



# **L6BL Barcode Scanner User Manual**

*Release v1.1.1*

**2026-09-02**

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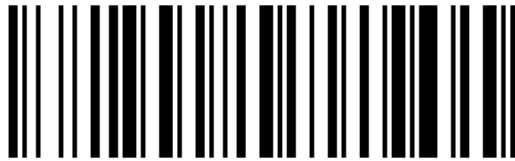
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# 1 System Settings

## 1.1 Read Firmware Version



Read Firmware Version

## 1.2 Restore Factory Defaults

### Note

If Write Custom Defaults has been performed, Restore Defaults restores those custom defaults; otherwise it restores factory defaults.

### Important

Set Factory Defaults clears all custom defaults and restores factory defaults.



Restore custom defaults



Write custom default values



Set factory defaults

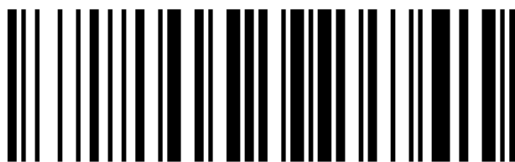
## 1.3 Work Mode

### Note

During the data upload process, if you scan the “data upload” command again, the current upload will be canceled or stopped.

**Note**

In wireless transmission mode, if automatic storage is turned on, barcodes that fail to be transmitted will be automatically saved, and the stored data can be read through “data upload” .



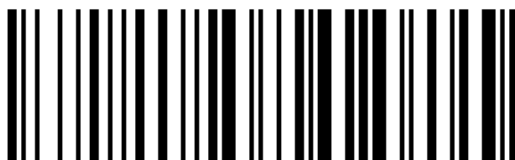
\* Normal mode



storage mode



Upload storage data



Read the total number of stored barcodes



Clear storage data after uploading



Read storage space usage



Clear stored barcode



\* Autosave mode off



Automatic storage mode is on

## 2 Power management

### 2.1 Read sleep time



Read sleep time

### 2.2 Set sleep time



Hibernate now



Sleep after 1 minute



Sleep after 3 minutes (default)



Sleep after 5 minutes



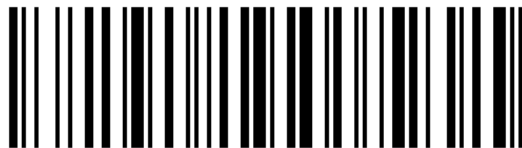
Sleep after 10 minutes



Sleep after 30 minutes



Sleep after 1 hour



Sleep after 2 hours



never sleep

## 2.3 Get Barcode Reader battery level



Get battery level

## 3 Feedback Indicators

### 3.1 Buzzer control



Mute



\* high volume



medium volume



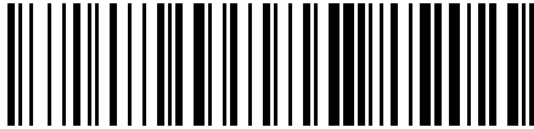
low volume



\* high pitch



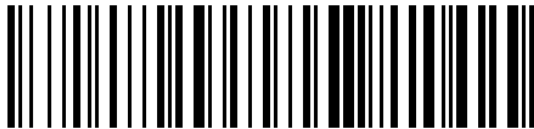
low pitch



\* SDK voice response off



SDK voice response enabled



Base connection buzzer prompt switch

## 3.2 Vibration motor control

### Note

The vibration motor works with a beep prompt, not all models support this feature.



Disable



Enable

### 3.3 Buzzer sound definition

| Type        | Sound                           | Description                                               | Preview                                                                          |
|-------------|---------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------|
| Beep        | Single tone (2 pitches)         | Storage mode decode; power-off prompt.                    | <b>Storage-mode scan</b><br>storage-mode.m4a <b>Power off</b><br>shutdown.m4a    |
| Beep        | Single tone (3 pitches)         | Power-on prompt; setting saved; upload complete.          | <b>Power on</b><br>startup.m4a <b>Setting successful</b><br>wireless-setting.m4a |
| Beep        | Short single tone               | Successful decode.                                        | <b>Barcode decoded successfully</b><br>one-beeps.m4a                             |
| Beep        | 30-second continuous short tone | 2.4G pairing waits for the receiver; stops after pairing. | <b>2.4G pairing</b><br>pair2.4G.m4a                                              |
| Alarm sound | Two tones (same pitch)          | Low-battery alarm during decoding.                        | <b>Low battery</b><br>two-beeps.m4a                                              |
| Alarm sound | Three tones (same pitch)        | Inventory storage error or capacity exceeded.             | <b>Storage error or capacity alarm</b><br>three-beeps.m4a                        |
| Alarm sound | Transmission Failure Beep       | Alarm when barcode transmission fails.                    | No audio available                                                               |
| Alarm sound | Five tones (same pitch)         | Boot failure caused by low battery.                       | <b>Low-battery power-on failure</b><br>five-beeps.m4a                            |

### 3.4 Indicator definition

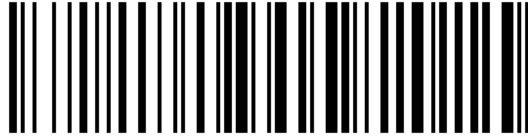
| Indicator               | Status                                                                                                                                                                                              |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| red light / green light | When charging, the red light is on and the green light is off; when fully charged, the red light is off and the green light is on.                                                                  |
| blue light              | Following the buzzer action, the buzzer lights up when it sounds and goes out when it does not sound; models that support Bluetooth mode are also used to indicate the Bluetooth connection status. |

## 4 wired mode

#### Note

Only applicable to Barcode Readers that support wired transmission.

### 4.1 USB transfer method



\* USB keyboard mode



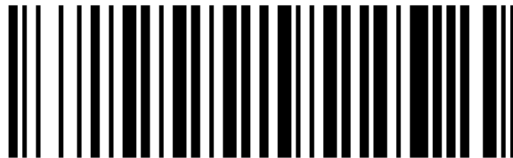
USB Virtual COM Port mode

**Note**

After the automatic interface selection is turned on, the device will automatically switch between wired and wireless; when plugging in the USB cable, the wired mode will be used first. When the USB cable is not plugged in or USB is unavailable, the Barcode Reader works in 2.4G mode. Some models may not support this feature.



\* Wired/wireless automatic selection turns on



Wired/wireless automatic selection off

## 4.2 USB keyboard transfer speed

**Note**

This setting also affects the speed of RF and Bluetooth transmission of very long barcodes and stored data uploads.



\* top speed



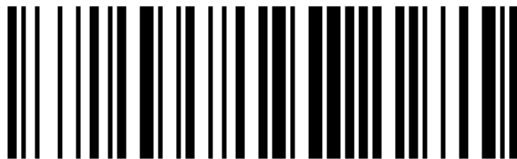
top speed



Medium speed



Medium speed



Read keyboard speed



Read keyboard speed

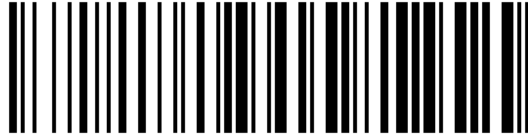
### 4.3 USB HID multi-key send settings

#### Note

The settings in this section are only applicable to Windows systems.



USB HID multi-key sending enabled



\* USB HID multi-key sending off

## 5 wireless mode

### **Note**

Only suitable for Barcode Readers that support 2.4G transmission.

### 5.1 Read Interface Settings



Current Interface Settings

### 5.2 Wireless transmission method

### **Note**

The blue light is always on or flashing to indicate that it is currently in Bluetooth mode; the blue light is off to indicate that it is currently in 2.4G mode or USB wired mode.



2.4G transmission mode

### 5.3 2.4G pairing

### **Important**

Only valid in wireless 2.4G mode.



one-to-one pairing



One-to-many pairing

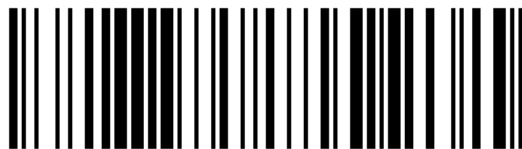
## 5.4 Receiver working mode

### Note

Composite device mode is only available on receivers running FWVerL or later. You can also use `ReceiverAddress.exe` to generate a pairing barcode and complete pairing by scanning it.



