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## User Manual

### ScanAvenger Wireless / Bluetooth / USB

### SA1200 - SA9200 - SA9400

### Barcode Scanners

## Disclaimer

Please read through the manual carefully before using the product and operate it according to the manual. It is advised to keep this manual for future reference.

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## Table of Contents

DISCLAIMER.....	2
SAFETY AND COMPLIANCE.....	11
BATTERY AND CHARGING GUIDELINES .....	11
READING TIPS .....	12
DESCRIPTION OF LED & BUZZER STATE .....	13
BUZZER PROMPT SOUND .....	13
FUNCTIONAL CONFIGURATION INSTRUCTIONS AND EXAMPLES .....	14
CONFIGURING SETTINGS WITH BASIC AND SPECIAL CODES .....	14
PREFIXES AND SUFFIXES WITH BASIC CONFIGURATION BARCODES .....	15
<i>How to Create a Prefix</i> .....	15
Prefix Setup for All Codes .....	15
Example - Applying the Prefix "X" to All Barcode Types .....	17
Prefix Setup for Specific Barcodes.....	18
Example - Applying the Prefix "X" to QR Codes.....	20
Remove a Prefix for Single Barcode Types .....	22
<i>How to Create a Suffix</i> .....	23
Suffix Setup for All Codes .....	23
Example - Applying the Suffix "X" to All Barcode Types .....	25
Suffix Setup for Specific Barcodes .....	26
Example - Applying the Suffix "X" to QR Codes .....	28
Remove a Suffix for Single Barcode Types .....	30
PREFIXES AND SUFFIXES WITH SPECIAL CONFIGURATION BARCODES .....	31
<i>How to Add a Prefix</i> .....	31
Example - Applying the Prefix "X" .....	32
Remove a Prefix .....	32
<i>How to Add a Suffix</i> .....	33
Example - Applying the Suffix "X" .....	34
Remove a Suffix .....	34
ADVANCED CONFIGURATIONS FOR PREFIXES AND SUFFIXES .....	35
<i>Configurations with Special Codes - Custom Key Emulation</i> .....	35
Character Sets (general use) .....	35
Advanced Custom Keys in Character Set 0.....	37
HIDING AND RETAINING WITH BASIC CONFIGURATION CODES.....	39
Recommended Configuration .....	39
Limitations.....	39

<i>Hide Characters for All Barcodes</i> .....	40
Edit Hide Start Position .....	40
Edit Hide End Position.....	41
Example 1 - Hiding the First 3 Characters (Forward Index) .....	42
Example 2 - Hiding the Last 3 Characters (Inverse Index) .....	44
Example 3 - Hiding Characters 3 to 5 (Forward Index).....	46
<i>Hide Characters for Specific Barcode Types</i> .....	48
Edit Hide Start Position .....	48
Edit Hide End Position.....	49
Example 1 - Hiding the First 3 Characters for Code 128 (Forward Index).....	51
Example 2 - Hiding the Last 3 Characters for Code 128 (Inverse Index).....	54
Example 3 - Hiding Characters 3 to 5 for Code 128 (Forward Index) .....	57
<i>Hide Specific Characters</i> .....	60
Edit Hide Specific Characters .....	60
Example - Hiding the A and B Characters.....	62
<i>Retain Characters for All Barcodes</i> .....	64
Edit Retain Start Position .....	64
Edit Retain End Position.....	65
Example 1 - Retaining the First 3 Characters (Forward Index) .....	67
Example 2 - Retaining the Last 3 Characters (Inverse Index) .....	69
Example 3 - Retaining Characters 3 to 5 (Forward Index).....	71
<i>Retain Characters for Specific Barcode Types</i> .....	73
Edit Retain Start Position .....	74
Edit Retain End Position.....	75
Example 1 - Retaining the First 3 Characters for Code 128 (Forward Index).....	76
Example 2 - Retaining the Last 3 Characters for Code 128 (Inverse Index).....	79
Example 3 - Retaining Characters 3 to 5 for Code 128 (Forward Index) .....	82
HIDING CHARACTERS WITH SPECIAL CONFIGURATION CODES.....	85
<b>ADDITIONAL CONFIGURATIONS WITH BASIC AND SPECIAL CODES .....</b>	<b>87</b>
CUSTOM CHARACTER INSERTION .....	87
CHARACTER SUBSTITUTION SETTINGS.....	92
END CHARACTER .....	97
<i>End Character with Basic Configuration Barcodes</i> .....	97
<i>End Character with Special Codes</i> .....	98
SOUND SETTINGS .....	99
<i>Basic Sound Codes</i> .....	99
<i>Special Sound Codes</i> .....	104
BARCODE LENGTH SETTINGS.....	106
<i>Example - Set Code 128 Length to 6-15 Characters</i> .....	106

GS CHARACTER SUBSTITUTION WITH SPECIAL CODES.....	108
VERSION NUMBER .....	109
<i>Version Number - Scanning Module</i> .....	109
<i>Version Number - Wireless/Bluetooth Module</i> .....	109
<b>PART I: BASIC CONFIGURATION BARCODES.....</b>	<b>110</b>
SETUP CODE FUNCTION.....	111
SETUP CODE CONTENT .....	111
LIGHT.....	112
<i>Scanning Module Light</i> .....	112
<i>Aiming Light</i> .....	112
PROMPT FOR UNSUCCESSFUL READING .....	113
QR URL CODES .....	113
SCANNING MODE - MANUAL (TRIGGER) MODE .....	114
<i>Latch Trigger Mode</i> .....	114
SCANNING MODE - CONTINUOUS MODE .....	115
<i>Continuous - Scan Interval</i> .....	115
Edit Continuous Mode Scan Interval .....	115
Quick Scan Interval Presets .....	116
SCANNING MODE - AUTOSENSE MODE .....	117
<i>Autosense - Sensitivity</i> .....	117
<i>Autosense - Image Stabilization Time</i> .....	117
Edit Image Stabilization Time .....	118
Quick Image Stabilization Time Presets .....	118
TRIGGER TIMEOUT DURATION .....	119
<i>Edit Trigger Timeout Duration</i> .....	119
Quick Trigger Timeout Duration Presets .....	119
SAME BARCODE SCANNING DELAY .....	120
<i>Edit Same Barcode Scanning Delay</i> .....	120
<i>Quick Same Barcode Scanning Delay Presets</i> .....	121
CODE ID PREFIX.....	122
AIM ID PREFIX .....	122
PARENTHESES AROUND GS1 APPLICATION IDENTIFIERS (GS1 AIs).....	123
<b>BARCODE TYPE SETTINGS .....</b>	<b>124</b>
GLOBAL SETTINGS .....	124
<i>Decoding Security Level</i> .....	125
<i>Multi-code Recognition</i> .....	126
Multi-Barcode Reading Switch .....	126
Edit Maximum Barcode Count .....	126

<i>Global Inverse Setting</i> .....	127
UPC-A.....	128
<i>Transmit Check Character</i> .....	128
<i>Transmit System Character</i> .....	128
<i>Transmit National Character</i> .....	128
<i>UPC-A 2-Digit Code</i> .....	129
<i>UPC-A 5-Digit Code</i> .....	129
<i>UPC-A Add-On Code Requirement</i> .....	129
UPC-E .....	130
<i>UPC-E0</i> .....	130
<i>UPC-E1</i> .....	130
<i>Transmit Check Character</i> .....	130
<i>Transmit System Character</i> .....	130
<i>Transmit National Character</i> .....	131
<i>Convert to UPC-A</i> .....	131
<i>UPC-E 2-Digit Code</i> .....	131
<i>UPC-E 5-Digit Code</i> .....	131
<i>UPC-E Add-On Code Requirement</i> .....	132
EAN-8 .....	133
<i>Transmit Check Character</i> .....	133
<i>EAN-8 2-Digit Code</i> .....	133
<i>EAN-8 5-Digit Code</i> .....	133
<i>EAN-8 Add-On Code Requirement</i> .....	134
EAN-13 .....	134
<i>Transmit Check Character</i> .....	134
<i>EAN-13 2-Digit Code</i> .....	134
<i>EAN-13 5-Digit Code</i> .....	135
<i>EAN-13 Add-On Code Requirement</i> .....	135
ISBN .....	136
ISSN .....	136
CODE 128.....	137
<i>Number of Recognized Characters (Minimum and Maximum limits)</i> .....	137
<i>Code 128 Exact Length Requirement</i> .....	138
<i>Code 128 Decoding Security Level</i> .....	138
GS1-128 (UCC/EAN-128).....	139
<i>Number of Recognized Characters (Minimum and Maximum limits)</i> .....	139
<i>GS1-128 Exact Length Requirement</i> .....	140
CODE 39 .....	141
<i>Check Character</i> .....	141
<i>Start and End Characters</i> .....	142

<i>Full ASCII Characters</i> .....	142
<i>Number of Recognized Characters (Minimum and Maximum Limits)</i> .....	142
<i>Code 39 Exact Length Requirement</i> .....	143
CODE 32 (PHARMACEUTICAL / PARAF).....	144
<i>Check Character</i> .....	144
<i>Code 32 Prefix "A"</i> .....	145
CODE 93 .....	146
<i>Number of Recognized Characters (Minimum and Maximum Limits)</i> .....	146
<i>Code 93 Exact Length Requirement</i> .....	147
CODE 11 .....	148
<i>Check Character</i> .....	148
<i>Check Digit Transmission</i> .....	148
<i>Number of Recognized Characters (Minimum and Maximum Limits)</i> .....	149
<i>Code 11 Exact Length Requirement</i> .....	149
CODABAR (NW-7) .....	150
<i>Check Character</i> .....	150
<i>Start and End Characters</i> .....	151
<i>Start and End Characters Format</i> .....	151
<i>Start and End Characters Case Format</i> .....	151
<i>Number of Recognized Characters (Minimum and Maximum Limits)</i> .....	152
<i>Codabar Exact Length Requirement</i> .....	152
INTERLEAVED 2 OF 5 .....	153
<i>Check Character</i> .....	153
<i>Number of Recognized Characters (Minimum and Maximum Limits)</i> .....	154
<i>Interleaved 2 of 5 Exact Length Requirement</i> .....	154
<i>Brazilian Government/Bank Code</i> .....	155
MATRIX 2 OF 5 .....	156
<i>Check Character</i> .....	156
<i>Number of Recognized Characters (Minimum and Maximum Limits)</i> .....	157
<i>Matrix 2 of 5 Exact Length Requirement</i> .....	157
INDUSTRIAL 2 OF 5 .....	158
<i>Number of Recognized Characters (Minimum and Maximum Limits)</i> .....	158
<i>Industrial 2 of 5 Exact Length Requirement</i> .....	159
STANDARD 2 OF 5.....	160
<i>Number of Recognized Characters (Minimum and Maximum Limits)</i> .....	160
<i>Standard 2 of 5 Exact Length Requirement</i> .....	161
NEC 2 OF 5.....	162
<i>Check Character</i> .....	162
<i>Number of Recognized Characters (Minimum and Maximum Limits)</i> .....	163
<i>NEC 2 of 5 Exact Length Requirement</i> .....	163

MSI PLESSEY .....	164
<i>Check Character</i> .....	164
<i>Transmit Check Digit</i> .....	164
<i>Number of Recognized Characters (Minimum and Maximum Limits)</i> .....	165
<i>MSI Plessey Exact Length Requirement</i> .....	165
TELEPEN.....	166
TRIOPTIC .....	166
GS1 DATABAR-14.....	166
GS1 COMPOSITE .....	166
KOREA POST.....	167
<i>Transmit Check Digit</i> .....	167
<i>Korea Post Reverse Output</i> .....	167
QR CODE.....	168
<i>QR Code Normal/Inversed</i> .....	168
<i>Mirror Reading</i> .....	168
<i>Number of Recognized Characters (Minimum and Maximum Limits)</i> .....	169
<i>QR Code Exact Length Requirement</i> .....	169
DATA MATRIX.....	170
<i>Data Matrix Normal/Inversed</i> .....	170
<i>Data Matrix Mirror Reading</i> .....	170
<i>Data Matrix ECI Control</i> .....	171
<i>Number of Recognized Characters (Minimum and Maximum Limits)</i> .....	171
<i>Data Matrix Exact Length Requirement</i> .....	172
PDF417 .....	173
<i>PDF417 Normal/Inversed</i> .....	173
<i>Number of Recognized Characters (Minimum and Maximum Limits)</i> .....	173
<i>PDF417 Exact Length Requirement</i> .....	174
AZTEC CODE.....	174
<b>ADDITIONAL BARCODE TYPES.....</b>	<b>175</b>
PHARMA CODE (ONE-TRACK).....	175
<i>Pharma Code One-Track Orientation</i> .....	175
<i>Pharma Code One-Track Reverse Output</i> .....	176
CODABLOCK A CODE .....	176
CODABLOCK F CODE .....	176
MAXI CODE .....	176
HANXIN .....	177
<i>HanXin ECI Control</i> .....	177
<i>Number of Recognized Characters (Minimum and Maximum Limits)</i> .....	177
<i>HanXin Exact Length Requirement</i> .....	178

DOTCODE .....	178
<b>POSTAL CODES .....</b>	<b>179</b>
<i>Postal Code Switch</i> .....	179
<i>Planet Code Transmit Check Digit</i> .....	179
<i>USPS Postnet Transmit Check Digit</i> .....	180
<b>PART II: SPECIAL CONFIGURATION CODES .....</b>	<b>181</b>
RESTORE WIRELESS PARAMETERS .....	182
Instructions.....	182
SETTING CUSTOM DEFAULT SETTINGS .....	183
COMMUNICATION MODE SWITCHING .....	184
SCANNER MATCHING STEPS.....	186
<i>USB Dongle Pairing (2.4G)</i> .....	186
<i>Bluetooth Terminal Matching</i> .....	187
Method 1: Quick Pairing (Disabled by Default) .....	187
Method 2: Manual Setup .....	187
Long Press 8 Seconds into Bluetooth HID Search (Disabled by Default).....	188
<i>Bluetooth SPP Mode (Serial Port Profile)</i> .....	189
<i>Bluetooth BLE Mode (Bluetooth Low Energy)</i> .....	190
<i>Set Bluetooth Name</i> .....	191
Read Bluetooth Name.....	191
BATTERY LEVEL DISPLAY.....	192
WIRELESS TRANSMISSION MODES .....	193
<i>Trigger Upload Mode</i> .....	193
<i>Mixed Mode</i> .....	193
<i>Storage Mode</i> .....	193
Data Control (Data Processing for Storage Mode) .....	194
Data Upload .....	194
Sum of the Barcodes Scanned .....	194
Data Clear .....	194
ANDROID, IOS SYSTEM KEYBOARD SETTINGS (BLUETOOTH FUNCTION).....	195
TRANSMISSION SPEED SETTING .....	196
VIBRATION SETTING .....	197
SLEEP TIME SETTING .....	198
LANGUAGE SETTINGS TABLE.....	200
CASE CONVERSION SETTINGS.....	205
TIMESTAMP PREFIX/SUFFIX.....	206
<b>USER DEFAULT AND FACTORY RESET .....</b>	<b>207</b>
USER DEFAULT SETTINGS.....	207

RESET STEPS FOR WIRELESS USB DONGLE CONNECTION.....	208
RESET STEPS FOR BLUETOOTH CONNECTION .....	211
<b>APPENDIX .....</b>	<b>214</b>
APPENDIX - ASCII HIDDEN CHARACTERS TABLE .....	215
APPENDIX - ASCII VISIBLE CHARACTERS TABLE .....	217
APPENDIX - DATA AND EDIT BARCODES .....	220
<i>Appendix - Confirm/Cancel Data Code Setting Mode (Basic Codes Specific) .....</i>	<i>220</i>
<i>Appendix - Alphanumeric Entry Codes (Basic Codes Specific) .....</i>	<i>221</i>
APPENDIX - BARCODE TYPES VALUES.....	223
APPENDIX - CHARACTERS' BARCODES .....	225
APPENDIX - CHARACTER SET ACTION .....	257
APPENDIX - AVAILABLE CHARACTER SETS .....	259
APPENDIX - CUSTOM KEYS MAIN KEY .....	260
APPENDIX - MODIFIER KEY .....	267
APPENDIX - DECIMAL TO HEXADECIMAL POSITION REFERENCE .....	269
APPENDIX - CODE ID & AIM ID .....	273

## Safety and Compliance

Read all safety instructions before using the scanner. Failure to follow these instructions may result in damage to the product, data loss, or personal injury.

### **Do Not Disassemble**

Do not open, modify, or repair the scanner or accessories yourself. Unauthorized disassembly may cause damage and will void the warranty.

### **Power and Charging**

Use only approved USB cables and chargers. Do not charge or use the scanner if the housing, cable, or connector is damaged, or if the device shows signs of overheating, swelling, or leakage.

### **Light and Eye Safety**

Do not look directly into the light source or point it at anyone's eyes. Avoid using the scanner near individuals sensitive to bright or flashing lights.

### **Environment**

Use the scanner only within the specified temperature, humidity, and environmental limits.

### **Children**

This product is not a toy. Keep the scanner, battery, and small accessories out of reach of children.

## Battery and Charging Guidelines

Use a standard 5V / 1A USB charger or a computer USB port to charge the scanner. Avoid using fast chargers or power adapters with higher output (such as 5V / 2A or 9V / 2A), as they may damage the internal power protection circuit over time.

How to check your charger:

1. Find the "Output" line on the charger label.
2. If it says 5V 1A, it is safe to use.
3. If it lists a higher output (for example, 5V 2A or any 9V mode), use a lower-power charger or charge from a computer USB port instead.

## Reading Tips

1. Aim the scanner's red aiming light at the center of the barcode. The scanner can read barcodes from any direction.
2. Hold the scanner in front of the barcode and press the scan button to align the red aiming light with the barcode's center.
3. Adjust the scanning distance based on barcode size:
  - a. Hold the scanner closer for small barcodes and farther away for large ones.
4. For highly reflective barcodes (e.g., coated surfaces), tilt the scanner slightly to reduce glare and improve read accuracy.



## Description of LED & Buzzer State

LED Light	Description
Green LED	Will flash one time when scanning
Blue LED	Successful wireless connection
Red LED	Charging
Green LED flashing rapidly	Pairing mode

## Buzzer Prompt Sound

Buzzer	Description
A long sound	Power ON/OFF
A short sound (low frequency)	Scan common barcode, or paired, wireless connection success
3 short sounds (low frequency)	Wireless transmission failure
5 short sounds (low frequency) and stop scanning	Battery depleted. Recharge before use
2 short sounds (low frequency)	Wireless pairing disconnected
2 short sounds (high frequency)	Setup code is not working

# Functional Configuration Instructions and Examples

Before configuring prefixes and suffixes, ensure that the scanner's language setting supports the characters you intend to add. If you're unsure which keyboard layouts support the desired character(s), scan the barcode for the *International Keyboard* setting.

For a complete list of language settings, refer to the [Language Settings Table](#).

**Note:** Enabling the International Keyboard may slightly reduce transmission speed.

## Configuring Settings with Basic and Special codes

There are two methods for adding, modifying, and removing a prefix or a suffix on your scanner:

1. **Basic Configuration Barcodes** (also referred to as Basic Codes)
2. **Special Configuration Barcodes** (also referred to as Special Codes)

These methods operate independently. If you configure a prefix or suffix using one method, you must use the same method to modify or remove it. Switching between methods is not possible. However, you can configure prefixes and suffixes with two different methods at the same time.

- **Basic Configuration Barcodes** allow configuration for specific barcode types and are supported by all software versions.
- **Special Configuration Barcodes** offer a faster and simpler setup, requiring fewer scans. They also enable more advanced configurations, which are explained here: "[Advanced Configurations for Prefixes and Suffixes](#)."

## Prefixes and Suffixes with Basic Configuration Barcodes

### **How to Create a Prefix**

#### **Determine What this Prefix Should Apply to:**

1. If you want to apply it for all barcode types, follow these instructions: [Prefix Setup for All Codes](#)
2. If you want to apply it for only a specific barcode type, follow these instructions: [Prefix Setup for Specific Barcodes](#)

**Note:** If you want to apply it to several barcode types, but not all, you will need to set it for each one independently.

#### **Prefix Setup for All Codes**

##### **Step 1: Determine the Hexadecimal Values for the Prefix Characters**

1. Identify the characters you wish to use as a prefix (e.g., "X" or "ABC")
2. Refer to the [ASCII Visible Characters Table](#) in the Appendix for the hexadecimal values of the characters you want to use
  - a. Example: "X" = 58, "ABC" = 414243

**Note:** You can add up to 10 characters for the custom prefix.

##### **Step 2: Program the Prefix**

Scan "Enable Prefix" to allow the scanner to add a prefix.



>!00101E1.

Enable Prefix

##### **Method One (QR code generation):**

Generate a QR code using the following code format, where XX represents the hexadecimal value(s) of your prefix characters. Each character requires exactly two hexadecimal digits.

- **Format:** >!010800XX.
  - **Single character:** To set prefix X (hexadecimal 58): >!01080058.
  - **Multiple characters:** To set prefix ABC (hexadecimal 41 42 43): >!010800414243.

## **Method Two (step-by-step):**

1. Scan "Set Custom Prefix" to enter the configuration mode



>!010800.

Set Custom Prefix

2. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for the hexadecimal value(s) for each character in your prefix.
  - a. e.g., X=58 and ABC=414243
3. Scan "Confirm Configuration" to complete the prefix setup



>!111000.

Confirm Configuration

## **Disabling the Prefix**

Scan "Disable Custom Prefix" to disable all custom prefix characters.



>!00101E0.

Disable Custom Prefix\*\*

## Example - Applying the Prefix "X" to All Barcode Types

Below is an example illustrating how to configure a prefix of "X" for all barcode types. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant [appendices](#).

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

Program Sequence:

1. Scan the configuration code "Enable Prefix"



>!00101E1.

Enable Prefix

2. Scan the configuration code "Set Custom Prefix" to enter the configuration mode



>!010800.

Set Custom Prefix

3. Scan the codes corresponding to 5 and 8 (for "X"=58)



>!110005.

5



>!110008.

8

4. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

## Prefix Setup for Specific Barcodes

### Step 1: Determine the Target Barcode Type

1. Identify the barcode type you wish to target for your prefix (e.g., Code 128 or QR Code)
2. Refer to the [Barcode Type Values](#) Appendix for the hexadecimal values of the characters you want to use
  - a. Example: Code 128 = 01, QR Code = 3D

### Step 2: Determine the Hexadecimal Values for the Prefix Characters

1. Identify the characters you wish to use as a prefix (e.g., "X" or "ABC")
2. Refer to the [ASCII Visible Characters Table](#) in the Appendix for the hexadecimal values of the characters you want to use
  - a. Example: "X" = 58, "ABC" = 414243

**Note:** You can add up to 5 characters for the custom prefix.

### Step 3: Program the Prefix

Scan "Enable Prefix for Single Barcode Types" to allow the scanner to add a prefix.



>!00103D1.

Enable Prefix for Single Barcode Types

### **Method One (QR code generation):**

Generate a QR code using the following format, where the first XX represents the hexadecimal value of the target barcode type and the remaining XX represents the hexadecimal value(s) of your prefix characters. Each character requires exactly two hexadecimal digits.

- **Format:** >!010806XXYY.
  - **XX** = Barcode type (e.g., Code 128 = 01, QR Code = 3D)
  - **YY** = Prefix character(s) (e.g., X = 58, ABC = 414243)
    - **Single character:** To set prefix X for Code 128 (type 01, hexadecimal 58): >!0108060158.
    - **Multiple characters:** To set prefix ABC for Code 128 (type 01, hexadecimal 41 42 43): >!01080601414243.

## **Method Two (step-by-step):**

1. Scan “Set Custom Prefix for Single Barcode Types” to enter the configuration mode



>!010806.

Set Custom Prefix for Single Barcode Types

2. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for the hexadecimal value for the barcode type you want to target for your prefix.
  - a. e.g., Code 128 = 01, QR Code = 3D
3. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for the hexadecimal value(s) for each character in your prefix.
  - a. e.g., X = 58 and ABC = 414243
4. Scan “Confirm Configuration” to complete the prefix setup



>!111000.

Confirm Configuration

## **Disabling the Prefix**

Scan “Disable Custom Prefix for Single Barcode Types” to disable all custom prefix characters for all single barcode types.



>!00103D0.

Disable Custom Prefix for Single Barcode Types\*\*

## Example - Applying the Prefix "X" to QR Codes

Below is an example illustrating how to configure a prefix of "X" for QR codes. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant [appendices](#).

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

Program Sequence:

1. Scan the configuration code "Enable Prefix"



>!00103D1.

Enable Prefix for Single Barcode Types

2. Scan the configuration code "Set Custom Prefix" to enter the configuration mode



>!010806.

Set Custom Prefix for Single Barcode Types

3. Scan the codes corresponding to 3 and D (for QR Code = 3D)



>!110003.

3



>!11000D.

D

4. Scan the codes corresponding to 5 and 8 (for "X" = 58)



>!110005.

5



>!110008.

8

5. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

## Remove a Prefix for Single Barcode Types

To remove a previously configured prefix for single barcode types, use the following steps.

1. Scan the “Remove Prefix for Single Barcode Types” code



>!010808.

Remove Prefix for Single Barcode Types

2. Sequentially scan the barcodes (from the [Alphanumeric Entry Codes](#) Appendix) for the hexadecimal value for the barcode type you want to target for your prefix removal.
  - a. e.g., Code 128 = 01, QR Code = 3D

3. Scan “Confirm Configuration” to complete the prefix removal



>!111000.

