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## 1 Getting Started

### 1.1 About This Guide

This guide provides programming instructions for the SCANDRIVE 2D BARCODER READER. Users can configure the SCANDRIVE 2D BARCODER READER by scanning the programming barcodes included in this manual.

### 1.2 Barcode Scanning

Powered by area-imaging technology and SCANDRIVE 2D BARCODER READER patented “Hercules” technology, the SCANDRIVE 2D BARCODER READER features fast scanning and decoding accuracy. Barcodes rotated at any angle can still be read with ease. When scanning a barcode, simply center the aiming beam or pattern projected by the SCANDRIVE 2D BARCODER READER over the barcode.

### 1.3 Factory Defaults

Scanning the following barcode can restore the engine to the factory defaults.

**Note:** Use this feature with discretion.



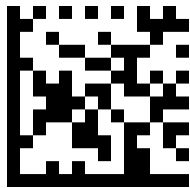
**Restore All Factory Defaults**

## 2 Communication Interfaces

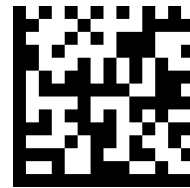
The SCANDRIVE 2D BARCODER READER provides a TTL-232 interface and a USB interface to communicate with the host device. The host device can receive scanned data and send commands to control the engine or to access/alter the configuration information of the engine via the TTL-232 or USB interface.

### 2.1 TTL-232 Cable Select (applicable to 3110)

Before using Serial Communication interface, scanner must be set as TTL-232 cable. Please reset the scanner after set 232-cable.



232 Cable



Reset

## 2.2 TTL-232 Interface

Serial communication interface is usually used when connecting the engine to a host device (like PC, POS). However, to ensure smooth communication and accuracy of data, you need to set communication parameters (including baud rate, parity check, data bit and stop bit) to match the host device.

The serial communication interface provided by the engine is based on TTL-level signals. TTL-232 can be used for most application architectures. For those requiring RS-232, an external conversion circuit is needed. The conversion circuit is available only to some models.

Default serial communication parameters are listed below. Make sure all parameters match the host requirements.

Parameter	Factory Default
Serial Communication	Standard TTL-232
Baud Rate	115200
Parity Check	None
Data Bits	8
Stop Bits	1
Hardware Flow Control	None

## 2.3 Baud Rate

Baud rate is the number of bits of data transmitted per second. Set the baud rate to match the Host requirements.



2400



4800



9600



19200



38400



57600



115200 (default)

## 2.4 Data Bit & Parity Check & Stop Bit



None Parity /8 Data Bits/1 Stop Bit(default)



None Parity /7 Data Bits/1 Stop Bit



None Parity /7 Data Bits/2 Stop Bits



Even Parity /8 Data Bits/1 Stop Bit



Even Parity /7 Data Bits/1 Stop Bit



Even Parity /7 Data Bits/2 Stop Bits



Odd Parity /8 Data Bits/1 Stop Bit



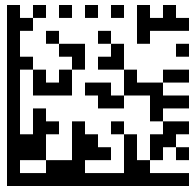
Odd Parity /7 Data Bits/1 Stop Bit



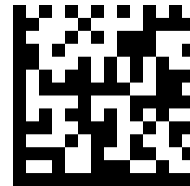
Odd Parity /7 Data Bits/2 Stop Bit

## 2.5 USB Interface (applicable to 3110)

Before using USB Communication interface, scanner must be set as USB cable. Please reset the scanner after set USB cable.



USB Cable



Reset

## 2.6 USB HID-KB

When you connect the engine to the Host via a USB connection, you can enable the **USB HID-KB** feature by scanning the barcode below. Then engine'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.

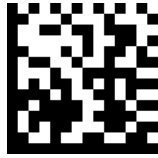


USB HID-KB(default)

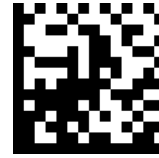


## 2.7 USB Country Keyboard Types

Keyboard layouts vary from country to country. The default setting is 1-U.S. keyboard.



1 - U.S. (default)



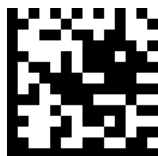
2 - UK



3 - Denmark



4 - France



5 - Finland



6 - Turkey\_F



7 - Italy



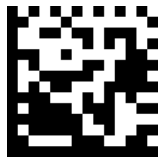
8 - Norway



9 - Albania



10 - Belgium



11 – Bosnia



13 – Croatia



15 –Dutch



17 – Germany



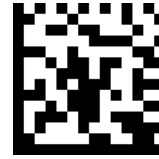
19 – Hungary



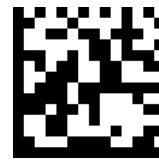
21 – Latvia



12 – Brazil



14 – Czech



16 – Estonia



18 – Greek



20 – Irish



22-Lithuania



23 – Macedonia



24 – Spain



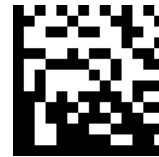
25 – Poland



26 –Portugal



27 –Romania



28 –Russia



29 – Japan

## 2.8 Convert Case

Scan the appropriate barcode below to convert barcode data to your desired case.



