

# SC540

# BARCODE SCANNER

## USER'S GUIDE



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## Chapter outline

《Chapter 1 Connection and Basic Settings》 Introduce the connection method and default settings of the barcode scanning device

《Chapter 2 Interface Types》 Introduce the main configuration of interface types

《Chapter 3 Input/Output Settings》 Introduces configuring decoding success/failure LED and buzzer response

《Chapter 4 Data Editing 》 Introduce how to add prefix/suffix

《Chapter 5 Code System"》 Introduces all code systems and configurations supported by barcode scanning equipment

《Chapter 6 General Functions》 Provide software version display and factory default configuration code

《Chapter 7 Common Problems and Solutions 》 List common problems and solutions

《Chapter 8 Equipment Maintenance and Customer Service"》 Introduce equipment maintenance and customer support information

《Appendix》 provides commonly used code charts, etc.

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# Chapter 1 Connection and Basic Settings

## Introduction

The barcode scanning device supports two connection methods, please follow the corresponding connection steps to connect the barcode scanning device.

## Unpack

To unpack the product, follow these steps:

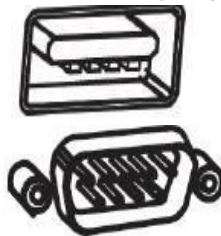
- Remove the scanning device and its accessories and inspect for damage during shipping.
- Check that all items are complete.
- In case of any damaged or missing parts, please contact your supplier for after-sales service.

## Equipment connection

The interface on the host is shown in the following figure:

USB      USB interface on the host

RS232      RS232 interface on the host





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## USB Connection

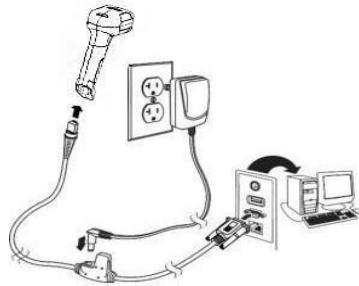
1. Connect the device interface end (RJ45 interface) of the USB data cable to the device.
2. Connect the host interface end (USB interface) of the USB data cable to the host computer.
3. The barcode scanning device beeps.
4. Verify that the operation was successful by scanning the sample barcode at the back of this manual.



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## RS232 Connection

1. Connect the device interface end (RJ45 interface) of the RS-232 data cable to the scanner.
2. Connect the host interface end (RS-232 interface) of the RS-232 data cable to the host.
3. The scanning device beeps.
4. Verify that the operation was successful by scanning the sample barcode at the back of this manual. The factory default configuration of the interface is 115,200 baud rate, 8 data bits, no check and 1 stop bit.



---

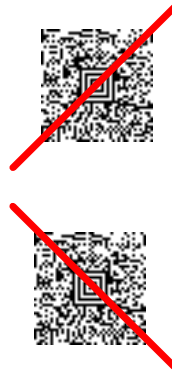
## Code scanning guide

The barcode scanning device has a aiming line/point that projects a red aiming beam that corresponds to the horizontal field of view of the barcode scanning device. The crosshair/dot should be in the center of the barcode, but it can be positioned in any direction for easy reading.

**Linearbarcode**



**2D Matrixsymbol**



When the barcode device is close to the barcode, the aiming beam or pattern is smaller; when it is further away from the barcode, the aiming beam or pattern is larger. Smaller barcodes should be read closer together. Larger barcodes should be kept away from reading. To read single or multiple barcodes, hold the barcode scanning device at an appropriate distance from the target, press the button, and place the aiming beam or pattern on the barcode. If the barcode being scanned is reflective, it may be necessary to tilt the barcode upwards by  $15^{\circ}$  to  $18^{\circ}$  to prevent light reflections.

---

## Default settings

### Factory default settings

If you want to apply default settings to your barcode scanning device, scan the "Load Factory Defaults" barcode below to reset your barcode scanning device to factory defaults.



(800006.)

Load factory default settings

---

## Chapter 2 Interface types

### Introduction

This chapter introduces the two interface types, USB and RS232, and lists their related configurations.

### RS232

To connect the RS232 interface, you need to scan the "RS232" barcode. The default configuration of the serial port is:

115200 baud rate, 8 data bits, no check bit, 1 stop bit, add carriage return and line feed by default.。



(8810010.)

RS232

---

## RS232 Baud rate

The baud rate sends data from the barcode scanning device to the terminal at the specified rate. The terminal must be set to the same baud rate as the barcode scanning device for normal communication. Default=115200.

(8310030.)



300



(8310031.)

600



(8310032.)

1200



(8310033.)

2400



(8310034.)

4800



(8310035.)

9600



(8310036.)

19200



(8310037.)  
38400



(8310038.)  
57,600



(8310039.)  
\*115,200

Data bits: 7 or 8 data bits can be selected to transmit, and the terminal must be set to the same data bits as the barcode scanning device for normal communication. Default=8.

Stop bit: The stop bit can be set to 1 or 2, and the terminal must be set to the same stop bit as the barcode scanning device for normal communication. Default=1.

check check: The method of checking the bit pattern of the character, the terminal must be set to the same check bit as the barcode scanning device to communicate normally. Default=None.

(8310063.)



7 data bits, 1 stop symbol, even check bit



(8310060.)

7 data bits, 1 stop symbol, no check bit



(8310066.)

7 data bits, 1 stop symbol, odd check bit



(8310064.)

7 data bits, 2 stop symbols, even check bits



(8310061.)

7 data bits, 2 stop characters, no check



(8310067.)

7 data bits, 2 stop symbols, odd check bits



(8310065.)

7 data bits, 1 stop symbol, even check bit



(8310062.)

\*8 data bits, 1 stop symbol, no check



(8310068.)

8 data bits, 1 stop symbol, odd check bit



---

## USB

### USB PC

Scan the following barcode to configure the barcode scanning device to USB PC Keyboard mode. Carriage return and line feed are added by default.



(881001124.)

USB Keyboard (PC)

---

## USB COM

Scan the following barcode to configure the barcode scanning device to USB COM mode, emulating a regular RS232 based COM port. If you are using a Microsoft® Windows® PC, you will need to download the driver. If you are using an Apple® Macintosh, the computer recognizes the barcode scanning device as a USB CDC class device.



(881001133.)

USB COM

Note: no additional configuration is required (such as baud rate, etc.)

## Chapter 3 Input/Output Settings

### Introduction

This chapter mainly introduces the configuration of the buzzer and LED when the barcode scanning device is powered on, decoded, and triggered by keys.

### Power on prompt tone setting

Power-on prompt sound, that is, after the barcode scanning device is successfully powered on, it can beep through the buzzer to prompt it to enter the working state. According to the needs of the scene, it can also be configured to be silent. Default = there is a prompt sound when power on successfully.



(8410130.)

No sound when power on successfully



(8410131.)

\*Prompt tone for successful power on

### Trigger decoding prompt tone setting

After triggering the decoding switch, the barcode scanning equipment can send out a prompt tone to indicate that the switch has been triggered regardless of whether it is decoded or not. Default = trigger decoding switch without prompt tone



(8410140.)

\*Trigger decoding switch without prompt tone



(8410141.)

Decoding success tone response  
settingding success tone response

Trigger decoding switch with prompt tone

### Prompt tone setting after successful

After the decoding is successful, the buzzer will sound to indicate that the decoding is successful. If the prompt tone is not required, it can be configured to have no prompt tone after the decoding is successful. Default = prompt tone after decoding is successful.



