

OV-40R Manual

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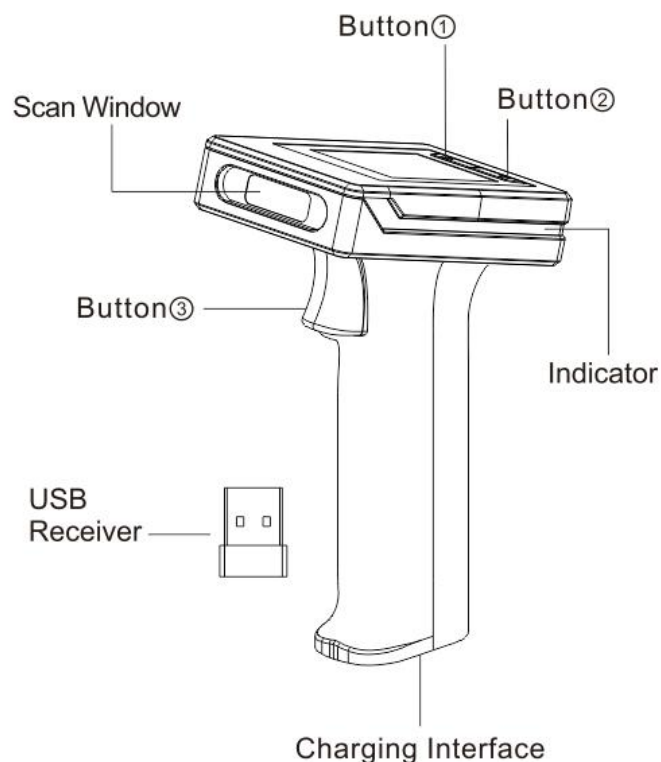
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1、 Product Introduction

Structure Chart

- 1) Button ①: Up; Button ②: Down; Button ③: Confirm key /scan key.
- 2)Enter/exit settings: Press and hold the two buttons at thebottom of the screen for 2 seconds to enter or exit settings.
- 3)Afterentering the settings, the default is the wirelessmode,and the wireless(Wi-Fiicon flashes) mode/Bluetooth HiD mode and Bluetooth BLE mode can beswitched by triggering the button ①/ button ②.
- 4)Wireless mode: After entering the settings to select thewireless mode,the Wi-Fiicon and the screen will flash,and it is in the state of being paired.Insert the USB receiverinto the USB port of the computer to pair; after the pairingis successful, you will hear a beep, and the screen will beoff blink again.
- 5)Bluetooth mode: the first Bluetooth icon is HiD keyboardmode,and the second Bluetooth icon is BLE serial portmode;after selecting the HID mode Bluetooth icon, thescreen will flash and it is in the state of being paired, andthe mobile phone searches for RB Scanner HID for pairing.
- 6)Time setting: After entering the setting, press button ①/key ② to select, when the corresponding hour hand isflashing, press button ③ to confirm, and then pressbutton ① or button ② to adjust the time.



1.1 Factory default

(1) End: Enter(\r).



Factory default

1.2 Get device information



Obtain the version number

2 Wireless settings

2.1 Pairing setup code

①Pair the receiver: Scan the following two barcodes in sequence.And connect the receiver to computer;



2.4G MODE



Connecting devices

②Pair Bluetooth devices in HID mode: Scan the following two barcodes in sequence, turn on the Bluetooth device to search for RB_Scanner_HID connection.



HID MODE



Connect

2.2 BLE BLUETOOTH MODE

Pairing Bluetooth devices: Scan the following two barcodes in sequence, and perform Bluetooth search RB_Scanner_BLE on the software that supports BLE

Connect.Note: BLE mode needs to be output on specific software (Bluetooth serial port)



BLE MODE



Connect

2.3 Mode Selection



Instant upload mode



Inventory Mode



Over-the-distance storage mode

① Operations in Inventory Mode



Upload all data



Upload new data (that is, data that has not been uploaded before)



Display saved data



Showing unuploaded data



Clear all data

2.4 Set the upload data speed delay



No delay



Delay 10ms



Delay 20ms

2.5 Check software version



Check the scanner software version



Check the receiving end version number

2.6 Set sleep time

X=1yyy(x=1000 means no sleep, sleep time calculation formula: $yyy \times 10 = z$ seconds)



No sleep



60 seconds



120 seconds



5 minutes



10 minutes

2.7 USB KBW

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



USB KBW keyboard

2.8 USB COM keyboard

When the scanner is connected to the host using a USB receiver, the receiver virtual serial port output mode can be changed by scanning the USB COM setup code.



USB COM

2.9 Output format



UTF-8



GBK

When the scanner recognizes it as a keyboard input device, different countries have different input characters, so you need to set different national languages. The keyboard defaults to the US language.

2.10 multi-language keyboards



U.S. (default)



Belgium (French)



Brazil (Portuguese)



Canada



Czech Republic



Denmark



Finland



France



Germany



Italy



Portugal



Spain



Türkiye-F



Türkiye-Q



U.K.



Japan



Russia



Vietnamese

2.11 Output forced letter case conversion

Letter conversion, when outputting barcodes 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 is: AB123DE; if you scan the "Convert to lowercase" barcode, the output result is: abc123de; the default case is not converted.

Case conversion



Do not convert



Lowercase



Uppercase



Case conversion

2.12 Wired Direct Mode



Wired Mode



Wireless Mode(default)

Instructions Plug in the charging cable to connect to the computer device, and scan this setting code to switch to the wired transmission mode

Chapter 3 Scanning Mode

3.1 Manual Mode

Manual mode is a default scanning module. In manual mode, press the trigger button, the scanning module starts shooting and reading. In the limited duration of "Decode Session Timeout". After successful reading, the scanning module will output the scanned content through the communication interface and stop reading, if you need to one more reading, you need to re-trigger the button. If the reading exceeds the length of a single reading in time duration, the shooting and reading will be stopped.



**Manual Mode

3.1.1 Trigger Conditions

The trigger condition can be selected in the manual mode. The trigger condition defaults to level triggering and level triggering.

☞ Edge triggering refers to the detection of the level pulse of the trigger signal, that is, start reading, and the reading is ended when the reading is successful or the decode session timeout condition is reached.

☞ The Level Trigger condition refers to the level at which the trigger signal needs to be held during the start of reading to the end of reading. When the trigger level is cancelled, the reading is successful, or the reading is longer than the single reading duration, the reading is ended.



Edge Trigger



**Level Trigger

3.1.2 Decode Session Timeout

Decode Session Timeout is the time allowed to conduct the longest reading after the reading is triggered. When the time is exceeded, it will exit the reading state. The range is from 100ms to 25500ms.

Scan the following programming barcode to set the Decode Session Timeout.



1000ms



3000ms



**5000ms



10000ms



Infinite

3.1.3 Deep Sleep

The user can set the deep sleep through the following setting code. After deep sleep is turned on, the module will automatically enter deep sleep after idle for a fixed time.



Deep Sleep_ON



**Deep Sleep_OFF

☞ Note1: After entering the deep sleep mode, you can wake up by pressing the key or serial port command to exit the deep sleep mode.

☞ Note2: The deep sleep function is only effective for manual mode and ttl-232 serial port mode output.