No Case Conversion (default)



Convert All to Upper Case

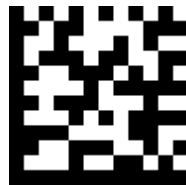


Convert All to Lower Case

**Example:** When the **Convert All to Lower Case** feature is enabled, barcode data “AbC” is transmitted as “abc”.

## 2.9 USB COM Port Emulation

If you connect the engine to the Host via a USB connection, the **USB COM Port Emulation** feature allows the Host to receive data in the way as a serial port does. A driver is required for this feature.



USB COM Port Emulation

## 3 General Configuration

### 3.1 Trigger Mode

If the Trigger Mode is enabled, you could activate the scanner by providing an external hardware trigger, or using a serial trigger command. When in manual trigger mode, the scanner scans until a barcode is read, or until the hardware trigger is released. When in serial mode, the scanner scans until a barcode has been read or until the deactivate command is sent.



Trigger Mode(default)

### 3.2 Continue Mode

This set the scanner to work in Continue mode.

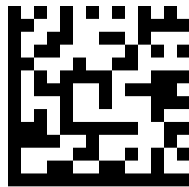


Continue Mode

## 3.3 Cellphone Mode

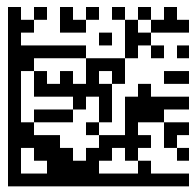
If the Cellphone Mode is enabled, the engine activates a special capturing image and illumination session. Every 3 frame open one illumination.

When the backlight of cellphone is weak and the reflection is strong, please scan mode 1



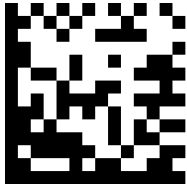
**Cellphone Mode 1**

When the backlight of cellphone is not weak and the reflection is strong, please scan mode 2

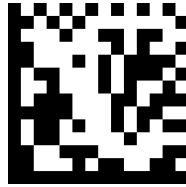


**Cellphone Mode 2**

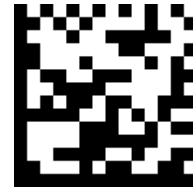
## 3.4 Inverse color



Off(default)



Only Inverse On



Inverse and Normal Both On

## 3.5 Illumination



High Level Illumination(default)



Mid Level Illumination

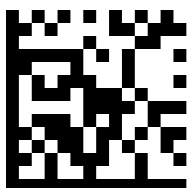


Low Level Illumination

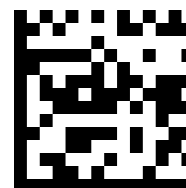


Illumination OFF

## 3.6 Beeper - Good Read



On (default)

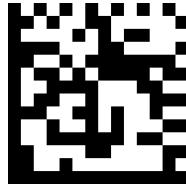


Off

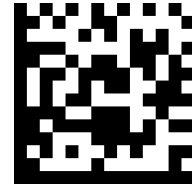
## 3.7 Beeper Tone - Good Read



Low

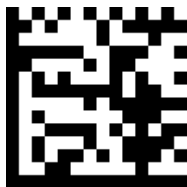


Middle



High (default)

## 3.8 Beeper Duration - Good Read

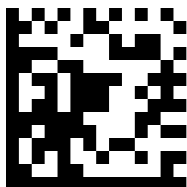


Normal (default)

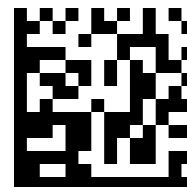


Short

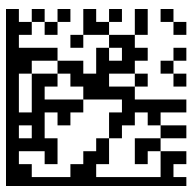
## 3.9 Beeper Number - Good Read



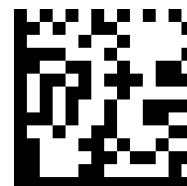
1 (default)



2

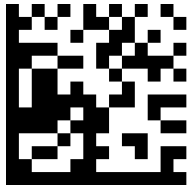


3

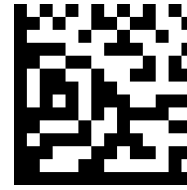


4





5

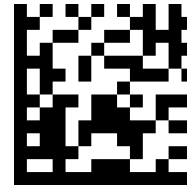


6

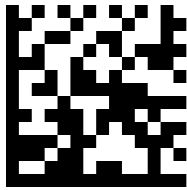
### 3.10 Barcode Scanning Delay



No Delay (default)