(8410010.)

No prompt tone after successful decoding



(8410011.)

\*Prompt tone after successful decoding

Decoding success prompt tone volume setting

Scan the following barcodes to modify the beep volume of the barcode scanning device after successful decoding. default=high.



(8410091.)

Low



(8410092.)

Medium



(8410093.)

\* High



(8410090.)

Close

### **Decoding success prompt tone frequency setting**

Scan the following barcodes to modify the beep frequency of the barcode scanning device after successful decoding, default = medium.



(8410061600.)  
Low (1600 Hz)



(8410062400.)  
\* Medium (2400 Hz)



(8410064200.)  
High (4200 Hz)

### **Decoding success prompt tone duration setting**

Scan the following barcodes to modify the beeping duration of the barcode scanning device after successful decoding. Default=normal.



(8410020.)  
\* Normal beep



(8410021.)  
Short beep

### **Decoding failure prompt tone frequency setting**

Scan the following barcodes to modify the beep frequency of the barcode scanning device after decoding fails. Default=Razz.



(841007250.)  
\* Razz (250 Hz)



**(8410073250.)**

**Medium (3250 Hz)**



**(8410074200.)**

**High (4200 Hz)**

## **Code reading delay**

Scan the following barcodes to set the time interval between when the barcode scanning device reads a barcode and then reads the next barcode. Default=750ms.



**(8510060.)**

**No delay**



**(851006750.)**

**\*Short delay (750 ms)**



**(8510061000.)**

**Medium delay (1,000 ms)**



**(8510061500.)**

**Long delay (1,500 ms)**

# Chapter 4 Data Editing

## Introduction

After the barcode scanning device decodes successfully, a string of data can be obtained. This string of data can be numbers, English, symbols, etc. It can also be Chinese characters for two-dimensional codes. This string of data is the data information contained in the barcode. In practical applications, it may not only need the data information of the barcode, but also may need to know which type of barcode the obtained string of data information comes from, or need to know which day the barcode information was scanned, or need to know when the barcode information is scanned. After finishing a barcode, the text of the recorded barcode can be automatically wrapped and returned, and these requirements may not be included in the data information of the barcode.

Adding these contents during code production will inevitably increase the length of the bar code and lack flexibility. Artificially add some content before or after the data information of the barcode, and these added content can be changed in real time according to the needs, and you can choose to add or shield it. This is the suffix of the barcode data information. By adding prefixes and suffixes, the requirements are met without modifying the content of the barcode information.

- You can add or remove prefix or suffix characters for one symbology or all symbologies.
- Add any prefix or suffix using the ASCII conversion table
- Add prefix or suffix characters in the order they appear in the output.
- When configuring a specific code system (or all code systems), add prefix or suffix characters to the code system corresponding to the serial number of a specific barcode type.
- The maximum size of the prefix or suffix configuration is 200 characters.

## Prefix/Suffix addition

Step 1. Scan the "Add Prefix" or "Add Suffix" barcode.

Step 2. Determine the symbology to add the prefix or suffix to, determine the 2-digit hexadecimal value from the symbology chart. For example, for Code 11, the barcode type serial number is "h" and the Hex ID is "68".

Step 3. Scan the 2 hexadecimal digits in the chart in the appendix of this manual, or scan 9,9 to apply to all symbologies.

Step 4. Determine the hexadecimal value of the prefix/suffix from the ASCII conversion table.

Step 5. Scan the 2-digit hexadecimal value in the chart in the appendix of this manual.

Step 6. Repeat steps 4 and 5 for each prefix/suffix character.

Step 7. To add barcode serial number, please scan 5, C, 8, 0. To add an AIM I.D., scan 5, C, 8, 1.

To add a backslash (\), scan 5,C,5,C.

Note: To add a backslash (\) in step 7, you must scan 5C twice - once to create the leading backslash, and then to create the backslash itself.

Step 8. Scan the "Save" bar code to exit and save, or scan the "Abandon" bar code to exit without saving. Repeat steps 1-6 to add prefixes or suffixes for other symbologies.



**(889002.)**

**Add prefix**



**(888002.)**

**Add suffix**



**(800002.)**

**Preserve**



**(800000.)**

**Give up**



## Example:

### Add a suffix to a specific symbology

Add a CR (carriage return) suffix to Code 128.

Step:

Step 1. Scan the "Add Suffix" barcode.

Step 2. Determine the 2-digit hexadecimal value of Code 128 from the code chart: 6A.

Step 3. Scan the "6", "A" barcode from the chart in the appendix of this manual.

Step 4. Determine the hexadecimal value of the carriage return suffix from the ASCII conversion table: 0D. Step 5. Scan the "0", "D" barcodes in the chart in the appendix of this manual.

Step 6. Scan the "Save" bar code, or scan the "Abandon" bar code to exit without saving.



(888002.)

Add suffix



(K6K.)

6



(KAK.)

A



(K0K.)

0



(KDK.)

D



**(800002.)**  
**Preserve**

### **Add carriage return suffix to all symbologies**

To add a carriage return suffix to all symbologies, scan the barcode below. This operation first clears all current suffixes, and then adds carriage return suffixes to all symbologies.



**(890000.)**

**To add carriage return suffix to all symbologies**

### **Add newline suffix to all symbologies**

To add a carriage return line feed suffix for all symbologies, scan the following barcode. This operation first clears all current suffixes, and then adds carriage return line feed suffixes to all symbologies.



**(888002990A.)**

**To add newline suffix to all symbologies**

### **Add carriage return line feed suffix to all symbologies**

To add carriage return line feed suffix to all symbologies, please scan the barcode below. This operation first clears all current suffixes, and then adds carriage return line feed suffixes to all symbologies. line feed suffix to all symbologies.



**(888002990D0A.)**

**To add carriage return line feed suffix to all symbologies**

---

## Keyboard operation

Different operations can be performed on the keyboard through configuration when decoding output, such as performing automatic saving after decoding output.

Step 1. Determine the 2-digit hexadecimal value corresponding to the keyboard operation to be performed from the keyboard operation ASCII conversion, and determine the 2-digit hexadecimal value of the code system to be set.

Step 2. First scan the "Add keyboard operation" barcode.

Step 3. Then determine the sequence of keyboard operation and barcode output. If the keyboard operation is first, scan the "Add prefix" barcode, and after the keyboard operation, scan the "Add suffix" barcode.

Step 4. Scan the corresponding 4-digit hexadecimal value in the chart in the appendix of this manual according to the corresponding value (including the symbol system and the corresponding keyboard operation)

Step 5. Scan the "Save" barcode.

Step 6. scan "End adding keyboard operation"



(8210042)

**Start adding keyboard operation**



(8210040)

**End adding keyboard action**

Example: Add decoding output for all symbologies and then save

First confirm the operation to be performed: save after the barcode is output, that is, add a suffix after the output barcode. Then determine the corresponding hexadecimal value according to the table in the appendix, all code systems correspond to "9" and "9", and the corresponding is "1" "3".

After confirmation, scan the "Add keyboard operation" barcode, "Add suffix" barcode, "9", "9", "1", "3", and finally scan the "Save" barcode.