3.2 Command Trigger Mode

In the command trigger mode, the scanning module starts shooting and reading after receiving the trigger signal command sent by the host (that is, the bit 0 of the flag bit 0x0002 is written to "1"); within the limited time range of "decode session timeout" If the reading is successful, the scanning module will output the scan content through the communication interface and stop reading. If a new reading is to be booted, the trigger command needs to be resent. If the reading exceeds the length of a single reading in time duration, the reading will be stopped.



Command Trigger Mode

☞ Note: In the command trigger mode, the serial command of the trigger signal is: 7E 00 08 01 00 02 01 AB CD; After receiving the scan commands, the serial port returns the write success command: 02 00 00 01 00 33 31, the scanning module is booted.

Read the following setting codes to allow and prohibit the trigger command response.



Trigger command response disable



** Trigger command response allowed

3.2.1 Decode Session Timeout

For the single reading duration setting, please refer to 3.1.2 Decode Session Timeout Code to set.

3.3 Continuous Mode

Continuous Mode is a way for the scanning module to continuously capture, scan and output information.

In this mode, it is defaulted to go into the 1000ms reading timeout after successful reading.

In Continuous Mode, you can use the trigger level control to pause continuous reading or continue reading continuously. In continuous reading, it is necessary to maintain the trigger level of 50ms or more and then cancel it, so that the reading will be suspended. When the reading state is suspended, the trigger level of 50ms or more is also maintained and then canceled, and the reading is continued.



Continuous Mode

3.3.1 Timeout Between Decodes

It refers to the timeout between the next reading and the current successful reading. No acquisition is performed during this timeout. Scan the following programming barcode to set timeout between decodes.

The setting is from 0ms to 25500ms, and the default duration is 1000ms.



No Timeout



200 ms



500ms



**1000ms



3000ms



5000ms

3.3.2 Timeout between Decodes (Same Barcode)

In order to avoid the same barcode being continuously scanned for multiple times in continuous mode, Timeout between Decodes (Same Barcode) is required for scanning module in this mode before enabling the same barcode. Timeout between Decodes (Same Barcode) means that the same barcode will not be read if it has been scanned within the set timeout. It can only be read and output beyond the timeout. By default, Timeout between Decodes (Same Barcode) is turned off.



ON



**OFF

Scan the following programming barcode to set Timeout between Decodes (Same Barcode).

Setting range: 0ms~12700ms.

☞Note: The delay time setting can be set only after the "Timeout between Decodes (Same Barcode)" is turned on.



500ms



1000ms



3000ms



5000ms



Infinite Delay

3.3.3 Decode Session Timeout

For the decode session timeout, please refer to the programming barcode of Section 3.1.2 Decode Session Timeout.

3.3.4 Continuous mode key pause switch

When "Continuous Mode Key Pause Support" is set, the continuous mode trigger can be suspended by pressing the key for the first time, and the continuous mode trigger can be started by pressing the key again; When "Continuous mode key pause is not supported" is set, the key is invalid for continuous mode.

The user can set the continuous mode key pause switch through the following setting code.



**Continuous mode key pause supports



Continuous mode key pause is not

3.4 Sense Mode

Sense Mode refers to a working mode in which the scanning module conducts reading by sensing the change in brightness of the surrounding environment. When the scene changes, the scanning module begins to scan. After successful reading and outputting information or the Decode Session Timeout, the scanning module needs to be separated for a certain period (can be set) to re-enter the monitoring state. If the following conditions do not occur, the scanning module will cycle in the above manner: the barcode is not scanned within a Decode Session Timeout, and the scanning module will automatically pause the reading and enter the monitoring state. In the sensing scanning module, the scanning module can also boot reading by pressing the trigger button, and continue to monitor the brightness of the surrounding environment after the reading succeeds in outputting the information or releasing the trigger button.



Sense Mode

3.4.1 Decode Session Timeout

For the setting of decode session timeout, please refer to the programming barcode in Section 3.1.2 Decode Session Timeout to set.

3.4.2 Timeout between Decodes

For the setting of the timeout between decodes, please refer to the programming barcode in Section 3.3.1 Timeout between Decodes to set.

3.4.3 Timeout between Decodes (Same Barcode)

For the setting of the timeout between Decodes (Same Barcode), please refer to the programming barcode in Section 3.3.2 Timeout between Decodes (Same Barcode) to set.

3.4.4 Sensitivity

Sensitivity refers to the degree of changes in the scene detected in the inductive scanning module. When the scanning module meets the requirements in telling the degree of scene changes, it will switch from the monitoring state to the reading state.



Low Sensitivity



**Medium Sensitivity



High Sensitivity



Enhanced Sensitivity

3.4.5 Image Stabilization Timeout

Image Stabilization Timeout refers to the period for which the scanning module that detects the scene change needs to wait for the image to stabilize before reading the code in the inductive scanning module. The setting range of image stabilization timeout is 0~25500 ms, and the step size is 100ms. The default image stabilization timeout is 400ms.



**0ms



100ms



400ms



1000ms



2000ms

Chapter 4 Filling Light

4.1 Fill Light

There is a set of LEDs on the scanning module that are specially equipped for shooting, providing auxiliary fill light, illuminating the light beams on the reading targets, improving the adaptability of recognizing performance and weak ambient light. You can set it according to the actual use:

☞ Fill Light - ON when Photographing: The fill light lights up while shooting and goes out if there is no shooting.

☞ Fill Light - always ON: The fill light continues to glow after the scanning module is turned on.

☞ Fill Light - always OFF : the fill light does not light up in any cases.



**Fill Light - ON when Photographing



Fill Light - always ON



Fill Light - always OFF

4.2 Positioning

The scanning module has an auxiliary device for positioning, which projects a pointing line during shooting to remind users of reading the center of the scene image captured by the module.

☞ Positioning Light - ON when Photographing : the positioning light is lit up during shooting and goes out when there is no shooting.

☞ Positioning light -always ON when Photographing : the positioning light is always on when taking pictures and goes out at other times.

☞ Positioning Light - always ON: the positioning light continues to illuminate after the scanning

module is turned on.

☞ Positioning Light - always OFF : the positioning light does not illuminate in any cases.



**Positioning Light - ON when Photographing



Positioning light -always ON when Photographing



Positioning Light - always ON



Positioning Light - always OFF

Chapter 5 Prompt Output

5.1 Buzzer Master Switch

Scan the following programming barcode to turn on /off all of the beep sounds.



Mute _ ON



**Mute _ OFF

5.2 Buzzer Settings

5.2.1 Passive Buzzer

Scan the following programming barcode to set the buzzer to passive and set the drive frequency of the passive buzzer.



**Passive Buzzer



Passive _ Low Frequency



**Passive _ Intermediate Frequency



Passive _ High Frequency

5.2.2 Active Buzzer

Scan the following programming barcodes to set the buzzer as active one and set the active buzzer's operating level. Scan "High Level", the buzzer is set to active low when idle, and active high level when working; scan "Low Level", the buzzer is set to active high when idle, and active low level when working.



Active Buzzer



**High Level



Low Level

5.3 Good Read Beep for Programming Barcode

Scan the following programming barcodes to enable/disable the programming barcode beep.



**Beep for Programming Barcode_ON



Beep for Programming Barcode_OFF

5.4 Startup Beep

When the scanning module is on after power on, the scanning module can output or turn off the startup beep according to the setting requirements.



