User Manual

About This User Guide

Please read all the content of the user guide carefully to use the products safely and effectively. You are advised of keeping it properly for your using reference.

Disclaimer

Please do not dismantle the product or tear up the seal on it, otherwise we won't provide warranty or replacement service.

The pictures in this user guide are for reference only. If there are any pictures which not match the actual product, please take actual products as the standard. Updated information is subject to change without notice.

Service Information

For technical assistant or product service and repair, please contact us.

Version Record

Version number	Version description	Version
SV1.0_ZS_HV1.0_PTY_MZ_P1_20190905_4.6.190823.250718	Speed up based on the first version, adaptation of optical structure	2019-9-5
SV1.1_ZS_HV1.0_PTY_P1_20191012_4.6.190823.250718	1. Adapt new camera (long depth of field) based on the first version 2. UPC narrow quiet zone	2019-10-14
SV1.2_ZS_HV1.0_PTY_P1_20191021_4.6.190823.250718	1. Website QR code filtering function	2019-10-21
SV1.3_ZS_HV1.0_PTY_P2_20191022_4.6.191018.250718	1. Modify volume 2. Modify the duplicate code detection time	2019-10-22
SV1.4_ZS_HV1.0_PTY_P2_20191023_4.6.191018.250718	1. Website QR code filtering function 2. Modify volume 3. Modify the duplicate code detection time	2019-10-23
SV1.5_ZS_HV1.0_PTY_P2_20191028_4.6.191018.250718	1. Solve the problem of control transfer character and repeated code missing 2. Added the function of virtual	2019-10-28

SV1.6_ZS_HV1.0_PTY_P2_20191028_4.6.191018.250718	1. Solve the problem that the "\n" appears in version number twice	2019-10-28
SV1.8_ZS_HV1.0_PTY_P2_20191107_4.6.191018.250718	1. Add Portuguese (Portugal), Portuguese (Brazil) keyboard	2019-11-7
SV2.2_ZS_HV1.0_PTY_P4_HT_OLD_20191115_4.6.191018.250718	1. Solve the problem that the control escape character can not be returned.	2019-11-15
SV2.4_ZS_HV1.0_PTY_P5_HT_OLD_20191119_4.6.191115.250718	1. Version number printing too fast, abnormal.	2019-11-19
SV2.7_ZS_HV1.0_PTY_P7_HT_OLD_20191228_4.6.191115.250718	1. Added sleep mode 2. Add suffix before 3. Add data hiding of bar code 4. Add barcode category selection	2019-12-30
SV2.8_ZS_HV1.0_PTY_P7_HT_OLD_20191230_4.6.191115.250718	1. Modifying data hiding of barcode 2. Modify the disable one-dimensional code, will not output 128 code	2019-12-30

SV3.4_ZS_HV1.0_PTY_P9_HT_OLD_20200317.250718	1. UPC-A to EAN-13. 2. EAN-13 to ISSN 3. UPC-A/EAN/JAN Additional code	2020-3-24
SV3.5_ZS_HV1.0_PTY_P14_HT_OLD_20200422_4.7.200416.250718	It is applicable to the 14th batch of core boards	2020-4-23
SV3.7_ZS_HV1.0_PTY_P16_HT_OLD_20200511_4.7.200416.250718	1. Solution suffix cannot be added 2. Solve the problem of losing digit when UPC-A transfers to EAN-13 3. Solve the problem that the conversion of EAN13 to ISSN does not work 4. Added barcode to get CPUID (for internal use only) 5. From mp6300y (2.7khz buzzer) to old camera before November 11,	2020-5-13

SV4.7_ZS_HV1.0_PTY_P20_HT_CHA1_20200817_4.7.200612.250718		2020-08-18

Table of content

1. Product Introduction

This user guide applies to MP6300Y, which identify 1D&2D barcodes by 2D image scanning pattern. The scanners above are of strong identification capability, and support automatic continuous scanning mode with fast and flexible scanning speed.

In this chapter, we will introduce the instruction of scanner with pictures, please compare to the scanner you bought when reading this user guide, which is good for your understanding. This chapter applies to regular users, maintenance personnel, and software developers.

1.1 Main feature

* Complete independent research and development, possessing the complete set of patent, plug and play without the need to install driver.

* Wide voltage design to avoid the data can't be transmitted due to voltage fluctuation.

* 32-bit master chip equipped with patented software, the scanner can smoothly decode reflective, wrinkled, blurred, and colorful barcode, and can also normally scan in light and dark environment.

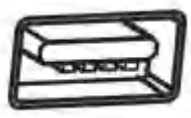
* Adopt all tantalum capacitors and anti-oxidation optical technology, avoiding the problem of performance declining after long-term using.

1.2 Unpacking

Open the package and take out the products and accessories. Check whether all items are complete and whether there are damaged parts according to the packing list. If there are any damaged or missing parts, please keep the original packaging and contact your supplier for after-sales service.

1.3 Communication port

The scanner must be connected to a host to operate. Host can be a PC, POS machine, intelligent terminal with USB or RS-232 interface.

USB	USB interface on host	
RS-232	RS-232 interface on host	

1.4 Start-up, shutdown, standby and restart

Start-up: Connect host computer with scanner, which will automatically start-up and in working state.

