T-D11

Two dimensional image scanner

Setup Manual (Advanced edition)

Disclaimer

Please read all the contents of this manual carefully before using the products described in this manual to ensure the safe and effective use of the products. After reading this manual, please keep it properly for future use.

Do not disassemble the terminal or tear the seal on the terminal by yourself, otherwise will not undertake the responsibility of warranty or replacement of the terminal.

The pictures in this manual are for reference only. If some pictures are inconsistent with the actual products, please refer to the actual products. We reserves the right to modify the document at any time without prior notice for the improvement and update of the product.

The company has the final right to interpret this statement.

Version record

Version number	Version Description	Release date
V1.0	Initial version	2020-09-20
V1.1	Add instruction list	2020-12-25
V1.2	Add custom settings	2021-02-01
V1.21	Add GS1 compound code setting	2021-02-10
V1.22	Add virtual keyboard settings	2021-02-21
V1.23	Add QR URL code setting, hide characters, and customize the function of inserting data	2021-02-25
V1.24	Add USB-HID, Brazilian code, multi language code and simplify custom setting instructions	2021-03-12
V1.25	Add the usage instructions of variable parameters	2021-03-18
V1.26	Add relevant setting codes of telepen code system	2021-04-15
V1.27	Add USB high-speed transmission mode	2021-05-15

Directory

Chapter One Comprehensive setting

Brief introduction

This manual is mainly used to introduce how to set the corresponding functions of scanner products;
There are two ways to set up the scanner.

Setting code

The scanner can set the corresponding functions by reading one or a group of special barcodes. In the following chapters, we will introduce the corresponding setting options and functions in detail and provide the corresponding setting codes.

Setting instruction

The host can send a set of hexadecimal strings to set the scanner. In the following chapters, in addition to the setting code, we will also introduce the setting instruction string.
The scanner can be operated automatically by setting instructions. You can also integrate all relevant setting instructions into the software through secondary development to process relevant instructions in batch.

Set code identification

Use instructions:

In the manual code reading mode, the operation steps of scanning barcode are as follows

1.Press and hold the trigger key of the scanner, the line of sight is activated and a red line of sight appears.

2. Align the red aiming line with the center of the bar code, move the scanner and adjust the distance between it and the bar code to find the best reading distance.

3. When hearing the success prompt, the sound starts and the red lighting line goes out, the code reading is successful, and the scanner transmits the decoded data to the host.

Note: during the reading process, for the same batch of bar codes, you will find that the distance between the scanner and the bar code is within a certain range, and the success rate of code reading will be very high. This distance is the best reading distance.

On off setting code

The setting code can be turned off. When the scanner is set to "turn on the setting code", the setting function will work when scanning the setting code. When the scanner is set to "turn off the setting code", the scanning engine will give an error tone when scanning the setting code, and the setting function will not work. The default is "on setting code".

RaZdNa

Open setting code**

RaZdXa

Turn off setting code

Setting code sending

The content of the setting code can be allowed to be sent. After reading the "send setting code" and setting it successfully, the content will be sent to the host when reading the setting code; After reading "do not send setting code" and setting it successfully, the scanner will no longer send the setting code content.
The default is "do not send setting code".

WaZaBb

Send setting code

WaZaRa

Don’t send setting code**

Restore factory default

All scanners have a factory default setting. Reading the barcode of "restore factory default" setting will set all properties of the scanner to the default state of the software.

BeQeCe

Restore factory default

Use instructions:

You are most likely to use this barcode when:

1. Scanner setting error, such as unable to recognize barcode.
2. You have forgotten what settings you have made to the scanner before and do not want to use the previous settings.
3. The scanner is set to use some infrequently used functions, and after use.

View version number

Use the scanner to scan and view the version number barcode to view the version number information of the current scanner,

BeReCd

View version number

User default settings

In addition to the factory settings, users can also save their frequently used configurations as user default settings. By scanning "save user default settings", the current configuration information of the equipment can be saved as user default settings. If there is user default settings in the reading module, the new configuration information will replace the original user default settings after this operation.

UaQdWa

Save user default settings

BeQeEe

Restore user defaults

Example: set the closing EAN-13 code to the custom user factory value.

Step 1: scan the barcode of "opening setting code";

Step 2: scan the bar code of "prohibit reading EAN-13";

Step 3: scan the barcode of "save user default settings";

Step 4: scan the barcode of "off setting code".

Sound settings

All tone settings

WaZaCb

Turn on all prompt tones**

WaZaSa

Turn off all prompt tones

Boot prompt tone

Set the prompt tone on or off when starting up

RaOdNa

Turn on the startup prompt tone**

RaOdXa

Turn off the power on prompt tone

Set code prompt tone

Set whether the prompt tone of scanning code is turned on or off

WaZaZa

Enable setting code prompt tone**

WaZaPa

Turn off setting code prompt tone

Decoding success prompt tone

Set whether the prompt tone is turned on or off after successful decoding

RaDeXa

Enable the prompt tone of decoding success**

RaDeNa

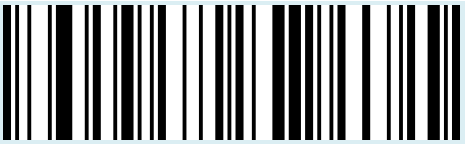
Turn off the prompt tone of successful decoding

Decoding success prompt tone duration

Set the duration of successful decoding prompt tone

RaCeZa

The decoding is successful and the prompt tone time is short



RaCePa

Decoding succeeded, prompt tone time is normal**

Audio rate setting for successful decoding

Set the audio rate of successful decoding prompt

LbDeUb

Decoding success indicates low audio rate of 1.6kHz

LbDeEc

Decoding success indicates that the audio rate is 2.0khz low**

LbDeAb

Successful decoding indicates that the audio rate is 2.7khz

LbDeKb

Successful decoding indicates high audio rate of 4.2khz

Prompt tone volume setting after successful decoding

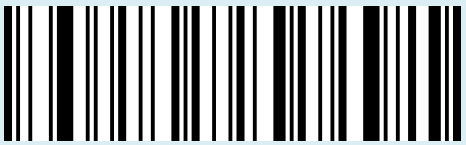
Set the volume of prompt tone for successful decoding

BbDePb

Sound volume off after successful decoding

BbDeFb

Decoding succeeded prompt tone volume is low



BbDeVa

Decoding successful prompt tone volume is medium

BbDeLa

Decoding successful prompt tone volume is high**

Error alarm tone

GbZaNa

Error alarm tone low frequency 2.5KHz**

GbZaXa

Error alarm tone if 3.25khz

GbZaHb

Error alarm tone high frequency 4.2khz

Prompt light for successful code reading

Setting of prompt light for successful code reading

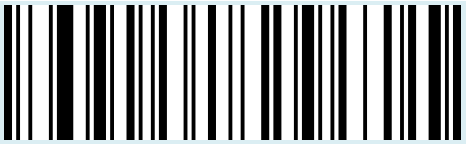
RaBeYa

Turn on the prompt light for successful code reading**

RaBeOa

Turn off the prompt light for successful code reading

Working mode of code reading success prompt light



WaAbRa

The standby is off for a long time, and the working light is on**

WaAbBb

The standby is on for a long time and the working is off

Light settings

Fill light

The lighting lamp can provide auxiliary lighting for shooting and reading, and the beam shines on the reading target to improve the reading performance and adaptability in weak ambient light.

GbWaHb

Turn on the fill light**

GbWaNa

Turn off the fill light

Aiming light

Aiming the beam can help users find the best reading distance when shooting and reading. Users can choose the first mock exam according to the application environment.

The default is to turn on the aiming light and flash.

Turn on the aiming light (default setting): The aiming light is on for a long time during shooting and reading, and goes out at other times.

Turn off the aiming light: Under no circumstances will the aiming light come on.

The aiming light is on for a long time: After the reading engine is powered on, continue to project the aiming beam.

The aiming light flashes: After the reading engine is powered on, the aiming beam flashes continuously.

GbWaZa

Turn on the aiming light**

GbWaPa

Turn off the aiming light

GbWaJb

The aiming light is on for a long time

GbWaTb

The aiming light flashes

Data format

Data output format

In order to output correctly according to the specified encoding format, it is necessary to determine the user's application environment. If the text is displayed in word document, scan the Unicode configuration code; if the text is displayed in Excel or notepad, scan the codepage configuration code. The default is codepage mode.

GbBbVa

Codepage coding（Notepad，Excel and so on）**

GbBbFb

Unicode coding（WORD，QQ and so on）

Text output from different countries

After setting the data output format, you need to determine the language system and barcode coding format currently used by the user PC, and then scan the following corresponding configuration codes according to the PC language system and barcode coding format. The default is PC, and the system language is ch, utf8 \ GB2312 code.

PC system language is CH
UTF-8/GB2312 code**

PC system language is CH
BIG 5 code

PC system language is BIG 5
BIG 5 code

PC system language is CH
Shift-JIS code

PC system language is JP
Shift-JIS code

PC system language is Korean
CP949 code

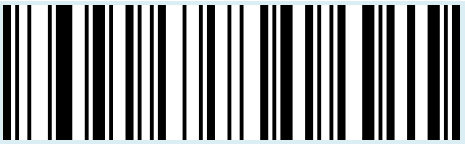
PC system language is Thai
CP874 code

PC system language is
Russia
KOI8-R code

Invoice function

Turn invoice function on / off

WaBbXa
Turn on invoice function



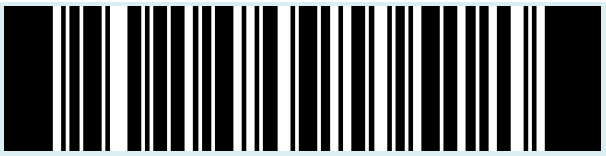
WaBbNa
Turn off invoice function**

Image recognition settings

Image inverting (anti white) setting 1

Positive phase bar code: bar code with light color background and dark bar

Reversed phase bar code: bar code with dark background and light color bar, also known as anti white bar code and anti color bar code



CbQdRa

Positive phase image recognition**

CbQdLb

Inverse image recognition

CbQdBb

Positive and negative phase image recognition

Note: after "inverse image recognition" or "normal and inverse image recognition" is enabled, only UPC-A / upc-e0 / upc-e1 / ean-8 / EAN-13 inverse color codes are enabled by default in order to ensure the code reading effect. If you need to set other inverse codes, please refer to the bar code below.

Image inverting (anti white) setting 2

PdZdQbc

All 1D bar codes are turned on in reverse phase

PdAeQbc

All 1D bar codes are turned off in reverse phase**

PdBeQbc

All 2D bar codes are turned on in reverse phase

PdCeQbc

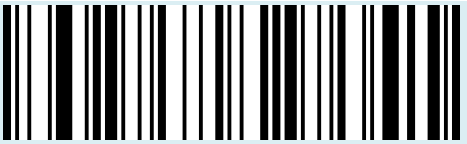
All 2D bar codes are turned on in reverse phase**

Prompt of unsuccessful code reading

If the barcode is not read after pressing and releasing the key, it is allowed to send NR (NO READ) message. Any feasible prefix or suffix can be attached to this message。

SaCbCb

Turn on NR



SaCbSa

Turn off NR**

Turn on NR：When the code reading is unsuccessful, press the key to release or send the code reading unsuccessful information after the code reading timeout.

Turn off NR：If the code reading is unsuccessful, the message of unsuccessful code reading will not be sent.

QR website code setting

Scan the setting code below to turn on or off the QR QR QR code generated by the website.

WaQbPa

Turn on QR URL**

WaQbZa

Turn off QR URL

Chapter Two Communication settings

Brief introduction

When using this scanner to communicate with different hosts, you need to set the scanner to the corresponding communication interface mode. You can set the function of the scanner by scanning one or more bar codes. You can choose to use USB (usb-kbw, usb-com), TTL, RS232 serial communication interface mode, etc.

USB keyboard interface

USB keyboard interface is usb-kbw interface. When the USB data cable is connected, the scanner can be set to usb-kbw input mode. In this mode, the scanner will become a virtual keyboard, and the data receiving host will accept the input of this virtual keyboard as if it accepted the input of the real keyboard. After the scanner decodes the data, the sending process is to tap each key corresponding to the data in the virtual keyboard.
The default scanner uses usb-kbw communication to simulate USB keyboard input mode without installing driver.

VbZcWag

USB-KBW interface**

National keyboard layout

The keyboard key layout and symbols corresponding to different national languages are different. The scanner can be virtualized into the keyboard system of different countries according to the actual needs. The keyboard layout setting is applicable to the usb-kbw interface mode, and the default is "American English keyboard".

JdCcTc

USA / China English（American English）**

JdCcLbc

Greece（Greek）

JdCcGbc

Netherlands（Dutch）

JdCcJc

Spain（Spanish Spain）

JdCcCbc

Swiss German

JdCcLa

Brazil（Portuguese）

JdCcEbc

Denmark

JdCcDbc

Britain（British English）

JdCcZb

Italy（Italian）

JdCcFb

France（French）

JdCcBbc

JdCcNbc

Germany（German）

JdCcRbc

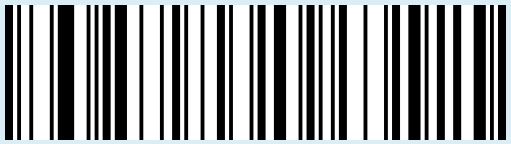
Sweden（Swedish）

JdCcIbc

Portugal（Portuguese）

JdCcWqc

Belgium（French）

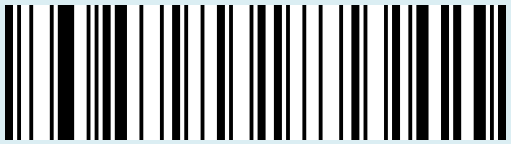


JdCcXac

Turkish-Q

JdCcQdc

Russia（Russian MS）



JdCcGdc

Ukraine

Hungary

JdCcQbc

Slovakia

JdCcSbc

Romania

JdCcTbc

Turkish-F

JdCcObc

Poland（Polish）

JdCcVac

Japan（Japanese）

Control character (function key) output mode

Output mode selection of control characters (0x00-0x1f) in ASCII code

Output function key：Control characters are used as user-defined function keys. See "appendix - control character table" for specific functions.

Output Ctrl key combination（This function is used in conjunction with the front suffix）：CTRL key combination to output control characters. See "**appendix - control character table**" for specific functions.

Alt mode output control character：Full control character output is supported in Chinese environment. See "**appendix - ASCII code table**" for specific functions.

Output enter, downarrow：Mask other control characters and only output: 0x07 output enter, 0x0a output downarrow, 0x0D output enter.

QbBbQa

Output function key**

QbBbAb

Output Ctrl key combination

QbBbKb

Alt mode output control character

QbBbUb

Output enter & downarrow

Virtual keyboard output mode

Output mode selection of control characters (0x20-0xff) in ASCII code.

When the virtual keyboard is turned on, all characters between 0x20 and 0xff are output by using the virtual keyboard.

WaBbPa

Turn off virtual keyboard**

WaBbZa

Turn on virtual keyboard

Toggle case

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

For example, when the barcode content is abc123, set the scanner to "all lowercase", and the data obtained by the host will be "abc123". The default is normal output.

BbLdOa

Normal（unchanged）**

BbLdYa

Upper（uppercase）

BbLdIb

Lower（All lowercase）

BbLdSb

Inverse（Reverse case）

Note: this parameter is only valid in standard keyboard input mode and keyboard simulation input control character mode.

USB transmission speed

This parameter is used to adjust the delay time between barcode characters of the scanner. When the input host needs slow data transmission, scan the corresponding barcode below to increase the delay between characters, which can adjust the transmission speed and improve the safety and integrity of data output.

Normal transmission speed**

High transmission speed

Ultra high transmission speed

*Note: applicable to global, v1 31 software version support***

Usb-com virtual serial port interface（CDC）

When the scanner uses USB connection and wants the host to receive data by serial port, the USB virtual serial port should be used. From the host system interface, the scanner is equivalent to connecting with the host through serial port. This feature requires the corresponding driver to be installed on the host.

VbZcXag

USB-COM

USB HID-POS

USB hid-pos interface is recommended for new application software. It can send 56 characters in a single USB message, which is faster than the analog keyboard interface. After setting hid-pos, it needs to restart the barcode reader.

Characteristic：

#Based on hid interface, there is no need to install driver.

#Support two-way communication.

#The communication speed is much faster than the analog keyboard interface and the traditional RS-232 interface.

VbZcYag

HID-POS

PID(HEX): B4B1

VID(HEX): 0525

TTL / RS232 serial interface

Serial communication interface is a common way to connect scanner and host equipment. It can be used to connect PC, POS and other host equipment. When the scanner uses the serial communication interface, the scanner and the host device must be completely matched in the parameter configuration of the serial communication protocol in order to ensure the accuracy of the transmitted data.

Serial port default communication protocol: baud rate 9600, check character NONE

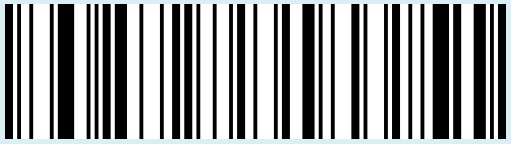
VbZcNc

TTL/RS232

Parameter	Default
Serial communication type	Standard TTL/RS232
Baud Rate	9600
Parity Type	None
Data Bits	8
Stop Bits	1

Serial transmission speed（Inter character delay）

This parameter is used to adjust the delay time between barcode characters of the scanner. When the input host needs slow data transmission, scan the corresponding barcode below to increase the delay between characters, which can adjust the transmission speed and improve the safety and integrity of data output.



JdGeKbc

Low transmission speed 25ms

JdGeVac

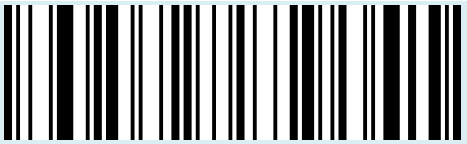
Medium transmission speed 10ms

JdGeVa

High transmission speed1ms**

The default delay time between custom characters is 1ms，settable range：0-255ms。

The setting steps can be referred to”**Appendix - examples of custom parameters**”



TdGeLa

~Custom delay time between characters

Baud rate

Baud rate is the number of bits transmitted per second by serial port data communication. The baud rate used by scanner and data receiving host must be consistent to ensure the accuracy of data transmission. The scanner supports the baud rate listed below in bit / s.

VbCdRdc
4800bps

VbCdSdc
9600bps**

VbCdUdc
19200bps

VbCdVdc
38400bps

VbCdWdc
57600bps

VbCdVac
115200bps

Chapter Three Reading mode

Manual reading mode

You can set the reading mode of the scanner according to your needs. The default reading mode is manual reading. In this mode, the scanner starts reading the code after pressing the trigger button, and stops reading the code after reading the code successfully or releasing the trigger button.

The default reading mode is "manual reading mode".

VbBeJb

Manual reading mode**

Manual reading mode - key timeout

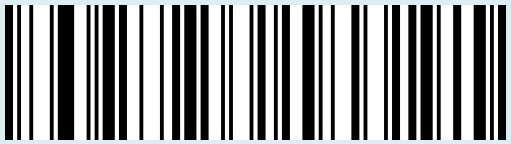
Key timeout refers to the timeout period when the key is pressed and not released. If the barcode is not read within the timeout period, the code reading will end and wait for the next trigger.