** Startup Beep_ON



Startup Beep_OFF

5.5 Good Read LED / Beep

After the scanning module is successfully scan the codes, BEEP and DLED prompt signals are output through the 12pin external interface by default, and the external passive buzzer and LED are used for prompting. These signals can be turned off if the user requires to do so.



****Good Read LED_ON**



Good Read LED_OFF



****Good Read Beep_ON**



Good Read Beep_OFF

The user can set the timeout of Good Read Beep, by reading the following programming barcodes.



30ms



****60ms**



90ms



120ms

5.6 Data Output Encoding Format

Users can set the output format of the scanning module through the following programming barcodes, so that the host can output Chinese data according to the specified encoding format.

☞ Note: GBK format is used for Text., UNICODE format is used for Word and input box of common chat tool.

The Original Data output is used to encrypt the serial output of the data.



**GBK



UTF8



Original Data



UNICODE

5.7 Different Country Keyboard Settings

In order to apply it in different countries, the device can be set as the corresponding "keyboard" of each country by the following programming barcodes.



**US



Czech



French



Germany



Hungary



Italy



Japan



Spain



Turkey Q



Turkey F



Mexico (Latin America)

5.8 Virtual keyboard enable

In order to apply it in more regional application environments, the standard/virtual keyboard output settings can be made by reading the following programming barcodes. But that will cause a certain loss in output efficiency. Note that when using a virtual keyboard, you must ensure that the keypad number keys are enabled.



**Standard Keyboard



Virtual Keyboard

1. Virtual keyboard output mode

In order to adapt to different application scenarios, the virtual keyboard has two different output modes for control characters less than 0x20, and users can switch by scanning the following setting codes.



Ctrl Mode



Alt Mode



**Control Character Output Off

2. Control character transmission

ASCII characters between 0x00 and 0x1F can be escaped as a control function key. When the virtual keyboard is enabled (other HID Keyboard of the module is set as default value), the input operation of the control function key is as follows: (Please refer to the control character correspondence table for the corresponding relationship between the specific ASCII value and the control function key)

(1) Virtual keyboard Ctrl Mode on

Read the characters whose data is "A < HT > F (HT is an invisible character and is not displayed on the terminal software)" (hexadecimal values are 0x41/0x09/0x46 respectively), and the virtual keyboard operation of the scanning module is as follows:

Enter "A"-press key A;

Enter "Ctrl I"-since the data of 0x09 corresponds to the control function key "I", the virtual keyboard would hold down Ctrl, then press the I key, and finally release the Ctrl key and the I key at the same time;

Enter "F"-press key F.

Since "Ctrl I" corresponds to the function of converting characters into italics in some word

processing software, completing the above operation may result in normal characters "A" and italic "F".

At present, in QL1601 small module, the virtual keyboard Ctrl mode "control character output only" supports American keyboard layout.

(2) Virtual keyboard Alt mode

If the virtual keyboard is turned on and set to "ALT Mode", the output corresponding control character operation is: ALT + "Character corresponds to ASCII decimal value". For example, for "<HT>" characters, the scanning module virtual keyboard operation is as follows:

Enter "Alt 0 9"-the virtual keyboard would hold down Alt, then press "0" and "9" of the numeric keypad, and finally release Alt.

When the standard keyboard outputs, the control character output function is turned off, and ASCII characters less than 0x20 would output the corresponding key value function. (For corresponding functions, please refer to the Control Character Correspondence Table)

Control character correspondence table

ASCII Function	ASCII Value(HEX)	Control Character Output Off	Ctrl Mode	CTRL+X Function
NUL	0	Null	Ctrl+@	
SOH	1	KeypadEnter	Ctrl+A	Select all
STX	2	CapsLock	Ctrl+B	Bold
ETX	3	ALT	Ctrl+C	Copy
EOT	4	Null	Ctrl+D	Bookmark
ENQ	5	CTRL	Ctrl+E	Center
ACK	6	Null	Ctrl+F	Find
BEL	7	Enter	Ctrl+G	
BS	8	LeftArrow	Ctrl+H	History
HT	9	Horizontal Tab	Ctrl+I	Italic
LF	0A	DownArrow	Ctrl+J	Justify
VT	0B	Vertical Tab	Ctrl+K	hyperlink

FF	0C	Delete	Ctrl+L	list,left align
CR	0D	Enter	Ctrl+M	
SO	0E	Insert	Ctrl+N	New
SI	0F	Esc	Ctrl+O	Open
DLE	10	F11	Ctrl+P	Print
DC1	11	Home	Ctrl+Q	Quit
DC2	12	PrintScreen	Ctrl+R	
DC3	13	Backspace	Ctrl+S	Save
DC4	14	tab+shift	Ctrl+T	
NAK	15	F12	Ctrl+U	
SYN	16	F1	Ctrl+V	Paste
ETB	17	F2	Ctrl+W	
CAN	18	F3	Ctrl+X	
EM	19	F4	Ctrl+Y	
SUB	1A	F5	Ctrl+Z	
ESC	1B	F6	Ctrl+[	
FS	1C	F7	Ctrl+\	
GS	1D	F8	Ctrl+]	
RS	1E	F9	Ctrl+6	
US	1F	F10	Ctrl+-	

5.9 Chinese output shielding

Enable this function, the device shields Chinese output. The user can read the following setting code to open and close the Chinese output shielding function.



**Chinese output shielding-OFF



Chinese output shielding-ON

5.10 Analog keypad

5.10.1 Output of numeric function of keypad

If this function is not turned on, all outputs would be output according to the corresponding key value of the large keyboard.

After this function is turned on, only the numbers "0~9" in the decoded data obtained by the reading module are output according to the key values corresponding to the small keyboard, and the rest are output according to the key values corresponding to the large keyboard.

The user can turn on and off the digital output function of the analog keypad by reading the following setting codes.



Keypad Numeric Output-On



**Keypad Numeric Output-Off

5.10.2 Output of keypad operator function

If this function is not turned on, all outputs would be output according to the corresponding key value of the large keyboard.

After this function is turned on, only "+""_""*""/" in the decoded data obtained by the reading module is output according to the key value corresponding to the small keyboard, and the rest is output according to the key value corresponding to the large keyboard.

The user can turn on and off the output function of analog keypad operators by reading the following setting codes.



Keypad Operator Output-On



**Keypad Operator Output-Off

5.11 Image Mirroring Mode

When there is mirror flip in image, you can boot the mirror flip mode by reading the following programming barcodes.



Image Mirror Flip_ON



**image Mirror Flip_OFF

Note: In the mirror flip mode, only the barcode of the mirror flip can be recognized. Please exit the mirror flip mode first before identifying the normal barcode or programming barcode.

5.12 Reverse Scanning Module

In some special application scenarios, special barcodes for black and white inversion need to be enabled. The user can enable/disable the reading function of inverse video code by reading the following programming barcodes.



**Video Reverse OFF



Video Reverse ON

5.13 Invoicing mode

In order to facilitate the use of this module in the billing system, users can configure the billing mode by reading the setting code, and realize the format conversion and output of the invoice code. Invoicing modes include local invoicing mode and online invoicing mode. When invoicing mode is enabled, local invoicing mode is used by default.