Shutdown: Remove the data cable which is connected with scanner; remove the USB which is connected with host computer; remove the power adapter which is inserted into RS-232 serial port.

Standby: Scanner with automatic sleep standby function, if 30 minutes without work it will be in standby mode, but it will automatically start-up when barcode approach.

Restart: If the scanner crashes or doesn't respond, please switch it off and restart.

1.5 Maintenance

* The window must be kept clean, the supplier do not bear the guarantee responsibility due to the improper maintenance.

* Avoid the window being wear and tear or scratched by hard object

* Use the hairbrush to remove the stain on the window

* Clean the window with a soft cloth, such as lens cleaning cloth

* Spraying liquid onto the window is prohibited.

* Prohibit any cleaning solvents, except for the cleaning water.

1.6 Scanning Skill

If the barcode is small, it should be closer to the scanning window; if the barcode is large, it should be far away from the scanning window a little more, thus easier to be read correctly.

If the barcode is highly reflective (for example, the coated surface), you may need to tilt

the barcode at an angle to successfully scan it.

Barcode scanning example:

Chapter2 System Setting

Introduction

The MP6300Y can be configured by scanning programming barcodes. All user programmable features/options are described along with their programming barcodes/commands in the following sections. This programming method is most straightforward. However, it requires manually scanning barcodes. As a result, errors are more likely to occur.

Programming Barcode

The figure above is an example that shows you the programming barcode for the Enter Setup function:

1. The programming barcode.
2. The description of feature/function.

Use of Programming Code

Scanning the Enter Setup barcode can enable the scanner to enter the setup mode. Then you can scan a number of programming barcodes to configure your scanner. To exit the setup mode, scan the Exit Setup barcode or a non-programing barcode, or reboot the scanner

Enter Setup（default)

Exit Setup

Restore Factory Default

Restore Factory Default

Inquiry Firmware Version

Inquiry Firmware Version

User Preference

User can set up his/her preference of the scanner.

Save User Preference

Restore to User Preference Default

Reread Timeout

Reread Timeout can avoid undesired rereading of same barcode in a given period of time.

This feature is only applicable to

the Sense and Continuous modes.

It's programmable as 500ms、750ms、1s and 2s，500ms is the default value.

500ms（default）

750ms

1s

2s

Beeper

The scanner issues different beeps to indicate status: Good-Read Beep, Error Beep, Startup Beep and Programming Beep.

Beeper Volume

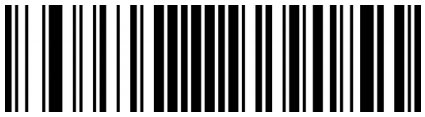
For setting up **Good Read Beep** and **Error Beep** only.

High Volume（default)

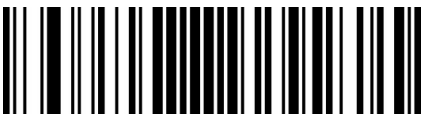
Low Volume

Startup Beep

The scanner can be programmed to beep when it is powered on. Scan the **Off** barcode if you do not want a power on beep.



On（default)



Off

Beeper On/Off

Setting for "Good Read-Beep" and Error Beep"

On（default)

Off

Beeper Tone-Good Read

Low Tone（default)

Medium Tone

High Tone

Beeper Duration - Good Read and Error

Long Duration（default)

Short Duration

Beeper Tone-Error

Low Tone（default）

Medium Tone

High Tone

LED Illumination

Normal（default）：LED on scanner are turned on during image capture;

Always on：Illumination LED on the scanner keep on after the scanner is powered on.

Always off：Illumination LED on the scanner are off all the time

Normal（default)

Always on

Always off

Good Read LED

The LED can be programmed to be On or Off to indicate good read.

On（default)

Off

Firmware Upgrade

Please connect the scanner with a USB cable for firmware upgrade.

Firmware Upgrade

Example

Steps to upgrade firmware：

1.Plug the scanner with a USB cable；

2. Scan Firmware Upgrade barcode to enter USB driver mode and wait for USB driver showing up on the computer;

3.Copy the firmware file into the USB driver;

4. Eject the USB driver and replug the usb cable to restart up the scanner and the scanner will start the firmware upgrade procedure.

5.The scanner beeps after firmware upgrading.

If the upgrade is successful, the factory settings will be restored, and users can reset the scanner according to their needs.

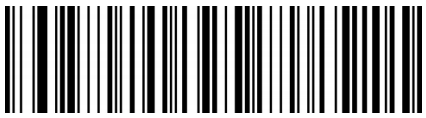
If the upgrade fails, you need to re-power on and restart the scanner and perform the above upgrade steps again.

Chapter 3 Scan Mode

Sense Mode (default)

Sense Mode

The scanner activates a decode session every time it detects a barcode presented to it. The decode session continues until a barcode is decoded or the decode session timeout expires. Reread Timeout can avoid undesired rereading of same barcode in a given period of time.



Sense Mode

Decode Session Timeout

This parameter sets the maximum time decode session continues during a scan attempt. It is programmable from 3s to 10s. The default setting is 3s.

Short（default）

Medium

Long

Custom Decode Session Timeout

Set custom decode session timeout

It's programmable in 0.1s increments from 1 to 999. The default setting is 3s.

