Stationary Barcode Scanner

Serial Port Command Operation Manual

Rev.1.1

CONTENT

Instruction

It supports the serial interface command to set up and control the device. As the command is to modify the setting parameter of internal device, so please strictly follow this instruction when operating, or else the device may not work properly due to the setting error. When the device is not able to work properly, transmit the command of Factory Reset to help the device return to its working status at the factory. Please consult the supplier if the device still works improperly. This manual would probably be updated without notice, so if you find any difference please always take the latest version as standard. This manual may be updated without informing any party, and if discrepancies are found, please refer to the latest version of the manual.

1.Default Communication Parameter

Normal communication between reading engine and host device only happens when the communication parameter configuration perfectly matches. The default serial communication parameter of reading engine: Baud Rate 9600bps, No Checking, 8 Data, 1 Stop, Non-Current Control

2.Receiving Command Format of Scanner

Length	Operand	H/D	Status	Data	CRC
1 BYTE	1 BYTE	1 BYTE	1 BYTE	(1-250) BYTE	1 BYTE

Length: level includes: Operand + H/D + Status + Data

Operand: The operand is the command date below:

H/D: It indicates whether the command is transmitted from host or from slave.

Host: 0x04

Slave: 0x00

Status: It indicates whether this command requires power-down save.

0x08: It requires power-down save.

0x00: It doesn't require power-down save.

Data: It indicates the parameter date carried by this command.

CRC: check sum.

CRC Arithmetic: After all the previous data are added and reversed, take a low byte of 8 bits

3.Transmission Command Format of Scanner

Length	Operand	H/D	Status	Data	CRC
2 BYTES	1 BYTE	1 BYTE	1 BYTE	(Length-3) BYTE	1 BYTE

Length: level include： Operand + H/D + Status + Data.

High bit in the front and low bit at the back.

Operand: The operand is the command data below:

H/D: It indicates whether the command is transmitted from host or from slave.

Host: 0x04

Slave: 0x00

Status: It indicates whether this command requires a power-down save.

0x08: It requires power-down save.

0x00: It doesn’t require power-down save.

Data: It indicates the parameter data carried by this command.

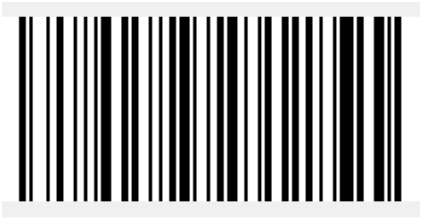
CRC: check sum.

CRC Arithmetic: After all the previous data are added and reversed, take a low byte of 8 bits

4.Trigger Mode Conversion

4.1 Key Trigger

If it requires to convert to this mode, transmit the command or scan the barcode below:



Scan this barcode directly to convert to key trigger

Transmit HEX command: 04 42 04 08 00 ad

4.2 Sensing Mode

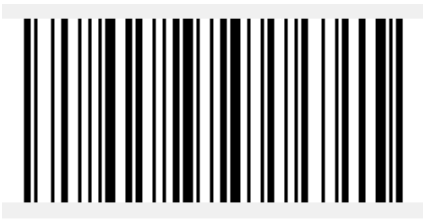
If it requires to convert to this mode, transmit the command or scan the barcode below:

Scan this barcode directly to convert to sensing mode

Transmit HEX command: 04 42 04 08 02 ab

4.3 Continuous Light

If it requires to convert to this mode, transmit the command or scan the barcode below:

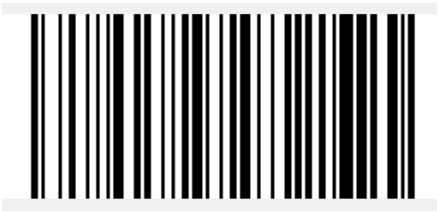


Scan this barcode directly to convert to continuous light mode

Transmit HEX command: 04 42 04 08 01 ac

5.Restore Factory Setting

To restore the contents of this device to factory setting, please transmit the command of Factory Reset or scan the barcode of Factory Reset. The diagram below is the barcode of Factory Reset:



Scan this barcode to resume factory setting

The command of Factory Reset: 04 43 04 08 00 ac

6.Table of Device Parameter Setting

Function	Operand	Data
Start Scanning Barcode	0xE4	0x00
Stop Scanning Barcode	0xE5	0x00
User Driver Buzzer	0xEA	**Data:** buzzer beeping mode **Data[0]:** beeping times of buzzer 1: indicates once and so on **Data[1]:** beeping time of buzzer 1: indicates long beeping 0: indicates short beeping **Data[2]:** buzzer beeping frequency 1: indicates treble. 0: indicates bass.
Host Mode Setting	0x41	**USB Virtual Keyboard :** 0x01 **USB Virtual Serial Interface:** 0x02 **Common Serial Interface:** 0x04
Trigger Mode	0x42	**Key Trigger:** 0x00 **Continuous Light:** 0x01 **Auto-Sensing:** 0x02
Resume Factory Setting	0x43	**0x00:** Restore to default parameters for production settings
Decoding Timeout （0.1s~8s）	0x44	**Data:** 0.5s 0.6s ..... 9.7s 9.8s 9.9s **Data:** 0x05 0x06 ..... 0x61 0x62 0x63 **Note:** When setting Recognizing Barcode, if the barcode is not recognized, it will stop recognizing the code time.
Data prefix setting	0x52	**Disable** **Custom Define** **Data0:** 0x00(Default) 0x01~0xfd **Data1:** 0x00 0x01~0xfd **Note:** 1. If the character set to be 0x20, you need to set the data = 0xFE. 2. If only one character is set, you need to set another to 0x00 Disable.

Data suffix setting	0x45	**Disable** **Custom Define** **Data0:** 0x00(Default) 0x01~0xfd **Data1:** 0x00(Default) 0x01~0xfd **Note:** 1. If the character set to be 0x20, you need to set the data = 0xFE. 3. If only one character is set, you need to set another to 0x00 Disable. 4. The default of Data1 is 0x0a.
Slighting Lamp	0x46	**Off**: 0x00 **On:** 0x01 (Default)
Complementary Lamp	0x47	**Data:** Off Level1 ..... Level5 ..... Level10 **Data:** 0x00 0x01 ..... 0x05 ..... 0x0A **Note:** Level of Complementary Lamp **0:** OFF **10:** MAX.
Virtual Serial Interface Baud Rate	0x48	**Data:** 115200 38400 19200 9600 4800 2400 1200 **Data:** 0x00 0x01 0x02 0x03 0x04 0x05 0x06 **Note:** Set the serial interface baud rate, this setting applies to USB virtual serial interface and common serial interface.
Virtual Serial Interface Checking Bit	0x49	**No Checking:** 0x00 **Odd Checking:** 0x01 **Even Checking:** 0x02 **Note:** Set the checking method of serial interface
Set the Number of Multiple codes	0x4B	**Data:** off 2 3 ..... 6 7 **Data:** 0x00 0x02 0x03 ..... 0x06 0x07 **Note:** Set whether to start the mode of scanning multiple barcodes simultaneously, and set the number of barcodes to scan simultaneously.
Set the Sensitivity of Multiple codes	0x4C	**Data:** Level 1... Level 2.... Level 4..... Level 10. **Data:** 0x00... 0x01... 0x04... 0x0a **Note:** The higher the level, the stronger the ability to solve the double code, but the time of solving the single code will be longer.

Setting Buzzer Enablement	0x4D	**Disable:** 0x00(Default) **Enable:** 0x01
Set the Transmission Rate in HID Mode	0x4E	**High Speed:** 0x01 **Normal Speed:** 0x02 **Low Speed:** 0x0a
Timeout Setting for The Same Code in Non-Once Scanning Mode	0x4F	**Variable:** 0x00~0x63 **Note:** 0×00 indicates that there's no Timeout Invalid, any barcode would be output. 0x01 indicates the timeout of 100ms 0x63 indicates the timeout of 9.9s
Set Prompt LED Switch	0xEB	**1:** ON **0:** OFF
Set Bar Code Transmission Mode	0xEE	**1:** The transmission mode for barcode is PACK mode. **0:** The transmission mode for barcode is normal mode.
Set Mobile Performance Mode	0x51	**Normal:** 0x00 **High Speed:** 0x01 **Super High Speed:** 0x02 **Note:** In the auto-sensing mode, the ultra-speed mode would obviously shorten the inducing distance when scanning paper barcode.
Center slighting decode setting	0x53	**Disable:** 0x00 (Default) **Enable:** 0x01