(where "9" and "9" correspond to all code systems, and "1" and "3" correspond to the decoding output and save it)

---

## Delete prefix/suffix

A symbology's prefix/suffix can be deleted. If a symbology prefix/suffix has been added, you can scan the "delete One Symbology Prefix/Suffix" barcode to remove all prefix/suffix characters from this symbology. Scan "Delete all symbology prefixes/suffixes" to delete all symbology prefixes/suffixes.

Step 1. Scan the "Clear a symbology prefix" or "Clear a symbology suffix" barcode.

Step 2. Determine the 2-digit hexadecimal value to delete the prefix/suffix symbology from the appendix symbology chart.

Step 3. Scan the 2-digit hexadecimal value in the chart in the appendix of this manual; for example, scan "9", "9" bar code applies to all symbologies.

Step 4. Scan the "Save" barcode.



(889004.)

Delete prefix of a symbology



(888004.)

Delete the suffix of a symbology



(800002.)

Preserve

---

## Prefix selection



(889002.)  
Add prefix



(889004.)  
Delete prefix of a symbology



(889003.)  
Delete all symbology prefixes

## Suffix selection



(888002.)  
Add suffix



(888004.)  
Clear the suffix of a symbology



(888003.)  
Clear all symbology suffixes

---

## Function code transmission

When the function code transmission is enabled and the scan data contains the function code, the barcode scanning device will transmit the function code data to the terminal. Default=disabled.



**(8080071.)**  
**Enable**



**(8080070.)**  
**\*Disable**

## Barcode delay transmission

A delay of up to 5000ms (in 5ms increments) can be set for each barcode transmission. Scan the following bar code, then scan the number of 5ms delays in the chart in the appendix of this manual, then scan the "Save" bar code.



**(851004.)**  
**Barcode delay**

To eliminate barcode transmission delays, scan the Barcode Delay barcode and set the delay number to 0. Use the chart in the appendix of this manual, then scan the "Save" barcode.

Example: To set a delay of 100ms for transmitting barcodes:  
First scan the "Barcode Delay", then scan the appendix chart "2"  
"0 (100/5=20),  
Then scan the "Save" barcode to set a 100ms delay for  
transmitting barcodes.

---

## Chapter 5 Symbology

### All symbologies

If the barcode scanning device needs to decode all symbologies, please scan the "All symbologies on" barcode. To decode only a specific symbology, scan the "All Symbologies Off" barcode, then scan the On barcode for that specific symbology.



(9990011.)

**Turn on all symbologies**



(9990010.)

**Turn off all symbologies**

Note: After scanning the "All Symbologies On" barcode, 2D postal codes are not turned on by default. 2D postal codes must be turned on separately.

### Read code length description

The valid reading length of some code systems can be set. If the length of the scanned barcode data does not match the valid reading length, the barcode scanning device will issue an error tone. Setting the same value for min and max length will force the barcode scanning device to read fixed length barcodes. This helps reduce misreading.

Example: Only decode barcodes with a barcode length of 6–10 characters.

Min length = 06. Max length=10

Step 1. Select the symbol system to set the maximum and minimum reading length, scan the "Minimum Barcode Length" barcode under its catalog, and scan the "6" barcode and the "Save" barcode from the appendix chart.

Step 2. Scan the "Maximum Barcode Length" barcode and the numbers "1", "0" and "Save" barcodes from the appendix chart.

The above steps will set the maximum reading length of the selected symbology to 10 and the minimum reading length to be 6.

---

## 1D code system

If the barcode scanning device needs to decode all 1D code systems, please scan the "All 1D code systems on" barcode. To decode only a specific symbology, please scan the "All 1D Symbologies Off" barcode.



**(9950040.)**

**All 1D code system turn on**



**(9950041.)**

**All 1D code system turn off**

## 2D code system

If the barcode scanning device needs to decode all code systems, please scan the "All QR code systems on" barcode. To decode only a specific symbology, please scan the "All QR Codes Off" barcode.



**(9950070.)**

**\*All 2D code system turn off**



**(9950071.)**

**All 2D code system turn off**



---

## Codabar

<Default all Codabar settings>



(900000.)

### Turn on/off



(9000031.)

\*Turn on



(9000030.)

Turn off

### Start/Stop character

"Start/Stop" characters are output at the leading and trailing ends of the barcode. Configurable to transmit or not to transmit "Start/Stop" characters. Default = no transmission.



(9000061.)

Transmission



(9000060.)

\* Not transmission

---

## check character

No Check Character means that the barcode scanning device will read and transmit all barcodes with or without a check character. (At this time, when scanning a barcode with a check character, the check character is transmitted together) When the "check character" is set to "enable, do not transmit check character", the barcode scanning device will check according to the last digit of the barcode, if the check is passed, it will transmit the normal data except the last check character. If the verification fails, the barcode content will not be sent. When the "check character" is set to "enable, transmit check character", the barcode scanning device will check according to the last digit of the barcode data, if the check is passed, the check character will be taken as the last digit of normal data together Transmission, if the verification fails, the barcode content will not be sent.



**\*No check Character**



**Enable, but not transmit**



**Enable, transmit check character**

## Cascade

Codabar supports barcode cascading. When cascading is enabled, the barcode scanning device looks for a Codabar barcode with a 'D' start character adjacent to a barcode with a 'D' stop character. In this case, the two barcodes are concatenated into one, omitting all "D" characters.



A 1 2 3 4 D D 5 6 7 8 A

Scans a "required" barcode to prevent barcode scanning devices from decoding a single "D" Codabar barcode without a Codabar barcode with an adjacent "D" starting character. This selection has no effect on Codabars without stop/start D characters.



**(9000021.)**

**Turn on**



**(9000022.)**  
**Need**



**(9000020.)**  
**\*Turn off**

### **Code reading length**

Scan the barcode below to change the read length. For additional information, see Code Length Notes. Minimum and maximum lengths are 2-60. Minimum default = 4, maximum default = 60. (Note: After scanning "Minimum Barcode Length" and "Maximum Barcode Length", you also need to scan the specified barcode length and save the barcode, please refer to the description of reading code length)



**(900005.)**  
**Minimum barcode length**



**(900004.)**  
**Maximum barcode length**

---

## Code 39

<Default Code 39 setting>



(901000.)

Turn on/off



(9010011.)

\*Turn on



(9010010.)

Turn off

Start/Stop character

Start/Stop characters identify the leading and trailing ends of the barcode. You may either transmit, or not transmit Start/Stop characters. Default = Don't Transmit.



(9010091.)

Transmit



(9010090.)

\*Not transmit

## Check Character

No Check Character means that the barcode scanning device will read and transmit all barcodes with or without a check character. (At this time, when scanning a barcode with a check character, the check character is transmitted together)

---

When Check Character is set to **disable, but Don't Transmit**, the unit only reads Code 39 barcodes printed with a check character, but will not transmit the check character with the scanned data. When Check Character is set to **disable and Transmit**, the scanner only reads Code 39 barcodes printed with a check character, and will transmit this character at the end of the scanned data. Default = No Check



**(9010040.)**

**\* No Check Character**



**(9010041.)**

**Disable, but not transmit parity character**



**(9010042.)**

**Disable, and transmit parity character**

### **Code reading length**

Scan the barcode below to change the read length. For additional information, see Code Length Notes. Minimum and maximum lengths are 0-48. Minimum default = 0, maximum default = 48. (Note: After scanning "Minimum Barcode Length" and "Maximum Barcode Length", you need to scan the specified barcode length and save the barcode, please refer to the description of reading code length)



**(901008.)**

**Minimum barcode length**



**(901007.)**

**Maximum barcode length**

---

## Code 32 Pharmaceutical (PARAF)

Code 32 Pharmaceutical 是意大利药房使用的 Code 39 条码的一种形式。

Code 32 Pharmaceutical is a form of the Code 39 barcode used by Italian pharmacies. When configuring code32, you need to open code39 first and then configure it.