Set Custom Decode Session Timeout

Example

Set the decode session timeout to 10s:

1、Scan **Set Custom Decode Session Timeout** Barcode

2、Scan the numeric barcodes："1""0" from the "Digital barcodes" section in Appendix1.

3、Scan the **Save** barocde in Appendix1

Good Read Illumination LED Duration

This parameter sets the amount of time that the Good Read LED to remain on following a good read.

It's programmable as Short, Medium and Long, corresponding to 3s, 7s and 10s. The default setting is 0s.

Short

Medium

Long

Set up Custom Duration

Set Custom Good Read Illumination LED Duration

This parameter sets the amount of custom time that the Good Read LED to remain on following a good read. It is programmable in 0.1s increments from 1 to 999.

Set Custom Good Read Illumination LED Duration

Example

Set the custom duration as 10s:

1、Scan **Set Custom Good Read LED Duration** Barcode.

2、Scan numeric barcode"1""0" from the "Digital Barcodes" section in Appendix1

3、Scan **Save** barcode in Appendix 1

Level Mode

A trigger pull activates a decode session. The decode session continues until a barcode is decoded or you release the trigger

Level Mode

Continuous Mode

The scanner automatically starts one decode session after another. To suspend/resume barcode reading, simply press the trigger. Reread Timeout can avoid undesired rereading of same barcode in a given period of time.

Continuous Mode

Chapter Communication Interface

USB Interface

USB HID (default)

When the scanner is connected to the USB port on a host device, you can enable the USB HID Keyboard feature by scanning the barcode below. Then scanner's transmission will be simulated as USB keyboard input. The Host receives keystrokes on the virtual keyboard. It works on a Plug and Play basis and no driver is required.

USB HID

USB HID Data Upload Method

Before turning on this function, make sure that "USB HID Mode" is turned on.

PC Software

USB-Keyboard (default)

Both PC Software and USB-Keyboard

Function Key Mapping

This setting is aimed for USB-Keyboard Mode. Please Refer to Appendix《ASCII Table》.

Enable

Disable（default）

Function Key GS Replace

Do not replace（default）

Replace as Ç

Replace as |

Replace as ^]

Replace as]

Replace as <GS>

Virtual Keyboard

Virtual keyboard Enable (mode one): The characters between 0x20 ~ 0xFF are output using the virtual keyboard which is not supported under the current keyboard layout, and the characters between 0x00 ~ 0x1F are output according to the definition of control characters.

Virtual keyboard Enable (mode two): All characters between 0x20 and 0xFF are output using virtual keyboard, and characters between 0x00 and 0x1F are output according to the definition of control characters.

Virtual keyboard Enable (mode three): All characters used between 0x00 and 0xFF are output using virtual keyboard.

Disable Virtual Keyboard（default）

Enable Virtual Keyboard（Mode 1）

Enable Virtual Keyboard（Mode 2）

Enable Virtual Keyboard（Mode 3）

USB-Keyboard Transmit Speed

Low Speed

Medium Speed

High Speed（default）

Set Custom Speed

Set Custom Transmission Speed

The transmission speed can be set up from 2ms to 50ms.

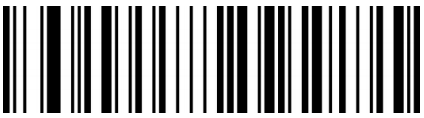
Set Custom Transmission Speed（default 10ms）

Example Set custom transmission speed to 10ms:

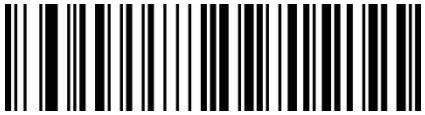
1. Scan **Set Custom Transmission Speed** barcode.
2. Scan numeric barcode"1""0" from the "Digital Barcodes" section in appendix 1.
3. Scan **Save** barcode in appendix 1.

Countries Keyboards

USA-English (default)



Italian



Spanish

Portuguese-Portugal

French-France

German-Austria

Turkish Q

Turkish F

English-UK

Japanese

German-Switzerland

USB CDC

USB CDC

Baud Rate

Baud rate is the number of bits of data transmitted per second. Set the baud rate to match the host requirements. Default is 9600bps。

Baud Rate4800

Baud Rate9600

Baud Rate19200

Baud Rate38400

Baud Rate57600

Baud

Parity Check

Set the parity type to match the host requirements.

Odd Parity: If the data contains an odd number of 1 bits, the parity bit value is set to 0.

Even Parity: If the data contains an even number of 1 bits, the parity bit value is set to 0.

None: Select this option when no parity bit is required.

Stop Bit: The stop bit(s) at the end of each transmitted character marks the end of transmission of one character and prepares the receiving device for the next character in the serial data stream. Set the number of stop bits to match the host requirements.

Data Bit8，Stop Bit1，No Parity（default)

Data Bit8，Stop Bit1，Odd Parity

Data Bit8，Stop Bit1，Even Parity

Data Bit8，Stop Bit2，No Parity

Data Bit8，Stop Bit2，Odd Parity

Data Bit8，Stop Bit2，Even Parity

Chapter 5 Data Format

Custom Prefix

Enable/Disable Custom Prefix

If custom prefix is enabled, you are allowed to append to the data a user-defined prefix that cannot exceed 10 characters. For example, if the custom prefix is "AB" and the barcode data is "123", the Host will receive "AB123".