UaZcCb

Infinite length

MdZcAbc

3S**



MdZcKbc

5S

MdZcJcc

10S

MdZcIdc

15S

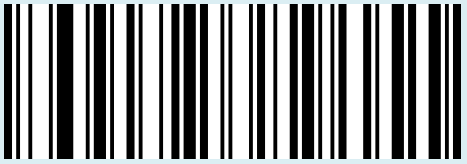
MdZcVaHa

20S

Manual reading mode - custom key timeout

Custom key timeout is used to set the custom key timeout time. Default: 3S, step size: 200ms, range: 0-50s.

The setting steps can be referred to”**Appendix - examples of custom parameters**”



WdZcLa

~Custom key timeout

Continuous reading mode

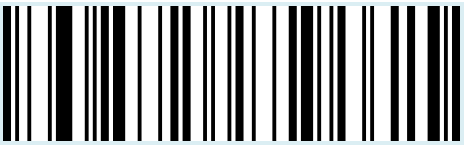
After setting, the scanner is in the continuous scanning state without triggering, and the reading engine starts reading the code immediately. When the code reading successfully outputs information or the single code reading time is over, the reading engine will wait for a period of time (settable) and automatically start the next code reading. If the following conditions do not occur, the reading engine will work circularly in the above way: during code reading, the user can also click the trigger key to manually pause code reading. Click the trigger key, and the reading engine will continue to cycle code reading.

VbBeZa

Continuous reading mode

Continuous mode - same barcode reading delay

The same code reading time interval means that after reading a bar code, the same bar code is refused to be read within the set time. Only after exceeding the time or after power failure and restart, can it be read and output. Default: 800ms, continuous reading mode is valid.

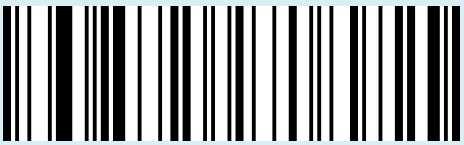


JdHeLa

No delay

JdHeVa

Delay timeout100MS



JdHeFb

Delay timeout 200MS

JdHeNd

Delay timeout 800MS**

JdHeXac

Delay timeout 1200MS

JdHeFbc

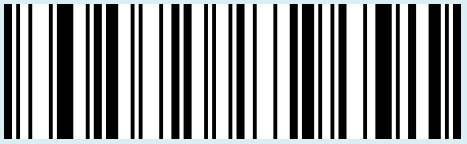
Delay timeout 2000MS

RaHeCb

No timeout

Continuous mode - customize the reading delay of the same barcode

User defined same barcode reading delay is used to set the timeout of user-defined same barcode reading delay. Default: 800ms, step size: 100ms, range: 0-25000ms.
The setting steps can be referred to”**Appendix - examples of custom parameters**”



TdHeLa

~Customize the reading delay of the same barcode

Inductive reading mode

Start up and enter the code reading state. Stop reading the code until the code reading is successful or the time set for one code reading timeout is reached. When a new barcode appears, it will re-enter the code reading state. In this mode, the reread delay can be used to prevent the same barcode from being read multiple times. Sensitivity can change the sensitivity of the sensing mode to light.

VbBePa

Inductive reading mode

Note: when using the induction mode, the key can be triggered. When the key is triggered, the barcode will automatically enter the induction mode.

Induction mode - image stabilization duration

In the sensing mode, when the scanner stops reading the code, it will enter a process of re adapting to the changes of the reading environment (image). After the image stabilizes and times out, it will enter the sensing state and wait for the bar code to appear. By modifying the image stabilization timeout, you can adjust the time to adapt to the environment.

OdCbVa

Image stabilization duration 50ms

OdCbFb

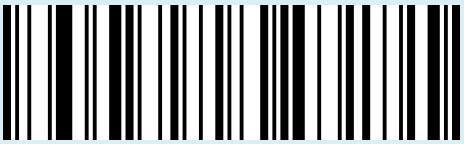
Image stabilization duration 100ms

OdCbPb

Image stabilization duration 150ms

OdCbZb

Image stabilization duration 200ms



OdCbJc

Image stabilization duration 250ms**

Induction mode - custom image stabilization duration

User defined same barcode reading delay is used to set the timeout of user-defined same barcode reading delay. Default: 250ms, step size: 50ms, range: 0-25000ms.
The setting steps can be referred to”**Appendix - examples of custom parameters**”

YdCbLa

~Customize the reading delay of the same barcode

Sensing mode - sensing sensitivity

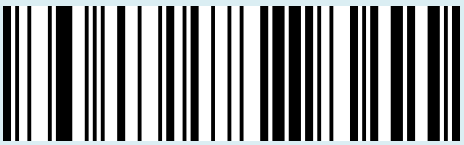
Sensitivity refers to the change degree of the scene detected in the inductive reading mode. When the reading module judges that the change degree of the scene meets the requirements, it will switch from the monitoring state to the reading state.

AcDbVa

high sensitivity**

AcDbFb

Medium sensitivity



AcDbPb

Low sensitivity

Chapter Four Data editing

Brief introduction

After the scanner decodes successfully, the device obtains a string of data, which can be numbers, English, symbols, etc. In practical application, we may not only need the data information of barcode, or the data information contained in barcode can not meet your needs. For example, you may want to know which type of barcode the obtained data information comes from, or attach special data to the string of data, which may not be included in the barcode data information.

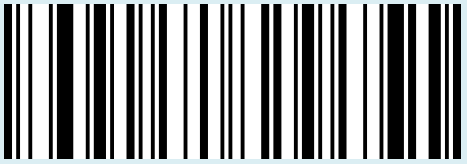
Adding these contents in code making is bound to increase the length of bar code and is not flexible enough, which is not a recommended practice. At this time, we think of artificially adding some content in front of or behind the bar code data information, and these added content can be changed in real time according to the demand. We can choose to add or shield. This is the pre suffix of the bar code data information. The method of adding the pre suffix not only meets the demand, but also does not need to modify the content of the bar code information.

Note: the data format is as follows:

<Start character>	<Custom prefix>	<AIM ID>	<Code ID>	Bar code information	<Custom suffix>	<Terminator>

Code ID prefix

In the process of using the scanner, you often need to know the barcode type of the currently scanned barcode. We can use the code ID prefix to identify the barcode type. For the barcode type corresponding to code ID, please refer to "**appendix - code ID & AIM ID**".
The default is "close code ID".



WaFbRa
Turn off Code ID**

WaFbBb
Turn on Code ID

Aim ID prefix

Aim is the abbreviation of automatic identification manufacturers. Aim ID defines identification codes for various standard barcodes. See the table below for specific definitions. After decoding, the scanner can add this identification code in front of the barcode data, that is, the aim prefix.
Prefix format: "]" + aim prefix + number "0", for example, the aim ID prefix of code 128 is "] C0".
For the barcode type corresponding to aim ID, please refer to "appendix - code ID & AIM ID"

QaXdQa
Turn off AIM ID**

QaXdAb
Turn on AIM ID

User defined prefix

User defined prefix settings

Add up to 10 characters to the custom prefix.

The setting steps can be referred to”**Appendix - examples of custom parameters**”

BeReTd

~Set custom prefix

Clear custom prefix

Scanning the "clear custom prefix" barcode can clear all the custom prefix characters set.

BeReSd

Clear custom prefix

User defined suffix

User defined suffix settings

Add up to 10 characters to the custom suffix.

The setting steps can be referred to”**Appendix - examples of custom parameters**”

BeReWd

Set custom suffix

Clear custom suffix

Scanning the "clear custom suffix" barcode can clear all the custom suffix characters set.

BeReRd

Clear custom suffix

Hide Character

The hidden character function can only display a certain section of data through the control of different fields of bar code content, so as to achieve the function of hiding data.
First, we divide a bar code data into three groups: head, middle and tail, and then set the length of head, middle and tail according to the actual demand, and set the fields to be displayed according to the actual demand.

Set hidden header characters

The decoded data is used to hide the header data. You can configure to hide any length. If the configured length exceeds the length of the barcode data, all the contents of the current barcode will be hidden.

WaQbCb

Turn on hidden header characters

WaQbSa

Turn off hidden header characters**

Set the number of bits of header data hiding

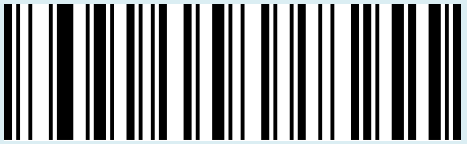
Set the number of hidden bits of header data, range: 1-255。The setting steps can be referred to”**Appendix - examples of custom parameters**”

YdRbLa

~Header data hiding bits

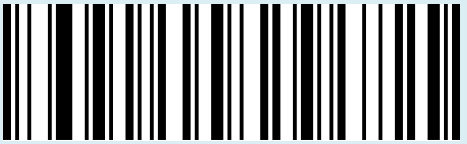
Set hidden middle character

The decoded output data is hidden in the middle part, and any starting position and length can be configured. If the configured starting position exceeds the length of barcode data, the current barcode will not be hidden. If the configured length exceeds the length of the remaining barcode data, all barcode data after the start position will be hidden.



WaQbBb

Turn on hide middle character



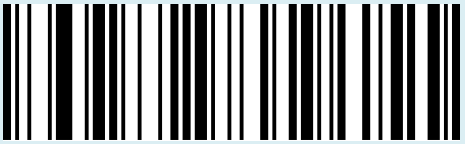
WaQbRa

Turn off hide middle character**

Sets the start bit of hidden intermediate data

Set the starting position of hidden intermediate data, range 1-255. If you want to hide the data after the third character (the fourth character starts to be hidden), the decimal value of the digital setting code is: "0", "0", "3".

Set the number of data hiding bits in the middle, ranging from 1 to 255。The setting steps can be referred to”**Appendix - examples of custom parameters**”

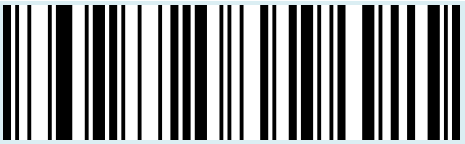


YdSbLa

~Intermediate data hiding start bit

Sets the number of bits to hide intermediate data

Configure the length of hidden intermediate data, ranging from 1 to 255. If 16 characters need to be hidden, the decimal value of the digital setting code is: "0", "1", "6". Refer to "setting digital code" for setting steps.



YdTbLa

~Intermediate data hiding bits

Set hidden trailing characters

Decode the data to hide the tail data. You can configure to hide any length. If the configured length exceeds the length of barcode data, all the contents of the current barcode will be hidden.

WaQbAb

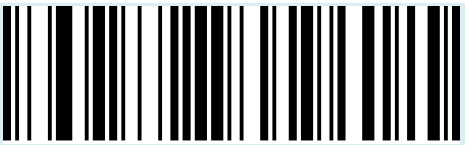
Turn on hide trailing characters

WaQbQa

Turn off hide trailing characters**

Set the number of bits of tail data hiding

Set the number of tail data hiding bits, ranging from 1 to 255. The setting steps can be referred to”**Appendix - examples of custom parameters**”



YdUbLa

~Tail data hiding bits

Insert custom data

It supports inserting custom data at any position of the barcode, with a maximum of 10 bytes.

WaQbYb

Turn on display of custom characters

WaQbOa

Turn off display of custom characters**

Sets the position where custom characters are inserted

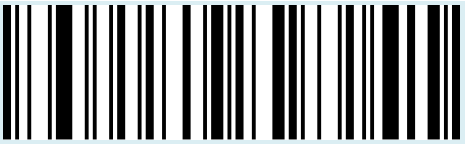
Set the position for inserting custom characters, range 1-255. If the position of the character to be inserted is 16 characters, the decimal value of the digital setting code is: 0 1 6. Refer to "setting digital code" for setting steps. If the set position is 0, the header of the decoded data is inserted. If the set position is greater than the length of decoded data, the tail of decoded data will be inserted by default. The setting steps can be referred to”**Appendix - examples of custom parameters**”

YdFcLa

~Sets the position where custom characters are inserted

Sets the custom character to insert

Set the insertion of custom characters and scan the custom characters to be set. The setting steps are similar to the pre custom suffix, Refer to "**appendix - Custom parameter example**"



BeReYc

~Sets the custom character to insert

Character substitution settings

The character replacement function supports replacing any character (replaced character) in the barcode with another character to be displayed.

The setting steps can be referred to”**Appendix - examples of custom parameters**”

VdEeLa

~Character to be replaced

VdFeLa

~Replace character

Note: to clear the replacement character, set the "character to be replaced" to null, that is, the decimal system is "000".

Start character STX and end character ETX settings

The start and end characters are used to mark the beginning or end of a complete piece of data information. The start / end character must be the first / last content when a piece of data is sent, and there will be no data before it. There is no start character and no end character by default

BbKdPa

Modify the start stop character to none**

BbKdJb

Modify the start character to < STX >

BbKdZa

Modify the terminator to < ETX >

BbKdTb

Modify the start and end characters to < STX + ETX >

Terminator setting

The terminator suffix is used to mark the end of a complete data message. The terminator suffix must be the last content of a piece of data when it is sent, and there will be no additional data after it.

LbKdGb

Modify the ending character to < CR > (0x0D)**

LbKdUc

Modify the ending character to < lf > (0x0A)

LbKdWa

Modify the ending character as < CR > < lf > (0x0D, 0x0a)

LbKdQb

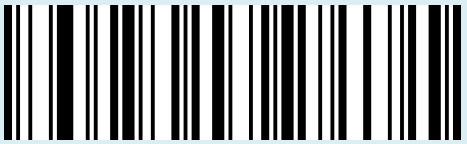
Modify the ending character to < HT > (0x09)

LbKdAc

Modify the ending character to < CR > < CR > (0x0D, 0x0D)

LbKdKc

Modify the ending character as < CR > < lf > < CR > < lf > (0x0D, 0x0A, 0x0D, 0x0A)



LbKdMa

Modify the ending character to none

Chapter Five Barcode parameter setting

Brief introduction

Each type of bar code has its unique attributes. The scanner can be adjusted to adapt to these attribute changes through the setting code in this chapter. The fewer barcode types with "allow

reading" enabled, the faster the scanner can read. You can prohibit the scanner from reading the barcode types that will not be used, so as to improve the working performance of the scanner.

Global settings

GbYaXa

Turn on all barcode types

GbYaHb

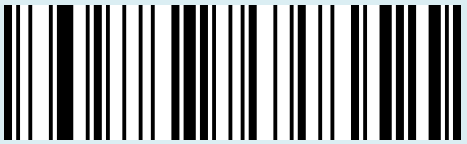
Turn off all barcode types

GbYaZa

Turn on all 1D bar codes

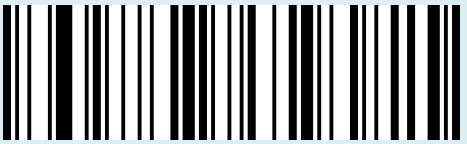
GbYaJb

Turn off all 1D bar codes



GbYaBb

Turn on all 2D bar codes



GbYaLb

Turn off all 2D bar codes

Note: when all barcodes are closed, the setting code will not be closed

UPC-A

Allow / prohibit reading UPC-A

QaYaBb

Allow reading UPC-A**

QaYaRa

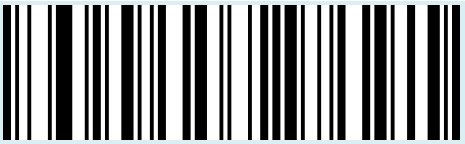
Prohibit reading UPC-A

Transfer check character

UPC-A barcode data is fixed to 12 characters, and the 12th bit is the check character, which is used to check the correctness of all 12 characters. The default is the transmission check character.

QaTdCb

Transfer check character**



QaTdSa

Do not transfer check characters

2 / 5 additional bits

The additional bit refers to the additional 2 or 5 digits after the ordinary bar code. As shown in the figure below, the blue wireframe on the left is the ordinary bar code, and the red wireframe on the right is the additional bit. The default is to turn off additional bits.

QaIbCb

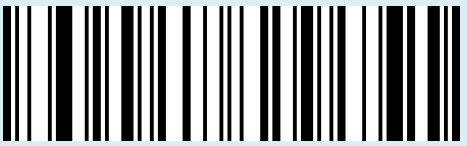
Turn on 2 additional bits

QaIbSa

Turn off 2 additional bits**

QaIbBb

Turn on 5 additional bits

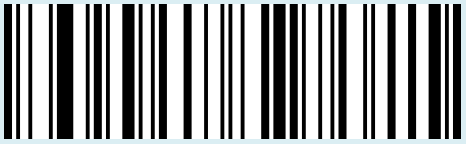


QaIbRa

Turn off 5 additional bits**

Mandatory additional bit

When "forced reading includes additional bits" is scanned, the barcode reader can only read the barcode with additional bits.



QaIbYa

Enforces the inclusion of additional bits

QaIbOa

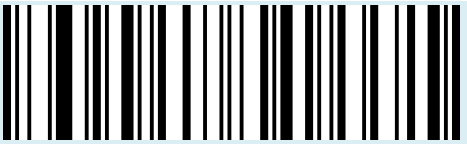
Inclusion of additional bits is not mandatory**

Additional bit separator

When this feature is enabled. Yes, there is a space between barcode data and additional data. When this function is disabled, there are no spaces. There are spaces by default.

QaIbXa

Turn on separator**



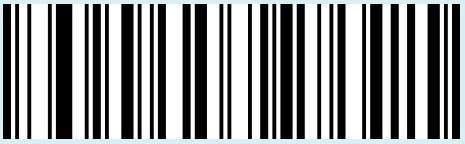
QaIbNa

Turn off separator

Transport system character

QaTdWa

Transport system character**



QaTdMa

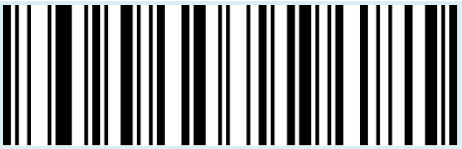
Don’t transport system character

Convert to EAN-13

UPC-A barcode type supports extension settings. After the extension is enabled, the barcode information is expanded to 13 bits, preceded by "0", and the type is converted to EAN-13, which is not converted by default.

QaTdVa

Bar code information conversion



QaTdLa

Barcode information is not converted**

UPC-E

Allow / prohibit reading UPC-E

QaYaVa

Allow reading UPC-E0**

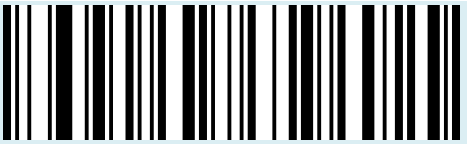
QaYaLa

Prohibit reading UPC-E0

Allow / prohibit reading UPC-E1

WaYaVa

Allow reading UPC-E1



WaYaLa

Prohibit reading UPC-E1**

Transfer check character

Upc-e barcode data is fixed to 8 characters, and the 8th bit is the check character, which is used to check the correctness of all 8 characters. The default is the transmission check character.

QaTdBb

Transfer check character**

QaTdRa

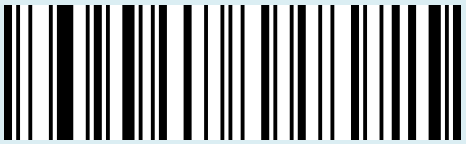
Don’t transfer check character

2 / 5 additional bits

The additional bit refers to the additional 2 or 5 digits after the ordinary bar code. As shown in the figure below, the blue wireframe on the left is the ordinary bar code, and the red wireframe on the right is the additional bit. The default is to turn off additional bits.