Receiver as composite device



Receiver as virtual serial port

### Note

This mode requires the virtual serial port driver to be installed.



receiver as keyboard

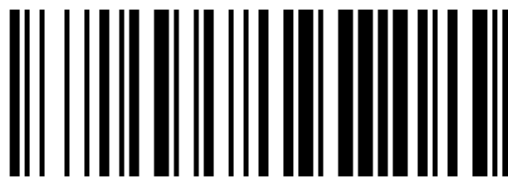
## Receiver keyboard transmission speed

### Note

The instructions in this section are only applicable to receivers of FWVerL and above. The transmission speeds of the Barcode Reader and receiver must match, otherwise errors may occur when transmitting long barcodes.

### Important

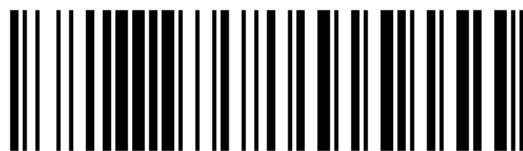
This command is only valid in wireless 2.4G mode and the receiver is connected normally.



Read keyboard speed

### Example

KB SP=2, 4 represents a USB keyboard speed of 2ms and a receiver keyboard speed of 4ms.



receiver keyboard high speed



Receiver Keyboard Medium Speed



Receiver Keyboard Low Speed

### Note

It is only valid in wireless 2.4G mode and the receiving end receives normally.

## 5.5 2.4G transmission cache

### **Note**

This command is only available on some Barcode Readers that support this feature. After scanning the Parameter Barcode, two short beeps indicate disabled, and one three-tone beep indicates enabled.

When scanning ordinary barcodes, if the amount of barcode data is large and the scanning interval is short, and the data is not uploaded in time, you can use this Parameter Barcode to turn on or off data caching.



SRAM cache switch

In normal mode, after data caching is turned on, if the device briefly leaves the communication distance and enters offline state, you can use this setting to choose to wait for connection before uploading the cached data, or to clear the cached data.



Offline caching switch

## 6 Bluetooth Mode

### **Note**

Only suitable for RF+BT Barcode Readers with Bluetooth function.

### 6.1 Read Interface Settings



Current Interface Settings

### 6.2 Bluetooth Transmission Mode

**Note**

The blue light is always on or flashing to indicate that it is currently in Bluetooth mode; the blue light is off to indicate that it is currently in 2.4G mode or USB wired mode.



Bluetooth Transmission

## 6.3 Bluetooth Operating Mode

**Note**

Valid only in Bluetooth mode.

**Note**

Before switching the Bluetooth working mode, you need to clear the pairing information between the host device and the Barcode Reader.



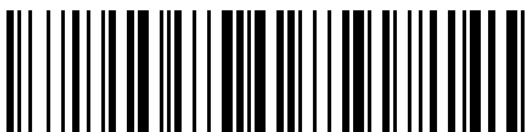
Bluetooth HID Keyboard (Default)



Bluetooth SPP Serial Port



Bluetooth BLE Serial Port



Bluetooth cradle transmission mode

#### Note

It is suitable for pairing with a Bluetooth cradle that has already been paired. When the barcode on the base is damaged, you can also use the gadget BluetoothAddress.exe to generate a pairing barcode.

## 6.4 Change Bluetooth Name

After entering the new Bluetooth name, scan the generated QR code to complete the setup. If the host has saved old pairing records after modification, please delete the old pairing first and search for connection again.

If the interactive HTML tool is unavailable, replace the placeholders as described in this section and verify the command.

```
AT+NAME=<bluetooth-name>
```

## 6.5 Clear Bluetooth HID Pairing

After scanning “Clear Pairing” in Bluetooth transmission mode, the Barcode Reader will disconnect the currently paired device and clear the pairing list, then wait for new devices to be paired. Historically paired devices need to be deleted and paired again.



Clear Bluetooth Pairing

## 6.6 System Keyboard Functions

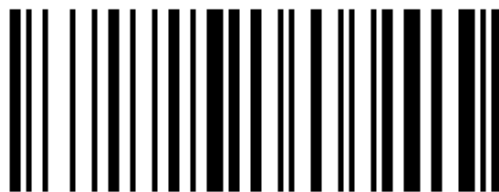
### iOS system pop-up keyboard function



iOS pop up/hide keyboard



Press and hold the Trigger Button for 4 seconds to toggle the iOS on-screen keyboard



Double-press the Trigger Button to toggle the iOS on-screen keyboard



Pop up iOS keyboard switch after sending

## Windows Caps Lock detection

### Note

This command is only available on some Bluetooth Barcode Readers. After scanning the Parameter Barcode, two short beeps indicate disabled, and one three-tone beep indicates enabled.

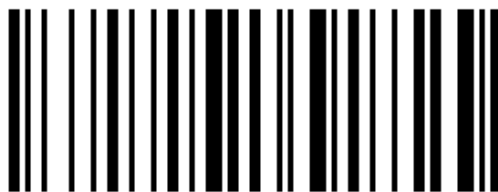


Windows Caps Lock detection switch

## 6.7 Switch between Bluetooth and 2.4G by pressing and holding for 8 seconds

### Note

This command is only available on some RF+BT Barcode Readers (DS, C, RT). When enabled, press and hold the Trigger Button for more than 8 seconds and release it to switch between RF and BT. If you hold it for more than 16 seconds, the Barcode Reader powers off and the mode does not switch. After scanning the Parameter Barcode, two short beeps indicate disabled, and one three-tone beep indicates enabled.

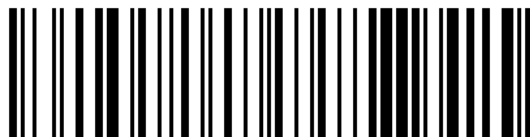


Press and hold the Trigger Button for 8 seconds to toggle RF/BT switching

## 6.8 Bluetooth keyboard transmission speed

### Note

Valid only in Bluetooth mode.



Read Bluetooth HID delay



High speed (2 ms)



High speed (6 ms)



\* Medium speed (10 ms)



Medium speed (18 ms)



Low speed (25 ms)

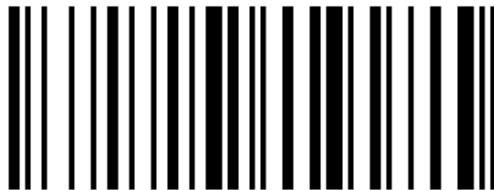


Low speed (30 ms)

## 6.9 Bluetooth connection status non-sleep setting

### Note

After scanning the Parameter Barcode, two short beeps indicate disabled, and one three-tone beep indicates enabled.



Bluetooth connection status non-sleep switch

## 7 Keyboard Settings

### 7.1 HID Keyboard General Setting

#### General HID Settings

### Note

The general HID settings in this section apply to USB Keyboard, RF 2.4G Keyboard, and Bluetooth HID Keyboard modes.

#### Ctrl key combination settings



\\* Combine-Key Off



Ctrl+ Key Config1



Alt+ Key Config2



Normal-Key Config3



Ctrl+ Key Config4



Alt+ Key Config5

**Note**

only for ASCII <0x20 chars, Alt+ key only for Windows system.

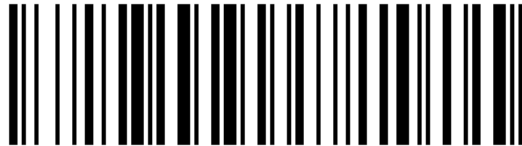
## Case settings



normal



Swap case



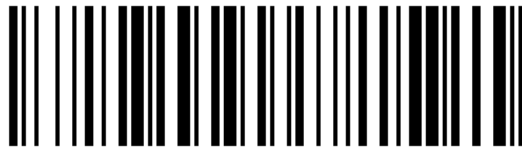
all caps



all lowercase

Case conversion does not apply when the keyboard layout is set to ALT or TH.