Enable Custom Prefix

Disable Custom Prefix (default)

Restore All Custom Prefix

Set Custom Prefix

To set a custom prefix, scan the Set Custom Prefix barcode then the numeric barcodes corresponding to the hexadecimal value of a desired prefix then the Save barcode.

Set Custom Prefix

Example

Set custom prefix "a" (Hex value is 0x61) to all symbologies(CODE ID value is 0x99)

1.. Scan Set Custom Prefix barcode.

2.. Scan numeric barcode"9""9""6""1" from the "Digital Barcodes" section in Appendix 1

3. Scan Save barcode in Appendix 1

4. Scan Enable Custom Prefix barcode.

Custom Suffix

Enable/Disable Custom Suffix

If custom suffix is enabled, you are allowed to append to the data a user-defined suffix that cannot exceed 10 characters. For example, if the custom suffix is "AB" and the barcode data is "123", the Host will receive "123AB".

Enable Custom Suffix

Disable Custom Suffix（default)

Restore All Custom Suffix

Set Custom Suffix

To set a custom prefix, scan the Set Custom Suffix barcode then the numeric barcodes corresponding to the hexadecimal value of a desired prefix then the Save barcode.

Set Custom Suffix

Example

Set custom suffix "a" (Hex value is 0x61) to all symbologies(CODE ID value is 0x99)

1.. Scan Set Custom Suffix barcode.

2.. Scan numeric barcode"9""9""6""1" from the "Digital Barcodes" section in Appendix 1

3. Scan Save barcode in Appendix 1

4. Scan Enable Custom Suffix barcode.

CODE ID

Code ID can also be used to identify barcode type. Unlike AIM ID, Code ID is user programmable. Code ID can only consist of one letters.

CODE ID Selection

CODE ID Prefix：CODE ID before barcode

CODE ID Suffix：CODE ID after barcode

Enable CODE ID（default)

CODE ID Prefix

CODE ID Suffix

Restore All CODE ID

Restore All CODE ID

Set Custom CODE ID

Set Custom CODE ID

Example

Modify Codabar（CODE ID:0x61） CODE ID to be "Y"（Hex: 0x59）:

1.Scan **Set Custom CODE ID** barcode

2.Scan numeric barcode"6""1""5""9" from the "Digital Barcodes" section in Appendix 1

3.Scan Save barcode in Appendix 1

AIM ID

AIM (Automatic Identification Manufacturers) ID defines symbology identifier (For the details, see the "AIM ID Table" section in Appendix). If AIM ID prefix is enabled, the scanner will add the symbology identifier before or after the scanned data after decoding

AIM ID is not user programmable

Disable AIM ID (default) : Do Not output AIM ID.

AIM ID Prefix: AIM ID before scanned data.

AIM ID Suffix: AIM ID after scanned data.

Disable AIM ID (default)

Enable AIM ID Prefix

Enable AIM ID Suffix

Start Character

No Start Character (default)

Set Start Character as STX

Terminating Character Suffix

A terminating character such as carriage return (CR) or carriage return/line feed pair (CRLF) can only be used to mark the end of data, which means nothing can be added after it.

Set Terminating Character Suffix to CR (default)

Set Terminating Character Suffix to LF

Set Terminating Character Suffix to CRLF

Set Terminating Character Suffix to LAB

Set Terminating Character Suffix to ETX

Disable Terminating Character Suffix

Prefix/Suffix Sequence

Prefix Sequence

Start Character+CODE ID+AIM ID+Custom Prefix (default)

Start Character+Custom Prefix+CODE ID+AIM ID

Suffix Sequence

Custom Suffix+CODE ID+AIM ID+Terminating Character (default)

CODE ID+AIM ID+Custom Suffix+Terminating Character

Convert Case

No Convert Case (default)

Convert Case

Convert All to Lower Case

Convert All to Upper Case

Data Formatter

Prefix or suffix will be outputted regularly.

Data output selection

Transmit Original data (default): The barcode data will not be modified.

Transmit Start-Field : Only transmit the start-Field data and the length will be set up by Set Length for Start Field barcode. If the set length is greater than the length of the read character string, the original data will be transmitted. For example: if the string "1234567890" is read and the length is set to 3, the final output data is "123".

Transmit Middle Field: Only transmit the Middle Field and the length will be set up by Set length for Start Field barcode and Set Length for End Field barcode. If the sum of the two length values is greater than the length of the read character string, the output is empty. For example: if the character string "1234567890" is read, and the start/end field lengths are set to 3 and 4 respectively, the final output data is "456".

Transmit End Filed: Only transmit the End-Field data and the length will be set up by Set Length for End Field barcode.. If the set length is greater than the length of the read character string, the original data will be output. For example: if the character string "1234567890" is read and the length is set to 3, the final output data is "890".

Transmit Start Field and end Field: The transmitted data is limited according to the data of "Set Length for Start-Filed" and "Set Length for End-Field". If the sum of the two length values is greater than the length of the read character string, the original data will be transmitted. For example: if the character string "1234567890" is read, and the start/end field lengths are set to 3 and 4 respectively, the final transmitted data is

"1237890".

Original Data(default)

Transmit Start-Field Data

Transmit Middle Field

Transmit End Filed

Transmit Start Field and End Filed

Set Length Range for Start/End Filed

Default value is 1, Range : 1 ~ 7900. When it is set up to be 0, this function will be invalid.