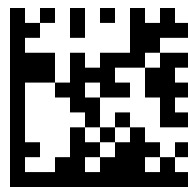


Delay 500MS



Delay 2000ms

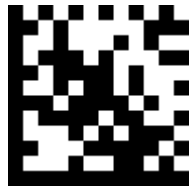
### 3.11 Ship Image



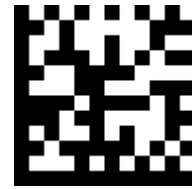
Ship Image

## 4 Data Formatting

### 4.1 General Configuration



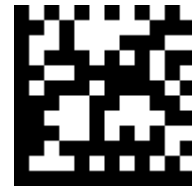
Add CR



Add LF

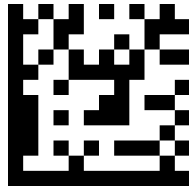


Add CRLF

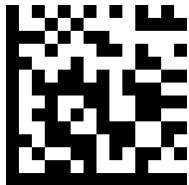


Add TAB

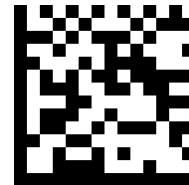
## 4.2 Add Prefix



Set Custom Prefix



Save



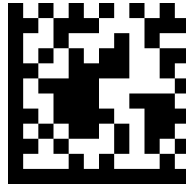
Not Save

To set a customer prefix, scan the “Set Custom Prefix” barcode and the numeric barcodes which representing the hexadecimal values of a desired prefix, and then scan the “Save” barcode. Refer to Appendix 2: ASCII Table for hexadecimal values of characters.

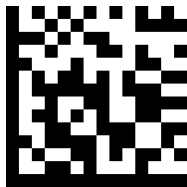
### Example: Set the custom Prefix to “ODE”

1. Check the hex values of “ODE” in the ASCII Table. (“ODE”: 4F, 44, 45)
2. Scan the **Set Custom Prefix** barcode.
3. Scan the numeric barcodes “9”, “9”, “4”, “F”, “4”, “4”, “4” and “5” in Appendix 5 .
4. Scan the **Save** barcode.

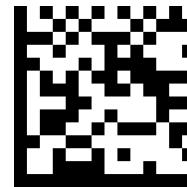
## 4.3 Add Suffix



Set Custom Suffix



Save



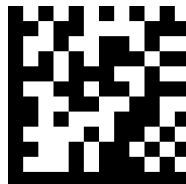
Not Save

To set a customer suffix, scan the “Set Custom Suffix” barcode and the numeric barcodes which representing the hexadecimal values of a desired suffix, and then scan the “Save” barcode. Refer to Appendix 4: ASCII Table for hexadecimal values of characters.

### Example: Set the custom Suffix to “ODE”

1. Check the hex values of “ODE” in the ASCII Table. (“ODE”: 4F, 44, 45)
2. Scan the **Set Custom Suffix** barcode.
3. Scan the numeric barcodes “9”, “9”, “4”, “F”, “4”, “4”, “4” and “5” in Appendix 5 .
4. Scan the **Save** barcode.

## 4.4 Clear All Prefix and Suffix



Clear all prefix and suffix (default)

## 5 Symbologies

### 5.1 General Settings

#### Enable/Disable All Symbologies

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



Enable All Symbologies

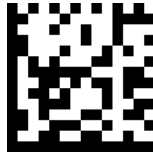


Disable All Symbologies

## 5.2 1D Symbologies

### 5.2.1 Code 128

#### Restore Factory Defaults



Restore the Factory Defaults of Code 128 (default)

#### Enable/Disable Code 128



Enable Code 128 (default)



Disable Code 128

#### Message Length

Message length can be set to the maximum value or minimum value. The value between the maximum and the minimum is valid.

The maximum value and minimum value can be set using “Programming Command”. Please check the programming command guide for the detail.

Code 128 max length command: 020A03. The parameter of this command can be set from min to 90.

Code 128 min length command: 020A02. The parameter of this command can be set from 0 to max.

Example: Set the Barcode Message length of the minimum value is 10; the maximum value is 25.

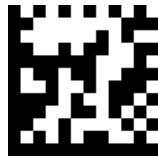
Programming command:

Max: 020A0325.

Min: 020A0210.

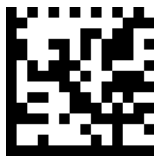
## 5.2.2 EAN-8

### Restore Factory Defaults



Restore the Factory Defaults of EAN-8 (default)

### Enable/Disable EAN-8



Enable EAN-8 (default)



Disable EAN-8

### Transmit Check Digit

EAN-8 is 8 digits in length with the last one as its check digit used to verify the accuracy of the data.



Transmit EAN-8 Check Digit (default)



Do Not Transmit EAN-8 Check Digit

### Add-On Code

An EAN-8 barcode can be augmented with a two-digit or five-digit add-on code on code on code to form a new one. In the examples below, the part surrounded by blue dotted line is an EAN-8 barcode while the part circled by red dotted line is add-on code.

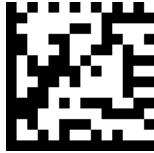




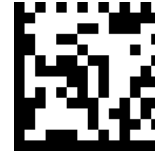
**Enable 2-Digit Add-On Code**



**Disable 2-Digit Add-On Code (default)**



**Enable 5-Digit Add-On Code**



**Disable 5-Digit Add-On Code (default)**

## **Add-On Code Required**



**EAN-8 Add-On Code Required**



**EAN-8 Add-On Code Not Required (default)**

## **ENA/JAN-8 Addenda Separator**

When this feature is enabled, there is a space between barcode and addenda. When this feature is disabled, there is no space.