Confirm Configuration

## How to Create a Suffix

### Determine What this Suffix Should Apply to:

1. If you want to apply it for all barcode types, follow these instructions: [Suffix Setup for All Codes](#)
2. If you want to apply it for only a specific barcode type, follow these instructions: [Suffix Setup for Specific Barcodes](#)

**Note:** If you want to apply it to several barcode types, but not all, you will need to set it for each one independently.

### Suffix Setup for All Codes

#### Step 1: Determine the Hexadecimal Values for the Suffix Characters

1. Identify the characters you wish to use as a suffix (e.g., "X" or "ABC")
2. Refer to the [ASCII Visible Characters Table](#) in the Appendix for the hexadecimal values of the characters you want to use
  - a. Example: "X" = 58, "ABC" = 414243

**Note:** You can add up to 10 characters for the custom suffix.

#### Step 2: Program the Suffix

Scan "Enable Suffix" to allow the scanner to add a suffix.



>!00101F1.

Enable Suffix

#### Method One (QR code generation):

Generate a QR code using the following code format, where XX represents the hexadecimal value(s) of your suffix characters. Each character requires exactly two hexadecimal digits.

- **Format:** >!010801XX.
  - **Single character:** To set suffix X (hexadecimal 58): >!01080158.
  - **Multiple characters:** To set suffix ABC (hexadecimal 41 42 43): >!010801414243.

## **Method Two (step-by-step):**

1. Scan "Set Custom Suffix" to enter the configuration mode



>!010801.

Set Custom Suffix

2. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for the hexadecimal value(s) for each character in your suffix.
  - a. e.g., X = 58 and ABC = 414243
3. Scan "Confirm Configuration" to complete the suffix setup



>!111000.

Confirm Configuration

## **Disabling the Suffix**

Scan "Disable Custom Suffix" to disable all custom suffix characters.



>!00101F0.

Disable Custom Suffix\*\*

## Example - Applying the Suffix "X" to All Barcode Types

Below is an example illustrating how to configure a suffix of "X" for all barcode types. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant [appendices](#).

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

Program Sequence:

1. Scan the configuration code "Enable Suffix"



>!00101F1.

Enable Suffix

2. Scan the configuration code "Set Custom Suffix" to enter the configuration mode



>!010801.

Set Custom Suffix

3. Scan the codes corresponding to 5 and 8 (for "X"=58)



>!110005.

5



>!110008.

8

4. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

## Suffix Setup for Specific Barcodes

### Step 1: Determine the Target Barcode Type

1. Identify the barcode type you wish to target for your suffix (e.g., Code 128 or QR Code)
2. Refer to the [Barcode Type Values](#) Appendix for the hexadecimal values of the characters you want to use
  - a. Example: Code 128 = 01, QR Code = 3D

### Step 2: Determine the Hexadecimal Values for the Suffix Characters

1. Identify the characters you wish to use as a suffix (e.g., "X" or "ABC")
2. Refer to the [ASCII Visible Characters Table](#) in the Appendix for the hexadecimal values of the characters you want to use
  - a. Example: "X" = 58, "ABC" = 414243

**Note:** You can add up to 5 characters for the custom suffix.

### Step 3: Program the Suffix

1. Scan "Enable Suffix for Single Barcode Types" to allow the scanner to add a suffix



>!00103E1.

Enable Suffix for Single Barcode Types

### **Method One (QR code generation):**

Generate a QR code using the following format, where the first XX represents the hexadecimal value of the target barcode type and the remaining XX represents the hexadecimal value(s) of your suffix characters. Each character requires exactly two hexadecimal digits.

- **Format:** >!010807XXYY.
  - **XX** = Barcode type (e.g., Code 128 = 01, QR Code = 3D)
  - **YY** = Suffix character(s) (e.g., X = 58, ABC = 414243)
    - **Single character:** To set suffix X for Code 128 (type 01, hexadecimal 58): >!0108070158.
    - **Multiple characters:** To set suffix ABC for Code 128 (type 01, hexadecimal 41 42 43): >!01080701414243.

## **Method Two (step-by-step):**

1. Scan the configuration barcode “Set Custom Suffix for Single Barcode Types” to enter the configuration mode



>!010807.

Set Custom Suffix for Single Barcode Types

2. Sequentially scan the barcodes (from the [Alphanumeric Entry Codes](#) Appendix) for the hexadecimal value for the barcode type you want to target for your suffix
  - a. e.g., Code 128 = 01, QR Code = 3D
3. Sequentially scan the barcodes (from the [Alphanumeric Entry Codes](#) Appendix) for the hexadecimal value(s) for each character in your suffix
  - a. e.g., X = 58 and ABC = 414243
4. Scan the configuration barcode named “Confirm Configuration” to complete the suffix setup



>!111000.

Confirm Configuration

## **Disabling the Suffix**

Scan “Disable Custom Suffix for Single Barcode Types” to disable all custom suffix characters for all single barcode types.



>!00103E0.

Disable Custom Suffix for Single Barcode Types\*\*

## Example - Applying the Suffix "X" to QR Codes

Below is an example illustrating how to configure a suffix of "X" for QR codes. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant [appendices](#).

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

Program Sequence:

1. Scan the configuration code "Enable Suffix for Single Barcode Types"



>!00103E1.

Enable Suffix for Single Barcode Types

2. Scan the configuration code "Set Custom Suffix for Single Barcode Types" to enter the configuration mode



>!010807.

Set Custom Suffix for Single Barcode Types

3. Scan the codes corresponding to 3 and D (for QR Code = 3D)



>!110003.

3



>!11000D.

D

4. Scan the codes corresponding to 5 and 8 (for "X" = 58)



>!110005.

5



>!110008.

8

5. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

## Remove a Suffix for Single Barcode Types

To remove a previously configured suffix for single barcode types, use the following steps

1. Scan the "Remove Suffix for Single Barcode Types" code



>!010809.

Remove Suffix for Single Barcode Types

2. Sequentially scan the barcodes (from the [Alphanumeric Entry Codes](#) Appendix) for the hexadecimal value for the barcode type you want to target for your suffix removal.
  - a. e.g., Code 128 = 01, QR Code = 3D
3. Scan "Confirm Configuration" to complete the suffix removal



>!111000.

Confirm Configuration

## Prefixes and Suffixes with Special Configuration Barcodes

### *How to Add a Prefix*

#### **Step 1: Determine the Hexadecimal Values for the Prefix Characters**

1. Identify the characters you wish to use as a prefix (e.g., "X" or "ABC")
2. Refer to the [ASCII Visible Characters Table](#) in the Appendix for the hexadecimal values of the characters you want to use
  - a. Example: "X" = 58, "ABC" = 414243

#### **Step 2: Program the Prefix**

1. Scan the configuration barcode "Set Prefix" to allow the scanner to add a prefix



Set Prefix

2. Sequentially scan the barcode(s) from the [Characters' Barcodes Appendix](#), corresponding to the hexadecimal value(s) of the desired character(s)
  - a. For example, for X scan the barcode with the hexadecimal value 58 and for ABC scan the barcodes with the hexadecimal values 41, 42, 43

## Example - Applying the Prefix "X"

Below is an example illustrating how to configure a prefix of "X" for all barcode types. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant [appendices](#).

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

Program Sequence:

1. Scan the configuration barcode "Set Prefix" to enter the configuration mode



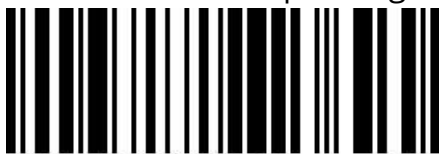
%%SpecCode9A



%%SpecCode9A

Set Prefix

2. Scan the barcode corresponding to the hexadecimal value of X, which is 58



%%58



%%58

58

**Note:** This overview and example are meant to demonstrate the general process. For a full list of barcodes and values, please see the [ASCII Visible Characters Table](#) and the [Characters' Barcodes Appendix](#).

## Remove a Prefix

To remove a previously configured prefix, scan the "Set Prefix" barcode:



%%SpecCode9A



%%SpecCode9A

Set Prefix

## ***How to Add a Suffix***

### **Step 1: Determine the Hexadecimal Values for the Suffix Characters**

1. Identify the characters you wish to use as a suffix (e.g., "X" or "ABC")
2. Refer to the [ASCII Visible Characters Table](#) in the Appendix for the hexadecimal values of the characters you want to use
  - a. Example: "X" = 58, "ABC" = 414243

### **Step 2: Program the Suffix**

1. Scan the configuration barcode "Set Suffix" to allow the scanner to add a suffix



Set Suffix

2. Sequentially scan the barcode(s) from the [Characters' Barcodes Appendix](#) corresponding to the hexadecimal value(s) of the desired character(s)
  - a. For example, for X scan the barcode with the hexadecimal value 58, and for ABC scan the barcodes with the hexadecimal values 41, 42, 43

## Example - Applying the Suffix "X"

Below is an example illustrating how to configure a suffix of "X" for all barcode types. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant [appendices](#).

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

Program Sequence:

1. Scan the configuration barcode "Set Suffix" to enter the configuration mode



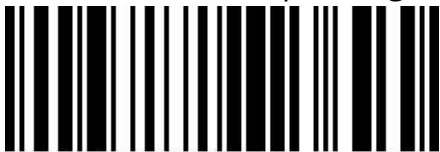
%%SpecCode9B



%%SpecCode9B

Set Suffix

2. Scan the barcode corresponding to the hexadecimal value of X, which is 58



%%58



%%58

58

**Note:** This overview and example are meant to demonstrate the general process. For a full list of barcodes and values, please see the [ASCII Visible Characters Table](#) and the [Characters' Barcodes Appendix](#).

## Remove a Suffix

To remove a previously configured suffix, follow scan the "Set Suffix" barcode:



%%SpecCode9B



%%SpecCode9B

Set Suffix

## Advanced Configurations for Prefixes and Suffixes

This section explains how to use special codes to output specific key presses (key emulation) as prefixes or suffixes when scanning barcodes. This is useful when you need keys such as CTRL, ALT, SHIFT, or combinations (for example, CTRL+S, ALT+F4) that are not available in the standard prefix/suffix character table.

### ***Configurations with Special Codes - Custom Key Emulation***

There are two levels:

1. [Character sets](#): which group of characters/key codes the scanner uses
2. [Custom keys](#): up to 4 special keys you can define in Character Set 0 for advanced combinations

### **Character Sets (general use)**

To set up a custom key emulation using character sets:

1. Decide which keys you want to emulate.
2. From the [Character Set Action Appendix](#), find:
  - a. The correct character set column
  - b. The hexadecimal value for each key
3. From the [Available Character Sets Appendix](#), choose and scan the barcode for the character set you want to use.

**Note:** Use Character Set 3 if you want the output to match the characters in the ASCII column.

## General process (prefix or suffix with character sets)

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

1. Choose whether you are setting a prefix or a suffix

To add key(s) as a prefix, scan:



%%SpecCode9A

Set Prefix

To add key(s) as a suffix, scan:



%%SpecCode9B

Set Suffix

2. Find the barcodes that correspond to the keys' hexadecimal values in the [Characters' Barcodes Appendix](#), then scan those barcodes in the order you want the keys to be sent
3. Scan the "Character Set" barcode for the character set you want to use.

To reset the default character behavior, scan the **Character Set 0** barcode (default). If needed, also scan the "prefix" or "suffix" reset barcodes to clear those settings.

## Available Character Sets

Your scanner supports multiple character sets for customization. The available sets are:

- Character Set 0 (Default)
- Character Set 1
- Character Set 2
- Character Set 3
- Character Set 4

See the [Available Character Sets Appendix](#) for the barcodes to select each set.

## Advanced Custom Keys in Character Set 0

For more advanced configurations that include CTRL, SHIFT, ALT, and their combinations (SHIFT+CTRL, ALT+CTRL, ALT+SHIFT, ALT+SHIFT+CTRL), the scanner provides 4 custom key slots in Character Set 0.

These 4 custom keys correspond to characters in Character Set 0 that are reserved for this purpose and have the following hexadecimal and decimal values:

- Custom Key 1 → Hexadecimal 04 (decimal 4)
- Custom Key 2 → Hexadecimal 05 (decimal 5)
- Custom Key 3 → Hexadecimal 06 (decimal 6)
- Custom Key 4 → Hexadecimal 07 (decimal 7)

You can assign any of these custom keys to send a combination like CTRL+ALT+X, SHIFT+F1, etc.

## General Steps to Configure a Custom Key in Character Set 0

### Step 1: Determine the Value for the Main Key

1. Identify the character you wish to use as the main key (e.g., "X" or "A")
2. Refer to the [Custom Keys Main Key Appendix](#) for the values and barcodes of the characters you want to use
  - a. Example: "X" = 1B, "A" = 04.

### Step 2: Determine the Modifier Key

1. Identify the desired modifier key (e.g., "CTRL" or "SHIFT")
2. Refer to the [Modifier Key Appendix](#) for the configuration codes of the modifier keys you want to use
  - a. Example: "CTRL" = %%01, "SHIFT" = %%02

### Step 3: Program The Configuration

1. Select Character Set 0
  - a. Scan the barcode to switch to Character Set 0 (see [Available Character Sets Appendix](#)).
2. Choose which custom key to configure
  - a. Scan one of the following barcodes to select Custom Key 1-4:



Custom Key 1



%%SpecCodeBA1102

Custom Key 2



%%SpecCodeBA1103

Custom Key 3



%%SpecCodeBA1104

Custom Key 4



3. Set the modifier key (CTRL / ALT / SHIFT)
  - a. Scan the Setting Code barcode for the modifier combination you want (%%00-%%07) from the [Modifier Key Appendix](#).
  - b. Example: scan %%01 for CTRL only.
4. Set the main key
  - a. Scan the barcode for the main key (e.g., A, F1, Enter) from the [Custom Keys Main Key Appendix](#).

### Important Notes:

- Only the [Custom Keys Main Key Appendix](#) applies to this configuration. Other character tables do not apply, and these custom key settings do not affect other prefix/suffix character tables.
- Configuring a custom key only defines the keystroke combination. To use it in your scanner's output, you must also assign it as a prefix or suffix using the standard prefix/suffix configuration. See [Prefixes and Suffixes with Special Configuration Barcodes](#).

Once configured, whenever this custom key is used in a prefix/suffix configuration, the scanner will send the selected modifier combination plus the main key as a single keystroke sequence.

## Hiding and Retaining with Basic Configuration Codes

The scanner can modify barcode data before transmitting it. Two types of output modification are available:

- **Hide:** Suppresses specified characters from the output. The remaining characters are transmitted.
- **Retain:** Keeps only specified characters and discards everything else.

Both types can be configured globally (applied to all barcode types) or per barcode type. Certain features are limited to specific models as described in these sections.

### How Positions and Index Modes Work

Features in this section that target a range of characters require a start position and an end position, and an index mode:

- **Forward Index:** Positions are counted from the first character, and it affects characters between start and end, counting from the left.
- **Inverse Index:** Positions are counted from the last character, and it affects characters between start and end, counting from the right.

### Recommended Configuration

Always configure both a start and an end position before enabling the feature. The three supported use cases are:

- **Hide/Retain from the start:** Set Forward Index On, start position = 1, end position = number of characters to hide or retain.
- **Hide/Retain from the end:** Set Inverse Index On, start position = 1, end position = number of characters to hide or retain.
- **Hide/Retain from the middle:** Set Forward Index On, start and end position to the desired range within the data.
  - Only one of these can be active at a time. E.g., if you need to hide characters from both ends, use Retain to keep only the characters you want instead.

**Note:** To find the hexadecimal value for a position number, refer to the [Decimal to Hexadecimal Position Reference](#) in the Appendix. For values above 255, use an online hex converter.

### Limitations

- **Positions cannot be cleared.** Once a start or end position is set, it cannot be removed, only changed to a different value. If the feature is disabled and later re-enabled, the previously configured positions will be active again until new values are set.
- **Only one index mode can be active at a time.** Switching between Forward and Inverse Index applies to both positions simultaneously.
- **The valid position range is 1-65535.**

## Hide Characters for All Barcodes

This feature hides a specific range of characters from the decoded output based on character position. It applies to all barcode types.

**Important:** Only one index mode can be active at a time. You can configure hiding from the start (Forward Index) or from the end (Inverse Index), but not both simultaneously. The same [Recommended Configuration](#) and [Limitations](#) described at the start of this section apply here.

### Hide Characters for All Barcodes Switch

- **Off (default):** Hiding is disabled
- **Forward Index On:** Positions are counted from the start of the data
- **Inverse Index On:** Positions are counted from the end of the data



>!0010260.

Hide Characters Off\*\*



>!0010261.

Hide Characters Forward  
Index On



>!0010262.

Hide Characters Inverse  
Index On

Before editing position values, enable the index mode that matches your use case by scanning one of the switch codes above. Then use either Method One or Method Two below to set the start position, followed by the end position.

### Edit Hide Start Position

#### Method One (QR code generation):

Generate a QR code using the following code format, where XX is the start position in decimal (range 1-65535).

- **Format:** >!001027XX.
  - e.g., start position 11 → >!00102711.

#### Method Two (step-by-step):

1. Scan "Edit Hide Start Position"



>!001027.

Edit Hide Start Position

2. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for your desired start position. Each digit is scanned separately.
  - a. e.g., position 11 → scan 1, 1 / position 100 → scan 1, 0, 0
3. Scan “Confirm Configuration” to complete the setup



>!111000.

Confirm Configuration

## Edit Hide End Position

### Method One (QR code generation):

Generate a QR code using the following code format, where XX is the edit position in decimal (range 1-65535).

- **Format:** >!001020XX.
  - e.g., end position 50 → >!00102850.

### Method Two (step-by-step):

1. Scan the configuration barcode “Edit Hide End Position”



>!001028.

Edit Hide End Position

2. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for your desired end position. Each digit is scanned separately.
  - a. e.g., position 50 → scan 5, 0
3. Scan “Confirm Configuration” to complete the setup



>!111000.

Confirm Configuration

## Example 1 - Hiding the First 3 Characters (Forward Index)

Below is an example illustrating how to configure to hide the first 3 characters for all barcode types. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant [appendices](#).

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

- Test Barcode data: ABCDEFGHIJ (10 characters)



- Goal: hide 3 characters from the start (A, B, C).
- Expected output: DEFGHIJ

Program Sequence:

1. Scan the configuration code "Hide Characters Forward Index On"



>!0010261.

Hide Characters Forward Index On

2. Scan the configuration code "Edit Hide Start Position"



>!001027.

Edit Hide Start Position

3. Scan the code corresponding to 1



>!110001.

1

4. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

5. Scan the configuration code "Edit Hide End Position"



>!001028.

Edit Hide End Position

6. Scan the barcode corresponding to 3



>!110003.

3

7. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

## Example 2 - Hiding the Last 3 Characters (Inverse Index)

Below is an example illustrating how to configure to hide the last 3 characters for all barcode types. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant [appendices](#).

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

- Test Barcode data: ABCDEFGHIJ (10 characters)



- Goal: hide 3 characters from the end (H, I, J).
- Expected output: ABCDEFG

Program Sequence:

1. Scan the configuration code "Hide Characters Inverse Index On"



>!0010262.

Hide Characters Inverse Index On

2. Scan the configuration code "Edit Hide Start Position"



>!001027.

Edit Hide Start Position

3. Scan the code corresponding to 1



>!110001.

1

4. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

5. Scan the configuration code "Edit Hide End Position"



>!001028.

Edit Hide End Position

6. Scan the code corresponding to 3



>!110003.

3

7. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

## Example 3 - Hiding Characters 3 to 5 (Forward Index)

Below is an example illustrating how to configure to hide from the 3<sup>rd</sup> to the 5<sup>th</sup> character for all barcode types. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant [appendices](#).

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

- Test Barcode data: ABCDEFGHIJ (10 characters)



- Goal: hide characters at positions 3 through 5 (C, D, E).
- Expected output: ABFGHIJ

Program Sequence:

1. Scan the configuration code "Hide Barcode Data Forward Index On"



>!0010261.

Hide Characters Forward Index On

2. Scan the configuration code "Edit Hide Start Position"



>!001027.

Edit Hide Start Position

3. Scan the code corresponding to 3



>!110003.

3

4. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

5. Scan the configuration code "Edit Hide End Position"



>!001028.

Edit Hide End Position

6. Scan the code corresponding to 5



>!110005.

5

7. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

## Hide Characters for Specific Barcode Types

This feature hides a specific range of characters from the decoded output based on both character position and barcode type. Settings are configured independently per symbology.

**Important:** Only one index mode can be active at a time. You can configure hiding from the start (Forward Index) or from the end (Inverse Index), but not both simultaneously. The same [Recommended Configuration](#) and [Limitations](#) described at the start of this section apply here.

## Hide Barcode Data by Length and Barcode Type Switch

- **Off (default):** Hiding is disabled
- **Forward Index On:** Positions are counted from the start of the data
- **Inverse Index On:** Positions are counted from the end of the data



>!00103F0.

Hide Characters by Barcode  
Type Off\*\*



>!00103F1.

Hide Characters by Barcode  
Type Forward Index On



>!00103F2.

Hide Characters by Barcode  
Type Inverse Index On

Before editing position values, enable the index mode that matches your use case by scanning one of the switch codes above. Then use either Method One or Method Two below to set the start position, followed by the end position.

## Edit Hide Start Position

### Method One (QR code generation):

Generate a QR code using the following format, where XX represents the target barcode type (found in the [Barcode Types Values](#) Appendix) and YY represents the starting position (found in the [Decimal to Hexadecimal Position Reference](#) Appendix). Each value requires exactly two hexadecimal digits.

- **Format:** >!01080AXXYY.
  - **XX** = Barcode type (e.g., Code 128 = 01, QR Code = 3D)
  - **YY** = Start position (e.g., 5 = 05, 11 = 0B)
    - e.g., to set hide start position to 11 for Code 128 (type 01, hexadecimal 0B): >!01080A010B.

## Method Two (step-by-step):

1. Scan "Edit Hide Start Position by Barcode Type"



Edit Hide Start Position by Barcode Type

2. Scan the barcode type value codes sequentially (from the [Alphanumeric Entry Codes](#) Appendix), using the [Barcode Types Values](#) Appendix to find the hexadecimal value. Each digit is scanned separately.
  - a. e.g., Code 128 (hexadecimal 01) → scan 0, 1
3. Scan the start position value codes sequentially (from the [Alphanumeric Entry Codes](#) Appendix). Each digit is scanned separately. Position values are in hexadecimal (use the [Decimal to Hexadecimal Position Reference](#) to find the correct value).
  - a. e.g., position 11 (hexadecimal 0B) → scan 0, B / position 100 (hexadecimal 64) → scan 6, 4
4. Scan "Confirm Configuration" to complete the setup



Confirm Configuration

## Edit Hide End Position

### Method One (QR code generation):

Generate a QR code using the following format, where XX represents the target barcode type (found in the [Barcode Types Values](#) Appendix) and YY represents the ending position (found in the [Decimal to Hexadecimal Position Reference](#) Appendix). Each value requires exactly two hexadecimal digits.

- **Format:** >!01080BXXYY.
  - **XX** = Barcode type (e.g., Code 128 = 01, QR Code = 3D)
  - **YY** = End position (e.g., 11 = 0B, 100 = 64)
    - e.g., to set hide end position to 50 for Code 128 (type 01, hexadecimal 32): >!01080B0132.

## Method Two (step-by-step):

1. Scan "Edit Hide End Position by Barcode Type"



>!01080B.

Edit Hide End Position by Barcode Type

2. Scan the barcode type value codes sequentially (from the [Alphanumeric Entry Codes](#) Appendix), using the [Barcode Types Values](#) Appendix to find the hexadecimal value. Each digit is scanned separately.
  - a. e.g., Code 128 (hexadecimal 01) → scan 0, 1
3. Scan the end position value codes sequentially (from the [Alphanumeric Entry Codes](#) Appendix). Each digit is scanned separately. Position values are in hexadecimal (use the [Decimal to Hexadecimal Position Reference](#) to find the correct value).
  - a. e.g., position 11 (hexadecimal 0B) → scan 0, B / position 100 (hexadecimal 64) → scan 6, 4
4. Scan the configuration code named "Confirm Configuration" to complete the setup



>!111000.

Confirm Configuration

## Example 1 - Hiding the First 3 Characters for Code 128 (Forward Index)

Below is an example illustrating how to configure to hide the first 3 characters for Code 128. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant [appendices](#).

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

- Test Barcode data: ABCDEFGHIJ (10 characters)



- Goal: hide 3 characters from the start (A, B, C)
- Expected output: DEFGHIJ

Program Sequence:

1. Scan the configuration code "Hide Characters by Barcode Type Forward Index On"



Hide Characters by Barcode Type Forward Index On

2. Scan the configuration code "Edit Hide Start Position by Barcode Type"



Edit Hide Start Position by Barcode Type

3. Scan the codes corresponding to 0 and 1 (equivalent to Code 128)

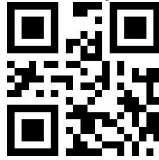


0



1

4. Scan the codes corresponding to 0 and 1



>!110000.

0



>!110001.

1

5. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

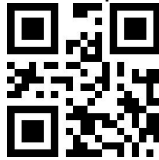
6. Scan the configuration code "Edit Hide End Position by Barcode Type"



>!01080B.

Edit Hide End Position by Barcode Type

7. Scan the codes corresponding to 0 and 1 (equivalent to Code 128)



>!110000.

0



>!110001.

1

8. Scan the codes corresponding to 0 and 3



>!110000.

0



>!110003.

