



1D Barcode Scanner Setting Manual

Revision History

Version	Description	Data
V1.0	Initial Version	2016-06-07
V1.01	Add Instructions	2016-06-16
V1.02	Increase USB fast transmit, increase the serial port command to send voice feedback, increase the serial port command to save the settings	2016-06-25
V1.03	Add hidden bar code characters	2016-07-05
V1.04	Added flash mode. Adjust some pins	2016-10-21
V1.05	Increase China Post setting barcode	2016-11-25
V1.07	Increase sound frequency and size settings	2017-03-20
V1.10	Increase sensor mode settings and increase instruction set	2017-04-05

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Chapter1 System Settings

Introduction

The user can set the function of the barcode reader by scanning one or more setting barcodes.



Scanning Instructions

In the Trigger Mode, the scanning barcode operation steps are as follows

1. Hold down the trigger key of the barcode reader, the line of sight is activated, red red line of sight appears.
2. Align the red line of sight with the bar code center, move the bar code reader and adjust the distance between it and the bar code to find the best reading distance.
3. After hearing the successful prompt sound, and the red lighting line is extinguished, the reading is successful, and the barcode reader transmits the decoded data to the host..

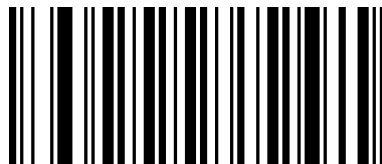
Note: During the reading process, you will find the distance between the barcode reader and the barcode within a certain range for the barcode of the same batch, and the reading success rate will be very high. This distance is the best reading distance.

Restore Defaults

All barcode readers have a factory default setting. Reading the "Restore default settings" barcode will restore all barcode reader property settings to the factory state.

You are most likely to use this bar code in the following situations :

- 1、 Error in barcode reader settings, such as barcode not recognized.
- 2、 You have forgotten what settings were made for the barcode reader before, and you do not want to use the previous settings.
- 3、 The bar code reader is set to use some infrequently used features and is used after completion.



000B0

Restore default settings

version

Use the scanner to scan the version number bar code, you can view the current bar coder version number information

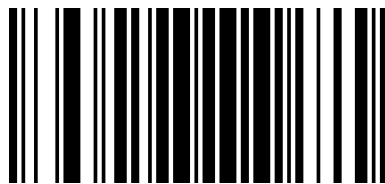


000A0

version

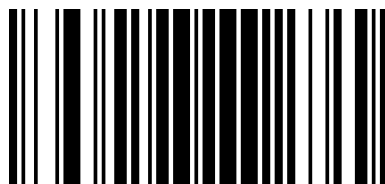
Start off setting code

The setting code can be turned off. When the barcode reader is set to "Enter Setup" , the setup function will work when the setup code is scanned. When the barcode reader is set to "Exit Setup" , the scanner engine will scan the setup code. There will be an error tone, the setting function will not work, the default is "Enter Setup".



09990

Enter Setup*

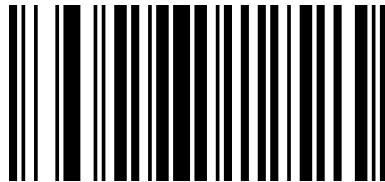


09991

Exit Setup

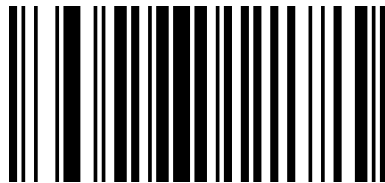
Programming Barcode Data

Programming barcode data can be transmitted to the Host. Scan the appropriate barcode below to enable or disable the transmission of programming barcode data (i.e. the characters under programming barcode) to the Host. Default is setting code not send.



02501

Transmit Programming Barcode Data



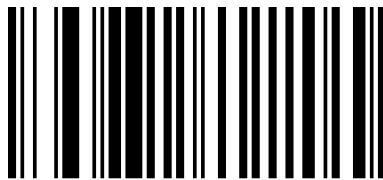
02500

Not Transmit Programming Barcode Data *

Reading mode selection

Trigger Mode

The user can set the reading mode of the barcode reader according to the needs. The default state is the Trigger Mode. In this mode, the barcode reader starts reading after pressing the trigger button, and the barcode reader stops reading after successfully reading or unlocking the trigger button.

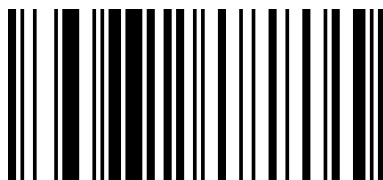


013300

Trigger Mode*

Continuous scanning mode

After the setting is completed, the red light is in a long light state. When a bar code passes through, the bar code reader automatically reads the bar code. The same barcode cannot be read repeatedly unless it is removed again.



013304

Continuous scanning mode

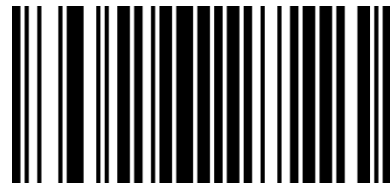
Sense Mode

After the setting is completed, there is no need to trigger, and the barcode reader starts detecting the change of the environment before the window. After the reading is complete, it stops and is in the monitoring state waiting for the next environmental change. In this mode, clicking the trigger button can also start reading.



02311

Turn on Sense Mode



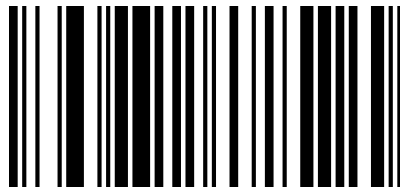
02310

Turn off Sense Mode*

Note: When using this mode, it needs to be switched by Trigger Mode.

Flashing mode (Press key to turn on)

After the setting is completed, the scanning needs to be triggered manually, the red light of the barcode reader is blinking, and the barcode reader starts to detect the change of the environment before the window is opened. After the reading is completed, the red light is on for 3 seconds. After 3 seconds, the bar code is not automatically read into the flashing state. Pressing the button in this state can turn the bar code reader on or off at any time.

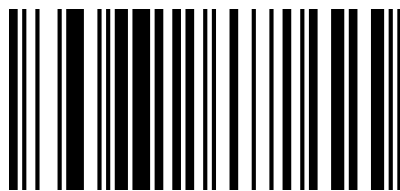


013306

Flashing mode (Press key to turn on)

Flashing mode (Press key to turn off)

After setting, there is no need to trigger manually. The red light of the barcode reader is blinking, and the barcode reader begins to detect the change of the environment before the window. After the reading is completed, the red light is on for 3 seconds. After 3 seconds, the bar code is not read and the flashing state is automatically entered. In this state, the key does not work.

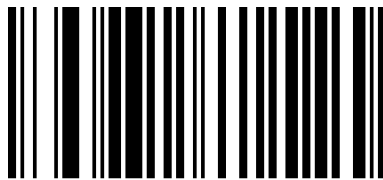


013305

Flashing mode (Press key to turn off)

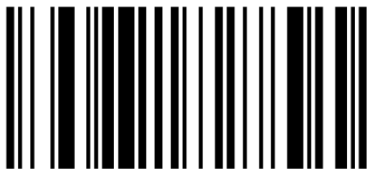
Press Key to delay single read mode

After the setting is completed, press the trigger button, the red light of the barcode reader will be on for 3 seconds, and the unread code light will be extinguished for 3 seconds after the timeout, or the light will be off after the reading is completed. The key will not work before the light goes out. The default time of the button timeout is 3 seconds. Can be set for 1-15 seconds.



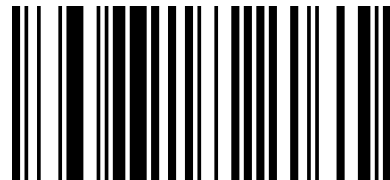
013301

Press key to delay single read mode



023510

1 second timeout



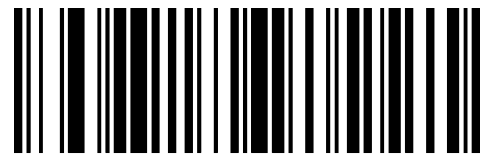
023530

3second timeout*



0235A0

10 second timeout

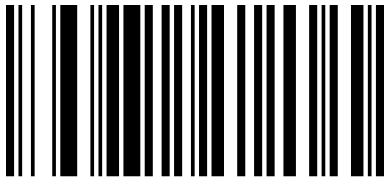


0235F0

15 second timeout

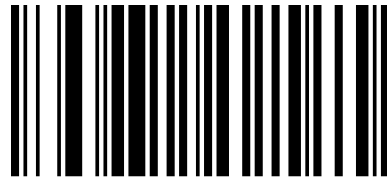
Decode sound settings

The barcode reader will have a roar tone after successfully reading the barcode. Users can Disable or Enable the roar tone according to the demand. The default is to enable decoding sound.



014201

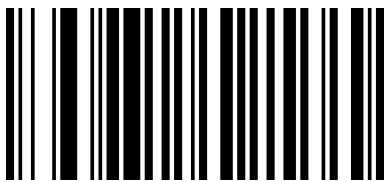
Enable decoding sound*



014200

Disable decoding sound

Increased/decreased sound



014300

Increased sound



014301

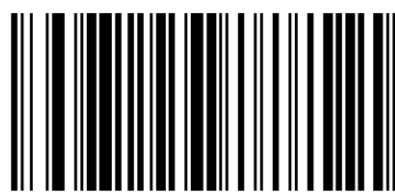
Reduced sound

Sound frequency



0145800

2.0KHZ*

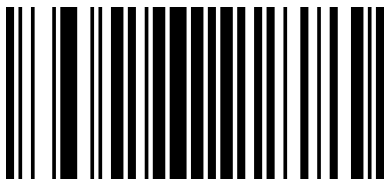


0145AAA

2.7KHZ

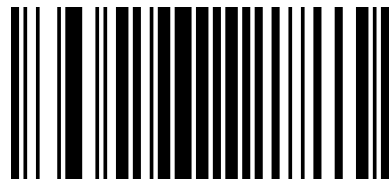
Data transmit speed

The barcode reader supports the adjustment of data transmit speed. For non-standard USB input used by some WINDOWS devices, for example, the PS2 converted USB interface can reduce the data transfer security and integrity by appropriately reducing the barcode transmit speed. USB fast transfer is disabled by default, and use "moderate transmit speed" mode.



02301

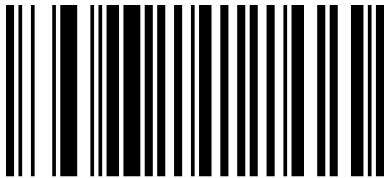
Enable USB fast transfer



02300

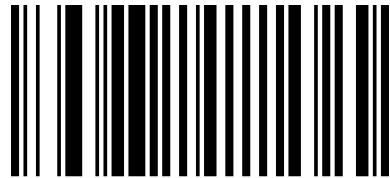
Disable USB fast transmit*

The user can set the transmit speed to further set the transmit speed of the USB device.



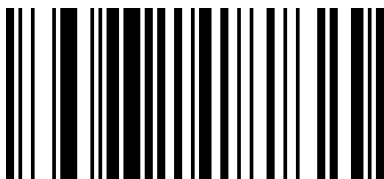
001500

Fast transmit



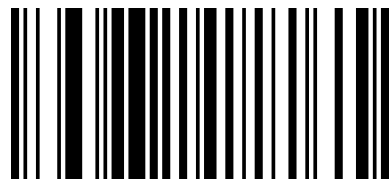
001502

Moderate transmit speed*



001504

Slow transmit

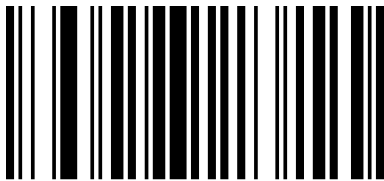


001506

The slowest transmit speed

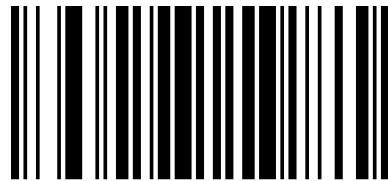
Image recognition method

The barcode reader supports the recognition of reverse-colored images (anti-white bar codes). The user can set whether or not the image needs to be reversed according to the requirements. The default is forward image recognition.



00161

Forward image recognition*



00160

Reverse image recognition

Chapter1 Communication setting

Introduction

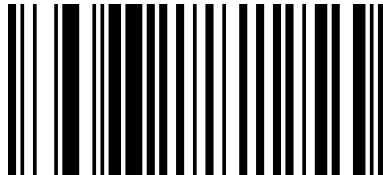
When using this barcode to communicate with different hosts, you need to set the barcode reader to the corresponding communication interface mode.

The user can set the barcode scanner function by scanning one or more setting barcodes.

Users can choose to use USB-KBW, USB-COM, PS2,TTL / RS232 serial communication interface mode.

USB-KBW Mode

By default, the barcode reader uses USB-KBW communication to simulate the USB keyboard input mode without installing a driver.

