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# User Manual
# ScanAvenger Wireless / Bluetooth / USB
# SA1000 – SA3500 – SA3600
# 1D Only 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.

Do not disassemble the device or remove the seal label from the device, as this will void the warranty.

Regarding the product modification and update, MG Brand LLC reserves the right to make changes to the software or product to improve reliability, function, or design at any time without notice. The information contained in this manual is subject to change without prior notice.

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# 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. Hold the scanner in front of the barcode and press the scan button. The red aiming light will appear on the barcode.
2. Align the red aiming light with the center of the barcode. The barcode can be at any angle or orientation, since the scanner reads in any direction.
3. Adjust the scanning distance based on barcode size: 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 |
|---|---|
| Blue LED | Will flash one time when scanning |
| Blue LED | Successful wireless connection |
| Red LED | Charging |
| Blue LED flashing rapidly | Pairing mode |
| Purple LED | Connected and Charging |

# 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.

### *Notation Used in This Manual*

Throughout this manual, two asterisks (**) next to an option indicate that it is the factory default setting.

# Configuring Settings with Basic and Special codes

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

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

These methods operate independently. Each prefix or suffix belongs to the method that created it, and you must use that same method to modify or remove it. Both methods can be active at the same time, and both configurations will be transmitted.

- **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*

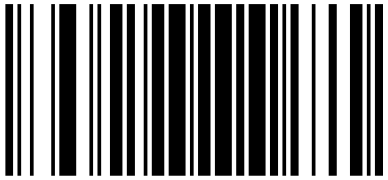
**Step 1: Determine the Decimal Values for the Prefix Characters**

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 Decimal values of the characters you want to use
    a. Example: “X” = 88, “ABC” = 65, 66, 67

**Note**: You can add up to 32 characters for the custom prefix.

**Step 2: Program the Prefix**

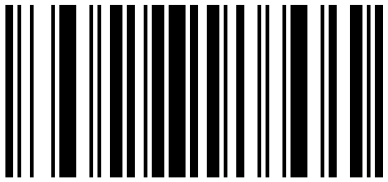
1. Scan “Enter Setup” to start the configuration process.



09990

Enter Setup

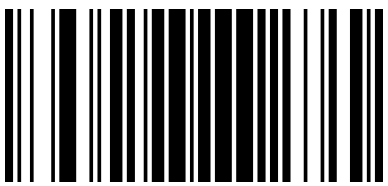
2. Scan “Set Custom Prefix” to enter the configuration mode



02240

Set Custom Prefix

3. Sequentially scan the codes (from the Characters' Barcodes for Basic Codes Appendix) for the decimal value(s) for each character in your prefix.
    a. e.g., “X” = 88 and “ABC” = 65, 66, 67
4. Scan “Exit Setup” to complete the prefix setup



09991

Exit Setup

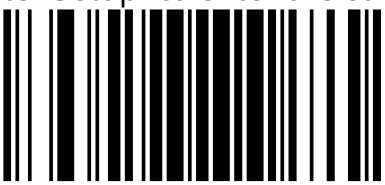
**Example - Applying the Prefix "X"**

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:**

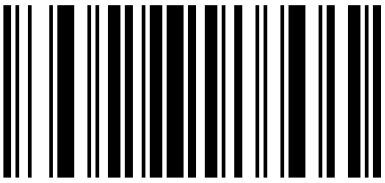
1. Scan the configuration code "Enter Setup" to enter the configuration mode



09990

Enter Setup

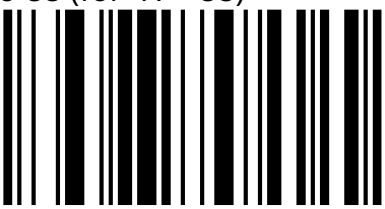
2. Scan the configuration code "Set Custom Prefix"



02240

Set Custom Prefix

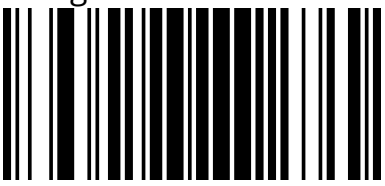
3. Scan the codes corresponding to 88 (for "X"= 88)



1088

88 (Character "X")

4. Scan "Exit Setup" to finalize the configuration



09991

Exit Setup

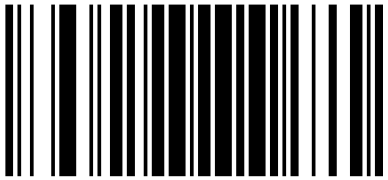
**Removing a Custom Prefix**

There are two methods to remove a custom prefix:

1. Scan the "Clear All Prefixes" code
2. Set the prefix to nothing

***Method One: Clear All Prefixes***

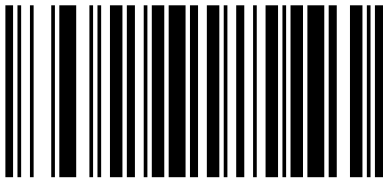
To apply the configuration correctly, first scan “Enter Setup”.



09990

Enter Setup

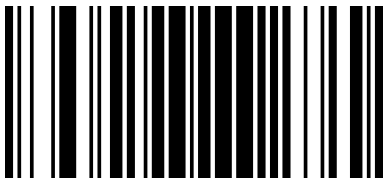
Then scan the “Clear All Prefixes” code.



02220

Clear All Prefixes

To confirm the configuration, scan “Exit Setup”.

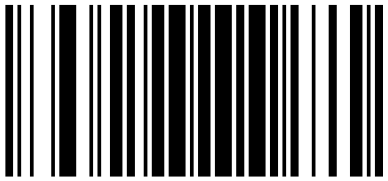


09991

Exit Setup

***Method Two: Set the Prefix to Nothing***

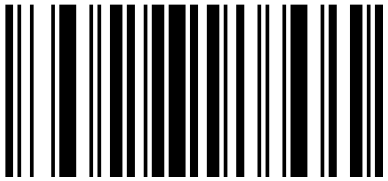
To apply the configuration correctly, first scan "Enter Setup".



09990

Enter Setup

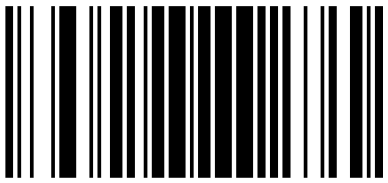
Then scan "Set Custom Prefix" without scanning any character codes afterward.



02240

Set Custom Prefix

To confirm the configuration, scan "Exit Setup".



09991

Exit Setup

## *How to Create a Suffix*

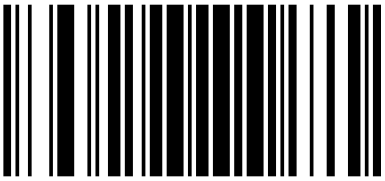
**Step 1: Determine the Decimal Values for the Suffix Characters**

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 decimal values of the characters you want to use
    a. Example: “X” = 88, “ABC” = 65, 66, 67

**Note**: You can add up to 32 characters for the custom suffix.

**Step 2: Program the Suffix**

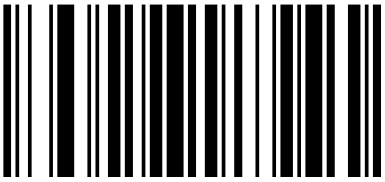
1. Scan “Enter Setup” to start the configuration process.