Example: Set Start Field Length as 12

1. Scan **Set Length Range for Start Field** barcode.
2. Scan numeric barcode "1""2" from the Digital Barcodes section in Appendix 1.
3. Scan **Save** barcode in Appendix 1.

Set Length Range for Start Field

Set Length Range for End Field

Chapter 6 Symbologies

Introduction

Every symbology (barcode type) has its own unique attributes. This chapter provides programming barcodes for configuring the scanner so that it can identify various symbologies. It is recommended to disable those that are rarely used to increase the efficiency of the scanner.

Enable/Disable All Symbologies

If the Disable All Symbologies feature is enabled, the scanner will not be able to read any non-programming barcodes except the programming barcodes.

Enable All Symbologies

Disable All Symbologies

Enable/Disable All 1D Symbologies

Enable All 1D Symbologies

Disable All 1D Symbologies

Enable/Disable All 2D Symbologies

Enable All 2D Symbologies

Disable All 2D Symbologies

Inverse BarCode

Only Decode Regular BarCodes（default)

Decode Regular and Inverse BarCodes Both

Only Decode Inverse Barcode（Not Enabled)

Codabar

Enable/Disable Codabar

Enable（default)

Disable

Codabar Start/Ending Character

Enable

Disable（default）

Set Length Range for Codabar

ATT

Any 1D barcode length can not exceed 127 characters. If minimum length is set to be greater than maximum length, the scanner only decodes Codabar barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Codabar barcodes with that length are to be decoded.

Set the Minimum

Set the Maximum Length

Example

Set the scanner to decode Codabar barcodes containing between 8 and 12 characters:

1. Scan the **Set the Minimum Length** barcode.
2. Scan the numeric barcode "8" from the "Digit Barcodes" ction in Appendix.

3. Scan the Save barcode from the "Save/Cancel Barcodes" ction in Appendix.

4. Scan the Set the Maximum Length barcode.

5. Scan the numeric barcodes "1" and "2" from the "Digit rcodes" section in Appendix.

6. Scan the Save barcode from the "Save/Cancel Barcodes" ction in Appendix.

Code 39

Enable/Disable Codo 39

Enable（default)

Disable

Code 39 Check Digit

Disable Check Digit（default)

Enable and do not transmit check digit

Enable and transmit check digit

Code 39 Full ASCII

Disable（default)

Enable

Set Length Range for Code 39

Set the Minimum Length(1~127)

Set the Maximum Length

Example

Set the scanner to decode Code39 barcodes containing between 8 and 12 characters:

7. Scan the **Set the Minimum Length** barcode.

8. Scan the numeric barcode "8" from the "Digit Barcodes" ction in Appendix.

9. Scan the **Save** barcode from the "Save/Cancel Barcodes" ction in Appendix.

10. Scan the **Set the Maximum Length** barcode.

11. Scan the numeric barcodes "1" and "2" from the "Digit rcodes" section in Appendix.

12. Scan the **Save** barcode from the "Save/Cancel Barcodes" ction in Appendix.

Code 32

To enable code32, code39 need to be enabled first.

Enable（default)

Disable

Interleaved 2 of 5 （ITF5)

Enable/Disable Interleaved 2 of 5（ITF5)

Enable（default)

Disable

Interleaved 2 of 5（ITF5）Check Digit

Disable Check Digit（default)

Enable and do not transmit check digit

Enable and Transmit Check Digit

Set Fixed Length for Interleaved 2 of 5 (ITF5)

Any Length (4-128 位) (default)

6 Characters

8 Characters

10 Characters

12 Characters

14 Characters

16 Characters

18 Characters

20 Characters

22 Characters

24 Characters

Set Custom Length for ITF5

Set Length Range for Interleaved 2 of 5

Need to scan **Set Custom Length for ITF5** barcode first

Set the Minimum Length（4~128）

Set the Maximum Length（4~128 ）

Example

Set the scanner to decode ITF25 barcodes containing between 8 and 12 characters:

1.Scan the **Set the Minimum Length** barcode.

2.Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

3.Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

4.Scan the **Set the Maximum Length** barcode.

5.Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

6.Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

Industrial 2 of 5

Enable/Disable Industrial 2 of 5

Enable（default）

Disable

Set Length Range for Industrial 2 of 5

Set the Minimum Length（4~128）

Set the Maximum Length（4~128 ）

Example

Set the scanner to decode Industrial 2 of 5 barcodes containing between 8 and 12 characters:

1.Scan the **Set the Minimum Length** barcode.

2.Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

3.Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

4.Scan the **Set the Maximum Length** barcode.

5.Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

6.Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

Matrix 2 of 5

Enable/Disable Matrix 2 of 5

Enable (default)

Disable

Set Length Range for Matrix 2 of 5

Set the Minimum Length (4~128)

Set the Maximum Length (4~128)

Example

Set the scanner to decode Matrix 2 of 5 barcodes containing between 8 and 12 characters:

1.Scan the **Set the Minimum Length** barcode.

2.Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

3.Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

4.Scan the **Set the Maximum Length** barcode.