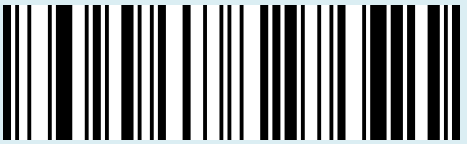
QaIbCb

Turn on 2 additional bits



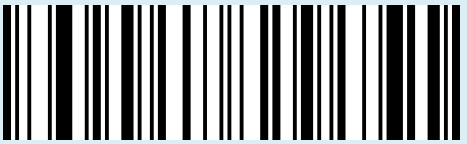
QaIbBb

Turn on 5 additional bits



QaIbSa

Turn off 2 additional bits**

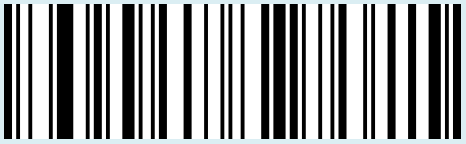


QaIbRa

Turn off 5 additional bits**

Force inclusion of additional codes

After scanning "force to include additional bits", the scanner can only read the barcode with additional bits.



QaIbYa

Enforces the inclusion of additional bits

QaIbOa

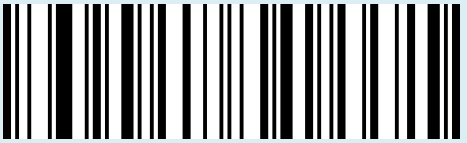
Inclusion of additional bits is not mandatory**

Additional bit separator

When this feature is enabled. Yes, there is a space between barcode data and additional data. When this function is disabled, there are no spaces. There are spaces by default.

QaIbXa

Turn on separator**



QaIbNa

Turn off separator

Transmit leading character (system character / country code)

The country code of upc-e barcode is a prefix character, which is generally not displayed in the recognizable characters below the barcode, "0" represents USA.

QaTdYa

Transport system character**

QaTdOa

Don’t transport system character

Convert to UPC-A

Upc-e barcode type supports conversion settings. After the extension is enabled, the barcode information is converted to 12 bits, and the type is converted to upc-a. it is not converted by default.

QaTdAb

Bar code information conversion

QaTdQa

Barcode information is not converted**

EAN/JAN 8

Allow / prohibit reading EAN/JAN 8

QaYaZa

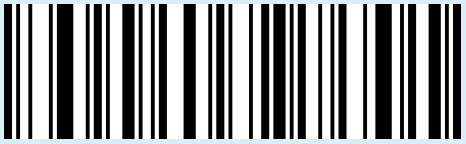
Allow reading EAN/JAN 8**

QaYaPa

Prohibit reading EAN/JAN 8

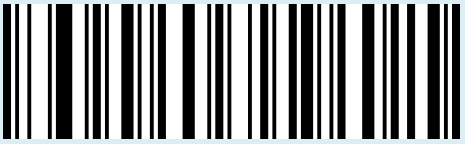
Transfer check character

EAN / Jan 8 barcode data is fixed to 8 characters, and the 8th bit is the check character, which is used to check the correctness of all 8 characters. The default is the transmission check character.



QaXdVa

Transfer check character**



QaXdLa

Don’t transfer check character

2 / 5 additional bits

The additional bit refers to the additional 2 or 5 digits after the ordinary bar code. As shown in the figure below, the blue wireframe on the left is the ordinary bar code, and the red wireframe on the right is the additional bit. The default is to turn off additional bits.

QaIbCb

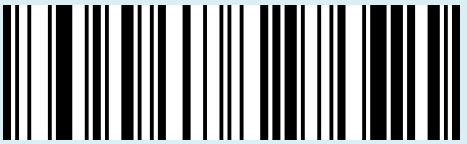
Turn on 2 additional bits

QaIbBb

Turn on 5 additional bits

QaIbSa

Turn off 2 additional bits**

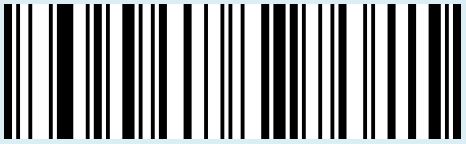


QaIbRa

Turn off 5 additional bits**

Force inclusion of additional codes

After scanning "force to include additional bits", the scanner can only read the barcode with additional bits.



QaIbYa

Enforces the inclusion of additional bits

QaIbOa

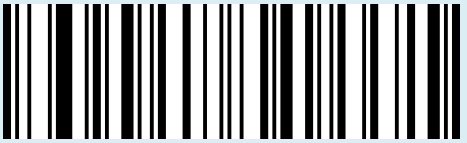
Inclusion of additional bits is not mandatory**

Additional bit separator

When this feature is enabled. Yes, there is a space between barcode data and additional data. When this function is disabled, there are no spaces. There are spaces by default.

QaIbXa

Turn on separator**



QaIbNa

Turn off separator

Convert to EAN13

Ean 8 barcode type supports conversion settings. After the extension is enabled, the barcode information is converted to 13 bits, and the type is converted to EAN13. It is not converted by default.

QaTdXa

Bar code information conversion

QaTdNa

Barcode information is not converted**

EAN/JAN 13

Allow / prohibit reading EAN/JAN 13

QaYaWa

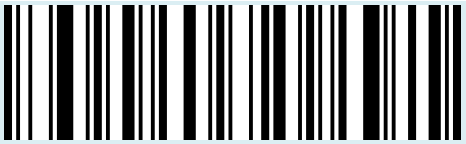
Allow reading EAN/JAN 13**

QaYaMa

Prohibit reading EAN/JAN 13

Transfer check character

EAN / Jan 13 barcode data is fixed as 13 characters, and the 13th bit is the check character, which is used to check the correctness of all 12 characters. The default is the transmission check character.



QaXdXa

Transfer check character**

QaXdNa

Don’t transfer check character

2 / 5 additional bits

The additional bit refers to the additional 2 or 5 digits after the ordinary bar code. As shown in the figure below, the blue wireframe on the left is the ordinary bar code, and the red wireframe on the right is the additional bit. The default is to turn off additional bits.

QaIbCb

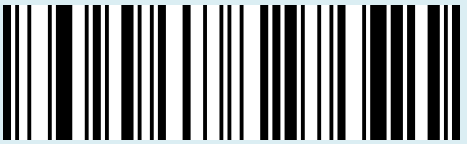
Turn on 2 additional bits

QaIbSa

Turn off 2 additional bits**

QaIbBb

Turn on 5 additional bits

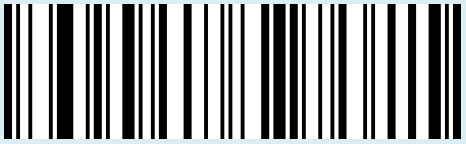


QaIbRa

Turn off 5 additional bits**

Force inclusion of additional codes

After scanning "force to include additional bits", the scanner can only read the barcode with additional bits.



QaIbYa

Enforces the inclusion of additional bits

QaIbOa

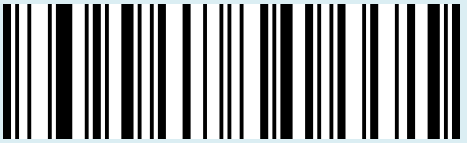
Inclusion of additional bits is not mandatory**

Additional bit separator

When this feature is enabled. Yes, there is a space between barcode data and additional data. When this function is disabled, there are no spaces. There are spaces by default.

QaIbXa

Turn on separator**



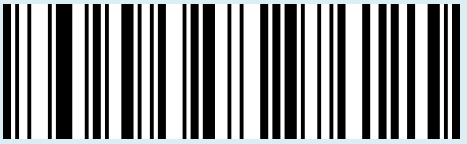
QaIbNa

Turn off separator

Convert to ISBN

QaJbCb

Turn on ISBN conversion



QaJbSa

Turn off ISBN conversion**

Transfer ISBN check character

QaJbAb

Transfer ISBN check character

QaJbQa

Don’t transfer ISBN check character**

Convert to ISSN

RaVcCb

Turn on ISSN conversion

RaVcSa

Turn off ISSN conversion**

Allow / prohibit reading ISSN

QaTdXa

Allow reading ISSN

QaTdNa

Prohibit reading ISSN**

Transfer ISSN check character

RaVcAb

Transfer ISSN check character

RaVcQa

Don’t transfer ISSN check character**

Code 128

Allow / prohibit reading Code 128

QaXaYa

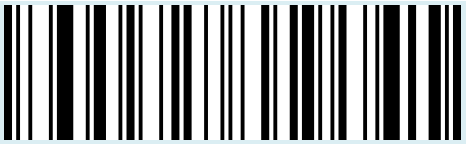
Allow reading Code 128**

QaXaOa

Prohibit reading Code 128

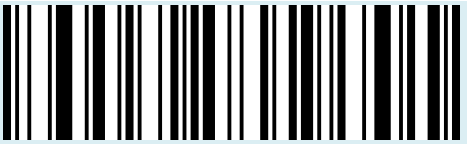
Set code 128 reading length

The default code reading digits of code128 are 0-80, and the scanner can be configured to read only code 128 barcodes with a length between (including) the minimum length (0-80) and the maximum length (0-80).



XdIbLa

~Minimum length



XdJbLa

~Maximum length

GS1-128(UCC/EAN 128)

Allow / prohibit reading GS1-128

RaYcVa

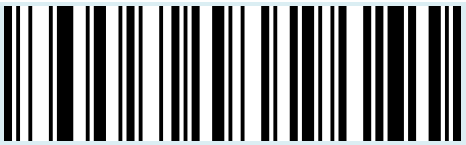
Allow reading GS1-128**

RaYcLa

Prohibit reading GS1-128

Set the reading length of gs1-128

The default number of code reading digits of gs1-128 is 0-80. The scanner can be configured to read only gs1-128 barcodes with a length between (including) the minimum length (0-80) and the maximum length (0-80).



XdKbLa

~Minimum length

XdLbLa

~Maximum length

ISBT 128

ISBT 128 connection function setting

TaCeCb

Turn on ISBT 128 connection

TaCeSa

Turn off ISBT 128 connection**

Note: ISBT 128 is a subclass of code128, which can be turned on or off through code128 setting. The ISBT128 connection function is used to set whether to read the ISBT barcode with additional bits. When the setting is turned on, you can read the ISBT 128 barcode with additional bits or the ISBT 128 barcode without additional bits.

Code 39

Allow / prohibit reading Code 39

QaXaWa

Allow reading Code 39**

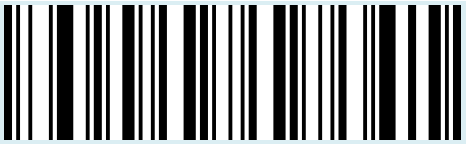
QaXaMa

Prohibit reading Code 39

Check character setting

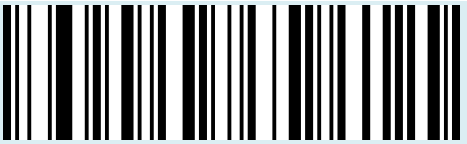
Code 39 barcode data is not forced to contain check characters. If there are check characters, it is the last character of the data. The check character is the value calculated from all data to check whether the data is correct. You can turn verification on or off as required, and set whether to send verification characters.

The default value is "turn off verification and do not transfer verification".



QaYaYa

Turn on Mod 43 verification

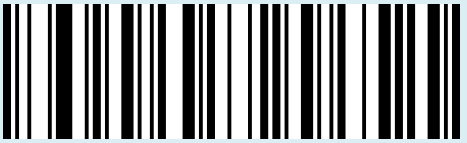


QaYaOa

Turn off Mod 43 verification**

QaVdAb

Transmission verification

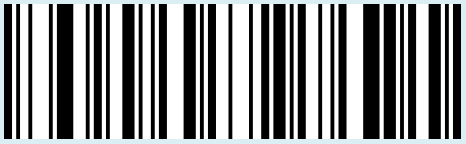


QaVdQa

Do not transmit verification**

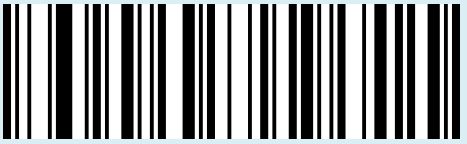
Transmission start and end characters

Code 39 bar code, each character has a character * * as the starting and ending character before and after the simultaneous interpreting.



QaVdVa

Transmission start and end characters



QaVdLa

Do not transfer start and end characters**

Full ASCII recognition range

Code 39 code data can include all ASCII characters, but the scanner only reads some ASCII characters by default. Through setting, the function of reading full ASCII characters can be turned on.

The default is "do not recognize all ASCII characters"

QaYaCb

Recognize all ASCII characters

QaYaSa

Full ASCII characters are not recognized**

Set code39 code reading length

The default number of code reading digits of code39 is 0-48. The scanner can be configured to read only code 39 barcodes with a length between the minimum length (0-48) and the maximum length (0-48).

XdMbLa

~Minimum length

XdNbLa

~Maximum length

Code 32 Pharmaceutical（PARAF）

Allow / prohibit reading Code 32 Pharmaceutical

Code 32, or code 32 pharmaceutical, is a form of code 39 barcode used by Italian pharmacies.

This bar code is also known as paraf.

The output format of code 32 is: * + A + 8-bit number + 1-bit check +*.

QaYaAb

Allow reading Code 32

QaYaQa

Prohibit reading Code 32 **

Check character setting

WaYaWa

Turn on check transfer**

WaYaMa

Turn off check transfer

Code 32 add letter prefix A

QaVdXa

Turn on Add A before the bar code

QaVdNa

Turn off Add A before the bar code**

Code 32 failed to read

QaZaCb

Turn on failed to read code 32**

QaZaSa

Turn off failed to read code 32

Note: Code 32 pharmaceutical barcode is a subclass of code39. When code 32 is not turned on, the output content of code 32 is an error, that is, the default code 32 reading failure is turned on. When code 32 reading fails when code 32 is turned off, code 32 barcode cannot be read when code 32 barcode is not turned on, and normal code 39 barcode cannot be read at this time.

Code 93

Allow / prohibit reading Code 93

QaXaXa

Allow reading Code 93**

QaXaNa

Prohibit reading Code 93

Set code 93 reading length

The default code reading length of code 93 is 0-80. The scanner can be configured to read only code 93 barcodes with a length between (including) the minimum length (0-80) and the maximum length (0-80).

XdEcLa

~Minimum length

XdFcLa

~Maximum length

Code 11

Allow / prohibit reading Code 11

QaWaYa

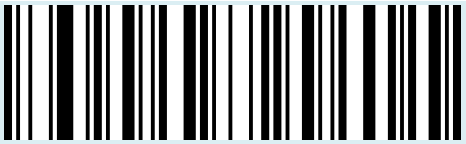
Allow reading Code 11

QaWaOa

Prohibit reading Code 11**

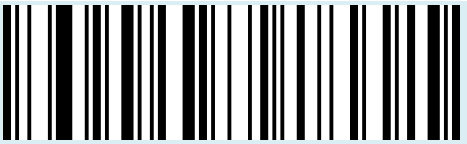
Check character setting

Code 11 barcode data has check characters, which can be the last 1 or 2 characters of the data. The check character is the value calculated from all data to check whether the data is correct.



QaYdQa

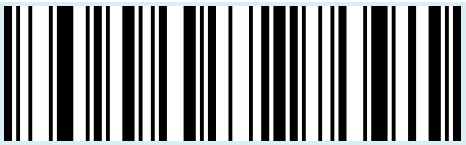
1-bit check**



QaYdAb

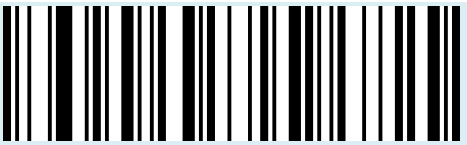
2-bit check

Transfer check character



QaVdYa

Transfer check character**



QaVdOa

Don’t transfer check character

Set code 11 reading length

The default code reading digit of code 11 is 2-80. The scanner can be configured to read only code 11 barcodes with a length between (including) the minimum length (2-80) and the maximum length (2-80).

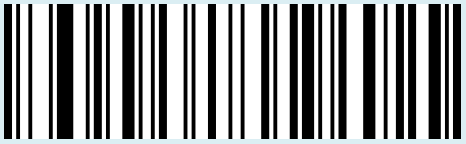
XdObLa ~Minimum length	XdPbLa ~Maximum length

Codabar（NW-7）

Allow / prohibit reading Codabar

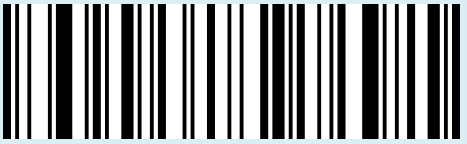
 QaXaZa Allow reading Codabar*	 QaXaPa Prohibit reading Codabar

Check character setting



QaAbLa

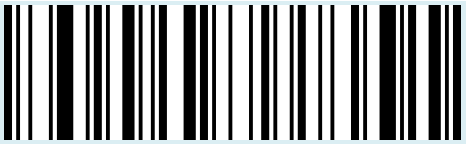
No check**



QaAbVa

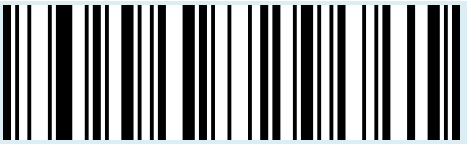
Mod 16 verification

Transfer check character



QaYdBb

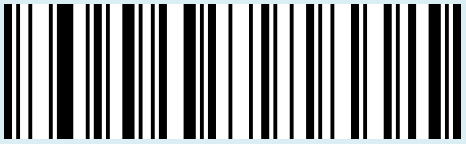
Transfer check character



QaYdRa

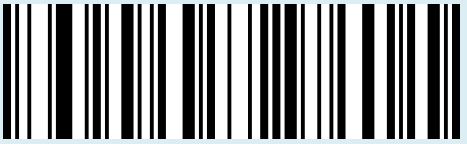
Don’t transfer check character**

Start and end character settings



QaVdCb

Transmission start and end characters



QaVdSa

Do not transfer start and end characters**

Format of start and end characters

Codabar start and end characters are allowed to be one of the four characters "A", "B", "C", "D";

The terminator can also be one of the four characters "T", "N", "*" and "E"。

WaMbSa

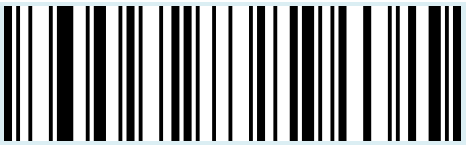
ABCD/ABCD**

WaMbCb

ABCD/TN*E

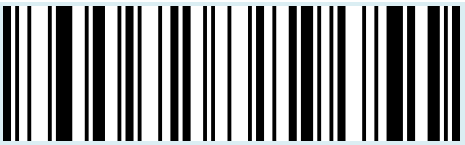
Set Codabar code reading length

The default reading length of Codabar is 2-60, and the scanner can be configured to read only Codabar barcodes with a length between (including) the minimum length (2-60) and the maximum length (2-60).



XdGcLa

~Minimum length



XdHcLa

~Maximum length

Interleaved 2 of 5

Allow / prohibit reading Interleaved 2 of 5

QaXaAb

Allow reading Interleaved 2 of 5**

QaXaQa

Prohibit reading Interleaved 2 of 5

Check character setting

Interleaved 2 of 5 barcode data is not forced to contain check characters. If there are check characters, it is the last character of the data. The check character is the value calculated from all data to check whether the data is correct. You can turn verification on or off as required, and set whether to send verification characters.