3

9. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

## Example 2 - Hiding the Last 3 Characters for Code 128 (Inverse Index)

Below is an example illustrating how to configure to hide the last 3 characters for Code 128. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant [appendices](#).

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

- Test Barcode data: ABCDEFGHIJ (10 characters)



- Goal: hide 3 characters from the end (H, I, J).
- Expected output: ABCDEFG

Program Sequence:

1. Scan the configuration code "Hide Characters by Barcode Type Inverse Index On"



Hide Characters by Barcode Type Inverse Index On

2. Scan the configuration code "Edit Hide Start Position by Barcode Type"



Edit Hide Start Position by Barcode Type

3. Scan the codes corresponding to 0 and 1 (equivalent to Code 128)



0



1

4. Scan the code corresponding to 0 and 1



>!110000.

0



>!110001.

1

5. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

6. Scan the configuration code "Edit Hide End Position by Barcode Type"



>!01080B.

Edit Hide End Position by Barcode Type

7. Scan the codes corresponding to 0 and 1 (equivalent to Code 128)



>!110000.

0



>!110001.

1

8. Scan the code corresponding to 0 and 3



>!110000.

0



>!110003.

3

9. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

## Example 3 - Hiding Characters 3 to 5 for Code 128 (Forward Index)

Below is an example illustrating how to configure to hide from the 3<sup>rd</sup> to the 5<sup>th</sup> character for Code 128. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant [appendices](#).

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

- Test Barcode data: ABCDEFGHIJ (10 characters)



- Goal: hide characters at positions 3 through 5 (C, D, E).
- Expected output: ABFGHIJ

Program Sequence:

1. Scan the configuration code "Hide Characters by Barcode Type Forward Index On"



Hide Characters by Barcode Type Forward Index On

2. Scan the configuration code "Edit Hide Start Position by Barcode Type"



Edit Hide Start Position by Barcode Type

3. Scan the codes corresponding to 0 and 1 (equivalent to Code 128)



0



1

4. Scan the codes corresponding to 0 and 3



>!110000.

0



>!110003.

3

5. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

6. Scan the configuration code "Edit Hide End Position by Barcode Type"



>!01080B.

Edit Hide End Position by Barcode Type

7. Scan the codes corresponding to 0 and 1 (equivalent to Code 128)



>!110000.

0



>!110001.

1

8. Scan the codes corresponding to 0 and 5



>!110000.

0



>!110005.

5

9. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

## Hide Specific Characters

This feature suppresses specific characters from the scanner's output entirely, regardless of barcode type or position. Any occurrence of the defined characters in any decoded barcode is removed before transmission. Up to 20 characters can be defined.

### Hide Specific Characters Switch



>!00102C0.

Hide Specific Characters Off\*\*



>!00102C1.

Hide Specific Characters On

### Edit Hide Specific Characters

Scan "Hide Specific Characters On" to enable this feature.



>!00102C1.

Hide Specific Characters On

### Method One (QR code generation):

Generate a QR code using the following format, where XX represents the target character(s) to hide (found in the [ASCII Visible Characters Table](#) Appendix). Each value requires exactly two hexadecimal digits.

- **Format:** >!010802XX.
  - **XX** = Character value (e.g., X = 58, ABC = 414243)
    - e.g., hide only "A" (hexadecimal 41) → >!01080241.
    - e.g., hide only "ABC" (hexadecimal 414243) → >!010802414243.

### Method Two (step-by-step):

1. Scan "Edit Hide Specific Characters"



>!010802.

Edit Hide Specific Characters

2. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for the character(s) you want to hide, using the [ASCII Visible Characters Table](#) to find the hexadecimal value. Each digit is scanned separately.
  - a. e.g., hide only "A": hexadecimal value is 41 → scan 4, 1
  - b. e.g., hide only "ABC": hexadecimal values are 41, 42, 43 → scan 4, 1, 4, 2, 4, 3
3. Scan "Confirm Configuration" to complete the setup



>!111000.

Confirm Configuration

## Example - Hiding the A and B Characters

Below is an example illustrating how to configure to hide the A and B characters for all barcode types. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant [appendices](#).

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

- Test Barcode data: ABCDEFGHIJ (10 characters)



- Goal: hide A and B
- Expected output: CDEFGHIJ

Program Sequence:

1. Scan the configuration code "Hide Specific Characters On"



>!00102C1.

Hide Specific Characters On

2. Scan the configuration code "Edit Hide Specific Characters"



>!010802.

Edit Hide Specific Characters

3. Scan the barcodes corresponding to 4 and 1 (equivalent to A)



>!110004.

4



>!110001.

1

4. Scan the barcodes corresponding to 4 and 2 (equivalent to B)



>!110004.

4



>!110002.

2

5. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

## Retain Characters for All Barcodes

This feature keeps only a specific range of characters from the decoded output based on character position, discarding everything outside that range. It applies to all barcode types.

**Important:** Only one index mode can be active at a time. You can configure retaining from the start (Forward Index) or from the end (Inverse Index), but not both simultaneously. The same [Recommended Configuration](#) and [Limitations](#) described at the start of this section apply here.

### Retain Characters for All Barcodes Switch

- **Off (default):** Retain is disabled
- **Forward Index On:** Positions are counted from the start of the data
- **Inverse Index On:** Positions are counted from the end of the data



>!0010290.

Retain Characters Off\*\*



>!0010291.

Retain Characters Forward  
Index On



>!0010292.

Retain Characters Inverse  
Index On

Before editing position values, enable the index mode that matches your use case by scanning one of the switch barcodes above. Then use either Method One or Method Two below to set the start position, followed by the end position.

### Edit Retain Start Position

#### Method One (QR code generation):

Generate a QR code using the following code format, where XX is the start position in decimal (range 1–65535).

- **Format:** >!00102AXX.
  - e.g., start position 11 → >!00102A11.
  - e.g., start position 100 → >!00102A100.

## Method Two (step-by-step):

1. Scan the configuration barcode “Edit Retain Start Position”



>!00102A.

Edit Retain Start Position

2. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for your desired start position. Each digit is scanned separately.
  - a. e.g., position 11 → scan 1, 1 / position 100 → scan 1, 0, 0
3. Scan the configuration code named “Confirm Configuration” to complete the setup



>!111000.

Confirm Configuration

## Edit Retain End Position

### Method One (QR code generation):

Generate a QR code using the following code format, where XX is the end position in decimal (range 1–65535).

- **Format:** >!00102BXX.
  - e.g., end position 50 → >!00102B50.
  - e.g., end position 100 → >!00102B100.

### Method Two (step-by-step):

1. Scan the configuration barcode “Edit Retain End Position”



>!00102B.

Edit Retain End Position

2. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for your desired end position. Each digit is scanned separately.
  - a. e.g., position 50 → scan 5, 0 / position 100 → scan 1, 0, 0

3. Scan the configuration code named "Confirm Configuration" to complete the setup



>!111000.

Confirm Configuration

## Example 1 - Retaining the First 3 Characters (Forward Index)

Below is an example illustrating how to configure to retain the first 3 characters for all barcode types. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant [appendices](#).

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

- Test Barcode data: ABCDEFGHIJ (10 characters)



- Goal: retain 3 characters from the start (A, B, C).
- Expected output: ABC

Program Sequence:

1. Scan the configuration code "Retain Characters Forward Index On"



>!0010291.

Retain Characters Forward Index On

2. Scan the configuration code "Edit Retain Start Position"



>!00102A.

Edit Retain Start Position

3. Scan the code corresponding to 1



>!110001.

1

4. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

5. Scan the configuration code "Edit Retain End Position"



>!00102B.

Edit Retain End Position

6. Scan the code corresponding to 3



>!110003.

3

7. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

## Example 2 - Retaining the Last 3 Characters (Inverse Index)

Below is an example illustrating how to configure to retain the last 3 characters for all barcode types. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant appendices.

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

- Test Barcode data: ABCDEFGHIJ (10 characters)



- Goal: retain 3 characters from the end (H, I, J).
- Expected output: HIJ

Program Sequence:

1. Scan the configuration code "Retain Characters Inverse Index On"



>!0010292.

Retain Characters Inverse Index On

2. Scan the configuration code "Edit Retain Start Position"



>!00102A.

Edit Retain Start Position

3. Scan the code corresponding to 1



>!110001.

1

4. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

5. Scan the configuration code "Edit Retain End Position"



>!00102B.

Edit Retain End Position

6. Scan the code corresponding to 3



>!110003.

3

7. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

## Example 3 - Retaining Characters 3 to 5 (Forward Index)

Below is an example illustrating how to configure to retain from the 3<sup>rd</sup> to the 5<sup>th</sup> character for all barcode types. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant appendices.

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

- Test Barcode data: ABCDEFGHIJ (10 characters)



- Goal: Retain characters at positions 3 through 5 (C, D, E).
- Expected output: CDE

Program Sequence:

1. Scan the configuration code "Retain Characters Forward Index On"



>!0010291.

Retain Characters Forward Index On

2. Scan the configuration code "Edit Retain Start Position"



>!00102A.

Edit Retain Start Position

3. Scan the code corresponding to 3



>!110003.

3

4. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

5. Scan the configuration code "Edit Retain End Position"



>!00102B.

Edit Retain End Position

6. Scan the code corresponding to 5



>!110005.

5

7. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

## Retain Characters for Specific Barcode Types

This feature keeps only a specific range of characters from the decoded output based on both character position and barcode type, discarding everything outside that range. Settings are configured independently per symbology.

### Important:

- This feature is only available on SA1200, SA9200, and SA9400 units from a specific production batch onward (SA1203, SA9213, and SA9403, respectively). Contact ScanAvenger support with your serial number to verify compatibility.
- Only one index mode can be active at a time. You can configure retaining from the start (Forward Index) or from the end (Inverse Index), but not both simultaneously. The same [Recommended Configuration](#) and [Limitations](#) described at the start of this section apply here.

## Retain Characters for Specific Barcode Types Switch

- **Off (default):** Retaining is disabled
- **Forward Index On:** Positions are counted from the start of the data
- **Inverse Index On:** Positions are counted from the end of the data



>!0010720.

Retain Characters by Barcode  
Type Off\*\*



>!0010721.

Retain Characters by Barcode  
Type Forward Index On



>!0010722.

Retain Characters by Barcode  
Type Inverse Index On

Before editing position values, enable the index mode that matches your use case by scanning one of the switch barcodes above. Then use either Method One or Method Two below to set the start position, followed by the end position.

## Edit Retain Start Position

### Method One (QR code generation):

Generate a QR code using the following format, where XX represents the target barcode type (found in the [Barcode Types Values](#) Appendix) and YY represents the starting position (found in the [Decimal to Hexadecimal Position Reference](#) Appendix). Each value requires exactly two hexadecimal digits.

- **Format:** >!010814XXYY.
  - **XX** = Barcode type (e.g., Code 128 = 01, QR Code = 3D)
  - **YY** = Start position (e.g., 5 = 05, 11 = 0B)
    - e.g., to set retain start position to 11 for Code 128 (type 01, hexadecimal 0B): >!010814010B.

### Method Two (step-by-step):

1. Scan the configuration barcode “Edit Retain Start Position by Barcode Type”



>!010814.

Edit Retain Start Position by Barcode Type

2. Scan the barcode type value codes sequentially (from the [Alphanumeric Entry Codes](#) Appendix), using the [Barcode Types Values](#) Appendix to find the hexadecimal value. Each digit is scanned separately.
  - a. e.g., Code 128 (hexadecimal 01) → scan 0, 1
3. Scan the start position value codes sequentially (from the [Alphanumeric Entry Codes](#) Appendix). Each digit is scanned separately. Position values are in hexadecimal (use the [Decimal to Hexadecimal Position Reference](#) to find the correct value).
  - a. e.g., position 11 (hexadecimal 0B) → scan 0, B / position 100 (hexadecimal 64) → scan 6, 4
4. Scan the configuration code named “Confirm Configuration” to complete the setup



>!111000.

Confirm Configuration

## Edit Retain End Position

### Method One (QR code generation):

Generate a QR code using the following format, where XX represents the target barcode type (found in the [Barcode Types Values](#) Appendix) and YY represents the ending position (found in the [Decimal to Hexadecimal Position Reference](#) Appendix). Each value requires exactly two hexadecimal digits.

- **Format:** >!010815XXYY.
  - **XX** = Barcode type (e.g., Code 128 = 01, QR Code = 3D)
  - **YY** = End position (e.g., 11 = 0B, 100 = 64)
    - e.g., to set retain end position to 100 for Code 128 (type 01, hexadecimal 64): >!0108150164.

### Method Two (step-by-step):

1. Scan the configuration barcode “Edit Retain End Position by Barcode Type”



>!010815.

Edit Retain End Position by Barcode Type

2. Scan the barcode type value codes sequentially (from the [Alphanumeric Entry Codes](#) Appendix), using the [Barcode Types Values](#) Appendix to find the hexadecimal value. Each digit is scanned separately.
  - a. e.g., Code 128 (hexadecimal 01) → scan 0, 1
3. Scan the end position value codes sequentially (from the [Alphanumeric Entry Codes](#) Appendix). Each digit is scanned separately. Position values are in hexadecimal (use the [Decimal to Hexadecimal Position Reference](#) to find the correct value).
  - a. e.g., position 11 (hexadecimal 0B) → scan 0, B / position 100 (hexadecimal 64) → scan 6, 4
4. Scan the configuration code named “Confirm Configuration” to complete the setup



>!111000.

Confirm Configuration

## Example 1 - Retaining the First 3 Characters for Code 128 (Forward Index)

Below is an example illustrating how to configure to retain the first 3 characters for Code 128. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant [appendices](#).

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

- Test Barcode data: ABCDEFGHIJ (10 characters)



- Goal: retain 3 characters from the start (A, B, C)
- Expected output: ABC

Program Sequence:

1. Scan the configuration code "Retain Characters by Barcode Type Forward Index On"



>!0010721.

Retain Characters by Barcode Type Forward Index On

2. Scan the configuration code "Edit Retain Start Position by Barcode Type"



>!010814.

Edit Retain Start Position by Barcode Type

3. Scan the codes corresponding to 0 and 1 (equivalent to Code 128)



>!110000.

0



>!110001.

1

4. Scan the codes corresponding to 0 and 1



>!110000.

0



>!110001.

1

5. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

6. Scan the configuration code "Edit Retain End Position by Barcode Type"



>!010815.

Edit Retain End Position by Barcode Type

7. Scan the codes corresponding to 0 and 1 (equivalent to Code 128)



>!110000.

0



>!110001.

1

8. Scan the codes corresponding to 0 and 3



>!110000.

0



>!110003.

3

9. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

## Example 2 - Retaining the Last 3 Characters for Code 128 (Inverse Index)

Below is an example illustrating how to configure to retain the last 3 characters for Code 128. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant appendices.

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

- Test Barcode data: ABCDEFGHIJ (10 characters)



- Goal: retain 3 characters from the end (H, I, J).
- Expected output: HIJ

Program Sequence:

1. Scan the configuration code "Retain Characters by Barcode Type Inverse Index On"



Retain Characters by Barcode Type Inverse Index On

2. Scan the configuration code "Edit Retain Start Position by Barcode Type"



Edit Retain Start Position by Barcode Type

3. Scan the codes corresponding to 0 and 1 (equivalent to Code 128)



0



1

4. Scan the codes corresponding to 0 and 1



>!110000.

0



>!110001.

1

5. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

6. Scan the configuration code "Edit Retain End Position by Barcode Type"



>!010815.

Edit Retain End Position by Barcode Type

7. Scan the codes corresponding to 0 and 1 (equivalent to Code 128)



>!110000.

0



>!110001.

1

8. Scan the codes corresponding to 0 and 3



>!110000.

0



>!110003.

3

9. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

## Example 3 - Retaining Characters 3 to 5 for Code 128 (Forward Index)

Below is an example illustrating how to configure to retain from the 3<sup>rd</sup> to the 5<sup>th</sup> character for Code 128. This overview and example are meant to demonstrate the general process. For a full list of supported barcodes and values, please see the relevant appendices.

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

- Test Barcode data: ABCDEFGHIJ (10 characters)



- Goal: retain characters at positions 3 through 5 (C, D, E).
- Expected output: CDE

Program Sequence:

1. Scan the configuration code "Retain Characters by Barcode Type Forward Index On"



>!0010721.

Retain Characters by Barcode Type Forward Index On

2. Scan the configuration code "Edit Retain Start Position by Barcode Type"



>!010814.

Edit Retain Start Position by Barcode Type

3. Scan the code corresponding to 0 and 1 (equivalent to Code 128)



>!110000.

0



>!110001.

1

4. Scan the code corresponding to 0 and 3



>!110000.

0



>!110003.

3

5. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

6. Scan the configuration code "Edit Retain End Position by Barcode Type"



>!010815.

Edit Retain End Position by Barcode Type

7. Scan the code corresponding to 0 and 1 (equivalent to Code 128)



>!110000.

0



>!110001.

1

8. Scan the code corresponding to 0 and 5



>!110000.

0



>!110005.

5

9. Scan "Confirm Configuration" to finalize the configuration



>!111000.

Confirm Configuration

## Hiding Characters with Special Configuration Codes

To avoid scanning the wrong code by mistake, it is recommended to cover adjacent codes while scanning the intended one. This ensures accurate setup and prevents unintended changes to the configuration.

If you need to hide more than 4 characters, please contact our helpdesk:

Email: [helpdesk@scanavenger.com](mailto:helpdesk@scanavenger.com)

Phone: +1 (424) 444-6929

Chat: On our website [scanavenger.com](https://scanavenger.com)

### 1. Choose Hidden Position:

a. To hide characters from the front of the barcode, scan the “Hide Characters from Barcode Start” barcode.

b. To hide characters from the back of the barcode, scan the “Hide Characters from Barcode End” barcode.



%%SpecCodeA0

Hide Characters from Barcode Start



%%SpecCodeA1

Hide Characters from Barcode End

**Note:** To reset the hidden position selection, scan the same barcode again.

2. Scan the barcode corresponding to the number of characters which need to be hidden.



%%01

Hide 1 Character



%%02

Hide 2 Characters



%%03

Hide 3 Characters



%%04

Hide 4 Characters

## Additional Configurations with Basic and Special Codes

### Custom Character Insertion

This feature allows you to insert a custom character at any position in the decoded barcode data. You can insert up to 20 characters. Use the [ASCII Visible Characters Table](#) together with the [Alphanumeric Entry Codes](#) Appendix to find the 2-digit hexadecimal values for the character(s) to insert and decimal values for the position.

- The position value defines where the inserted character appears in the output. A position of N means the character is inserted after the N<sup>th</sup> character of the decoded data.
  - e.g., position 4 on data 1616abcd → 1616Xabcd (inserted after the 4th character)
- If the position is set to 0, the character is inserted at the beginning of the decoded data
- If the position is set greater than the decoded data length, the character is inserted at the end of the decoded data
- Valid positions range from 0 to 65535

#### Step 1: Enable Character Insertion

Scan "Display Character Insertion On" to enable the feature.



>!00102D1.

Display Character Insertion On

#### Step 2: Set the Inserted Character

Choose one of the following methods:

##### Method One (QR code generation):

Generate a QR code using the following format, where XX represents the hexadecimal value(s) of the character(s) to insert (found in the [ASCII Visible Characters Table](#)). Each character requires exactly two hexadecimal digits.

- **Format:** >!010803XX.
  - **Single character:** To insert X (hexadecimal 58): >!01080358.
  - **Multiple characters:** To insert ABC (hexadecimal 41 42 43): >!010803414243.

## Method Two (step-by-step):

1. Scan "Set the Inserted Custom Character"



>!010803.

Set the Inserted Custom Character

2. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for the character(s) you want to insert, using the [ASCII Visible Characters Table](#) to find the hexadecimal value. Each digit is scanned separately.
  - a. e.g., X = 58 → scan 5, 8 / ABC = 414243 → scan 4, 1, 4, 2, 4, 3
3. Scan "Confirm Configuration" to complete the first part of the setup



>!111000.

Confirm Configuration

## Step 3: Set the Insertion Position

Choose one of the following methods:

### Method One (QR code generation):

Generate a QR code using the following format, where XX is the insertion position in decimal (range 1-65535).

- **Format:** >!00102EXX.
  - e.g., insert at position 4 → >!00102E4.
  - e.g., insert at position 16 → >!00102E16.

### Method Two (step-by-step):

1. Scan "Set Custom Character Position"



>!00102E.

Set Custom Character Position

2. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for the insertion position. Each digit is scanned separately.
  - a. Example: To insert at position 16, scan 1, 6
3. Scan "Confirm Configuration" to complete the second part of the setup



>!111000.

Confirm Configuration

## Disable Character Insertion

Scan "Display Character Insertion Off" to disable the feature.



>!00102D0.

Display Character Insertion Off\*\*

## Example - Insert "X" After the 4th Character

Goal: Insert the character "X" after the fourth digit of the sample barcode.

- Test barcode data: 1616abcd
- Expected output: 1616**X**abcd

1616abcd Sample Code:



1616abcd

From the [ASCII Visible Characters Table](#) and [Alphanumeric Entry Codes](#) Appendix:

- Insertion character "X" → hexadecimal value 58
- Insertion position "4" → decimal value 4 (position 4)

Program Sequence:

1. Scan the configuration code "Display Character Insertion On"



>!00102D1.

Display Character Insertion On

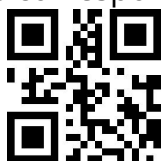
2. Scan the configuration code "Set the Inserted Custom Character"



>!010803.

Set the Inserted Custom Character

3. Scan the codes corresponding to 5 and 8 (for X = 58)



>!110005.

5



>!110008.

8

4. Scan "Confirm Configuration"



>!111000.

Confirm Configuration

5. Scan the configuration code "Set Custom Character Position"



>!00102E.

Set Custom Character Position

6. Scan the code corresponding to 4 (for position 4)



>!110004.

4

7. Scan "Confirm Configuration"



>!111000.

Confirm Configuration

**Note:** This overview and example are meant to demonstrate the general process. For a full list of barcodes and values please see the [ASCII Visible Characters Table](#) and the [Data and Edit Barcode Appendix](#).

## Character Substitution Settings

The character substitution function lets you replace any character(s) that appear in the scanned barcode (the original character or characters) with different character(s) in the output (the replacement character or characters). Use the appendix [ASCII Visible Characters Table](#) together with the [Alphanumeric Entry Codes](#) Appendix to find the 2-digit hexadecimal values for the characters you want to replace.

### Step 1: Enable Character Substitution

Scan "Display Character Substitution On" to enable the feature.



>!00102F1.

Display Character Substitution On

### Step 2: Set the Character to be Replaced

Choose one of the following methods:

#### Method One (QR code generation):

Generate a QR code using the following format, where XX represents the hexadecimal value(s) of the character(s) to replace (found in the [ASCII Visible Characters Table](#)). Each character requires exactly two hexadecimal digits.

- **Format:** >!010804XX.
  - **Single character:** To replace X (hexadecimal 58): >!01080458.
  - **Multiple characters:** To replace ABC (hexadecimal 41 42 43): >!010804414243.

#### Method Two (step-by-step):

1. Scan "Character to be Replaced"



>!010804.

Character to be Replaced

2. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for the character(s) you want to replace, using the [ASCII Visible Characters Table](#) to find the hexadecimal value. Each digit is scanned separately.
  - a. e.g., X = 58 → scan 5, 8 / ABC = 414243 → scan 4, 1, 4, 2, 4, 3
3. Scan “Confirm Configuration” to complete the first part of the setup.



>!111000.

Confirm Configuration

### Step 3: Set the Replacement Character

Choose one of the following methods:

#### Method One (QR code generation):

Generate a QR code using the following format, where XX represents the hexadecimal value(s) of the replacement character(s) (found in the [ASCII Visible Characters Table](#)). Each character requires exactly two hexadecimal digits.

- **Format:** >!010805XX.
  - **Single character:** To set replacement X (hexadecimal 58): >!01080558.
  - **Multiple characters:** To set replacement ABC (hexadecimal 41 42 43): >!010805414243.

#### Method Two (step-by-step):

1. Scan the “Replacement Character(s)” code:



>!010805.

Replacement Character(s)

2. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for the replacement character(s), using the [ASCII Visible Characters Table](#) to find the hexadecimal value. Each digit is scanned separately.
  - a. e.g., X = 58 → scan 5, 8 / ABC = 414243 → scan 4, 1, 4, 2, 4, 3

3. Scan "Confirm Configuration" to complete the second part of the setup.



>!111000.

Confirm Configuration

## **Disable Character Substitution**

Scan "Display Character Substitution Off" to disable the feature.



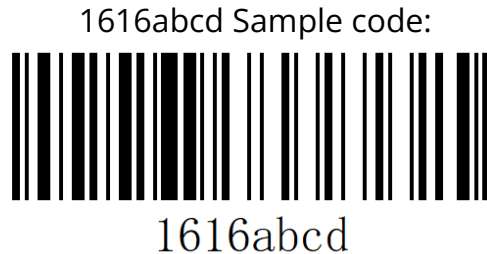
>!00102F0.

Display Character Substitution Off\*\*

## Example - Replace the character "6" with "X"

Goal: When the scanner reads a 6, it outputs X instead.

- Test barcode data: 1616abcd
- Expected output: 1X1Xabcd



From the [ASCII Visible Characters Table](#) and [Alphanumeric Entry Codes](#) Appendix:

- Original character "6" → hexadecimal value 36
- Replacement character "X" → hexadecimal value 58

Program Sequence:

1. Scan the configuration code "Display Character Substitution On"



>!00102F1.