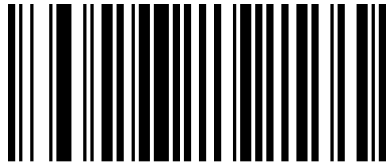


000602

USB-KBW*

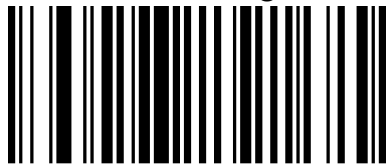
Country/language keyboard layout selection

Different national languages correspond to the keyboard keys arrangement, symbols, etc. are different, the barcode scanner can be virtual according to the actual needs of different countries keyboard.



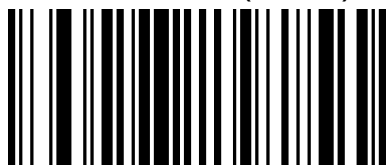
0005000

USA/China (English) *



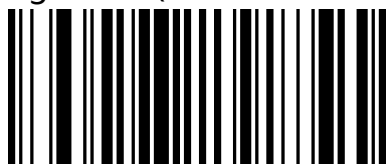
0005002

Netherlands (Dutch)



0005004

Argentina (Latin American)



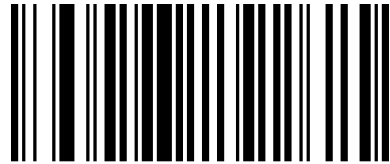
0005006

Denmark (Danish)



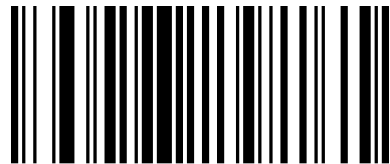
0005008

Italy (Italian)



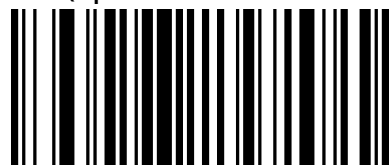
0005001

Canada (French)



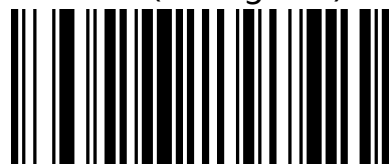
0005003

Spain (Spanish - International)



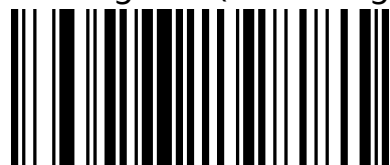
0005005

Brazil (Portuguese)



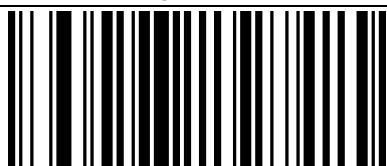
0005007

United Kingdom (British English)



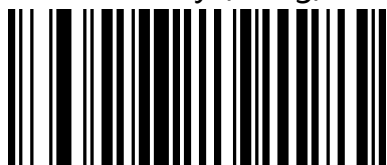
0005009

France (French)



0005010

Germany (Slang)



0005012

Sweden/Finland (Swedish/Finnish)



0005014

Portugal (Portuguese)



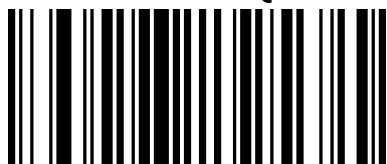
0005016

Belgium (Dutch)



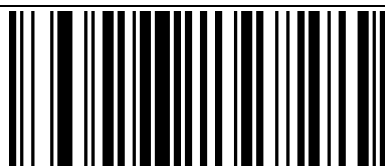
0005018

Turkish-Q



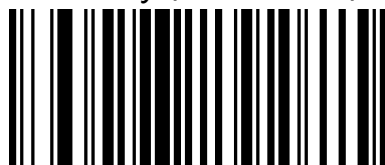
0005020

Switzerland (German/French)



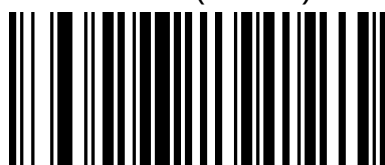
0005011

Norway (North Sami)



0005013

Slovak (Slovak)



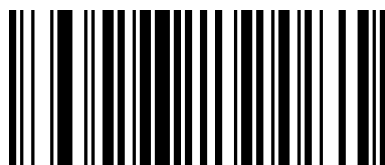
0005015

Czech Republic (Czech)



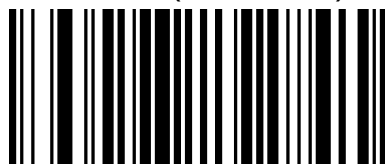
0005017

Turkish-F



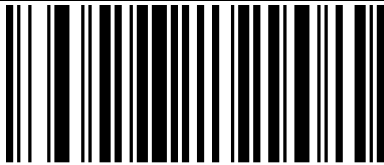
0005019

Poland (Polish 214)



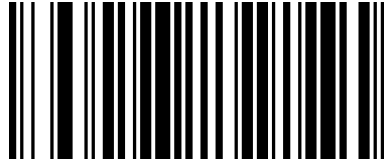
0005021

Croatian (Croatian)



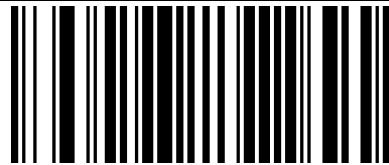
0005022

Hungary (Hungarian)



0005024

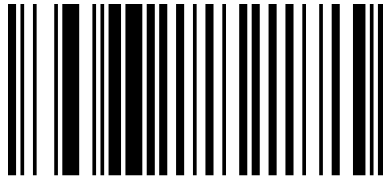
Russia (Russian)



0005023

Japan (Japanese)

PS2 Keyboard Mode

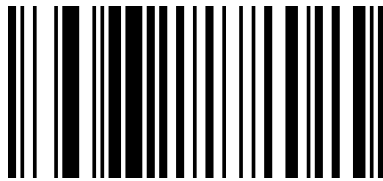


000600

PS2

USB-COM

When the barcoder uses USB communication interface, but the host application uses serial communication to receive data, you can set the barcode to USB virtual serial communication mode. This feature requires installing the appropriate driver on the host.



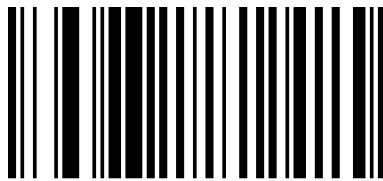
000603

USB-COM

TTL/RS232 mode

The serial communication interface is a common way to connect barcode and host devices and can be used to connect host devices such as PC and POS.

When using the serial communication interface of the barcode scanner, the barcode scanner and the host device must be completely matched in the configuration parameters of the serial communication protocol to ensure the accuracy of data transmit.



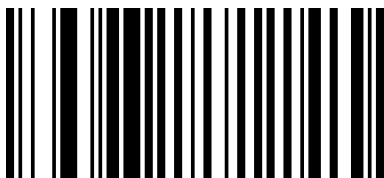
000601

TTL/RS232

Baud rate

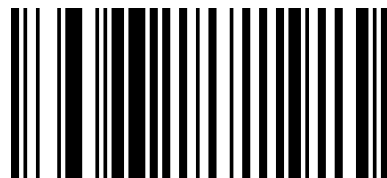
Baud rate is the number of bits transmitted per second for serial data communication.

The baud rate used by the barcode reader and the data receiving host must be consistent to ensure the accuracy of data transmit. The bar coder supports the baud rates listed below, in bits/s.



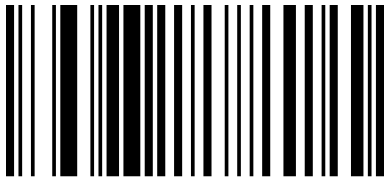
000701

600bps



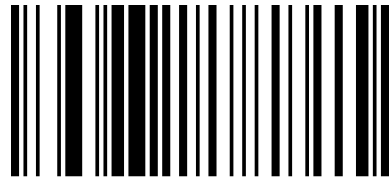
000702

1200bps



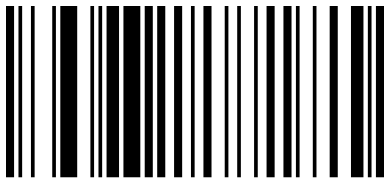
000703

2400bps



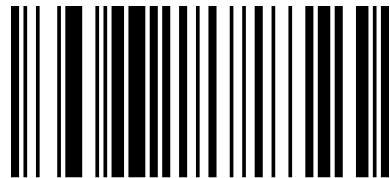
000704

4800bps



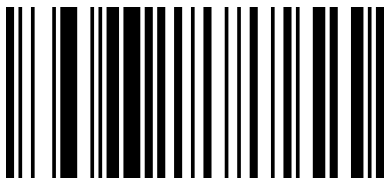
000705

9600bps*



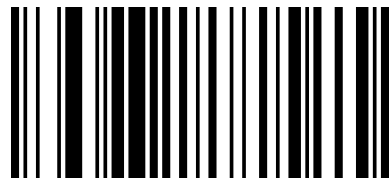
000706

19200bps



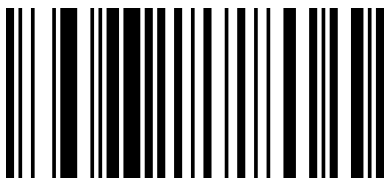
000707

38400bps



000708

57600bps



000709

115200bps

Chapter3 Data Editing

Introduction

After the barcode scanner is successfully decoded, the device will get a series of data, which can be numbers, English, symbols, etc. In application, we may not only need the barcode data information, or the barcode contains data information can not meet your requirement. For example, you may want to know which type of barcode you get from this string of data information or attach special data to the string data, which may not be included in the barcode data information.

Increasing these contents while making code, it is bound to increase the length of the barcode and the flexibility is not enough. It is not a good way.

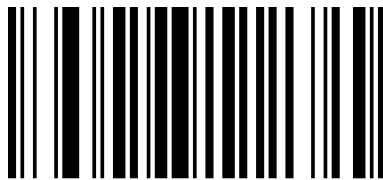
At this moment, we think of artificially adding some contents before or after the barcode data information, and these added contents can be changed in real time according to the demand, and can be selectively added or masked. This is the prefix and suffix of barcode data information.

The method of adding prefixes and suffixes , can meet the requirement and need to modify the contents of the barcode information.

**Note: Data editing format: <customize prefix> <barcode data> <customize suffix>
<suffix data>**

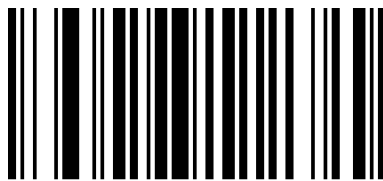
Code ID Setting

In the process of using the barcode reader, the user often needs to know the barcode type of the currently scanned barcode, and we can use the Code ID prefix to identify the barcode type. Code ID corresponds to the barcode type please refer to "**Appendix - Code ID**", by default does not send Code ID.



01401

Send CODE ID

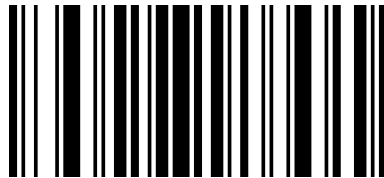


01400

Not Send Code ID*

Custom Prefix

First read "**Set Custom Prefix**", then scan the character barcode corresponding to "**Appendix - Character Table**" according to the requirements. You can complete the setup. The prefix character can add up to 32 characters.



02240

Set Custom Prefix

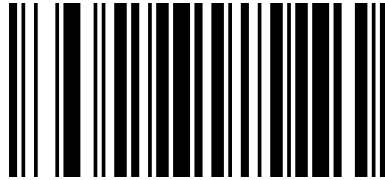
For example: Set the custom prefix to "VC" (hexadecimal value is 0x56/0x43):

1. Read "Startup Setup Code"
2. Read the above "Setting Custom Prefix"
3. Read the corresponding bar codes 1086 and 1067 in "Appendix - Character Table"
- 4 read "Exit to set prefix and suffix"
5. Read "Close Setup Code"

Note: After completing the above steps, if you read any bar code, the barcode reader will add a custom prefix string "VC" before the bar code data.

Clear all the prefix.

Scan "clear all the prefix codes" barcode, user can clear all the prefix codes.

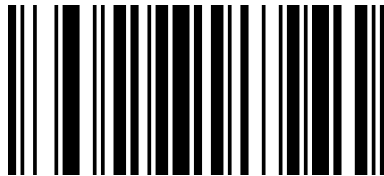


02220

clear all the prefix codes

Custom suffix

First read the "**Set custom suffix**", and then scan the character code corresponding to "Appendix - Character Table" according to requirements. You can complete the setup. The suffix character can add up to 32 characters.