The number of digits of interleaved 2 of 5 bar code must be even, and the check character is included in the code. If it is odd, the first digit is supplemented with 0.

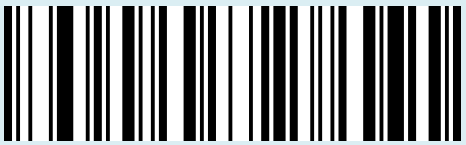
The default is "turn off Interleaved 2 of 5 verification" and "do not transmit Interleaved 2 of 5 verification"

QaZaLa

Turn on verification**

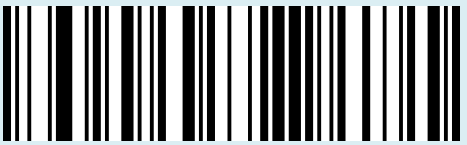
QaZaVa

Turn on Mod 10 verification



QaVdZa

Transmit Mod 10 verification



QaVdPa

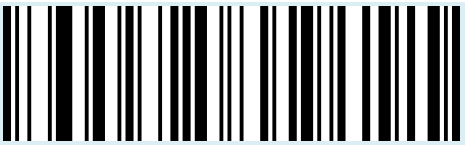
Do not transmit mode 10 verification**

Set Interleaved 2 of 5 code reading length

Interleaved 2 of 5 the default code reading digits are 1-80. The scanner can be configured to read only the interleaved 2 of 5 barcodes with a length between (including) the minimum length (1-80) and the maximum length (1-80).

XdSbLa

Minimum length



XdTbLa

Maximum length

Matrix 2 of 5

Allow / prohibit reading Matrix 2 of 5

QaWaAb

Allow reading Matrix 2 of 5**

QaWaQa

Prohibit reading Matrix 2 of 5

Check character setting

Matrix 2 of 5 bar code data does not contain check characters. If there are check characters, they must be the last byte of data. The check character is the value calculated from all data except the check character to check whether the data is correct.

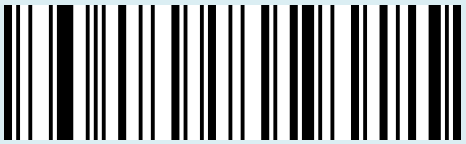
The default is "close verification".

AbBbBb

Turn on verification

AbBbRa

Turn off verification**



AbBbLb

Enable verification, don’t transmit verification

Set matrix 2 of 5 code reading length

The default code reading digits of matrix 2 of 5 are 1-80. The scanner can be configured to read only matrix 2 of 5 barcodes with a length between (including) the minimum length (1-80) and the maximum length (1-80).

XdYbLa

~Minimum length

XdZbLa

Maximum length

Industrial 2 of 5

Allow / prohibit reading Industrial 2 of 5

QaXaVa

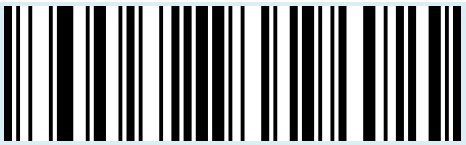
Allow reading Industrial 2 of 5**

QaXaLa

Prohibit reading Industrial 2 of 5

Set industrial 2 of 5 code reading length

The default code reading digit of industrial 2 of 5 is 1-45. The scanner can be configured to read only industrial 2 of 5 barcodes with a length between (including) the minimum length (1-45) and the maximum length (1-45).



XdUbLa

~Minimum length

XdVbLa

~Maximum length

Standard 2 of 5(IATA 2 of 5)

Allow / prohibit reading Standard 2 of 5

QaWaZa

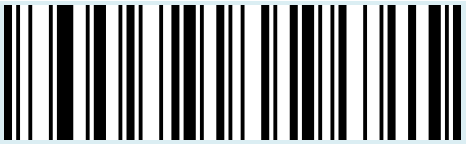
Allow reading Standard 2 of 5

QaWaPa

Prohibit reading Standard 2 of 5**

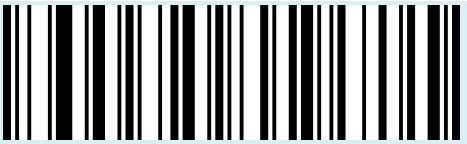
Set standard 2 of 5 code reading length

The default code reading digits of standard 2 of 5 are 1-45. The scanner can be configured to read only standard 2 of 5 barcodes with a length between (including) the minimum length (1-45) and the maximum length (1-45).



XdWbLa

~Minimum length



XdXbLa

~Maximum length

MSI Plessey

Allow / prohibit reading MSI Plessey

QaYaXa

Allow reading MSI Plessey

QaYaNa

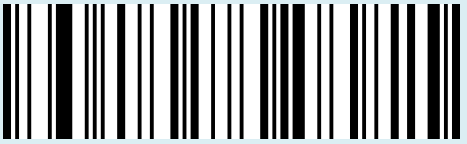
Prohibit reading MSI Plessey**

Check character setting

MSI Plessey barcode data is not forced to contain check characters. If there are check characters, it is the last 1 or 2 characters of the data. The check character is the calculated value of all data except the check character, which is used to check whether the data is correct. If it is set to "turn off verification", the scanner will transmit all barcode data normally.

AbDbPa

No check**



AbDbJb

1-bit Mod 10 check

AbDbTb

2-bit Mod 10 check

AbDbZa

1-bit Mod10, 1-bit Mod 11 verification

QaVdWa

Transmit check bit

QaVdMa

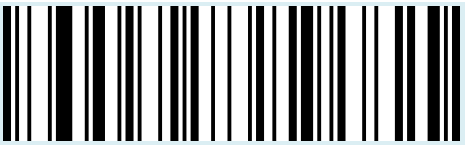
Do not transmit check bits**

Set MSI Plessey code reading length

The default number of reading bits of MSI Plessey is 1-255. The scanner can be configured to read only MSI Plessey codes with a length between (including) the minimum length (1-255) and the maximum length (1-255).

XdCcLa

~Minimum length



XdDcLa

~Maximum length

Telepen

Allow / prohibit reading Telepen

QaWaCb

Allow reading Telepen

QaWaSa

Prohibit reading Telepen**

Telepen character type

QaWaBb

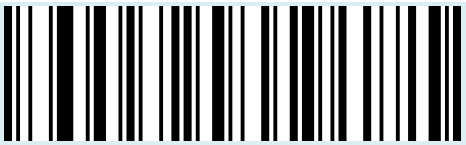
Number type

QaWaRa

Alphanumeric type**

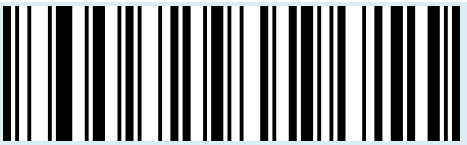
Set telepen code reading length

The default code reading digits of telepen are 1-60, and the scanner can be configured to read only telepen codes with a length between (including) the minimum length (1-60) and the maximum length (1-60).



XdQbLa

~Minimum length



XdRbLa

~Maximum length

Febraban Brazilian bank code

Allow / prohibit reading Febraban（ITF25 type）

WaNbVa Allow reading Febraban	WaNbLa Prohibit reading Febraban**

Allow / prohibit reading Febraban（Code 128 type）

 WaNbWa Allow reading Febraban	 WaNbMa Prohibit reading Febraban**

Check character setting

 WaNbXa Turn on Febraban verification	 WaNbNa Turn off Febraban verification**

GS1 DataBar 14(RSS-14)

Allow / prohibit reading GS1 DataBar 14

QaAbYa

**Allow reading GS1 DataBar 14

QaAbOa

Prohibit reading GS1 DataBar 14

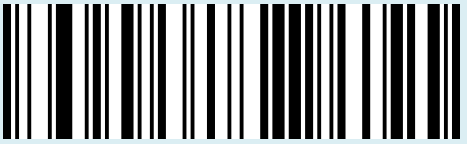
Note: GS1 DataBar 14 also called GS1 Databar Omnidirectional、RSS-14

GS1 DataBar Limited（RSS-Limited）

Allow / prohibit reading RSS-Limited

QaAbZa

**Allow reading RSS-Limited



QaAbPa

Prohibit reading RSS-Limited

Note: GS1 DataBar Limited also called RSS-Limited

GS1 DataBar Expanded(RSS-Expanded)

Allow / prohibit reading RSS-Expanded

QaAbAb

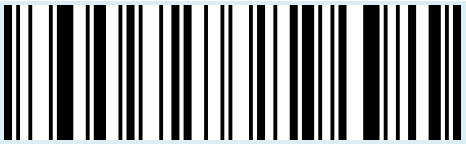
**Allow reading RSS-Expanded

QaAbQa

Prohibit reading RSS-Expanded

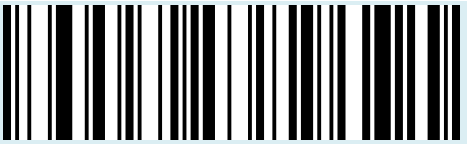
Note: GS1 DataBar Expanded also called RSS-Expanded

GS1 DataBar expanded the default number of code reading bits is 4-74. The scanner can be configured to read only GS1 DataBar expanded codes with a length between (including) the minimum length (4-74) and the maximum length (4-74).



XdIcLa

~Minimum length



XdJcLa

~Maximum length

QR Code

Allow / prohibit reading QR Code

QaCbXa

Allow reading QR Code**

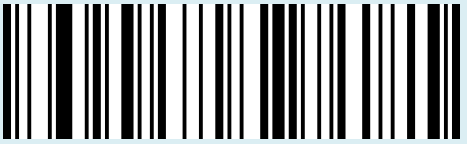
QaCbNa

Prohibit reading QR Code

QR code positive and negative acquaintance reading

QaCbOa

Read only positive phase**



QaCbYa

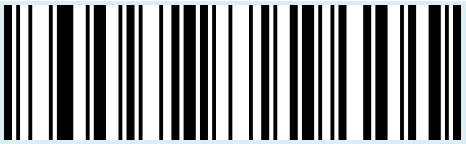
Positive phase + negative phase reading

Set QR code reading length

The default number of code reading digits of QR code is 1-7089. The scanner can be configured to read only QR code with a length between (including) the minimum length (1-7089) and the maximum length (1-7089).

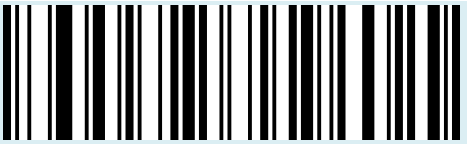
Minimum length of code reading = minimum length high byte * 256 + minimum length low byte

Maximum length of code reading - maximum length high byte * 256 + maximum length low byte



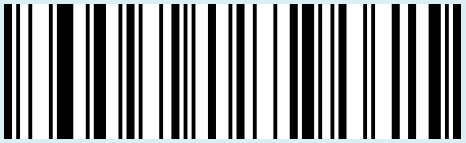
XdYdLa

~Minimum length (low byte)



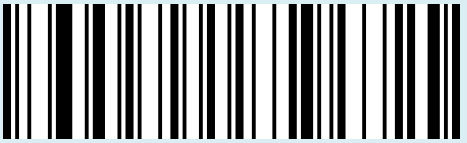
XdZdLa

~Minimum length (high byte)



XdAeLa

~Maximum length (low byte)



XdBeLa

~Maximum length (high byte)

Micro QR Code

Allow / prohibit reading Micro QR Code

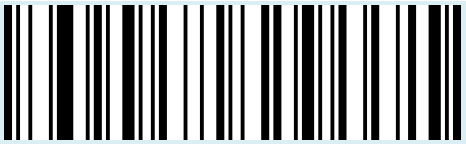
QaCbAb

Allow reading Micro QR Code**

QaCbQa

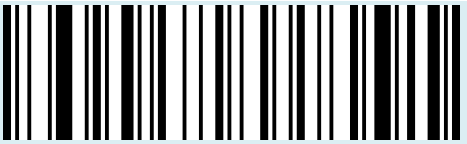
Prohibit reading Micro QR Code

Micro QR code positive and negative recognition reading



QaCbRa

Read only positive phase**



QaCbBb

Positive and negative phase uniform reading

Data Matrix

Allow / prohibit reading Data Matrix

QaBbYa

Allow reading Data Matrix**

QaBbOa

Prohibit reaing Data Matrix

Data matrix rectangular code

QaBbWa

Allow reading rectangular Data Matrix

QaBbMa

Prohibit reading rectangular Data Matrix**

Data matrix positive and negative acquaintance reading

QaBbNa

Read only positive phase**

QaBbXa

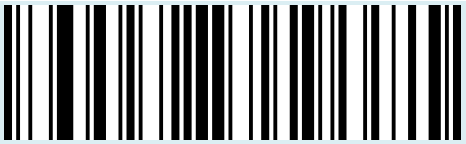
Positive and negative phase uniform reading

Set data matrix code reading length

The default number of code reading bits of data matrix is 1-3116. The scanner can be configured to read only data matrix codes with a length between (including) the minimum length (1-3116) and the maximum length (1-3116).

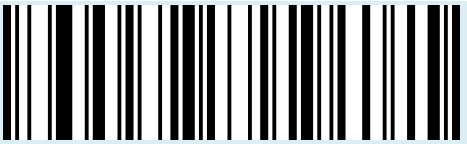
Minimum length of code reading = minimum length high byte * 256 + minimum length low byte

Maximum length of code reading - maximum length high byte * 256 + maximum length low byte



XdUdLa

~Minimum length (low byte)

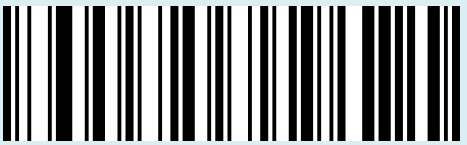


XdVdLa

~Minimum length (high byte)

XdWdLa

~Maximum length (low byte)



XdXdLa

~Maximum length (high byte)

PDF 417

Allow / prohibit reading PDF 417

QaWaVa

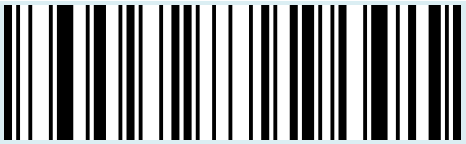
Allow reading PDF 417**

QaWaLa

Prohibit reading PDF 417

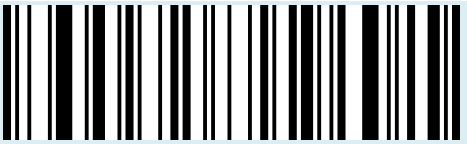
Set PDF 417 code reading length

The default code reading number of PDF 417 is 1-2750. The scanner can be configured to read only PDF 417 codes with a length between (including) the minimum length (1-2750) and the maximum length (1-2750).
Minimum length of code reading = minimum length high byte * 256 + minimum length low byte
Maximum length of code reading - maximum length high byte * 256 + maximum length low byte



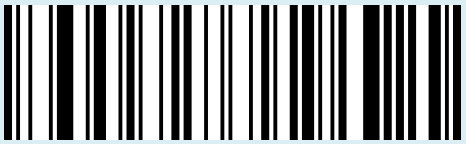
XdGdLa

~Minimum length (low byte)



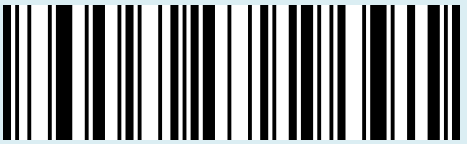
XdHdLa

~Minimum length (high byte)



XdIdLa

~Maximum length (low byte)



XdJdLa

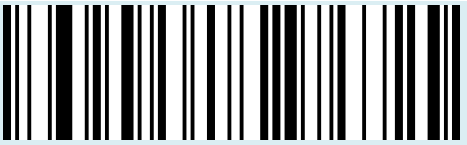
~Maximum length (high byte)

Micro PDF 417

Allow / prohibit reading Micro PDF 417

QaAbCb

Allow reading Micro PDF 417



QaAbSa

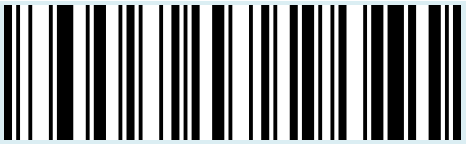
Prohibit reading Micro PDF 417**

Set the code reading length of micro PDF 417

The default code reading digits of micro PDF 417 are 1-366. The scanner can be configured to read only micro PDF 417 codes with a length between (including) the minimum length (1-366) and the maximum length (1-366).

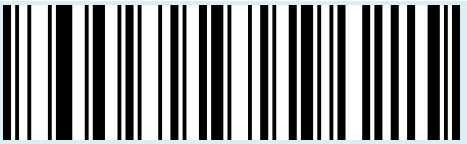
Minimum length of code reading = minimum length high byte * 256 + minimum length low byte

Maximum length of code reading - maximum length high byte * 256 + maximum length low byte



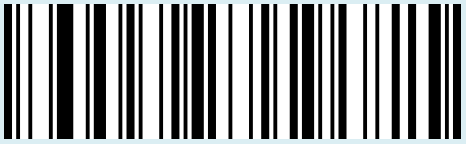
XdKdLa

~Minimum length (low byte)



XdLdLa

~Minimum length (high byte)



XdMdLa

~Maximum length (low byte)

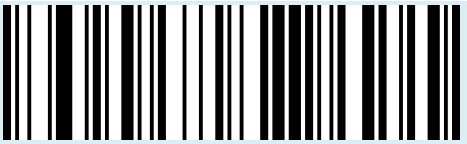
XdNdLa

~Maximum length (high byte)

MaxiCode

Allow / prohibit reading MaxiCode

QaCbZa

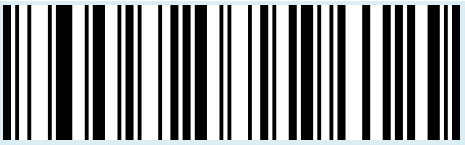


QaCbPa

Allow reading MaxiCode	Prohibit reading MaxiCode**

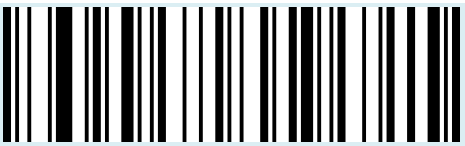
Set MaxiCode reading length

The default code reading digits of MaxiCode are 1-150, and the scanner can be configured to read only MaxiCode codes with a length between (including) the minimum length (1-150) and the maximum length (1-150).