09990

Enter Setup

2. Scan “Set Custom Suffix” to enter the configuration mode

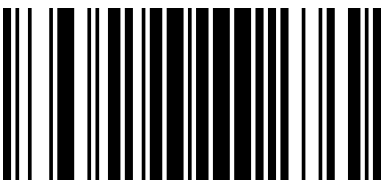


02241

Set Custom Suffix

3. Sequentially scan the codes (from the Characters' Barcodes for Basic Codes Appendix) for the decimal value(s) for each character in your suffix.
    a. e.g., “X” = 88 and “ABC” = 65, 66, 67

4. Scan “Exit Setup” to complete the suffix setup



09991

Exit Setup

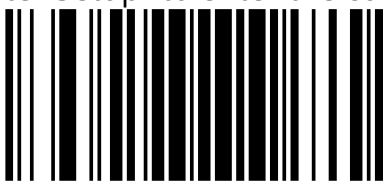
**Example - Applying the Suffix "X"**

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:**

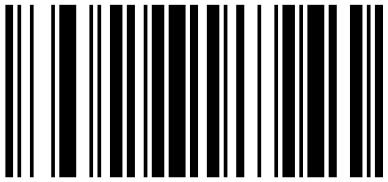
1. Scan the configuration code "Enter Setup" to enter the configuration mode



09990

Enter Setup

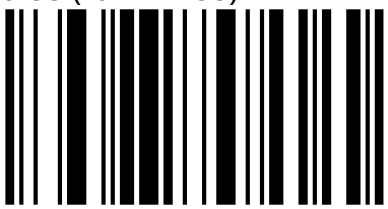
2. Scan the configuration code "Set Custom Suffix"



02241

Set Custom Suffix

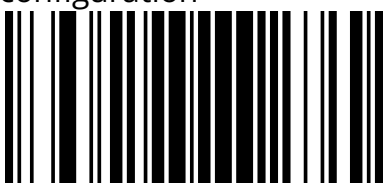
3. Scan the codes corresponding to 88 (for "X"=88)



1088

88 (Character "X")

4. Scan "Exit Setup" to finalize the configuration



09991

Exit Setup

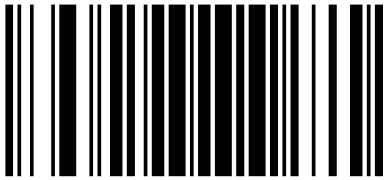
**Removing a Custom Suffix**

There are two methods to remove a custom suffix:

1. Scan the "Clear All Suffixes" code
2. Set the suffix to nothing

***Method One: Clear All Suffixes***

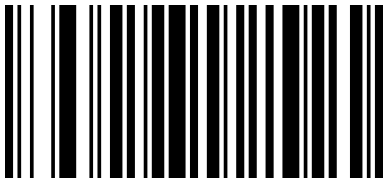
To apply the configuration correctly, first scan “Enter Setup”.



09990

Enter Setup

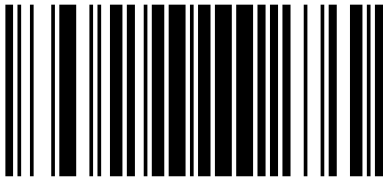
Then scan the “Clear All Suffixes” code.



02200

Clear All Suffixes

To confirm the configuration, scan “Exit Setup”.

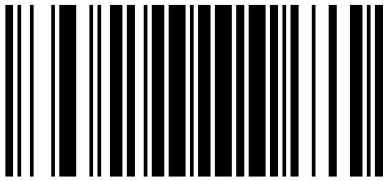


09991

Exit Setup

***Method Two: Set the Suffix to Nothing***

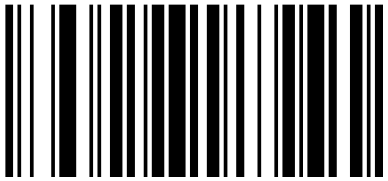
To apply the configuration correctly, first scan "Enter Setup".



09990

Enter Setup

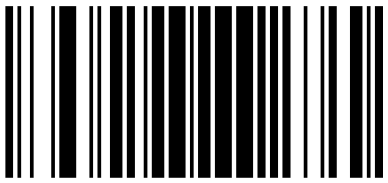
Then scan "Set Custom Suffix" without scanning any character codes afterward.



02241

Set Custom Suffix

To confirm the configuration, scan "Exit Setup".



09991

Exit Setup

# 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 for Special Codes 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




Set Prefix

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




58 (Character "X")

**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 for Special Codes Appendix.

**Remove a Prefix**

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




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 for Special Codes 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




Set Suffix

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




58 (Character "X")

**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 for Special Codes Appendix.

**Remove a Suffix**

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




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.

**IMPORTANT!** The Advanced Configurations for Prefixes and Suffixes section is compatible only with Wireless/Bluetooth module version 3.0 or higher.

To verify whether your scanner supports this feature, scan the Display Version Number for Wireless/Bluetooth Module barcode in the Version Number – Wireless/Bluetooth Module section.

## *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:




Set Prefix

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




Set Suffix

2. Find the barcodes that correspond to the keys' hexadecimal values in the Characters' Barcodes for Special Codes 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




Custom Key 2




Custom Key 3




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 with Basic Configuration Codes

The scanner can modify barcode data before transmitting it. Hiding suppresses specified characters from the output. The remaining characters are transmitted.

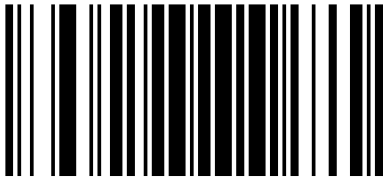
## *Hide Start Characters*

Scan the barcode in this manual for the number of leading characters to hide or generate your own Code 128 barcode using FNC3 + the setting combination, where XX is the number of characters to hide in hexadecimal (range 00-FF, decimal 0-255). See the Decimal to Hexadecimal Conversion Table in the Appendix to find the hexadecimal value.

- **Format:** FNC3 + 0234XX
  - e.g., hide 2 characters (hex 02): FNC3 + 023402
  - e.g., hide 11 characters (hex 0B): FNC3 + 02340B

**Setting Steps:**

1. Scan "Enter Setup".

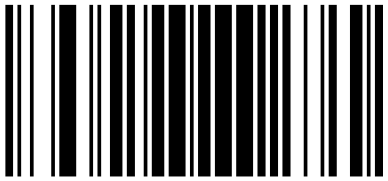


09990

Enter Setup

2. Scan the "Hide Start Characters" barcode for your chosen count (from the presets section, or your generated Code 128 barcode).

3. Scan "Exit Setup".



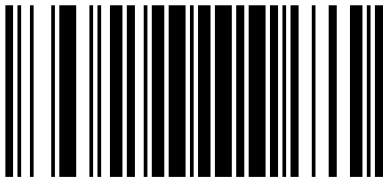
09991

Exit Setup

**Reset Hiding Start Characters**

To reset this setting, scan the following steps.