02241

Set custom suffix

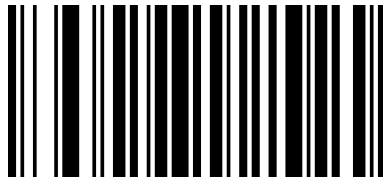
For example: Set the custom prefix to "VC" (hexadecimal value is 0x56/0x43):

1. Read "**Startup Setup Code**"
2. Read the above "**Set custom suffix**"
3. Read the corresponding bar codes 1086 and 1067 in "**Appendix - Character Table**"
- 4 read "**Exit to set prefix and suffix**"
5. Read "**Close Setup Code**"

Note: After setting according to the above steps, read any bar code, the bar coder will add custom suffix string "VC" after the bar code data.

Clear all suffixes

Scan the "**Clear all suffixes**" barcode to clear all set suffix characters



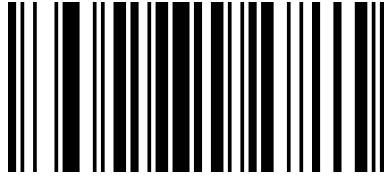
02200

Clear all suffixes

Note: Clear suffix characters do not include suffix terminators.

Exit to set prefix and suffix

After users add a custom suffix, you can scan "Exit suffix" to finish adding suffixes.



02242

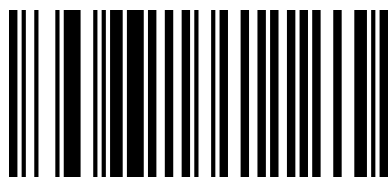
Exit to set prefix and suffix"

Hidden characters

Users can hide the bar code output barcode according to their needs. For example, for the bar code "123456", the data received by the host is "3456" when the preceding two characters are hidden. When the trailing 2-bit characters are hidden, the data received by the host is "1234".

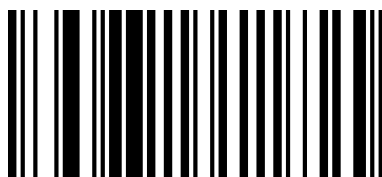
Hide the front character

The user can scan the following bar codes according to the requirements, and set the hidden front digits.



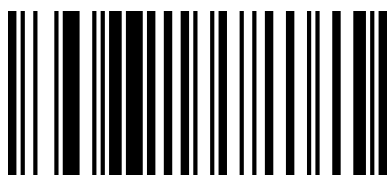
023401

Hide the front 1 character



023402

Hide the front 2 characters



023403

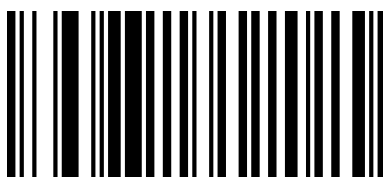
Hide the front 3 characters



023405

Hide the front 5 characters

Unhide the front character

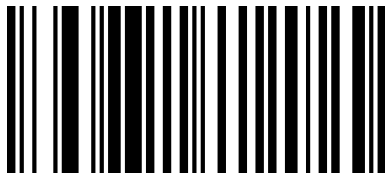


023400

Unhide leading characters

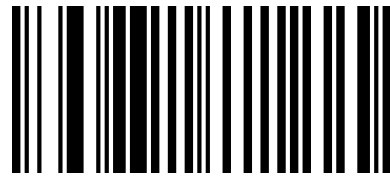
Hide the Postposition character

Users can scan the following bar codes according to their needs and set the corresponding number of digits to be hidden.



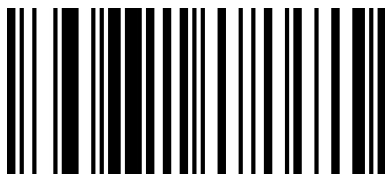
023301

Hide the Postposition 1 character



023302

Hide the Postposition 2 characters



023303

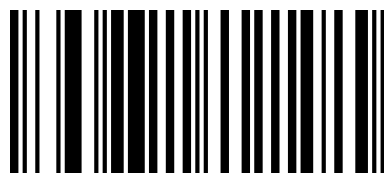
Hide the Postposition 3 characters



023305

Hide the Postposition 5 characters

Unhide the Postposition character



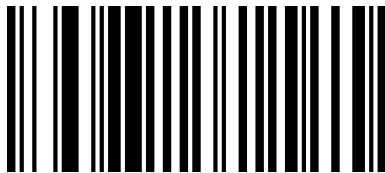
023300

Unhide the Postposition character

Hide intermediate characters

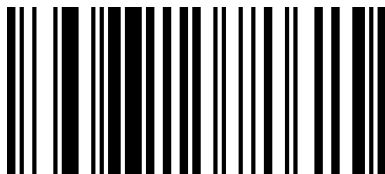
Users can scan the following bar codes according to their needs and set the hidden middle digits. The setup procedure consists of two steps. First, the beginning of the character is scanned for the Mth bit, and then the middle N-bit character is hidden by scanning. For example, for the barcode "12345678", set the two characters "56" to be hidden, first scan the first 4 characters, then scan to hide the middle 2 characters, and the host receives the data as "123478"

The Mth character starts to set the bar code



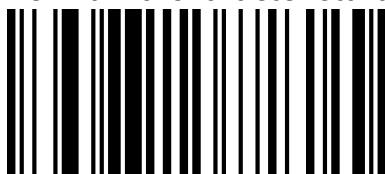
024001

from first character start



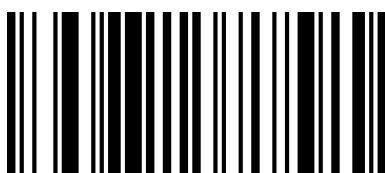
024003

from third character start



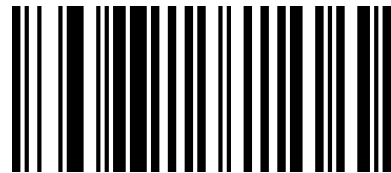
024005

from fifth character start



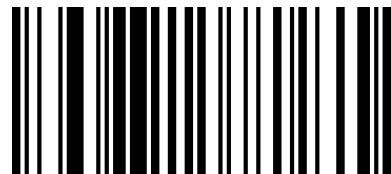
024007

from seventh character start



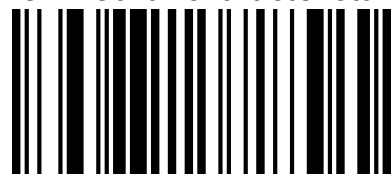
024002

from second character start



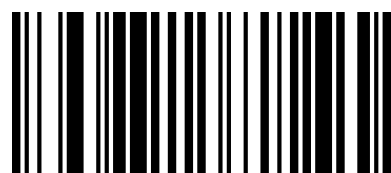
024004

from fourth character start



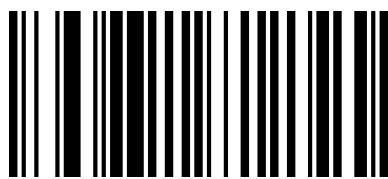
024006

from sixth character start



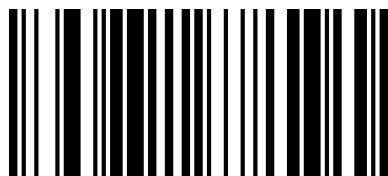
024008

from eighth character start

Hide intermediate N-bit characters

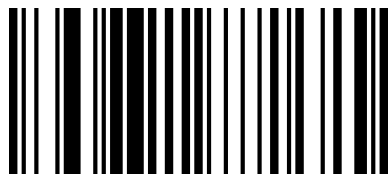
023901

Hide intermediate 1 characters



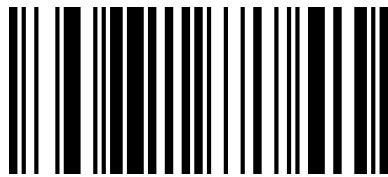
023903

Hide intermediate 3 characters



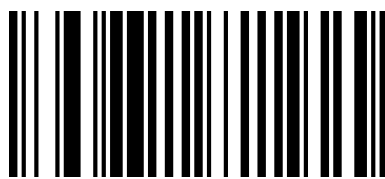
023905

Hide intermediate 5 characters



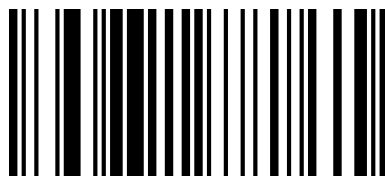
023907

Hide intermediate 7 characters



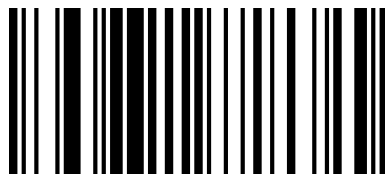
023902

Hide intermediate 2 characters



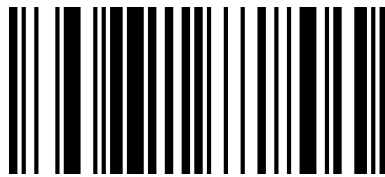
023904

Hide intermediate 4 characters



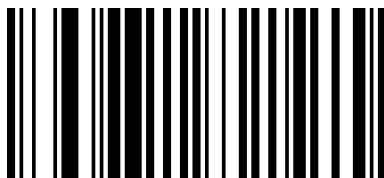
023906

Hide intermediate 6 characters



023908

Hide intermediate 8 characters

Unhide the middle character

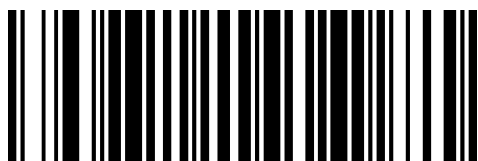
023900

Unhide the middle character

Suffix setting

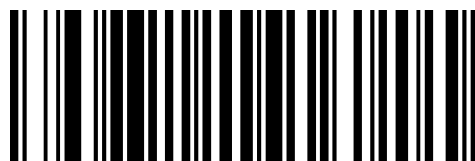
The end character is used to mark the end of a complete data message. The suffix of end character must be the last content of a data transmit, then there will be no additional data.

Difference between suffix of end character and customized suffix is that the contents and decoding information of the customized suffix , prefix and other contents can be formatted, but suffix of end character can' t make it.



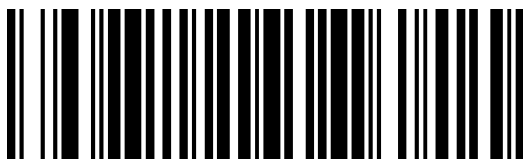
0212@0D

Add CR*



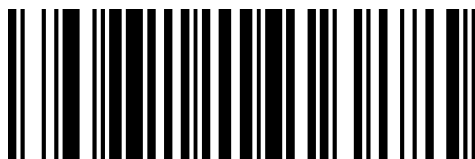
0212@0A

Add LF



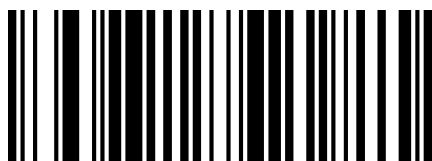
0213@0D0A

Add CR+LF



0212@09

Add Tab

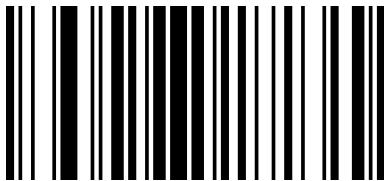


0210@

None

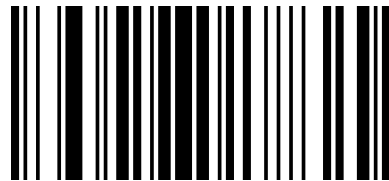
Character conversion

By setting the character conversion function of the barcode scanner, the upper case and lower case conversions of the English letters of the barcode output data can be performed. For example, if the content of the barcode is aBC123, set the barcode to "all in lower case" and the data obtained by the host will be "abc123". The default is Normal output.



02510

Normal (No Change) *



02511

Upper (Capitalize)



02512

Lower (All lowercase)



02513

Inverse (Case inversion)

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

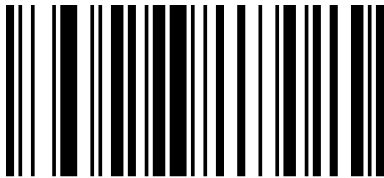
Chapter4. Bar Code Parameter Settings

Introduction

Each type of barcode has its own unique properties,Through the setting code of this chapter, you can adjust the barcode reader to adapt to these property changes.The fewer types of barcodes that are enabled to enable reading,The faster the barcode reads.You can disable barcode scanners from reading barcode types that will not be used, to improve the performance of the barcode scanner.

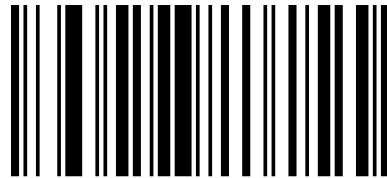
UPC-A

Enable/Disable UPC-A



000341

Enable UPC-A*

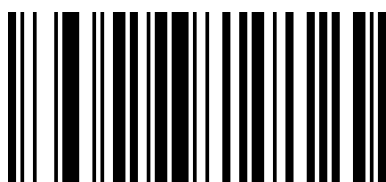


000340

Disable UPC-A

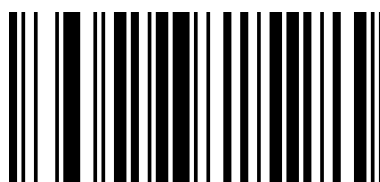
Transmit Check Digit

UPC-A Barcode data is fixed at 13 characters, Number 13 is the parity bit, used to verify the correctness of all 13 characters, The default is to transmit the check digit.