This symbology is also known as PARAF



(9010051.)

Turn on



(9010050.)

\* Turn off

## FULL ASCII

If Full ASCII Code 39 decoding is enabled, certain character pairs within the bar-code symbol will be interpreted as a single character. For example: \$V will be decoded as the ASCII character SYN, and /C will be decoded as the ASCII character #. Default = Off.

|         |         |          |      |      |      |      |        |
|---------|---------|----------|------|------|------|------|--------|
| NUL%U   | DLE \$P | SP SPACE | 0 /P | @ %V | P P  | ' %W | p +P   |
| SOH\$A  | DC1 \$Q | ! /A     | 1 /Q | A A  | Q Q  | a +A | q +Q   |
| STX \$B | DC2 \$R | " /B     | 2 /R | B B  | R R  | b +B | r +R   |
| ETX \$C | DC3 \$S | # /C     | 3 /S | C C  | S S  | c +C | s +S   |
| EOT \$D | DC4 \$T | \$ /D    | 4 /T | D D  | T T  | d +D | t +T   |
| ENQ \$E | NAK \$U | % /E     | 5 /U | E E  | U U  | e +E | u +U   |
| ACK \$F | SYN \$V | & /F     | 6 /V | F F  | V V  | f +F | v +V   |
| BEL \$G | ETB \$W | ' /G     | 7 /W | G G  | W W  | g +G | w +W   |
| BS \$H  | CAN \$X | ( /H     | 8 /X | H H  | X X  | h +H | x +X   |
| HT \$I  | EM \$Y  | ) /I     | 9 /Y | I I  | Y Y  | i +I | y +Y   |
| LF \$J  | SUB \$Z | * /J     | : /Z | J J  | Z Z  | j +J | z +Z   |
| VT \$K  | ESC %   | + /K     | ; %F | K K  | [ %K | k +K | { %P   |
| FF \$L  | FS %B   | , /L     | < %G | L L  | \ %L | l +L | %Q     |
| CR \$M  | GS %C   | - /M     | = %H | M M  | ] %M | m +M | } %R   |
| SO \$N  | RS %D   | . /N     | > %I | N N  | ^ %N | n +N | ~ %S   |
| SI\$O   | US %E   | / /O     | ? %J | O O  | _ %O | o +O | DEL %T |

Character pairs /M and /N decode as a minus sign and period respectively. Character pairs /P through /Y decode as 0 through 9.



(9010031.)

FULL ASCII on



(9010030.)

\* FULL ASCII off

---

## Interleaved 2 of 5

<Default All Interleaved 2 of 5 Settings >



(902000.)

On/Off



(9020021.)

\* on



(9020020.)

Off

### Check character

No check character means that the barcode scanning device will read and transmit all barcodes with or without check characters (in this case, when scanning barcodes with check characters, the check characters are transmitted together)

When the "check character" is set to "enable, do not transmit check character", the barcode scanning device will check according to the last digit of the barcode, if the check is passed, it will transmit the normal data except the last check character. If the verification fails, the barcode content will not be sent.

When the "check character" is set to "enable, transmit check character", the barcode scanning device will check according to the last digit of the barcode data, if the check is passed, the check character will be taken as the last digit of normal data together Transmission, if the verification fails, the barcode content will not be sent.



(9020010.)

\* Not check character



(9020011.)

Enable, but not transmit check character





(9020012.)

Enable, and transmit check character

## Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 2-80. Minimum Default = 4, Maximum Default = 80.



(902004.)

Minimum Barcode Length



(902003.)

Maximum Barcode Length

## NEC 2of5

< Default All NEC 2 of 5 Settings >



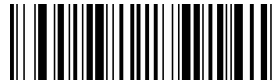
(903000.)

### On/Off



(9030011.)

\* on



(9030010.)

Off

### Check character

No Check Character means that the barcode scanning device will read and transmit all barcodes with or without a check character. (At this time, when scanning a barcode with a check character, the check character is transmitted together)

When the "check character" is set to "enable, do not transmit check character", the barcode scanning device will check according to the last digit of the barcode, if the check is passed, it will transmit the normal data except the last check character. If the verification fails, the barcode content will not be sent.

When the "check character" is set to "enable, transmit check character", the barcode scanning device will check according to the last digit of the barcode data, if the check is passed, the check character will be taken as the last digit of normal data together Transmission, if the verification fails, the barcode content will not be sent.



(9030020.)

\*Not check character



(9030021.)

Disable, but not transmit check character



(9030022.)

**Disable, and transmit check character**

### **Code reading length**

Scan the barcode below to change the read length. For additional information, see Code Length Notes. Minimum and maximum lengths are 2-80. Minimum default = 4, maximum default = 80. (Note: After scanning "Minimum Barcode Length" and "Maximum Barcode Length", you also need to scan the specified barcode length and save the barcode, please refer to the description of reading code length)



(903004.)

**Minimum Barcode Length**



(903003.)

**Maximum Barcode Length**

---

## Code 93

<Default All Code 93 Settings>



(904000.)

### On/Off



(9040021.)

\*On



(9040020.)

Off

### Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 0-80. Minimum Default = 0, Maximum Default = 80



(904004.)

Minimum Barcode Length



(904003.)

Maximum Barcode Length

---

## Straight 2 of 5 Industrial (three-bar start/stop)

<Default All Straight 2 of 5 Industrial Settings>



(905000.)

### On/Off



(9050011.)

On



(9050010.)

Off

### Code reading length



(905003.)

Minimum Barcode Length



(905002.)

Maximum Barcode Length

---

## Straight 2 of 5 IATA (two-bar start/stop)

<Default All Matrix 2 of 5 Settings>



(906000.)

### On/Off



(9060011.)

On



(9060010.)

\*Off

### Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 1-48. Minimum Default = 4, Maximum Default = 48.



(906003.)

Minimum Barcode Length



(906002.)

Maximum Barcod Length

---

## Matrix 2 of 5

<Default All Matrix 2 of 5  
Settings>



(907000.)

### On/Off



(9070011.)

On



(9070010.)

\* off

### Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 1-80. Minimum Default = 4, Maximum Default = 80.



(907003.)

Minimum Barcode Length



(907002.)

Maximum Barcode Length

---

## Check

Scan the barcode below to enable or disable the check function of matrix25.



**(9070051.)**

**Enable Check Function**



**(9070050.)**

**\*Enable Check Function**



---

## Code 11

<Default All Settings>



(908000.)

## On/Off



(9080021.)

On



(9080020.)

\* Off

## Check Digits Required

This option sets whether 1 or 2 check digits are required with Code 11 barcodes. Default = Two Check Digits.



(3110280.)

One Check Digit



(3110281.)

\* Two Check Digits

---

## Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 1-80. Minimum Default = 4, Maximum Default = 80.



(908004.)

**Minimum Barcode Length**



(908003.)

**Maximum Barcode Length**

---

## Code 128

<Default All Code 128 Settings>



(909000.)

## On/Off



(9090011.)

\* On



(9090010.)