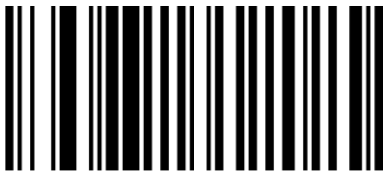
Scan "Enter Setup".



09990

Enter Setup

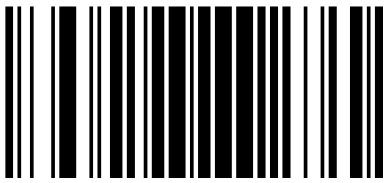
Scan “Show Hidden Start Characters”.



023400

Show Hidden Start Characters

Scan "Exit Setup".

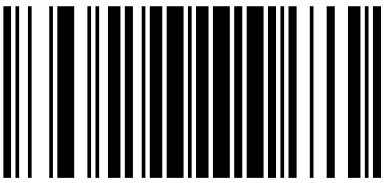


09991

Exit Setup

**Hide Start Characters Presets**

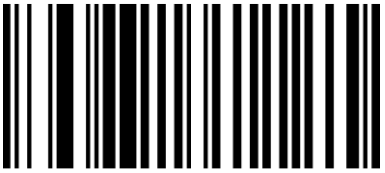
To apply the configuration correctly, first scan “Enter Setup”.



09990

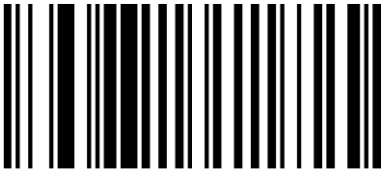
Enter Setup

Then scan the barcode for the preferred setting.



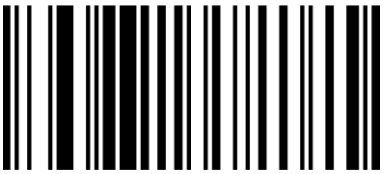
023401

Hide 1 Start Character



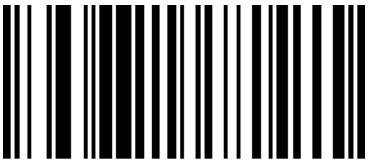
023402

Hide 2 Start Characters



023403

Hide 3 Start Characters



023404

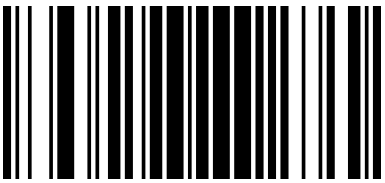
Hide 4 Start Characters



023405

Hide 5 Start Characters

To confirm the configuration, scan “Exit Setup”.



09991

Exit Setup

### *Hide Middle Characters*

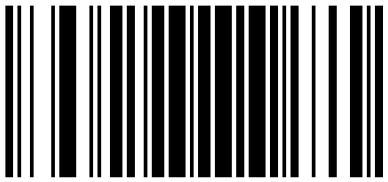
Hiding middle characters requires two steps: first, set the starting position (counted from the beginning of the barcode), then set how many characters from that position to hide. Both values use the same hexadecimal format (range 00–FF, decimal 0–255). See the Decimal to Hexadecimal Conversion Table in the Appendix to find the hexadecimal value for each.

For example, with the barcode "12345678," to hide "56": set the starting position to 5 (hex 05), then hide 2 characters (hex 02). The scanner sends "123478."

- Hide Middle Characters Position Format: FNC3 + 0240XX
  - e.g., start from the 5th character (hex 05): FNC3 + 024005
- Hide Middle Characters Number Format: FNC3 + 0239XX
  - e.g., hide 2 characters (hex 02): FNC3 + 023902

**Setting Steps:**

1. Scan "Enter Setup"



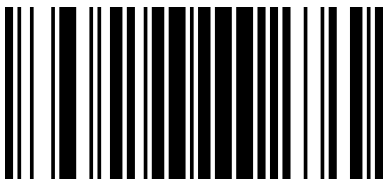
09990

Enter Setup

2. Scan the "Hide Middle Characters Position" barcode for your chosen position (from the presets section, or your generated Code 128 barcode).

3. Scan the "Hide Middle Characters" barcode for your chosen count (from the presets section, or your generated Code 128 barcode).

4. Scan "Exit Setup"



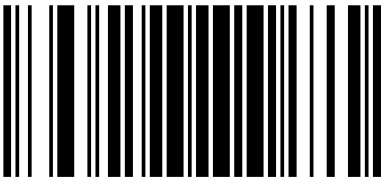
09991

Exit Setup

**Reset Hiding Middle Characters**

To reset this setting, scan the following steps.

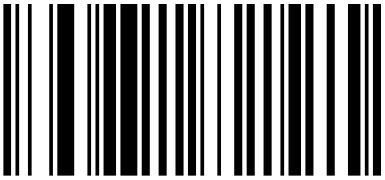
Scan "Enter Setup".



09990

Enter Setup

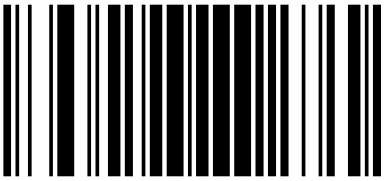
Scan “Show Hidden Middle Characters”.



023900

Show Hidden Middle Characters

Scan "Exit Setup".

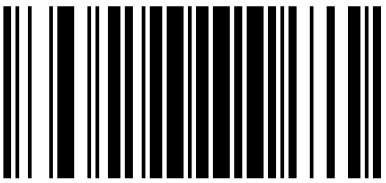


09991

Exit Setup

**Hide Middle Characters Position Presets**

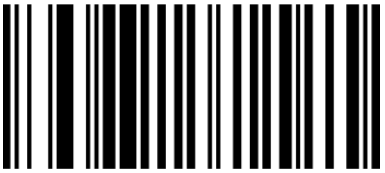
To apply the configuration correctly, first scan “Enter Setup”.



09990

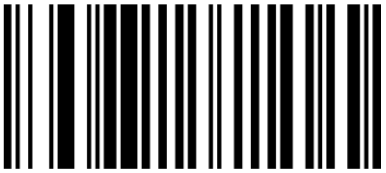
Enter Setup

Then scan the barcode for the preferred setting.