Display Character Substitution On

2. Scan the configuration code "Character to be Replaced"



>!010804.

Character to be Replaced

3. Scan the codes corresponding to 3 and 6 (for 6 = 36)



>!110003.

3



>!110006.

6

4. Scan "Confirm Configuration"



>!111000.

Confirm Configuration

5. Scan the configuration code "Replacement Character(s)"



>!010805.

Replacement Character(s)

6. Scan the codes corresponding to 5 and 8 (for X = 58)



>!110005.

5



>!110008.

8

7. Scan "Confirm Configuration"



>!111000.

Confirm Configuration

**Note:** This overview and example are meant to demonstrate the general process. For a full list of barcodes and values please see the [ASCII Visible Characters Table](#) and the [Data and Edit Barcode Appendix](#).

## End Character

The end character is the character added at the end of a barcode scan. There are two independent methods to configure it:

- [End Character with Basic Codes](#)
- [End Character with Special Codes](#)

Each method operates independently. If you set the terminator using one method, you must use the same method to modify or remove it.

### ***End Character with Basic Configuration Barcodes***



>!0010200.

Disable



>!0010201.

LF (Line Feed) + CR (Carriage  
Return)



>!0010202.

CR (Carriage Return)



>!0010203.

TAB

## End Character with Special Codes

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

Scan the appropriate control character according to your requirements (the default is CR - Carriage Return):



%%SpecCode9C



%%SpecCode9C

Add CR (Carriage Return)\*\*



%%SpecCode9D



%%SpecCode9D

Add LF (Line Feed)



%%SpecCode9E



%%SpecCode9E

Add CR (Carriage Return) +LF (Line Feed)



%%SpecCodeA2



%%SpecCodeA2

Add TAB



%%SpecCode9F



%%SpecCode9F

None

## Sound Settings

This scanner uses two independent buzzers:

1. A basic buzzer, controlled by [Basic Sound Codes](#):
  - a. It handles sound feedback when scanning basic configuration codes. It also produces the decoding prompt tone when scanning standard 1D and 2D barcodes, with configurable frequency, volume, and duration. An optional power-on sound can be enabled to supplement the special buzzer's startup sound.
2. A special buzzer, controlled by [Special Sound Codes](#):
  - a. It handles the default startup and shutdown sounds, as well as sound feedback when scanning special configuration codes. Volume and frequency can be adjusted. However, duration is fixed.

**Important:** Each buzzer has its own settings. Codes for one buzzer do not affect the other. Make sure you use the correct group of codes depending on which buzzer you want to configure

### ***Basic Sound Codes***

#### **Basic Configuration Codes Sound**



>!0010110.

Basic Buzzer Sound On\*\*



>!0010111.

Basic Buzzer Sound Off

#### **Basic Configuration Codes Sound**



>!0010141.

Basic Configuration Codes Sound On\*\*



>!0010140.

Basic Configuration Codes Sound Off

## Standard Codes Decoding Sound



>!0010131.

Standard Codes Decoding Sound On



>!0010130.

Standard Codes Decoding Sound Off\*\*

## Basic Buzzer Power-On Sound

This is an optional power-on sound that supplements the default special buzzer power-on sound.



>!0010121.

Basic Buzzer Power-on Sound On



>!0010120.

Basic Buzzer Power-on Sound Off\*\*

## Volume of Sound



>!0010100.

Volume Off



>!00101010.

Volume Low



>!00101050.

Volume Medium



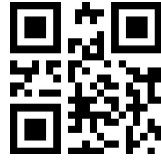
>!001010100.

Volume High\*\*

## Frequency of Sound

The decoding prompt tone frequency can be adjusted if the default does not match the resonant frequency of your environment. Range: 20-20000 Hz, default: 2700 Hz.

1. Scan "Edit Buzzer Frequency"



>!001036.

Edit Buzzer Frequency

2. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for you desired value

- a. e.g., 1700 Hz → scan 1, 7, 0, 0 / 15500 Hz → scan 1, 5, 5, 0, 0

3. Scan "Confirm Configuration" to complete the setup



>!111000.

Confirm Configuration

## Quick Frequency Presets

These preset codes apply the selected frequency directly without going through the steps above.



>!0010361000.

1000 KHZ



>!0010361500.

1500 KHZ



>!0010362000.

2000 KHZ



>!0010362500.

2500 KHZ



>!0010362700.

2700 KHZ\*\*



>!0010363000.

3000 KHZ



>!0010363500.  
3500 KHZ

## ***Decoding Prompt Duration***

The duration of the decoding prompt tone can be adjusted as needed. Range: 10-5000 ms, default: 50 ms.

1. Scan "Edit Buzzer Duration"



>!001037.

Edit Buzzer Duration

2. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for you desired value
  - a. e.g., 50 ms → scan 5, 0 / 200 ms → scan 2, 0, 0
3. Scan "Confirm Configuration" to complete the setup



>!111000.

Confirm Configuration

## Quick Duration Presets

These preset codes apply the selected duration directly without going through the steps above.



>!00103730.

30 ms



>!00103750.

50 ms\*\*



>!00103770.

70 ms



>!001037100.

100 ms



>!001037200.

200 ms



>!001037300.

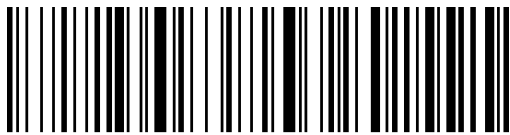
300 ms

## Special Sound Codes

The special buzzer is configured with a separate set of codes. Settings in this section only affect the special buzzer and will not change the basic buzzer settings.

**Note:** To avoid scanning the wrong code by mistake, cover adjacent barcodes while scanning the intended one.

Scan the barcode for the desired setting:



%%SpecCode94



%%SpecCode94

Turn Sound Off



%%SpecCode95



%%SpecCode95

Low Volume

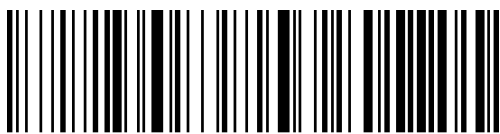


%%SpecCode96



%%SpecCode96

Medium Volume



%%SpecCode97



%%SpecCode97

High Volume\*\*



%%SpecCode7C



%%SpecCode7C

Buzzer Frequency 2 KHZ\*\*



%%SpecCode7D



%%SpecCode7D

Buzzer Frequency 2.7 KHZ

## Barcode Length Settings

You can set the minimum and maximum length directly as different values. Different barcode types may support different ranges, so please check the range of your specific barcode type before using this setting.

1. Scan the “**Minimum Length**” setting code for the desired barcode type, then enter your desired value from the [Alphanumeric Entry Codes](#) Appendix (e.g., 6, 12, 30)
2. Scan the “Confirm Configuration” Code
3. Scan the “**Maximum Length**” setting code for the same barcode type, then enter your desired value from the [Alphanumeric Entry Codes](#) Appendix (e.g., 15, 50, 259)
4. Scan the “Confirm Configuration” Code

Each barcode type's Minimum Length and Maximum Length setting codes are found in their respective section in this manual.

### **Example - Set Code 128 Length to 6-15 Characters**

**Goal:** only accept Code 128 barcodes that are between 6 and 15 characters long.

#### **Step 1: Set Minimum Length for Code 128**

Scan the “Minimum Length” setting code for Code 128:



>!000012.

Code 128 Minimum Length

#### **Step 2: Enter the Minimum Length Value**

1. Scan the numeric code 6 from the [Alphanumeric Entry Codes](#) Appendix to set the minimum length to 6
  - a. Each of the three digits is scanned separately



>!110006.

6

## Step 4: Confirm the Minimum Length

Scan "Confirm Configuration" to complete the first part of the setup.



>!111000.

Confirm Configuration

## Step 5: Set Maximum Length for Code 128

Scan the "Maximum Length" setting code for Code 128:



>!000013.

Code 128 Maximum Length

## Step 6: Enter the Maximum Length Value

1. Scan the numeric codes 0, 1, 5 from the [Alphanumeric Entry Codes](#) Appendix to set the maximum length to 15
  - a. Each digit is scanned separately



>!110001.

1



>!110005.

5

## Step 7: Confirm the Maximum Length

Scan "Confirm Configuration" to complete the second part of the setup.



>!111000.

Confirm Configuration

## GS Character Substitution with Special Codes

This function allows you to replace or restore the GS character using special configuration barcodes. To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

### 1. Scan the "Set GS Character" Barcode



%%SpecCodeEF



%%SpecCodeEF

Set GS Character

2. From the [Characters' Barcodes Appendix](#), scan the barcode for the desired replacement character or setting.

Example: If the GS character is not being detected and you need to restore it, scan barcode below after scanning the "Set GS Character" barcode



%%1D



%%1D

To disable this functionality, scan the "Disable Set GS Character" barcode.



%%SpecCodeEE



%%SpecCodeEE

Disable Set GS Character

## Version Number

### ***Version Number - Scanning Module***

Use this code to view the firmware version of the scanning module. Scan the barcode into a text editor or any text input field to display the version information.

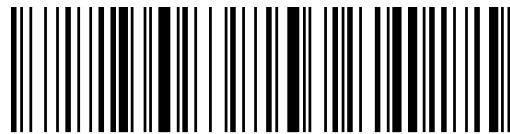


>!0006000.

Display Version Number for Scanning Module

### ***Version Number - Wireless/Bluetooth Module***

Use this code to view the firmware version of the wireless/Bluetooth module. Scan the barcode into a text editor or any text input field to display the version information.



%%SpecCode39

Display Version Number for Wireless/Bluetooth Module

## **Part I: Basic Configuration Barcodes**

*Also referred to as Basic Codes*

## Setup Code Function

The setup code function controls whether configuration barcodes in Part I: Basic Configuration Barcodes are active. When set to On, scanning a setup code will apply the corresponding configuration. When set to Off, the scanner will still read the setup code, however, it will only emit an error tone and will not apply any configuration. The default setting is On.



>!0010211.

Setup Code Function On\*\*



>!0010210.

Setup Code Function Off

## Setup Code Content

This setting controls whether the content of a setup (configuration) code is sent to the host when it is scanned.

- If **Send Content On** is enabled, the scanner will output the setup code content to the connected device.
- If **Send Content Off** is selected, the scanner will apply the configuration, however, will not send the setup code content.

This is useful if you want to see what a specific configuration code contains, especially when there is no text label printed below it. The default setting is Send Content Off.



>!0010221.

Send Content On



>!0010220.

Send Content Off\*\*

## Light

### **Scanning Module Light**

The scanner's lighting provides additional illumination on the barcode to improve reading performance, especially in low ambient light.

- **Light On (Default):** The module light turns on during scanning and turns off at other times.
- **Light Off:** The module light never turns on.
- **Light Continuous:** After the scanner is powered on, the module light stays on continuously.



>!0010150.

Light On\*\*



>!0010151.

Light Off



>!0010152.

Light Continuous

### **Aiming Light**

The aiming light helps you quickly locate the barcode and find the best reading distance. You can choose one of the following modes depending on your environment. By default, the aiming light is On.

- **Aiming Light On (Default):** The aiming light turns on during scanning and turns off at other times.
- **Aiming Light Off:** The aiming light never turns on.
- **Aiming Light Continuous:** After the scanner is powered on, the aiming light stays on continuously.



>!0010160.

Aiming Light On\*\*



>!0010161.

Aiming Light Off



>!0010162.

Aiming Light Continuous

## Prompt for Unsuccessful Reading

When a barcode is not successfully read, the scanner can send an NR (NO READ) message. Any valid prefix or suffix can be added to this message.

- **NR Message On:** When reading fails and the trigger is released or the reading time expires, an NR (NO READ) message is sent. A custom prefix or suffix can be added to this message
- **NR Message Off (Default):** When reading fails, no NR (NO READ) message is sent



>!0010241.

NR Message On



>!0010240.

NR Message Off\*\*

## QR URL Codes

Use this setting to enable or disable reading QR codes that contain a URL. This does not affect QR codes without a URL.

Scan the configuration barcode below to turn the QR URL feature On or Off:



>!0010330.

QR URL Codes On\*\*



>!0010331.

QR URL Codes Off

## Scanning mode - Manual (Trigger) Mode

You can set the scanner's scanning mode according to your needs. In Manual (Trigger) mode, the scanner starts scanning only when you press the trigger button. Scanning stops when a code is successfully read, when you release the trigger, or when the trigger timeout is exceeded.

The default scanning mode is Manual (Trigger) Mode.



>!0010000.

Manual (Trigger) Mode\*\*

## ***Latch Trigger Mode***

In Latch Trigger mode, the scanner starts scanning when you press the trigger button. Releasing the button does not stop scanning. Scanning stops only when a code is successfully read or when the trigger timeout is exceeded.



>!0010001.

Latch Trigger Mode

## Scanning mode - Continuous Mode

In Continuous mode, the scanner keeps working without needing the trigger. It starts scanning immediately, and after each scan it waits for a set time, then automatically starts the next scan.

1. The engine scans until a barcode is read or the single-scan time is reached
2. After that, it waits for the configured interval, then starts scanning again
3. You can press the trigger to pause/resume scanning at any time



>!0010002.

Continuous Mode

### ***Continuous - Scan Interval***

In Continuous mode, the scanner automatically starts a new scan after each read attempt, regardless of whether the previous scan was successful. This setting controls the delay between consecutive scans.

#### **Edit Continuous Mode Scan Interval**

The setting range is 0-65535 ms, with a default of 500 ms.

1. Scan the configuration barcode "Edit Continuous Mode Scan Interval"



>!001002.

Edit Continuous Mode Scan Interval

2. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for your desired value
  - a. e.g., 100 ms → scan 1, 0, 0 / 1005 ms → scan 1, 0, 0, 5
3. Scan "Confirm Configuration" to complete the setup



>!111000.

Confirm Configuration

## Quick Scan Interval Presets

These preset codes apply the selected interval directly without going through the steps above.



>!0010020.

0 ms



>!001002500.

500 ms\*\*



>!0010021000.

1000 ms



>!0010022000.

2000 ms



>!0010025000.

5000 ms



>!00100210000.

10000 ms

## Scanning Mode - Autosense Mode

In automatic sensing mode, the recognition module detects ambient light levels. When brightness changes occur, it triggers recognition. Recognition concludes upon successful identification or when the single recognition session time expires. Regardless of whether the previous recognition succeeded or failed, the module resumes detecting ambient light levels.



>!0010003.

Autosense Mode

**Note:** The scanner activates on any movement detected in front of the camera, not only barcodes. Placing your hand, finger, or any other item in front of the camera will turn the scanner on.

### ***Autosense - Sensitivity***

Sensitivity defines how much change in the scene is needed to wake the scanner from monitoring to scanning. Higher sensitivity reacts to smaller movements. Lower sensitivity requires larger changes.



>!0010051.

High Sensitivity\*\*



>!0010058.

Medium Sensitivity



>!00100515.

Low Sensitivity

### ***Autosense - Image Stabilization Time***

When the scanner detects a scene change in Autosense mode, it waits for the image to stabilize before attempting to read a code. Shorter values make the scanner react faster. Longer values improve stability in environments with frequent lighting or motion changes.

## Edit Image Stabilization Time

The setting range is 0-65535 ms, with a default of 300 ms.

1. Scan the configuration barcode "Edit Image Stabilization Time"



>!001004.

Edit Image Stabilization Time

2. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for your desired value
  - a. e.g., 100 ms → scan 1, 0, 0 / 1005 ms → scan 1, 0, 0, 5
3. Scan "Confirm Configuration" to complete the setup



>!111000.

Confirm Configuration

## Quick Image Stabilization Time Presets

These preset codes apply the selected image stabilization time directly without going through the steps above.



>!001004100.

100 ms



>!001004200.

200 ms



>!001004300.

300 ms\*\*



>!001004400.

400 ms



>!001004500.

500 ms



>!0010041000.

1000 ms

## Trigger Timeout Duration

The single scan duration is the maximum time the scanner stays in scanning state after being triggered. If no code is successfully read within this time, the scanner exits the scanning state.

This setting applies to Manual (Trigger), Latch Trigger, Continuous, and Autosense modes.

### **Edit Trigger Timeout Duration**

The setting range is 0-65535 ms, with a default of 5000 ms.

1. Scan the configuration barcode "Edit Trigger Timeout Duration"



>!001001.

Edit Trigger Timeout Duration

2. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for your desired value
  - a. e.g., 100 ms → scan 1, 0, 0 / 1005 ms → scan 1, 0, 0, 5
3. Scan "Confirm Configuration" to complete the setup



>!111000.

Confirm Configuration

### **Quick Trigger Timeout Duration Presets**

These preset codes apply the selected trigger timeout duration directly without going through the steps above.



>!0010010.

0 ms (No time limit)



>!0010011000.

1000 ms



>!0010012000.

2000 ms



>!0010013000.  
3000 ms



>!0010015000.  
5000 ms\*\*



>!00100110000.  
10000 ms

## Same Barcode Scanning Delay

In Continuous and Autosense modes, the scanner can be configured to ignore a previously read barcode for a set duration. This prevents the same code from being output multiple times in a single session. Once the interval expires, the code can be read again.

### ***Edit Same Barcode Scanning Delay***

The setting range is 0-65535 ms, with a default of 0 ms.

1. Scan the configuration barcode "Edit Same Barcode Scanning Delay"



>!001003.

Edit Same Barcode Scanning Delay

2. Sequentially scan the codes (from the [Alphanumeric Entry Codes](#) Appendix) for your desired value
  - a. e.g., 100 ms → scan 1, 0, 0 / 1005 ms → scan 1, 0, 0, 5
3. Scan "Confirm Configuration" to complete the setup



>!111000.

Confirm Configuration

## Quick Same Barcode Scanning Delay Presets

These preset codes apply the selected delay directly without going through the steps above.



>!0010030.  
0 ms\*\*



>!001003100.  
100 ms



>!001003300.  
300 ms



>!001003500.  
500 ms



>!0010031000.  
1000 ms



>!0010033000.  
3000 ms



>!0010035000.  
5000 ms



>!00100310000.  
10000 ms



>!00100365535.  
Infinite (duplicate codes  
never re-read)

## CODE ID Prefix

You can add a Code ID prefix before the scanned data to identify which barcode type was read. See the [Code ID & AIM ID Appendix](#) for the Code ID used by each symbology. By default, no Code ID is added.



>!00101A0.

Code ID Off\*\*



>!00101A1.

Code ID On

## AIM ID Prefix

You can also add an AIM ID prefix before the scanned data. AIM (Association for Automatic Identification and Mobility) defines standard IDs for each barcode type. The mapping is listed in the [Code ID & AIM ID Appendix](#). By default, no Aim ID is added.



>!00101B0.

AIM ID Off\*\*



>!00101B1.

AIM ID On

## Parentheses Around GS1 Application Identifiers (GS1 AIs)

When this option is enabled, the scanner adds parentheses around each GS1 Application Identifier (AI) in the output.

- **GS1 AIs On:** Adds "(" before and ")" after every GS1 AI in the data
- **GS1 AIs Off (default):** Outputs the GS1 AIs as plain digits, without parentheses

These only change how the GS1 AIs are displayed in the output, not the data itself.

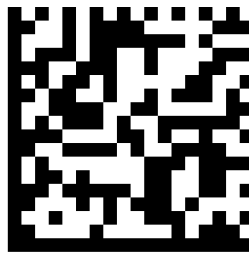


>!0010321.  
GS1 AIs On



>!0010320.  
GS1 AIs Off\*\*

### Example - GS1 Data Matrix With GS1 AIs



(01) 0 0614141 99999 6 (90) 1234567890

With parentheses On: (01) 00614141999996 (90) 1234567890

With parentheses Off: 010061414999996901234567890

## Barcode Type Settings

Each barcode type has its own specific properties, and the scanner can be configured to handle them using the setup codes in this section. When fewer barcode types are enabled, the scanner can process barcodes faster. For best performance, turn off any barcode types that you do not need.

### Global Settings

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.



>!0005020.

All Barcode Types Off



>!0005021.

All Barcode Types On\*\*



>!0005022.

All Barcode Types Default Setting



>!0005000.

1D Barcodes Off



>!0005001.

1D Barcodes On\*\*



>!0005002.

1D Barcodes Default Setting



>!0005010.

2D Codes Off



>!0005011.

2D Codes On\*\*



>!0005012.

2D Codes Default Setting

#### Note:

- Disabling all barcode types does not disable configuration barcodes. Postal codes are not affected by these switches.
- The Default Setting option reverts the switch to the currently configured default state, which may differ from the factory setting. The default state for each switch can be set to either On or Off depending on deployment requirements.

## ***Decoding Security Level***

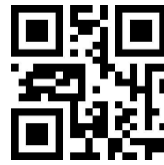
The decoding security level controls how strictly the scanner validates a barcode before accepting it as a valid read. A higher level applies more rigorous validation, which reduces the risk of misreads under difficult conditions such as damaged, dirty, or poorly printed barcodes. As the security level increases, the scanner requires more passes before confirming a read, which may reduce scanning speed.

Use the lowest level that provides reliable reads for your environment. Level 1 is suitable for most standard use cases.



>!0005080.

Decoding Security Level 0



>!0005081.

Decoding Security Level 1\*\*



>!0005082.

Decoding Security Level 2



>!0005083.

Decoding Security Level 3



>!0005084.

Decoding Security Level 4

## **Multi-code Recognition**

By default, the scanner reads one barcode per scan. When multi-barcode reading is enabled, the scanner can decode multiple barcodes in a single scan. This is useful in applications where several barcodes appear within the scanner's field of view simultaneously.

### **Multi-Barcode Reading Switch**



>!0005050.

Multi-code Recognition Off\*\*



>!0005051.

Multi-code Recognition On

### **Edit Maximum Barcode Count**

Sets the maximum number of barcodes the scanner will attempt to read in a single scan (range 1-6).



>!0005061.

1\*\*



>!0005062.

2



>!0005063.

3



>!0005064.

4



>!0005065.

5



>!0005066.

6

## ***Global Inverse Setting***

A normal barcode has dark bars on a light background, while an inverted barcode has light bars on a dark background.

You can choose how the scanner handles these:

- **Normal Only:** The scanner reads only normal (dark-on-light) barcodes
- **Normal + Inverse:** The scanner reads both normal and inverted barcodes

### **Note:**

- The global inverse setting significantly impacts the performance of reading devices.
- This setting applies globally to all barcode types that do not have their own dedicated Normal/Inverse setting. If a specific barcode type has its own Normal/Inverse option (configured separately in its own section), that setting takes priority and this global setting will not affect it.



>!0005030.

Normal Only\*\*



>!0005031.

Normal + Inverse

## UPC-A



>!0000A00.

UPC-A Off



>!0000A01.

UPC-A On\*\*

*Note: UPC-A is also known as UCC-12.*

### **Transmit Check Character**

UPC-A barcodes always have 12 digits, and the 12th digit is the check character used to verify that the data is correct. By default, the scanner includes (transmits) this check character.



>!0000A10.

Transmit UPC-A Check Character Off



>!0000A11.

Transmit UPC-A Check Character On\*\*

### **Transmit System Character**

The system character (leading digit) is the first digit of the UPC-A code and indicates the number system (for example, regular item, coupon, etc.). By default, the scanner transmits this digit.



>!0000A50.

Transmit UPC-A System Character Off



>!0000A51.

Transmit UPC-A System Character On\*\*

### **Transmit National Character**

Controls whether a leading 0 is prepended to the UPC-A output. When enabled, the output becomes 13 digits and is compatible with the EAN-13 format.



>!0000A60.

Transmit UPC-A National Character Off\*\*



>!0000A61.

Transmit UPC-A National Character On

## **UPC-A 2-Digit Code**

Controls whether the scanner can read a 2-digit add-on code appended to a UPC-A barcode.



>!0000A20.

UPC-A 2-Digit Code Off\*\*



>!0000A21.

UPC-A 2-Digit Code On

## **UPC-A 5-Digit Code**

Controls whether the scanner can read a 5-digit add-on code appended to a UPC-A barcode.



>!0000A30.

UPC-A 5-Digit Code Off\*\*



>!0000A31.

UPC-A 5-Digit Code On

## **UPC-A Add-On Code Requirement**

When enabled, the scanner only accepts UPC-A barcodes that include an add-on code. Barcodes without an add-on are ignored. Requires at least one add-on option (2-digit or 5-digit) to also be enabled.



>!0000A40.

UPC-A Add-On Code Requirement Off\*\*



>!0000A41.

UPC-A Add-On Code Requirement On

## UPC-E

### UPC-E0



>!0000900.  
UPC-E0 Off



>!0000901.  
UPC-E0 On\*\*

### UPC-E1



>!0000970.  
UPC-E1 Off\*\*



>!0000971.  
UPC-E1 On

*Note: UPC-E1 is a variation of UPC-E that uses number system 1. To read UPC-E1, UPC-E0 must also be enabled.*

### Transmit Check Character

UPC-E barcodes have 8 digits, and the 8th digit is the check character, used to verify that the data is correct. By default, the scanner includes (transmits) this check character.



>!0000910.

Transmit UPC-E Check Character Off



>!0000911.

Transmit UPC-E Check Character On\*\*

### Transmit System Character

The system character (leading digit) is the first digit of the UPC-E code and indicates the number system (for example, regular item, coupon, etc.). By default, the scanner transmits this digit.



>!0000950.

Transmit UPC-E System Character Off



>!0000951.

Transmit UPC-E System Character On\*\*

## ***Transmit National Character***

The national character (number system) is a prefix that identifies the country/number system of the UPC-E code. For example, 0 typically indicates the USA/Canada.



>!0000980.