Users can realize the format conversion and output of invoice codes by reading the following setting codes.

****Invoicing Mode Enable****Invoicing Mode Disable**

After the invoice mode is opened, you can select the invoicing mode by reading the following setting codes.

****Local Invoicing Mode****Online Invoicing Mode**

5.14 Read Device Version Information

Users can quickly obtain the current device version information and all the device version information by reading the following setting codes.

**Read device version information****Read all device version information**

Chapter 6 Prefix & Suffix

In practical applications, in order to facilitate data differentiation processing, sometimes it is necessary for the read data to be edited before being output.

Prefix & Suffix include:

- ◆ Prefix
- ◆ Suffix
- ◆ Decode data segment interception
- ◆ Code ID
- ◆ Decoding failure feature output information (RF Information)
- ◆ Tails

Processed output data format:

【Prefix】 【Code ID】 【Data】 【Suffix】 【Tail】

6.1 Prefix

Prefix is a string of strings defined by the user before the data is decoded. The user can add and modify the prefixes by reading the following programming barcodes.



Enable Prefixes



**Disable Prefixes

Scan the following programming barcode, with the programming barcode of "Digit Barcodes

" and the programming barcode of "save", the user can modify the prefixes.



Modify Prefix

☞ Note: A prefix has 15 characters at most and two hexadecimal values is for a prefix character.

Refer to Appendix F for the hexadecimal conversion table of character values.

6.2 Suffix

Suffix is a string of strings defined by the user before the data is decoded. The user can add and modify the prefixes by reading the following programming barcodes.



Enable Suffixes



**Disable Suffixes

Scan the following programming barcode, with the programming barcode of "Digit Barcodes" and the programming barcode of "save", the user can modify the suffixes.



Modify Suffix

☞ Note: A suffix has 15 characters at most and two hexadecimal values is for a prefix character. Refer to Appendix F for the hexadecimal conversion table of character values.

6.3 Code ID

6.3.1 Custom Code ID

Code ID uses one character. Users can customize Code ID by reading the following programming barcodes to identify different barcode types.



Enable Code ID



**Disable Code ID

Scan the following programming barcode to restore the default value of Code ID of the barcode. The default list can be found in Appendix E.



Restore Default Code ID

6.3.2 Modify Code ID

Users can modify the Code ID corresponding to each barcode by reading the following programming barcodes.



Modify EAN13 Code ID



Modify EAN8 Code ID



Modify UPC-A Code ID



Modify UPC-E0 Code ID



Modify UPC-E1 Code ID



Modify Code 128 Code ID



Modify Code 39 Code ID



Modify Code 93 Code ID



Modify Codabar Code ID



Modify Interleaved 2 of 5 Code ID



Modify Industrial 25 Code ID



Modify Matrix 2 of 5 Code ID



Modify Code11 Code ID



Modify MSI Plessey Code ID



Modify RSS-14 Code ID



Modify RSS-Limited Code ID



Modify RSS-Expanded Code ID



Modify QR Code Code ID



Modify Data Matrix Code ID



Modify PDF417 Code ID



Modify Micro QR Code ID



Modify Chinese Sensible(HanXin) Code ID



Modify Micro PDF417 Code ID



Modify Standard 2 of 5 Code ID



Modify Plessey Code ID



Modify ChinaPost 25 Code ID



Modify Code 16K Code ID



Modify Maxi Code Code ID



Modify Aztec Code ID

6.4 Tail



Tail OFF



**CR Tail (0x0D)



TAB Tail (0x09)



CRLF Tail (0x0D 0x0A)

6.5 Data Character

6.5.1 Date Character Interception

This function is used in scenarios where the user needs to output partial decoded information.

The decoding information Data consists of three parts:

【Start】 【Center】 【End】

The user can select some of the information that needs to be output by reading the following programming barcodes.



**Transmit all Data



Transmit the Start Data



Transmit the END Data



Transmit the Center Data

6.5.2 Modify the Length for Data

The user can modify the length of the Start Data and the length of the End Data by reading the following programming barcodes, combined with the programming barcodes of "Digit Barcodes" and "Save". Both the Start and End segments have up to 255 characters, and both are represented by a hexadecimal character for their length. The characters which are corresponding to the hexadecimal conversion table can be found in Appendix F.



Modify the Length for Start Data



Modify the Length for End Data

6.6 RF Information

The Scan Fail (RF) information is the output information after the scanning module fails to scan the codes, so that the user or the program can adjust or operate after detecting the information. Users are free to define RF information.

Scan the following programming barcode to enable/disable RF transmitting.



Enable Transmitting RF Information



**Disable Transmitting RF Information

Scan the following programming barcode, combined with the programming barcode of "Digit Barcodes" and "save", you can modify the RF information by yourself, and two hexadecimal values is for a prefix character, there are 15 characters at most. Refer to Appendix F for the character-to-hexadecimal conversion table.



Modify RF Information

☞ Note: When an odd number of hexadecimal values are input, if it is failed to set the last bit, only the first few characters are output.

6.7 Output Protocol

The user can decode the output format of result by reading the following programming barcodes to modify the virtual serial port/serial port mode.

The format of the decoding result with the protocol output is: <03><length><decoded data>

☞ Note: The protocol mode must adopt UTF-8 encoding output format. In other output encoding formats, only raw data can be output regardless of whether the output with protocol is selected.



**Raw Data



With Protocol

6.8 GS Character Replacement

GS, as a group separator, was applied to the bar code of the European Food and Drug Administration after the 2012 London Olympics. Because GS characters are invisible in many text display tools, some areas need to replace GS with displayable character output. That is, replace the 0x1D byte in the ASCII code table with the displayable byte in ASCII.

At present, the QR decoding module temporarily supports replacing GS with characters in 0x20-0x7E in ASCII.

The alternative method is as follows:

- 1) Read the setting code of "GS character replacement enable";
- 2) Read the setting code of "GS replacement character modification";
- 3) The characters replaced by GS are represented by two hexadecimal values, and the characters correspond to the hexadecimal conversion table refer to Appendix F
- 4) Read the "Save" setting code.



GS Character Replacement Enable



**GS Character Replacement Disable

Read the following setting codes, cooperate with the "data code" setting code and the "save" setting code, and the user can modify GS replacement characters.



GS Alternate Character Modification

6.9 Web address code recognition

Read the following setting codes, and you can set the permission and prohibition of the website code reading function



**Enable Reading Of Web Address Codes



Disable Reading Of Web Address Codes

Chapter 7 Quick Operation

7.1 Fast POS Mode

POS Mode features:

- ◆ Scan mode: Command Trigger Mode
- ◆ Communication port: Serial Port
- ◆ Startup Beep OFF
- ◆ Tail OFF

Users can quickly configure the reading device to work in POS Mode by reading the following programming barcode.



Fast POS Mode

7.2 Serial Port & Full Codes On Mode

In order to facilitate the quick configuration and switch to the serial port and full codes open mode during the secondary development process, you can realize the quick configuration function by reading the following programming barcodes.



Serial Port & Full Codes ON

Chapter 8 Symbologies

8.1 Global Shortcuts

8.1.1 Global Operations

The user can globally enable/Disable and enable the default reading type for all supported code systems by reading the following programming barcodes. After reading all types of code systems, only the programming barcode is enabled.