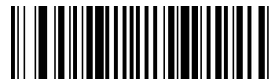
Off

## ISBT 128 Concatenation



(9020051.)

ISBT 128 On



(9020050.)

\*ISBT 128 Off

## Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 0-80. Minimum Default = 0, Maximum Default = 80.



(909003.)

**Minimum Barcode Length**



(909002.)

**\*Maximum Barcode Length**

## GS1-128

---

<Default All GS1-128 Settings>



On/Off



Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 1-80. Minimum Default = 1, Maximum Default = 80.



---

## UPC-A

<Default All UPC-A Settings>



(912000.)

On/Off



(9120031.)

\* On



(9120030.)

Off

## Check Digit

This selection allows you to specify whether the check digit should be transmitted at the end of the scanned data or not. Default = On.



(9120041.)

\* On



(9120040.)

Off

---

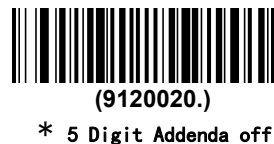
## Number System

The numeric system digit of a U.P.C. symbol is normally transmitted at the beginning of the scanned data, but the unit can be programmed so it will not transmit it. Default = 0n.



## Addenda

This selection adds 2 or 5 digits to the end of all scanned UPC-A data. Default = Off for both 2 Digit Addenda and 5 Digit Addenda.



---

## Addenda Required

When **Required** is scanned, the scanner will only read UPC-A barcodes that have addenda. You must then turn on a 2 or 5 digit addenda. Default = Not Required.



(9120061.)

**Required**



(9120060.)

**\* Not Required**

## Addenda Separator

When this feature is on, there is a space between the data from the barcode and the data from the addenda. When turned off, there is no space. Default = On.



(9120071.)

**\* On**



(9120070.)

**Off**

## Note:

Scan the barcode below to convert UPC-A to EAN\_13 or not.



(9120111.)

**Convert**



(9120110.)

**Not convert**



---

## UPC-E0

<Default All UPC-E Settings>



(914000.)

### On/Off

Most U.P.C. barcodes lead with the 0 number system. To read these codes, use the **\*UPC-E0 On** selection. If you need to read codes that lead with the 1 number system, use **UPC-E1**. Default = On.



(9140101.)

\* UPC-E0 On



(9140100.)

UPC-E0 Off

### Expand

UPC-E Expand expands the UPC-E code to the 12 digit, UPC-A format. Default = Off.



(9140021.)

On



(9140020.)

\* Off

---

## Addenda Required

When **Required** is scanned, the scanner will only read UPC-E barcodes that have addenda. Default = Not Required.



(9140031.)

Required



(9140030.)

\*Not Required

## Addenda Separator

When **Required** is scanned, the scanner will only read UPC-E barcodes that have addenda. Default = Not Required.



(9140041.)

\* 0n



(9140040.)

0ff

## Check Digit

Check Digit specifies whether the check digit should be transmitted at the end of the scanned data or not. Default = 0n.



(9140051.)

\*0n



(9140050.)

0ff

---

## Number System

The numeric system digit of a U.P.C. symbol is normally transmitted at the beginning of the scanned data, but the unit can be programmed so it will not transmit it. To prevent transmission, scan **Off**. Default = On.



(9140061.)

\* On



(9140060.)

Off

## Addenda

This selection adds 2 or 5 digits to the end of all scanned UPC-E data. Default = Off for both 2 Digit and 5 Digit Addenda.



(9140071.)

2 Digit Addenda On



(9140070.)

\* 2 Digit Addenda Off



(9140081.)

5 Digit Addenda On



(9140080.)

\* 5 Digit Addenda Off

---

## UPC-E1

Most U.P.C. barcodes lead with the 0 number system. For these codes, use UPC-E0. If you need to read codes that lead with the 1 number system, use the **UPC-E1 On** selection. Default = Off.



(9140091.)  
UPC-E1 On



(9140090.)  
\*UPC-E1 Off

## EAN/JAN-13

<Default All EAN/JAN Settings>



(915000.)

On/Off



(9150011.)  
\*On



(9150010.)  
Off

**Note:** If you want to convert UPC-A barcodes to EAN-13 format, scan the **UPC-A Off** barcode.

---

## Check Digit

This selection allows you to specify whether the check digit should be transmitted at the end of the scanned data or not. Default = On.



(9150021.)

\* On



(9150020.)

Off

## Addenda

This selection adds 2 or 5 digits to the end of all scanned EAN/JAN-13 data. Default = Off for both 2 Digit and 5 Digit



(9150031.)

On 2 Digit Addenda On



(9150030.)

\* 2 Digit Addenda Off



(9150041.)

5 Digit Addenda On



(9150040.)

\* 5 Digit Addenda Off

## Addenda Required

When **Required** is scanned, the scanner will only read EAN/JAN-13 barcodes that have addenda. Default = Not Required



(9150051.)

Required

## Addenda Separator



(9150050.)

\* Not Required

When this feature is **On**, there is a space between the data from the barcode and the data from the addenda. When turned **Off**, there is no space. Default = On.



(9150061.)

\* On



(9150060.)

Off

## ISBN Translate

When **On** is scanned, EAN-13 Bookland symbols are translated into their equivalent ISBN number format. Default = Off.



(9150071.)

On



(9150070.)

\* Off

---

## EAN/JAN-8

<Default All EAN/JAN-8 Settings>



(916000.)

On/Off



(9160011.)

\*On



(9160010.)

Off

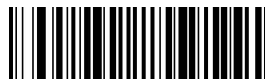
## Check Digit

This selection allows you to specify whether the check digit should be transmitted at the end of the scanned data or not. Default = On.



(9160021.)

\* On



(9160020.)

Off

## Addenda

This selection adds 2 or 5 digits to the end of all scanned EAN/JAN-8 data. Default = Off for both 2 Digit and 5 Digit *Addenda*.



(9160031.)

2 Digit Addenda On



(9160030.)

\* 2 Digit Addenda Off



(9160041.)

5 Digit Addenda On



(9160040.)

\* 5 Digit Addenda Off

## Addenda Required

When **Required** is scanned, the scanner will only read EAN/JAN-8 barcodes that have addenda. Default = Not Required



(9160051.)

Required



(9160050.)

\* Not Required

## Addenda Separator

When this feature is **On**, there is a space between the data from the barcode and the data from the addenda. When turned **Off**, there is no space. Default = On.



(9160061.)

\* On



(9160060.)

Off



## MSI

<Default All MSI Settings>



(917000.)

On/Off



(9170011.)

On



(9170010.)

\* Off

## Check Character

MSI barcodes use different types of check characters. You can configure the barcode scanner to read the MSI barcode using the check character. Default = **Validate MOD 10, but Don' t Transmit**

When Check Character is set to **Validate MOD 10 and Transmit**, the scanner will only read MSI barcodes printed with the specified type check character(s), and will transmit the character(s) at the end of the scanned data.

When Check Character is set to **Validate MOD 10, but Don' t Transmit**, the unit will only read MSI barcodes printed with the specified type check character(s), but will not transmit the check character(s) with the scanned data.



(9170020.)

\*Validate MOD 10, but Don' t Transmit



(9170021.)

Validate MOD 10 and Transmit



(9170026.)

Disable MSI Check Characters

---

## Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 4-48. Minimum Default = 4, Maximum Default = 48.



(917004.)

**Minimum Barcode Length**



(917003.)