Transmit UPC-E National Character Off\*\*



>!0000981.

Transmit UPC-E National Character On

## ***Convert to UPC-A***

UPC-E can be expanded to a full 12-digit UPC-A code. When this option is enabled, the scanner converts UPC-E barcodes to their equivalent UPC-A representation. By default, conversion is disabled.



>!0000960.

Convert UPC-E to UPC-A Off\*\*



>!0000961.

Convert UPC-E to UPC-A On

## ***UPC-E 2-Digit Code***

Controls whether the scanner can read a 2-digit add-on code appended to a UPC-E barcode.



>!0000920.

UPC-E 2-Digit Code Off\*\*



>!0000921.

UPC-E 2-Digit Code On

## ***UPC-E 5-Digit Code***

Controls whether the scanner can read a 5-digit add-on code appended to a UPC-E barcode.



>!0000930.

UPC-E 5-Digit Code Off\*\*



>!0000931.

UPC-E 5-Digit Code On

## ***UPC-E Add-On Code Requirement***

When enabled, the scanner only accepts UPC-E barcodes that include an add-on code. Barcodes without an add-on are ignored. Requires at least one add-on option (2-digit or 5-digit) to also be enabled.



>!0000940.

UPC-E Add-On Code Requirement Off\*\*



>!0000941.

UPC-E Add-On Code Requirement On

## EAN-8



>!0000500.

EAN/JAN-8 Off



>!0000501.

EAN/JAN-8 On\*\*

*Note: EAN-8 is also known as JAN-8 or UCC-8.*

### **Transmit Check Character**

EAN-8 barcodes always have 8 digits, and the 8th digit is the check character, used to verify that the data is correct. By default, the scanner includes (transmits) this check character.



>!0000510.

Transmit EAN-8 Check Character Off



>!0000511.

Transmit EAN-8 Check Character On\*\*

### **EAN-8 2-Digit Code**

Controls whether the scanner can read a 2-digit add-on code appended to an EAN/JAN-8 barcode.



>!0000520.

EAN-8 2-Digit Code Off\*\*



>!0000521.

EAN-8 2-Digit Code On

### **EAN-8 5-Digit Code**

Controls whether the scanner can read a 5-digit add-on code appended to an EAN-8 barcode.



>!0000530.

EAN-8 5-Digit Code Off\*\*



>!0000531.

EAN-8 5-Digit Code On

## ***EAN-8 Add-On Code Requirement***

When enabled, the scanner only accepts EAN-8 barcodes that include an add-on code. Barcodes without an add-on are ignored. Requires at least one add-on option (2-digit or 5-digit) to also be enabled.



>!0000540.

EAN-8 Add-On Code Requirement Off\*\*



>!0000541.

EAN-8 Add-On Code Requirement On

## **EAN-13**



>!0000600.

EAN-13 Off



>!0000601.

EAN-13 On\*\*

*Note: EAN-13 is also known as JAN-13 or UCC-13.*

## ***Transmit Check Character***

EAN-13 barcodes always have 13 digits, and the 13th digit is the check character used to verify that the data is correct. By default, the scanner includes (transmits) this check character.



>!0000610.

Transmit EAN-13 Check Character Off



>!0000611.

Transmit EAN-13 Check Character On\*\*

## ***EAN-13 2-Digit Code***

Controls whether the scanner can read a 2-digit add-on code appended to an EAN-13 barcode.



>!0000620.

EAN-13 2-Digit Code Off\*\*



>!0000621.

EAN-13 2-Digit Code On

## ***EAN-13 5-Digit Code***

Controls whether the scanner can read a 5-digit add-on code appended to an EAN-13 barcode.



>!0000630.

EAN-13 5-Digit Code Off\*\*



>!0000631.

EAN-13 5-Digit Code On

## ***EAN-13 Add-On Code Requirement***

When enabled, the scanner only accepts EAN-13 barcodes that include an add-on code.

Barcodes without an add-on are ignored. Requires at least one add-on option (2-digit or 5-digit) to also be enabled.



>!0000640.

EAN-13 Add-On Code Requirement Off\*\*



>!0000641.

EAN-13 Add-On Code Requirement On

## ISBN

ISBN is the International Standard Book Number used for books. It is represented using a special form of the EAN-13 code.

- **ISBN Mode Off:** ISBN barcodes are output as standard EAN-13
- **ISBN Mode On:** the scanner outputs the ISBN book code format instead (10-digit / legacy format), and the check digit must be verified



>!0000800.

ISBN Mode Off\*\*



>!0000801.

ISBN Mode On

## ISSN

ISSN (International Standard Serial Number) is used for magazines and other serial publications, also encoded as a special form of EAN-13.

- **ISSN Mode Off:** ISSN barcodes are output as standard EAN-13
- **ISSN Mode On:** the scanner outputs the ISSN code format instead, and the 8th digit is used as the check character



>!0000700.

ISSN Mode Off\*\*



>!0000701.

ISSN Mode On

## Code 128



>!0000100.  
Code 128 Off



>!0000101.  
Code 128 On\*\*

### ***Number of Recognized Characters (Minimum and Maximum limits)***

You can limit Code 128 decoding by data length. The default allowed range is 0-255 characters. The scanner can be set to read only Code 128 barcodes whose length is between (and including) the minimum and maximum values.

#### **Method One (QR code generation):**

Generate a QR code using the following formats. XX represents the length value in decimal (range 0-255).

- **Minimum length format:** >!000012XX.
  - e.g., minimum length 2 → >!0000122. / minimum length 12 → >!00001212.
- **Maximum length format:** >!000013XX.
  - e.g., maximum length 9 → >!0000139. / maximum length 20 → >!00001320.

#### **Method Two (step-by-step):**



>!000012.  
Code 128 Minimum Length



>!000013.  
Code 128 Maximum Length

**Setting steps:** See [Barcode Length Settings](#)

## **Code 128 Exact Length Requirement**

When enabled, the scanner only reads Code 128 barcodes whose length exactly matches both the configured minimum and maximum values. Barcodes of any other length are ignored. This feature is only available on SA1200, SA9200, and SA9400 units from a specific production batch onward (SA1203, SA9213, and SA9403, respectively).



>!0000180.

Code 128 Exact Length Off\*\*



>!0000181.

Code 128 Exact Length On

## **Code 128 Decoding Security Level**

Controls how strictly the scanner validates Code 128 barcodes before accepting a read. This setting operates independently from the global Decoding Security Level. A higher level reduces misreads but may reduce scanning speed.



>!0000140.

Code 128 Decoding Security  
Level Low\*\*



>!0000141.

Code 128 Decoding Security  
Level Medium



>!0000142.

Code 128 Decoding Security  
Level High

## GS1-128 (UCC/EAN-128)



>!0000200.  
GS1-128 Off



>!0000201.  
GS1-128 On\*\*

### ***Number of Recognized Characters (Minimum and Maximum limits)***

You can limit GS1-128 decoding by data length. The default allowed range is 0-255 characters. The scanner can be set to read only GS1-128 barcodes whose length is between (and including) the minimum and maximum values.

#### **Method One (QR code generation):**

Generate a QR code using the following formats. XX represents the length value in decimal (range 0-255).

- **Minimum length format:** >!000022XX.
  - e.g., minimum length 2 → >!0000222. / minimum length 12 → >!00002212.
- **Maximum length format:** >!000023XX.
  - e.g., maximum length 9 → >!0000239. / maximum length 20 → >!00002320.

#### **Method Two (step-by-step):**



>!000022.

GS1-128 Minimum Length



>!000023.

GS1-128 Maximum Length

**Setting steps:** See [Barcode Length Settings](#)

## **GS1-128 Exact Length Requirement**

When enabled, the scanner only reads GS1-128 barcodes whose length exactly matches both the configured minimum and maximum values. Barcodes of any other length are ignored. This feature is only available on SA1200, SA9200, and SA9400 units from a specific production batch onward (SA1203, SA9213, and SA9403, respectively).



>!0000240.

GS1-128 Exact Length Off\*\*



>!0000241.

GS1-128 Exact Length On

## Code 39



>!0001400.  
Code 39 Off



>!0001401.  
Code 39 On\*\*

### **Check Character**

Code 39 barcodes can optionally include a check character as the last character of the data. This character can be used to verify that the data is correct.

- **Code 39 No Check Digit (default):** The scanner does not validate a check character. It is always treated and transmitted as normal data, even if it is a valid check character.
- **Code 39 Check Digit On:** The scanner will validate the check character, if available, and it will be treated as a check character, not as normal data.
- **Code 39 Do Not Transmit Check Digit:** The barcode must contain a valid check character. The scanner verifies it. However, it does not include the check character in the output.
- **Code 39 Transmit Check Digit:** The barcode must contain a valid check character. The scanner verifies it and includes the check character in the output.

**Note:** The **Do Not Transmit** and **Transmit** options require check digit verification to be enabled. Scan **Check Digit On** before using either of these options.



>!0001410.  
Code 39 No Check Digit (default)



>!0001411.  
Code 39 Check Digit On



>!0001420.  
Code 39 Do Not Transmit Check Digit



>!0001421.  
Code 39 Transmit Check Digit

## ***Start and End Characters***

Code 39 uses an asterisk "\*" at the beginning and end of the symbol as start and stop characters. You can choose whether to transmit these characters with the data.



>!0001430.

Transmit Code 39 Start/End Characters Off\*\*



>!0001431.

Transmit Code 39 Start/End Characters On

## ***Full ASCII Characters***

Standard Code 39 supports a limited character set. Full ASCII Code 39 extends this to the full ASCII character set by encoding some characters as pairs. By default, the scanner does not decode the full ASCII set.



>!0001440.

Full Code 39 ASCII Off\*\*



>!0001441.

Full Code 39 ASCII On

## ***Number of Recognized Characters (Minimum and Maximum Limits)***

You can limit Code 39 decoding by data length. The default allowed range is 0-255 characters. The scanner can be set to read only Code 39 barcodes whose length is between (and including) the minimum and maximum values.

### **Method One (QR code generation):**

Generate a QR code using the following formats. XX represents the length value in decimal (range 0-255).

- **Minimum length format:** >!000145XX.
  - e.g., minimum length 2 → >!0001452. / minimum length 12 → >!00014512.
- **Maximum length format:** >!000146XX.
  - e.g., maximum length 9 → >!0001469. / maximum length 20 → >!00014620.

## Method Two (step-by-step):



>!000145.

Code 39 Minimum Length



>!000146.

Code 39 Maximum Length

**Setting steps:** See [Barcode Length Settings](#)

### ***Code 39 Exact Length Requirement***

When enabled, the scanner only reads Code 39 barcodes whose length exactly matches both the configured minimum and maximum values. Barcodes of any other length are ignored.

This feature is only available on SA1200, SA9200, and SA9400 units from a specific production batch onward (SA1203, SA9213, and SA9403, respectively).



>!00014D0.

Code 39 Exact Length Off\*\*



>!00014D1.

Code 39 Exact Length On

## Code 32 (Pharmaceutical / PARAF)

Code 32 (also called Code 32 Pharmaceutical, Italian Pharmacode, or PARAF) is a variant of Code 39 used to identify pharmaceutical products in Italy. It encodes 8 numeric digits plus a check digit and is typically shown with a leading "A" in the human-readable text.



>!0001470.

Code 32 Off\*\*



>!0001471.

Code 32 On

### Check Character

Code 32 barcodes can optionally include a check character as the last character of the data. This character can be used to verify that the data is correct.

- **Code 32 No Check Digit (default):** The scanner does not validate a check character. It is always treated and transmitted as normal data, even if it is a valid check character.
- **Code 32 Check Digit On:** The scanner will validate the check character, if available, and it will be treated as a check character, not as normal data.
- **Code 32 Do Not Transmit Check Digit:** The barcode must contain a valid check character. The scanner verifies it. However, it does not include the check character in the output.
- **Code 32 Transmit Check Digit:** The barcode must contain a valid check character. The scanner verifies it and includes the check character in the output.

**Note:** The **Do Not Transmit** and **Transmit** options require check digit verification to be enabled. Scan **Check Digit On** before using either of these options.



>!0001490.

Code 32 No Check Digit (default)



>!0001491.

Code 32 Check Digit On



>!00014A0.

Code 32 Do Not Transmit Check Digit



>!00014A1.

Code 32 Transmit Check Digit

## **Code 32 Prefix "A"**

Some systems expect Code 32 values to start with an "A" in the output, even though this "A" is not part of the encoded numeric data. Use this option to automatically add or suppress the "A" prefix.



>!0001480.

Add Code 32 "A" Prefix Off\*\*



>!0001481.

Add Code 32 "A" Prefix On

## Code 93



>!0001600.

Code 93 Off\*\*



>!0001601.

Code 93 On

### ***Number of Recognized Characters (Minimum and Maximum Limits)***

You can limit Code 93 decoding by data length. The default allowed range is 0-255 characters. The scanner can be set to read only Code 93 barcodes whose length is between (and including) the minimum and maximum values.

#### **Method One (QR code generation):**

Generate a QR code using the following formats. XX represents the length value in decimal (range 0–255).

- **Minimum length format:** >!000163XX.
  - e.g., minimum length 2 → >!0001632. / minimum length 12 → >!00016312.
- **Maximum length format:** >!000164XX.
  - e.g., maximum length 9 → >!0001649. / maximum length 20 → >!00016420.

#### **Method Two (step-by-step):**



>!000163.

Code 93 Minimum Length



>!000164.

Code 93 Maximum Length

**Setting steps:** See [Barcode Length Settings](#)

## **Code 93 Exact Length Requirement**

When enabled, the scanner only reads Code 93 barcodes whose length exactly matches both the configured minimum and maximum values. Barcodes of any other length are ignored. This feature is only available on SA1200, SA9200, and SA9400 units from a specific production batch onward (SA1203, SA9213, and SA9403, respectively).



>!0001670.

Code 93 Exact Length Off\*\*



>!0001671.

Code 93 Exact Length On

## Code 11



>!0001700.  
\*Disable



>!0001701.  
Enable

*Note: Code 11 is also known as USD-8*

### **Check Character**

Code 11 can use one or two check characters at the end of the data. Each check character is calculated from the other characters and used to verify that the data is correct.



>!0001710.

All Code 11 Check Characters  
Off\*\*



>!0001711.

Code 11 - 1 Check Character  
On



>!0001712.

Code 11 - 2 Check Characters  
On

### **Check Digit Transmission**

Controls whether the Code 11 check digit(s) are included in the transmitted output.

**Note:** Check digit transmission requires check digit verification to be enabled first



>!0001720.

Transmit Code 11 Check Digit Off\*\*



>!0001721.

Transmit Code 11 Check Digit On

## ***Number of Recognized Characters (Minimum and Maximum Limits)***

You can limit Code 11 decoding by data length. The default allowed range is 0-255 characters. The scanner can be set to read only Code 11 barcodes whose length is between (and including) the minimum and maximum values.

### **Method One (QR code generation):**

Generate a QR code using the following formats. XX represents the length value in decimal (range 0-255).

- **Minimum length format:** >!000173XX.
  - e.g., minimum length 2 → >!0001732. / minimum length 12 → >!00017312.
- **Maximum length format:** >!000174XX.
  - e.g., maximum length 9 → >!0001749. / maximum length 20 → >!00017420.

### **Method Two (step-by-step):**



>!000173.

Code 11 Minimum Length



>!000174.

Code 11 Maximum Length

**Setting steps:** See [Barcode Length Settings](#)

## ***Code 11 Exact Length Requirement***

When enabled, the scanner only reads Code 11 barcodes whose length exactly matches both the configured minimum and maximum values. Barcodes of any other length are ignored. This feature is only available on SA1200, SA9200, and SA9400 units from a specific production batch onward (SA1203, SA9213, and SA9403, respectively).



>!0001750.

Code 11 Exact Length Off\*\*



>!0001751.

Code 11 Exact Length On

## Codabar (NW-7)



>!0001500.

Codabar Off\*\*



>!0001501.

Codabar On

### **Check Character**

Codabar barcodes can optionally include a check character as the last character of the data. This character can be used to verify that the data is correct.

- **Codabar No Check Digit (default):** The scanner does not validate a check character. It is always treated and transmitted as normal data, even if it is a valid check character.
- **Codabar Check Digit On:** The scanner will validate the check character, if available, and it will be treated as a check character, not as normal data.
- **Codabar Do Not Transmit Check Digit:** The barcode must contain a valid check character. The scanner verifies it. However, it does not include the check character in the output.
- **Codabar Transmit Check Digit:** The barcode must contain a valid check character. The scanner verifies it and includes the check character in the output.

**Note:** The **Do Not Transmit** and **Transmit** options require check digit verification to be enabled. Scan **Check Digit On** before using either of these options.



>!0001510.

Codabar No Check Digit (default)



>!0001511.

Codabar Check Digit On



>!0001520.

Codabar Do Not Transmit Check Digit



>!0001521.

Codabar Transmit Check Digit

## ***Start and End Characters***

Codabar uses special start and end characters to mark the beginning and end of the code. You can choose whether the scanner sends these characters in the output.



>!0001530.

Transmit Start/End Characters Off\*\*



>!0001531.

Transmit Start/End Characters On

## ***Start and End Characters Format***

The Codabar start and end characters can be one of the letters A, B, C, or D. The end character can also be one of T, N, \*, or E. This setting defines which set of characters is allowed for the start and end.



>!0001540.

ABCD/ABCD\*\*



>!0001541.

ABCD/TN\*E

## ***Start and End Characters Case Format***

Controls whether the transmitted Codabar start and stop characters are uppercase or lowercase.



>!0001550.

Uppercase Codabar Start/End Characters\*\*



>!0001551.

Lowercase Codabar Start/End Characters

## ***Number of Recognized Characters (Minimum and Maximum Limits)***

You can limit Codabar decoding by data length. The default allowed range is 0-255 characters. The scanner can be set to read only Codabar barcodes whose length is between (and including) the minimum and maximum values.

### **Method One (QR code generation):**

Generate a QR code using the following formats. XX represents the length value in decimal (range 0-255).

- **Minimum length format:** >!000156XX.
  - e.g., minimum length 2 → >!0001562. / minimum length 12 → >!00015612.
- **Maximum length format:** >!000157XX.
  - e.g., maximum length 9 → >!0001579. / maximum length 20 → >!00015720.

### **Method Two (step-by-step):**



>!000156.

Codabar Minimum Length



>!000157.

Codabar Maximum Length

**Setting steps:** See [Barcode Length Settings](#)

## ***Codabar Exact Length Requirement***

When enabled, the scanner only reads Codabar barcodes whose length exactly matches both the configured minimum and maximum values. Barcodes of any other length are ignored. This feature is only available on SA1200, SA9200, and SA9400 units from a specific production batch onward (SA1203, SA9213, and SA9403, respectively).



>!00015A0.

Codabar Exact Length Off\*\*



>!00015A1.

Codabar Exact Length On

## Interleaved 2 of 5



>!0000B00.

Interleaved 2 of 5 Off



>!0000B01.

Interleaved 2 of 5 On\*\*

### Check Character

Interleaved 2 of 5 barcodes can optionally include a check character as the last character of the data. This character can be used to verify that the data is correct.

- **Interleaved 2 of 5 No Check Digit (default):** The scanner does not validate a check character. It is always treated and transmitted as normal data, even if it is a valid check character.
- **Interleaved 2 of 5 Check Digit On:** The scanner will validate the check character, if available, and it will be treated as a check character, not as normal data.
- **Interleaved 2 of 5 Do Not Transmit Check Digit:** The barcode must contain a valid check character. The scanner verifies it. However, it does not include the check character in the output.
- **Interleaved 2 of 5 Transmit Check Digit:** The barcode must contain a valid check character. The scanner verifies it and includes the check character in the output.

**Note:** The **Do Not Transmit** and **Transmit** options require check digit verification to be enabled. Scan **Check Digit On** before using either of these options.



>!0000B10.

Interleaved 2 of 5 No Check Digit\*\*



>!0000B11.

Interleaved 2 of 5 Check Digit On



>!0000B20.

Interleaved 2 of 5 Do Not Transmit Check  
Digit



>!0000B21.

Interleaved 2 of 5 Transmit Check Digit

## ***Number of Recognized Characters (Minimum and Maximum Limits)***

You can limit Interleaved 2 of 5 decoding by data length. The default allowed range is 0-255 characters. The scanner can be set to read only Interleaved 2 of 5 barcodes whose length is between (and including) the minimum and maximum values.

### **Method One (QR code generation):**

Generate a QR code using the following formats. XX represents the length value in decimal (range 0-255).

- **Minimum length format:** >!0000B3XX.
  - e.g., minimum length 2 → >!0000B32. / minimum length 12 → >!0000B312.
- **Maximum length format:** >!0000B4XX.
  - e.g., maximum length 9 → >!0000B49. / maximum length 20 → >!0000B420.

### **Method Two (step-by-step):**



>!0000B3.

Interleaved 2 of 5 Minimum Length



>!0000B4.

Interleaved 2 of 5 Maximum Length

**Setting steps:** See [Barcode Length Settings](#)

## ***Interleaved 2 of 5 Exact Length Requirement***

When enabled, the scanner only reads Interleaved 2 of 5 barcodes whose length exactly matches both the configured minimum and maximum values. Barcodes of any other length are ignored.

This feature is only available on SA1200, SA9200, and SA9400 units from a specific production batch onward (SA1203, SA9213, and SA9403, respectively).



>!0000B80.

Interleaved 2 of 5 Exact Length Off\*\*



>!0000B81.

Interleaved 2 of 5 Exact Length On

## ***Brazilian Government/Bank Code***

When enabled, the scanner reads ITF-25 barcodes formatted according to the Brazilian government and banking standard.



>!0000B70.

Brazilian Government/Bank Code Off\*\*



>!0000B71.

Brazilian Government/Bank Code On

## Matrix 2 of 5



>!0001100.

Matrix 2 of 5 Off\*\*



>!0001101.

Matrix 2 of 5 On

### Check Character

Matrix 2 of 5 barcodes can optionally include a check character as the last character of the data. This character can be used to verify that the data is correct.

- **Matrix 2 of 5 No Check Digit (default):** The scanner does not validate a check character. It is always treated and transmitted as normal data, even if it is a valid check character.
- **Matrix 2 of 5 Check Digit On:** The scanner will validate the check character, if available, and it will be treated as a check character, not as normal data.
- **Matrix 2 of 5 Do Not Transmit Check Digit:** The barcode must contain a valid check character. The scanner verifies it. However, it does not include the check character in the output.
- **Matrix 2 of 5 Transmit Check Digit:** The barcode must contain a valid check character. The scanner verifies it and includes the check character in the output.

**Note:** The **Do Not Transmit** and **Transmit** options require check digit verification to be enabled. Scan **Check Digit On** before using either of these options.



>!0001110.

Matrix 2 of 5 No Check Digit\*\*



>!0001111.

Matrix 2 of 5 Check Digit On



>!0001120.

Matrix 2 of 5 Do Not Transmit Check Digit



>!0001121.

Matrix 2 of 5 Transmit Check Digit

## ***Number of Recognized Characters (Minimum and Maximum Limits)***

You can limit Matrix 2 of 5 decoding by data length. The default allowed range is 0-255 characters. The scanner can be set to read only Matrix 2 of 5 barcodes whose length is between (and including) the minimum and maximum values.

### **Method One (QR code generation):**

Generate a QR code using the following formats. XX represents the length value in decimal (range 0-255).

- **Minimum length format:** >!000113XX.
  - e.g., minimum length 2 → >!0001132. / minimum length 12 → >!00011312.
- **Maximum length format:** >!000114XX.
  - e.g., maximum length 9 → >!0001149. / maximum length 20 → >!00011420.

### **Method Two (step-by-step):**



>!000113.

Matrix 2 of 5 Minimum Length



>!000114.

Matrix 2 of 5 Maximum Length

**Setting steps:** See [Barcode Length Settings](#)

## ***Matrix 2 of 5 Exact Length Requirement***

When enabled, the scanner only reads Matrix 2 of 5 barcodes whose length exactly matches both the configured minimum and maximum values. Barcodes of any other length are ignored. This feature is only available on SA1200, SA9200, and SA9400 units from a specific production batch onward (SA1203, SA9213, and SA9403, respectively).



>!0001150.

Matrix 2 of 5 Exact Length Off\*\*



>!0001151.

Matrix 2 of 5 Exact Length On

## Industrial 2 of 5



>!0001200.

Industrial 2 of 5 Off\*\*



>!0001201.

Industrial 2 of 5 On

*Note: Industrial 2 of 5 is also known as Straight 2 of 5*

### **Number of Recognized Characters (Minimum and Maximum Limits)**

You can limit Industrial 2 of 5 decoding by data length. The default allowed range is 0-255 characters. The scanner can be set to read only Industrial 2 of 5 barcodes whose length is between (and including) the minimum and maximum values.

#### **Method One (QR code generation):**

Generate a QR code using the following formats. XX represents the length value in decimal (range 0-255).

- **Minimum length format:** >!000123XX.
  - e.g., minimum length 2 → >!0001232. / minimum length 12 → >!00012312.
- **Maximum length format:** >!000124XX.
  - e.g., maximum length 9 → >!0001249. / maximum length 20 → >!00012420.

#### **Method Two (step-by-step):**



>!000123.

Industrial 2 of 5 Minimum Length



>!000124.

Industrial 2 of 5 Maximum Length

**Setting steps:** See [Barcode Length Settings](#)

## ***Industrial 2 of 5 Exact Length Requirement***

When enabled, the scanner only reads Industrial 2 of 5 barcodes whose length exactly matches both the configured minimum and maximum values. Barcodes of any other length are ignored. This feature is only available on SA1200, SA9200, and SA9400 units from a specific production batch onward (SA1203, SA9213, and SA9403, respectively).