Enable All Symbologies



Disable All Symbologies



****Enable Default Symbologies**

8.1.2 Product Barcode Check Digit Output Enable

The user can enable/disable the commodity barcode check digit output by reading the following programming barcode (commodity barcode includes: EAN13/EAN8/UPC-A/UPC-E0/UPC-E1).



****Enable Transmit Check Digit**



Disable Transmit Check Digit

8.1.3 Enhancement of literacy

Enabling and disabling bar code reading ability enhancement can be carried out by reading the following setting codes. After the ability to read is strengthened and enabled, the ability to read special codes such as defaced bar codes and QR code surfaces can be improved. The strengthening of reading ability and prohibition would improve the decoding speed.



****Enhancement of literacy disable**



Enhancement of literacy enable

8.2 1D Symbologies

8.2.1 EAN 13

1. Enable or Disable EAN13

The user can enable and disable the EAN13 barcode reading function by reading the following programming barcodes.



****Enable EAN13**



Disable EAN13

2. Enable or Disable Add-On Code

The user can enable and disable the forced output function of EAN13 add-on code by reading the following programming barcodes.



EAN13 Add-On Code Required



**EAN13 Add-On Code Not Required

The user can enable and disable the configuration of the EAN13 add-on code by reading the following programming barcodes.



Enable EAN13-2 Digit Add-On Code



**Disable EAN13-2 Digit Add-On Code



Enable EAN13-5 Digit Add-On Code



**Disable EAN13-5 Digit Add-On Code

3. Check bit Output Function Enable and Disable



**Enable Transmission of EAN13 Parity Bits



Disable Transmission of EAN13 Parity Bits

8.2.2 EAN 8

1. Enable or Disable EAN8

The user can enable and disable the EAN8 barcode reading function by reading the following programming barcodes.



****Enable EAN8**



Disable EAN8

2. Enable or Disable Add-On Code

The user can enable and disable the forced output function of EAN8 add-on code by reading the following programming barcodes.



EAN8 Add-On Code Required



****EAN8 Add-On Code Not Required**

The user can enable and disable the configuration of the EAN8 add-on code by reading the following programming barcodes.



Enable EAN8-2 Digit Add-On Code



****Disable EAN8-2 Digit Add-On Code**



Enable EAN8-5 Digit Add-On Code



**Disable EAN8-5 Digit Add-On Code

3. Check bit Output Function Enable and Disable



**Enable Transmission of EAN8 Parity Bits



Disable Transmission of EAN8 Parity Bits

8.2.3 UPC-A

1. Enable or Disable UPC-A

The user can scan and disable the UPC-A barcode reading function by reading the following programming barcodes.



**Enable UPC-A



Disable UPC-A

2. Enable or Disable Add-On Code

The user can enable and disable the forced output function of UPC-A add-on code by reading the following programming barcodes.



UPC-A Add-On Code Required



**UPC-A Add-On Code Not Required

The user can enable and disable the configuration of the UPC-A add-on code by reading the following programming barcodes.



Enable UPC-A-2 Digit Add-On Code



**Disable UPC-A-2 Digit Add-On Code



Enable UPC-A-5 Digit Add-On Code



**Disable UPC-A-5 Digit Add-On Code

3. Enable Conversion from UPC-A to EAN13

The user can enable/disable the conversion of UPC-A to EAN13 by reading the following programming barcodes.



Enable UPC-A to EAN13



**Disable UPC-A to EAN13

4. Check bit Output Function Enable and Disable



**Enable Transmission of UPCA Parity Bits



Disable Transmission of UPCA Parity Bits

8.2.4 UPC-E0

1. Enable or Disable UPC-E0

The user can scan and disable the UPC-E0 barcode reading function by reading the following programming barcodes.



****Enable UPC-E0**



Disable UPC-E0

2. Enable or Disable Add-On Code

The user can enable and disable the forced output function of UPC-E0 add-on code by reading the following programming barcodes.



UPC-E0 Add-On Code Required



****UPC-E0 Add-On Code Not Required**

The user can enable and disable the configuration of the UPC-E0 add-on code by reading the following programming barcodes.



Enable UPC-E0-2 Digit Add-On Code



****Disable UPC-E0-2 Digit Add-On Code**



Enable UPC-E0-5 Digit Add-On Code



****Disable UPC-E0-5 Digit Add-On Code**

3. Check bit Output Function Enable and Disable



**Enable Transmission of UPC-E0 Parity Bits



Disable Transmission of UPC-E0 Parity Bits

8.2.5 UPC-E1

1. Enable or Disable UPC-E1

The user can enable and disable the UPC-E1 barcode reading function by reading the following programming barcodes.



**Enable UPC-E1



Disable UPC-E1

2. Enable or Disable Add-On Code

The user can enable and disable the forced output function of UPC-E1 add-on code by reading the following programming barcodes.



UPC-E1 Add-On Code Required



**UPC-E1 Add-On Code Not Required

The user can enable and disable the configuration of the UPC-E1 add-on code by reading the following programming barcodes.



Enable UPC-E1-2 Digit Add-On Code



**Disable UPC-E1-2 Digit Add-On Code



Enable UPC-E1-5 Digit Add-On Code



**Disable UPC-E1-5 Digit Add-On Code

3. Check bit Output Function Enable and Disable



**Enable Transmission of UPC-E1 Parity Bits



Disable Transmission of UPC-E1 Parity Bits

8.2.6 Code128

1. Enable or Disable Code128

The user can enable and disable the Code128 barcode reading function by reading the following programming barcodes.



**Enable Code128



Disable Code128

2. Set Length Range for Code128

Users can set the minimum and maximum length of Code128 by reading the following programming barcodes.



**Set the Minimum Length for Code128 to 0



Set the Minimum Length for Code128 to 4



Set the Maximum Length for Code128 to 32



**Set the Maximum Length for Code128 to 255

3. Code 128 prefixed (11)

The user can turn on or off the Code128 barcode prefix (11) function by reading the following setting codes.



Code128 Prefix (11)-On



**Code128 Prefix (11)-Off

8.2.7 Code39

1. Enable or Disable Code39

The user can enable and disable the Code39 barcode reading function by reading the following programming barcodes.



**Enable Code39



Disable Code39

2. Set Length Range for Code39

Users can set the minimum and maximum length of Code39 by reading the following programming barcodes.



**Set the Minimum Length for Code39 to 0



Set the Minimum Length for Code39 to 4



Set the Maximum Length for Code39 to 32



**Set the Maximum Length for Code39 to 255

3. Transmit Start/Stop Character

The user can set the output of Code39 Start/Stop Character by reading the following programming barcodes.



Output of Code39 Start Character



**Disable Output of Code39 Stop Character



Output of Code39 Stop Character



**Disable Output of Code39 Stop Character

4. Code32 Mode

Users can choose whether Code39 supports Code32 mode by reading the following programming barcodes.



Support Code32 Mode



**Disable Support Code32 Mode

Users can choose whether Code 32 outputs the prefix A by reading the following programming barcodes.



****the output of Code 32 prefix A**



Disable output of Code 32 prefix A

5. FullAsc Mode

Users can choose whether Code39 supports FullAsc mode by reading the following programming barcodes.