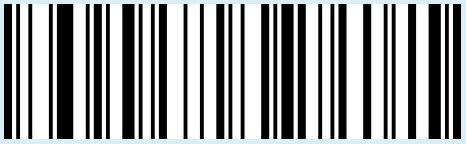
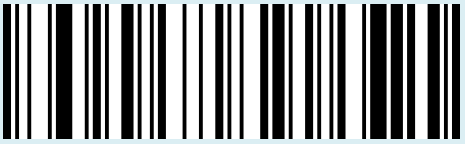
	
XdSdLa ~Minimum length	XdTdLa ~Maximum length

Aztec Code

Allow / prohibit reading Aztec Code

	
QaCbVa Allow reading Aztec Code	QaCbLa Prohibit reading Aztec Code**

Aztec Code positive and negative acquaintance reading

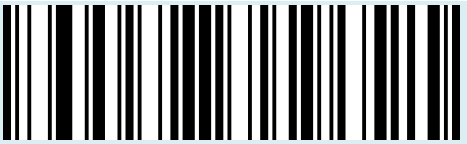
	
QaCbMa Read only positive phase**	QaCbWa Positive and negative phase uniform reading

Set Aztec code reading length

The default number of reading bits of Aztec code is 1-3832. The scanner can be configured to read only Aztec code with a length between (including) the minimum length (1-3832) and the maximum length (1-3832).
Minimum length of code reading = minimum length high byte * 256 + minimum length low byte
Maximum length of code reading - maximum length high byte * 256 + maximum length low byte

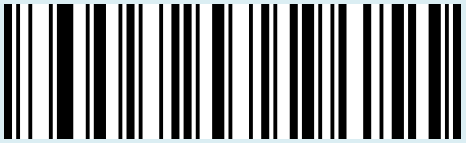
XdOdLa

~Minimum length (low byte)



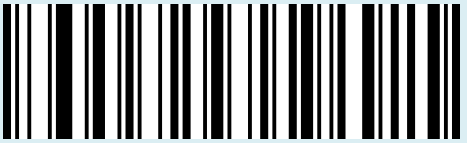
XdPdLa

~Minimum length (high byte)



XdQdLa

~Maximum length (low byte)



XdRdLa

~Maximum length (high byte)

HanXin Code

Allow / prohibit reading HanXin Code

SaRdWa

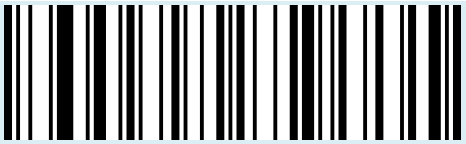
Allow reading HanXin Code

SaRdMa

Prohibit reading HanXin Code**

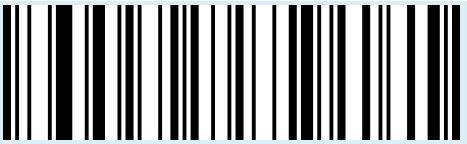
Set Hanxin code reading length

The default number of code reading bits of Hanxin code is 1-7883, and the scanner can be configured to read only Hanxin code with a length between (including) the minimum length (1-7883) and the maximum length (1-7883).
Minimum length of code reading = minimum length high byte * 256 + minimum length low byte
Maximum length of code reading - maximum length high byte * 256 + maximum length low byte



XdCeLa

~Minimum length (low byte)



XdDeLa

~Minimum length (high byte)

XdEeLa

~Maximum length (low byte)

XdFeLa

~Maximum length (high byte)

China Post Code

Allow / prohibit reading China Post Code

QaZaBb

Allow reading China Post

QaZaRa

Prohibit reading China Post **

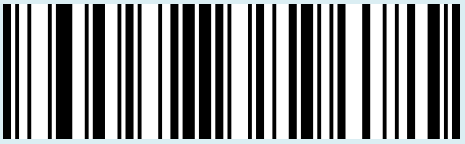
Note：China Post Code also called Hong Kong2 of 5.

Set the code reading length of China Post

The default number of code reading digits of China post is 2-80. The scanner can be configured to read only China Post Codes with a length between (including) the minimum length (2-80) and the maximum length (2-80).

XdOcLa

~Minimum length



XdPcLa

~Maximum length

GS1 Composite Code

Allow / prohibit reading GS1 Composite Code

RaUcBb

Allow readingGS1 Composite Code

RaUcRa

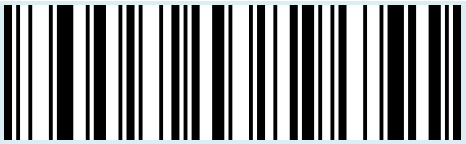
Prohibit reading GS1 Composite Code**

Set the reading length of GS1 composite code

The default number of reading bits of GS1 composite code is 1-2435. The scanner can be configured to read only GS1 composite code with a length between (including) the minimum length (1-2435) and the maximum length (1-2435).

Minimum length of code reading = minimum length high byte * 256 + minimum length low byte

Maximum length of code reading - maximum length high byte * 256 + maximum length low byte

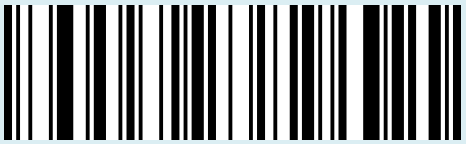


XdKcLa

~Minimum length (low byte)

XdLcLa

~Minimum length (high byte)



XdMcLa

~Maximum length (low byte)

XdNcLa

~Maximum length (high byte)

Chapter Six Communication instruction

Brief introduction

The user can send serial port instructions from the host to set the reading module. The normal communication between the reading module and the host equipment can be realized only when the communication parameter configuration is completely matched. Default serial communication parameters of reading module: **baud rate 9600bps, no verification, 8-bit data bit, 1-bit stop bit, no flow control**。

Command feedback value

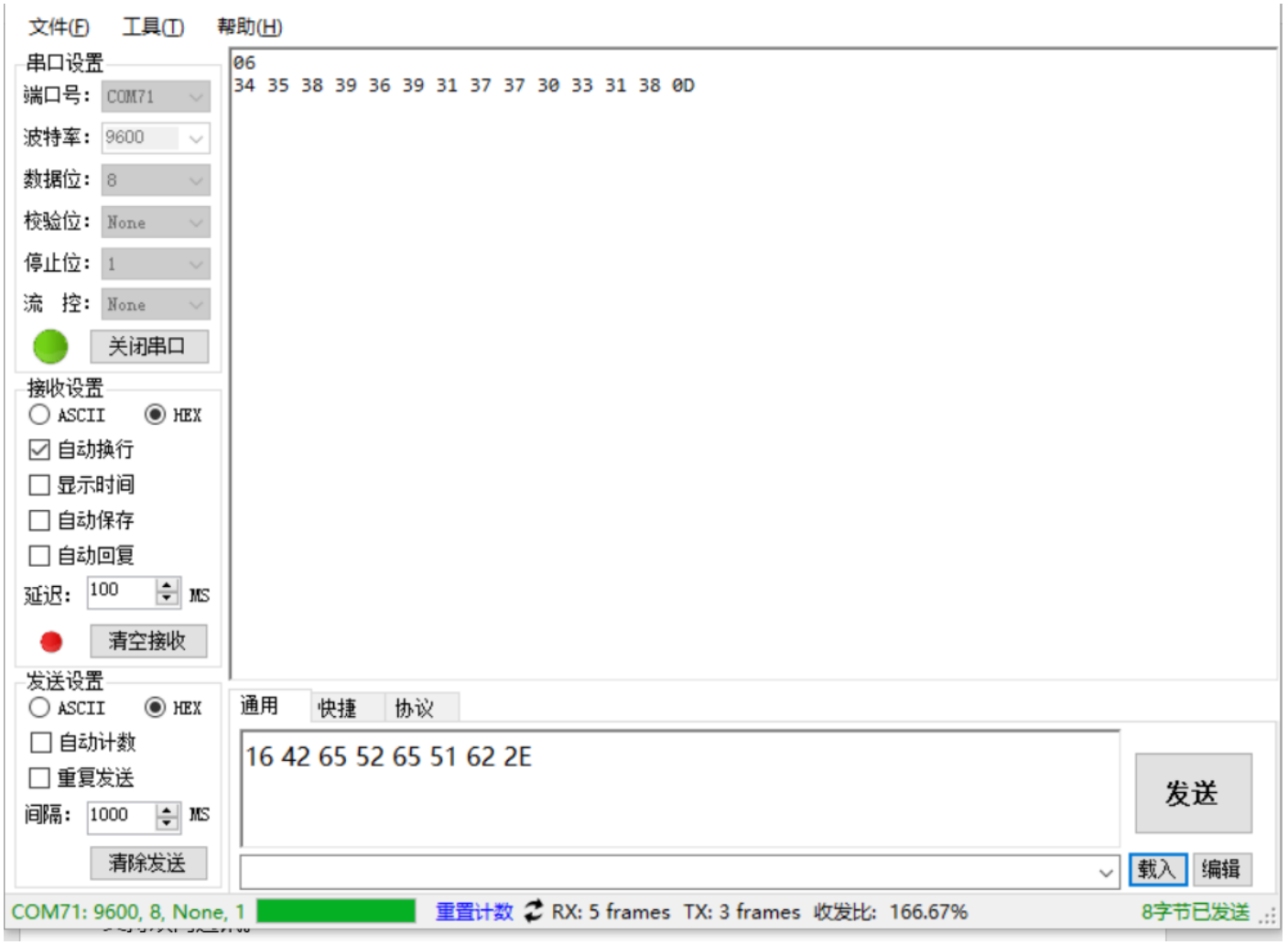
When sending an instruction to the scanner, after sending the instruction, the scanner will return the corresponding string to indicate the success or failure of the instruction execution.
Successful execution return：0x06
Execution failure return：0x15

Trigger instruction

Turn on scanning（hexadecimal）：16 42 65 52 65 51 62 2E
Turn off scanning（hexadecimal）：16 42 65 52 65 52 62 2E
Note: for detailed instructions, please refer to "**appendix - instruction set**"

Instruction sending example

Send hexadecimal instruction to control scanning, use the open decoding instruction to send, confirm the serial port protocol setting, and enter the corresponding instruction in the instruction sending input box to send.



Note: for detailed instructions, please refer to "**appendix - instruction set**"

Chapter Seven Appendix

Appendix - data code

The data code is used to configure the prefix, code system length or other variable values. When using the data code, it needs to be used in conjunction with "**appendix - enter / exit data code setting mode**"。

Appendix - enter / exit data code setting mode

When the user configures the configuration of prefix, code system length or other variable values, it is necessary to scan the setting code of "enter / exit data code setting mode" to enter the setting data code mode. After entering the data code configuration mode, only the scanning variable length configuration code with "~" symbol is valid. To set other configuration codes, you need to exit the data code setting mode first.

BeReGe

Enter / exit data code setting mode

Appendix - examples of custom parameters

Example - add pre suffix settings

For example: add XY custom prefix to all barcode types

First, check the "appendix - ASCII code table" to see that the three decimal values corresponding to the character XY to be prefixed are 088089 respectively.

Step 1: scan the setting code of "enter / exit data code setting mode" in the appendix (3 beeps);

BeReGe

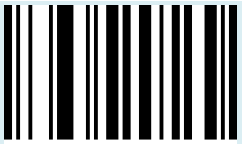
Enter / exit data code setting mode

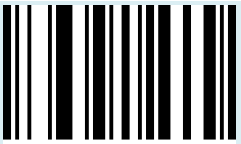
Step 2: scan the "~ set custom prefix" setting code;

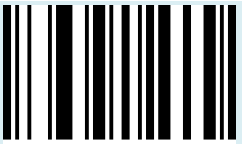
BeReTd

~Set custom prefix

Step 3: Scan "0", "8" and "8" of "**appendix - data code**" in turn to set the code. (every three are in a group, and the buzzer rings 1, 2 and 3 times respectively)。







Step 4: scan the "~ set custom prefix" setting code;

BeReTd

~Set custom prefix

Step 5: Scan "0", "8" and "9" of "**appendix - data code**" in turn to set the code. (every three are in a group, and the buzzer rings 1, 2 and 3 times respectively)。

Step 5: scan the setting code of "enter / exit data code setting mode" in the appendix to complete the setting, (buzzer rings 3 times)。

BeReGe

Enter / exit data code setting mode

Note: up to 10 user-defined prefixes can be set. Repeat step 2 and step 3 to set multiple prefixes. After each prefix is set, it will automatically switch to the setting of the next prefix (1-10 from left to right). After the 10th prefix is set, it will automatically jump to the first prefix setting.

Example - set one-dimensional code length

Note: 1. If the code system to be set: minimum length > maximum length, any length of the code system can be decoded.

2. If the code system to be set: minimum length = maximum length, the decodeable length of the code system is fixed to the set value.

3. Some QR codes have no high and low byte settings. You can also refer to this step.

For example: set the code 128 code reading length to 6-15 bits.

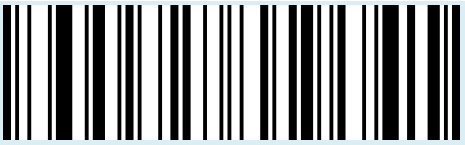
First, confirm that the three decimal values corresponding to 6 and 15 are 006 and 015.

Step 1: scan the setting code of "enter / exit data code setting mode" in the appendix (3 beeps);

BeReGe

Enter / exit data code setting mode

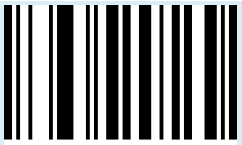
Step 2: scan the "~ minimum length" setting code of code 128;



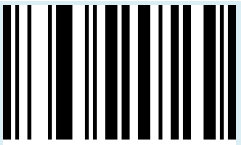
XdIbLa

~Minimum length

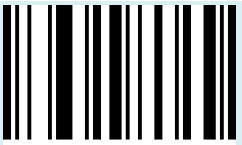
Step 3: Scan "0", "0" and "6" of "appendix - data code" successively and set the code. (every three are in a group, and the buzzer rings 1, 2 and 3 times respectively).



0



0



6

Step 4: scan the "~ maximum length" setting code of code 128;

XdJbLa

~Maximum length

Step 5: Scan "0", "1" and "5" of "appendix - data code" in sequence and set the code. (every three are in a group, and the buzzer rings 1, 2 and 3 times respectively).

Step 6: scan the setting code of "enter / exit data code setting mode" in the appendix to complete the setting, (buzzer rings 3 times).

BeReGe

Enter / exit data code setting mode

Example - set QR code length

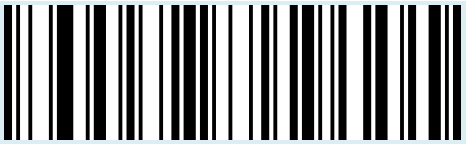
Note: 1. If the code system to be set: minimum length > maximum length, any length of the code system can be decoded.

2. If the code system to be set: minimum length = maximum length, the decodeable length of the code system is fixed to the set value.

For example, set QR code reading length to 20-300 bits.

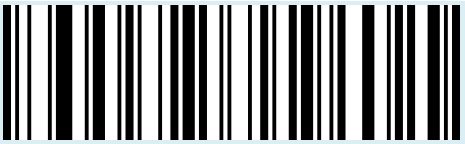
The two-dimensional code length setting is essentially the same as the one-dimensional code length setting, except that the minimum / maximum length setting of the two-dimensional code may be greater than 255, so the length needs to be divided into two settings.

If the maximum length of QR is 300, it is necessary to simply decompose the maximum length value before setting, and divide 300 into high byte and low byte, then the high byte is 300 / 256 = 1 (integer division), and the low byte is 300% 256 = 44 (remainder). If the maximum length is < 256, the high byte is 0.



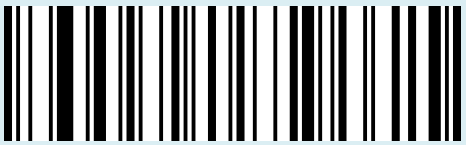
XdYdLa

~Minimum length (low byte)



XdZdLa

~Minimum length (high byte)



XdAeLa

~Maximum length (low byte)

XdBeLa

~Maximum length (high byte)

Step 1: scan the setting code of "enter / exit data code setting mode" in the appendix (3 beeps);

BeReGe

Enter / exit data code setting mode

Step 2: scan the "~ minimum length (high byte)" setting code of QR code;

XdZdLa

~Minimum length (high byte)

Step 3: Scan "0", "0" and "0" of "**appendix - data code**" in sequence and set the code. (every three are in a group, and the buzzer rings 1, 2 and 3 times respectively)。

0 0 0

Step 4: scan the "~ minimum length (low byte)" setting code of QR code;

XdYdLa

~Minimum length (low byte)

Step 5: Scan "0", "2" and "0" of "appendix - data code" in sequence and set the code. (every three are in a group, and the buzzer rings 1, 2 and 3 times respectively).

0 2 0

Step 4: scan the "~ maximum length (high byte)" setting code of QR code;

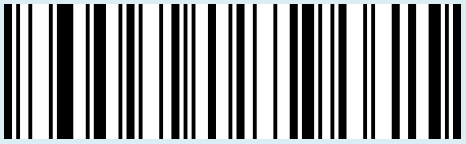
XdBeLa

~Maximum length (high byte)

Step 5: Scan "0", "0" and "1" of "appendix - data code" successively and set the code. (every three are in a group, and the buzzer rings 1, 2 and 3 times respectively).

0 0 1

Step 4: scan the "~ maximum length (low byte)" setting code of code 128;



XdAeLa

~Maximum length (low byte)

Step 5: Scan "0", "4" and "4" of "appendix - data code" in turn to set the code. (every three are in a group, and the buzzer rings 1, 2 and 3 times respectively).

0 4 4

Step 6: scan the setting code of "enter / exit data code setting mode" in the appendix to complete the setting, (buzzer rings 3 times).

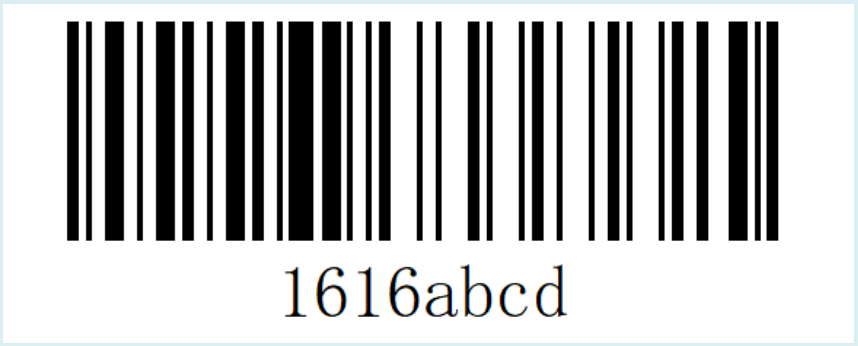
BeReGe

Enter / exit data code setting mode

Example - Hide Character settings

For example: set to hide the first 3 characters of barcode.

Example barcode：1616abcd



The original content of barcode is 1616abcd, set to hide the first 3 characters and output 6abcd.

Step 1: scan the setting code of "enter / exit data code setting mode" in the appendix (3 beeps)；

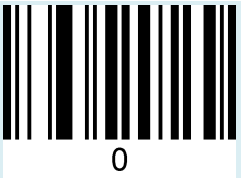
BeReGe

Enter / exit data code setting mode

Step 2: scan the setting code of "~ header data hiding digits"；

~Header data hiding bits

Step 3: Scan "0", "0" and "3" of "appendix - data code" successively and set the code. (every three are in a group, and the buzzer rings 1, 2 and 3 times respectively).



Step 4: scan the setting code of "enter / exit data code setting mode" in the appendix to complete the setting, (buzzer rings 3 times).