>!0001250.

Industrial 2 of 5 Exact Length Off\*\*



>!0001251.

Industrial 2 of 5 Exact Length On

## Standard 2 of 5



>!0001300.

Standard 2 of 5 Off\*\*



>!0001301.

Standard 2 of 5 On

*Note: Standard 2 of 5 is also known as IATA 2 of 5*

### **Number of Recognized Characters (Minimum and Maximum Limits)**

You can limit Standard 2 of 5 decoding by data length. The default allowed range is 0-255 characters. The scanner can be set to read only Standard 2 of 5 barcodes whose length is between (and including) the minimum and maximum values.

#### **Method One (QR code generation):**

Generate a QR code using the following formats. XX represents the length value in decimal (range 0-255).

- **Minimum length format:** >!000133XX.
  - e.g., minimum length 2 → >!0001332. / minimum length 12 → >!00013312.
- **Maximum length format:** >!000134XX.
  - e.g., maximum length 9 → >!0001349. / maximum length 20 → >!00013420.

#### **Method Two (step-by-step):**



>!000133.

Standard 2 of 5 Minimum Length



>!000134.

Standard 2 of 5 Maximum Length

**Setting steps:** See [Barcode Length Settings](#)

## **Standard 2 of 5 Exact Length Requirement**

When enabled, the scanner only reads Standard 2 of 5 barcodes whose length exactly matches both the configured minimum and maximum values. Barcodes of any other length are ignored. This feature is only available on SA1200, SA9200, and SA9400 units from a specific production batch onward (SA1203, SA9213, and SA9403, respectively).



>!0001350.

Standard 2 of 5 Exact Length Off\*\*



>!0001351.

Standard 2 of 5 Exact Length On

## NEC 2 of 5



>!0001000.

NEC 2 of 5 Off\*\*



>!0001001.

NEC 2 of 5 On

*Note: NEC 2 of 5 is also called Discrete 2 of 5 and COOP 2 of 5*

### **Check Character**

NEC 2 of 5 barcodes can optionally include a check character as the last character of the data. This character can be used to verify that the data is correct.

- **NEC 2 of 5 No Check Digit (default):** The scanner does not validate a check character. It is always treated and transmitted as normal data, even if it is a valid check character.
- **NEC 2 of 5 Check Digit On:** The scanner will validate the check character, if available, and it will be treated as a check character, not as normal data.
- **NEC 2 of 5 Do Not Transmit Check Digit:** The barcode must contain a valid check character. The scanner verifies it. However, it does not include the check character in the output.
- **NEC 2 of 5 Transmit Check Digit:** The barcode must contain a valid check character. The scanner verifies it and includes the check character in the output.

**Note:** The **Do Not Transmit** and **Transmit** options require check digit verification to be enabled. Scan **Check Digit On** before using either of these options.



>!0001010.

NEC 2 of 5 No Check Digit (default)



>!0001011.

NEC 2 of 5 Check Digit On



>!0001020.

NEC 2 of 5 Do Not Transmit Check Digit



>!0001021.

NEC 2 of 5 Transmit Check Digit

## ***Number of Recognized Characters (Minimum and Maximum Limits)***

You can limit NEC 2 of 5 decoding by data length. The default allowed range is 0-255 characters. The scanner can be set to read only NEC 2 of 5 barcodes whose length is between (and including) the minimum and maximum values.

### **Method One (QR code generation):**

Generate a QR code using the following formats. XX represents the length value in decimal (range 0-255).

- **Minimum length format:** >!000103XX.
  - e.g., minimum length 2 → >!0001032. / minimum length 12 → >!00010312.
- **Maximum length format:** >!000104XX.
  - e.g., maximum length 9 → >!0001049. / maximum length 20 → >!00010420.

### **Method Two (step-by-step):**



>!000103.

NEC 2 of 5 Minimum Length



>!000104.

NEC 2 of 5 Maximum Length

**Setting steps:** See [Barcode Length Settings](#)

## ***NEC 2 of 5 Exact Length Requirement***

When enabled, the scanner only reads NEC 2 of 5 barcodes whose length exactly matches both the configured minimum and maximum values. Barcodes of any other length are ignored. This feature is only available on SA1200, SA9200, and SA9400 units from a specific production batch onward (SA1203, SA9213, and SA9403, respectively).



>!0001050.

NEC 2 of 5 Exact Length Off\*\*



>!0001051.

NEC 2 of 5 Exact Length On

## MSI Plessey



>!0001900.

MSI Plessey Off\*\*



>!0001901.

MSI Plessey On

### Check Character

MSI Plessey barcodes can include one or two check digits at the end of the data. These digits are calculated from the other characters (using Mod 10 and/or Mod 11) and can be used to verify that the data is correct.

**Note:** On this scanner, check digit verification cannot be disabled for MSI Plessey. One of the three modes below is always active.

- **Mod 10 Single Check Digit (default):** The scanner verifies the last digit using the Mod 10 algorithm.
- **Mod 10/Mod 10 Double Check Digit:** The scanner verifies the last two digits, both using the Mod 10 algorithm.
- **Mod 10/Mod 11 Double Check Digit:** The scanner verifies the last two digits using Mod 11 for the first and Mod 10 for the second.



>!0001911.

MSI Plessey Mod 10 Single  
Check Digit\*\*



>!0001912.

MSI Plessey Mod 10/Mod 10  
Double Check Digit



>!0001913.

MSI Plessey Mod 10/Mod 11  
Double Check Digit

### Transmit Check Digit

Controls whether the MSI Plessey check digit(s) are included in the transmitted output.

**Note:** Check digit transmission requires the check character to be enabled first.



>!0001920.

Transmit MSI Plessey Check Digit Off\*\*



>!0001921.

Transmit MSI Plessey Check Digit On

## ***Number of Recognized Characters (Minimum and Maximum Limits)***

You can limit MSI Plessey decoding by data length. The default allowed range is 0–255 characters. The scanner can be set to read only MSI Plessey barcodes whose length is between (and including) the minimum and maximum values.

### **Method One (QR code generation):**

Generate a QR code using the following formats. XX represents the length value in decimal (range 0-255).

- **Minimum length format:** >!000193XX.
  - e.g., minimum length 2 → >!0001932. / minimum length 12 → >!00019312.
- **Maximum length format:** >!000194XX.
  - e.g., maximum length 9 → >!0001949. / maximum length 20 → >!00019420.

### **Method Two (step-by-step):**



>!000193.

MSI Plessey Minimum Length



>!000194.

MSI Plessey Maximum Length

**Setting steps:** See [Barcode Length Settings](#)

## ***MSI Plessey Exact Length Requirement***

When enabled, the scanner only reads MSI Plessey barcodes whose length exactly matches both the configured minimum and maximum values. Barcodes of any other length are ignored. This feature is only available on SA1200, SA9200, and SA9400 units from a specific production batch onward (SA1203, SA9213, and SA9403, respectively).



>!0001950.

MSI Plessey Exact Length Off\*\*



>!0001951.

MSI Plessey Exact Length On

## Telepen



>!0001B90.

Telepen Off\*\*



>!0001B91.

Telepen On

## Trioptic



>!0001C90.

Trioptic Off\*\*



>!0001C91.

Trioptic On

## GS1 DataBar-14



>!0001A00.

GS1 DataBar-14 Off\*\*



>!0001A01.

GS1 DataBar-14 On

*Note: GS1 DataBar-14 is also known as GS1 DataBar Omnidirectional or RSS-14.*

## GS1 Composite

GS1 Composite barcodes combine a standard GS1 linear barcode with a 2D component to carry supplementary data such as batch numbers and expiry dates. The 2D component is stacked above or alongside the linear barcode.



>!0001B00.

GS1 Composite Off\*\*



>!0001B01.

GS1 Composite On

## Korea Post



>!0002000.

Korea Post Off\*\*



>!0002001.

Korea Post On

*Note: Korea Post is also known as Korean Postal Authority.*

### **Transmit Check Digit**

Controls whether the Korea Post check digit is included in the transmitted output. By default, the scanner does not include (transmit) this check character.



>!0002010.

Transmit Korea Post Check Digit Off\*\*



>!0002011.

Transmit Korea Post Check Digit On

### **Korea Post Reverse Output**

When enabled, the scanner transmits the decoded Korea Post data in reverse character order.



>!0002020.

Korea Post Reverse Character Order Off\*\*



>!0002021.

Korea Post Reverse Character Order On

## QR Code



>!0003100.

QR Code Off



>!0003101.

QR Code On\*\*

### **QR Code Normal/Inversed**

Controls whether the scanner reads standard (dark modules on a light background), inverted (light modules on a dark background), or both color variants of QR Codes.

**Note:** scan “QR Code Normal Only Inverted Format” to reset the feature after scanning “QR Code Inverse Only”



>!0003120.

QR Code Normal Only\*\*



>!0003121.

QR Code Inverse Only



>!0003122.

QR Code Normal + Inversed



>!0003120.

QR Code Normal Only Inverted Format

### **Mirror Reading**

Controls whether the scanner can read mirrored QR Code barcodes.



>!0003140.

QR Code Mirror Reading Off



>!0003141.

QR Code Mirror Reading On\*\*

## ***Number of Recognized Characters (Minimum and Maximum Limits)***

You can limit QR Code decoding by data length. The default allowed range is 0-65535 characters. The scanner can be set to read only QR Code barcodes whose length is between (and including) the minimum and maximum values.

### **Method One (QR code generation):**

Generate a QR code using the following formats. XX represents the length value in decimal (range 0-65535).

- **Minimum length format:** >!000316XX.
  - e.g., minimum length 2 → >!0003162. / minimum length 12 → >!00031612.
- **Maximum length format:** >!000317XX.
  - e.g., maximum length 9 → >!0003179. / maximum length 20 → >!00031720.

### **Method Two (step-by-step):**



>!000316.

QR Code Minimum Length



>!000317.

QR Code Maximum Length

**Setting steps:** See [Barcode Length Settings](#)

## ***QR Code Exact Length Requirement***

When enabled, the scanner only reads QR Code barcodes whose length exactly matches both the configured minimum and maximum values. Barcodes of any other length are ignored. This feature is only available on SA1200, SA9200, and SA9400 units from a specific production batch onward (SA1203, SA9213, and SA9403, respectively).



>!0003180.

QR Code Exact Length Off\*\*



>!0003181.

QR Code Exact Length On

## Data Matrix



>!0003200.

Data Matrix Off



>!0003201.

Data Matrix On\*\*

### ***Data Matrix Normal/Inversed***

Controls whether the scanner reads standard (dark modules on a light background), inverted (light modules on a dark background), or both color variants of Data Matrix codes.



>!0003220.

Data Matrix Normal Only\*\*



>!0003221.

Data Matrix Inverse Only



>!0003222.

Data Matrix Normal +  
Inversed

### ***Data Matrix Mirror Reading***

Controls whether the scanner can read mirrored Data Matrix barcodes.



>!0003240.

Data Matrix Mirror Reading Off\*\*



>!0003241.

Data Matrix Mirror Reading On

## **Data Matrix ECI Control**

ECI (Extended Channel Interpretation) allows a Data Matrix barcode to declare the character encoding used for its data (for example, UTF-8 or ISO-8859-1). When enabled, the scanner processes and transmits ECI encoding declarations embedded in the barcode. When disabled, ECI declarations are ignored and the data is transmitted as-is.



>!0003230.

Data Matrix ECI Control Off\*\*



>!0003231.

Data Matrix ECI Control On

## **Number of Recognized Characters (Minimum and Maximum Limits)**

You can limit Data Matrix decoding by data length. The default allowed range is 0-65535 characters. The scanner can be set to read only Data Matrix barcodes whose length is between (and including) the minimum and maximum values.

### **Method One (QR code generation):**

Generate a QR code using the following formats. XX represents the length value in decimal (range 0-65535).

- **Minimum length format:** >!000326XX.
  - e.g., minimum length 2 → >!0003262. / minimum length 12 → >!00032612.
- **Maximum length format:** >!000327XX.
  - e.g., maximum length 9 → >!0003279. / maximum length 20 → >!00032720.

### **Method Two (step-by-step):**



>!000326.

Data Matrix Minimum Length



>!000327.

Data Matrix Maximum Length

**Setting steps:** See [Barcode Length Settings](#)

## ***Data Matrix Exact Length Requirement***

When enabled, the scanner only reads Data Matrix barcodes whose length exactly matches both the configured minimum and maximum values. Barcodes of any other length are ignored. This feature is only available on SA1200, SA9200, and SA9400 units from a specific production batch onward (SA1203, SA9213, and SA9403, respectively).



>!0003280.

Data Matrix Exact Length Off\*\*



>!0003281.

Data Matrix Exact Length On

## PDF417



>!0003000.

PDF417 Off\*\*



>!0003001.

PDF417 On

### **PDF417 Normal/Inversed**

Controls whether the scanner reads standard (dark modules on a light background), inverted (light modules on a dark background), or both color variants of PDF417 codes.



>!0003020.

PDF417 Normal Only\*\*



>!0003021.

PDF417 Inverse Only



>!0003022.

PDF417 Normal + Inversed

### **Number of Recognized Characters (Minimum and Maximum Limits)**

You can limit PDF417 decoding by data length. The default allowed range is 0-65535 characters. The scanner can be set to read only PDF417 barcodes whose length is between (and including) the minimum and maximum values.

#### **Method One (QR code generation):**

Generate a QR code using the following formats. XX represents the length value in decimal (range 0-65535).

- **Minimum length format:** >!000304XX.
  - e.g., minimum length 2 → >!0003042. / minimum length 12 → >!00030412.
- **Maximum length format:** >!000305XX.
  - e.g., maximum length 9 → >!0003059. / maximum length 20 → >!00030520.

#### **Method Two (step-by-step):**



>!000304.

PDF417 Minimum Length



>!000305.

PDF417 Maximum Length

**Setting steps:** See [Barcode Length Settings](#)

## ***PDF417 Exact Length Requirement***

When enabled, the scanner only reads PDF417 barcodes whose length exactly matches both the configured minimum and maximum values. Barcodes of any other length are ignored. This feature is only available on SA1200, SA9200, and SA9400 units from a specific production batch onward (SA1203, SA9213, and SA9403, respectively).



>!0003060.

PDF417 Exact Length Off\*\*



>!0003061.

PDF417 Exact Length On

## Aztec Code



>!0003400.

Aztec Code Off\*\*



>!0003401.

Aztec Code On

## Additional Barcode Types

The barcode types in this section are not available on all models.

Barcode Type	SA1200	SA9200	SA9400
Pharma Code One-Track	---	✓	✓
Codablock A	---	✓	✓
Codablock F	---	✓	✓
Maxi Code	✓	✓	✓
HanXin	---	✓	✓
DotCode	---	✓	✓

### Pharma Code (One-Track)

Pharma Code (One-Track) is a 1D symbology used on pharmaceutical packaging for production and packaging control.



>!0001C00.

Pharma Code One-Track Off\*\*



>!0001C01.

Pharma Code One-Track On

### **Pharma Code One-Track Orientation**

Controls whether the scanner reads Pharma Code One-Track barcodes in horizontal or vertical orientation.



>!0001C10.

Pharma Code One-Track Horizontal\*\*



>!0001C11.

Pharma Code One-Track Vertical

## Pharma Code One-Track Reverse Output

When enabled, the scanner transmits the decoded Pharma Code One-Track data in reverse character order.



>!0001C20.

Pharma Code One-Track Reverse Output  
Off\*\*



>!0001C21.

Pharma Code One-Track Reverse Output On

## Codablock A Code



>!0001D00.

Codablock A Off\*\*



>!0001D01.

Codablock A On

## Codablock F Code



>!0001D90.

Codablock F Off\*\*



>!0001D91.

Codablock F On

## Maxi Code



>!0003300.

Maxi Code Off\*\*



>!0003301.

Maxi Code On

## HanXin



>!0003500.

Han Xin Off\*\*



>!0003501.

Han Xin On

*Note: HanXin Code is also known as Chinese Sensible.*

### **HanXin ECI Control**

ECI (Extended Channel Interpretation) allows a HanXin barcode to declare the character encoding used for its data (for example, UTF-8 or GB2312). When enabled, the scanner processes and transmits ECI encoding declarations embedded in the barcode. When disabled, ECI declarations are ignored and the data is transmitted as-is.



>!0003530.

HanXin ECI Control Off\*\*



>!0003531.

HanXin ECI Control On

### **Number of Recognized Characters (Minimum and Maximum Limits)**

You can limit HanXin decoding by data length. The default allowed range is 0-65535 characters. The scanner can be set to read only HanXin barcodes whose length is between (and including) the minimum and maximum values.

#### **Method One (QR code generation):**

Generate a QR code using the following formats. XX represents the length value in decimal (range 0-65535).

- **Minimum length format:** >!000354XX.
  - e.g., minimum length 2 → >!0003542. / minimum length 12 → >!00035412.
- **Maximum length format:** >!000355XX.
  - e.g., maximum length 9 → >!0003559. / maximum length 20 → >!00035520.

## Method Two (step-by-step):



>!000354.

HanXin Minimum Length



>!000355.

HanXin Maximum Length

**Setting steps:** See [Barcode Length Settings](#)

## ***HanXin Exact Length Requirement***

When enabled, the scanner only reads HanXin barcodes whose length exactly matches both the configured minimum and maximum values. Barcodes of any other length are ignored.

This feature is only available on SA1200, SA9200, and SA9400 units from a specific production batch onward (SA1203, SA9213, and SA9403, respectively).



>!0003560.

HanXin Exact Length Off\*\*



>!0003561.

HanXin Exact Length On

## DotCode



>!0003700.

DotCode Off\*\*



>!0003701.

DotCode On

## Postal Codes

Postal code support is available on SA9200 and SA9400 only, starting from production batch SA9213, and SA9403. It is not available on SA1200 or on SA9200/SA9400 units produced before this. To verify whether your unit supports postal codes, contact ScanAvenger support with your serial number.

Postal code barcode types are used by national postal services to encode routing and sorting information. Only one postal code type can be enabled at a time.

### ***Postal Code Switch***

Selects which postal code type the scanner reads. Enabling one type automatically disables any previously enabled postal code type.



>!0001E00.

Postal Code Off\*\*



>!0001E01.

Australian Postal Code On



>!0001E02.

Royal Mail (RM4SCC) On



>!0001E05.

Intelligent Mail Barcode On



>!0001E08.

Planet Code On



>!0001E09.

USPS Postnet On

### ***Planet Code Transmit Check Digit***

Controls whether the Planet Code check digit is included in the transmitted output.



>!0001E10.

Transmit Planet Code Check Digit Off



>!0001E11.

Transmit Planet Code Check Digit On\*\*

## ***USPS Postnet Transmit Check Digit***

Controls whether the USPS Postnet check digit is included in the transmitted output.



>!0001E20.

Transmit USPS Postnet Check Digit Off



>!0001E21.

Transmit USPS Postnet Check Digit On\*\*

## **Part II: Special Configuration Codes**

*Also referred to as Special Codes*

## Restore Wireless Parameters

If the scanner's functionality is disrupted due to accidentally scanning incorrect function setting codes, you can restore the scanner to its default state by scanning the Restore Wireless Parameters barcode.



%%SpecCode93



%%SpecCode93

Restore Wireless Parameters

### ***Instructions***

This function is particularly useful in the following scenarios:

1. An error occurred during scanner setup.
2. You cannot recall the previous settings made on the scanner and wish to reset it to default.
3. You enabled unusual or experimental functions and now want to reset the scanner for standard use.

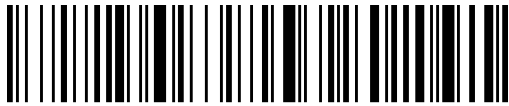
## Setting Custom Default Settings

With custom default settings, you can configure the default wireless parameters of the scanner to suit your specific needs. These settings will replace the original factory defaults and will remain in effect, even if you perform a wireless parameter reset.

Instructions for Setting Custom Default Settings:

1. Scan the "Setting Custom Default Settings" configuration code
2. Set Wireless Parameters:
  - a. Scan the barcodes corresponding to the desired wireless parameter functions.

**Important:** Once configured, the new custom defaults cannot be reverted to the factory settings by using the "Restore Wireless Parameters" function.



%%SpecCode92



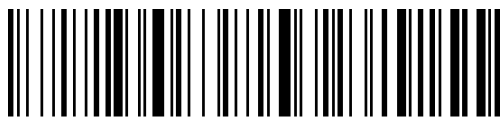
%%SpecCode92

Setting Custom Default Settings

## Communication mode switching

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

1. Scan the barcode corresponding to the desired communication mode:



%%SpecCodeA8

2.4G Mode



%%SpecCodeA8



%%SpecCodeA9

Virtual Bluetooth Mode



%%SpecCodeA9



%%SpecCodeAA

Bluetooth HID Mode



%%SpecCodeAA



%%SpecCodeAB

Bluetooth SPP Mode



%%SpecCodeAB



%%SpecCodeAC

Bluetooth BLE Mode



%%SpecCodeAC

2. Scan the "Pair with Receiver" barcode. The green LED will start flashing, indicating pairing mode. Alternatively, press the scanner's trigger twice to exit setup mode and return to the previous state.

# SCANA V ENGER



%%SpecCode99



%%SpecCode99

Pair with Receiver

## Scanner Matching Steps

### **USB Dongle Pairing (2.4G)**

The following steps outline how to pair the scanner in 2.4G mode. This process supports operating systems such as Windows XP, Win7, Win8, Win10, and others.

1. Scan the "2.4G Mode" barcode to configure the scanner for 2.4G wireless communication.



%%SpecCodeA8



%%SpecCodeA8

2.4G Mode

2. Scan the "Pair with USB Dongle Receiver" barcode and enter the pairing state.
  - a. The green LED will begin flashing quickly, indicating the scanner is in pairing mode.
  - b. Alternatively, press the scanner's trigger twice to exit setup mode and return to the previous state.



%%SpecCode99



%%SpecCode99

Pair with USB Dongle Receiver

3. Plug the USB Dongle receiver into the computer's USB port. A "beep" sound will confirm successful pairing, and the blue LED will remain solid.

## **Bluetooth Terminal Matching**

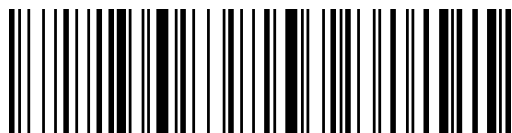
The scanner can connect via Bluetooth to devices running Android, iOS, or PCs with Bluetooth functionality. There are two methods for pairing the scanner in Bluetooth HID mode.

### **Method 1: Quick Pairing (Disabled by Default)**

1. Start the scanner and press the button for 8 seconds to enter Bluetooth HID Matching Mode.
  - a. The green LED will flash alternately.
2. Enable Bluetooth on the target device and search for "ScanAvenger HID".
3. Select "ScanAvenger HID" to pair.
4. Upon successful pairing, you will hear a beep, and the blue LED will remain solid.

### **Method 2: Manual Setup**

1. Scan the "Bluetooth HID Mode" barcode to set the scanner to Bluetooth HID mode



%%SpecCodeAA



%%SpecCodeAA

Bluetooth HID Mode

2. Scan the "Pair with Receiver" barcode. The green LED will start flashing, indicating pairing mode. Alternatively, press the scanner's trigger twice to exit setup mode and return to the previous state.



%%SpecCode99



%%SpecCode99

Pair with Receiver

3. Turn on Bluetooth and search for "ScanAvenger HID" in your device's Bluetooth settings.
4. Select "ScanAvenger HID" to enter pairing mode
5. Beep confirms successful pairing, and the blue LED will remain solid.

## **Long Press 8 Seconds into Bluetooth HID Search (Disabled by Default)**

The scanner can be configured to quickly initiate Bluetooth HID search mode by holding the button for 8 seconds. Use the steps below to enable or disable this feature.

To Enable/Disable the function, please scan one of the configuration codes below



%%SpecCode79

Enable Long Press 8 Seconds to Enter Bluetooth HID Search



%%SpecCode79



%%SpecCode78

Disable Long Press 8 Seconds to Enter Bluetooth HID Search\*\*



%%SpecCode78

## **Bluetooth SPP Mode (Serial Port Profile)**

To enable data transmission via SPP, you would need compatible Bluetooth SPP transmission software. This mode is ideal for transferring large amounts of data.

### **Bluetooth SPP Pairing Steps:**

1. Scan the "Bluetooth SPP Mode" set up code.



%%SpecCodeAE

Bluetooth SPP Mode

- a. The blue LED will start flashing, indicating pairing mode.
  - b. The device will automatically switch to SPP mode and enter the broadcast state.
  - c. The device name "ScanAvenger SPP" will be available for selection in the SPP software.
2. Search for "ScanAvenger SPP" in the SPP transmission software.
  3. Select "ScanAvenger SPP" to initiate pairing.
  4. Wait for the confirmation signal.
    - a. A beep sound indicates a successful pairing.
    - b. The blue LED will remain steady, confirming the connection.

## **Bluetooth BLE Mode (Bluetooth Low Energy)**

To enable data transmission via BLE, you would need compatible Bluetooth BLE transmission software. This mode is optimized for low-power, small data transfers.