**Maximum Barcode Length**

---

## GS1 DataBar Omnidirectional

<Default All GS1 DataBar Omnidirectional Settings >



(918000.)

On/Off



(9180011.)

\* On



(9180010.)

Off

## GS1 DataBar Limited

<Default All GS1 DataBar Limited Settings>



(919000.)

On/Off



(9190011.)

\* On



(9190010.)

Off

---

## GS1 DataBar Expanded

< Default All GS1 DataBar Expanded Settings >



(920000.)

On/Off



(9200011.)

\* On



(9200010.)

Off

### Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 4-74.

Minimum Default = 4, Maximum Default = 74.



(920003.)

Minimum Barcode Length



(920002.)

Maximum Barcode Length

< Default All PDF417 Settings>



(924000.)

On/Off



(9240011.)

\*0n



(9240010.)

Off

### Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 1-2750. Minimum Default = 1, Maximum Default = 2750



(924003.)

Minimum Barcode Length



(924002.)

Maximum Barcode Length

---

## QRCode

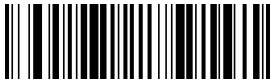
<Default All QR Code Settings>



(928000.)

### On/Off

This selection applies to both QR Code and Micro QR Code.



(9280011.)

\* On



(9280010.)

Off

### Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 1-7089.

Minimum Default = 1, Maximum Default = 7089.



(928003.)

Minimum Barcode Length



(928002.)

Maximum Barcode Length

---

## Data Matrix

< Default All Data Matrix Settings >



(930000.)

On/Off



(9300011.)

\* On



(9300010.)

Off

### Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 1-3116. Minimum Default = 1, Maximum Default = 3116



(930002.)

Minimum Barcode Length



(930003.)

Maximum Barcode Length

---

## Aztec Code

< Default All Aztec Code Settings>



(931000.)

On/Off



(9310011.)

\* On

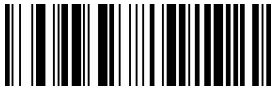


(9310010.)

Off

### Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 1-3832. Minimum Default = 1, Maximum Default = 3832



(931003.)

Minimum Barcode Length



(931002.)

Maximum Barcode Length



---

## China Post (Hong Kong 2 of 5)

<Default All China Post (Hong Kong 2 of 5) Settings>



(936000.)

On/Off



(9360011.)

On



(9360010.)

\* Off

Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 2-80. Minimum Default = 4, Maximum Default = 80



(9360003.)

Minimum Barcode Length



(9360002.)

Maximum Barcode Length

---

## Korea Post

<Default All Korea Post Settings>



(937000.)

On/Off



(9370011.)

On



(9370010.)

\* Off

### Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 2-80. Minimum Default = 4, Maximum Default = 48.



(937003.)

Minimum Barcode Length



(937002.)

Maximum Barcode Length

---

## Check Digit

This selection allows you to specify whether the check digit should be transmitted at the end of the scanned data. Default = Don't Transmit



(9370041.)

On



(9370040.)

\* Off

---

## Han Xin code

<Default All Han Xin Code Settings>



(932000.)

On/Off



(9320011.)

On



(9320010.)

\* Off

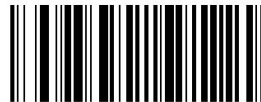
### Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 1-1000. Minimum Default = 1, Maximum Default = 1000



(932003.)

Minimum Barcode Length



(932002.)

Maximum Barcode Length

---

## Maxi code

<Default all maxi code settings>



(929000.)

### On/Off



(9290011.)

On



(9290010.)

Off

### Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 1-150. Minimum Default = 1, Maximum Default = 150.



(929003.)

Minimum Barcode Length



(929002.)

Minimum Barcode Length

---

## Micropdf

<dealt all micropdf settings



(925000.)

On/Off



(9250011.)

On



(9250010.)

Off

### Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 1-366. Minimum Default = 1, Maximum Default = 366



(925003.)

Minimum Barcode Length



(925002.)

Maximum Barcode Length

---

## Gs1 Composite Codes

<default all composites settings>



(926000.)

On/Off



(9260011.)

On



(9260010.)

Off

### Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 1-2435. Minimum Default = 1, Maximum Default = 2435



(926004.)

Minimum Barcode Length



(926003.)

Maximum Barcode Length

---

## Codablock A

<default all composites settings>



On/Off



### Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 1-600. Minimum Default = 1, Maximum Default = 600





---

## Codablock F

<default all composites settings>



(923000.)

On/Off



(9230011.)

On



(9230010.)

Off

### Code reading length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 1-2048. Minimum Default = 1, Maximum Default = 2048



(923003.)

Minimum Barcode Length



(923002.)

Maximum Barcode Length

## Chapter 6 Utilities

### Show Software Revision

Scan the barcode below to output the current software revision, unit serial number, and other product information.



(809004?.)

Show Revision

## Chapter 7 Common Problems And Solutions

**Problem:** The barcode scanner does not work.

possible reason:

1. The barcode scanner is not powered, check the power of the equipment.
2. If you are using an incorrect cable, use the cable that was originally configured.
3. The cable interface is loose and reconnected.
4. Check if the button is normal.

**Problem:** The barcode scanner scans normally, but the data output is incorrect.

possible reason:

1. The cable interface is loose and reconnected.
2. Barcode scanner may not be configured to display the correct terminal.
3. If you are using a USB to RS232 cable, if the data output is garbled, it may be that the data reception speed of the device does not match the output speed of the barcode scanner.

**Problem:** Barcode scanner does not decode some barcodes.

possible reason:

1. The barcode is defective. Try to scan the same type of test barcode to see if it can be interpreted.
2. The distance between the barcode scanner and the barcode is not suitable. Please move closer or move away the barcode.
3. For barcodes with poor print quality, the preferred reading distance is 5-10 cm.
4. Confirm that your device is enabled for this barcode type.

**Problem:** Other conditions cannot be decoded.

possible reason:

1. Turn off the device power; properly connect the device to the barcode scanner; turn on the device and test it.
2. If the problem still cannot be solved, please contact the dealer or the manufacturer.

---

## Chapter 8 Maintenance And Customer Service

### Maintenance

1. Stains and dust on the scanning window can sometimes affect the normal operation of the barcode scanner. When cleaning, use a good quality tissue to wipe gently, or use a soft cloth to clean.  
If you use a paper with poor paper quality for a long time, it will damage the surface finish of the window and affect the reading effect of the barcode scanner.
2. The outer shell of the barcode scanner can be wiped with a soft, clean cloth. If necessary, add a small amount of detergent to the water, wipe it with a soft cloth and rub it.
3. Do not spray any liquid on the window.
4. The scanning window must be kept clean and the supplier is not liable for damage caused by improper maintenance.