5.Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

6.Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

Code 93

Enable/DisableCode 93

Enable (default)

Disable

Set Length for Code 93

Set the Minimum Length (1~127)

Set the Maximum Length (1~127)

Example

Set the scanner to decode Code93 barcodes containing between 8 and 12 characters:

1.Scan the **Set the Minimum Length** barcode.

2.Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

3.Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

4.Scan the Set the Maximum Length barcode.

5.Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

6.Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

Code 11

Enable/Disablt Code 11

Enable

Disable (default)

Code 11 Check Digit Transmission

Transmit Code 11 Check Digit

Do not Transmit Code11 Check Digit (default)

Code 11 Check Digit

Disable Check Digit (default)

One Check Digit

Two Check Digit

Set Length Range for Code 11

Set the Minimum Length (1~127)

Set the Maximum Length (1~127)

Example

Set the scanner to decode Code 11 barcodes containing between 8 and 12 characters:

1.Scan the **Set the Minimum Length** barcode.

2.Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

3.Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

4.Scan the **Set the Maximum Length** barcode.

5.Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

6.Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

Code 128

Enable/Disable Code 128

Enable (default)

Disable

Set Length Range for Code 128

Set the Minimum Length (1~127)

Set the Maximum Length (1~127)

Example

Set the scanner to decode Code 128 barcodes containing between 8 and 12 characters:

1.Scan the Set the Minimum Length barcode.

2.Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

3.Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

4.Scan the Set the Maximum Length barcode.

5.Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

6.Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

GS1-128

Enable (default)

Disable

UPC-A

Enable/Disable UPC-A

Enable (default)

Disable

UPC-A Check Digit

Transmit UPC-A Check Digit (default)

Do not Transmit UPC-A Check Digit

Convert UPC-A to EAN-13

Covert UPC-A to EAN-13

Do Not Convert UPC-A to EAN-13(default)

UPC-E

Enable/Disable UPC-E

Enable (default)

Disable

UPC-E Check Digit

Transmit Check Digit (default)

Do not Transmit Check Digit

Convert UPC-E to UPC-A

Convert UPC-E to UPC-A

Do not Convert UPC-E to UPC-A (default)

EAN/JAN-8

Enable (default)

Disable

EAN/JAN-13

Enable/Disable EAN/JAN-13

Enable (default)

Disable

Convert EAN13 to ISBN

Convert ISBN to ISBN

Do not Convert ISBN to ISBN (default)

Convert EAN13 to ISSN

Convert ISBN to ISSN

Do not Convert ISBN to ISBN（default）

UPC/EAN/JAN Supplemental

Ignore UPC/EAN/JAN Supplemental（default）

Decode UPC/EAN/JAN Supplemental

Autodiscriminate UPC/EAN/JAN with Supplemental

GS1 DataBar（RSS14）(Stacked)

Enable/Disable GS1 DataBar

Enable（default）

Disable

Enable/Disable GS1 DataBar Limited

Enable （default）

Disable

Enable/Disable GS1 DataBar Expanded

Enable（default）

Disable

GS1 DATABAR(RSS14) Preamble　(Not Enabled)

GS1 DATABAR LIMITED Preamble　(Not Enabled)

PDF417

Enable（default）

Disable

Micro PDF417

Enable（default）

Disable

QR

QR Enable/Disable

Enable（default）

Disable

QR with URL

Enable

Disable（default）

Micro QR

Enable（default）

Disable

Data Matrix

Enable（default）

Disable

Aztec

Enable（default）

Disable

Standard 2 of 5（Not Enabled）

Plessey（Not Enabled）

Msiplessey

Enable/Disable msiplessey

Enable（default）

Disable

Msiplessey Check Digit

Disable Check Digit

One Check Digit MOD10（default）

Two Check Digit MOD10/MOD10

Two Check Digit MOD10/MOD11

Set Length Range for Msiplessey

Set the Minimum Length (1~127)

Set the Maximum Length (1~127)

Example

Set the scanner to decode Msiplessey barcodes containing between 8 and 12 characters:

1.Scan the **Set the Minimum Length** barcode.

2.Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

3.Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

4.Scan the **Set the Maximum Length** barcode.

5.Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

6.Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

Hanxi code

Enable (default)

Disable

Appendix

Appendix1 Data and Digital Barcodes

	
	0
	
1	
	
	2
	
3	
	
	4
	
5	
	
	6
	
7	

	
	8
	
9	
	
	A
	
B	
	
	C
	
D	
	
	E
	
F	
	
	Cancel Last String
	
Cancel Current Setting	

	
	Cancel Last Digit
	
Save	

Appendix2 Symbology Table

Symbology	CODE ID		AIM ID
	HEX	Code ID	ID
All Symbology	0x99		
Codabar	0x61	a	]F0
Code 11	0x68	h	]H1
Code 128(Including GS1 128)、GS1-128	0x6A	j	]C0
ISBT 128	0x6A	j	]C0
Code 32	0x3C	<	]X0
Code 39	0x62	b	]A0
Code 93	0x69	i	]G0
EAN			
EAN-13(including ISBN)	0x64	d	]E0
EAN-8	0x44	D	]E4
GS1			
GS1 DataBar	0x79	y	]e0
GS1 DataBar Limited	0x7B	{	]e0
GS1 DataBar Expanded	0x7D	}	]e0
2 of 5			
Interleaved 2 of 5	0x65	e	]I0
Matrix 2 of 5	0x6D	m	]X0
Straight 2 of 5 Industrial	0x66	f	]S0