### Num Lock Settings



Disable Num Lock



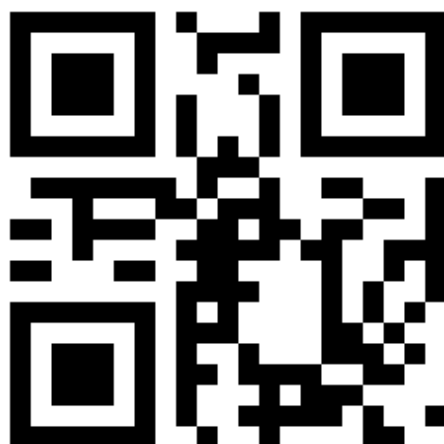
Num Lock on

\*When the receiving device is a mobile phone, you need to keep the Num Lock off setting, otherwise the numbers will not be displayed.

### Enter character set settings

#### Note

Applicable only to certain mod' s of 2D Barcode Readers, this setting matches the 2D module' s output character set.



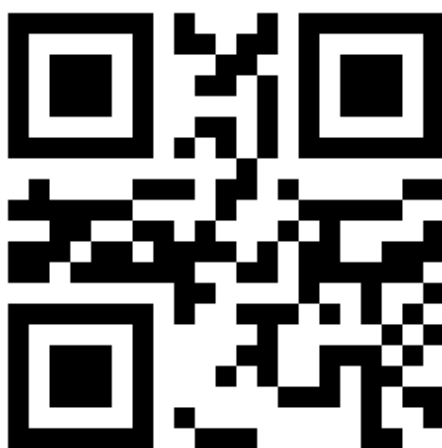
Read the current character set settings



Auto



GBK / BIG5 / HANGUL / SJIS



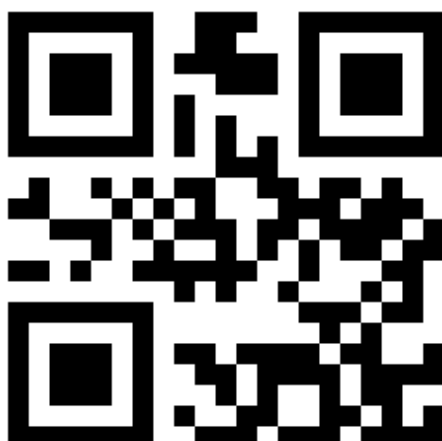
ISO/IEC 8859



UTF8 (Word)



UTF8 (Txt)



Normal mode

Note:

| model        | Applicable scenarios                                                                                                        | Scan Engine Output Character Set | limit                                                   |
|--------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------------------------------|
| Auto         | Automatically select the input character set as UTF8 or ISO/IEC 8859; Word or Txt output is based on the last UTF8 setting. | primitive type                   | none                                                    |
| GBK          | Windows Notepad, Excel Chinese input.                                                                                       | GBK (GB2312) or original type    | Applies to Windows systems only.                        |
| UTF8 (Word)  | Word, QQ Chinese input.                                                                                                     | UTF8 or primitive type           | Applies to Windows systems only.                        |
| ISO/IEC 8859 | European single-byte special characters ( $\geq C0H$ ), applicable to FR, GE, TR, PT, ES, CS, IT, UK, HU, SK.               | primitive type                   | Languages not listed need to be added by customization. |
| UTF8 (Txt)   | To input special characters in Windows Notepad, you need to install the Unicode plug-in.                                    | UTF8 or primitive type           | Applies to Windows systems only.                        |
| Normal       | Multi-language special characters, suitable for characters on FR, GE, TR, PT, ES, CS, IT, UK, HU, SK keyboards.             | UTF8 or primitive type           | Languages not listed need to be added by customization. |

## Receiving device selection

**Note**

This section configures how different host devices enter ASCII characters (0x20 to 0x7F). Use it together with [Keyboard Layout Settings](#).



Read the current receiving device settings



Windows device



iPhone/iPad/Mac devices



Android device

\*IOS/MAC devices are currently valid: FR, DE, TR, PT, ES, CS, IT, UK, HU, SK. Please refer to the document “MAC iphone ipad keyboard layout for barcode scanner.docx”

\*It is recommended to install Google Gboard input method uniformly on Android devices. Please refer to the document “Android device keyboard layout for barcode scanner.docx”

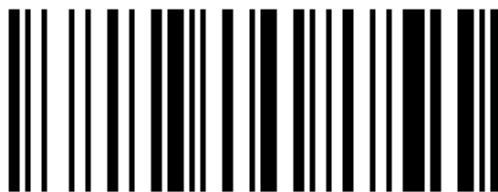
## 7.2 Keyboard language settings

**See also**

Keyboard language settings have been split into a separate page: [Keyboard Language Settings](#).

# 8 Keyboard Language

## 8.1 Read the current keyboard layout



Read the current keyboard layout

**L1 \*ENUSA EN key**



\* US English keyboard

**L2 FR France French key**



French French keyboard

**L3 DE Germany key**



german german keyboard

**L4 IT Italy Italy key**



Italian keyboard

**L5 PT Portugal Portugal key**



Portuguese keyboard

**L6 ES Spain Spain key**



spanish keyboard

**L7 TR Turkey Turkey key**



Turkish Q keyboard



Turkish F keyboard

**L8 ENUK UK key**



British English keyboard

**L9 CS Czech Czech key**



Czech keyboard



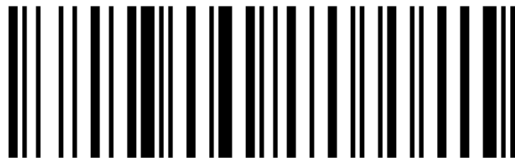
Czech standard keyboard

**L10 HU Hungary Hungary key**



Hungarian keyboard

**L11 FR Belgium (French) Belgium FR Key**



Belgian French keyboard

**L12 PT Brazil (Portuguese) Brazil PT Key**



Brazilian Portuguese keyboard

**L13 FR Canadian French (Traditional) Canadian FR Key**



Canadian French (traditional) keyboard

**L14 HRCroatia Key**



Croatian keyboard

**L15 SK Slovak Key**



Slovak QWERTY keyboard



Slovak keyboard

**L16 DA Denmark Denmark Key**



Danish keyboard

**L17 FI Finland Key**



Finnish keyboard

**L18 ES Latin America (Spanish) Latin-America ES Key**



Latin American Spanish keyboard

**L19 NL Netherlands Netherlands Key**

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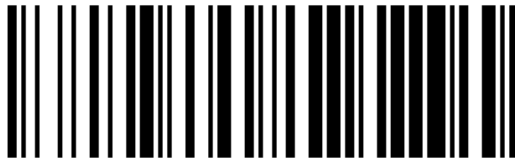
Dutch keyboard

**L20 NO Norway Norway Key**



Norwegian keyboard

**L21 PL Poland Poland Key**



Polish keyboard

**L22 SR Serbia (Latin) Serbia Key**



Serbian Latin keyboard

**L23 SL Slovenia Key**



Slovenian keyboard

**L24 SV Sweden Sweden Key**



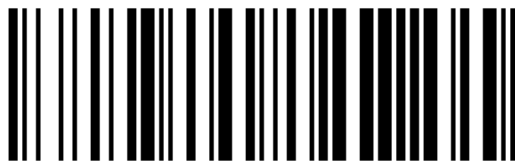
Swedish keyboard

#### L25 DE Switzerland (German) Swiss DE Key



Swiss German keyboard

#### L26 JP Japanese Japanese Key



Japanese keyboard

#### L27 TH Thai Thailand Key

##### Note

When using a Thai keyboard, set the Scan Engine output to TH as well.



Thai keyboard

##### See also

Reference file: RF2.4G, Bluetooth Settings\_Chinese, Thai, Korean.docx.

#### L28 ALT International Keyboard ALT Global Key

##### Note

The ALT international keyboard layout is only available on Windows systems. It is not affected by the host keyboard layout, but it reduces transmission speed.