## Appendix Reference Chart

### 1D Symbolologies

| Symbology                             | AIM |                        | Newtologic |           |
|---------------------------------------|-----|------------------------|------------|-----------|
|                                       | ID  | Possible Modifiers (m) | ID         | Hex       |
| All Symbolologies                     |     |                        |            | <b>99</b> |
| Codabar                               | ]Fm | 0-1                    | a          | <b>61</b> |
| Code 11                               | ]H3 |                        | h          | <b>68</b> |
| Code 128                              | ]Cm | 0, 1, 2, 4             | j          | <b>6A</b> |
| Code 32<br>Pharmaceutical<br>(PARAF)  | ]X0 |                        | <          | <b>3C</b> |
| Code 39 (supports Full<br>ASCII mode) | ]Am | 0, 1, 3, 4,<br>5,7     | b          | <b>62</b> |
| TCIF Linked Code 39<br>(TLC39)        | ]L2 |                        | T          | <b>54</b> |
| Code 93 and 93i                       | ]Gm | 0-9, A-Z, a-m          | i          | <b>69</b> |
| EAN                                   | ]Em | 0, 1, 3, 4             | d          | <b>64</b> |
| EAN-13 (including<br>Bookland EAN)    | ]E0 |                        | d          | <b>64</b> |
| EAN-13 with Add-On                    | ]E3 |                        | d          | <b>64</b> |
| EAN-13 with Extended<br>Coupon Code   | ]E3 |                        | d          | <b>64</b> |
| EAN-8                                 | ]E4 |                        | D          | <b>44</b> |
| EAN-8 with Add-On                     | ]E3 |                        | D          | <b>44</b> |

| Symbology                              | AIM |                           | Newtologic |                  |
|----------------------------------------|-----|---------------------------|------------|------------------|
|                                        | ID  | Possible Modifiers (m)    | ID         | Hex              |
| <b>GS1</b>                             |     |                           |            |                  |
| <b>GS1 DataBar</b>                     | ]em | 0                         | y          | <b>79</b>        |
| <b>GS1 DataBar Limited</b>             | ]em |                           | {          | <b>7B</b>        |
| <b>GS1 DataBar Expanded</b>            | ]em |                           | }          | <b>7D</b>        |
| <b>GS1-128</b>                         | ]C1 |                           | l          | <b>49</b>        |
| <b>2 of 5</b>                          |     |                           |            |                  |
| <b>China Post (Hong Kong 2 of 5)</b>   | ]X0 |                           | Q          | <b>51</b>        |
| <b>Interleaved 2 of 5</b>              | ]Im | 0, 1, 3                   | e          | <b>65</b>        |
| <b>Matrix 2 of 5</b>                   | ]X0 |                           | m          | <b>6D</b>        |
| <b>NEC 2 of 5</b>                      | ]X0 |                           | Y          | <b>59</b>        |
| <b>Straight 2 of 5 IATA</b>            | ]Rm | 0, 1, 3                   | f          | <b>66</b>        |
| <b>Straight 2 of 5 Industrial</b>      | ]S0 |                           | f          | <b>66</b>        |
| <b>MSI</b>                             | ]Mm | 0, 1                      | g          | <b>67</b>        |
| <b>Telepen</b>                         | ]Bm |                           | t          | <b>74</b>        |
| <b>UPC</b>                             |     | 0, 1, 2, 3, 8, 9, A, B, C |            |                  |
| <b>UPC-A</b>                           | ]E0 |                           | c          | <b>63</b>        |
| <b>UPC-A with Add-On</b>               | ]E3 |                           | c          | <b>63</b>        |
| <b>UPC-A with Extended Coupon Code</b> | ]E3 |                           | c          | <b>63</b>        |
| <b>UPC-E</b>                           | ]E0 |                           | E          | <b>45</b>        |
| <b>UPC-E with Add-On</b>               | ]E3 |                           | E          | <b>45</b>        |
| <b>UPC-E1</b>                          | ]X0 |                           | E          | <b>45</b>        |
| <b>Add Newtologic Code ID</b>          |     |                           |            | <b>5C<br/>80</b> |
| <b>Add AIM Code ID</b>                 |     |                           |            | <b>5C<br/>81</b> |
| <b>Add Backslash</b>                   |     |                           |            | <b>5C<br/>5C</b> |
| <b>Batch Mode Quantilty</b>            |     |                           | 5          | <b>35</b>        |

## Appendix

### 2D Symbolologies

| Symbology                            | AIM |                        | Newtologic |     |
|--------------------------------------|-----|------------------------|------------|-----|
|                                      | ID  | Possible Modifiers (m) | ID         | Hex |
| All Symbolologies                    |     |                        |            | 99  |
| Aztec Code                           | ]zm | 0-9, A-C               | z          | 7A  |
| Chinese Sensible Code (Han Xin Code) | ]X0 |                        | H          | 48  |
| Codablock A                          | ]O6 | 0, 1, 4, 5, 6          | V          | 56  |
| Codablock F                          | ]Om | 0, 1, 4, 5, 6          | q          | 71  |
| Code 49                              | ]Tm | 0, 1, 2, 4             | l          | 6C  |
| Data Matrix                          | ]dm | 0-6                    | w          | 77  |
| GS1                                  | ]em | 0-3                    | y          | 79  |
| GS1 Composite                        | ]em | 0-3                    | y          | 79  |
| GS1 DataBar Omnidirectional          | ]em | 0-3                    | y          | 79  |
| MaxiCode                             | ]Um | 0-3                    | x          | 78  |
| PDF417                               | ]Lm | 0-2                    | r          | 72  |
| MicroPDF417                          | ]Lm | 0-5                    | R          | 52  |
| QR Code                              | ]Qm | 0-6                    | s          | 73  |
| Micro QR Code                        | ]Qm |                        | s          | 73  |

## Postal Symbologies

| Symbology       | AIM |                        | Newtologic |     |
|-----------------|-----|------------------------|------------|-----|
|                 | ID  | Possible Modifiers (m) | ID         | Hex |
| All Symbologies |     |                        |            | 99  |
| Australian Post | JX0 |                        | A          | 41  |
| British Post    | JX0 |                        | B          | 42  |
| Canadian Post   | JX0 |                        | C          | 43  |

| Symbology                 | AIM |                        | Newtologic |     |
|---------------------------|-----|------------------------|------------|-----|
|                           | ID  | Possible Modifiers (m) | ID         | Hex |
| China Post                | JX0 |                        | Q          | 51  |
| InfoMail                  | JX0 |                        | ,          | 2c  |
| Intelligent Mail Bar Code | JX0 |                        | M          | 4D  |
| Japanese Post             | JX0 |                        | J          | 4A  |
| KIX (Netherlands) Post    | JX0 |                        | K          | 4B  |
| Korea Post                | JX0 |                        | ?          | 3F  |
| Planet Code               | JX0 |                        | L          | 4C  |
| Postal-4i                 | JX0 |                        | N          | 4E  |
| Postnet                   | JX0 |                        | P          | 50  |