00421

Transmit check Digit *



00420

Do not transmit check Digit

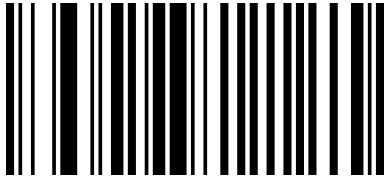
Whether to read additional bits

Additional bits refer to 2 or 5 digit barcodes added after the normal barcode, As shown below, the left blue line box is an ordinary bar code, the right side of the red box is an additional bit. the default is to turn off extra bits.



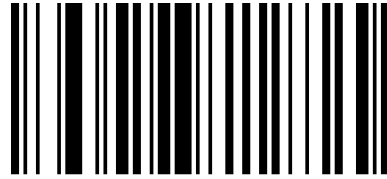
System character

UPC-A The country code of the barcode is the prefix character, this character is not normally displayed in human-readable characters below the bar code, "0" representative USA. The first character in the human-readable character is a system character. Default does not send country characters , transmit system character.



00400

Transmit system character *

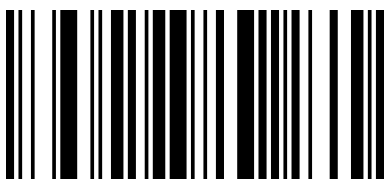


00401

Do not Transmit system character

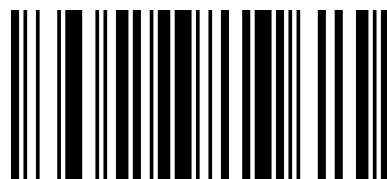
Extended settings

UPC-A barcode type supports extended settings, after opening extensions, barcode information expanded to 13 bits, add "0" in front of , and the type is converted to EAN-13 , the default is not extended.



00391

Barcode information extension , and the type is converted to EAN-13

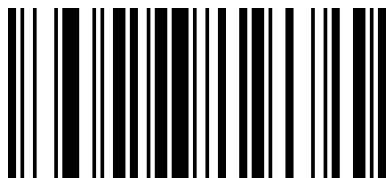


00390

Barcode information does not expand *

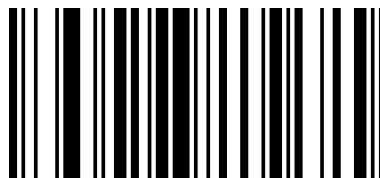
UPC-E

Enable/Disable UPC-E



00351

Enable UPC-E*

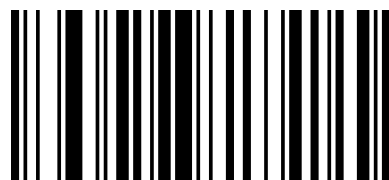


00350

Disable UPC-E

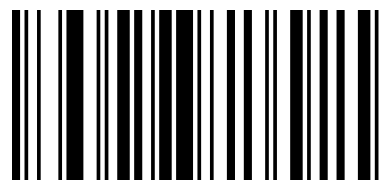
Transmit Check Digit

UPC-E Barcode data is fixed at 8 characters , bit 8 is the parity bit , used to verify the correctness of all 8 characters,the default is to transmit the check digit.



00441

Transmit check Digit *



00440

Do not Transmit check Digit

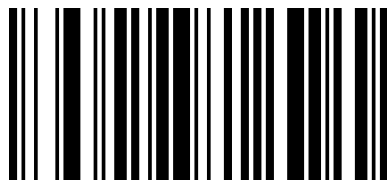
Whether to read additional bits

Additional bits refer to 2 or 5 digit barcodes added after the normal barcode, As shown below, the left blue line box is an ordinary bar code, the right side of the red box is an additional bit. the default is to turn off extra bits.



System character

UPC-E the system code of the barcode is the prefix character, default delivery system character.



00430

Transmit system character *

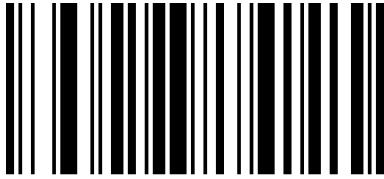


00431

Do not transmit system character

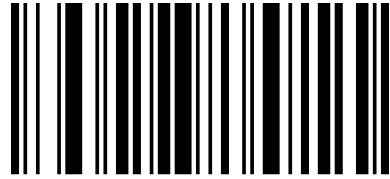
Extended settings

UPC-E barcode type supports extended settings, after opening extensions, Barcode information expanded to 13 bits, and the type is converted to UPC-A, the default is not extended.



00381

Barcode information is expanded, and the
type is converted to UPC-A

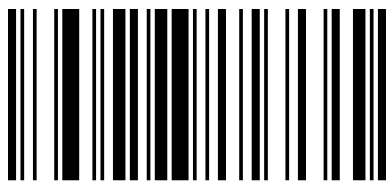


00380

Do not expand barcode information *

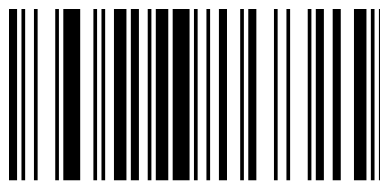
EAN-8

Enable/Disable EAN-8



00371

Enable EAN-8*

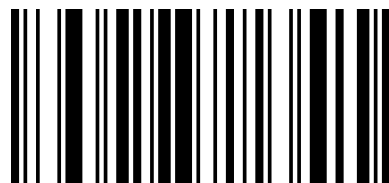


00370

Disable EAN-8

Transmit Check Digit

EAN-8 barcode data is fixed at 8 characters, Bit 8 is the parity bit, used to verify the correctness of all 8 characters , the default is to transmit the check digit.



00571

Transmit check Digit *



00570

Do not Transmit check Digit

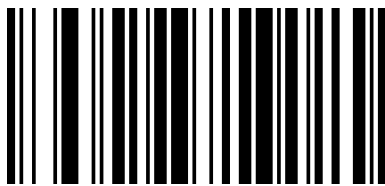
Whether to read additional bits

Additional bits refer to 2 or 5 digit barcodes added after the normal barcode, as shown below. The left blue line box is an ordinary bar code, the right side of the red box is an additional bit. the default is to turn off extra bits.



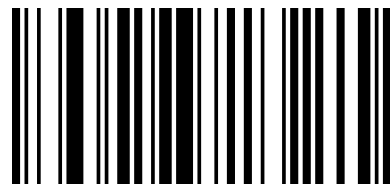
System character

EAN-8 barcode system code is a prefix character, default Not Transmit system character.



00560

Transmit System character*

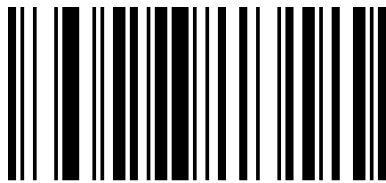


00561

Not Transmit System Character

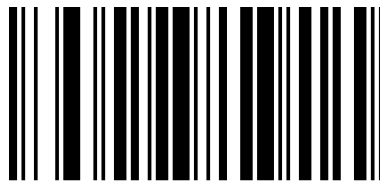
EAN-13

Enable/Disable EAN-13



00361

Enable EAN-13*

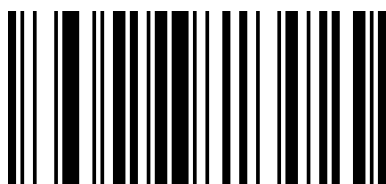


00360

Disable EAN-13

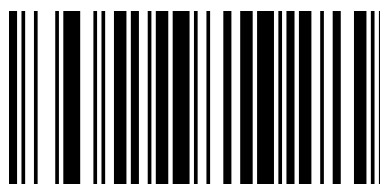
Transmit Check Digit

EAN-13 barcode data is fixed at 13 characters, Bit 13 is the parity bit , used to verify the correctness of all 13 characters , the default is to transmit check digit.



00461

Transmit Check Digit *



00460

Do not transmit check Digit

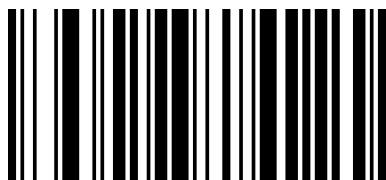
Whether to read additional bits

Additional bits refer to 2 or 5 digit barcodes added after the normal barcode , as shown below, the left blue box is an ordinary bar code, and the right red box is an extra bit. The default is to turn off extra bits.



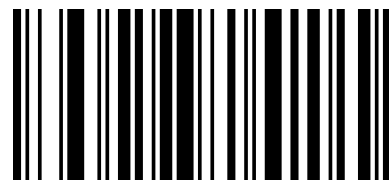
Extended settings

EAN-13 barcode type supports extended settings, Can be set to expand EAN-13 code to ISBN or ISSN barcode. The default is not extended.



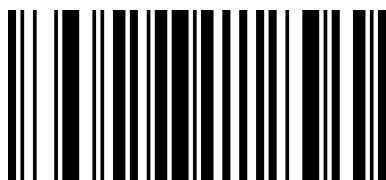
00481

Expanded to ISBN



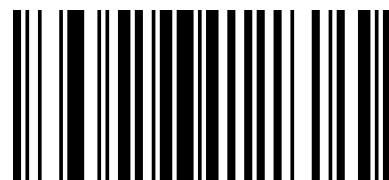
00480

Do not expand to ISBN*



01501

Expanded to ISSN

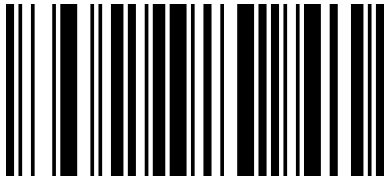


01500

Do not expand to ISSN*

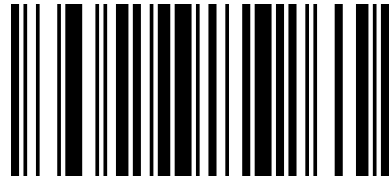
Code 128

Enable/Disable Code 128



00691

Enable Code 128*

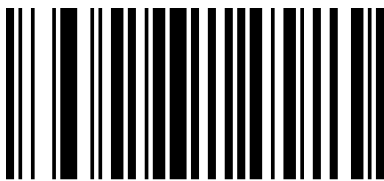


00690

Disable Code 128

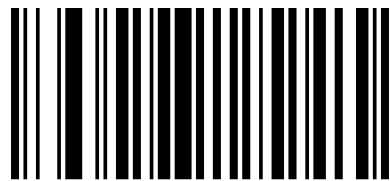
Code 39

Enable/Disable Code 39



00221

Enable Code 39*

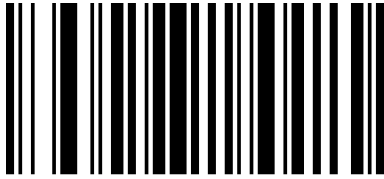


00220

Disable Code 39

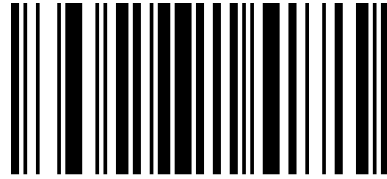
Transmit Start/Stop Character

A character "*" as a start and stop character before and after the Code 39 barcode data , you can set whether the start and stop characters are transmitted together with the barcode data after the reading is successful.



00281

Transmit Start/Stop Character

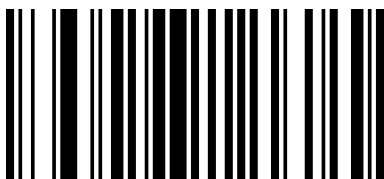


00280

Do not Transmit Start/Stop Character*

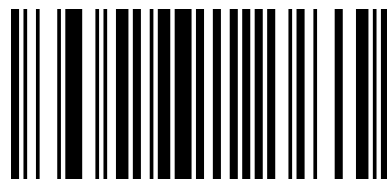
Enable/Disable Code 39 Full ASCII

Code 39 data can include all ASCII characters, but the barcode reader only reads some ASCII characters by default , by setting, you can turn on the function of reading full ASCII characters , default Enable all ASCII characters.



00231

Enable Code 39 Full ASCII*

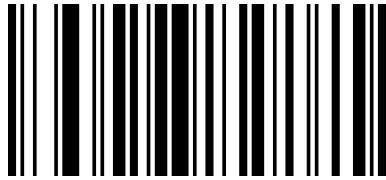


00230

Disable Code 39 Full ASCII*

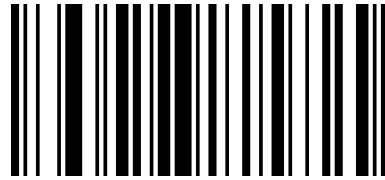
Code 93

Enable/Disable Code 93



00621

Enable Code 93*

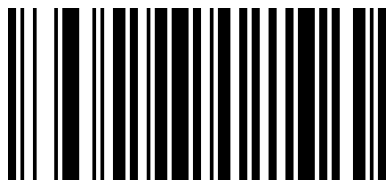


00620

Disable Code 93

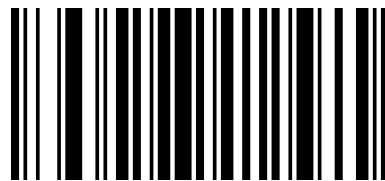
Check Digit Verification

Code 93 barcode data does not include check digits, if there is a check digit , is the last 2 characters of the data. the check digit is a calculated value based on all data , used to verify that the data is correct.