ALT international keyboard

## L29 ALT Single Byte Special Keyboard ALT Single Byte Special Key



ALT single-byte special character keyboard

### Note

Languages not listed in this section need to be customized to be supported.

## 9 Data Editing

### 9.1 Standard Data Editing Settings

This section describes how to configure common output rules such as prefixes, suffixes, and hidden characters by scanning Parameter Barcodes.

#### Prefix/Suffix and Hidden Character Settings

You can add up to 10 prefixes and/or 10 suffixes to the output data. To configure them, scan the two-digit hexadecimal Numeric Barcodes that correspond to the required ASCII value (that is, two barcodes per character).

#### See also

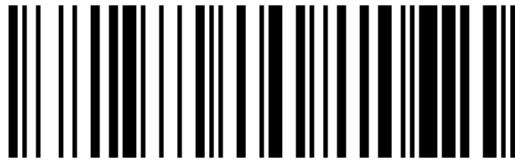
For character values, please refer to *ASCII Function Key Character Reference Table* and *ASCII Character Reference Table*; for parameters that require input of numerical values, please scan *Numeric Barcode*; for specific procedures, see *Add a Prefix or Suffix*.

Can be set to hide the first, middle or last characters of the barcode. After scanning the corresponding hidden Parameter Barcode, scan the two-digit hexadecimal Numeric Barcode corresponding to the length of the characters to be hidden (00~FF, for example, scan 0 and 4 in sequence when hiding 4 characters).

#### See also

See *Steps to Hide the First/Middle/Tail Characters of a Barcode* for the hidden character process.

## Operation Code



Add Prefix



Add Suffix



Clear all prefixes



Clear all suffixes



Hide Leading Characters



Hide Barcode Middle Start Position



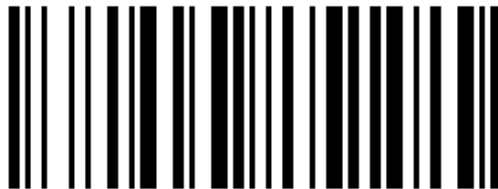
Hide Middle Section Length



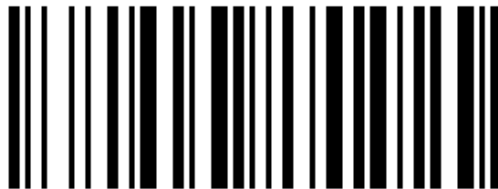
Hide Trailing Characters

## Numeric Barcode

For parameters that require a numeric value, scan the corresponding Numeric Barcodes.



Numeric Barcode 0



Numeric Barcode 1



Numeric Barcode 2



Numeric Barcode 3



Numeric Barcode 4



Numeric Barcode 5



Numeric Barcode 6



Numeric Barcode 7



Numeric Barcode 8



Numeric Barcode 9



Numeric Barcode A



Numeric Barcode B



Numeric Barcode C



Numeric Barcode D



Numeric Barcode E



Numeric Barcode F

## Output Format Settings

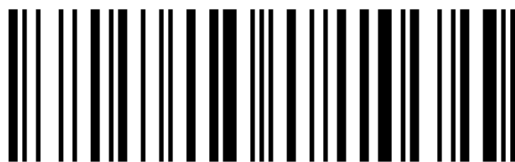
To change the output data format, scan the corresponding Parameter Barcode below.



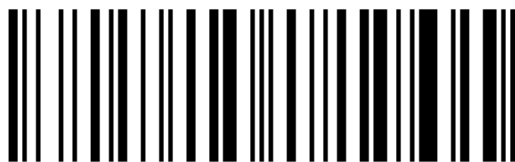
Default Output Format



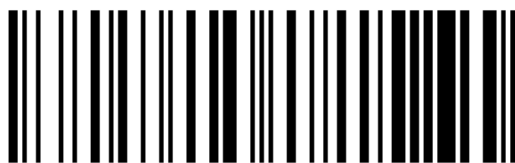
Allow Suffix Output



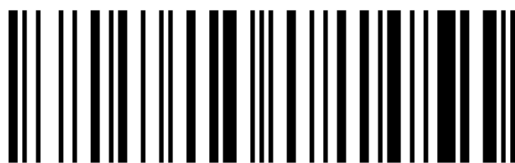
Allow Prefix Output



Allow Hiding Leading Data



Allow Hiding Middle Data



Allow Hiding Trailing Data

## Procedure Examples

### Add a Prefix or Suffix

1. If prefix and suffix output has not been enabled, please scan the corresponding Output Format Parameter Barcode first.
2. New characters are appended to the existing Prefix/Suffix. To replace the current Prefix/Suffix, first scan “Clear All Prefixes/Suffixes” , then configure the new values.
3. Scan the “Add Prefix” or “Add Suffix” Parameter Barcode.
4. Determines the hexadecimal value of the prefix or suffix to be entered based on *ASCII Function Key Character Reference Table* or *ASCII Character Reference Table*.
5. Scan the corresponding two-digit hexadecimal Numeric Barcode.
6. To continue adding characters, repeat steps 4 and 5.

#### Example

If you need to add `Ctrl+A` as a prefix, scan “Add Prefix” “9” “7” “4” “1” in sequence.

#### Example

If you need to add `Ctrl+Alt+A` as a suffix, scan “Add suffix” “9” “7” “9” “9” “4” “1” in sequence.

### Steps to Hide the First/Middle/Tail Characters of a Barcode

1. Scan the Parameter Barcode for the barcode header, middle start position, middle length, or trailing characters.
2. Determine the hexadecimal value corresponding to the character length to be hidden (for example, hide 4 characters scan 0, 4; hide 12 characters scan 0, C).
3. Scan the corresponding two-digit hexadecimal Numeric Barcode.
4. Enable or disable the hidden character function through the Output Format Parameter Barcode.

## 9.2 Extended Data Editing Settings

This section lets you generate data editing Parameter Barcodes from complete commands in one step. It is intended for batch configuration, remote serial-command delivery, or character replacement.

### Online One-Code Setup Generator

#### Note

The online generator is shown only in the HTML manual. After generating a Parameter Barcode, scan the generated barcode to complete the setting, or send the command by serial command using the format below.

## Add Prefix

If the interactive HTML tool is unavailable, replace the placeholders as described in this section and verify the command.

```
$DATA#20<length-hex><content>#
```

## Add Suffix

If the interactive HTML tool is unavailable, replace the placeholders as described in this section and verify the command.

```
$DATA#10<length-hex><content>#
```

## Hide Leading Barcode Characters

If the interactive HTML tool is unavailable, replace the placeholders as described in this section and verify the command.

```
$DATA#50<length-hex>#
```

## Hide Middle Barcode Characters

If the interactive HTML tool is unavailable, replace the placeholders as described in this section and verify the command.

```
$DATA#40<position-hex><length-hex>#
```

## Hide Trailing Barcode Characters

If the interactive HTML tool is unavailable, replace the placeholders as described in this section and verify the command.

```
$DATA#30<length-hex>#
```

## Character Replacement

If the interactive HTML tool is unavailable, replace the placeholders as described in this section and verify the command.

```
$DATA#70<source-length-hex><source><target-length-hex><target>#
```

## One-Code Setup Command Format

Edit format:

```
$DATA#nc11xx#
```

**n**

1 suffix; 2 prefix; 3 hides the tail content of the barcode; 4 hides the middle content of the barcode; 5 hides the first content of the barcode; 7 replaces characters.

**c**

Code ID currently supports only 0, which indicates all symbologies.

11

Length as a hexadecimal value: Prefix/Suffix 01~0A, hidden characters 01~FF, replacement data 01~05.

xx

ASCII value. Hexadecimal can be represented by \x plus two characters, and the character range is 0~9, A~F.