### **Bluetooth BLE Pairing Steps:**

1. Scan the "Bluetooth BLE Mode" set up code.



%%SpecCodeAC

Bluetooth BLE Mode

- a. The blue LED will start flashing, indicating pairing mode.
  - b. The device will automatically switch to BLE mode and enter the broadcast state.
  - c. The device name "ScanAvenger BLE" will be available for selection in the BLE software.
2. Search for "ScanAvenger BLE" in the BLE transmission software.
  3. Select "ScanAvenger BLE" to initiate pairing.
  4. Wait for the confirmation signal.
    - a. A beep sound indicates a successful pairing.
    - b. The blue LED will remain steady, confirming the connection.

## Set Bluetooth Name

1. Scan "Set Bluetooth Name" Barcode



%SpecCodeEC

Set Bluetooth Name

2. Scan the barcode representing the desired Bluetooth name. This code will need to be generated separately.

**Note:** The default name is "ScanAvenger".

a. The complete Bluetooth name includes the name + protocol type (e.g., HID, SPP). Changing the name updates all protocol names.

b. The Bluetooth name supports a maximum of 16 bytes. If a barcode exceeds this limit, only the first 16 bytes will be used.

Example: If the new Bluetooth name is Scanner, the Bluetooth HID name becomes Scanner



Scanner



Scanner

Sample Bluetooth Name "Scanner"

## Read Bluetooth Name

To check the current Bluetooth name, scan the "Read Bluetooth Name" barcode.



%SpecCodeED

Read Bluetooth Name

## Battery Level Display

To check the current power level of the scanner, please scan the “Battery Level Display” barcode into a text processing app, where the battery percentage will appear.

This function allows you to easily monitor the scanner's power level to ensure uninterrupted operation.



%%SpecCode15



%%SpecCode15

Battery Level Display

## Wireless transmission modes

The barcode scanner has three operating modes: Trigger Upload Mode, Mixed Mode, and Storage Mode. The default is Trigger Upload Mode.

### **Trigger Upload Mode**

By scanning the “Trigger Upload Mode” barcode, the scanner immediately transmits the scanned data to the connected device when the trigger is pressed.



%%SpecCode10



%%SpecCode10

Trigger Upload Mode\*\*

### **Mixed Mode**

Mixed mode combines two operating modes into one setting: when connected to a device, the scanner operates in trigger upload mode. When disconnected, it switches to storage mode automatically. This eliminates the need to reconfigure modes on each connection change.

**Note:** Not recommended for Bluetooth HID, SPP, or BLE.



%%SpecCode12



%%SpecCode12

Mixed Mode

### **Storage Mode**

By scanning the “Storage Mode” barcode, the scanner stores scanned barcode data in its internal memory instead of uploading it directly to the connected device. The stored data can be uploaded to the device later as needed, meaning that the scanner can be used in this mode even if temporarily disconnected.



%%SpecCode11



%%SpecCode11

Storage mode

## Data Control (Data Processing for Storage Mode)

This section provides instructions for managing stored barcode data in Storage Mode. Use the corresponding barcodes to upload, count, or clear stored data.

### Data Upload

To upload the data stored in the scanner to a computer, POS, or mobile device, simply scan the “Data Upload” barcode, which enables the scanner to transmit all stored barcode data to the connected device.

**Important:** Uploaded data remains stored in the scanner unless cleared using the “Data Clear” function.



%%SpecCode16



%%SpecCode16

Data Upload

### Sum of the Barcodes Scanned

To count and upload the total number of barcodes stored in the scanner, simply scan the “Total Data” barcode. The scanner will send the total count of stored barcodes to the connected device. This feature is useful for inventory tracking and data analysis.



%%SpecCode17



%%SpecCode17

Total Data

### Data Clear

To erase all stored barcode data in the scanner, simply scan the “Data Clear” barcode. The scanner will permanently delete all stored data.

**Caution:** This action cannot be undone. Ensure that all necessary data has been uploaded before clearing.



%%SpecCode18



%%SpecCode18

Data Clear

## Android, iOS System Keyboard Settings (Bluetooth Function)

This section explains how to manage keyboard visibility when using the scanner in Bluetooth HID Mode.

1. To toggle the keyboard display, scan the "Hide/Unhide Keyboard" barcode.



%%SpecCode1A

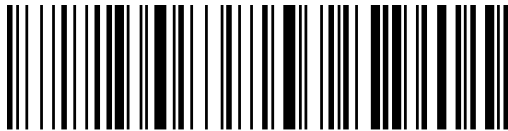


%%SpecCode1A

Hide/Unhide Keyboard

2. To use a double trigger press to hide/unhide the keyboard, scan the "Enable Double Click to Hide/Unhide Keyboard" barcode.

This setting overrides the "Hide/Unhide Keyboard" barcode functionality



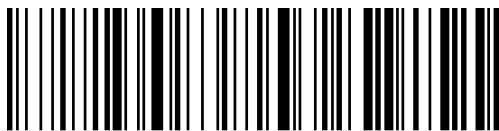
%%SpecCode7B



%%SpecCode7B

Enable Double Click to Hide/Unhide Keyboard

3. To deactivate the double trigger press functionality, scan the "Disable Double Click to Hide/Unhide Keyboard" barcode.



%%SpecCode7A



%%SpecCode7A

Disable Double Click to Hide/Unhide Keyboard

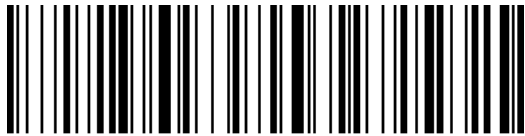
Android System Keyboard Display:

If the virtual keyboard does not appear on some Android devices, contact the supplier for the Bluetooth input method APP, as this may depend on the device manufacturer.

## Transmission Speed Setting

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

Scan the barcode for the desired speed (the default is Fast):



%%SpecCodeB0

Fast\*\*



%%SpecCodeB0



%%SpecCodeB1

Medium



%%SpecCodeB1



%%SpecCodeB2

Low



%%SpecCodeB2



%%SpecCodeB3

Very Low



%%SpecCodeB3

If there are any issues using this feature in USB Dongle (2.4G) mode, scan the code below.



%%SpecCodeBA1A01



## Vibration Setting

To avoid scanning the wrong code by mistake, it is recommended to cover adjacent codes while scanning the intended one. This ensures accurate setup and prevents unintended changes to the configuration.

Scan the barcode for the desired setting:



%%SpecCode76

Turn Off Vibration



%%SpecCode76



%%SpecCode77

Turn On Vibration\*\*



%%SpecCode77

## Sleep Time Setting

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

Scan the barcode for the desired setting (the default is 30 min):

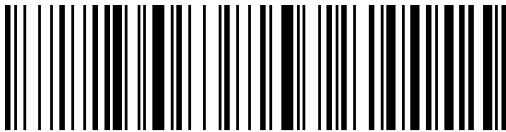


%%SpecCode30

Sleep interval 30 s



%%SpecCode30



%%SpecCode31

Sleep interval 1 min



%%SpecCode31

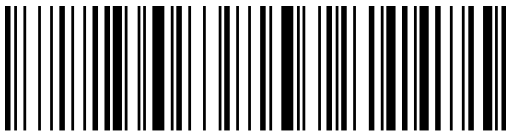


%%SpecCode32

Sleep interval 2 min



%%SpecCode32

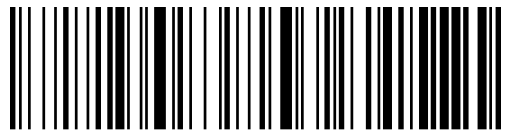


%%SpecCode33

Sleep interval 5 min



%%SpecCode33



%%SpecCode34

Sleep interval 10 min



%%SpecCode34



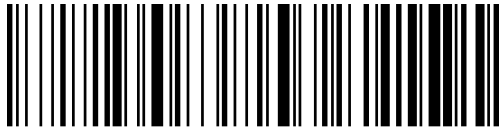
%%SpecCode35

Sleep Interval 30 min\*\*



%%SpecCode35

# SCANA V E N G E R

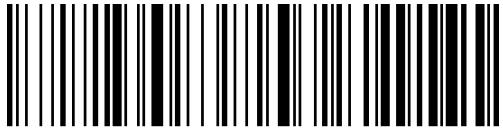


%%SpecCode36

Never Sleep



%%SpecCode36



%%SpecCode38

Sleep Immediately



%%SpecCode38

## Language Settings Table

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

Select the desired keyboard language (the default is English (US)):



%%SpecCode40



%%SpecCode40

English (US)\*\*



%%SpecCode41



%%SpecCode41

German



%%SpecCode42



%%SpecCode42

French



%%SpecCode43



%%SpecCode43

Spanish



%%SpecCode44



%%SpecCode44

Italian



%%SpecCode45



%%SpecCode45

Japanese



%%SpecCode47

Belgian French



%%SpecCode47



%%SpecCode48

Portuguese



%%SpecCode48



%%SpecCode49

English (UK)



%%SpecCode49



%%SpecCode4A

German IOS keyboard



%%SpecCode4A



%%SpecCode4B

Brazilian Portuguese



%%SpecCode4B



%%SpecCode4C

Russian



%%SpecCode4C

# SCANAVENTGER

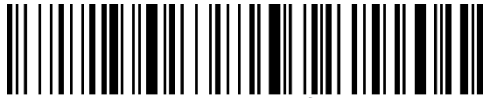


%%SpecCode4D

Czech



%%SpecCode4D



%%SpecCode4E

Italy 142



%%SpecCode4E



%%SpecCode4F

Q (Turkey Q)



%%SpecCode4F



%%SpecCode50

F (Turkey F)



%%SpecCode50



%%SpecCode51

Sweden / Finland



%%SpecCode51



%%SpecCode52

Mexican Spanish



%%SpecCode52



%%SpecCode53

Denmark



%%SpecCode53



%%SpecCode54



%%SpecCode54

Written Norwegian



%%SpecCode55



%%SpecCode55

Croatian / Serbian



%%SpecCode56



%%SpecCode56

Swiss German



%%SpecCode57



%%SpecCode57

Swiss French



%%SpecCode58



%%SpecCode58

Dutch



%%SpecCode59



%%SpecCode59

Hungarian



%%SpecCode5A



%%SpecCode5A

Polish



Canadian French



Argentina (Latin American)



Slovak



Thai



International keyboard

**Note:** Enabling the International Keyboard may slightly reduce transmission speed. Additionally, the International General Keyboard supports a wide range of smaller languages commonly used on PC platforms.

## Case Conversion Settings

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

Scan the barcode for the desired setting (the default is No Case Conversion):



Convert to Lowercase



Convert to Uppercase



Case Interchange



No Case Conversion\*\*

## Timestamp Prefix/Suffix

This function allows you to add a prefix or suffix timestamp to every scan. Follow these steps to configure the setting:

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

1. Click on the URL below and scan the barcode on the site to synchronize your scanner's clock:

<https://scanavenger.com/time-setting-page/>

2. Scan one of the following configuration codes to place the timestamp as prefix or as suffix:



%%SpecCodeC1

Timestamp Prefix



%%SpecCodeC1



%%SpecCodeC2

Timestamp Suffix



%%SpecCodeC2

To remove the timestamp, scan the code below:



%%SpecCodeC0

Remove Timestamp



%%SpecCodeC0

To output current time, scan the code below:



%%SpecCode1B

Output Current Time



%%SpecCode1B

## User Default and Factory Reset

### User Default Settings

It is possible to save a current configuration as a custom default. If no custom default has been saved, the device defaults to factory settings.

- **Save Current Configuration as User Default:** stores the device's current configuration as the new user default, overwriting any previously saved user default.
- **Restore User Default Settings:** resets the device to the saved user default. If no custom default has been saved, the device resets to factory settings.



>!0016010.

Save Current Configuration as User Default



>!0016001.

Restore User Default Settings

## Reset Steps for Wireless USB Dongle Connection

1. Unplug the USB Dongle.
2. Scan the barcodes below in order.
  - a. No need to print these codes, they can be scanned from the screen.
  - b. The scanner may not make sounds or vibrate while scanning certain codes, this is normal behaviour.

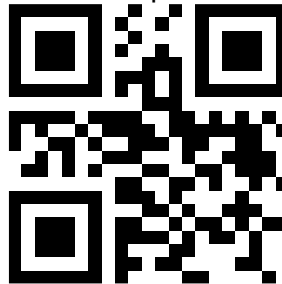
Step 1



>!0016001.

Restore User Default Settings for Scanning Engine

Step 2



%%SpecCode93

Restore Factory Default for Wireless Connection Engine

Step 3



Step 4



Step 5



3. Plug the USB Dongle back in.
4. Confirm connection.
  - a. Your scanner will pair with the USB Dongle.
  - b. A solid blue light on the scanner confirms a successful connection.

## Reset Steps for Bluetooth Connection

1. Remove Existing Connection:
  - a. Go to your device's Bluetooth Settings → Connections
  - b. Remove "ScanAvenger HID" from the list
2. Scan the Barcodes Below in Order:
  - a. No need to print these codes, they can be scanned from the screen
  - b. The scanner may not make sounds or vibrate while scanning certain codes, this is normal behavior

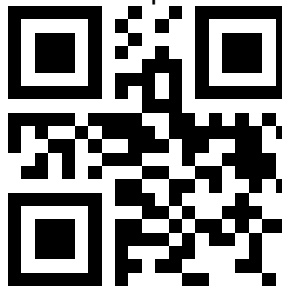
Step 1



>!0016001.

Restore User Default Settings for Scanning Engine

Step 2



%%SpecCode93

Restore Factory Default for Wireless Connection Engine

Step 3



Step 4



Step 5



3. Pair the Scanner:

- a. The scanner light should start flashing green, indicating it's ready to pair.
- b. Go to Bluetooth Settings and select "ScanAvenger HID" to pair. If it doesn't appear, refresh the Bluetooth search.
- c. A solid blue LED on the scanner confirms a successful connection.

## Appendix

## Appendix - ASCII Hidden Characters Table

Decimal System	Hexadecimal	Characters
00	00	NUL (Null char.)
01	01	SOH (Start of Header)
02	02	STX (Start of Text)
03	03	ETX (End of Text)
04	04	EOT (End of Transmission)
05	05	ENQ (Enquiry)
06	06	ACK (Acknowledgment)
07	07	BEL (Bell)
08	08	BS (Backspace)
09	09	HT (Horizontal Tab)
10	0A	LF (Line Feed)
11	0B	VT (Vertical Tab)
12	0C	FF (Form Feed)
13	0D	CR (Carriage Return)
14	0E	SO (Shift Out)
15	0F	SI (Shift In)
16	10	DLE (Data Link Escape)
17	11	DC1 (XON) (Device Control 1)
18	12	DC2 (Device Control 2)

# SCANA V ENGER

19	13	DC3 (XOFF) (Device Control 3)
20	14	DC4 (Device Control 4)
21	15	NAK (Negative Acknowledgment)
22	16	SYN (Synchronous Idle)
23	17	ETB (End of Trans. Block)
24	18	CAN (Cancel)
25	19	EM (End of Medium)
26	1A	SUB (Substitute)
27	1B	ESC (Escape)
28	1C	FS (File Separator)
29	1D	GS (Group Separator)
30	1E	RS (Request to Send)
31	1F	US (Unit Separator)

## Appendix - ASCII Visible Characters Table

Decimal	Hexadecimal	Character	Decimal	Hexadecimal	Character	Decimal	Hexadecimal	Character
32	20	<SPACE >	107	6B	k	182	B6	¶
33	21	!	108	6C	l	183	B7	·
34	22	"	109	6D	m	184	B8	,
35	23	#	110	6E	n	185	B9	1
36	24	\$	111	6F	o	186	BA	°
37	25	%	112	70	p	187	BB	»
38	26	&	113	71	q	188	BC	¼
39	27	'	114	72	r	189	BD	½
40	28	(	115	73	s	190	BE	¾
41	29	)	116	74	t	191	BF	¿
42	2A	*	117	75	u	192	C0	À
43	2B	+	118	76	v	193	C1	Á
44	2C	,	119	77	w	194	C2	Â
45	2D	-	120	78	x	195	C3	Ã
46	2E	.	121	79	y	196	C4	Ä
47	2F	/	122	7A	z	197	C5	Å
48	30	0	123	7B	{	198	C6	Æ
49	31	1	124	7C		199	C7	Ç
50	32	2	125	7D	}	200	C8	È
51	33	3	126	7E	~	201	C9	É
52	34	4	127	7F	DEL	202	CA	Ê
53	35	5	128	80	€	203	CB	Ë
54	36	6	129	81	Unused	204	CC	ì

# SCANAVENTGER

55	37	7	130	82	,	205	CD	í
56	38	8	131	83	f	206	CE	î
57	39	9	132	84	„	207	CF	ï
58	3A	:	133	85	...	208	D0	Đ
59	3B	;	134	86	†	209	D1	Ñ
60	3C	<	135	87	‡	210	D2	Ò
61	3D	=	136	88	^	211	D3	Ó
62	3E	>	137	89	‰	212	D4	Ô
63	3F	?	138	8A	Š	213	D5	Õ
64	40	@	139	8B	ˆ	214	D6	Ö
65	41	A	140	8C	Œ	215	D7	×
66	42	B	141	8D	Unused	216	D8	Ø
67	43	C	142	8E	Ž	217	D9	Ù
68	44	D	143	8F	Unused	218	DA	Ú
69	45	E	144	90	Unused	219	DB	Û
70	46	F	145	91	‘	220	DC	Ü
71	47	G	146	92	’	221	DD	Ý
72	48	H	147	93	“	222	DE	Þ
73	49	I	148	94	”	223	DF	Ë
74	4A	J	149	95	•	224	E0	à
75	4B	K	150	96	–	225	E1	á
76	4C	L	151	97	—	226	E2	â
77	4D	M	152	98	~	227	E3	ã
78	4E	N	153	99	™	228	E4	ä
79	4F	O	154	9A	š	229	E5	å
80	50	P	155	9B	›	230	E6	æ
81	51	Q	156	9C	œ	231	E7	ç

# SCANAVENTGER

82	52	R	157	9D	<i>Unused</i>	232	E8	è
83	53	S	158	9E	ž	233	E9	é
84	54	T	159	9F	ÿ	234	EA	ê
85	55	U	160	A0	NBSP	235	EB	ë
86	56	V	161	A1	ı	236	EC	ì
87	57	W	162	A2	ç	237	ED	í
88	58	X	163	A3	£	238	EE	î
89	59	Y	164	A4	¤	239	EF	ï
90	5A	Z	165	A5	¥	240	F0	ð
91	5B	[	166	A6	ı	241	F1	ñ
92	5C	\	167	A7	§	242	F2	ò
93	5D	]	168	A8	¨	243	F3	ó
94	5E	^	169	A9	©	244	F4	ô
95	5F	_	170	AA	ª	245	F5	õ
96	60	`	171	AB	«	246	F6	ö
97	61	a	172	AC	¬	247	F7	÷
98	62	b	173	AD	-	248	F8	ø
99	63	c	174	AE	®	249	F9	ù
100	64	d	175	AF	¯	250	FA	ú
101	65	e	176	B0	°	251	FB	û
102	66	f	177	B1	±	252	FC	ü
103	67	g	178	B2	²	253	FD	ý
104	68	h	179	B3	³	254	FE	þ
105	69	i	180	B4	´	255	FF	ÿ
106	6A	j	181	B5	µ			

## Appendix - Data and Edit Barcodes

### ***Appendix - Confirm/Cancel Data Code Setting Mode (Basic Codes Specific)***

Some settings, including prefix/suffix configuration, digit hiding, and other basic configuration codes, require scanning the "Confirm" code below to apply the configuration.



>!111000.

Confirm

To exit the setting process before scanning the Confirm code, scan the "Cancel" code below.



>!112000.

Cancel

## Appendix - Alphanumeric Entry Codes (Basic Codes Specific)

Alphanumeric entry codes are individual digit barcodes (0-F) scanned in sequence to input a value for settings such as prefixes, suffixes, digit hiding, and others. They apply only to settings that use basic configuration codes, not special configuration codes.



>!110000.

0



>!110001.

1



>!110002.

2



>!110003.

3



>!110004.

4



>!110005.

5



>!110006.

6



>!110007.

7



>!110008.

8



>!110009.

9



>!11000A.

A



>!11000B.

B



>!11000C.

C



>!11000D.

D



>!11000E.

E



>!11000F.

F

## Appendix - Barcode Types Values















Code Type	Hexadecimal Value
All barcode types	FF
Code 128	01
EAN/UCC-128/GS1-128	02
Code 39/Code 32	14
Code 11	17
Codabar	15
Code 93	16
EAN-8	05
EAN-13/ISBN	06
ISSN	07
UPC-E	09
UPC-A	0A
Interleaved 2 of 5	0B
Industrial 2 of 5	12
Standard 2 of 5	13
Matrix 2 of 5	11
NEC 2 of 5	10
MSI Plessey	19
Telepen	1F
Pharmacode One-Track	23
Trioptic	22
QR/Micro QR	3D

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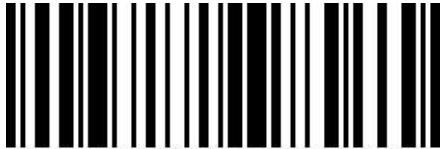



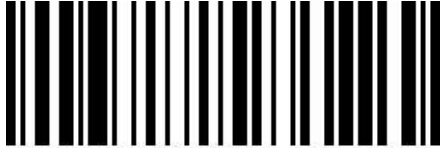









PDF417/Micro PDF-417	3C
Data Matrix	3F
Aztec Code	3E
HanXin	43
Maxi Code	40
DotCode	45
Codablock A	26
Codablock F	24
GS1 DATABAR/RSS	1A
Postal Code	25
Korea Post	21
Composite	1D

## Appendix - Characters' Barcodes

















To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

Decimal Value	Hexadecimal Value	Character	1D Setup Code	2D Setup Code
1	01	SOH (Character set 3 needs to be enabled)	 %%01	 %%01
2	02	STX (Character set 3 needs to be enabled)	 %%02	 %%02
3	03	ETX (Character set 3 needs to be enabled)	 %%03	 %%03
4	04	EOT (Character set 3 needs to be enabled)	 %%04	 %%04
5	05	ENQ (Character set 3 needs to be enabled)	 %%05	 %%05
6	06	ACK (Character set 3 needs to be enabled)	 %%06	 %%06
7	07	BEL (Character set 3 needs to be enabled)	 %%07	 %%07

















# SCANAVENTGER

8	08	Back Space	 %%08	 %%08
9	09	Tab (HT)	 %%09	 %%09
10	0A	LF	 %%0A	 %%0A
11	0B	NULL (can be used to set "VT" with Character Set 3)	 %%0B	 %%0B
12	0C	NULL (can be used to set "FF" with Character Set 3)	 %%0C	 %%0C
13	0D	CR	 %%0D	 %%0D
14	0E	F1	 %%0E	 %%0E
15	0F	F2	 %%0F	 %%0F

















# SCANAVENTGER

16	10	F3	 %%10	 %%10
17	11	F4	 %%11	 %%11
18	12	F5	 %%12	 %%12
19	13	F6	 %%13	 %%13
20	14	F7	 %%14	 %%14
21	15	F8	 %%15	 %%15
22	16	F9	 %%16	 %%16
23	17	F10	 %%17	 %%17

















# SCANAVENTGER

24	18	F11	 %%18	 %%18
25	19	F12	 %%19	 %%19
26	1A	NULL (can be used to set "SUB" with Character Set 3)	 %%1A	 %%1A
27	1B	Esc	 %%1B	 %%1B
28	1C	FS	 %%1C	 %%1C
29	1D	GS	 %%1D	 %%1D
30	1E	NULL (can be used to set "RS" with Character Set 3)	 %%1E	 %%1E
31	1F	NULL (can be used to set "US" with Character Set 3)	 %%1F	 %%1F

















# SCANAVENTGER

32	20	Space	 %%20	 %%20
33	21	!	 %%21	 %%21
34	22	"	 %%22	 %%22
35	23	#	 %%23	 %%23
36	24	\$	 %%24	 %%24
37	25	%	 %%25	 %%25
38	26	&	 %%26	 %%26
39	27	'	 %%27	 %%27

















# SCANAVENTGER

40	28	(	 %%28	 %%28
41	29	)	 %%29	 %%29
42	2A	*	 %%2A	 %%2A
43	2B	+	 %%2B	 %%2B
44	2C	,	 %%2C	 %%2C
45	2D	-	 %%2D	 %%2D
46	2E	.	 %%2E	 %%2E
47	2F	/	 %%2F	 %%2F

# SCANAVENTGER

48	30	0	 %%30	 %%30
49	31	1	 %%31	 %%31
50	32	2	 %%32	 %%32
51	33	3	 %%33	 %%33
52	34	4	 %%34	 %%34
53	35	5	 %%35	 %%35
54	36	6	 %%36	 %%36
55	37	7	 %%37	 %%37





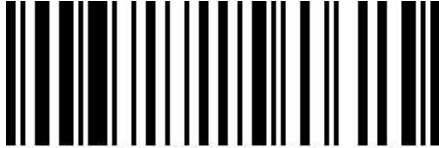











# SCANAVENTGER

56	38	8	 %%38	 %%38
57	39	9	 %%39	 %%39
58	3A	:	 %%3A	 %%3A
59	3B	;	 %%3B	 %%3B
60	3C	<	 %%3C	 %%3C
61	3D	=	 %%3D	 %%3D
62	3E	>	 %%3E	 %%3E
63	3F	?	 %%3F	 %%3F

















# SCANAVENTGER

64	40	@	 %%40	 %%40
65	41	A	 %%41	 %%41
66	42	B	 %%42	 %%42
67	43	C	 %%43	 %%43
68	44	D	 %%44	 %%44
69	45	E	 %%45	 %%45
70	46	F	 %%46	 %%46
71	47	G	 %%47	 %%47

