01901

Transmit Check Digit After Verification

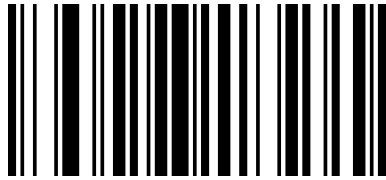


01900

Do Not Transmit Check Digit After
Verification *

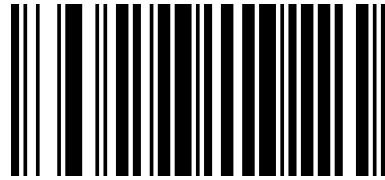
Code 11

Enable/Disable Code 11



01261

Enable Code 11*

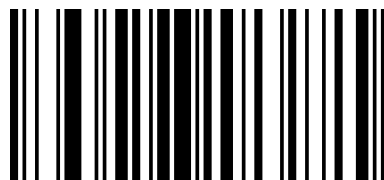


01260

Disable Code 11

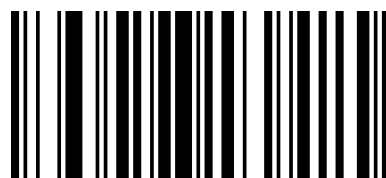
Check Digit Verification

Code 11 Barcode data does not necessarily include check bits, if there is a check digit , it can be the last 1 or 2 characters of the data. The check digit is a value calculated from all data to verify that the data is correct.



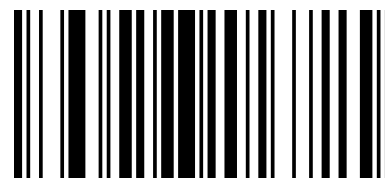
01272

C Check *



01273

CK Check

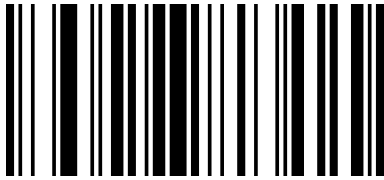


01271

Automatic CK Check

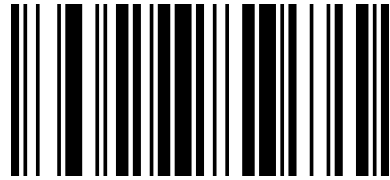
Interleaved 2 of 5

Enable/Disable Interleaved 2 of 5



00961

Enable Interleaved 2 of 5*

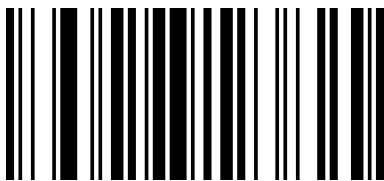


00960

Disable Interleaved 2 of 5

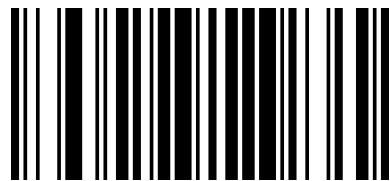
Matrix 2 of 5

Enable/Disable Matrix 2 of 5



01461

Enable Matrix 2 of 5*

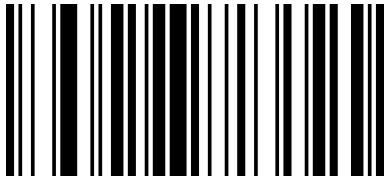


01460

Disable Matrix 2 of 5

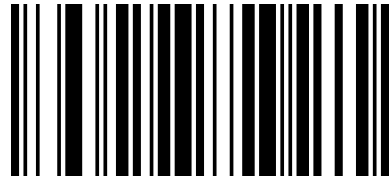
Industrial 2 of 5

Enable/Disable Industrial 2 of 5



01061

Enable Industrial 2 of 5*

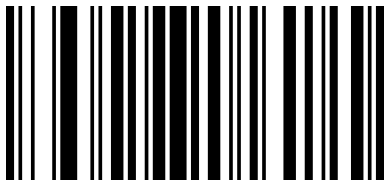


01060

Disable Industrial 2 of 5

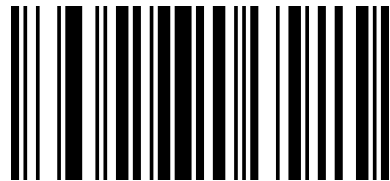
Standard 2 of 5(IATA)

Enable/Disable Standard 2 of 5



01871

Enable Standard 2 of 5*

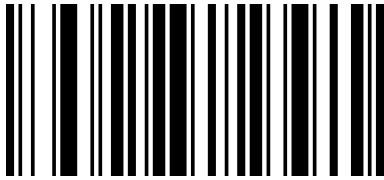


01870

Disable Standard 2 of 5

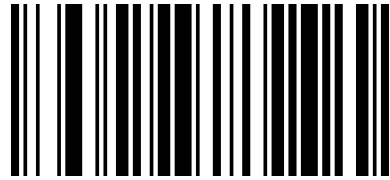
Codabar (NW-7)

Enable/Disable Codabar



00851

Enable Codabar*



00850

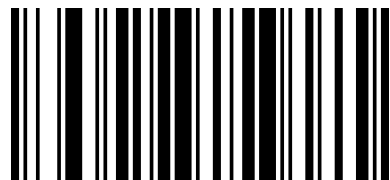
Disable Codabar

Transmit Start/Stop Character



00861

Transmit Start/Stop Character

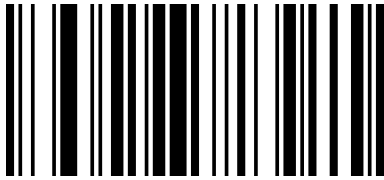


00860

Do not Transmit Start/Stop Character*

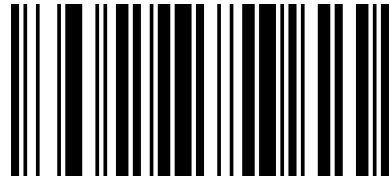
Plessey

Enable/Disable Plessey



01161

Enable Plessey

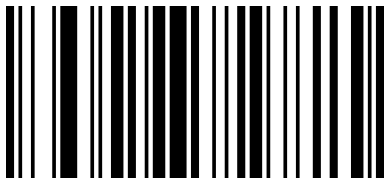


01160

Disable Plessey*

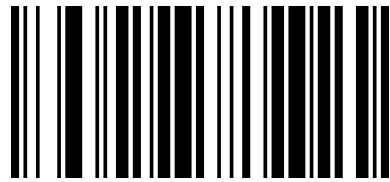
MSI Plessey

Enable/Disable MSI Plessey



01151

Enable MSI Plessey

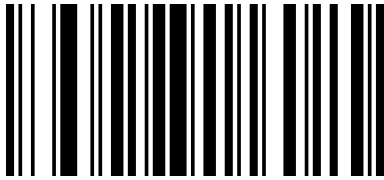


01150

Disable MSI Plessey*

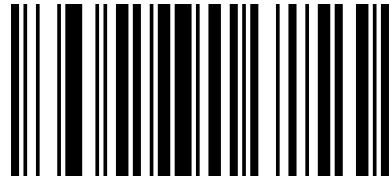
GS1 DataBar Limited (RSS Limited)

Enable/Disable RSS Limited



01771

Enable RSS Limited

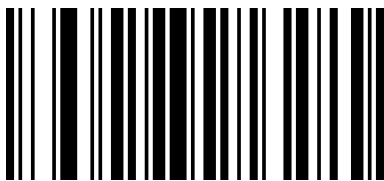


01770

Disable RSS Limited*

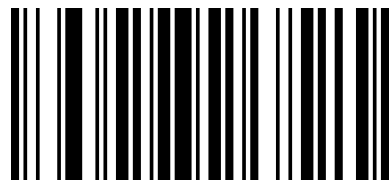
GS1 DataBar Omnidirectional (RSS Omnidirectional)

Enable/Disable RSS Omnidirectional



01671

Enable RSS Omnidirectional

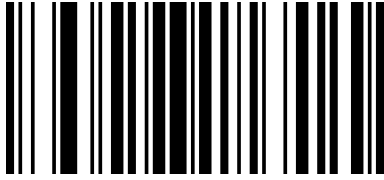


01670

Disable RSS Omnidirectional*

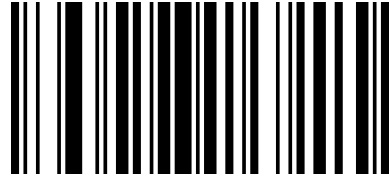
China Post (Datalogic 2 of 5)

Enable/Disable China Post



01571

Enable China Post

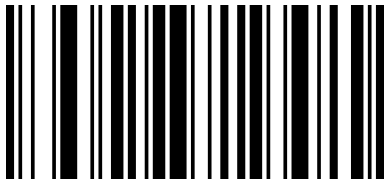


01570

DisableChina Post*

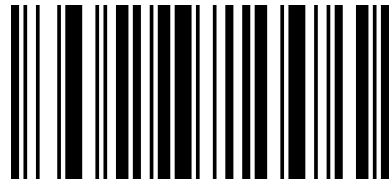
Add-on Code

Users can do additional setting by scanning following UPC/EAN/JAN code



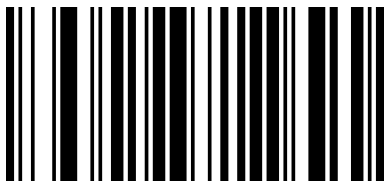
00551

Enable 2-Digit add-on Code



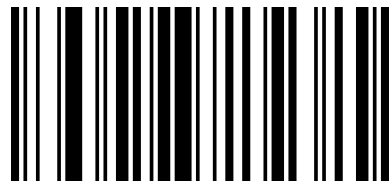
00552

Enable 5-Digit add-on Code



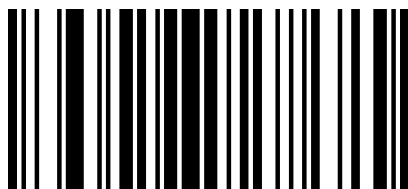
00553

Enable 2-Digit or 5-Digit add-on Code



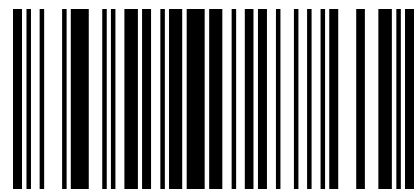
00550

Disable Add-on Code*



02611

Add-on Code Required



02610

Add-on Code Not Required

Chapter5 Serial Communication Instruction

Instruction

When using the serial port mode, the barcode reader can control the barcode scanner to send commands or set related functions by sending relevant instructions.

Serial instruction is fixed to 16 bytes in one frame (16bytes , 1byte=8bit) .

Frame format structure

Serial port instruction one frame format is as follows :

STX+CMD+DA0+DA1+DA2+DA3+DA4+DA5+DA6++DA10+DA11+ETX+SUM

To ensure data accuracy, the last byte of a frame of data (16 bytes) is the checksum, assuming that the first 15 bytes are a, and then $SUM = 256 - (a \& 0xFF)$.

Among them :

STX=0x02; ETX=0x03 (STX and ETX values are ASCII hexadecimal defined values.)

CMD represents a control or setup instruction.

Instruction Parsing

When CMD=0x01, it indicates a control instruction.

DA0=0x01, control the barcode reader switch command, can control the barcode reader to open or close the decoding function.

DA1=0x00, Controlling the Barcode Off (Decoding Off)

DA1=0x01, control the barcode reader on (open decoding, no timeout, no highlighting until decoding is complete, until the decoding is completed.)

DA1=0x02, control the barcode reader on (open decode, timeout)

DA2~DA3, timeout in 1ms (format 0xDA3 0xDA2) When CMD = 0x02, indicates setting instruction.

When CMD=0x02, it represents the setting instruction

DA0, the setting code is valid byte length +1 (if display version number setting code is 000A0, length is 5, DA0=6)

DA1, fixed to 0x82

DA2~DA11, setting code content (set bar code encoding), DA2 start insufficient bit complement 0x00

Instruction save

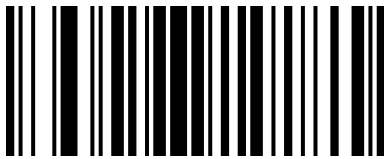
When the user sends a set barcode reader parameter using an instruction, after sending the setup instruction, an instruction to save the parameter needs to be sent to save the current parameter. (Open and close instructions do not need to be saved)

STX	CMD	DA0	DA1	DA2	DA3	DA4~DA10	DA11	ETX	SUM
02H	01H	03H	AAH	55H	00H	00H~00H	00H	03H	F8H

Save parameter instructions : 02 01 03 AA 55 00 00 00 00 00 00 00 00 00 03 F8

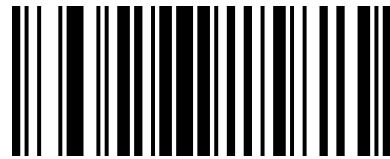
Instruction Feedback Setting

After the setup response is turned on (scan code 02421, or serial port send command is enabled), if the setup command is executed successfully, it will respond with a response character ACK (ASCII code 0x06). If it can't be executed successfully, it will answer a NAK (ASCII code) 0x15.