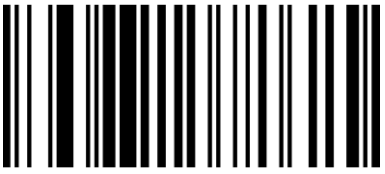
024001

Hide Middle Characters Position 1



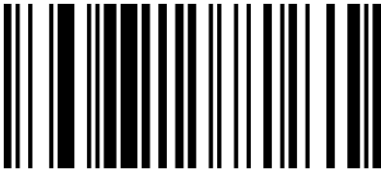
024002

Hide Middle Characters Position 2



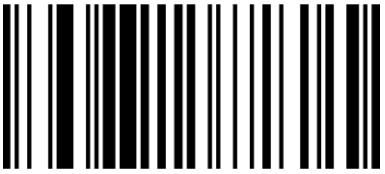
024003

Hide Middle Characters Position 3



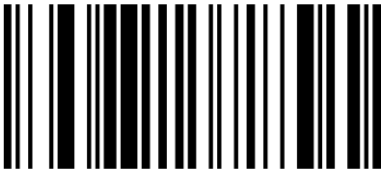
024004

Hide Middle Characters Position 4



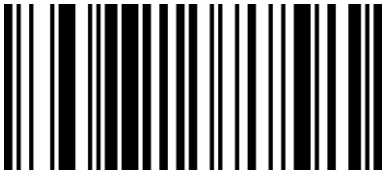
024005

Hide Middle Characters Position 5



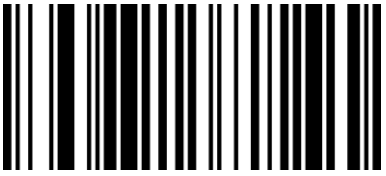
024006

Hide Middle Characters Position 6



024007

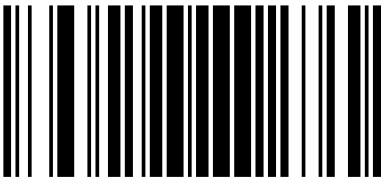
Hide Middle Characters Position 7



024008

Hide Middle Characters Position 8

To confirm the configuration, scan “Exit Setup”.

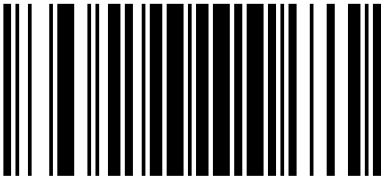


09991

Exit Setup

**Hide Middle Characters Presets**

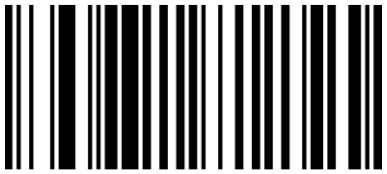
To apply the configuration correctly, first scan “Enter Setup”.



09990

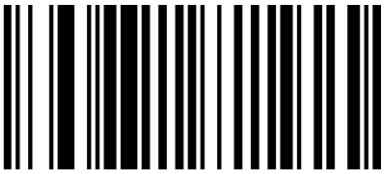
Enter Setup

Then scan the barcode for the preferred setting.



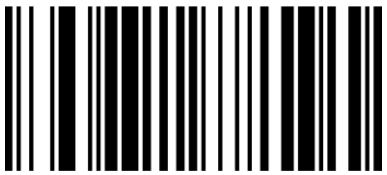
023901

Hide 1 Middle Character



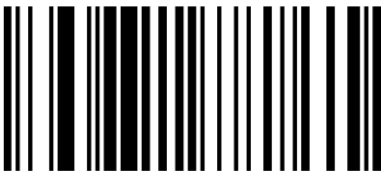
023902

Hide 2 Middle Characters



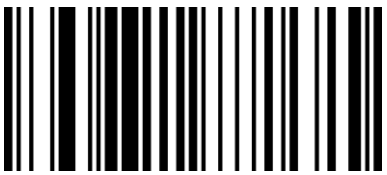
023903

Hide 3 Middle Characters



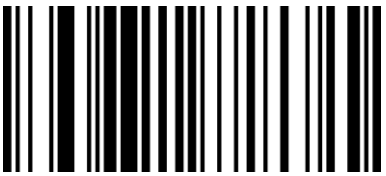
023904

Hide 4 Middle Characters



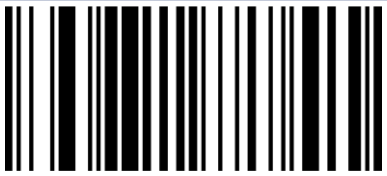
023905

Hide 5 Middle Characters



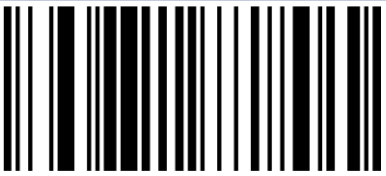
023906

Hide 6 Middle Characters



023907

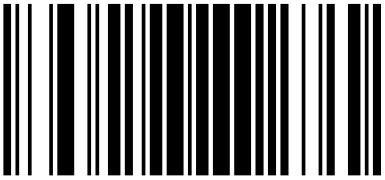
Hide 7 Middle Characters



023908

Hide 8 Middle Characters

To confirm the configuration, scan “Exit Setup”.



09991

Exit Setup

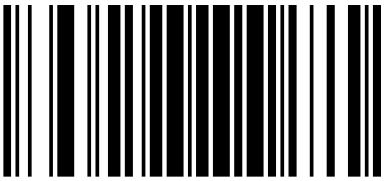
### *Hide End Characters*

Scan the barcode from this manual for the number of trailing characters to hide, or generate your own Code 128 barcode using FNC3 + the setting combination, where XX is the number of characters to hide in hexadecimal (range 00–FF, decimal 0–255). See the Decimal to Hexadecimal Conversion Table in the Appendix to find the hexadecimal value.

- **Format:** FNC3 + 0233XX
  - e.g., hide 2 characters (hex 02): FNC3 + 023302
  - e.g., hide 11 characters (hex 0B): FNC3 + 02330B

**Setting Steps:**

1. Scan "Enter Setup"

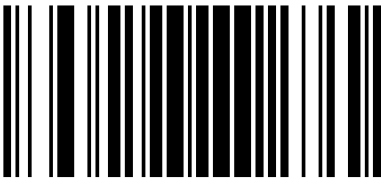


09990

Enter Setup

2. Scan the "Hide End Characters" barcode for your chosen count (from the presets section, or your generated Code 128 barcode).

3. Scan "Exit Setup"



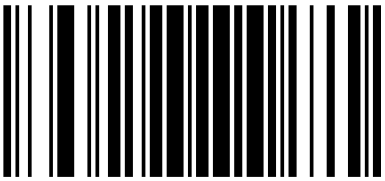
09991

Exit Setup

**Reset Hiding End Characters**

To reset this setting, scan the following steps.

Scan "Enter Setup".



09990

Enter Setup

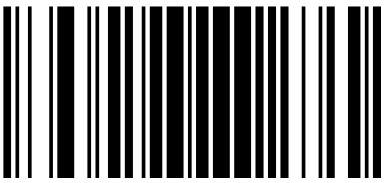
Scan “Show Hidden End Characters”.



023300

Show Hidden End Characters

Scan "Exit Setup".

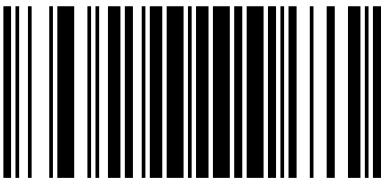


09991

Exit Setup

**Hide End Characters Presets**

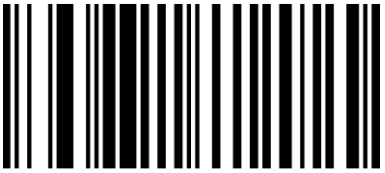
To apply the configuration correctly, first scan “Enter Setup”.