Table 1: One-Code Setup Examples

| Command                | Description                                                        |
|------------------------|--------------------------------------------------------------------|
| \$DATA#1005abcd\x03#   | Add 0x05 suffixes: abcd + 0x03.                                    |
| \$DATA#200ANETUM12345# | Add 0x0A prefix NETUM12345.                                        |
| \$DATA#3008#           | Hide the last 0x08 characters of the barcode.                      |
| \$DATA#40050A#         | Hides the 0x0A characters after the 0x05 character in the barcode. |
| \$DATA#5011#           | Hide barcode header 0x11 bytes.                                    |
| \$DATA#7001\x1D02GS#   | Replace GS (0x1D) characters with GS.                              |
| \$DATA#7002NT01Z#      | Replace NT with Z.                                                 |

### Character replacement operation

Format: \$DATA#70 + replaced character length + replaced characters + replacement data length + replacement data #

The sum of the lengths of the replaced characters and the replacement characters is  $\leq 6$ , supporting 1~6 characters being replaced by 5~0 characters.



Read replacement settings



Clear replacement settings

#### Example

\$DATA#7001\x1D02GS# means replacing the non-displayable character GS (0x1D) with GS for display.



Character replacement operation: GS to text GS

#### **i Example**

\$DATA#7001\x0A01\x0D# means replacing LF (0x0A) with CR (0x0D).



Character replacement operation: LF to CR

#### **i Example**

\$DATA#7006ABCDEF00# means replacing the string ABCDEF with an empty string, that is, not displaying it.

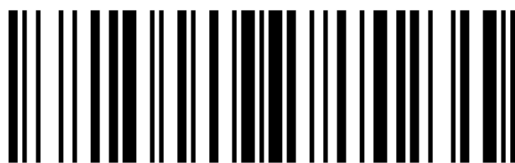
### 9.3 Terminator Settings

#### **i Note**

This terminator is independent of the scan engine suffix and wireless Prefix/Suffix, which facilitates quick setting when the scan engine has no suffix.



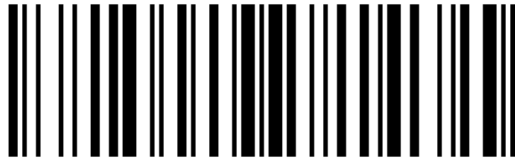
None (Default)



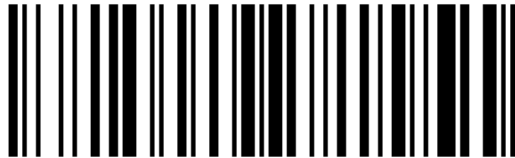
Carriage Return CR



Tab TAB



Carriage Return + Line Feed CRLF

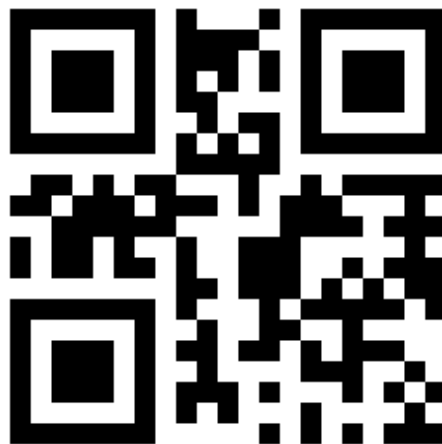


Line Feed LF

## 9.4 GS1 AI field bracket settings

### Note

Only some AI fields are applicable and require special version support.



Raw Format (Default)



Add Parentheses



Add brackets and separate with CR



Add brackets and separate them with TAB

## 10 Scan Mode

### 10.1 Barcode Decode Mode



Key scan mode (default)



Continuous scan mode

#### Note

Continuous Scan Mode is suitable for high-volume scanning workflows. Press the Trigger button once to start or stop scanning.



Key pulse scan mode

**Note**

Scanning starts when a key-level change is detected and maintained for about 30 ms. Scanning stops when another key-level change is detected, or when a decode succeeds or times out.



Host trigger mode (only applicable to some customized models)

**Note**

Host trigger mode is only applicable to some customized models.



Batch scanning mode (only applicable to some customized models)

## Decode Timeout

This parameter sets the maximum time allowed for decoding during a scan attempt. Enter a four-digit value in milliseconds. Default: 3000 ms; range: 0500-9999 ms.



3 seconds (default)



6 seconds

## Scan Interval

This parameter sets the interval between reads in Continuous Mode. Enter a four-digit value in milliseconds. Default: 0500 ms; range: 0100-9999 ms.



0.5 seconds (default)



1 second

## 11 Module Settings

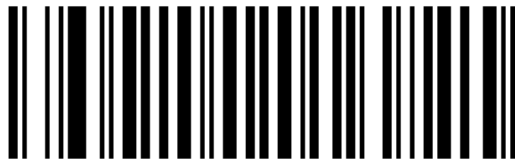
### 11.1 Engine Output Format

#### Terminator Settings

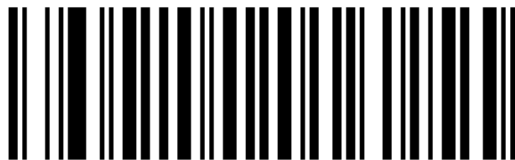
During the use of the Scan Engine, users can add corresponding terminators to the Scan Engine according to their needs.



\* Add Carriage Return CR



TAB



\* Add Newline LF



Add CRLF



Enter 2 Times

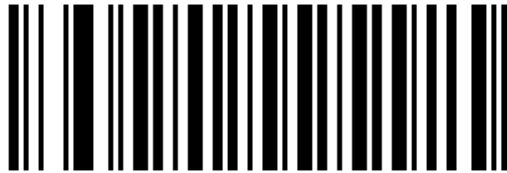


Terminator None

## 11.2 Engine Code ID

### Code ID Settings

When using the Scan Engine, users often need to know the symbology of the currently decoded barcode. You can use the Code ID prefix to identify the barcode type. For the symbology corresponding to each Code ID, refer to *Code ID and Symbology Reference Table*. Code ID is hidden by default.



\* None



Enable Barcode ID (Prefix)



Enable Barcode ID (Suffix)

## Code ID and Symbology Reference Table

| No. | Code ID | Barcode Type ID (for Prefix/Suffix) | Symbology           |
|-----|---------|-------------------------------------|---------------------|
| 1   |         | 00/01                               | All Symbologies     |
| 2   | A       | 02                                  | Code 128            |
| 3   | C       | 03                                  | EAN-8               |
| 4   | D       | 04                                  | EAN-13              |
| 5   | D       | 05                                  | ISBN                |
| 6   | E       | 06                                  | UPC-A               |
| 7   | F       | 07                                  | UPC-E               |
| 8   | I       | 08                                  | Code 93             |
| 9   | J       | 09                                  | GS1 Omnidirectional |
| 10  | K       | 10                                  | GS1 Limited         |
| 11  | L       | 11                                  | GS1 Expanded        |
| 12  | M       | 12                                  | Code 39             |
| 13  | N       | 13                                  | Interleaved 2 of 5  |
| 14  | O       | 14                                  | Industrial 2 Of 5   |
| 15  | P       | 15                                  | China Post          |
| 16  | Q       | 16                                  | Matrix 2 of 5       |
| 17  | S       | 17                                  | MSI                 |
| 18  | T       | 18                                  | Plessey             |
| 19  | t       | 19                                  | Telepen             |
| 20  | U       | 20                                  | Code 11             |
| 21  | V       | 21                                  | Codabar             |

## 11.3 Barcode Settings

### Setup Instructions

Each symbology has its own unique attributes. Through the code setting in this chapter, the Scan Engine can be adjusted to adapt to these attribute changes. The fewer symbologies with “Allow Reading” enabled, the faster the Scan Engine will read. You can disable the Scan Engine from reading unused symbologies to improve the performance of the Scan Engine.

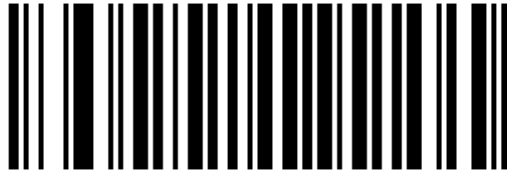
### EAN/UPC symbology Settings

#### EAN-8

#### Enable/disable



\* Enable EAN-8



Disable EAN-8

### Check Digit Transmission

EAN-8 data contains 8 digits. The 8th digit is the check digit, which validates the first 7 digits. By default, the check digit is transmitted; you can disable its transmission.