**Enable ENA/JAN-8 Addenda Separator (default)**

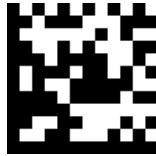


**Disable ENA/JAN-8 Addenda Separator UPC**



## 5.2.3 EAN-13

### Restore Factory Defaults

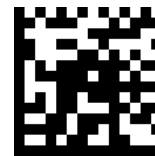


Restore the Factory Defaults of EAN-13 (default)

### Enable/Disable EAN-13



Enable EAN-13 (default)



Disable EAN-13

### Transmit Check Digit



Transmit EAN-13 Check Digit (default)



Do Not Transmit EAN-13 Check Digit

### Add-On Code



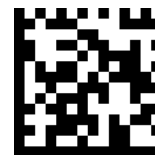
Enable 2-Digit Add-On Code



Disable 2-Digit Add-On Code (default)



Enable 5-Digit Add-On Code



Disable 5-Digit Add-On Code (default)

## Add-On Code Required



**EAN-13 Add-On Code Required**



**EAN-13 Add-On Code Not Required (default)**

## ENA/JAN-13 Addenda Separator

When this feature is enabled, there is a space between barcode and addenda. When this feature is disabled, there is no space.



**Enable ENA/JAN-13 Addenda Separator (default)**



**Disable ENA/JAN-13 Addenda Separator**

## ISBN Translate

When enable this feature and is scanned, ENA13 Book land symbols are translated into their equivalent ISBN number format.



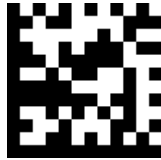
**Enable ISBN Translate**



**Disable ISBN Translate (default)**

## 5.2.4 UPC-E

### Restore Factory Defaults



Restore the Factory Defaults of UPC-E (default)

### Enable/Disable UPC-E0/E1



Enable UPC-E0 (default)



Disable UPC-E0



Enable UPC-E1

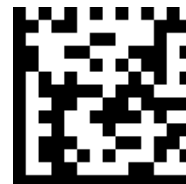


Disable UPC-E1 (default)

### UPCE0 Check Digit



Enable UPC-E0 Check Digit (default)



Disable UPC-E0 Check Digit

## UPCE0 Expand

UPCE0 expand expands the UPCE code to the 12 digits, UPC-A format.



**Enable UPC-E0 Expand**



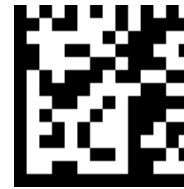
**Disable UPC-E0 Expand (default)**

## UPCE0 Addenda Required

When required is scanned, the scanner will only read UPC-E barcodes that have addenda.



**Enable UPC-E0 Required**



**Disable UPC-E0 Required (default)**

## UPCE0 Addenda Separator



**Enable UPC-E0 Separator (default)**



**Disable UPC-E0 Separator**

## UPCE0 Number System

The number system digit of UPC symbol is normally transmitted at the beginning of the scanned data, but the unit can be programmed so it will be not transmitted.



**Enable UPC-E0 Number System (default)**



**Disable UPC-E0 Number System**

## UPCE0 Addenda



Enable 2 Digit Addenda



Disable 2 Digit Addenda (default)



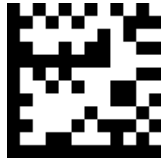
Enable 5 Digit Addenda



Disable 5 Digit Addenda (default)

## 5.2.5 UPC-A

### Restore Factory Defaults



Restore the Factory Defaults of UPC-A (default)

### Enable/Disable UPC-A



Enable UPC-A (default)



Disable UPC-A

### UPC-A Check Digit



Enable UPC-A Check Digit (default)



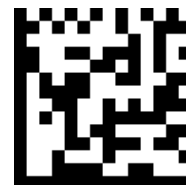
Disable UPC-A Check Digit

### UPC-A Addenda Required

When required is scanned, the scanner will only read UPC-E barcodes that have addenda.



Enable UPC-A Required

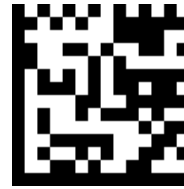


Disable UPC-A Required (default)

## UPC-A Addenda Separator



**Enable UPC-A Separator (default)**



**Disable UPC-A Separator**

## UPC-A: Number System

The number system digit of UPC symbol is normally transmitted at the beginning of the scanned data, but the unit can be programmed so it will be not transmitted.

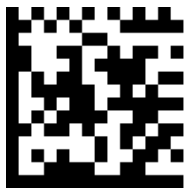


**Enable UPC-A Number System (default)**



**Disable UPC-A Number System**

## UPC-A: Addenda



**Enable 2 Digit Addenda**



**Disable 2 Digit Addenda (default)**



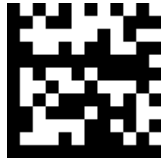
**Enable 5 Digit Addenda**



**Disable 5 Digit (default)**

## 5.2.6 Interleaved 2 of 5

### Restore Factory Defaults



**Restore the Factory Defaults of Interleaved 2 of 5 (default)**

### Enable/Disable Interleaved 2 of 5



**Enable Interleaved 2 of 5 (default)**



**Disable Interleaved 2 of 5**

### Message Length

Message length can be set to the maximum value, minimum value. The data between the maximum and the minimum is valid.

The maximum value and minimum value can be set using Programming Command. Please check the programming command guide for the detail.