Support FullAsc Mode



****Disable Support FullAsc Mode**

6. Proces Verification

The user can set whether Code39 handles verification by reading the following setting code.



Code 39 Handles Verification



****Code 39 Does Not Handle Verification**

7. Parity bit Output

The user can set whether Code39 outputs check bits by reading the following setting codes.



Code39 Outputs Parity Bits



****Code39 Does Not Output Parity Bits**

8.2.8 Code93

1. Enable or Disable Code93

The user can enable and disable the Code93 barcode reading function by reading the following programming barcodes.



****Enable Code93**



Disable Code93

2. Set Length Range for Code93

Users can set the minimum and maximum length of Code93 by reading the following programming barcodes.



****Set the Minimum Length for Code93 to 0**



Set the Minimum Length for Code93 to 4



Set the Maximum Length for Code93 to 32



****Set the Maximum Length for Code93 to 255**

8.2.9 CodaBar

1. Enable or Disable CodaBar

The user can enable and disable the CodaBar barcode reading function by reading the following programming barcodes.

****Enable CodaBar****Disable CodaBar**

2. Set Length Range for CodaBar

Users can set the minimum and maximum length of CodaBar by reading the following programming barcodes.

****Set the Minimum Length for CodaBar to 0****Set the Minimum Length for CodaBar to 4****Set the Maximum Length for CodaBar to 32******Set the Maximum Length for CodaBar to 255**

3. Transmit Start/Stop Character

The user can set the output of CodaBar Start/Stop Character by reading the following programming barcodes.

**Output of CodaBar Start/Stop Character******Disable Output of CodaBar Start/Stop Character**

4. Verification Processing

The user can set CodaBar check processing by reading the following setting codes.



****CodaBar Do Not Process Verification**



CodaBar Mod10 Check



CodaBar Mod16 Check



CodaBar Double Check

5. Parity Bit Output Setting

The user can set the output of CodaBar check bits by reading the following setting codes.



CodaBar Parity Bit Output



****CodaBar Parity Bit Not Output**

8.2.10 Interleaved 2 of 5

1. Enable or Disable Interleaved 2 of 5

The user can enable and disable the Interleaved 2 of 5 barcode reading function by reading the following programming barcodes.



Enable Interleaved 2 of 5



****Disable Interleaved 2 of 5**

2. Set Length Range for Interleaved 2 of 5

Users can set the minimum and maximum length of Interleaved 2 of 5 by reading the following programming barcodes.



Set the Minimum Length to 0



**Set the Minimum Length to 4



**Set the Maximum Length to 32



Set the Maximum Length to 255

3. Verify Format Setting

The user can set whether Interleaved 2 of 5 processes verification by reading the following setting code.



Interleaved 2 of 5 Verification Format Mod10



**Interleaved 2 of 5 Verification Format NONE

4. Parity Bit Output Setting

The user can set whether Interleaved 2 of 5 outputs check bits by reading the following setting code.



Interleaved 2 of 5 Outputs Parity Bits



**Interleaved 2 of 5 Does Not Output Parity Bits

8.2.11 Industrial 25

1. Enable or Disable Industrial 25

The user can enable and disable the Industrial 25 barcode reading function by reading the following programming barcodes.



Enable Industrial 25



**Disable Industrial 25

2. Set Length Range for Industrial 25

Users can set the minimum and maximum length of Industrial 25 by reading the following programming barcodes.



Set the Minimum Length to 0



**Set the Minimum Length to 4



**Set the Maximum Length to 32



Set the Maximum Length to 255

3. Verify Format Setting

The user can set whether Industrial 25 processes verification by reading the following setting code.



Industrial 25 Verification Format Mod10



**Industrial 25 Verification Format NONE

4. Parity Bit Output Setting

The user can set whether Industrial 25 outputs check bits by reading the following setting code.



Industrial 25 Outputs Parity Bits



**Industrial 25 Does Not Output Parity Bits

8.2.12 Matrix 2 of 5

1. Enable or Disable Matrix 2 of 5

The user can enable and disable the Matrix 2 of 5 barcode reading function by reading the following programming barcodes.



Enable Matrix 2 of 5



**Disable Matrix 2 of 5

2. Set Length Range for Matrix 2 of 5

Users can set the minimum and maximum length of Matrix 2 of 5 by reading the following programming barcodes.



Set the Minimum Length to 0



**Set the Minimum Length to 4



**Set the Maximum Length to 32



Set the Maximum Length to 255

3. Verify Format Setting

The user can set whether Matrix 2 of 5 processes verification by reading the following setting code.



Matrix 2 of 5 Verification Format Mod10



**Matrix 2 of 5 Verification Format NONE

4. Parity Bit Output Setting

The user can set whether Matrix 2 of 5 outputs check bits by reading the following setting code.



Matrix 2 of 5 Outputs Parity Bits



**Matrix 2 of 5 Does Not Output Parity Bits

8.2.13 Code11

1. Enable or Disable Code11

The user can enable and disable the Code11 barcode reading function by reading the following programming barcodes.



Enable Code11



**Disable Code11

2. Set Length Range for Code11

Users can set the minimum and maximum length of Code11 by reading the following programming barcodes.



Set the Minimum Length for Code11 to 0



**Set the Minimum Length for Code11 to 4



**Set the Maximum Length for Code11 to 32



Set the Maximum Length for Code11 to 255

3. Setting of Check Format

The user can set the check format of Code11 by reading the following programming barcode.



**Check Code11-1bit



Check Code11-2bit

4. Parity Bit Output Setting

The user can set whether Code11 outputs check bits by reading the following setting code.



Code11 Outputs Parity Bits



**Code11 Does Not Output Parity Bits

8.2.14 MSI Plessey

1. Enable or Disable MSI Plessey



Enable MSI Plessey



**Disable MSI Plessey

2. Set Length Range for MSI Plessey

Users can set the minimum and maximum length of MSI Plessey by reading the following programming barcodes.



Set the Minimum Length for MSI Plessey to 0



**Set the Minimum Length for MSI Plessey to 4



**Set the Maximum Length for MSI Plessey to 32



Set the Maximum Length for MSI Plessey to 255

3. Verify Format Setting

The user can set whether MSI Plessey processes verification by reading the following setting code.



Single Mod10



**Double Mod10

4. Parity Bit Output Setting

The user can set whether MSI Plessey outputs check bits by reading the following setting code.



MSI Plessey Outputs Parity Bits



**MSI Plessey Does Not Output Parity Bits

8.2.15 RSS-14

1. Enable or Disable RSS-14

The user can enable and disable the RSS-14 barcode reading function by reading the following programming barcodes.



Enable RSS-14



**Disable RSS-14

2. AI () output enable and disable

The user can set whether RSS-14 barcode AI () is output by reading the following setting codes.



**RSS-14 AI Output with Parentheses



RSS-14 AI Output Without Parentheses

8.2.16 RSS-Limited

1. Enable or Disable RSS-Limited

The user can enable and disable the RSS-Limited barcode reading function by reading the following programming barcodes.



Enable RSS-Limited



**Disable RSS-Limited

2. AI () output enable and disable

The user can set whether RSS-Limited barcode AI () is output by reading the following setting codes.