\* Send Check Digit



No Check Digit Sent



EAN-8 Hide Leading Characters

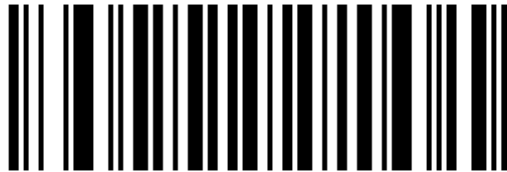


\* EAN-8 Does Not Hide Leading Characters

## Supplemental Decode



Enable 2-digit Add-on Code



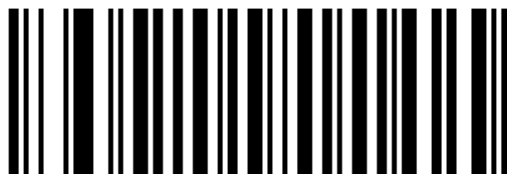
Enable 5-digit Add-on Code



Enable 2-digit And 5-digit Add-on Codes



\* Disable Additional Codes



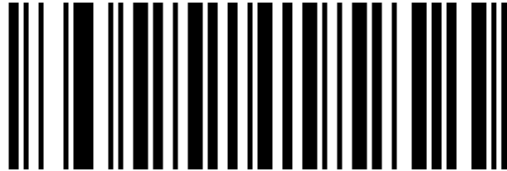
Force Additional Code To Be Enabled

## EAN-13

### Enable/disable



\* Enable EAN-13

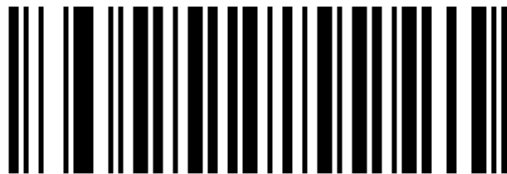


Disable EAN-13

## Redundancy



Enable UPC/EAN Redundancy



\* Disable UPC/EAN Redundancy



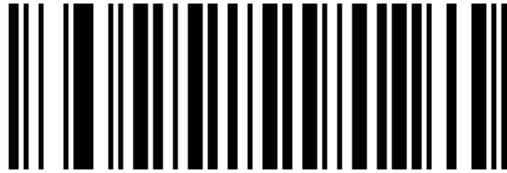
\*UPC/EAN Security Level 0



UPC/EAN Security Level 1

## Check Digit Transmission

EAN-13 data contains 13 digits. The 13th digit is the check digit, which validates the first 12 digits. By default, the check digit is transmitted; you can disable its transmission.

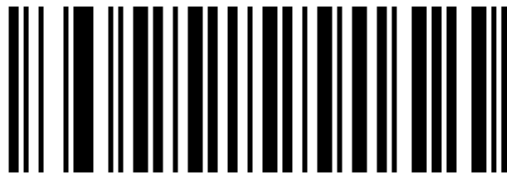


\* Send Check Digit



No Check Digit Sent

## Leading Character Transmission



\* EAN-13 Send Leading Character



EAN-13 Does Not Send Leading Characters

## Supplemental Decode



Enable 2-digit Add-on Code



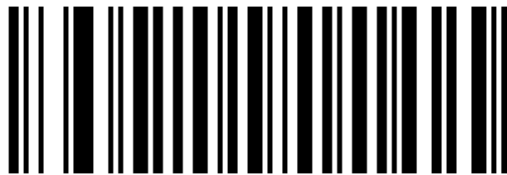
Enable 5-digit Add-on Code



Enable 2-digit And 5-digit Add-on Codes



\* Disable Additional Codes



Force Additional Code To Be Enabled

### **EAN-13 Convert to ISBN**

ISBN is a book code, and 13-digit data is normally output. When EAN-13 to ISBN is enabled, the output is a 10-digit ISBN code. Conversion is disabled by default.



Enable EAN-13 To ISBN



\* Disable EAN-13 To ISBN

## EAN-13 Convert to ISSN

ISSN is a magazine code, which normally outputs 13-digit data. When EAN-13 to ISBN is enabled, the output is a 10-digit ISSN code. Conversion is disabled by default.



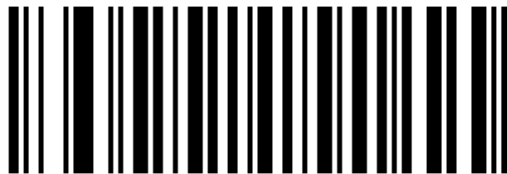
Enable EAN-13 To ISSN



Disable EAN-13 To ISSN

## UPC-A

### Enable/disable



\* Enable UPC-A



Disable UPC-A

## Check Digit Transmission

UPC-A data contains 12 digits. The 12th digit is the check digit, which validates the first 11 digits. By default, the check digit is transmitted; you can disable its transmission.



\* Send Check Digit



No Check Digit Sent

### Leading Character Transmission



UPC-A Hides Leading Characters



UPC-A Does Not Hide Leading Characters

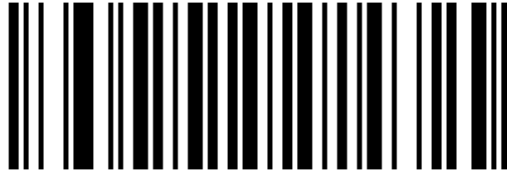
### Supplemental Decode



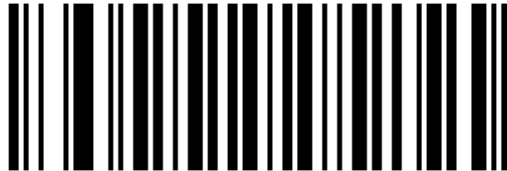
Enable 2-digit Add-on Code



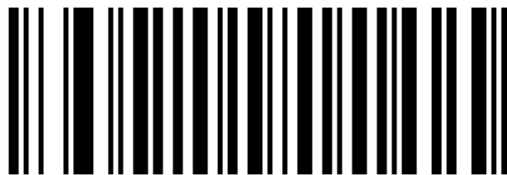
Enable 5-digit Add-on Code



Enable 2-digit And 5-digit Add-on Codes



\* Disable Additional Codes



Force Additional Code To Be Enabled

## UPC-A To EAN-13

Users can set whether they need to convert UPC-A to EAN-13 output according to their needs. The default is not to convert.



Enable UPC-A To EAN-13



\* Disable UPC-A To EAN-13

## UPC-E

### Enable/disable



\* Enable UPC-E



Disable UPC-E

### Supplemental Decode



Enable 2-digit Add-on Code



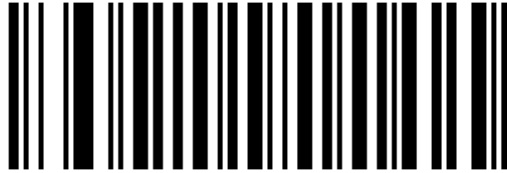
Enable 5-digit Add-on Code



Enable 2-digit And 5-digit Add-on Codes



\* Disable Additional Codes



Force Additional Code To Be Enabled

## UPC-E To UPC-A

Users can set whether they need to convert UPC-E to UPC-A output according to their needs. The default is not to convert.



Enable UPC-E To UPC-A



\* Disable UPC-E To UPC-A

## Check Digit Transmission



UPC-E Does Not Send Check Digits



UPC-E Sends Check Digit

## Commonly Used 1D Barcode Settings

### Codabar (Cudabarcodex)

#### Enable/disable



\* Enable Codabar



Disable Codabar

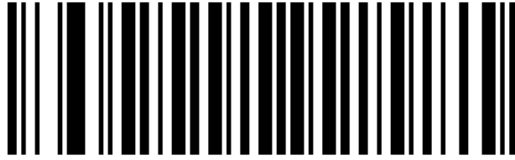
### Start/Stop Character Transmission



Enable Codabar Start and Stop Characters



\* Disable Codabar Start and Stop Characters



Set Codabar Minimum Length 4

#### Parameter Format

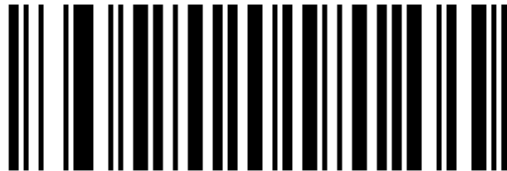
0087hh

hh

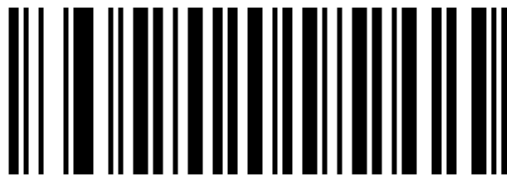
Two hexadecimal digits used to set the Codabar minimum length.