02421

Enable response

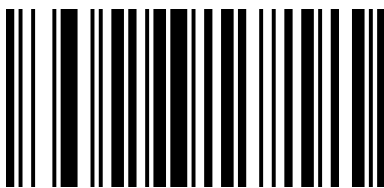


02420

Disable response*

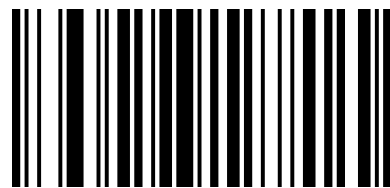
Sound Feedback Settings

When the audio feedback is turned on (scan code 01411, or serial port command is enabled), if the setup command is successfully executed, the buzzer will sound, and the instruction execution sound feedback is turned off by default.



01411

Turn on feedback sound



01410

Turn off feedback sound *

Trigger instruction

Turn on scan : 02 01 01 02 B8 0B 00 00 00 00 00 00 00 00 03 34

Turn off scan : 02 01 01 00 00 00 00 00 00 00 00 00 00 00 03 F9

Case Analysis

Close decoding

CMD=0x01, DA0=0x01, DA1=0x00, DA2~DA11=0x00,

$a = (0) \times 16 + (2 + 1 + 1 + 3) \times 1 = 7 = 0x07$

$SUM = 256 - (0x07 \& FF) = 256 - (111 \& 11111111) = 256 - 7 = 249 = 0xF9$

STX	CMD	DA0	DA1	DA2	DA3	DA4~DA10	DA11	ETX	SUM
02H	01H	01H	00H	00H	00H	00H~00H	00H	03H	F9H

Hexadecimal instructions : 02 01 01 00 00 00 00 00 00 00 00 00 00 00 03 F9

Turn on decode timeout 3 seconds

CMD=0x01, DA0=0x01, DA1=0x02, DA2=B8, DA3=0B, DA4~DA11=0x00,

Time out 3S=3000MS=0x0BB8

$a = (B) \times 16 + (2 + 1 + 1 + 2 + 8 + B + 3) \times 1 = 204 = 0xCC$

$SUM = 256 - (0xCC \& FF) = 256 - (11001100 \& 11111111) = 256 - 204 = 52 = 0x34$

STX	CMD	DA0	DA1	DA2	DA3	DA4~DA10	DA11	ETX	SUM
02H	01H	01H	02H	B8H	0BH	00~00H	00H	03H	34H

Hexadecimal instructions : 02 01 01 02 B8 0B 00 00 00 00 00 00 00 00 03 34

Set the baud rate 115200

Set instruction code : 000709

CMD=0x02, DA0=0x07, DA1=0x82,

DA2~DA7=000709=0x30,0x30,0x30,0x30,0x37,0x30,0x39

$a = (8+3+3+3+3+3+3)*16 + (2+2+7+2+9+5+3)*1 = 448 = 0x1c0$

$SUM = 256 - (0x1c0 \& FF) = 256 - (111000000 \& 11111111) = 256 - 192 = 64 = 0x40$

STX	CMD	DA0	DA1	DA2	DA3	DA4	DA5	DA6	DA7	DA8~DA11	ETX	SUM
02H	02H	07H	82H	30H	30H	30H	37H	39H	35H	00H~00H	03H	40H

Hexadecimal instructions : 02 02 07 82 30 30 30 37 30 39 00 00 00 00 03 40

Add carriage return line feed

Set instruction code : 0213@\r\n

CMD=0x02, DA0=0x08, DA1=0x82,

DA2~DA8=0213@\r\n =0x30,0x32,0x31,0x33,0x40,0x0D,0x0A

$a = (8+3+3+3+3+4)*16 + (2+2+8+2+2+1+3+13+10+3)*1 = 430 = 0x1ae = 256 -$

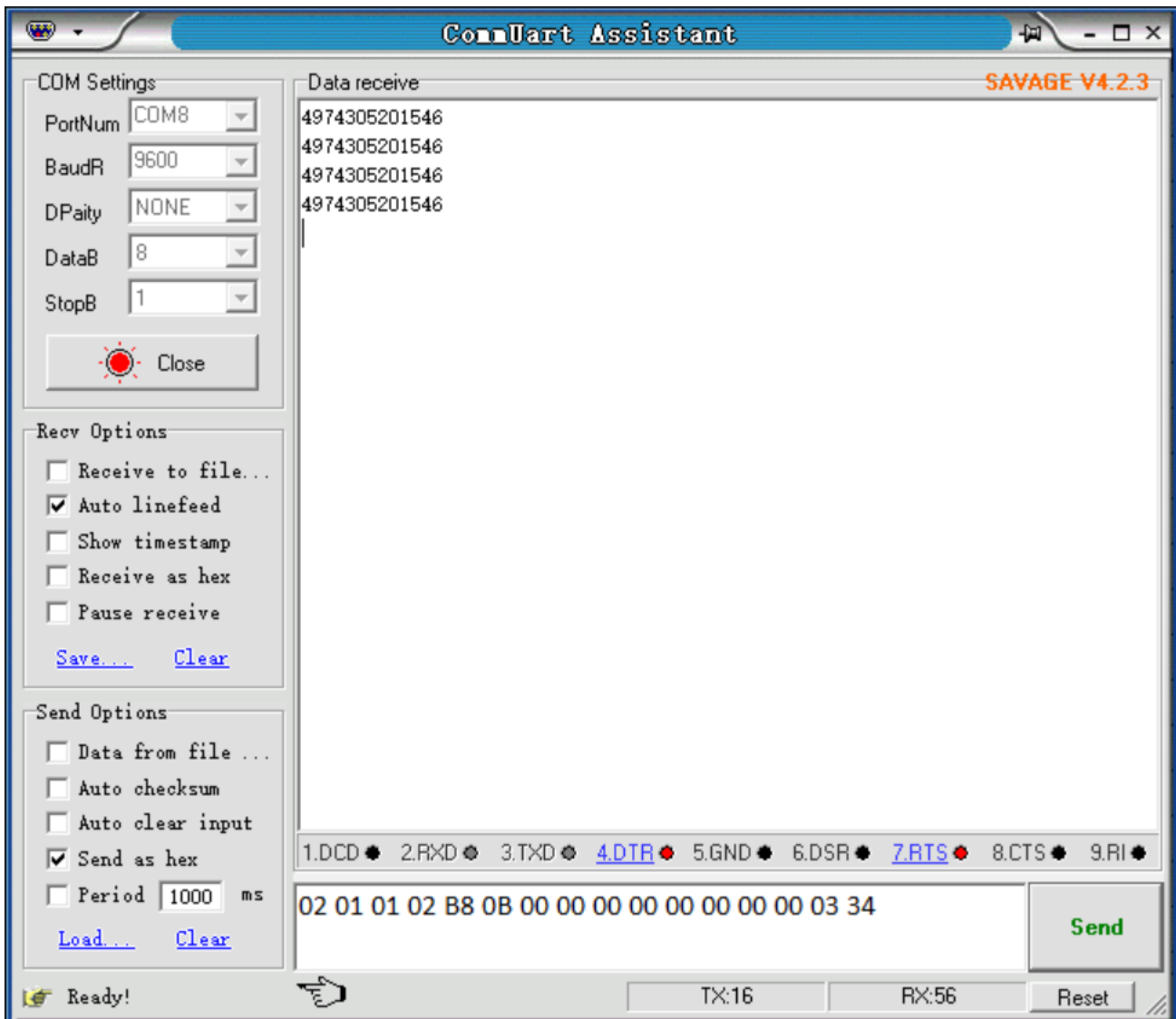
$(0x1ae \& 0xFF) = 256 - (110101110 \& 11111111) = 256 - (10101110) = 256 - 174 = 82 = 0x52$

STX	CM	DA	DA	DA	DA	DA	DA	DA	DA	DA	DA9~DA1	ETX	SU
	D	0	1	2	3	4	5	6	7	8	1		M
02H	02H	08H	82H	30H	32H	31H	33H	40H	0DH	0AH	00H~00H	03H	52H

Hexadecimal instructions : : 02 02 08 82 30 32 31 33 40 0D 0A 00 00 00 03 52

Instruction sending example

Send a hexadecimal command to control the scan. Use the instruction to open the decode timeout for 3 seconds to confirm the serial port protocol setting. Enter the corresponding command in the command sending input box.



Note: For detailed instructions, please refer to "Appendix - Instruction Set"

Chapter6 Appendix

Appendix - Default Settings Sheet

Parameter name	Default setting	Instruction Remark
Comprehensive settings		
Setting code function	ON	Default on
Send setup code	OFF	Default off
Reading mode	Manual reading	
Decoding sound	Open	
Sound frequency	IF-loud	
Sound frequency	2.0KHZ	
USB Fast pass	OFF	
USB transfer speed	Moderate speed	
Image recognition method	Forward image recognition	
Communication settings		
Interface mode	USB-KBW	
Keyboard mode	American English	
Baud rate	9600	
Serial port verification	No check	
Data bits	8 个	
Stop bit	1 位	
Data editing		
Send Code ID	OFF	
Send a custom prefix	OFF	
Send a custom suffix	OFF	
End of transmit suffix	ON	Allow, Enter
Character conversion	OFF	Normal

Parameter name	Default setting	Instruction remark
Barcode parameter settings		
UPC-A		
Enable	ON	
Transmit Check Digit	ON	
Enable 2-Digit add-on Code	OFF	
Enable 5-Digit add-on Code	OFF	
2-Digit Add-on Code Required	OFF	
5-Digit Add-on Code Required	OFF	
Transfer system character	ON	
Barcode information expanded to EAN-13	OFF	
UPC-E		
Enable	ON	
Transmit Check Digit	ON	
Enable 2-Digit add-on Code	OFF	
Enable 5-Digit add-on Code	OFF	
2-Digit Add-on Code Required	OFF	
5-Digit Add-on Code Required	OFF	
Transfer system character	ON	
Expanded to UPC-A	OFF	
When expanding, the type is converted to UPC-A	OFF	
EAN-8		
Enable	ON	
Transmit Check Digit	ON	
Enable 2-Digit add-on Code	OFF	

Enable 5-Digit add-on Code	OFF
2-Digit Add-on Code Required	OFF
5-Digit Add-on Code Required	OFF
Transfer system character	ON
EAN-13	
Enable	ON
Transmit Check Digit	ON
Enable 2-Digit add-on Code	OFF
Enable 5-Digit add-on Code	OFF
2-Digit Add-on Code Required	OFF
5-Digit Add-on Code Required	OFF
Expand to ISBN	OFF
Code 128	
Enable	ON
Transmit Check Digit	OFF
Code 39	
Enable	ON
Transmit Start/Stop Character	OFF
Enable Code 39 Full ASCII	ON
Code 93	
Enable	ON
Transmit Check Digit	OFF
Code 11	
Enable	ON
Check	ON
Transmit Check Digit	C 校验

Interleaved 2 of 5	
Enable	ON
Matrix 2 of 5	
Enable	ON
Industrial 2 of 5	
Enable	ON
Standard 2 of 5	
Enable	ON
Codabar	
Enable	ON
Transmit Start/Stop Character	OFF
Plessey	
Enable	OFF
MSI Plessey	
Enable	OFF
RSS Limited	
Enable	OFF
RSS Omnidirectional	
Enable	OFF
China Post	
Enable	OFF
Add-on Code	
Enable add-on Code	OFF
Add-on Code Required	OFF

Appendix -Code ID

No.	Barcode type	Code ID Code	Barcode type code (Suffix
1	All Barcode	@	00
2	CODE 128	a	01
3	EAN 8	c	03
4	EAN 13	d	04
5	UPC-A	e	05
6	UPC-E	f	06
7	CODE 93	i	09
8	GS1 Omnidirectional	j	0A
9	GS1 Limited	k	0B
10	CODE 39	m	0D
11	Interleaved 2 of 5	n	0E
12	Industrial 2 of 5	o	0F
13	Standard 2 of 5	p	10
14	Matrix 2 of 5	q	11
15	China Post	r	12
16	MSI	s	13
17	Plessey	t	14
18	Code 11	u	15
19	Codabar	v	16