09990

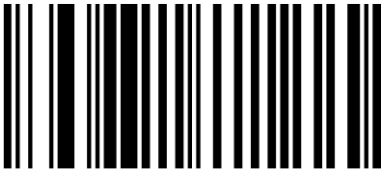
Enter Setup

Then scan the barcode for the preferred setting.



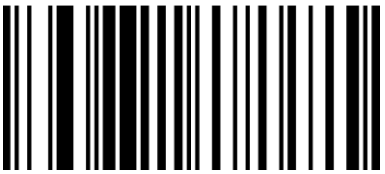
023301

Hide 1 End Character



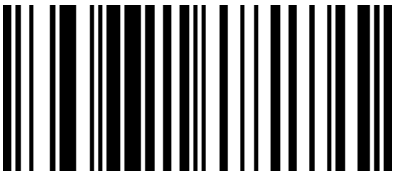
023302

Hide 2 End Characters



023303

Hide 3 End Characters



023304

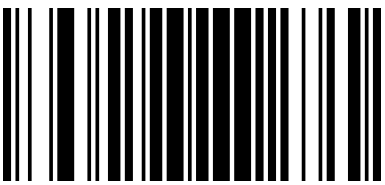
Hide 4 End Characters



023305

Hide 5 End Characters

To confirm the configuration, scan “Exit Setup”.



09991

Exit Setup

# 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 using Special Codes, use the Basic Codes method instead (see page 28), which supports up to 255 characters. Contact our helpdesk only if you specifically need Special Codes:

- Email: helpdesk@scanavenger.com
- Phone: +1 (424) 444-6929
- Chat: On our website 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.




Hide Characters from Barcode Start




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.




Hide 1 Character




Hide 2 Characters




Hide 3 Characters




Hide 4 Characters

# End Character

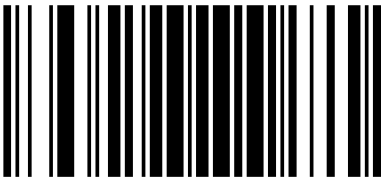
The end character is the character added at the end of a barcode scan. There are two independent methods to configure it:

- 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*

To apply the configuration correctly, first scan “Enter Setup”.



09990

Enter Setup

Then scan the barcode for the preferred setting.



0212@0D

CR (Carriage Return)



0212@0A

LF (Line Feed)



0213@0D0A

CR (Carriage Return) + LF (Line Feed)



0212@09

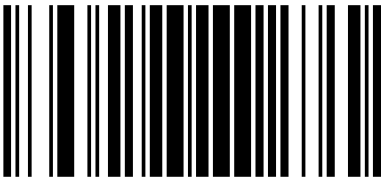
TAB



0210@

None

To confirm the configuration, scan “Exit Setup”.



09991

Exit Setup

### *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):




Add CR (Carriage Return)**




Add LF (Line Feed)




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




Add TAB




None

# Case Conversion

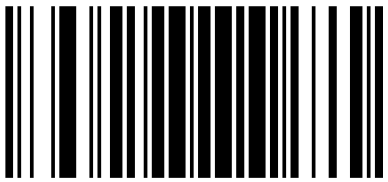
Case conversion changes barcode letters from uppercase to lowercase, from lowercase to uppercase, or inverts the current letter case. There are two independent methods to configure this feature:

- Case Conversion with Basic Codes
- Case Conversion with Special Codes

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

## *Case Conversion with Basic Configuration Barcodes*

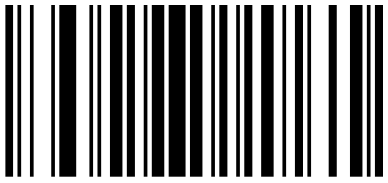
To apply the configuration correctly, first scan “Enter Setup”.



09990

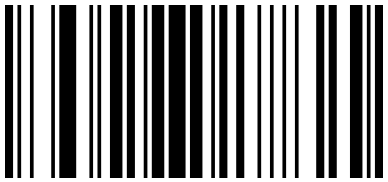
Enter Setup

Then scan the barcode for the preferred setting.



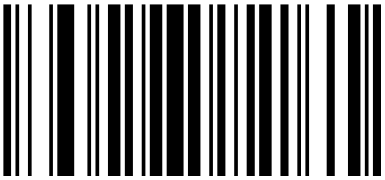
02512

Convert to Lowercase



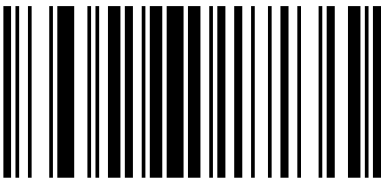
02511

Convert to Uppercase



02513

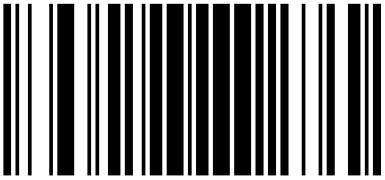
Case Interchange



02510

No Case Conversion

To confirm the configuration, scan “Exit Setup”.



09991

Exit Setup

## *Case Conversion 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 No Case Conversion):




Convert to Lowercase




Convert to Uppercase




Case Interchange




No Case Conversion**

# 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 barcodes, with configurable frequency and volume. It also handles an optional power-on sound to supplement the special buzzer's startup sound.

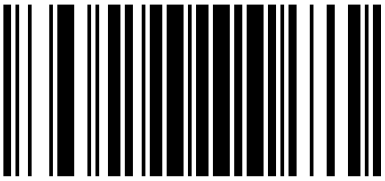
2. A special buzzer, controlled by Special Sound Codes:
    a. It handles the default startup and shutdown sounds, as well as sound feedback when scanning special configuration codes and standard 1D barcodes. Volume and frequency can be adjusted.

**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 Buzzer**

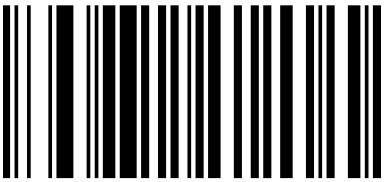
To apply the configuration correctly, first scan “Enter Setup”.



09990

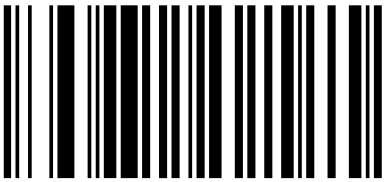
Enter Setup

Then scan the barcode for the preferred setting.



014201

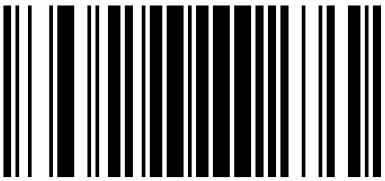
Basic Buzzer Sound On**



014200

Basic Buzzer Sound Off

To confirm the configuration, scan “Exit Setup”.

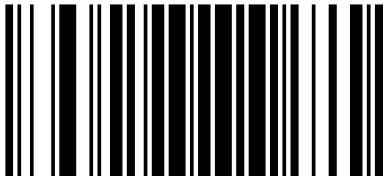


09991

Exit Setup

**Basic Configuration Codes Sound**

To apply the configuration correctly, first scan “Enter Setup”.