MSI	0x67	g	]M1
UPC			
UPC-A	0x63	c	]E0
UPC-E	0x45	E	]E0
Aztec Code	0x7A	z	]z0
Han Xin	0x48	H	]X0
Codablock F	0x6A	j	]C0
Data Matrix	0x77	w	]d1
PDF417、Micro PDF417	0x72	r	]L0
QR、Micro QR	0x73	s	]Q1

Appendix3 Command Format Description

<table>
<tr><th>Head</th><th>DEV ID</th><th>CMD</th><th>Status</th><th>Package No.</th><th>Data Length</th><th>Data</th><th>CRC16</th><th>End</th></tr>
<tr><td>2byte</td><td>1 byte</td><td>3 byte</td><td>1 byte</td><td>2 byte</td><td>2 byte</td><td>N byte</td><td>2 byte</td><td>2 byte</td></tr>
<tr><td>0x0057</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0x4150</td></tr>
<tr><td rowspan="13">Description</td><td colspan="8">1.For multi-byte data types, the low byte is before the high byte (little endian mode), (for example, the data length of 2 bytes is 0x0001, and the actual sending order is 01 00 instead of 00 01). The maximum length of the command is 64byte. If a command with a length greater than 64byte is sent, it will be sent in packets.</td></tr>
<tr><td colspan="8">2.head： The Master is 0x57 0x00, and the Slave is 0x31 0x00.</td></tr>
<tr><td colspan="8">3.DEV ID： The default value is 0x00, which is used to distinguish different devices in the 485 serial port multi-machine communication</td></tr>
<tr><td rowspan="3">CMD</td><td>[23:16]</td><td colspan="6">《二、菜单设置条码》“一级菜单”栏的最后一位数字，内容空则为 0。</td></tr>
<tr><td>[15:8]</td><td colspan="6">《二、菜单设置条码》“二级菜单”栏的最后一位数字，内容空则为 0。</td></tr>
<tr><td>[7:0]</td><td colspan="6">《二、菜单设置条码》“三级菜单”栏的最后一位数字，内容空则为 0。</td></tr>
<tr><td rowspan="4">CMD
Status：</td><td rowspan="2">[7:4]</td><td colspan="6">When the value is 0x0，the Command is a Programming Command。</td></tr>
<tr><td colspan="6">When the value is 0x1，the Command is a Inquiry Command。</td></tr>
<tr><td rowspan="2">[3:0]</td><td colspan="6">When the value is 0x0，Command is normal.</td></tr>
<tr><td colspan="6">When the value is 0x1，Command is abnormal.</td></tr>
<tr><td colspan="8">6.Package No.： Initial value is 0x00, and it will increase with the number of packets sent during sub-packet transmission.</td></tr>
<tr><td colspan="8">7. Data length: the length of the data segment in the current command. If the total length of</td></tr>
</table>

	the last command is set to 64byte, the packet label needs to be increased by 1 and then a supplementary command with a data length of 0byte is used to determine that the communication has ended. . If the get status command gets 64bytes, the packet label number needs to be increased by 1 and then another get command is issued to determine whether the communication has ended.
	8.Data: The data content is determined by the corresponding instruction number. When the data length is 0byte, there is no need to fill in the content of this section.
	9.CRC16： CRC16 check is to perform CRC16 check on all data between the beginning of the packet header and before the CRC16 check. The verification is carried out in byte order starting from the packet header. Online calculation of CRC check: https://www.lammertbies.nl/comm/info/crc-calculation, check data type is Hex, parameter model select CRC-16/IBM
	10.End of packet: 0x50 0x41, used to determine the end of the command transmission.

Appendix4 ASCII Character and Keystroke Table

Char	HEX	ASCII Character	Value	Keystroke
NUL (Null char.)	0x00	Null	0x00	Ctrl+2
SOH (Start of Header)	0x01	Keypad Enter	0x58	Ctrl+A
STX (Start of Text)	0x02	Caps Lock	0x39	Ctrl+B
ETX (End of Text)	0x03	Null	0x00	Ctrl+C
EOT (End of Transmission)	0x04	Null	0x00	Ctrl+D
ENQ (Enquiry)	0x05	Null	0x00	Ctrl+E
ACK (Acknowledgment)	0x06	Null	0x00	Ctrl+F
BEL (Bell)	0x07	Enter	0x28	Ctrl+G
BS (Backspace)	0x08	Left Arrow	0x50	Ctrl+H
HT (Horizontal Tab)	0x09	Horizontal Tab	0x2b	Ctrl+I
LF (Line Feed)	0x0a	Down Arrow	0x51	Ctrl+J
VT (Vertical Tab)	0x0b	Vertical Tab	0x2b	Ctrl+K
FF (Form Feed)	0x0c	Backspace	0x2a	Ctrl+L
CR (Carriage Return)	0x0d	Enter	0x28	Ctrl+M
SO (Shift Out)	0x0e	Insert	0x49	Ctrl+N
SI (Shift In)	0x0f	Esc	0x29	Ctrl+O
DLE (Data Link Escape)	0x10	F11	0x44	Ctrl+P
DC1 (XON) (Device Control 1)	0x11	Home	0x4a	Ctrl+Q
DC2 (Device Control 2)	0x12	Print Screen	0x46	Ctrl+R