Appendix - Instruction Set

Function	instructions	Hexadecimal instructions
1. Turn on scanning without timeout	NA	02 01 01 01 00 00 00 00 00 00 00 00 00 00 00 03 F8
2. Turn on scanning timeout 3 seconds	NA	02 01 01 02 B8 0B 00 00 00 00 00 00 00 00 00 03 34
3. Turn on scanning timeout 10 seconds	NA	02 01 01 02 10 27 00 00 00 00 00 00 00 00 00 03 C0
4. Close the scan	NA	02 01 01 00 00 00 00 00 00 00 00 00 00 00 00 03 F9
5. Restore default settings	000B0	02 02 06 82 30 30 30 42 30 00 00 00 00 00 00 03 6F
6. Check the software version	000A0	02 02 06 82 30 30 30 41 30 00 00 00 00 00 00 03 70
7. Enter Setup	09990	02 02 06 82 30 39 39 39 30 00 00 00 00 00 00 03 66
8. Exit Setup	09991	02 02 06 82 30 39 39 39 31 00 00 00 00 00 00 03 65
9. Transmit Programming Barcode Data	02501	02 02 06 82 30 32 35 30 31 00 00 00 00 00 00 03 79
10. Not Transmit Programming Barcode Data ent	02500	02 02 06 82 30 32 35 30 30 00 00 00 00 00 00 03 7A

11. Trigger Mode	013300	02 02 07 82 30 31 33 33 30 30 00 00 00 00 03 49
12. Continuous scanning mode	013304	02 02 07 82 30 31 33 33 30 34 00 00 00 00 03 45
13. Turn on Sense Mode	02311	02 02 06 82 30 32 33 31 31 00 00 00 00 00 03 7A
14. Turn off Sense Mode	02310	02 02 06 82 30 32 33 31 30 00 00 00 00 00 03 7B
15. Flashing mode (key on)	013306	02 02 07 82 30 31 33 33 30 36 00 00 00 00 03 43
16. Flashing mode (press off)	013305	02 02 07 82 30 31 33 33 30 35 00 00 00 00 03 44
17. Key delay single read mode	013301	02 02 07 82 30 31 33 33 30 31 00 00 00 00 03 48
18. 1 second timeout	023510	02 02 07 82 30 32 33 35 31 30 00 00 00 00 03 45
19. 3 second timeout	023530	02 02 07 82 30 32 33 35 33 30 00 00 00 00 03 43
20. 10 second timeout	0235A0	02 02 07 82 30 32 33 35 41 30 00 00 00 00 03 35
21. 15 second timeout	0235F0	02 02 07 82 30 32 33 35 46 30 00 00 00 00 03 30

22. Enable decoding sound	014201	02 02 07 82 30 31 34 32 30 31 00 00 00 00 03 48
23. Turn off decoding sound	014200	02 02 07 82 30 31 34 32 30 30 00 00 00 00 03 49
24. Increased sound	014300	02 02 07 82 30 31 34 33 30 30 00 00 00 00 03 48
25. Reduced sound	014301	02 02 07 82 30 31 34 33 30 31 00 00 00 00 03 47
26. Sound frequency 2.0KHZ	0145800	02 02 08 82 30 31 34 35 38 30 30 00 00 00 03 0D
27. Sound frequency 2.7KHZ	0145AAA	02 02 08 82 30 31 34 35 41 41 41 00 00 00 03 E2
28. Allow USB fast transfer	02301	02 02 06 82 30 32 33 30 31 00 00 00 00 00 03 7B
29. Prohibit USB fast transmit	02300	02 02 06 82 30 32 33 30 30 00 00 00 00 00 03 7C
30. Fast transmit	001500	02 02 07 82 30 30 31 35 30 30 00 00 00 00 03 4A
31. Moderate transmit speed	001502	02 02 07 82 30 30 31 35 30 32 00 00 00 00 03 48
32. Slow transmit	001504	02 02 07 82 30 30 31 35 30 34 00 00 00 00 03 46

33. slowest transmit speed	001506	02 02 07 82 30 30 31 35 30 36 00 00 00 00 03 44
34. Normal image recognition	00161	02 02 06 82 30 30 31 36 31 00 00 00 00 00 03 79
35. Reverse image recognition	024B002.	02 02 06 82 30 30 31 36 30 00 00 00 00 00 03 7A
36. USB-KBW	000602	02 02 07 82 30 30 30 36 30 32 00 00 00 00 03 48
37. PS2	000600	02 02 07 82 30 30 30 36 30 30 00 00 00 00 03 4A
38. USB-COM	000603	02 02 07 82 30 30 30 36 30 33 00 00 00 00 03 47
39. TTL/RS232	000601	02 02 07 82 30 30 30 36 30 31 00 00 00 00 03 49
40. Baud rate 600bps	000701	02 02 07 82 30 30 30 37 30 31 00 00 00 00 03 48
41. Baud rate 1200bps	000702	02 02 07 82 30 30 30 37 30 32 00 00 00 00 03 47
42. Baud rate 2400bps	000703	02 02 07 82 30 30 30 37 30 33 00 00 00 00 03 46
43. Baud rate 4800bps	000704	02 02 07 82 30 30 30 37 30 34 00 00 00 00 03 45

44. Baud rate 9600bps	000705	02 02 07 82 30 30 30 37 30 35 00 00 00 00 03 44
45. Baud rate 19200bps	000706	02 02 07 82 30 30 30 37 30 36 00 00 00 00 03 43
46. Baud rate 38400bps	000707	02 02 07 82 30 30 30 37 30 37 00 00 00 00 03 42
47. Baud rate 57600bps	000708	02 02 07 82 30 30 30 37 30 38 00 00 00 00 03 41
48. Baud rate 115200bps	000709	02 02 07 82 30 30 30 37 30 39 00 00 00 00 03 40
49. Transfer CODE ID	01401	02 02 06 82 30 31 34 30 31 00 00 00 00 00 03 7B
50. Transfer CODE ID	01400	02 02 06 82 30 31 34 30 30 00 00 00 00 00 03 7C
51. Add a custom prefix	0223XX	XX Hexadecimal code that corresponds to the "Appendix - Character Table" character , add one at a time , can add up. Example : add the character A (0x41), set the code to 022341 , The instruction is : 02 02 07 82 30 32 32 33 34 31 00 00 00 00 03 44
52. Clear all prefixes	02220	02 02 06 82 30 32 32 32 30 00 00 00 00 00 03 7B

53. Add a custom suffix	0221XX	XX is the hexadecimal code of the "Appendix - Character Table" corresponding character , each time you add one, you can add it cumulatively. Example : Add the character B (0x42), the setting code is 022142, and the instruction is : 02 02 07 82 30 32 32 31 34 32 00 00 00 00 03 45
54. Clear all suffixes	02200	02 02 06 82 30 32 32 30 30 00 00 00 00 00 03 7D
55. Hide the leading 1 character	023401	02 02 07 82 30 32 33 34 30 31 00 00 00 00 03 46
56. Hide the leading 2 characters	023402	02 02 07 82 30 32 33 34 30 32 00 00 00 00 03 45
57. Hide the leading 3 characters	023403	02 02 07 82 30 32 33 34 30 33 00 00 00 00 03 44
58. Hide the leading 5 characters	023405	02 02 07 82 30 32 33 34 30 33 00 00 00 00 03 44
59. Unhide leading characters	023400	02 02 07 82 30 32 33 34 30 30 00 00 00 00 03 47
60. Hide the one-bit character	023301	02 02 07 82 30 32 33 33 30 31 00 00 00 00 03 47

61. Hide the last 2 characters	023302	02 02 07 82 30 32 33 33 30 32 00 00 00 00 03 46
62. Hides the last 3 characters	023303	02 02 07 82 30 32 33 33 30 33 00 00 00 00 03 45
63. Hide the last 5 characters	023305	02 02 07 82 30 32 33 33 30 35 00 00 00 00 03 43
64. Unhide the trailing characters	023300	02 02 07 82 30 32 33 33 30 30 00 00 00 00 03 48
65. Hiding the middle of the first character begins	024001	02 02 07 82 30 32 34 30 30 31 00 00 00 00 03 49
66. Hiding the middle of the second character starts	024002	02 02 07 82 30 32 34 30 30 32 00 00 00 00 03 48
67. Hiding the middle of the third character starts	024003	02 02 07 82 30 32 34 30 30 33 00 00 00 00 03 47
68. Hiding the middle of the 4th character starts	024004	02 02 07 82 30 32 34 30 30 34 00 00 00 00 03 46
69. Hiding the middle of the 5th character starts	024005	02 02 07 82 30 32 34 30 30 35 00 00 00 00 03 45
70. Hiding the middle of the 6th character starts	024006	02 02 07 82 30 32 34 30 30 36 00 00 00 00 03 44
71. Hiding the middle of the 7th character starts	024007	02 02 07 82 30 32 34 30 30 37 00 00 00 00 03 43

72. Hiding the middle of the 8th character starts	024008	02 02 07 82 30 32 34 30 30 38 00 00 00 00 03 42
73. Hide the middle 1 character	023901	02 02 07 82 30 32 33 39 30 31 00 00 00 00 03 41
74. Hide the middle 2 characters	023902	02 02 07 82 30 32 33 39 30 32 00 00 00 00 03 40
75. Hide the middle 3 characters	023903	02 02 07 82 30 32 33 39 30 33 00 00 00 00 03 3F
76. Hide the middle 4 characters	023904	02 02 07 82 30 32 33 39 30 34 00 00 00 00 03 3E
77. Hide the middle 5 characters	023905	02 02 07 82 30 32 33 39 30 35 00 00 00 00 03 3D
78. Hide the middle 6 characters	023906	02 02 07 82 30 32 33 39 30 36 00 00 00 00 03 3C
79. Hide the middle 7 characters	023907	02 02 07 82 30 32 33 39 30 37 00 00 00 00 03 3B
80. Hide the middle 8 characters	023908	02 02 07 82 30 32 33 39 30 38 00 00 00 00 03 3A
81. Unhide the middle character	023300	02 02 07 82 30 32 33 39 30 30 00 00 00 00 03 42
82. Add Enter	0212@«CR»	02 02 07 82 30 32 31 32 40 0D 00 00 00 00 03 5E

83. Add LF	0212@«LF»	02 02 07 82 30 32 31 32 40 0A 00 00 00 00 03 61
84. Add CR+LF	0213@«CR»« LF»	02 02 08 82 30 32 31 33 40 0D 0A 00 00 00 03 52
85. Add Tab	0122@«HT»	02 02 07 82 30 32 31 32 40 09 00 00 00 00 03 62
86. None	0210@	02 02 06 82 30 32 31 30 40 00 00 00 00 00 03 6E
87. Character conversion -Normal	02510	02 02 06 82 30 32 35 31 30 00 00 00 00 00 03 79
88. Character conversion -Upper	02511	02 02 06 82 30 32 35 31 31 00 00 00 00 00 03 78
89. Character conversion -Lower	02512	02 02 06 82 30 32 35 31 32 00 00 00 00 00 03 77
90. Character conversion-Inverse	02513	02 02 06 82 30 32 35 31 33 00 00 00 00 00 03 76
91. Enable UPC-A	000341	02 02 07 82 30 30 30 33 34 31 00 00 00 00 03 48
92. Disable UPC-A	000340	02 02 07 82 30 30 30 33 34 30 00 00 00 00 03 49
93. UPC-A Transmit Check Digit	00421	02 02 06 82 30 30 34 32 31 00 00 00 00 00 03 7A

94. UPC-A Do not Transmit Check Digit	00420	02 02 06 82 30 30 34 32 30 00 00 00 00 00 03 7B
95. UPC-A Transfer system character	00400	02 02 06 82 30 30 34 30 30 00 00 00 00 00 03 7D
96. UPC-A Do not send system character	00401	02 02 06 82 30 30 34 30 31 00 00 00 00 00 03 7C
97. UPC-A Barcode information extension	00391	02 02 06 82 30 30 33 39 31 00 00 00 00 00 03 74
98. UPC-A Barcode information does not expand	00390	02 02 06 82 30 30 33 39 30 00 00 00 00 00 03 75
99. Enable UPC-E	00351	02 02 06 82 30 30 33 35 31 00 00 00 00 00 03 78
100. Disable UPC-E	00350	02 02 06 82 30 30 33 35 30 00 00 00 00 00 03 79
101. UPC-E Transmit Check Digit	00441	02 02 06 82 30 30 34 34 31 00 00 00 00 00 03 78
102. UPC-E Do not Transmit Check Digit	00440	02 02 06 82 30 30 34 34 30 00 00 00 00 00 03 79
103. UPC-E Transfer system character	00430	02 02 06 82 30 30 34 33 30 00 00 00 00 00 03 7A
104. UPC-E Do not send system characters	00431	02 02 06 82 30 30 34 33 31 00 00 00 00 00 03 79