**RSS-Limited AI Output with Parentheses



RSS-Limited AI Output Without Parentheses

8.2.17 RSS-Expanded

1. Enable or Disable RSS-Expanded

The user can enable and disable the RSS-Expanded barcode reading function by reading the following programming barcodes.



Enable RSS-Expanded



**Disable RSS-Expanded

2. Set Length Range for RSS-Expanded



Set the Minimum Length to 0



**Set the Minimum Length to 4



**Set the Maximum Length to 32



Set the Maximum Length to 255

3. AI () output enable and disable

The user can set whether RSS-Expanded barcode AI () is output by reading the following setting codes.



**RSS-Expanded AI Output with Parentheses



RSS-Expanded AI Output Without Parentheses

8.2.18 Standard 2 of 5

1. Enable or Disable Standard 2 of 5



Enable Standard 2 of 5



**Disable Standard 2 of 5

2. Set Length Range for Standard 2 of 5

Users can set the minimum and maximum length of Standard 2 of 5 by reading the following programming barcodes.



Set the Minimum Length to 0



**Set the Minimum Length to 4



**Set the Maximum Length to 32



Set the Maximum Length to 255

3. Verify Format Setting

The user can set whether Standard 2 of 5 processes verification by reading the following setting code.



Verify ON



**Verify OFF

4. Parity Bit Output Setting

The user can set whether Standard 2 of 5 outputs check bits by reading the following setting code.



Standard 2 of 5 Outputs Parity Bits



**Standard 2 of 5 Does Not Output Parity Bits

8.2.19 Plessey

1. Enable or Disable Plessey



Enable Plessey



**Disable Plessey

2. Set Length Range for Plessey

Users can set the minimum and maximum length of Plessey by reading the following programming barcodes.



Set the Minimum Length to 0



**Set the Minimum Length to 4



**Set the Maximum Length to 32



Set the Maximum Length to 255

3. Verify Format Setting

The user can set whether Plessey processes verification by reading the following setting code.



Verify ON



**Verify OFF

4. Parity Bit Output Setting

The user can set whether Plessey outputs check bits by reading the following setting code.



Plessey Outputs Parity Bits



**Plessey Does Not Output Parity Bits

8.2.20 ChinaPost 25

1. Enable or Disable ChinaPost 25



Enable ChinaPost 25



**Disable ChinaPost 25

2. Set Length Range for ChinaPost 25

Users can set the minimum and maximum length of ChinaPost 25 by reading the following programming barcodes.



Set the Minimum Length to 0



**Set the Minimum Length to 4



**Set the Maximum Length to 32



Set the Maximum Length to 255

3. Verify Format Setting

The user can set whether ChinaPost 25 processes verification by reading the following setting code.



Verify ON



**Verify OFF

4. Parity Bit Output Setting

The user can set whether ChinaPost 25 outputs check bits by reading the following setting code.



ChinaPost 25 Outputs Parity Bits



**ChinaPost 25 Does Not Output Parity Bits

8.3 Operation of 2D Symbolies

8.3.1 QR Code

1. Enable or Disable QR Code

The user can enable and disable the QR Code barcode reading function by reading the following programming barcodes.



**Enable QR



Disable QR

2. Enable or Disable QR Model

The user can enable and disable the QR Model reading function by reading the following programming barcodes.



Enable QR Model



**Disable QR Model

3. QR Code prefixed (11)

The user can turn on or off the e QR barcode prefix (11) function by reading the following setting codes.



QR Prefix (11)-On



**QR Prefix (11)-Off

8.3.2 Data Matrix (DM)

The user can enable and disable the Data Matrix reading function by reading the following programming barcodes.



**Enable DM



Disable DM

The user can enable and disable simultaneous multiple DM code reading function by reading the following programming barcodes.



Enable Multiple DM



**Disable Multiple DM

8.3.3 PDF417

The user can enable and disable the PDF417 barcode reading function by reading the following programming barcodes.

****Enable PDF417****Disable PDF417**

8.3.4 Mico QR

The user can enable and disable the Mico QR barcode reading function by reading the following programming barcodes.

****Enable Mico QR****Disable Mico QR**

8.3.5 Chinese Sensible(HanXin) Code

The user can enable and disable the Chinese Sensible(HanXin) Code reading function by reading the following programming barcodes.

**Enable Chinese Sensible(HanXin) Code******Disable Chinese Sensible(HanXin) Code**

8.3.6 Micro PDF 417

The user can enable and disable the Micro PDF 417 barcode reading function by reading the following programming barcodes.

****Enable Micro PDF 417****Disable Micro PDF 417**

8.3.7 Code 16K

1. Enable or Disable Code 16K

The user can enable and disable the Code 16K barcode reading function by reading the following programming barcodes.

**Enable Code 16K******Disable Code 16K**

2. Set Length Range for Code 16K

**Set the Minimum Length to 0******Set the Minimum Length to 4******Set the Maximum Length to 32****Set the Maximum Length to 255**

8.3.8 Maxi Code

The user can enable and disable the Maxi Code reading function by reading the following programming barcodes.



Enable Maxi Code



**Disable Maxi Code

8.3.9 Aztec

The user can enable and disable the Aztec barcode reading function by reading the following programming barcodes.



Enable Aztec



**Disable Aztec

Chapter 9 Save and Cancele

9.1 Save

After reading the "Digit Barcodes", you need to read the programming barcode of "Save" to save the data.



Save

9.2 Cancel

When an error occurs in the scanned data, the following programming barcode can be scanned to cancel the current setting, also one bit of data which is previous scanned, and a string of data which is previous scanned.



Cancel the Last Digit



Cancel All Digits



Cancel Current Setting

☞ Note: Cancelling the current setting means cancelling all the Digit Barcodes that were scan, and reset shall be conducted after canceling.

Appendix

Appendix A: Digit Barcodes

0 ~ 9



0



1



2



3



4



5



6



7



8



9

A ~ F



A



B



C



D



E



F

Appendix B: Example of Parameter Settings

◆ Example 1: Modify the prefix to DATA

1. Query the character table to obtain the hexadecimal values corresponding to the four characters of "DATA": "44", "41", "54", "41"
2. Scan "Enter Setup"; (If it has been enabled, you can skip this step)
3. Scan the programming barcode of "Modify Prefix"
4. Scan the Digit Barcodess of "4" "4" "4" "1" "5" "4" "4" "1"
5. Scan the programming barcode of "Save"

◆ Example 2: Modify the suffix to DATA

1. Query the character table to obtain the hexadecimal values corresponding to the four characters of "DATA": "44", "41", "54", "41"
2. Read "Enter Setup"; (If it has been enabled, you can skip this step)
3. Read the the programming barcode of "Modify Suffix" programming barcode
4. Read the Digit Barcodess of "4" "4" "4" "1" "5" "4" "4" "1"
5. Read the programming barcode of "Save"

◆ Example 3: Modify EAN13 Code ID to "A"

1. Query the character table to obtain the hexadecimal value corresponding to the "A" character: "41"
2. Read "Enter Setup"; (If it has been enabled, you can skip this step)
3. Read the the programming barcode of "Modify EAN13 Code ID"
4. Read the Digit Barcodess of "4" "1" one by one.
5. Read the the programming barcode of "Save"

◆ Example 4:

[Transmit the Start Data] If the decoding information is "1234567890ABC", the first 10 bytes "1234567890" shall be output.