09990

Enter Setup

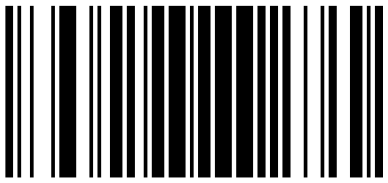
Then scan the barcode for the preferred setting.



014207

Basic Configuration Codes Sound On**

To confirm the configuration, scan “Exit Setup”.

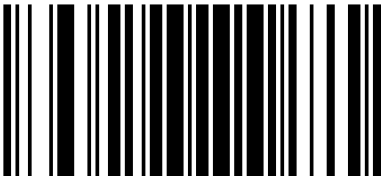


09991

Exit Setup

**Standard Codes Decoding Sound**

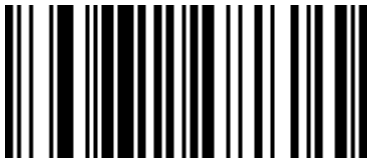
To apply the configuration correctly, first scan “Enter Setup”.



09990

Enter Setup

Then scan the barcode for the preferred setting.



014204

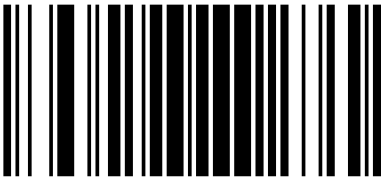
Standard Codes Decoding Sound On



014203

Standard Codes Decoding Sound Off**

To confirm the configuration, scan “Exit Setup”.

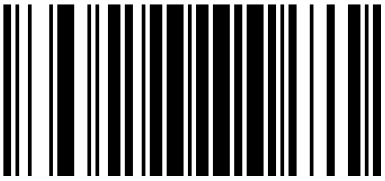


09991

Exit Setup

**Volume of Sound**

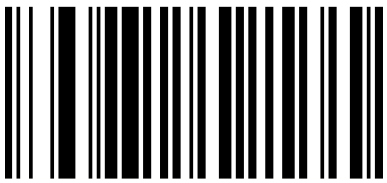
To apply the configuration correctly, first scan “Enter Setup”.



09990

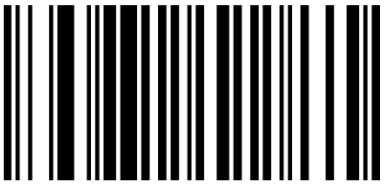
Enter Setup

Then scan the barcode for the preferred setting.



014300

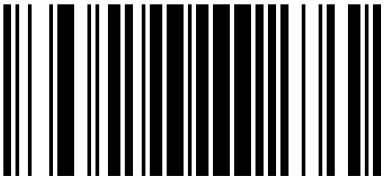
Volume High**



014301

Volume Low

To confirm the configuration, scan “Exit Setup”.

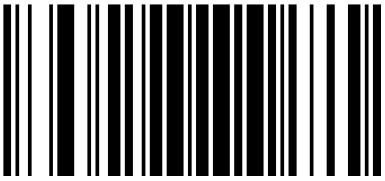


09991

Exit Setup

**Buzzer Frequency**

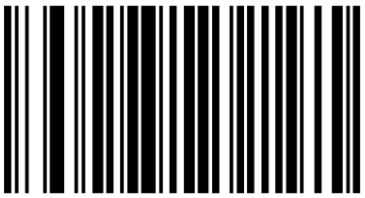
To apply the configuration correctly, first scan “Enter Setup”.



09990

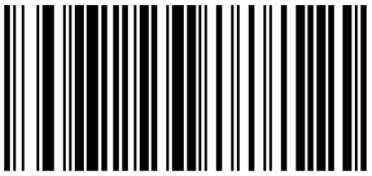
Enter Setup

Then scan the barcode for the preferred setting.



0145800

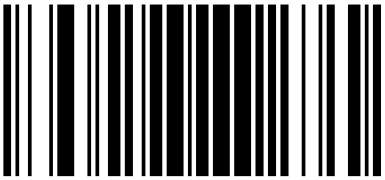
2 KHZ



0145AAA

2.7 KHZ

To confirm the configuration, scan “Exit Setup”.



09991

Exit Setup

## *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:




Turn Sound Off




Low Volume




Medium Volume




High Volume**




Buzzer Frequency 2 KHZ**




Buzzer Frequency 2.7 KHZ

# Additional 2- and 5-Digit Codes for UPC / EAN

Some barcodes (like UPC and EAN) can have a small extra barcode attached to the main one. This is called an add-on code, and it contains 2 or 5 extra digits, usually printed to the right of the main barcode.

The 2- and 5-digit add-on settings in this section apply to the following barcode types:

- UPC-A
- UPC-E
- EAN-13
- EAN-8

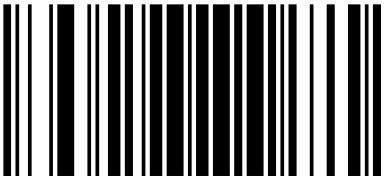
In the picture, the blue area on the left is the main barcode, and the red area on the right is the 2- or 5-digit add-on code. By default, reading of add-on codes is disabled.







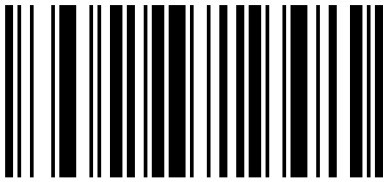
To apply the configuration correctly, first scan “Enter Setup”.



09990

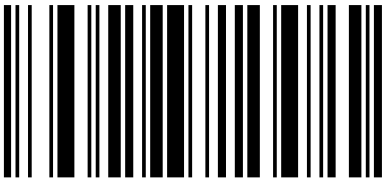
Enter Setup

Then scan your preferred setting.



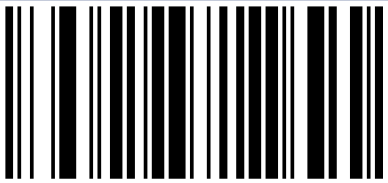
00551

Enable 2-digit Add-On



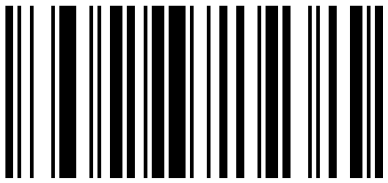
00552

Enable 5-digit Add-On



00553

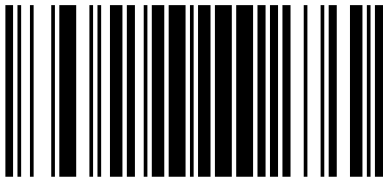
Enable Both 2-digit and 5-digit Add-Ons**



00550

Disable Add-Ons

To confirm the configuration, scan “Exit Setup”.



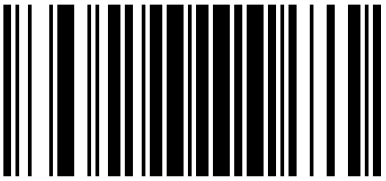
09991

Exit Setup

### *Add-On Code Requirement*

When enabled, the scanner only accepts UPC / EAN 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.