105. UPC-E Bar code information extension	00381	02 02 06 82 30 30 33 38 31 00 00 00 00 00 03 75
106. UPC-E Barcode information does not expand	00380	02 02 06 82 30 30 33 38 30 00 00 00 00 00 03 76
107. Enable EAN-8	00371	02 02 06 82 30 30 33 37 31 00 00 00 00 00 03 76
108. Disable EAN-8	00370	02 02 06 82 30 30 33 37 30 00 00 00 00 00 03 77
109. EAN-8 Transmit Check Digit	00571	02 02 06 82 30 30 35 37 31 00 00 00 00 00 03 74
110. EAN-8 Do not Transmit Check Digit	00570	02 02 06 82 30 30 35 37 30 00 00 00 00 00 03 75
111. EAN-8 Transmit System character	00560	02 02 06 82 30 30 35 36 30 00 00 00 00 00 03 76
112. EAN-8 Do not Transmit System character	00561	02 02 06 82 30 30 35 36 31 00 00 00 00 00 03 75
113. Enable EAN-13	00361	02 02 06 82 30 30 33 36 31 00 00 00 00 00 03 77
114. Disable EAN-13	00360	02 02 06 82 30 30 33 36 30 00 00 00 00 00 03 78
115. EAN-13 Transmit Check Digit	00461	02 02 06 82 30 30 34 36 31 00 00 00 00 00 03 76

116. EAN-13 Do not transmit Check Digit	00460	02 02 06 82 30 30 34 36 30 00 00 00 00 00 03 77
117. EAN-13 Extended to ISBN	00481	02 02 06 82 30 30 34 38 31 00 00 00 00 00 03 74
118. EAN-13 Do not Extended to ISBN	00480	02 02 06 82 30 30 34 38 30 00 00 00 00 00 03 75
119. EAN-13 Extended to ISSN	01501	02 02 06 82 30 31 35 30 31 00 00 00 00 00 03 7A
120. EAN-13 Do not Extended to ISSN	01500	02 02 06 82 30 31 35 30 30 00 00 00 00 00 03 7B
121. Enable Code 128	00691	02 02 06 82 30 30 36 39 31 00 00 00 00 00 03 71
122. Disable Code 128	00690	02 02 06 82 30 30 36 39 30 00 00 00 00 00 03 72
123. Enable Code 39	00221	02 02 06 82 30 30 32 32 31 00 00 00 00 00 03 7C
124. Disable Code 39	00220	02 02 06 82 30 30 32 32 30 00 00 00 00 00 03 7D
125. Code 39 Transmit Start/Stop Character	00281	02 02 06 82 30 30 32 38 31 00 00 00 00 00 03 76
126. Code 39 Do not Transmit Start/Stop Character	00280	02 02 06 82 30 30 32 38 30 00 00 00 00 00 03 77

127. Code 39 Enable Code 39 Full ASCII	00231	02 02 06 82 30 30 32 33 31 00 00 00 00 00 03 7B
128. Code 39 Disable Code 39 Full ASCII	00230	02 02 06 82 30 30 32 33 30 00 00 00 00 00 03 7C
129. Enable Code 93	00621	02 02 06 82 30 30 36 32 31 00 00 00 00 00 03 78
130. Disable Code 93	00620	02 02 06 82 30 30 36 32 30 00 00 00 00 00 03 79
131. Code 93 Transmit check Digit	01901	02 02 06 82 30 31 39 30 31 00 00 00 00 00 03 76
132. Code 93 Transmit check Digit	01900	02 02 06 82 30 31 39 30 30 00 00 00 00 00 03 77
133. Enable Code 11	01261	02 02 06 82 30 31 32 36 31 00 00 00 00 00 03 77
134. Disable Code 11	01260	02 02 06 82 30 31 32 36 30 00 00 00 00 00 03 78
135. Code 11 C Check	01272	02 02 06 82 30 31 32 37 32 00 00 00 00 00 03 75
136. Code 11 CK Check	01273	02 02 06 82 30 31 32 37 33 00 00 00 00 00 03 74
137. Code 11 automatic CK Check	01271	02 02 06 82 30 31 32 37 31 00 00 00 00 00 03 76

138. Enable Interleaved 2 of 5	00961	02 02 06 82 30 30 39 36 31 00 00 00 00 00 03 71
139. Disable Interleaved 2 of 5	00960	02 02 06 82 30 30 39 36 30 00 00 00 00 00 03 72
140. Enable Matrix 2 of 5	01461	02 02 06 82 30 31 34 36 31 00 00 00 00 00 03 75
141. Disable Matrix 2 of 5	01460	02 02 06 82 30 31 34 36 30 00 00 00 00 00 03 76
142. Enable Industrial 2 of 5	01061	02 02 06 82 30 31 30 36 31 00 00 00 00 00 03 79
143. Disable Industrial 2 of 5	01060	02 02 06 82 30 31 30 36 30 00 00 00 00 00 03 7A
144. Enable Standard 2 of 5	01871	02 02 06 82 30 31 38 37 31 00 00 00 00 00 03 70
145. Disable Standard 2 of 5	01870	02 02 06 82 30 31 38 37 30 00 00 00 00 00 03 71
146. Enable Codabar	00851	02 02 06 82 30 30 38 35 31 00 00 00 00 00 03 73
147. Disable Codabar	00850	02 02 06 82 30 30 38 35 30 00 00 00 00 00 03 74
148. Codabar Transmit Start/Stop Character	00861	02 02 06 82 30 30 38 36 31 00 00 00 00 00 03 72

149.	Codabar Do not Transmit Start/Stop Character	00860	02 02 06 82 30 30 38 36 30 00 00 00 00 00 03 73
150.	Enable Plessey	01161	02 02 06 82 30 31 31 36 31 00 00 00 00 00 03 78
151.	Disable Plessey	01160	02 02 06 82 30 31 31 36 30 00 00 00 00 00 03 79
152.	Enable MSI Plessey	01151	02 02 06 82 30 31 31 35 31 00 00 00 00 00 03 79
153.	Disable MSI Plessey	01150	02 02 06 82 30 31 31 35 30 00 00 00 00 00 03 7A
154.	Enable RSS Limited	01771	02 02 06 82 30 31 37 37 31 00 00 00 00 00 03 71
155.	Disable RSS Limited	01770	02 02 06 82 30 31 37 37 30 00 00 00 00 00 03 72
156.	Enable RSS Omni	01671	02 02 06 82 30 31 36 37 31 00 00 00 00 00 03 72
157.	Disable RSS Omni	01670	02 02 06 82 30 31 36 37 30 00 00 00 00 00 03 73
158.	Enable China Post	01571	02 02 06 82 30 31 35 37 31 00 00 00 00 00 03 73
159.	Disable China Post	01570	02 02 06 82 30 31 35 37 30 00 00 00 00 00 03 74

160. Enable 2-Digit add-on Code	00551	02 02 06 82 30 30 35 35 31 00 00 00 00 00 03 76
161. Enable 5-Digit add-on Code	00552	02 02 06 82 30 30 35 35 32 00 00 00 00 00 03 75
162. Enable 2-Digit or 5-Digit add-on Code	00553	02 02 06 82 30 30 35 35 33 00 00 00 00 00 03 74
163. Disable Add-on Code	00550	02 02 06 82 30 30 35 35 30 00 00 00 00 00 03 77
164. Add-on Code Required	02611	02 02 06 82 30 32 36 31 31 00 00 00 00 00 03 77
165. Add-on Code Not Required	02610	02 02 06 82 30 32 36 31 30 00 00 00 00 00 03 78
166. Enable response	02421	02 02 06 82 30 32 34 32 31 00 00 00 00 00 03 78
167. Disable response	02420	02 02 06 82 30 32 34 32 30 00 00 00 00 00 03 79
168. Turn on feedback sound	01411	02 02 06 82 30 31 34 31 31 00 00 00 00 00 03 7A
169. Turn off feedback sound	01410	02 02 06 82 30 31 34 31 30 00 00 00 00 00 03 7B
170. Save	N/A	02 01 03 AA 55 00 00 00 00 00 00 00 00 00 03 F8

Appendix - Character Table (for adding suffixes)



1001

SOH (01)



1004

EOT (04)



1007

BEL (07)



1010

LF (0A)



1013

CR (0D)



1016

DEL (10)



1019

DC3 (13)



1022

SYN (16)



1002

STX (02)



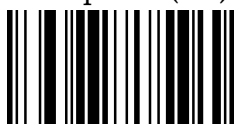
1005

ENQ (05)



1008

Backspace (08)



1011

VT (0B)



1014

SO (0E)



1017

DC1 (11)



1020

DC4 (14)



1023

ETB (17)



1003

ETX (03)



1006

ACK (06)



1009

HT (09)



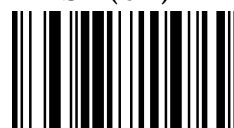
1012

FF (0C)



1015

SI (0F)



1018

DC2 (12)



1021

NAK (15)



1024

CAN (18)



1025
EM (19)



1028
FS (1C)



1031
US (1F)



1034
` (22)



1037
% (25)



1040
((28)



1043
+ (2B)



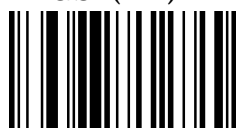
1046
. (2E)



1026
SUB (1A)



1029
GS (1D)



1032
Space (20)



1035
(23)



1038
& (26)



1041
) (29)



1044
, (2C)



1047
/ (2F)



1027
ESC (1B)



1030
RS (1E)



1033
! (21)



1036
\$ (24)



1039
' (27)



1042
* (2A)



1045
- (2D)



1048
0 (30)



1049
1 (31)



1052
4 (34)



1055
7 (37)



1058
: (3A)



1061
= (3D)



1064
@ (40)



1067
C (43)



1070
F (46)



1050
2 (32)



1053
5 (35)



1056
8 (38)



1059
; (3B)



1062
> (3E)



1065
A (41)



1068
D (44)



1071
G (47)



1051
3 (33)



1054
6 (36)



1057
9 (39)



1060
< (3C)



1063
? (3F)



1066
B (42)



1069
E (45)



1072
H (48)



1073
I (49)



1076
L (4C)



1079
O (4F)



1082
R (52)



1085
U (55)



1088
X (58)



1091
[(5B)



1094
^ (5E)



1074
J (4A)



1077
M (4D)



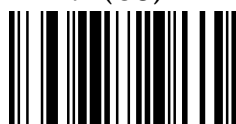
1080
P (50)



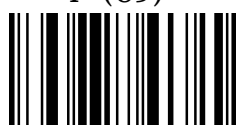
1083
S (53)



1086
V (56)



1089
Y (59)



1092
\ (5C)



1095
_ (5F)



1075
K (4B)



1078
N (4E)



1081
Q (51)



1084
T (54)



1087
W (57)



1090
Z (5A)



1093
] (5D)



1096
` (60)



1097
a (61)



1100
d (64)



1103
g (67)



1106
j (6A)



1109
m (6D)



1112
p (70)



1115
s (73)



1118
v (76)



1098
b (62)



1101
e (65)



1104
h (68)



1107
k (6B)



1110
n (6E)



1113
q (71)



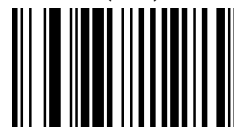
1116
t (74)



1119
w (77)



1099
c (63)



1102
f (66)



1105
i (69)



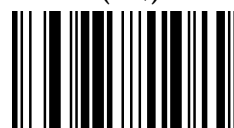
1108
l (6C)



1111
o (6F)



1114
r (72)



1117
u (75)



1120
x (78)



1121
y (79)



1124
| (7C)



1127
Delete (7F)



1130
F3



1133
F6



1136
F9



1139
F12



1142
Page up



1122
z (7A)



1125
} (7D)



1128
F1



1131
F4



1134
F7



1137
F10



1140
Insert



1143
Delete



1123
{ (7B)



1126
~ (7E)



1129
F2



1132
F5



1135
F8



1138
F11



1141
Home



1144
END



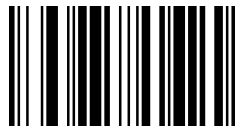
1145

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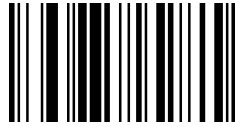
1148

Down arrow



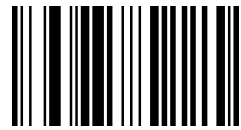
1146

Right arrow



1149

Up arrow



1147

Left arrow

Appendix - ASCII code table

Hexadecimal	ASCII value	character
00	00	NUL (Null char.)
01	01	SOH (Start of Header)
02	02	STX (Start of Text)
03	03	ETX (End of Text)
04	04	EOT (End of Transmission)
05	05	ENQ (Enquiry)
06	06	ACK (Acknowledgment)
07	07	BEL (Bell)
08	08	BS (Backspace)
09	09	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) XON)
12	18	DC2 (Device Control 2)

13	19	DC3 (XOFF) (Device Control 3) (XOFF)
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)

十六进制	ASCII 值	字符
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

十六进制	ASCII值	字符
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

十六进制	ASCII值	字符
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)

Suitable to model

DE1200, DE1400

DF3100, DF3200,

DS5310, DS5300, DS5100, DS5100G, DS5100B, DS5200, DS5200G, DS5200N, DS5200BN,

DS5800

DI9040-1D, DI9100-1D, DI9200-1D, DI9300-1D