Interleaved 2 of 5 max length command: 020404. The parameter of this command can be set from min to 80.

Interleaved 2 of 5 min length command: 020403. The parameter of this command can be set from 2 to max.

Example: Set the Barcode Message length of the minimum value is 10; the maximum value is 25.

### Programming command

Max: 02040425.

Min: 02040310.

### Interleaved 2 of 5 Check Digit



**No check Char (default)**



**Validate and Transmit**



**Validate not Transmit**



## 5.2.7 Matrix 2 of 5

### Restore Factory Defaults

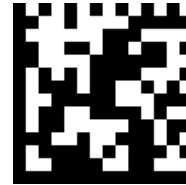


Restore the Factory Defaults of Matrix 2 of 5 (default)

### Enable/Disable Matrix 2 of 5



Enable Matrix 2 of 5



Disable Matrix 2 of 5 (default)

Message length can be set to the maximum value, minimum value. The value is valid between the maximum and the minimum.

The maximum value and minimum value can be set using Programming command. Please check the programming command guide for the detail.

Matrix 2 of 5 max length command: 020803. The parameter of this command can be set from min to 80.

Matrix 2 of 5 min length command: 020802. The parameter of this command can be set from 1 to max.

Example: Set the Barcode Message length of the minimum value is 10; the maximum value is 25.

Programming command

Max: 02080325.

Min: 02080210.

## 5.2.8 Industrial 2 of 5

### Restore Factory Defaults



Restore the Factory Defaults of Industrial 2 of 5 (default)

### Enable/Disable Industrial 2 of 5



Enable Industrial 2 of 5



Disable Industrial 2 of 5 (default)

### Message Length

Message length can be set to the maximum value, minimum value. The value is valid between the maximum and the minimum.

The maximum value and minimum value can be set using Programming command. Please check the programming command guide for the detail.

Industrial 2 of 5 max length command: 020603. The parameter of this command can be set from min to 48.

Industrial 2 of 5 min length command: 020602. The parameter of this command can be set from 1 to max.

Example: Set the Barcode Message length of the minimum value is 10; the maximum value is 25.

### Programming command

Max: 02060325.

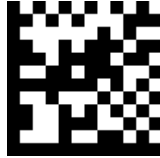
Min: 02060210.

## 5.2.8 Industrial 2 of 5

---

## 5.2.9 Code 39

### Restore Factory Defaults



Restore the Factory Defaults of Code 39 (default)

### Enable/Disable Code 39



Enable Code 39 (default)



Disable Code 39

### Transmit Start/Stop Character

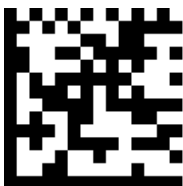


Transmit Start/Stop Character

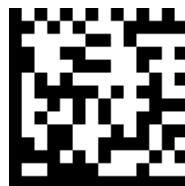


Do not Transmit Start/Stop Character (default)

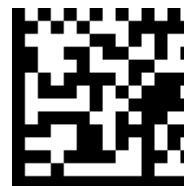
### Code 39 Check Character



No Check Char (default)



Validate and Transmit



Validate no Transmit

## Code 39 Append

This function allows the scanner to append several Code 39 barcode data together before transmitting to host. When the scanner encounters a Code 39 barcode with append character (ex. Space character), it buffers the data until it reads a Code 39 barcode which does not have append character. Then the data is transmitted in the order that the barcodes were read.



Enable Append



Disable Append (default)

## Code 39 Full ASCII



Enable Code 39 Full ASCII



Disable Code 39 Full ASCII (default)

## Code 39 Code Page

Code 39 code pages define the mapping of character codes to characters.



Code 39 Code page (default)

## Message Length

Message length can be set to the maximum value, minimum value. The value is valid between the maximum and the minimum.

The maximum value and minimum value can be set using Programming command. Please check the programming command guide for the detail.

Code 39 max length command: 020308. The parameter of this command can be set from min to 48.

Code 39 min length command: 020307. The parameter of this command can be set from 0 to max.

Example: Set the Barcode Message length of the minimum value is 10; the maximum value is 25.

Programming command

Max: 02030825.

Min: 02030710.

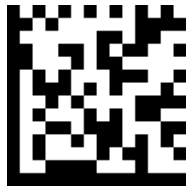
## 5.2.10 Coda bar

### Restore Factory Defaults

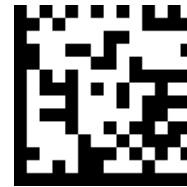


Restore the Factory Defaults of Coda bar (default)

### Enable/Disable Codabar



Enable Coda bar (default)



Disable Coda bar

### Message Length

Message length can be set to the maximum value, minimum value. The data between the maximum and the minimum is valid.

The maximum value and minimum value can be set using Programming command. Please check the programming command guide for the detail.

Coda bar max length command: 020206. The parameter of this command can be set from min to 60.

Coda bar min length command: 020205. The parameter of this command can be set from 2 to max.

Example: Set the Barcode Message length of the minimum value is 10; the maximum value is 25.

### Programming command

Max: 02020625.

Min: 02020510.