BeReGe

Enter / exit data code setting mode

Step 5: scan the setting code of "turn on hidden header character";

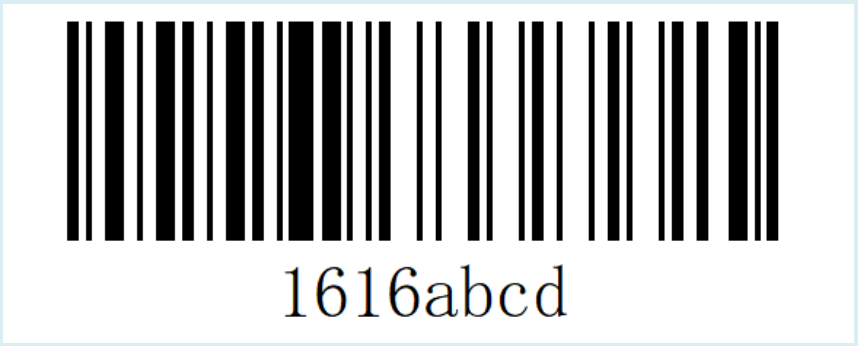
WaQbCb

Turn on hidden header characters

Example - character substitution settings

For example: replace the 6 appearing in the example barcode with the letter X.

First, check through "appendix - ASCII code table" that the three digit decimal value corresponding to the replaced character "6" is 054, and the three digit decimal value corresponding to the replaced character "X" is 088.



The original content of barcode is 1616abcd, Output is 1x1xabcd after setting.

Step 1: scan the setting code of "enter / exit data code setting mode" in the appendix (3 beeps);

BeReGe

Enter / exit data code setting mode

Step 2: scan the "~ character to be replaced" setting code;

VdEeLa

~Character to be replaced

Step 3: Scan "0", "5" and "4" of "appendix - data code" successively and set the code. (every three are in a group, and the buzzer rings 1, 2 and 3 times respectively).

Step 4: scan the "~ replacement character" setting code;

VdFeLa

~Replace character

Step 5: Scan "0", "8" and "8" of "appendix - data code" in turn to set the code. (every three are in a group, and the buzzer rings 1, 2 and 3 times respectively).

0 8 8

Step 6: scan the setting code of "enter / exit data code setting mode" in the appendix to complete the setting, (buzzer rings 3 times).

BeReGe

Enter / exit data code setting mode

Appendix - Default Settings table

Parameter name	Default setting	Remarks
Comprehensive setting		
Setting code function	ON	Default on
Setting code sending	OFF	Default off
Turn on all prompt tones	ON	
Turn on the startup prompt tone	ON	
Enable setting code prompt tone	ON	
Enable the prompt tone of decoding success	ON	
Decoding success prompt tone duration	Ordinary	
Audio rate of successful decoding prompt	2.0KHZ	
Decoding success prompt tone volume	High	
Error alarm tone	Low frequency	
Turn on the prompt light for successful code reading	ON	
Working mode of prompt lamp	The standby is off for a long time, and the working light is on	
Turn on the fill light	ON	
Turn on the aiming light	ON	
Data output format	Codepage	
Text output from different countries	UTF-8/GB2312 code	
Invoice function	OFF	
Image inversion	Positive phase image recognition	
All 1D bar codes are inverted	OFF	
All 2D bar codes are inverted	OFF	
Prompt of unsuccessful code reading	OFF	

Communication settings		
Interface mode	USB-KBW	
Keyboard mode	American English	
Control character output mode	Output function key	
Turn on virtual keyboard	OFF	
Toggle case	OFF	Normal
USB transmission speed	Ordinary	
Serial transmission speed	Fast	
Baud rate	9600	
Serial port verification	No check	
Data bit	8 bits	
Stop bit	1 bit	
Reading mode		
Reading mode	Manual reading	
Manual reading mode - key timeout	3S	
Continuous reading - same barcode reading delay	ON	800MS
Induction reading mode - image stabilization duration	250ms	
Inductive reading mode - inductive sensitivity	High	
Data editing		
Transfer Code ID	OFF	
Transfer AIM ID	OFF	
Custom prefix	OFF	
Custom suffix	OFF	
Hide header characters	OFF	
Hide middle character	OFF	
Hide trailing characters	OFF	
Display insert custom characters	OFF	
Start stop character	OFF	None
Terminator	CR	

Barcode parameter setting		
Turn on all barcodes	OFF	
UPC-A		
Allow reading	ON	
Transfer check character	ON	
Read 2 additional bits	OFF	
Read 5 additional bits	OFF	
Mandatory additional bits, 2 bits allowed	OFF	
Mandatory additional bits, 5 bits allowed	OFF	
Transport system character	ON	
Turn on separator	ON	
Convert to EAN-13	OFF	
UPC-E		
Allow reading UPC-E0	ON	
Allow reading UPC-E1	OFF	
Transfer check character	ON	
Read 2 additional bits	OFF	
Read 5 additional bits	OFF	
Mandatory additional bits, 2 bits allowed	OFF	
Mandatory additional bits, 5 bits allowed	OFF	
Turn on separator	ON	
Transport system character	ON	system character
Convert to UPC-A	OFF	
EAN-8		
Allow reading	ON	
Transfer check character	ON	
Read 2 additional bits	OFF	
Read 5 additional bits	OFF	

Mandatory additional bits, 2 bits allowed	OFF	
Mandatory additional bits, 5 bits allowed	OFF	
Turn on separator	ON	
Convert to EAN-13	OFF	
EAN-13		
Allow reading	ON	
Transfer check character	ON	
Read 2 additional bits	OFF	
Read 5 additional bits	OFF	
Mandatory additional bits, 2 bits allowed	OFF	
Mandatory additional bits, 5 bits allowed	OFF	
Turn on separator	ON	
Convert to ISBN	OFF	
Transfer ISBN check character	OFF	
Convert to ISSN	OFF	
Code 128		
Allow reading	ON	
Default code reading length	0-80	
GS 1-128		
Allow reading	ON	
Default code reading length	0-80	
ISBT 128		
Allow reading	OFF	
Code 39		
Allow reading	ON	
MOD43 verification	OFF	
Transmission verification	OFF	
Transmission start and end characters	OFF	

Recognize Full ASCII	OFF	
Default code reading length	0-48	
Code 32		
Allow reading	OFF	
Transmission verification	ON	
Add a before opening barcode	OFF	
Failed to read Code32	ON	
Code 93		
Allow reading	ON	
Default code reading length	0-80	
Code 11		
Allow reading	OFF	
Turn on verification	ON	1bit verification
Transmission verification	ON	
Default code reading length	2-80	
Codabar		
Allow reading	ON	
Turn on verification	OFF	
Transmission verification	OFF	
Transmission start and end characters	OFF	
Format of start and end characters	ABCD/ABCD	
Default code reading length	2-60	
Interleaved 2 of 5		
Allow reading	ON	
Turn on verification	OFF	
Transmission verification	OFF	
Default code reading length	1-80	
Matrix 2 of 5		
Allow reading	ON	
Turn on verification	OFF	
Default code reading length	1-80	

Industrial 2 of 5		
Allow reading	ON	
Default code reading length	1-45	
Standard 2 of 5		
Allow reading	OFF	
Default code reading length	1-45	
MSI Plessey		
Allow reading	OFF	
Turn on verification	OFF	
Transmission verification	OFF	
Default code reading length	1-255	
Telepen		
Allow reading	OFF	
Character type	Letter type	
Default code reading length	1-60	
Febraban		
Allow reading(ITF25 type)	OFF	
Allow reading(Code128 type)	OFF	
Turn on Febraban	OFF	
RSS-14		
Allow reading	ON	
RSS-Limited		
Allow reading	ON	
RSS-Expanded		
Allow reading	ON	
Default code reading length	4-74	
QR Code		
Allow reading	ON	
Anti acquaintance reading	OFF	
Default code reading length	1-7089	
Micro QR Code		
Allow reading	ON	
Anti acquaintance reading	OFF	

Data Matrix		
Allow reading	ON	
Allow reading rectangular code	OFF	
Anti acquaintance reading	OFF	
Default code reading length	1-3116	
PDF 417		
Allow reading	ON	
Default code reading length	1-2750	
Micro PDF 417		
Allow reading	OFF	
Default code reading length	1-366	
MaxiCode		
Allow reading	OFF	
Default code reading length	1-150	
Aztec		
Allow reading	OFF	
Anti acquaintance reading	OFF	
Default code reading length	1-3832	
HanXin Code		
Allow reading	OFF	
Default code reading length	1-7883	
China Post Code		
Allow reading	OFF	
Default code reading length	2-80	
GS1 Composite Code		
Allow reading	OFF	
Default code reading length	1-2435	

Appendix-Code ID & AIM ID

Serial No.	Barcode Type	Code ID	AIM ID	Explain
1	Code 128	A	]C0	
2	GS1 128	B	]C1	
3	EAN-8	C	]E4	
4	EAN-8 with Add-on	C	]E3	
5	EAN-13	D	]E0	
6	EAN-13 with Add-on	D	]E3	
7	UPC-E	E	]E0	
8	UPC-E with Add-on	E	]E3	
9	UPC-A	F	]E0	
10	UPC-A with Add-on	F	]E3	
11	UPC-E1	E	]X0	
12	ISBN	d	]E0	
13	Code11	1	]Hm	m: 0,1,3
14	Code39 Base32	f	]X0	
15	Interleaved 2 of 5	G	]Im	m: 0,1,3
16	Industrial 2 of 5	h	]S0	

17	Standard 2 of 5	H	]R0	
18	Code 39	I	]Am	m: 0,1,3,4,5,7
19	Codabar	J	]Fm	m: 0,2,4
20	MSI Plessey	K	]Mm	m: 0,1,2,3,5,6,7
21	Code 93	L	]G0	
22	GS1 Databar Omnidirectional	M	]e0	
23	GS1 Databar Limited	[	]e0	
24	GS1 Databar Expanded	]	]e0	
25	HongKong 2 of 5(China Post)	P	]X9	
26	Matrix 2 of 5	Q	]X0	
27	PDF417	N	]Lm	m: 0,1,2
28	Micro PDF417	O	]Lm	m: 0,1,2,3,4,5
29	Hanxin	S	]XH	
30	AztecCode	T	]zm	m: 0-9,A-C
31	QR code	U	]Qm	m: 0-6
32	Micro QR	U	]Qm	m: 0-6

33	Data Matrix	V	]dm	m: 0-6
34	Maxi Code	W	]Um	m: 0-3
35	GS1 Composite Code	M / [/] / …	]e0	
36	Telepen	8	]Bm	m: 0,1,2,4

Note：The Code ID of GS1 Composite Code depends on the type of composite code。

Appendix - control character table

Note: ASCII code table 0-31 refers to control characters with different forms under different interface modes. The scanner can realize the functions in the table below by using relevant settings.

Hexadecimal	ASCII value (decimal system)	Corresponding key value (Function key operation)	Corresponding key value (Ctrl key combination operation)
00	00	Null	Ctrl+2
01	01	Keypad Enter	Ctrl+A
02	02	Caps lock	Ctrl+B
03	03	Right Arrow	Ctrl+C
04	04	Up Arrow	Ctrl+D
05	05	Null	Ctrl+E
06	06	Null	Ctrl+F
07	07	Enter	Ctrl+G
08	08	Left Arrow	Ctrl+H
09	09	Horizontal Tab	Ctrl+I
0A	10	Down Arrow	Ctrl+J
0B	11	Vertical Tab	Ctrl+K
0C	12	Backspace	Ctrl+L
0D	13	Enter	Ctrl+M
0E	14	Insert	Ctrl+N
0F	15	Esc	Ctrl+O
10	16	F11	Ctrl+P
11	17	Home	Ctrl+Q
12	18	Print Screen	Ctrl+R
13	19	Delete	Ctrl+S
14	20	tab+shift	Ctrl+T
15	21	F12	Ctrl+U
16	22	F1	Ctrl+V
17	23	F2	Ctrl+W

18	24	F3	Ctrl+X
19	25	F4	Ctrl+Y
1A	26	F5	Ctrl+Z
1B	27	F6	Ctrl+[
1C	28	F7	Ctrl+\
1D	29	F8	Ctrl+]
1E	30	F9	Ctrl+6
1F	31	F10	Ctrl+-

Appendix - ASCII code table

Note: ASCII code table 0-31 refers to invisible characters, which are used as control characters,

and 32-127 refers to visible characters

Hexadecimal	ASCII value(decimal system）	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)
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)

Appendix - instruction set

Note: the serial port command needs to be used in the serial port mode

Function	**Setting code**	**Instructions（HEX）**
1. Scan control - start scan	NG	16 42 65 52 65 51 62 2E
2. Scan control - turn off scan	NG	16 42 65 52 65 52 62 2E
3. Turn on setting code	RaZdNa	16 52 61 5A 64 4E 61 2E
4. Turn off setting code	RaZdXa	16 52 61 5A 64 58 61 2E
5. Send setting code	WaZaBb	16 57 61 5A 61 42 62 2E
6. Do not send setting code	WaZaRa	16 57 61 5A 61 52 61 2E
7. Restore Factory Defaults	BeQeCe	16 42 65 51 65 43 65 2E
8. Read version	BeReCd	16 42 65 52 65 43 64 2E
9. Save user default settings	UaQdWa	16 55 61 51 64 57 61 2E
10. Restore user defaults	BeQeEe	16 42 65 51 65 45 65 2E
11. Turn on all prompt tones	WaZaCb	16 57 61 5A 61 43 62 2E
12. Turn off all prompt tones	WaZaSa	16 57 61 5A 61 53 61 2E

13. Turn on the startup prompt tone	RaOdNa	16 52 61 4F 64 4E 61 2E
14. Turn off the startup prompt tone	RaOdXa	16 52 61 4F 64 58 61 2E
15. Turn on setting code prompt tone	WaZaZa	16 57 61 5A 61 5A 61 2E
16. Turn off setting code prompt tone	WaZaPa	16 57 61 5A 61 50 61 2E
17. Turn on the prompt tone of decoding success	RaDeXa	16 52 61 44 65 58 61 2E
18. Turn off the prompt tone of decoding success	RaDeNa	16 52 61 44 65 4E 61 2E
19. The decoding is successful and the prompt tone time is short	RaCeZa	16 52 61 43 65 5A 61 2E
20. Decoding succeeded, prompt tone time is normal	RaCePa	16 52 61 43 65 50 61 2E
21. Decoding success prompt audio rate - low 1.6KHZ	LbDeUb	16 4C 62 44 65 55 62 2E

22. Decoding success prompt audio rate - medium low 2.0KHZ	LbDeEc	16 4C 62 44 65 45 63 2E
23. Decoding success prompt audio rate - medium 2.7KHZ	LbDeAb	16 4C 62 44 65 41 62 2E
24. Decoding success prompt audio rate - high 4.2KHZ	LbDeKb	16 4C 62 44 65 4B 62 2E
25. Sound volume off after successful decoding	BbDePb	16 42 62 44 65 50 62 2E
26. Decoding succeeded, prompt tone volume is low	BbDeFb	16 42 62 44 65 46 62 2E
27. Decoding successful prompt tone volume	BbDeVa	16 42 62 44 65 56 61 2E
28. Decoding successful prompt tone volume high	BbDeLa	16 42 62 44 65 4C 61 2E
29. Error warning tone - low frequency	GbZaNa	16 47 62 5A 61 4E 61 2E

30. Error warning tone - medium frequency	GbZaXa	16 47 62 5A 61 58 61 2E
31. Error warning tone - high frequency	GbZaHb	16 47 62 5A 61 48 62 2E
32. Turn on the prompt light for successful code reading	RaBeYa	16 52 61 42 65 59 61 2E
33. Turn off the prompt light for successful code reading	RaBeOa	16 52 61 42 65 4F 61 2E
34. Prompt lamp - standby long-term off, working on	WaAbRa	16 57 61 41 62 52 61 2E
35. Prompt light - standby on for a long time and working off	WaAbBb	16 57 61 41 62 42 62 2E
36. Turn on the fill light	GbWaHb	16 47 62 57 61 48 62 2E
37. Turn off the fill light	GbWaNa	16 47 62 57 61 4E 61 2E
38. Turn on the aiming light	GbWaZa	16 47 62 57 61 5A 61 2E
39. Turn off the aiming light	GbWaPa	16 47 62 57 61 50 61 2E

40. The aiming light is on for a long time	GbWaJb	16 47 62 57 61 4A 62 2E
41. The aiming light flashes	GbWaTb	16 47 62 57 61 54 62 2E
42. Data output format - English	GbBbLa	16 47 62 42 62 4C 61 2E
43. Data output format-Codepage	GbBbVa	16 47 62 42 62 56 61 2E
44. Data output format-Unicode	GbBbFb	16 47 62 42 62 46 62 2E
45. Chinese system - Simplified Chinese	OdPbLa	16 4F 64 50 62 4C 61 2E
46. Chinese system - traditional Chinese	OdPbIbc	16 4F 64 50 62 49 62 63 2E
47. Traditional system - traditional Chinese	OdPbPb	16 4F 64 50 62 50 62 2E
48. Chinese system-Shift-JIS	OdPbJbc	16 4F 64 50 62 4A 62 63 2E
49. Japanese system-Shift-JIS	OdPbVa	16 4F 64 50 62 56 61 2E
50. Korean system-CP949	OdPbFb	16 4F 64 50 62 46 62 2E

51. Thai system-CP874	OdPbGbc	16 4F 64 50 62 47 62 63 2E
52. Russian system-KOI8-R	OdPbHbc	16 4F 64 50 62 48 62 63 2E
53. Turn on invoice function	WaBbXa	16 57 61 42 62 58 61 2E
54. Turn off invoice function	WaBbNa	16 57 61 42 62 4E 61 2E
55. Positive phase image recognition	CbQdRa	16 43 62 51 64 52 61 2E
56. Inverse image recognition	CbQdLb	16 43 62 51 64 4C 62 2E
57. Positive and negative phase image recognition	CbQdBb	16 43 62 51 64 42 62 2E
58. All 1D bar codes are turned on in reverse phase	PdZdQbc	16 50 64 5A 64 51 62 63 2E
59. All 1D bar codes are turned off	PdAeQbc	16 50 64 41 65 51 62 63 2E
60. All 2D barcodes are turned on in reverse phase	PdBeQbc	16 50 64 42 65 51 62 63 2E
61. All 2D barcodes are turned off	PdCeQbc	16 50 64 43 65 51 62 63 2E

62. Turn on QR URL readable	WaQbPa	16 57 61 51 62 50 61 2E
63. Turn off QR URL readable	WaQbZa	16 57 61 51 62 5A 61 2E
64. Turn on NR	SaCbCb	16 53 61 43 62 43 62 2E
65. Turn off NR	SaCbSa	16 53 61 43 62 53 61 2E
66. USB-KBW interface	VbZcWag	16 56 62 5A 63 57 61 67 2E
67. American English	JdCcTc	16 4A 64 43 63 54 63 2E
68. Greece	JdCcLbc	16 4A 64 43 63 4C 62 63 2E
69. Netherlands	JdCcGbc	16 4A 64 43 63 47 62 63 2E
70. Spain	JdCcJc	16 4A 64 43 63 4A 63 2E
71. Swiss German	JdCcCbc	16 4A 64 43 63 43 62 63 2E
72. Brazil	JdCcLa	16 4A 64 43 63 4C 61 2E
73. Denmark	JdCcEbc	16 4A 64 43 63 45 62 63 2E
74. British English	JdCcDbc	16 4A 64 43 63 44 62 63 2E
75. Italy	JdCcZb	16 4A 64 43 63 5A 62 2E

