. >;99
Planet codeChecksum bit	Disable	>!0001E10.>;99
transfer	Enable	>!0001E11.>;99
Planet codeChecksum bit	Disable	>!0001E20. >;99
transfer	Enable	>!0001E21.>;99
OCR Switch	Disable	>!0003800.>;99
	Enable	>!0003801.>;99
China ID card verification	Disable	>!0003810.>;99
	Enable	>!0003811.>;99

## Appendix E: ASCII Code Cross Reference Table

Horodonimal	Keyboard function	Kowhoard CTPL kow combination operation
Ilexadecillat	key operation	Reyboard CIRE key combination operation
00h	Nu11	CTRL 2
01h	Keypad Enter	CTRL A
02h	Caps lock	CTRL B
03h	Right Arrow	CTRL C
04h	Up Arrow	CTRL D
05h	Nu11	CTRL E
06h	Nu11	CTRL F
07h	Enter	CTRL G
08h	Left Arrow	CTRL H
09h	Horizontal Tab	CTRL I
OAh	Down Arrow	CTRL J
OBh	Vertical Tab	CTRL K
OCh	Backspace	CTRL L
ODh	Enter	CTRL M
OEh	Insert	CTRL N
0Fh	Esc	CTRL O
10h	F11	CTRL P
11h	Home	CTRL Q
12h	Print Screen	CTRL R
13h	Delete	CTRL S
14h	tab+shift	CTRL T
15h	F12	CTRL U
16h	F1	CTRL V
17h	F2	CTRL W
18h	F3	CTRL X
19h	F4	CTRL Y
1Ah	F5	CTRL Z
1Bh	F6	CTRL [
1Ch	F7	CTRL \
1Dh	F8	CTRL ]
1Eh	F9	CTRL 6
1Fh	F10	CTRL -
20h	Space	
21h	!	
22h	6	
23h	#	
24h	\$	
25h	%	
26h	&	

27h	۲ ۲
28h	
29h	
2Ah	*
2Bh	+
2Ch	,
2Dh	-
2Eh	
2Fh	
30h	0
31h	1
32h	2
33h	3
34h	4
35h	5
36h	6
37h	7
38h	8
39h	9
3Ah	:
3Bh	- 9
3Ch	<
3Dh	=
3Eh	>
3Fh	?
40h	@
41h	A
42h	В
43h	C
44h	D
45h	E
46h	F
47h	G
48h	Н
49h	I
4Ah	J
4Bh	K
4Ch	L
4Dh	M
4Eh	N
4Fh	0
50h	P
51h	Q

52h	R
53h	S
54h	Т
55h	U
56h	V
57h	W
58h	X
59h	Y
5Ah	Z
5Bh	
5Ch	
5Dh	]
5Eh	
5Fh	
60h	· ·
61h	a
62h	b
63h	c
64h	d
65h	e
66h	f
67h	g
68h	h
69h	i
6Ah	j
6Bh	k
6Ch	
6Dh	m
6Eh	n
6Fh	0
70h	p
71h	q
72h	r
73h	S
74h	t
75h	u
76h	V
77h	W
78h	X
79h	у
7Ah	Z
7Bh	
7Ch	

7Dh	}	
7Eh	~	
7Fh		Undefined

## Appendix F: Barcode Types

barcode	Hexadecimal type
CODE128/EAN/UCC 128/GS1-128	01h
CODE39/CODE32	14h
CODE11	17h
CODABAR	15h
CODE93	16h
EAN8	05h
EAN13/ISBN	06h
ISSN	07h
UPC-E	09h
UPC-A	OAh
ITF25	OBh
IND25	12h
STD25	13h
MATRIX25	11h
NEC25/COOP25	10h
MSI PLSEEY	19h
TELEPEN	1Fh
PHARMACODE ONE-TRACK	23h
TRIOPTIC	22h
QR/MICRO QR	3Dh
PDF 417/MICRO FDF 417	3Ch
DATA MATRIX/DM	3Fh
AZTEC CODE	3Eh
HAN XIN	43h
MAXI CODE	40h
DOTCODE	45h
GM	44h
CODABLOCK A	26h
CODABLOCK F	24h
GS1 DATABAR/RSS	1Ah
POSTAL CODE	25h
OCR	46h
HONG KONG 2 of 5/CHINA POST	20h