## Transmit Start/Stop Character



Transmit Start/Stop Character

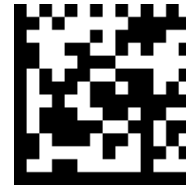


Do not Transmit Start/Stop Character (default)

## Coda bar Check Character



No Check Char (default)



Validate and Transmit



Validate no Transmit

## 5.2.11 Code 93

### Restore Factory Defaults



Restore the Factory Defaults of Code 93 (default)

### Enable/Disable Code 93



Enable Code 93 (default)



Disable Code 93

### Message Length

Message length can be set to the maximum value, minimum value. The data between the maximum and the minimum is valid.

The maximum value and minimum value can be set using Programming command. Please check the programming command guide for the detail.

Code 93 max length command: 020D03. The parameter of this command can be set from min to 80.

Code 93 min length command: 020D02. The parameter of this command can be set from 0 to max.

Example: Set the Barcode Message length of the minimum value is 10; the maximum value is 25.

Programming command

Max: 020D0325.

Min: 020D0210.

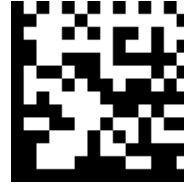


## Code 93 Append

This function allows the scanner to append several Code 93 barcode data together before transmitting to host. When the scanner encounters a Code 93 barcode with append character (ex. Space character), it buffers the data until it reads a Code 93 barcode which does not have append character. Then the data is transmitted in the order that the barcodes were read.



**Enable Code 93 Append**



**Disable Code 93 Append (default)**

## Code 93 Code Page

Code 39 code pages define the mapping of character codes to characters.



**Code93 Code page (default)**

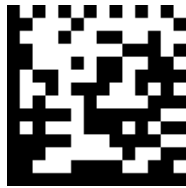
## 5.2.12 GS1-128

### Restore Factory Defaults

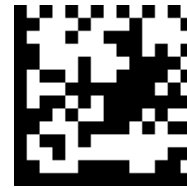


Restore the Factory Defaults of GS1-128 (default)

### Enable/Disable GS1-128



Enable GS1-128 (default)



Disable GS1-128

### Message Length

Message length can be set to the maximum value, minimum value. The data between the maximum and the minimum is valid.

The maximum value and minimum value can be set using Programming command. Please check the programming command guide for the detail.

GS1-128 max length command: 020B03. The parameter of this command can be set from min to 80. GS1-128 min length command: 020B02. The parameter of this command can be set from 0 to max. Example: Set the Barcode Message length of the minimum value is 10; the maximum value is 25.

### Programming command

Max: 020B0325.

Min: 020B0210.

## 5.2.13 MSI

### Restore Factory Defaults



Restore the Factory Defaults of MSI (default)

### *Enable/Disable MSI*



Enable MSI



Disable MSI (default)

### Message Length

Message length can be set to the maximum value, minimum value. The data is valid between the maximum and the minimum.

The maximum value and minimum value can be set using Programming command. Please check the programming command guide for the detail.

MSI max length command: 020E04. The parameter of this command can be set from min to 48.

MSI min length command: 020E03. The parameter of this command can be set from 4 to max.

Example: Set the Barcode Message length of the minimum value is 10; the maximum value is 25.

### Programming command

Max: 020E0425.

Min: 020E0310.

## MSI Check Character



ValidateType10Transmit



ValidateType10 ThenType11CharTransmit



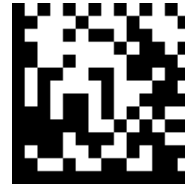
ValidateType10 ThenType11CharNoTransmit



ValidateType10NoTransmit



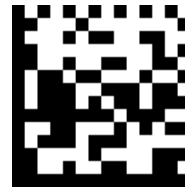
Validate2Type10NoTransmit (default)



Validate2Type10CharTransmit



Validate2Type10CharNoTransmit



DisableMSICheck

## 5.3 2D Symbologies

### 5.3.1 PDF 417

#### Restore Factory Defaults



Restore the Factory Defaults of PDF 417 (default)

#### Enable/Disable PDF 417

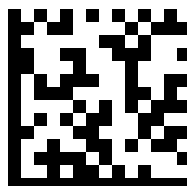


Enable PDF 417 (default)

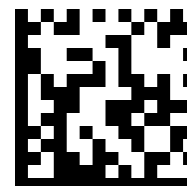


Disable PDF 417

#### Enable/Disable Micro PDF 417



Enable Micro PDF 417



Disable Micro PDF 417 (default)

#### Message Length

Message length can be set to the maximum value, minimum value. The data is valid between the maximum and the minimum.

The maximum value and minimum value can be set using Programming command. Please check the programming command guide for the detail.

PDF417 max length command: 021F06. The parameter of this command can be set from min to 2750.

PDF417 min length command: 021F05. The parameter of this command can be set from 1 to max.

Example: Set the Barcode Message length of the minimum value is 10; the maximum value is 25.

Programming command

Max: 021F0625

Min: 021F0510.

## 5.3.2 QR Code

### Restore Factory Defaults



Restore the Factory Defaults of QR Code (default)

### Enable/Disable QR Code



Enable QR Code (default)



Disable QR C

### Message Length

Message length can be set to the maximum value, minimum value. The data is valid between the maximum and the minimum is valid.