76. France	JdCcFb	16 4A 64 43 63 46 62 2E
77. German	JdCcBbc	16 4A 64 43 63 42 62 63 2E
78. Hungary	JdCcNbc	16 4A 64 43 63 4E 62 63 2E
79. Sweden	JdCcRbc	16 4A 64 43 63 52 62 63 2E
80. Swarlock	JdCcQbc	16 4A 64 43 63 51 62 63 2E
81. Portugal	JdCcIbc	16 4A 64 43 63 49 62 63 2E
82. Romania	JdCcSbc	16 4A 64 43 63 53 62 63 2E
83. Belgium	JdCcWqc	16 4A 64 43 63 5A 61 63 2E
84. Turkish-F	JdCcTbc	16 4A 64 43 63 54 62 63 2E
85. Turkish-Q	JdCcXac	16 4A 64 43 63 58 61 63 2E
86. Poland	JdCcObc	16 4A 64 43 63 4F 62 63 2E
87. Russian MS	JdCcQdc	16 4A 64 43 63 51 64 63 2E
88. Japan	JdCcVac	16 4A 64 43 63 56 61 63 2E
89. Ukraine	JdCcGdc	16 4A 64 43 63 47 64 63 2E

90. USB Keyboard - output function key	QbBbQa	16 51 62 42 62 51 61 2E
91. USB Keyboard - output Ctrl key combination	QbBbAb	16 51 62 42 62 41 62 2E
92. USB Keyboard alt mode output control characters	QbBbKb	16 51 62 42 62 4B 62 2E
93. USB Keyboard - output enter & downarrow	QbBbUb	16 51 62 42 62 55 62 2E
94. Turn off virtual keyboard	WaBbPa	16 57 61 42 62 50 61 2E
95. Turn on virtual keyboard	WaBbZa	16 57 61 42 62 5A 61 2E
96. Character conversion - no conversion	BbLdOa	16 42 62 4C 64 4F 61 2E
97. Character conversion - all uppercase	BbLdYa	16 42 62 4C 64 59 61 2E
98. Character conversion - all lowercase	BbLdIb	16 42 62 4C 64 49 62 2E

99. Character conversion - reverse case	BbLdSb	16 42 62 4C 64 53 62 2E
100. USB transfer speed - normal	OdJcVac	16 4F 64 4A 63 56 61 63 2E
101. USB transfer speed - high	OdJcJc	16 4F 64 4A 63 4A 63 2E
102. USB transfer speed - Ultra High	OdJcVa	16 4F 64 4A 63 56 61 2E
103. USB-COM Virtual serial port	VbZcXag	16 56 62 5A 63 58 61 67 2E
104. HID-POS	VbZcYag	16 56 62 5A 63 59 61 67 2E
105. TTL/RS232 Serial port	VbZcNc	16 56 62 5A 63 41 62 67 2E
106. Baud rate-4800	VbCdRdc	16 56 62 43 64 52 64 63 2E
107. Baud rate-9600	VbCdSdc	16 56 62 43 64 53 64 63 2E
108. Baud rate-19200	VbCdUdc	16 56 62 43 64 55 64 63 2E
109. Baud rate-38400	VbCdVdc	16 56 62 43 64 56 64 63 2E
110. Baud rate-57600	VbCdWdc	16 56 62 43 64 57 64 63 2E
111. Baud rate-115200	VbCdVac	16 56 62 43 64 56 61 63 2E

112. Serial transmission speed - low	JdGeKbc	16 4A 64 47 65 4B 62 63 2E
113. Serial transmission speed - medium	JdGeVac	16 4A 64 47 65 56 61 63 2E
114. Serial transmission speed - high	JdGeVa	16 4A 64 47 65 56 61 2E
115. Custom delay time between characters	TdGeLa	16 4A 64 47 65 XX XX XX 2E
116. Scan mode - manual mode	VbBeJb	16 56 62 42 65 4A 62 2E
117. Key timeout - infinite	UaZcCb	16 55 61 5A 63 43 62 2E
118. Key timeout-3S	MdZcAbc	16 4D 64 5A 63 41 62 63 2E
119. Key timeout-5S	MdZcKbc	16 4D 64 5A 63 4B 62 63 2E
120. Key timeout-10S	MdZcJcc	16 4D 64 5A 63 4A 63 63 2E
121. Key timeout-15S	MdZcIdc	16 4D 64 5A 63 49 64 63 2E
122. Key timeout-20S	MdZcVaHa	16 4D 64 5A 63 56 61 48 61

123. ~Custom key timeout	WdZcLa	16 4D 64 5A 63 XX XX XX 2E
124. Continuous reading mode	VbBeZa	16 56 62 42 65 5A 61 2E
125. Continuous mode same code delay - no delay	JdHeLa	16 4A 64 48 65 4C 61 2E
126. Continuous mode same code delay-100ms	JdHeVa	16 4A 64 48 65 56 61 2E
127. Continuous mode same code delay-200ms	JdHeFb	16 4A 64 48 65 46 62 2E
128. Continuous mode same code delay-800ms	JdHeNd	16 4A 64 48 65 4E 64 2E
129. Continuous mode same code delay-1200ms	JdHeXac	16 4A 64 48 65 58 61 63 2E
130. Continuous mode same code delay-2000ms	JdHeFbc	16 4A 64 48 65 46 62 63 2E
131. Continuous mode same code delay - no timeout	RaHeCb	16 52 61 48 65 43 62 2E

132. ~Customize the reading delay of the same barcode	TdHeLa	16 4A 64 48 65 XX XX XX 2E
133. Scan mode - inductive mode	VbBePa	16 56 62 42 65 50 61 2E
134. Induction mode - image stabilization duration 50ms	OdCbVa	16 4F 64 43 62 56 61 2E
135. Induction mode - image stabilization duration 100ms	OdCbFb	16 4F 64 43 62 46 62 2E
136. Induction mode - image stabilization duration 150ms	OdCbPb	16 4F 64 43 62 50 62 2E
137. Induction mode - image stabilization duration 200ms	OdCbZb	16 4F 64 43 62 5A 62 2E
138. Induction mode - image stabilization duration 250ms	OdCbJc	16 4F 64 43 62 4A 63 2E
139. ~Induction mode - custom image stabilization duration	YdCbLa	16 4F- 64 43 62 XX XX XX 2E
140. Sensing mode - high	AcDbVa	16 41 63 44 62 56 61 2E

sensitivity		
141. Sensing mode - medium sensitivity	AcDbFb	16 41 63 44 62 46 62 2E
142. Sensing mode - low sensitivity	AcDbPb	16 41 63 44 62 50 62 2E
143. Code ID-Turn off	WaFbRa	16 57 61 46 62 52 61 2E
144. Code ID-Turn on	WaFbBb	16 57 61 46 62 42 62 2E
145. AIM ID-Turn off	QaXdQa	16 51 61 58 64 51 61 2E
146. AIM ID-Turn on	QaXdAb	16 51 61 58 64 41 62 2E
147. ~Custom prefix 1st character	NG	16 49 64 46 63 XX XX XX 2E
148. ~Custom prefix 2nd character	NG	16 49 64 47 63 XX XX XX 2E
149. ~Custom prefix 3rd character	NG	16 49 64 48 63 XX XX XX 2E
150. ~Custom prefix 4th character	NG	16 49 64 49 63 XX XX XX 2E
151. ~Custom prefix 5th character	NG	16 49 64 4A 63 XX XX XX 2E

152. ~Custom prefix 6th character	NG	16 49 64 4B 63 XX XX XX 2E
153. ~Custom prefix 7th character	NG	16 49 64 4C 63 XX XX XX 2E
154. ~Custom prefix 8th character	NG	16 49 64 4D 63 XX XX XX 2E
155. ~Custom prefix 9th character	NG	16 49 64 4E 63 XX XX XX 2E
156. ~Custom prefix 10th character	NG	16 49 64 4F 63 XX XX XX 2E
157. Clear custom prefix	BeReSd	16 42 65 52 65 53 64 2E
158. ~Custom suffix 1st character	NG	16 49 64 50 63 XX XX XX 2E
159. ~Custom suffix 2nd character	NG	16 49 64 51 63 XX XX XX 2E
160. ~Custom suffix 3rd character	NG	16 49 64 52 63 XX XX XX 2E
161. ~Custom suffix 4th character	NG	16 49 64 53 63 XX XX XX 2E
162. ~Custom suffix 5th character	NG	16 49 64 54 63 XX XX XX 2E
163. ~Custom suffix 6th character	NG	16 49 64 55 63 XX XX XX 2E
164. ~Custom suffix 7th character	NG	16 49 64 56 63 XX XX XX 2E
165. ~Custom suffix 8th character	NG	16 49 64 57 63 XX XX XX 2E

166. ~Custom suffix 9th character	NG	16 49 64 58 63 XX XX XX 2E
167. ~Custom suffix 10th character	NG	16 49 64 59 63 XX XX XX 2E
168. Clear custom suffix	BeReRd	16 42 65 52 65 52 64 2E
169. Turn on hidden header characters	WaQbCb	16 57 61 51 62 43 62 2E
170. Turn off hide header characters	WaQbSa	16 57 61 51 62 53 62 2E
171. ~Header data hiding bits	YdRbLa	16 4F 64 52 62 XX XX XX 2E
172. Turn on hide middle character	WaQbBb	16 57 61 51 62 42 62 2E
173. Turn off hidden middle characters	WaQbRb	16 57 61 51 62 52 62 2E
174. ~Intermediate data hiding start bit	YdSbLa	16 4F 64 53 62 XX XX XX 2E
175. ~Intermediate data hiding	YdTbLa	16 4F 64 54 62 XX XX XX 2E

bits		
176. Turn on hide trailing characters	WaQbAb	16 57 61 51 62 41 61 2E
177. Turn off hide trailing characters	WaQbQa	16 57 61 51 62 51 61 2E
178. ~Tail data hiding bits	YdUbLa	16 4F 64 55 62 XX XX XX 2E
179. Turn on display of custom characters	WaQbYb	16 57 61 51 62 59 62 2E
180. Turn off display of custom characters	WaQbOa	16 57 61 51 62 4F 61 2E
181. ~Sets the position where custom characters are inserted	YdFcLa	16 4F 64 46 63 XX XX XX 2E
182. ~Insert the first character	NG	16 4F 64 56 62 XX XX XX 2E
183. ~Insert the second character	NG	16 4F 64 57 62 XX XX XX 2E
184. ~Insert the third character	NG	16 4F 64 58 62 XX XX XX 2E

185. ~Insert the fourth character	NG	16 4F 64 59 62 XX XX XX 2E
186. ~Insert the fifth character	NG	16 4F 64 5A 62 XX XX XX 2E
187. ~Insert the sixth character	NG	16 4F 64 41 63 XX XX XX 2E
188. ~Insert the seventh character	NG	16 4F 64 42 63 XX XX XX 2E
189. ~Insert the eighth character	NG	16 4F 64 43 63 XX XX XX 2E
190. ~Insert the ninth character	NG	16 4F 64 44 63 XX XX XX 2E
191. ~Insert the tenth character	NG	16 4F 64 45 63 XX XX XX 2E
192. ~Character to be replaced	VdEeLa	16 4C 64 45 65 XX XX XX 2E
193. ~Replace character	VdFeLa	16 4C 64 46 65 XX XX XX 2E
194. Start character - none	BbKdPa	16 42 62 4B 64 50 61 2E
195. Start character-STX	BbKdJb	16 42 62 4B 64 4A 62 2E
196. Terminator-ETX	BbKdZa	16 42 62 4B 64 5A 61 2E
197. Start character-STX+ETX	BbKdTb	16 42 62 4B 64 54 62 2E
198. Terminator-Enter（0x0D）	LbKdGb	16 4C 62 4B 64 47 62 2E

199. Terminator-Line feed（0x0A）	LbKdUc	16 4C 62 4B 64 55 63 2E
200. Terminator-Enter line feed（0x0D0A）	LbKdWa	16 4C 62 4B 64 57 61 2E
201. Terminator-Tab HT（0x09）	LbKdQb	16 4C 62 4B 64 51 62 2E
202. Terminator-Enter enter（0x0D0D）	LbKdAc	16 4C 62 4B 64 41 63 2E
203. Terminator-Enter line feed enter line feed（0x0D0A0D0A）	LbKdKc	16 4C 62 4B 64 4B 63 2E
204. Terminator-None	LbKdMa	16 4C 62 4B 64 4D 61 2E
205. Turn on all barcode types	GbYaXa	16 47 62 59 61 58 61 2E
206. Turn off all barcode types	GbYaHb	16 47 62 59 61 48 62 2E
207. Turn on all 1D barcodes	GbYaZa	16 47 62 59 61 5A 61 2E
208. Turn off all 1D barcodes	GbYaJb	16 47 62 59 61 4A 62 2E
209. Turn on all 2D barcodes	GbYaBb	16 47 62 59 61 42 62 2E
210. Turn off all 2D barcodes	GbYaLb	16 47 62 59 61 4C 62 2E

211. UPC-A-Turn on	QaYaBb	16 51 61 59 61 42 62 2E
212. UPC-A-Turn off	QaYaRa	16 51 61 59 61 52 61 2E
213. UPC-A-Transmit check bit	QaTdCb	16 51 61 54 64 43 62 2E
214. UPC-A-Do not transmit check bits	QaTdSa	16 51 61 54 64 53 61 2E
215. UPC-A-Turn on 2 additional bits	QaIbCb	16 51 61 49 62 43 62 2E
216. UPC-A-Turn off 2 additional bits	QaIbSa	16 51 61 49 62 53 61 2E
217. UPC-A-Turn on 5 additional bits	QaIbBb	16 51 61 49 62 42 62 2E
218. UPC-A-Turn off 5 additional bits	QaIbRa	16 51 61 49 62 52 61 2E
219. UPC-A-Force inclusion of additional bits	QaIbYa	16 51 61 49 62 59 61 2E
220. UPC-A-Additional bits are not	QaIbOa	16 51 61 49 62 4F 61 2E

mandatory		
221. UPC-A-Turn on additional bit separator	QaIbXa	16 51 61 49 62 58 61 2E
222. UPC-A-Turn off additional bit separator	QaIbNa	16 51 61 49 62 4E 61 2E
223. UPC-A-Transport system character	QaTdWa	16 51 61 54 64 57 61 2E
224. UPC-A-Do not transfer system characters	QaTdMa	16 51 61 54 64 4D 61 2E
225. UPC-A-Convert to EAN-13	QaTdVa	16 51 61 54 64 5A 61 2E
226. UPC-A-Do not convert to EAN-13	QaTdLa	16 51 61 54 64 50 61 2E
227. UPC-E0-Turn on	QaYaVa	16 51 61 59 61 56 61 2E
228. UPC-E0-Turn off	QaYaLa	16 51 61 59 61 4C 61 2E
229. UPC-E1-Turn on	WaYaVa	16 57 61 59 61 56 61 2E

230. UPC-E1-Turn off	WaYaLa	16 57 61 59 61 4C 61 2E
231. UPC-E-Transmit check bit	QaTdBb	16 51 61 54 64 42 62 2E
232. UPC-E-Do not transmit check bits	QaTdRa	16 51 61 54 64 52 61 2E
233. UPC-E-Turn on 2 additional bits	QaIbCb	16 51 61 49 62 43 62 2E
234. UPC-E-Turn off 2 additional bits	QaIbSa	16 51 61 49 62 53 61 2E
235. UPC-E-Turn on 5 additional bits	QaIbBb	16 51 61 49 62 42 62 2E
236. UPC-E-Turn off 5 additional bits	QaIbRa	16 51 61 49 62 52 61 2E
237. UPC-E-Force inclusion of additional bits	QaIbYa	16 51 61 49 62 59 61 2E
238. UPC-E-Additional bits are not mandatory	QaIbOa	16 51 61 49 62 4F 61 2E

239. UPC-E-Turn on additional bit separator	QaIbXa	16 53 61 41 65 58 61 2E
240. UPC-E-Turn off additional bit separator	QaIbNa	16 53 61 41 65 4E 61 2E
241. UPC-E-Transport system character	QaTdYa	16 51 61 54 64 59 61 2E
242. UPC-E-Do not transfer system characters	QaTdOa	16 51 61 54 64 4F 61 2E
243. UPC-E-Convert to UPC-A	QaTdAb	16 51 61 54 64 41 62 2E
244. UPC-E-Do not convert to UPC-A	QaTdQa	16 51 61 54 64 51 61 2E
245. EAN/JAN-8-Turn on	QaYaZa	16 51 61 59 61 5A 61 2E
246. EAN/JAN-8-Turn off	QaYaPa	16 51 61 59 61 50 61 2E
247. EAN/JAN-8-Transmit check bit	QaXdVa	16 51 61 58 64 56 61 2E
248. EAN/JAN-8-Do not transmit	QaXdLa	16 51 61 58 64 4C 61 2E

check bits		
249. EAN/JAN-8-Turn on 2 additional bits	QalbCb	16 51 61 49 62 43 62 2E
250. EAN/JAN-8-Turn off 2 additional bits	QalbSa	16 51 61 49 62 53 61 2E
251. EAN/JAN-8-Turn on 5 additional bits	QalbBb	16 51 61 49 62 42 62 2E
252. EAN/JAN-8-Turn off 5 additional bits	QalbRa	16 51 61 49 62 52 61 2E
253. EAN/JAN-8 Force inclusion of additional bits	QalbYa	16 51 61 49 62 59 61 2E
254. EAN/JAN-8 Additional bits are not mandatory	QalbOa	16 51 61 49 62 4F 61 2E
255. EAN/JAN-8 Turn on additional bit separator	QalbXa	16 51 61 49 62 58 61 2E
256. EAN/JAN-8 Turn off	QalbNa	16 51 61 49 62 4E 61 2E

additional bit separator		
257. EAN/JAN-8-Convert to EAN-13	QaTdXa	16 51 61 54 64 58 61 2E
258. EAN/JAN-8-Do not convert to EAN-13	QaTdNa	16 51 61 54 64 4E 61 2E
259. EAN/JAN -13-Turn on	QaYaWa	16 51 61 59 61 57 61 2E
260. EAN/JAN -13-Turn off	QaYaMa	16 51 61 59 61 4D 61 2E
261. EAN/JAN-13-Transmit check bit	QaXdXa	16 51 61 58 64 58 61 2E
262. EAN/JAN-13-Do not transmit check bits	QaXdNa	16 51 61 58 64 4E 61 2E
263. EAN/JAN-13-Turn on 2 additional bits	QaIbCb	16 51 61 49 62 43 62 2E
264. EAN/JAN-13-Turn off 2 additional bits	QaIbSa	16 51 61 49 62 53 61 2E
265. EAN/JAN-13-Turn on 5	QaIbBb	16 51 61 49 62 42 62 2E

additional bits		
266. EAN/JAN-13-Turn off 5 additional bits	QaIbRa	16 51 61 49 62 52 61 2E
267. EAN/JAN-13 Force inclusion of additional bits	QaIbYa	16 51 61 49 62 59 61 2E
268. EAN/JAN-13 Additional bits are not mandatory	QaIbOa	16 51 61 49 62 4F 61 2E
269. EAN/JAN-13 Turn on additional bit separator	QaIbXa	16 51 61 49 62 58 61 2E
270. EAN/JAN-13 Turn off additional bit separator	QaIbNa	16 51 61 49 62 4E 61 2E
271. EAN/JAN -13-Turn on ISBN conversion	QaJbCb	16 51 61 4A 62 43 62 2E
272. EAN/JAN -13-Turn off ISBN conversion	QaJbSa	16 51 61 4A 62 53 61 2E
273. Transfer ISBN check character	QaJbAb	16 51 61 4A 62 41 62 2E