#### Code 11

##### Enable/disable



\* Enable Code 11



Disable Code 11

#### Parameter Format

0128hh

hh

Two hexadecimal numbers used to set the Code 11 minimum length.

#### Code 39

##### Enable/disable



\* Enable Code 39

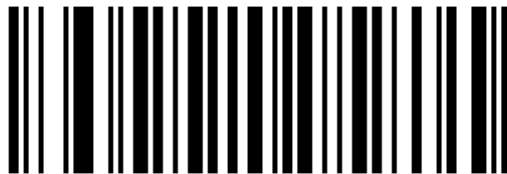


Disable Code 39

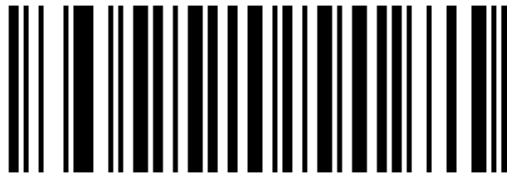


Check Digit Transmission

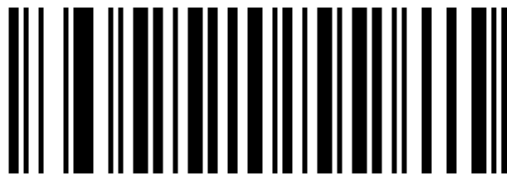
## Verification Settings



Disable Code 39 Verification



Enable Code 39 MOD43 Verification



\* Disable Code 39 MOD43 check

## Redundancy



\* Disable Code 39 Redundancy



Enable Code 39 Redundancy

### Start/Stop Character Transmission

Code 39 uses an asterisk ( “\*” ) as both its start and stop character. You can configure whether these characters are transmitted with the barcode data after a successful read.



Enable Code 39 Start and Stop Characters



\* Disable Code 39 Start and Stop Characters

### Full ASCII Support

The encoding method of Code 39 can include the representation of all ASCII characters. Through settings, the Scan Engine can support barcodes containing the full ASCII character set.



\* Enable Full ASCII Support



Disable Full ASCII Support

## Code 32 Settings



\* Disable Code 32



Enable Code 32



\* Disable Code 32 Prefix A



Enable Code 32 Prefix A

## Code 39 length setting



Set The Minimum Length Of Code 39 To 1



\* Set the minimum length of Code 39 to 2

## Code 93

### Enable/disable



\* Enable Code 93



Disable Code 93

### Redundancy



Enable Code 93 Redundancy



\* Disable Code 93 Redundancy

## Code 128

### Enable/disable

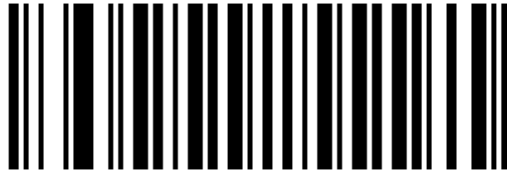


\* Enable Code 128

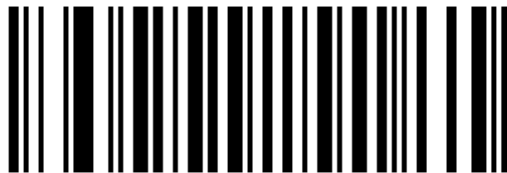


Disable Code 128

## Redundancy



\* Disable Code 128 Redundancy



Enable Code 128 Redundancy

## Brazilian Banking Model



Enable Brazilian Banking Mode (Code 128)

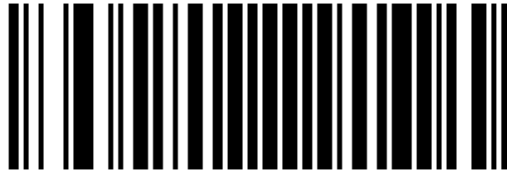


Disable Brazilian Banking Mode (Code 128)