## ASCII Conversion Chart

| 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)           |
| 20  | 32  | SP (Space)                    |
| 21  | 33  | ! (Exclamation Mark)          |
| 22  | 34  | " (Double Quote)              |
| 23  | 35  | # (Number Sign)               |
| 24  | 36  | \$ (Dollar Sign)              |

|    |    |                                 |
|----|----|---------------------------------|
| 25 | 37 | % (Percent)                     |
| 26 | 38 | & (Ampersand)                   |
| 27 | 39 | ` (Single Quote)                |
| 28 | 40 | ( (Right / Closing Parenthesis) |
| 29 | 41 | ) (Right / Closing Parenthesis) |
| 2a | 42 | * (Asterisk)                    |
| 2b | 43 | + (Plus)                        |
| 2c | 44 | , (Comma)                       |
| 2d | 45 | - (Minus / Dash)                |
| 2e | 46 | . (Dot)                         |
| 2f | 47 | / (Forward Slash)               |
| 30 | 48 | 0                               |
| 31 | 49 | 1                               |
| 32 | 50 | 2                               |
| 33 | 51 | 3                               |
| 34 | 52 | 4                               |
| 35 | 53 | 5                               |
| 36 | 54 | 6                               |
| 37 | 55 | 7                               |
| 38 | 56 | 8                               |
| 39 | 57 | 9                               |
| 3a | 58 | : (Colon)                       |
| 3b | 59 | ; (Semi-colon)                  |
| 3c | 60 | < (Less Than)                   |
| 3d | 61 | = (Equal Sign)                  |
| 3e | 62 | > (Greater Than)                |
| 3f | 63 | ? (Question Mark)               |
| 40 | 64 | @ (AT Symbol)                   |
| 41 | 65 | A                               |
| 42 | 66 | B                               |
| 43 | 67 | C                               |
| 44 | 68 | D                               |
| 45 | 69 | E                               |
| 46 | 70 | F                               |
| 47 | 71 | G                               |
| 48 | 72 | H                               |
| 49 | 73 | I                               |
| 4a | 74 | J                               |
| 4b | 75 | K                               |
| 4c | 76 | L                               |
| 4d | 77 | M                               |
| 4e | 78 | N                               |
| 4f | 79 | O                               |

|    |     |                               |
|----|-----|-------------------------------|
| 50 | 80  | P                             |
| 51 | 81  | Q                             |
| 52 | 82  | R                             |
| 53 | 83  | S                             |
| 54 | 84  | T                             |
| 55 | 85  | U                             |
| 56 | 86  | V                             |
| 57 | 87  | W                             |
| 58 | 88  | X                             |
| 59 | 89  | Y                             |
| 5a | 90  | Z                             |
| 5b | 91  | [ ( Left / Opening Bracket )  |
| 5c | 92  | \ ( Back Slash )              |
| 5d | 93  | ] ( Right / Closing Bracket ) |
| 5e | 94  | ^ ( Caret / Circumflex )      |
| 5f | 95  | _ ( Underscore )              |
| 60 | 96  | ' ( Grave Accent )            |
| 61 | 97  | a                             |
| 62 | 98  | b                             |
| 63 | 99  | c                             |
| 64 | 100 | d                             |
| 65 | 101 | e                             |
| 66 | 102 | f                             |
| 67 | 103 | g                             |
| 68 | 104 | h                             |
| 69 | 105 | i                             |
| 6a | 106 | j                             |
| 6b | 107 | k                             |
| 6c | 108 | l                             |
| 6d | 109 | m                             |
| 6e | 110 | n                             |
| 6f | 111 | o                             |
| 70 | 112 | p                             |
| 71 | 113 | q                             |
| 72 | 114 | r                             |
| 73 | 115 | s                             |
| 74 | 116 | t                             |
| 75 | 117 | u                             |
| 76 | 118 | v                             |
| 77 | 119 | w                             |
| 78 | 120 | x                             |
| 79 | 121 | y                             |
| 7a | 122 | z                             |
| 7b | 123 | { ( Left/ Opening Brace )     |

---

|           |            |     |                       |
|-----------|------------|-----|-----------------------|
| <b>7c</b> | <b>124</b> |     | (Vertical Bar)        |
| <b>7d</b> | <b>125</b> | }   | (Right/Closing Brace) |
| <b>7e</b> | <b>126</b> | ~   | (Tilde)               |
| <b>7f</b> | <b>127</b> | DEL | (Delete)              |

---

## Sample Symbols

**UPC-A**



0 123456 7890

**Interleaved 2 of 5**



1234567890

**EAN-13**



9 780330 290951

**Code 39**



BC321

**Codabar**



A13579B

**Code 128**



Code 128

---

**Code 93**



**Straight 2 of 5 Industrial**



**GS1 DataBar**



**Matrix 2 of 5**



**QR Code**



**Aztec**



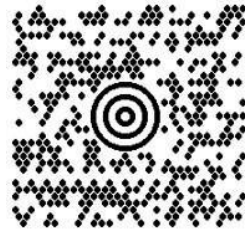
---

### PDF417



Car Registration

### MaxiCode



Test Message

### Micro PDF417



Test Message

### Data Matrix



Test Symbol

---

## Programming Charts



(K0K.)  
0



(K2K.)  
2



(K4K.)  
4



(K6K.)  
6



(K8K.)  
8



(K1K.)  
1



(K3K.)  
3



(K5K.)  
5



(K7K.)  
7





(KAK.)  
A



(KCK.)  
C



(KEK.)  
E



(800002.)  
Save



(K9K.)  
9



(KBK.)  
B



(KDK.)  
D



(KFK.)  
F

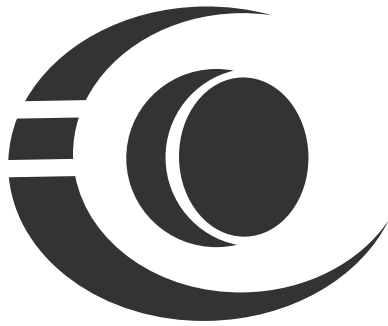


(800000.)  
Discard

Note: If an error occurs while scanning a letter or number (before scanning the "**Save**" barcode), scan the "**Discard**" barcode, rescan the correct letter or number, and then scan the "**Save**" barcode.

## ASCII conversion of keyboard operation

| HEX | Dec | CTRL+X | FUNCTION          |     |
|-----|-----|--------|-------------------|-----|
| 00  | 0   | CTRL+@ |                   |     |
| 01  | 1   | CTRL+A | Select all        |     |
| 02  | 2   | CTRL+B | Bold              |     |
| 03  | 3   | CTRL+C | Copy              |     |
| 04  | 4   | CTRL+D | Bookmark          |     |
| 05  | 5   | CTRL+E | Center            |     |
| 06  | 6   | CTRL+F | Find              |     |
| 07  | 7   | CTRL+G | Position          |     |
| 08  | 8   | CTRL+H | History           |     |
| 09  | 9   | CTRL+I | Italics           |     |
| 0a  | 10  | CTRL+J | Justify           |     |
| 0b  | 11  | CTRL+K | Hyperlinks        |     |
| 0c  | 12  | CTRL+L | Align left        |     |
| 0d  | 13  | CTRL+M | left indent       |     |
| 0e  | 14  | CTRL+N | New               |     |
| 0f  | 15  | CTRL+O | Open              |     |
| 10  | 16  | CTRL+P | Print             |     |
| 11  | 17  | CTRL+Q |                   |     |
| 12  | 18  | CTRL+R | Align right       |     |
| 13  | 19  | CTRL+S | save              |     |
| 14  | 20  | CTRL+T | First line indent |     |
| 15  | 21  | CTRL+U | Underscore        | F12 |
| 16  | 22  | CTRL+V | Paste             | F1  |
| 17  | 23  | CTRL+W | Write Disk Off    | F2  |
| 18  | 24  | CTRL+X | Cut               | F3  |
| 19  | 25  | CTRL+Y | Repeat            | F4  |
| 1a  | 26  | CTRL+Z | Revoke            | F5  |
| 1b  | 27  | CTRL+[ |                   | F6  |
| 1c  | 28  | CTRL+\ |                   | F7  |
| 1d  | 29  | CTRL+] |                   | F8  |
| 1e  | 30  | CTRL+^ |                   | F9  |
| 1f  | 31  | CTRL+- |                   | F10 |
| 7f  | 32  | CTRL+  |                   |     |



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