1. Query the character table to obtain the hexadecimal value corresponding to the "10" character: "0A"
2. Read "Enter Setup"; (If it has been enabled, you can skip this step)
3. Read the programming barcode of " Modify the Length for Start Data"
4. Read the Digit Barcodess of "0" "A" in turn.

5. Read the programming barcode of "Save"

6. Read the programming barcode of "Transmit the Start Data "

◆ Example 5:

[Transmit the End Data] If the decoding information is "1234567890ABC", the first 10 bytes "1234567890" shall be output.

1. Query the character table to obtain the hexadecimal value corresponding to the "10" character: "0A"
2. Read "Enter Setup"; (If it has been enabled, you can skip this step)
3. Read the programming barcode of " Modify the Length for End Data"
4. Read the Digit Barcode of "0" "A" in turn.
5. Read the programming barcode of "Save"
6. Read the programming barcode of "Transmit the End Data"

◆ Example 6:

[Transmit the Center Data] If the decoding information is "1234567890ABC1234567890", the middle 3 bytes "ABC" shall be output.

1. Query the character table to obtain the hexadecimal value corresponding to the "10" character: "0A"
2. Read "Enter Setup"; (If it has been enabled, you can skip this step)
3. Read the programming barcode of "Modify the Length for End Data"
4. Read the Digit Barcode of "0" "A" in turn.
5. Read the programming barcode of "Save"
6. Read the programming barcode of "Modify the Length for Start Data"
7. Read the Digit Barcode of "0" "A" in sequence.
8. Read the programming barcode of "Save"
9. Read the programming barcode of "Transmit the Center Data"

◆ Example 7: Modify the RF information to "FAIL"

1. Query the character table to obtain the hexadecimal value corresponding to the "FAIL" character: "46" "41" "49" "4C"
2. Read "Enter Setup"; (If it has been enabled, you can skip this step)
3. Read the programming barcode of "Modify RF Information"
4. Read the Digit Barcode of "4" "A", "4", "1", "4", "9", "4", "C" in turns

5. Read the programming barcode of "Save"

◆ Example 8: Modify GS to replace the character with "D"

1. Query the character table to obtain the hexadecimal value corresponding to the "D" character: "44"

2. Read "Enter Setup"; (If it has been enabled, you can skip this step)

3. RRead the programming barcode of "GS Character Replacement Enable"

4. Read the programming barcode of "GS Replacement Character Modification"

5. Read the data codes "4" and "4" in turn

6. Read the programming barcode of "Save"

Appendix E: Code ID List

Barcode Type	Corresponding Tharacter	Flag Bit Address
EAN-13	d	0x91
EAN-8	d	0x92
UPC-A	c	0x93
UPC-E0	c	0x94
UPC-E1	c	0x95
Code 128	j	0x96
Code 39	b	0x97
Code 93	i	0x98
Codabar	a	0x99
Interleaved 2 of 5	e	0x9A
Industrial 2 of 5	D	0x9B
Matrix 2 of 5	v	0x9C
Code 11	H	0x9D
MSI Plessey	m	0x9E
GS1 Databar(RSS-14)	R	0x9F
GS1 Databar(RSS-Limited)	R	0xA0
GS1 Databar(RSS-Expanded)	R	0xA1
QR Code	Q	0xA2
Data Matrix	u	0xA3
PDF 417	r	0xA4
Micro QR	X	0xA5
Chinese Sensible(HanXin) Code	h	0xA6
Micro PDF417	R	0xA7
Standard 2 of 5	f	0xA8

Plessey	n	0xA9
ChinaPost 25	X	0xAA
Code 16K	X	0xAB
Code 49	X	0xAC
Maxi Code	x	0xAD
Aztec	z	0xAE

Appendix F: ASCII Table

Hexadecimal	Decimal	Character
00	0	NUL (Null char.)
01	1	SOH (Start of Header)
02	2	STX (Start of Text)
03	3	ETX (End of Text)
04	4	EOT (End of Transmission)
05	5	ENQ (Enquiry)
06	6	ACK (Acknowledgment)
07	7	BEL (Bell)
08	8	BS (Backspace)
09	9	HT (Horizontal Tab)
0a	10	LF (Line Feed)
0b	11	VT (Vertical Tab)
0c	12	FF (Form Feed)
0d	13	CR (Carriage Return)
0e	14	SO (Shift Out)
0f	15	SI (Shift In)
10	16	DLE (Data Link Escape)
11	17	DC1 (XON) (Device Control 1)
12	18	DC2 (Device Control 2)
13	19	DC3 (XOFF) (Device Control 3)
14	20	DC4 (Device Control 4)
15	21	NAK (Negative Acknowledgment)
16	22	SYN (Synchronous Idle)
17	23	ETB (End of Trans. Block)
18	24	CAN (Cancel)

19	25	EM (End of Medium)
1a	26	SUB (Substitute)
1b	27	ESC (Escape)
1c	28	FS (File Separator)
1d	29	GS (Group Separator)
1e	30	RS (Request to Send)
1f	31	US (Unit Separator)
20	32	SP (Space)
21	33	! (Exclamation Mark)
22	34	" (Double Quote)
23	35	# (Number Sign)
24	36	\$ (Dollar Sign)
25	37	% (Percent)
26	38	& (Ampersand)
27	39	` (Single Quote)
28	40	((Right / Closing Parenthesis)
29	41	) (Right / Closing Parenthesis)
2a	42	* (Asterisk)
2b	43	+ (Plus)
2c	44	, (Comma)
2d	45	- (Minus / Dash)
2e	46	. (Dot)
2f	47	/ (Forward Slash)
30	48	0
31	49	1
32	50	2
33	51	3
34	52	4

35	53	5
36	54	6
37	55	7
38	56	8
39	57	9
3a	58	: (Colon)
3b	59	; (Semi-colon)
3c	60	< (Less Than)
3d	61	= (Equal Sign)
3e	62	> (Greater Than)
3f	63	? (Question Mark)
40	64	@ (AT Symbol)
41	65	A
42	66	B
43	67	C
44	68	D
45	69	E
46	70	F
47	71	G
48	72	H
49	73	I
4a	74	J
4b	75	K
4c	76	L
4d	77	M
4e	78	N
4f	79	O
50	80	P

51	81	Q
52	82	R
53	83	S
54	84	T
55	85	U
56	86	V
57	87	W
58	88	X
59	89	Y
5a	90	Z
5b	91	[(Left / Opening Bracket)
5c	92	\ (Back Slash)
5d	93	] (Right / Closing Bracket)
5e	94	^ (Caret / Circumflex)
5f	95	_ (Underscore)
60	96	' (Grave Accent)
61	97	a
62	98	b
63	99	c
64	100	d
65	101	e
66	102	f
67	103	g
68	104	h
69	105	i
6a	106	j
6b	107	k
6c	108	l

6d	109	m
6e	110	n
6f	111	o
70	112	p
71	113	q
72	114	r
73	115	s
74	116	t
75	117	u
76	118	v
77	119	w
78	120	x
79	121	y
7a	122	z
7b	123	{ (Left/ Opening Brace)
7c	124	(Vertical Bar)
7d	125	} (Right/Closing Brace)
7e	126	~ (Tilde)
7f	127	DEL (Delete)