The maximum value and minimum value can be set using Programming command. Please check the programming command guide for the detail.

QR max length command: 023703. The parameter of this command can be set from min to 7089.

QR min length command: 023702. The parameter of this command can be set from 1 to max.

Example: Set the Barcode Message length of the minimum value is 10; the maximum value is 25.

Programming command

Max: 02370325.

Min: 02370210.

## QR Code Append

This function allows the scanner to append several QR barcode data together before transmitting to host. When the scanner encounters a QR barcode with append character (ex. Space character), it buffers the data until it reads a QR barcode which does not have append character. Then the data is transmitted in the order that the barcodes were read.



**Enable QR code Append (default)**



**Disable QR code Append**

## QR Code Page

QR code pages define the mapping of character codes to characters.



**QR Code Page (default)**



## 5.3.3 Data Matrix

### Restore Factory Defaults



**Restore the Factory Defaults of Data Matrix (default)**

### Enable/Disable Data Matrix



**Enable Data Matrix (default)**



**Disable Data Matrix**

### Message Length

Message length can be set to the maximum value, minimum value. The data is valid between the maximum and the minimum.

The maximum value and minimum value can be set using Programming command. Please check the programming command guide for the detail.

Data Matrix max length command: 023603. The parameter of this command can be set from min to 3116.

Data Matrix min length command: 023602. The parameter of this command can be set from 1 to max.

Example: Set the Barcode Message length of the minimum value is 10; the maximum value is 25.

Programming command

Max: 02360325.

Min: 02360210.



**Data Matrix Code Page (default)**

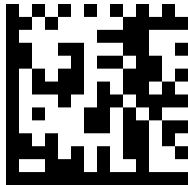
## 5.3.4 Maxi code

### Restore Factory Defaults



Restore the Factory Defaults of Maxi code (default)

### Enable/Disable Maxi code



Enable Maxi code



Disable Maxi code (default)

### Message Length

Message length can be set to the maximum value, minimum value. The data is valid between the maximum and the minimum.

The maximum value and minimum value can be set using Programming command. Please check the programming command guide for the detail.

Maxi Code max length command: 023403. The parameter of this command can be set from min to 150.

Maxi Code min length command: 023402. The parameter of this command can be set from 1 to max.

Example: Set the Barcode Message length of the minimum value is 10; the maximum value is 25.

### Programming command

Max: 02340325.

Min: 02340210.

## 5.3.5 Aztec

### Restore Factory Defaults



Restore the Factory Defaults of Aztec (default)

### Enable/Disable Aztec



Enable Aztec (default)



Disable Aztec

### Message Length

Message length can be set to the maximum value, minimum value. The data is valid between the maximum and the minimum.

The maximum value and minimum value can be set using Programming command. Please check the programming command guide for the detail.

Aztec max length command: 023306. The parameter of this command can be set from min to 3832.

Aztec min length command: 023305. The parameter of this command can be set from 1 to max.

Example: Set the Barcode Message length of the minimum value is 10; the maximum value is 25.

### Programming command

Max: 02330625.

Min: 02330510.

### Aztec Append



Enable Aztec Append (default)



Disable Aztec Append

## 5.3.6 Hanxin

### Restore Factory Defaults



Restore the Factory Defaults of Hanxin (default)

### Enable/Disable Hanxin



Enable Hanxin



Disable Hanxin (default)

### Message Length

Message length can be set to the maximum value, minimum value. The data is valid between the maximum and the minimum.

The maximum value and minimum value can be set using Programming command. Please check the programming command guide for the detail.

Hanxin max length command: 023803. The parameter of this command can be set from min to 7833.

Hanxin min length command: 023802. The parameter of this command can be set from 1 to max.

Example: Set the Barcode Message length of the minimum value is 10; the maximum value is 25.

### Programming command

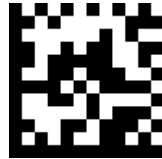
Max: 02380325.

Min: 02380210

## 5.4 Postal Symbologies

### 5.4.1 China Postal Code

Restore Factory Defaults



Restore the Factory Defaults of China Postal Code (default)

Enable/Disable China Postal Code



Enable China Postal Code



Disable China Postal Code (default)

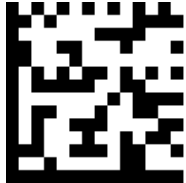
## 5.4.2 Telepen

Restore Factory Defaults



Restore the Factory Defaults of Telepen (default)

Enable/Disable Telepen



Enable China Telepen



Disable China Telepen (default)