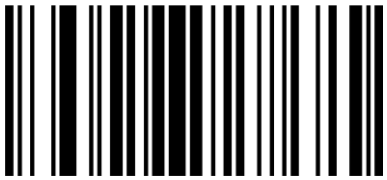
To apply the configuration correctly, first scan “Enter Setup”.



09990

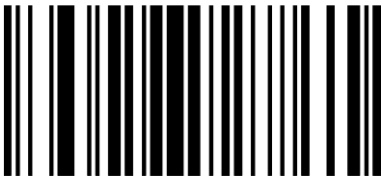
Enter Setup

Then scan your preferred setting.



02611

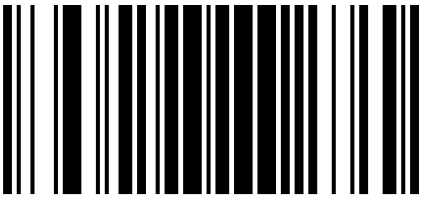
Add-On Code Requirement On



02610

Add-On Code Requirement Off**

To confirm the configuration, scan “Exit Setup”.



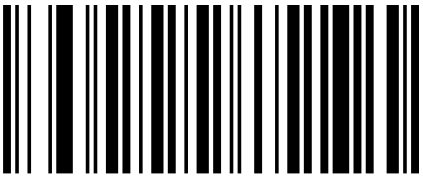
09991

Exit Setup

# 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.

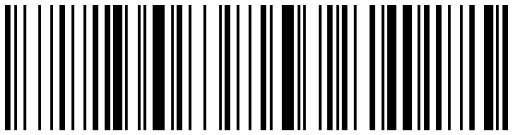


000A0

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**

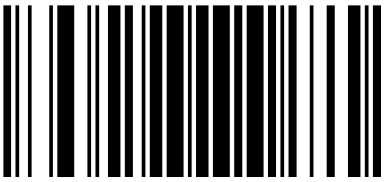
## Setup Code Content

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, it 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.

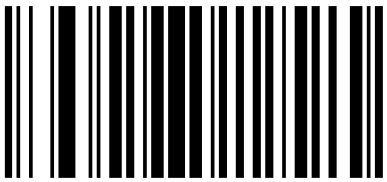
To apply the configuration correctly, first scan “Enter Setup”.



09990

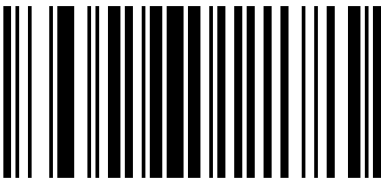
Enter Setup

Then scan your preferred setting.



02501

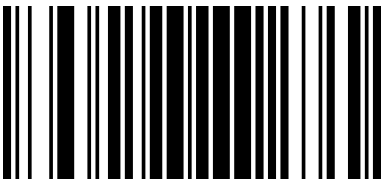
Send Content On



02500

Send Content Off**

To confirm the configuration, scan “Exit Setup”.



09991

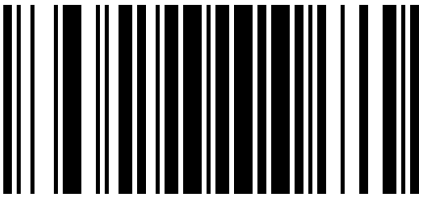
Exit Setup

# 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.

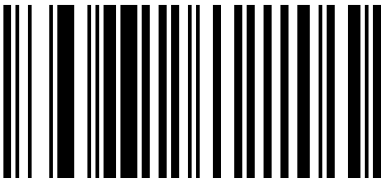
To apply the configuration correctly, first scan "Enter Setup".



09990

Enter Setup

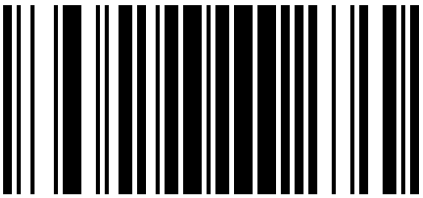
Scan the "Manual (Trigger) Mode" barcode.



013300

Manual (Trigger) Mode**

To confirm the configuration, scan "Exit Setup".



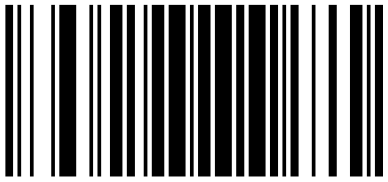
09991

Exit Setup

# Scanning 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.

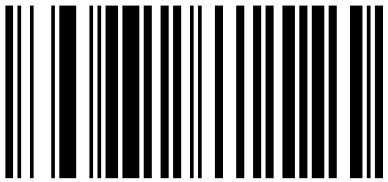
To apply the configuration correctly, first scan “Enter Setup”.



09990

Enter Setup

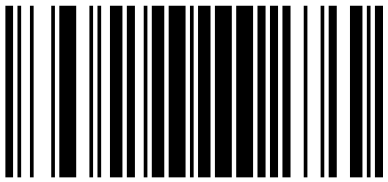
Scan the “Latch Trigger Mode” barcode.



013301

Latch Trigger Mode

To confirm the configuration, scan “Exit Setup”.



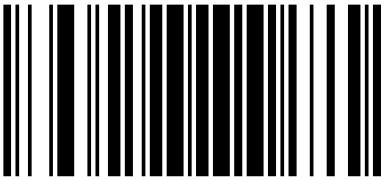
09991

Exit Setup

### *Latch Trigger Timeout Presets*

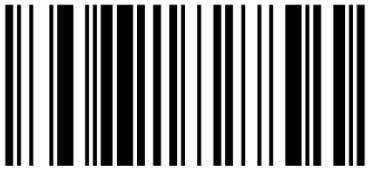
You can set how long the scanner continues scanning after the trigger is pressed in Latch Trigger mode.

To apply the configuration correctly, first scan “Enter Setup”.

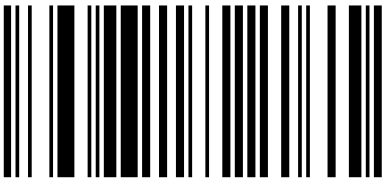


09990
Enter Setup

Then scan your preferred setting. The default is 3 seconds.



023510
1 s



023530
3 s**

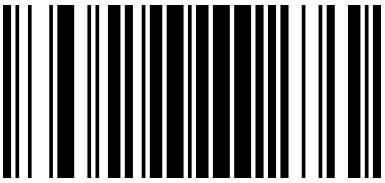


0235A0
10 s



0235F0
15 s

To confirm the configuration, scan “Exit Setup”.



09991
Exit Setup

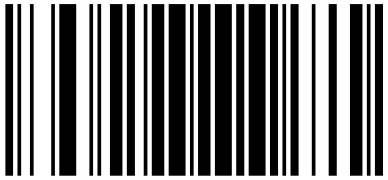
# Scanning Mode - Continuous Mode

In continuous mode, the scanner works without needing the trigger. It starts scanning immediately and keeps scanning after each successful read.