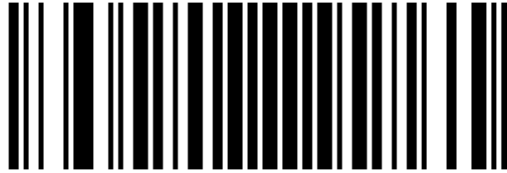
## GS1 DataBar symbology Settings

### GS1 DataBar Limited (RSS Limited)

#### Enable/disable



Enable RSS Limited



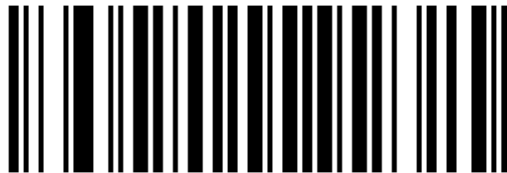
\* Disable RSS Limited

### **GS1 DataBar Omnidirectional (RSS Omnidirectional)**

#### **Enable/disable**



Enable RSS Omnidirectional



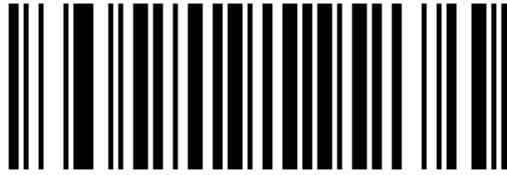
\* Disable RSS Omnidirectional

### **GS1 DataBar Expanded (RSS Expanded)**

#### **Enable/disable**



Enable GS1 DataBar Expanded

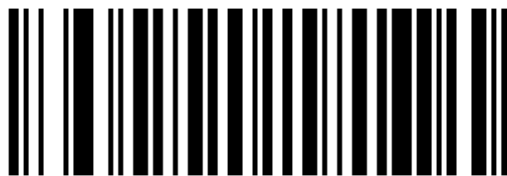


\* Disable GS1 DataBar Expanded

## 2 Of 5 Types Of Code Settings

### Interleaved 2 of 5 (interleaved 25 yards)

#### Enable/disable



\* Enable Interleaved 25-code



Disable Crossover 25 Codes

## Redundancy



\* Disable cross-25 Code Redundancy



Enable cross-25 Multi-pass Verification

## Length Setting



Set Cross 25 Yard Minimum Length 4

## Brazilian Banking Model



Enable Banking Mode



Disable Banking Mode

## Industrial 2 of 5 (Industrial 25 yards)

### Enable/disable

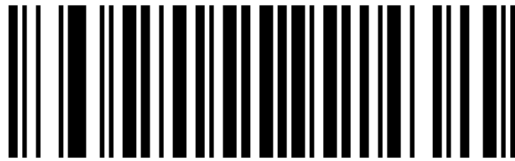


\* Enable Industrial 25 Code



Disable Industrial 25 Code

## Length Setting



Set Industrial 25 Yard Minimum Length 3

## Matrix 2 of 5 (matrix 25 codes)

### Enable/disable



Enable Matrix 25 Codes



\* Disable Matrix 25 Codes

## Length Setting



Set Matrix 25 Code Minimum Length 2

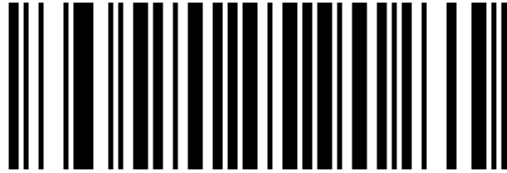
## Other 1D Barcode Settings

### China Post

### Enable/disable



\* Disable China Post Code



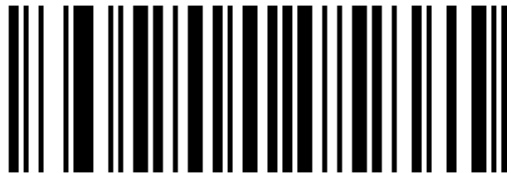
Enable China Post Code

## MSI

### Enable/disable



Enable MSI Code



\* Disable MSI Code



\* Do Not Transmit MSI Check Digit



Transmit MSI Check Digit

## Redundancy



\* Disable MSI Redundancy



Enable MSI Redundancy

## Length Setting



Set MSI Minimum Length 3

## Plessey/Telepen

### Enable/disable



Enable Plessey Code



\* Disable Plessey Code

## Length Setting



Set Plessey/Telepen minimum length 3

## 12 Appendix

### 12.1 Character Reference Table

#### ASCII Function Key Character Reference Table

##### 00H-0FH

| HEX | CODE | *Config0  | Config3   | Con-<br>fig1 | Con-<br>fig4 | Config2 Win-<br>dows | Config5 Win-<br>dows |
|-----|------|-----------|-----------|--------------|--------------|----------------------|----------------------|
| 00H | NUL  | NUL       | NUL       | Ctrl+@       | Ctrl+@       | ALT+000              | ALT+000              |
| 01H | SOH  | NUL       | NUL       | Ctrl+A       | Ctrl+A       | ALT+001              | ALT+001              |
| 02H | STX  | NUL       | NUL       | Ctrl+B       | Ctrl+B       | ALT+002              | ALT+002              |
| 03H | ETX  | NUL       | NUL       | Ctrl+C       | Ctrl+C       | ALT+003              | ALT+003              |
| 04H | EOT  | NUL       | NUL       | Ctrl+D       | Ctrl+D       | ALT+004              | ALT+004              |
| 05H | ENQ  | NUL       | NUL       | Ctrl+E       | Ctrl+E       | ALT+005              | ALT+005              |
| 06H | ACK  | NUL       | NUL       | Ctrl+F       | Ctrl+F       | ALT+006              | ALT+006              |
| 07H | BEL  | NUL       | NUL       | Ctrl+G       | Ctrl+G       | ALT+007              | ALT+007              |
| 08H | BS   | Backspace | Backspace | Ctrl+H       | Ctrl+H       | ALT+008              | ALT+008              |
| 09H | HT   | TAB       | TAB       | TAB          | Ctrl+I       | ALT+009              | ALT+009              |
| 0AH | LF   | NUL       | Enter     | Ctrl+J       | Ctrl+J       | ALT+010              | ALT+010              |
| 0BH | VT   | TAB       | TAB       | Ctrl+K       | Ctrl+K       | ALT+011              | ALT+011              |
| 0CH | FF   | NUL       | NUL       | Ctrl+L       | Ctrl+L       | ALT+012              | ALT+012              |
| 0DH | CR   | Enter     | Enter     | Enter        | Ctrl+M       | Enter                | ALT+013              |
| 0EH | SO   | NUL       | NUL       | Ctrl+N       | Ctrl+N       | ALT+014              | ALT+014              |
| 0FH | SI   | NUL       | NUL       | Ctrl+O       | Ctrl+O       | ALT+015              | ALT+015              |

##### 10H-1FH

| HEX | CODE | *Config0/3 | Config1/4 | Config2/5 Windows |
|-----|------|------------|-----------|-------------------|
| 10H | DLE  | NUL        | Ctrl+P    | ALT+016           |
| 11H | DC1  | NUL        | Ctrl+Q    | ALT+017           |
| 12H | DC2  | NUL        | Ctrl+R    | ALT+018           |
| 13H | DC3  | NUL        | Ctrl+S    | ALT+019           |
| 14H | DC4  | NUL        | Ctrl+T    | ALT+020           |
| 15H | NAK  | NUL        | Ctrl+U    | ALT+021           |
| 16H | SYN  | NUL        | Ctrl+V    | ALT+022           |
| 17H | ETB  | NUL        | Ctrl+W    | ALT+023           |
| 18H | CAN  | NUL        | Ctrl+X    | ALT+024           |
| 19H | EM   | NUL        | Ctrl+Y    | ALT+025           |
| 1AH | SUB  | NUL        | Ctrl+Z    | ALT+026           |
| 1BH | ESC  | ESC        | Ctrl+[    | ALT+027           |
| 1CH | FS   | NUL        | Ctrl+\    | ALT+028           |
| 1DH | GS   | NUL        | Ctrl+]    | ALT+029           |
| 1EH | RS   | NUL        | Ctrl+^    | ALT+030           |
| 1FH | US   | NUL        | Ctrl+-    | ALT+031           |

**Note**

On Mac systems, the Ctrl key corresponds to the Command key.

**ASCII Character Reference Table****20H-5FH**

| HEX | ASCII | HEX | ASCII | HEX | ASCII | HEX | ASCII |
|-----|-------|-----|-------|-----|-------|-----|-------|
| 20H | Space | 30H | 0     | 40H | @     | 50H | P     |
| 21H | !     | 31H | 1     | 41H | A     | 51H | Q     |
| 22H | "     | 32H | 2     | 42H | B     | 52H | R     |
| 23H | #     | 33H | 3     | 43H | C     | 53H | S     |
| 24H | \$    | 34H | 4     | 44H | D     | 54H | T     |
| 25H | %     | 35H | 5     | 45H | E     | 55H | U     |
| 26H | &     | 36H | 6     | 46H | F     | 56H | V     |
| 27H | '     | 37H | 7     | 47H | G     | 57H | W     |
| 28H | (     | 38H | 8     | 48H | H     | 58H | X     |
| 29H | )     | 39H | 9     | 49H | I     | 59H | Y     |
| 2AH | *     | 3AH | :     | 4AH | J     | 5AH | Z     |
| 2BH | +     | 3BH | ;     | 4BH | K     | 5BH | [     |
| 2CH | ,     | 3CH | <     | 4CH | L     | 5CH | \     |
| 2DH | -     | 3DH | =     | 4DH | M     | 5DH | ]     |
| 2EH | .     | 3EH | >     | 4EH | N     | 5EH | ^     |
| 2FH | /     | 3FH | ?     | 4FH | O     | 5FH | _     |

**60H-9DH**

| HEX | ASCII | HEX | ASCII | HEX | Fun Key | HEX | Fun Key      |
|-----|-------|-----|-------|-----|---------|-----|--------------|
| 60H | `     | 70H | p     | 80H | F1      | 90H | End          |
| 61H | a     | 71H | q     | 81H | F2      | 91H | Page Down    |
| 62H | b     | 72H | r     | 82H | F3      | 92H | Right Arrow  |
| 63H | c     | 73H | s     | 83H | F4      | 93H | Left Arrow   |
| 64H | d     | 74H | t     | 84H | F5      | 94H | Down Arrow   |
| 65H | e     | 75H | u     | 85H | F6      | 95H | Up Arrow     |
| 66H | f     | 76H | v     | 86H | F7      | 96H | Print Screen |
| 67H | g     | 77H | w     | 87H | F8      | 97H | *Ctrl        |
| 68H | h     | 78H | x     | 88H | F9      | 98H | *Shift       |
| 69H | i     | 79H | y     | 89H | F10     | 99H | *Left Alt    |
| 6AH | j     | 7AH | z     | 8AH | F11     | 9AH | *Right Alt   |
| 6BH | k     | 7BH | {     | 8BH | F12     | 9BH | 1s Delay     |
| 6CH | l     | 7CH |       | 8CH | Insert  | 9CH | *Win-GUI     |
| 6DH | m     | 7DH | }     | 8DH | Home    | 9DH | *Keystroke   |
| 6EH | n     | 7EH | ~     | 8EH | Page Up |     |              |
| 6FH | o     | 7FH | DEL   | 8FH | Delete  |     |              |

 **Note**

When Ctrl, Shift, Alt, GUI are set as prefix or suffix, they will be output in combination with the next character (not supported when set to ALT, TH keyboard). The character after Keystroke is directly output as the key value.