DC3 (XOFF) (Device Control 3)	0x13	Delete	0x4c	Ctrl+S
DC4 (Device Control 4)	0x14	tab+shift	0x2b,0x e1	Ctrl+T
NAK (Negative Acknowledgement)	0x15	F12	0x45	Ctrl+U
SYN (Synchronous Idle)	0x16	F1	0x3a	Ctrl+V
ETB (End of Trans. Block)	0x17	F2	0x3b	Ctrl+W
CAN (Cancel)	0x18	F3	0x3c	Ctrl+X
EM (End of Medium)	0x19	F4	0x3d	Ctrl+Y
SUB (Substitute)	0x1a	F5	0x3e	Ctrl+Z
ESC (Escape)	0x1b	F6	0x3f	Ctrl+[
FS (File Separator)	0x1c	F7	0x40	Ctrl+\
GS (Group Separator)	0x1d	F8	0x41	Ctrl+]
RS (Request to Send)	0x1e	F9	0x42	Ctrl+6
US (Unit Separator)	0x1f	F10	0x43	Ctrl+-

Appendix5 ASCII Table

(Character in yellow ground is Function Character; Character in white ground is Visible Character)

Binary	Dec	Hex	Char
0	0	0	NUL (NULL)
1	1	1	SOH (Start Of Headling)
10	2	2	STX (Start Of Text)
11	3	3	ETX (End Of Text)
100	4	4	EOT (End Of Transmission)
101	5	5	ENQ (Enquiry)
110	6	6	ACK (Acknowledge)
111	7	7	BEL (Bell)
1000	8	8	BS (Backspace)
1001	9	9	HT (Horizontal Tab)
1010	10	0A	LF/NL(Line Feed/New Line)
1011	11	0B	VT (Vertical Tab)
1100	12	0C	FF/NP (Form Feed/New Page)
1101	13	0D	CR (Carriage Return)
1110	14	0E	SO (Shift Out)
1111	15	0F	SI (Shift In)
10000	16	10	DLE (Data Link Escape)

10001	17	11	DC1/XON (Device Control 1/Transmission On)
10010	18	12	DC2 (Device Control 2)
10011	19	13	DC3/XOFF (Device Control 3/Transmission Off)
10100	20	14	DC4 (Device Control 4)
10101	21	15	NAK (Negative Acknowledge)
10110	22	16	SYN (Synchronous Idle)
10111	23	17	ETB (End of Transmission Block)
11000	24	18	CAN (Cancel)
11001	25	19	EM (End of Medium)
11010	26	1A	SUB (Substitute)
11011	27	1B	ESC (Escape)
11100	28	1C	FS (File Separator)
11101	29	1D	GS (Group Separator)
11110	30	1E	RS (Record Separator)
11111	31	1F	US (Unit Separator)
100000	32	20	(Space)
100001	33	21	!
100010	34	22	"
100011	35	23	#

100100	36	24	$
100101	37	25	%
100110	38	26	&
100111	39	27	'
101000	40	28	(
101001	41	29	)
101010	42	2A	*
101011	43	2B	+
101100	44	2C	,
101101	45	2D	-
101110	46	2E	.
101111	47	2F	/
110000	48	30	0
110001	49	31	1
110010	50	32	2
110011	51	33	3
110100	52	34	4
110101	53	35	5
110110	54	36	6
110111	55	37	7
111000	56	38	8
111001	57	39	9

111010	58	3A	:
111011	59	3B	;
111100	60	3C	<
111101	61	3D	=
111110	62	3E	>
111111	63	3F	?
1000000	64	40	@
1000001	65	41	A
1000010	66	42	B
1000011	67	43	C
1000100	68	44	D
1000101	69	45	E
1000110	70	46	F
1000111	71	47	G
1001000	72	48	H
1001001	73	49	I
1001010	74	4A	J
1001011	75	4B	K
1001100	76	4C	L
1001101	77	4D	M
1001110	78	4E	N
1001111	79	4F	O

1010000	80	50	P
1010001	81	51	Q
1010010	82	52	R
1010011	83	53	S
1010100	84	54	T
1010101	85	55	U
1010110	86	56	V
1010111	87	57	W
1011000	88	58	X
1011001	89	59	Y
1011010	90	5A	Z
1011011	91	5B	[
1011100	92	5C	\
1011101	93	5D	]
1011110	94	5E	^
1011111	95	5F	_
1100000	96	60	`
1100001	97	61	a
1100010	98	62	b
1100011	99	63	c
1100100	100	64	d
1100101	101	65	e

1100110	102	66	f
1100111	103	67	g
1101000	104	68	h
1101001	105	69	i
1101010	106	6A	j
1101011	107	6B	k
1101100	108	6C	l
1101101	109	6D	m
1101110	110	6E	n
1101111	111	6F	o
1110000	112	70	p
1110001	113	71	q
1110010	114	72	r
1110011	115	73	s
1110100	116	74	t
1110101	117	75	u
1110110	118	76	v
1110111	119	77	w
1111000	120	78	x
1111001	121	79	y
1111010	122	7A	z
1111011	123	7B	{

1111100	124	7C	|
1111101	125	7D	}
1111110	126	7E	~
1111111	127	7F	DEL (Delete)