# SCANAVENTGER

72	48	H	 %%48	 %%48
73	49	I	 %%49	 %%49
74	4A	J	 %%4A	 %%4A
75	4B	K	 %%4B	 %%4B
76	4C	L	 %%4C	 %%4C
77	4D	M	 %%4D	 %%4D
78	4E	N	 %%4E	 %%4E
79	4F	O	 %%4F	 %%4F

















# SCANAVENTGER

80	50	P	 <p>%%50</p>	 <p>%%50</p>
81	51	Q	 <p>%%51</p>	 <p>%%51</p>
82	52	R	 <p>%%52</p>	 <p>%%52</p>
83	53	S	 <p>%%53</p>	 <p>%%53</p>
84	54	T	 <p>%%54</p>	 <p>%%54</p>
85	55	U	 <p>%%55</p>	 <p>%%55</p>
86	56	V	 <p>%%56</p>	 <p>%%56</p>
87	57	W	 <p>%%57</p>	 <p>%%57</p>

















# SCANAVENTGER

88	58	X	 %%58	 %%58
89	59	Y	 %%59	 %%59
90	5A	Z	 %%5A	 %%5A
91	5B	[	 %%5B	 %%5B
92	5C	\	 %%5C	 %%5C
93	5D	]	 %%5D	 %%5D
94	5E	^	 %%5E	 %%5E
95	5F	_	 %%5F	 %%5F

















# SCANAVENTGER

96	60	,	 %%60	 %%60
97	61	a	 %%61	 %%61
98	62	b	 %%62	 %%62
99	63	c	 %%63	 %%63
100	64	d	 %%64	 %%64
101	65	e	 %%65	 %%65
102	66	f	 %%66	 %%66
103	67	g	 %%67	 %%67

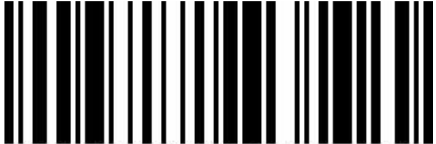















# SCANAVENTGER

104	68	h	 %%68	 %%68
105	69	i	 %%69	 %%69
106	6A	j	 %%6A	 %%6A
107	6B	k	 %%6B	 %%6B
108	6C	l	 %%6C	 %%6C
109	6D	m	 %%6D	 %%6D
110	6E	n	 %%6E	 %%6E
111	6F	o	 %%6F	 %%6F



# SCANAVENTGER

112	70	p	 %%70	 %%70
113	71	q	 %%71	 %%71
114	72	r	 %%72	 %%72
115	73	s	 %%73	 %%73
116	74	t	 %%74	 %%74
117	75	u	 %%75	 %%75
118	76	v	 %%76	 %%76
119	77	w	 %%77	 %%77

# SCANAVENTGER

120	78	x	 %%78	 %%78
121	79	y	 %%79	 %%79
122	7A	z	 %%7A	 %%7A
123	7B	{	 %%7B	 %%7B
124	7C		 %%7C	 %%7C
125	7D	}	 %%7D	 %%7D
126	7E	~	 %%7E	 %%7E
127	7F	DEL	 %%7F	 %%7F

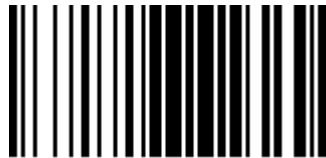

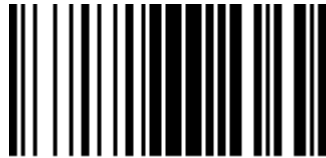

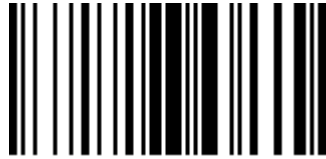

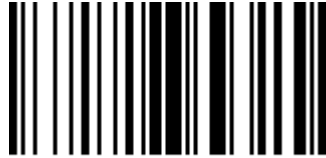









# SCANAVENTGER

128	80	€	 %%80	 %%80
129	81	<i>Unused</i>	 %%81	 %%81
130	82	,	 %%82	 %%82
131	83	f	 %%83	 %%83
132	84	„	 %%84	 %%84
133	85	...	 %%85	 %%85
134	86	†	 %%86	 %%86
135	87	‡	 %%87	 %%87







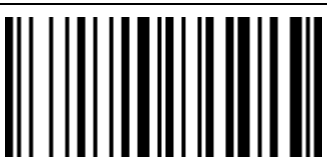









# SCANAVENTGER

136	88	^	 %%88	 %%88
137	89	%o	 %%89	 %%89
138	8A	š	 %%8A	 %%8A
139	8B	<	 %%8B	 %%8B
140	8C	Œ	 %%8C	 %%8C
141	8D	<i>Unused</i>	 %%8D	 %%8D
142	8E	ž	 %%8E	 %%8E
143	8F	<i>Unused</i>	 %%8F	 %%8F



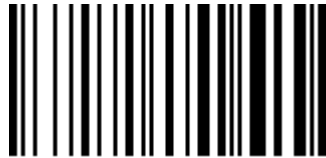













# SCANA V E N G E R

144	90	<i>Unused</i>	 %%90	 %%90
145	91	'	 %%91	 %%91
146	92	'	 %%92	 %%92
147	93	"	 %%93	 %%93
148	94	"	 %%94	 %%94
149	95	.	 %%95	 %%95
150	96	-	 %%96	 %%96
151	97	—	 %%97	 %%97





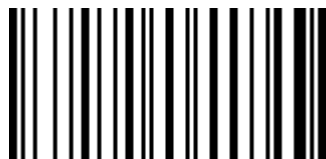











# SCANAVENGER

152	98	~	 %%98	 %%98
153	99	™	 %%99	 %%99
154	9A	š	 %%9A	 %%9A
155	9B	›	 %%9B	 %%9B
156	9C	œ	 %%9C	 %%9C
157	9D	<i>Unused</i>	 %%9D	 %%9D
158	9E	ž	 %%9E	 %%9E
159	9F	ÿ	 %%9F	 %%9F



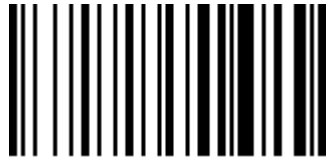













# SCANAVENGER

160	A0	NBSP	 %%A0	 %%A0
161	A1	i	 %%A1	 %%A1
162	A2	ç	 %%A2	 %%A2
163	A3	£	 %%A3	 %%A3
164	A4	α	 %%A4	 %%A4
165	A5	¥	 %%A5	 %%A5
166	A6	ı	 %%A6	 %%A6
167	A7	§	 %%A7	 %%A7



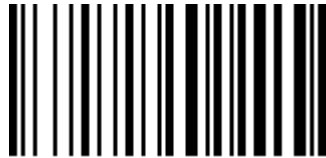







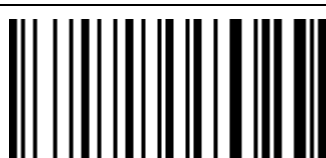





# SCANAVENTGER

168	A8	..	 %%A8	 %%A8
169	A9	©	 %%A9	 %%A9
170	AA	a	 %%AA	 %%AA
171	AB	«	 %%AB	 %%AB
172	AC	¬	 %%AC	 %%AC
173	AD	-	 %%AD	 %%AD
174	AE	®	 %%AE	 %%AE
175	AF	—	 %%AF	 %%AF



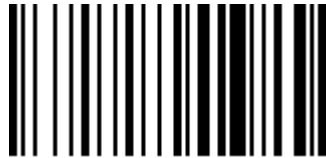







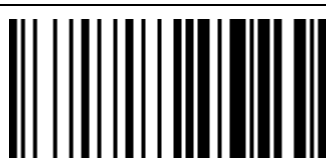





# SCANAVENTGER

176	B0	◦	 %%B0	 %%B0
177	B1	±	 %%B1	 %%B1
178	B2	²	 %%B2	 %%B2
179	B3	³	 %%B3	 %%B3
180	B4	´	 %%B4	 %%B4
181	B5	μ	 %%B5	 %%B5
182	B6	¶	 %%B6	 %%B6
183	B7	·	 %%B7	 %%B7











# SCANAVENTGER

184	B8	,	 %%B8	 %%B8
185	B9	1	 %%B9	 %%B9
186	BA	o	 %%BA	 %%BA
187	BB	»	 %%BB	 %%BB
188	BC	$\frac{1}{4}$	 %%BC	 %%BC
189	BD	$\frac{1}{2}$	 %%BD	 %%BD
190	BE	$\frac{3}{4}$	 %%BE	 %%BE
191	BF	¿	 %%BF	 %%BF







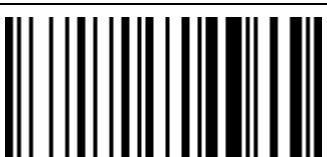








# SCANAVENTGER

192	C0	À	 %%C0	 %%C0
193	C1	Á	 %%C1	 %%C1
194	C2	Â	 %%C2	 %%C2
195	C3	Ã	 %%C3	 %%C3
196	C4	Ä	 %%C4	 %%C4
197	C5	Å	 %%C5	 %%C5
198	C6	Æ	 %%C6	 %%C6
199	C7	Ç	 %%C7	 %%C7







# SCANAVENTGER

200	C8	È	 %%C8	 %%C8
201	C9	É	 %%C9	 %%C9
202	CA	Ê	 %%CA	 %%CA
203	CB	Ë	 %%CB	 %%CB
204	CC	Ì	 %%CC	 %%CC
205	CD	Í	 %%CD	 %%CD
206	CE	Î	 %%CE	 %%CE
207	CF	Ï	 %%CF	 %%CF



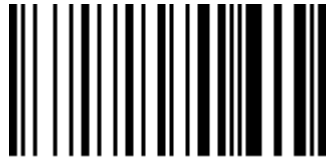













# SCANAVENTGER

208	D0	Ð	 %%D0	 %%D0
209	D1	Ñ	 %%D1	 %%D1
210	D2	Ò	 %%D2	 %%D2
211	D3	Ó	 %%D3	 %%D3
212	D4	Ô	 %%D4	 %%D4
213	D5	Õ	 %%D5	 %%D5
214	D6	Ö	 %%D6	 %%D6
215	D7	×	 %%D7	 %%D7




# SCANAVENTGER

216	D8	Ø	 %%D8	 %%D8
217	D9	Ù	 %%D9	 %%D9
218	DA	Ú	 %%DA	 %%DA
219	DB	Û	 %%DB	 %%DB
220	DC	Ü	 %%DC	 %%DC
221	DD	Ý	 %%DD	 %%DD
222	DE	Þ	 %%DE	 %%DE
223	DF	Ë	 %%DF	 %%DF



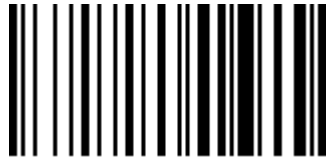













# SCANAVENTGER

224	E0	à	 %%E0	 %%E0
225	E1	á	 %%E1	 %%E1
226	E2	â	 %%E2	 %%E2
227	E3	ã	 %%E3	 %%E3
228	E4	ä	 %%E4	 %%E4
229	E5	å	 %%E5	 %%E5
230	E6	æ	 %%E6	 %%E6
231	E7	ç	 %%E7	 %%E7



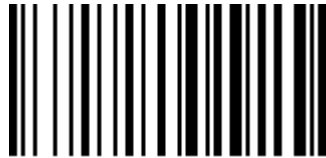













# SCANAVENTGER

232	E8	è	 %%E8	 %%E8
233	E9	é	 %%E9	 %%E9
234	EA	ê	 %%EA	 %%EA
235	EB	ë	 %%EB	 %%EB
236	EC	ì	 %%EC	 %%EC
237	ED	í	 %%ED	 %%ED
238	EE	î	 %%EE	 %%EE
239	EF	ï	 %%EF	 %%EF

# SCANAVENTGER

240	F0	ð	 %%F0	 %%F0
241	F1	ñ	 %%F1	 %%F1
242	F2	ò	 %%F2	 %%F2
243	F3	ó	 %%F3	 %%F3
244	F4	ô	 %%F4	 %%F4
245	F5	õ	 %%F5	 %%F5
246	F6	ö	 %%F6	 %%F6
247	F7	÷	 %%F7	 %%F7

# SCANAVENTGER

248	F8	ø	 %%F8	 %%F8
249	F9	ù	 %%F9	 %%F9
250	FA	ú	 %%FA	 %%FA
251	FB	û	 %%FB	 %%FB
252	FC	ü	 %%FC	 %%FC
253	FD	ý	 %%FD	 %%FD
254	FE	þ	 %%FE	 %%FE
255	FF	ÿ	 %%FF	 %%FF

## Appendix - Character Set Action

Use the table below to find the action you want the scanner to perform with a specific character set:

Hexadecimal	DEC	ASCII	Set 0	Set 1	Set 2	Set 3	Set 4
01	1	SOH	NULL	Home	Ctrl+A	Alt+001	Numpad enter
02	2	STX	Ctrl+B	End	Ctrl+B	Alt+002	Cap lock
03	3	ETX	Ctrl+C	Up Arrow	Ctrl+C	Alt+003	Right Arrow
04	4	EOT	Custom 1	Down Arrow	Ctrl+D	Alt+004	Up Arrow
05	5	ENQ	Custom 2	Left Arrow	Ctrl+E	Alt+005	NULL
06	6	ACK	Custom 3	Right Arrow	Ctrl+F	Alt+006	NULL
07	7	BEL	Custom 4	Shift+Tab	Ctrl+G	Alt+007	Enter
08	8	BS	Back Space	Back Space	Back Space	Alt+008	Left Arrow
09	9	HT	Tab	Tab	Tab	Alt+009	Tab
0A	10	LF	Enter	Enter	Ctrl+J	Alt+010	Down Arrow
0B	11	VT	NULL	NULL	Ctrl+K	Alt+011	Tab
0C	12	FF	NULL	NULL	Ctrl+L	Alt+012	Delete
0D	13	CR	Enter	Enter	Enter	Alt+013	Enter
0E	14	SO	F1	Page Up	Ctrl+N	Alt+014	Insert
0F	15	SI	F2	Page Down	Ctrl+O	Alt+015	Esc
10	16	DLE	F3	F11	Ctrl+P	Alt+016	F11
11	17	DC1	F4	NULL	Ctrl+Q	Ctrl+Q	Home
12	18	DC2	F5	NULL	Ctrl+R	Alt+018	Print Screen
13	19	DC3	F6	NULL	Ctrl+S	Alt+019	Back Space
14	20	DC4	F7	NULL	Ctrl+T	Alt+020	Shift tab
15	21	NAK	F8	F12	Ctrl+U	Alt+021	F12
16	22	SYN	F9	F1	Ctrl+V	Alt+022	F1
17	23	ETB	F10	F2	Ctrl+W	Alt+023	F2

# SCANA V E N G E R

18	24	CAN	F11	F3	Ctrl+X	Alt+024	F3
19	25	EM	F12	F4	Ctrl+Y	Alt+025	F4
1A	26	SUB	NULL	FS	Ctrl+Z	Alt+026	F5
1B	27	Esc	Esc	F6	Ctrl+[	Alt+027	F6
1C	28	FS	ALT+028	F7	Ctrl+\	Alt+028	F7
1D	29	GS	ALT+029	F8	Ctrl+]	Alt+029	F8
1E	30	RS	NULL	F9	Ctrl+^	Alt+030	F9
1F	31	US	NULL	F10	Ctrl+_	Alt+031	F10

## Appendix - Available Character Sets

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

Your scanner supports multiple character sets for customization. The available sets are:



%%SpecCodeBA0000



%%SpecCodeBA0000

Character Set 0 (Default)



%%SpecCodeBA0001



%%SpecCodeBA0001

Character Set 1



%%SpecCodeBA0002



%%SpecCodeBA0002

Character Set 2



%%SpecCodeBA0003



%%SpecCodeBA0003

Character Set 3



%%SpecCodeBA0004



%%SpecCodeBA0004

Character Set 4

## Appendix - Custom Keys Main Key

The table below lists the main key values and their corresponding setup codes. When SHIFT is enabled as the modifier key, certain keys produce a different character. These are indicated in the Key column as SHIFT ON: [key].

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

Value	Key	Setup Code	Value	Key	Setup Code
00	NA	 %%00	34	, SHIFT ON: "	 %%34
04	A	 %%04	35	, SHIFT ON: ~	 %%35
05	B	 %%05	36	, SHIFT ON: <	 %%36
06	C	 %%06	37	. SHIFT ON: >	 %%37
07	D	 %%07	38	/ SHIFT ON: ?	 %%38
08	E	 %%08	39	Caps Lock	 %%39

# SCANA V E N G E R

09	F	 %%09	3A	F1	 %%3A
0A	G	 %%0A	3B	F2	 %%3B
0B	H	 %%0B	3C	F3	 %%3C
0C	I	 %%0C	3D	F4	 %%3D
0D	J	 %%0D	3E	F5	 %%3E
0E	K	 %%0E	3F	F6	 %%3F
0F	L	 %%0F	40	F7	 %%40
10	M	 %%10	41	F8	 %%41

# SCANAVENTGER

11	N	 %%11	42	F9	 %%42
12	O	 %%12	43	F10	 %%43
13	P	 %%13	44	F11	 %%44
14	Q	 %%14	45	F12	 %%45
15	R	 %%15	46	Print Screen	 %%46
16	S	 %%16	47	Scroll Lock	 %%47
17	T	 %%17	48	Pause	 %%48
18	U	 %%18	49	Insert	 %%49

# SCANAVENTGER

19	V	 %%19	4A	Home	 %%4A
1A	W	 %%1A	4B	Page Up	 %%4B
1B	X	 %%1B	4C	Delete	 %%4C
1C	Y	 %%1C	4D	End	 %%4D
1D	Z	 %%1D	4E	Page Down	 %%4E
1E	1	 %%1E	4F	Right Arrow	 %%4F
1F	2	 %%1F	50	Left Arrow	 %%50
20	3	 %%20	51	Down Arrow	 %%51



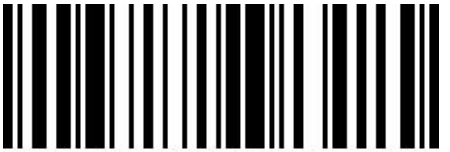
# SCANAVENTGER

21	4	 %%21	52	Up Arrow	 %%52
22	5	 %%22	53	Num Lock	 %%53
23	6	 %%23	54	Pad /	 %%54
24	7	 %%24	55	Pad *	 %%55
25	8	 %%25	56	Pad -	 %%56
26	9	 %%26	57	Pad +	 %%57
27	0	 %%27	58	Pad Enter	 %%58
28	Enter	 %%28	59	Pad 1	 %%59

# SCANAVENTGER

29	ESC	 %%29	5A	Pad 2	 %%5A
2A	Back space	 %%2A	5B	Pad 3	 %%5B
2B	Tab	 %%2B	5C	Pad 4	 %%5C
2C	Space	 %%2C	5D	Pad 5	 %%5D
2D	- SHIFT ON: _	 %%2D	5E	Pad 6	 %%5E
2E	= SHIFT ON: +	 %%2E	5F	Pad 7	 %%5F
2F	[ SHIFT ON: {	 %%2F	60	Pad 8	 %%60
30	] SHIFT ON: }	 %%30	61	Pad 9	 %%61

# SCANA V E N G E R

31	\ SHIFT ON:	 %%31	62	Pad 0	 %%62
33	; SHIFT ON: :	 %%33	63	Pad .	 %%63

## Appendix - Modifier Key

To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

Setting	Setting Code
No Modifiers	 %%00
CTRL Only	 %%01
SHIFT Only	 %%02
SHIFT + CTRL	 %%03
ALT Only	 %%04
ALT + CTRL	 %%05
ALT + SHIFT	 %%06

# SCANA V ENGER

ALT + SHIFT + CTRL



%%07

## Appendix - Decimal to Hexadecimal Position Reference

Use this table to find the hexadecimal value for a position number when configuring hide, retain, or length settings. For values above 255, use an online hex converter.

Decimal Value	Hexadecimal Value	Decimal Value	Hexadecimal Value
1	01	129	81
2	02	130	82
3	03	131	83
4	04	132	84
5	05	133	85
6	06	134	86
7	07	135	87
8	08	136	88
9	09	137	89
10	0A	138	8A
11	0B	139	8B
12	0C	140	8C
13	0D	141	8D
14	0E	142	8E
15	0F	143	8F
16	10	144	90
17	11	145	91
18	12	146	92
19	13	147	93
20	14	148	94
21	15	149	95
22	16	150	96
23	17	151	97
24	18	152	98
25	19	153	99
26	1A	154	9A
27	1B	155	9B
28	1C	156	9C
29	1D	157	9D
30	1E	158	9E
31	1F	159	9F
32	20	160	A0
33	21	161	A1

# SCANA V ENGER

34	22	162	A2
35	23	163	A3
36	24	164	A4
37	25	165	A5
38	26	166	A6
39	27	167	A7
40	28	168	A8
41	29	169	A9
42	2A	170	AA
43	2B	171	AB
44	2C	172	AC
45	2D	173	AD
46	2E	174	AE
47	2F	175	AF
48	30	176	B0
49	31	177	B1
50	32	178	B2
51	33	179	B3
52	34	180	B4
53	35	181	B5
54	36	182	B6
55	37	183	B7
56	38	184	B8
57	39	185	B9
58	3A	186	BA
59	3B	187	BB
60	3C	188	BC
61	3D	189	BD
62	3E	190	BE
63	3F	191	BF
64	40	192	C0
65	41	193	C1
66	42	194	C2
67	43	195	C3
68	44	196	C4
69	45	197	C5
70	46	198	C6
71	47	199	C7
72	48	200	C8

# SCANAVENGER

73	49	201	C9
74	4A	202	CA
75	4B	203	CB
76	4C	204	CC
77	4D	205	CD
78	4E	206	CE
79	4F	207	CF
80	50	208	D0
81	51	209	D1
82	52	210	D2
83	53	211	D3
84	54	212	D4
85	55	213	D5
86	56	214	D6
87	57	215	D7
88	58	216	D8
89	59	217	D9
90	5A	218	DA
91	5B	219	DB
92	5C	220	DC
93	5D	221	DD
94	5E	222	DE
95	5F	223	DF
96	60	224	E0
97	61	225	E1
98	62	226	E2
99	63	227	E3
100	64	228	E4
101	65	229	E5
102	66	230	E6
103	67	231	E7
104	68	232	E8
105	69	233	E9
106	6A	234	EA
107	6B	235	EB
108	6C	236	EC
109	6D	237	ED
110	6E	238	EE
111	6F	239	EF

# SCANAVENGER

112	70	240	F0
113	71	241	F1
114	72	242	F2
115	73	243	F3
116	74	244	F4
117	75	245	F5
118	76	246	F6
119	77	247	F7
120	78	248	F8
121	79	249	F9
122	7A	250	FA
123	7B	251	FB
124	7C	252	FC
125	7D	253	FD
126	7E	254	FE
127	7F	255	FF
128	80		

## Appendix - Code ID & AIM ID

The table below lists the Code ID and AIM ID assigned to each supported barcode type. These identifiers can be transmitted as part of the decoded output when the corresponding prefix/suffix settings are enabled.

Number	Barcode Type	Code ID	AIM ID	Description
1	UPC-A	U	]E0	
2	UPC-A with Add-on	U	]E3	
3	UPC-E0	U	]E0	
4	UPC-E1	U	]E1	
5	UPC-E with Add-On	U	]E3	
6	EAN-8	E	]E4	
7	EAN-8 with Add-On	E	]E3	
8	EAN-13	E	]E0	
9	EAN-13 with Add-On	E	]E3	
10	ISBN	E	]E0	
11	Code 128/GS1-128	C	]Cm	m: 0,1,2,4
12	Code 39	F	]Am	m: 0,1,3,4,5,7
13	Code 32	F	]X0	
14	Code 93	K	]Gm	m: 0-9,A-Z,a-m
15	Code 11	J	]Hm	m: 0,1,3
16	Codabar	B	]Fm	m: 0,2,4
17	Interleaved 2 of 5	I	]Im	m: 0,1,3
18	Matrix 2 of 5	M	]X0	
19	Industrial 2 of 5	D	]S0	
20	Standard 2 of 5	S	]Rm	m:0,1,3
21	NEC 2 of 5	N	]X0	

# SCANAVENGER

22	MSI Plessey	P	]Mm	m: 0,1
23	Telepen	T	]Bm	m: 0,1,2,4
24	Trioptic	W	]X0	
25	QR Code	q	]Qm	m: 0-6
26	Micro QR	q	]Qm	m: 0-6
27	Data Matrix	d	]dm	m: 0-6
28	PDF417	p	]Lm	m: 0,1,2
29	Micro PDF417	p	]Lm	m: 3,4,5
30	Maxi Code	m	]Um	m: 0-3
31	Aztec Code	a	]zm	m: 0-9,A-C
32	Hanxin	h	]X0	
33	DotCode	t	]X0	
34	Pharma Code	A	]X0	
35	Codablock A	k	]Om	0,1,4,5,6
36	Codablock F	f	]Om	0,1,4,5,6
37	GS1 Databar Omnidirectional	R	]e0	
38	GS1 Databar Limited	R	]e0	
39	GS1 Databar Expanded	R	]e0	
40	GS1 Composite Code	R	]e0	
41	Korea Post	V	]X0	
42	Australian Post	n	]X0	
43	British Post	n	]X0	
44	USPS Intelligent Mail	n	]X0	
45	Planet Code	n	]X0	
46	Postnet Code	n	]X0	