274. Do not transfer ISBN check characters	QaJbQa	16 51 61 4A 62 51 61 2E
275. EAN/JAN -13-Turn on ISSN conversion	RaVcCb	16 52 61 56 63 43 62 2E
276. EAN/JAN -13-Turn off ISSN conversion	RaVcSa	16 52 61 56 63 53 61 2E
277. ISSN- Turn on	QaTdXa	16 51 61 54 64 58 61 2E
278. ISSN -Turn off	QaTdNa	16 51 61 54 64 4E 61 2E
279. ISSN Transfer check character	RaVcAb	16 52 61 56 63 41 62 2E
280. ISSN Do not transfer check characters	RaVcQa	16 52 61 56 63 51 61 2E
281. Code 128-Turn on	QaXaYa	16 51 61 58 61 59 61 2E
282. Code 128-Turn off	QaXaOa	16 51 61 58 61 4F 61 2E
283. ~Code 128-Minimum length	XdIbLa	16 4E 64 49 62 XX XX XX 2E

284. ~Code 128-Maximum length	XdJbLa	16 4E 64 4A 62 XX XX XX 2E
285. GS1-128-Turn on	RaYcVa	16 52 61 59 63 56 61 2E
286. GS1-128-Turn off	RaYcLa	16 52 61 59 63 4C 61 2E
287. ~GS1-128-Minimum length	XdKbLa	16 4E 64 4B 62 XX XX XX 2E
288. ~GS1-128-Maximum length	XdLbLa	16 4E 64 4C 62 XX XX XX 2E
289. ISBT 128-Turn on the connection function	TaCeCb	16 54 61 43 65 43 62 2E
290. ISBT 128-Turn off the connection function	TaCeSa	16 54 61 43 65 53 61 2E
291. Code 39-Turn on	QaXaWa	16 51 61 58 61 57 61 2E
292. Code 39-Turn off	QaXaMa	16 51 61 58 61 4D 61 2E
293. Code 39-Turn on Mode43 verification	QaYaYa	16 51 61 59 61 59 61 2E
294. Code 39-Turn off verification	QaYaOa	16 51 61 59 61 4F 61 2E
295. Code 39-Transmission	QaVdAb	16 51 61 56 64 41 62 2E

verification		
296. Code 39-Do not transmit verification	QaVdQa	16 51 61 56 64 51 61 2E
297. Code 39-Transmission start stop character	QaVdVa	16 51 61 56 64 56 61 2E
298. Code 39-Do not transmit start stop character	QaVdLa	16 51 61 56 64 4C 61 2E
299. Code 39-Turn on FullASCII	QaYaCb	16 51 61 59 61 43 62 2E
300. Code 39-Turn off FullASCII	QaYaSa	16 51 61 59 61 53 61 2E
301. ~Code 39-Minimum length	XdMbLa	16 4E 64 4D 62 XX XX XX 2E
302. ~Code 39-Maximum length	XdNbLa	16 4E 64 4E 62 XX XX XX 2E
303. Code 32 -Turn on	QaYaAb	16 51 61 59 61 41 62 2E
304. Code 32 -Turn off	QaYaQa	16 51 61 59 61 51 61 2E
305. Code 32 -Turn on check transfer	WaYaWa	16 57 61 59 61 57 61 2E
306. Code 32 -Turn off check transfer	WaYaMa	16 57 61 59 61 4D 61 2E

307. Code 32-Add a before opening barcode	QaVdXA	16 51 61 56 64 58 61 2E
308. Code 32-Add a before closing barcode	QaVdNa	16 51 61 56 64 4E 61 2E
309. Failed to read Code 32	QaZaCb	16 51 61 5A 61 43 62 2E
310. Closing Code 32 failed to read	QaZaSa	16 51 61 5A 61 53 61 2E
311. Code 93-Turn on	QaXaXa	16 51 61 58 61 58 61 2E
312. Code 93-Turn off	QaXaNa	16 51 61 58 61 4E 61 2E
313. ~Code 93-Minimum length	XdEcLa	16 4E 64 45 63 XX XX XX 2E
314. ~Code 93-Maximum length	XdFcLa	16 4E 64 46 63 XX XX XX 2E
315. Code 11-Turn on	QaWaYa	16 51 61 57 61 59 61 2E
316. Code 11-Turn off	QaWaOa	16 51 61 57 61 4F 61 2E
317. Code 11-One bit verification	QaYdQa	16 51 61 59 64 51 61 2E
318. Code 11-Two bits verification	QaYdAb	16 51 61 59 64 41 62 2E

319. Code 11-Transmission verification	QaVdYa	16 51 61 56 64 59 61 2E
320. Code 11-Do not transmit verification	QaVdOa	16 51 61 56 64 4F 61 2E
321. ~Code 11-Minimum length	XdObLa	16 4E 64 4F 62 XX XX XX 2E
322. ~Code 11-Maximum length	XdPbLa	16 4E 64 50 62 XX XX XX 2E
323. Codabar- Turn on	QaXaZa	16 51 61 58 61 5A 61 2E
324. Codabar- Turn off	QaXaPa	16 51 61 58 61 50 61 2E
325. Codabar- No check	QaAbLa	16 51 61 41 62 4C 61 2E
326. Codabar-Mod 16verification	QaAbVa	16 51 61 41 62 56 61 2E
327. Codabar- Transmission verification	QaYdBb	16 51 61 59 64 42 62 2E
328. Codabar-Do not transmit verification	QaYdRa	16 51 61 59 64 52 61 2E
329. Codabar- Transmission start	QaVdCb	16 51 61 56 64 43 62 2E

and end characters		
330. Codabar- Do not transmit start and end characters	QaVdSa	16 51 61 56 64 53 61 2E
331. Codabar- ABCD/ABCD	WaMbSa	16 57 61 4D 62 53 61 2E
332. Codabar- ABCD/TN*E	WaMbCb	16 57 61 4D 62 43 62 2E
333. ~Codabar -Minimum length	XdGcLa	16 4E 64 47 63 XX XX XX 2E
334. ~Codabar -Maximum length	XdHcLa	16 4E 64 48 63 XX XX XX 2E
335. Interleaved 2 of 5-Turn on	QaXaAb	16 51 61 58 61 41 62 2E
336. Interleaved 2 of 5-Turn off	QaXaQa	16 51 61 58 61 51 61 2E
337. Interleaved 2 of 5-Turn off verification	QaZaLa	16 51 61 5A 61 4C 61 2E
338. Interleaved 2 of 5-Turn on Mod10 verification	QaZaVa	16 51 61 5A 61 56 61 2E
339. Interleaved 2 of 5- Transmit Mod 10 verification	QaVdZa	16 51 61 56 64 5A 61 2E

340. Interleaved 2 of 5-Do not transmit Mod 10 verification	QaVdPa	16 51 61 56 64 50 61 2E
341. ~Interleaved 2 of 5 -Minimum length	QaXaAb	16 4E 64 53 62 XX XX XX 2E
342. ~Interleaved 2 of 5 -Maximum length	QaXaQa	16 4E 64 54 62 XX XX XX 2E
343. Matrix 2 of 5-Turn on	QaWaAb	16 51 61 57 61 41 62 2E
344. Matrix 2 of 5-Turn off	QaWaQa	16 51 61 57 61 51 61 2E
345. Matrix 2 of 5-Turn on verification	AbBbBb	16 41 62 42 62 42 62 2E
346. Matrix 2 of 5-Turn off verification	AbBbRa	16 41 62 42 62 52 61 2E
347. Matrix 2 of 5-Enable verification and do not transmit verification	AbBbLb	16 41 62 42 62 4C 62 2E
348. ~Matrix 2 of 5 -Minimum	XdYbLa	16 4E 64 59 62 XX XX XX 2E

length		
349. ~Matrix 2 of 5 -Maximum length	XdZbLa	16 4E 64 5A 62 XX XX XX 2E
350. Industrial 2 of 5-Turn on	QaXaVa	16 51 61 58 61 56 61 2E
351. Industrial 2 of 5-Turn off	QaXaLaQ	16 51 61 58 61 4C 61 2E
352. ~Industrial 2 of 5 -Minimum length	XdUbLa	16 4E 64 55 62 XX XX XX 2E
353. ~Industrial 2 of 5 -Maximum length	XdVbLa	16 4E 64 56 62 XX XX XX 2E
354. Standard 2 of 5-Turn on	QaWaZa	16 51 61 57 61 5A 61 2E
355. Standard 2 of 5-Turn off	QaWaPa	16 51 61 57 61 50 61 2E
356. ~Standard 2 of 5 -Minimum length	XdWbLa	16 4E 64 57 62 XX XX XX 2E
357. ~Standard 2 of 5 -Maximum length	XdXbLa	16 4E 64 58 62 XX XX XX 2E

358. MSI- Turn on	QaYaXa	16 51 61 59 61 58 61 2E
359. MSI- Turn off	QaYaNa	16 51 61 59 61 4E 61 2E
360. MSI-No check	AbDbPa	16 41 62 44 62 50 61 2E
361. MSI One bit Mod 10 verification	AbDbJb	16 41 62 44 62 4A 62 2E
362. MSI Two bit Mod 10 verification	AbDbTb	16 41 62 44 62 54 62 2E
363. MSI- Mod 11/10 verification	AbDbZa	16 41 62 44 62 5A 61 2E
364. MSI- Transmit check bit	QaVdWa	16 51 61 56 64 57 61 2E
365. MSI- Do not transmit check bits	QaVdMa	16 51 61 56 64 4D 61 2E
366. ~MSI -Minimum length	XdCcLa	16 4E 64 43 63 XX XX XX 2E
367. ~MSI -Maximum length	XdDcLa	16 4E 64 44 63 XX XX XX 2E
368. Telepen- Turn on	QaWaCb	16 51 61 57 61 43 62 2E
369. Telepen -Turn off	QaWaSa	16 51 61 57 61 53 61 2E

370. Telepen- Number type	QaWaBb	16 51 61 57 61 42 61 2E
371. Telepen- Letter type	QaWaRa	16 51 61 57 61 52 62 2E
372. ~Telepen -Minimum length	XdQbLa	16 4E 64 51 62 XX XX XX 2E
373. ~Telepen -Maximum length	XdRbLa	16 4E 64 52 62 XX XX XX 2E
374. Telepen- Turn on	QaWaCb	16 51 61 57 61 43 62 2E
375. Telepen -Turn off	QaWaSa	16 51 61 57 61 53 61 2E
376. Febraban- Turn on(ITF25 type)	WaNbVa	16 57 61 4E 62 56 61 2E
377. Febraban -Turn off(ITF25 type)	WaNbLa	16 57 61 4E 62 4C 61 2E
378. Febraban- Turn on(Code128 type)	WaNbWa	16 57 61 4E 62 57 61 2E
379. Febraban -Turn off(Code128 type)	WaNbMa	16 57 61 4E 62 4D 61 2E
380. Febraban- Turn on	WaNbXa	16 57 61 4E 62 58 61 2E

verification		
381. Febraban- Turn off verification	WaNbNa	16 57 61 4E 62 4E 61 2E
382. GS1 DataBar 14-Turn on	QaAbYa	16 51 61 41 62 59 61 2E
383. GS1 DataBar 14-Turn off	QaAbOa	16 51 61 41 62 4F 61 2E
384. GS1 DataBar Limited-Turn on	QaAbZa	16 51 61 41 62 5A 61 2E
385. GS1 DataBar Limited-Turn off	QaAbPa	16 51 61 41 62 50 61 2E
386. GS1 DataBar Expanded-Turn on	QaAbZa	16 51 61 41 62 41 62 2E
387. GS1 DataBar Expanded-Turn off	QaAbPaQ	16 51 61 41 62 51 61 2E
388. ~GS1 DataBar Expanded-Minimum length	XdIcLa	16 4E 64 49 63 XX XX XX 2E
389. GS1 DataBar	XdJcLa	16 4E 64 4A 63 XX XX XX 2E

Expanded-Maximum length		
390. QR Code-Turn on	QaCbXa	16 51 61 43 62 58 61 2E
391. QR Code-Turn off	QaCbNa	16 51 61 43 62 4E 61 2E
392. QR Code-Read only positive phase	QaCbOa	16 51 61 43 62 4F 61 2E
393. QR Code-Positive phase + negative phase reading	AbCbYa	16 51 61 43 62 59 61 2E
394. ~QR Code-Minimum length (low byte)	XdYdLa	16 4E 64 59 64 XX XX XX 2E
395. ~QR Code-Minimum length (high byte)	XdZdLa	16 4E 64 5A 64 XX XX XX 2E
396. ~QR Code-Maximum length (low byte)	XdAeLa	16 4E 64 41 65 XX XX XX 2E
397. ~QR Code-Maximum length (high byte)	XdBeLa	16 4E 64 42 65 XX XX XX 2E
398. Micro QR Code-Turn on	QaCbAb	16 51 61 43 62 41 62 2E

399. Micro QR Code-Turn off	QaCbQa	16 51 61 43 62 51 61 2E
400. Micro QR Code-Read only positive phase	QaCbRa	16 51 61 43 62 52 61 2E
401. Micro QR Code-Positive phase + negative phase reading	QaCbBb	16 51 61 43 62 42 62 2E
402. Data Matrix-Turn on	QaBbYa	16 51 61 42 62 59 61 2E
403. Data Matrix-Turn off	QaBbOa	16 51 61 42 62 4F 61 2E
404. Data Matrix-Allow reading rectangular code	QaBbWa	16 51 61 42 62 57 61 2E
405. Data Matrix-Prohibit reading rectangular code	QaBbMa	16 51 61 42 62 4D 61 2E
406.		
407. Data Matrix -Read only positive phase	QaBbNa	16 51 61 42 62 4E 61 2E
408. Data Matrix -Positive phase + negative phase reading	QaBbXa	16 51 61 42 62 58 61 2E

409. ~Data Matrix -Minimum length (low byte)	XdUdLa	16 4E 64 55 64 XX XX XX 2E
410. ~Data Matrix -Minimum length (high byte)	XdVdLa	16 4E 64 56 64 XX XX XX 2E
411. ~Data Matrix -Maximum length (low byte)	XdWdLa	16 4E 64 57 64 XX XX XX 2E
412. ~Data Matrix -Maximum length (high byte)	XdXdLa	16 4E 64 58 64 XX XX XX 2E
413. PDF 417-Turn on	QaWaVa	16 51 61 57 61 56 61 2E
414. PDF 417-Turn off	QaWaLa	16 51 61 57 61 4C 61 2E
415. ~PDF 417 -Minimum length (low byte)	XdGdLa	16 4E 64 47 64 XX XX XX 2E
416. ~PDF 417 -Minimum length (high byte)	XdHdLa	16 4E 64 48 64 XX XX XX 2E
417. ~PDF 417 -Maximum length (low byte)	XdIdLa	16 4E 64 49 64 XX XX XX 2E

418. ~PDF 417 -Maximum length (high byte)	XdJdLa	16 4E 64 4A 64 XX XX XX 2E
419. Micro PDF 417-Turn on	QaAbCb	16 51 61 41 62 43 62 2E
420. Micro PDF 417-Turn off	QaAbSa	16 51 61 41 62 53 61 2E
421. ~Micro PDF 417 -Minimum length (low byte)	XdKdLa	16 4E 64 4B 64 XX XX XX 2E
422. ~Micro PDF 417 -Minimum length (high byte)	XdLdLa	16 4E 64 4C 64 XX XX XX 2E
423. ~Micro PDF 417 -Maximum length (low byte)	XdMdLa	16 4E 64 4D 64 XX XX XX 2E
424. ~Micro PDF 417 -Maximum length (high byte)	XdNdLa	16 4E 64 4E 64 XX XX XX 2E
425. MaxiCode- Turn on	QaCbZa	16 51 61 43 62 5A 61 2E
426. MaxiCode- Turn off	QaCbPa	16 51 61 43 62 50 61 2E
427. ~MaxiCode -Minimum length	XdSdLa	16 4E 64 53 64 XX XX XX 2E

428. ~MaxiCode -Maximum length	XdTdLa	16 4E 64 54 64 XX XX XX 2E
429. Aztec -Turn on	QaCbVa	16 51 61 43 62 56 61 2E
430. Aztec-Turn off	QaCbLa	16 51 61 43 62 4C 61 2E
431. Aztec -Read only positive phase	QaCbMa	16 51 61 43 62 4D 61 2E
432. Aztec -Positive phase + negative phase reading	QaCbWa	16 51 61 43 62 57 61 2E
433. ~Aztec -Minimum length (low byte)	XdOdLa	16 4E 64 4F 64 XX XX XX 2E
434. ~Aztec -Minimum length (high byte)	XdPdLa	16 4E 64 50 64 XX XX XX 2E
435. ~Aztec -Maximum length (low byte)	XdQdLa	16 4E 64 51 64 XX XX XX 2E
436. ~Aztec -Maximum length (high byte)	XdRdLa	16 4E 64 52 64 XX XX XX 2E
437. HanXin- Turn on	SaRdWa	16 53 61 52 64 57 61 2E

438. HanXin- Turn off	SaRdMa	16 53 61 52 64 4D 61 2E
439. ~HanXin -Minimum length (low byte)	XdCeLa	16 4E 64 43 65 XX XX XX 2E
440. ~HanXin -Minimum length (high byte)	XdDeLa	16 4E 64 44 65 XX XX XX 2E
441. ~HanXin -Maximum length (low byte)	XdEeLa	16 4E 64 45 65 XX XX XX 2E
442. ~HanXin -Maximum length (high byte)	XdFeLa	16 4E 64 46 65 XX XX XX 2E
443. China Post-Turn on	QaZaBb	16 51 61 5A 61 42 62 2E
444. China Post-Turn off	QaZaRa	16 51 61 5A 61 52 61 2E
445. ~China Post -Minimum length	XdOcLa	16 4E 64 4F 63 XX XX XX 2E
446. ~China Post -Maximum length	XdPcLa	16 4E 64 50 63 XX XX XX 2E
447. GS1 Composte Code-Turn	RaUcBb	16 52 61 55 63 42 62 2E

on		
448. GS1 Composte Code-Turn off	RaUcRa	16 52 61 55 63 52 61 2E
449. ~GS1 Composte Code -Minimum length (low byte)	XdKcLa	16 4E 64 4B 63 XX XX XX 2E
450. ~GS1 Composte Code -Minimum length (high byte)	XdLcLa	16 4E 64 4C 63 XX XX XX 2E
451. ~GS1 Composte Code -Maximum length (low byte)	XdMcLa	16 4E 64 4D 63 XX XX XX 2E
452. ~GS1 Composte Code -Maximum length (high byte)	XdNcLa	16 4E 64 4E 63 XX XX XX 2E
453. Enter / exit data code setting mode	BeReGe	16 42 65 52 65 47 65 2E
454. Restart	BeReBd	16 42 65 52 65 42 64 2E

Appendix - instructions for the use of variable parameter instructions

Take code 128, minimum length 10 and maximum length 30 as examples.

XX XX XX in the instruction represents the ASCII code of the specific value of the variable parameter, which is fixed to 3 values.

Therefore, the ASCII code value corresponding to 10 is 30 31 30, and the ASCII code value corresponding to 30 is 30 33 30.

Finally, the instructions to be set correspond to--

~ Code128 Minimum length	16 4E 64 49 62 30 31 30 2E
~ Code 128Maximum length	16 4E 64 4A 62 30 33 30 2E