## 6 Appendix

### 6.1 Appendix 1: AIM ID Table

Symbology	AIM ID	Remark
EAN-13	JE0	Standard EAN-13
	JE3	EAN-13 + 2/5-Digit Add-On Code
EAN-8	JE4	Standard EAN-8
	JE4...JE1...	EAN-8 + 2-Digit Add-On Code
	JE4...JE2...	EAN-8 + 5-Digit Add-On Code
UPC-E	JE0	Standard UPC-E
	JE3	UPC-E + 2/5-Digit Add-On Code
UPC-A	JE0	Standard UPC-A
	JE3	UPC-A + 2/5-Digit Add-On Code
Code 128 GS1-	JC0	Standard Code 128
128 (UCC/EAN-128)	JC1	FNC1 is the character right after the start character
AIM-128 ISBT-	JC2	FNC1 is the 2nd character after the start character
128	JC4	
Interleaved 2 of 5	Jl0	No parity check
	Jl1	Transmit check digit after parity check
	Jl3	Do not transmit check digit after parity check
ITF-6	Jl1	Transmit check digit
	Jl3	Do not transmit check digit
ITF-14	Jl1	Transmit check digit
	Jl3	Do not transmit check digit
Industrial 2 of 5	JS0	Not specified
Standard 2 of 5	JR0	No parity check
	JR8	One check digit, MOD10; do not transmit check digit
	JR9	One check digit, MOD10; transmit check digit
Code 39	JA0	Transmit barcodes as is; Full ASCII disabled; no parity check
	JA1	One check digit, MOD43; transmit check digit
	JA3	One check digit, MOD43; do not transmit check digit
	JA4	Full ASCII enabled; no parity check
	JA5	Full ASCII enabled; transmit check digit
	JA7	Full ASCII enabled; do not transmit check digit
Codabar	JF0	Standard Codabar
	JF2	Transmit check digit after parity check
	JF4	Do not transmit check digit after parity check

Symbology	AIM ID	Remark
<b>Code 93</b>	JG0	Standard Code 93
<b>Code 11</b>	JH0	One check digit MOD11; transmit check digit
	JH1	Two check digits, MOD11/MOD11; transmit check digit
	JH3	Do not transmit check digit after parity check
	JH9	No parity check
<b>GS1-DataBar (RSS)</b>	Je0	Standard GS1-DataBar
<b>Plessey</b>	JP0	Standard Plessey
<b>MSI-Plessey</b>	JM0	One check digit, MOD10; transmit check digit
	JM1	One check digit, MOD10; do not transmit check digit
	JM8	Two check digits
	JM9	No parity check
<b>Matrix 2 of 5</b>	JX0	Specified by the manufacturer
	JX1	No parity check
	JX2	One check digit, MOD10; transmit check digit
	JX3	One check digit, MOD11; do not transmit check digit
<b>ISBN</b>	JX4	Standard ISBN
<b>ISSN</b>	JX5	Standard ISSN
<b>PDF417</b>	JL0	Comply with 1994 PDF417 specifications
<b>Data Matrix</b>	Jd0	ECC000 - ECC140
	Jd1	ECC200
	Jd2	ECC200, FNC1 is the 1st or 5th character after the start character
	Jd3	ECC200, FNC1 is the 2nd or 6th character after the start character
	Jd4	ECC200, ECI included
	Jd5	ECC200, FNC1 is the 1st or 5th character after the start character, ECI included
	Jd6	ECC200, FNC1 is the 2nd or 6th character after the start character, ECI included
<b>QR Code</b>	JQ0	QR1
	JQ1	2005 version, ECI excluded
	JQ2	2005 version, ECI included
	JQ3	QR Code 2005, ECI excluded, FNC1 is the 1st character after the start character
	JQ4	QR Code 2005, ECI included, FNC1 is the 1st character after the start character
	JQ5	QR Code 2005, ECI excluded, FNC1 is the 2nd character after the start character
	JQ6	QR Code 2005, ECI included, FNC1 is the 2nd character after the start character

**Reference:** ISO/IEC 15424:2008 Information technology – Automatic identification and data capture techniques – Data Carrier

Identifiers (including Symbology Identifiers).



## 6.2 Appendix 2: ASCII Table

Hex	Dec	Char
00	0	NUL (Null char.)
01	1	SOH (Start of Header)
02	2	STX (Start of Text)
03	3	ETX (End of Text)
04	4	EOT (End of Transmission)
05	5	ENQ (Enquiry)
06	6	ACK (Acknowledgment)
07	7	BEL (Bell)
08	8	BS (Backspace)
09	9	HT (Horizontal Tab)
0a	10	LF (Line Feed)
0b	11	VT (Vertical Tab)
0c	12	FF (Form Feed)
0d	13	CR (Carriage Return)
0e	14	SO (Shift Out)
0f	15	SI (Shift In)
10	16	DLE (Data Link Escape)
11	17	DC1 (XON) (Device Control 1)
12	18	DC2 (Device Control 2)
13	19	DC3 (XOFF) (Device Control 3)
14	20	DC4 (Device Control 4)
15	21	NAK (Negative Acknowledgment)
16	22	SYN (Synchronous Idle)
17	23	ETB (End of Trans. Block)
18	24	CAN (Cancel)
19	25	EM (End of Medium)
1a	26	SUB (Substitute)
1b	27	ESC (Escape)
1c	28	FS (File Separator)
1d	29	GS (Group Separator)
1e	30	RS (Request to Send)
1f	31	US (Unit Separator)

Hex	Dec	Char
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)

Hex	Dec	Char
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)

Hex	Dec	Char
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)

## 6.3 Appendix 3: Digit Barcodes