In standard continuous mode, the scanner will not repeatedly read the same barcode while it remains in the scan field. To scan the same code again, move the scanner away from the barcode or move the barcode away from the scanner, then aim at it again.

- The engine scans until a barcode is read or the single-scan time is reached.
- After that, it waits for the configured interval, then starts scanning again.

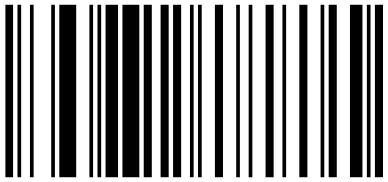
To apply the configuration correctly, first scan “Enter Setup”.



09990

Enter Setup

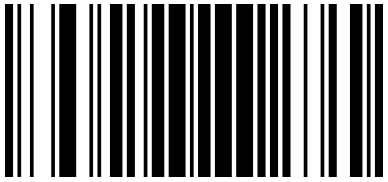
Scan the “Continuous Mode” barcode.



013304

Continuous Mode

To confirm the configuration, scan “Exit Setup”.



09991

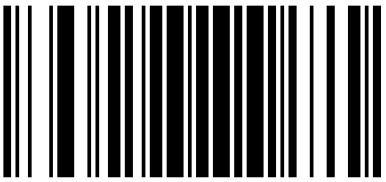
Exit Setup

## *Continuous - Same Barcode Scanning Delay*

This setting determines whether the scanner is allowed to automatically re-scan the same barcode, and if so, how long it waits before doing so in continuous mode.

If you enable this setting, you can then choose a preset delay time.

To apply the configuration correctly, first scan Enter Setup.



09990

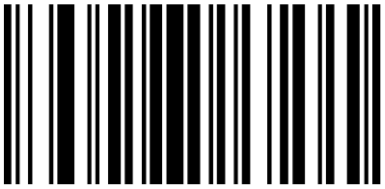
Enter Setup

Then scan your preferred setting.



02571

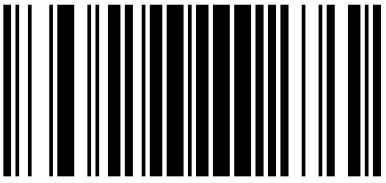
Continuous Mode Delay Edit On



02570

Continuous Mode Delay Off**

To confirm the configuration, scan “Exit Setup”.



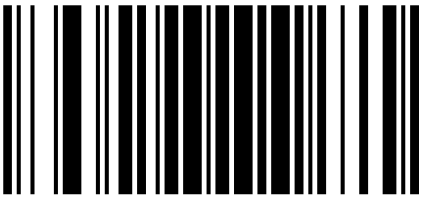
09991

Exit Setup

**Continuous - Same Barcode Scanning Delay Presets**

You can edit the delay with the following preset codes. The default delay is 1 second.

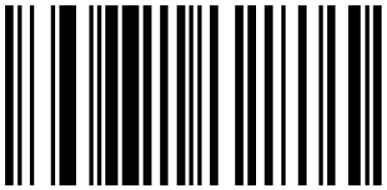
To apply the configuration correctly, first scan “Enter Setup”.



09990

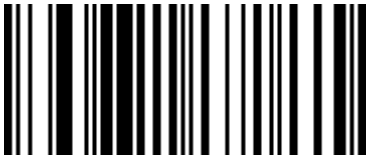
Enter Setup

Then scan your preferred setting.



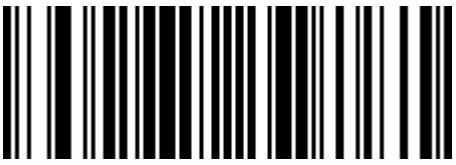
026300

Continuous Mode No Delay



026305

Continuous Mode Delay 0.5 s



02630A

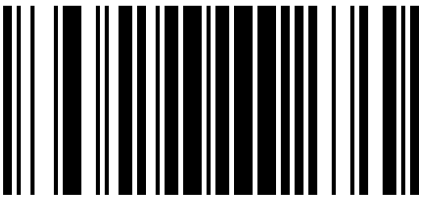
Continuous Mode Delay 1 s**



02630F

Continuous Mode Delay 1.5 s

To confirm the configuration, scan “Exit Setup”.



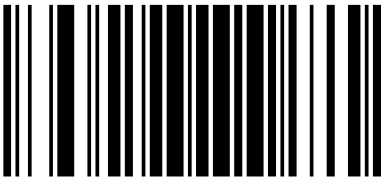
09991

Exit Setup

# 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.

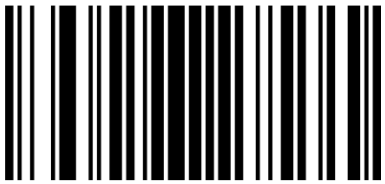
To apply the configuration correctly, first scan “Enter Setup”.



09990

Enter Setup

Then scan your preferred setting.



02311

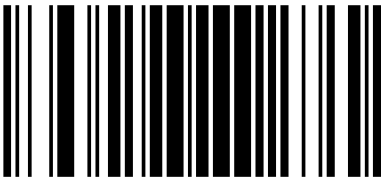
Autosense Mode On



02310

Autosense Mode Off**

To confirm the configuration, scan “Exit Setup”.



09991

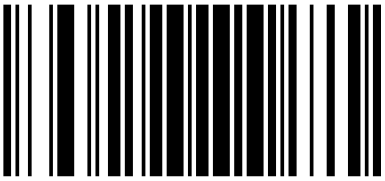
Exit Setup

**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*

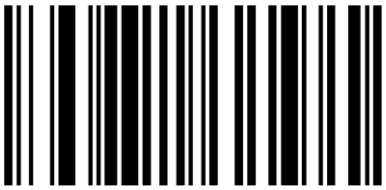
Sensitivity defines how much change in the scene is needed to wake the scanner from monitoring to scanning. Higher sensitivity reacts to smaller movements. Lower sensitivity requires larger changes.

To apply the configuration correctly, first scan “Enter Setup”.

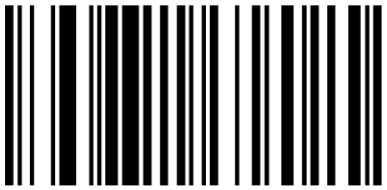


09990
Enter Setup

Then scan your preferred setting.



026531
High Sensitivity**

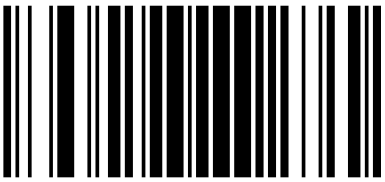


026537
Medium Sensitivity



02653F
Low Sensitivity

To confirm the configuration, scan “Exit Setup”.



09991
Exit Setup

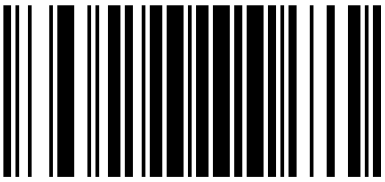
# Scanning Mode - Flashing Mode

In Flashing mode, the scanner does not require the trigger to scan. The red aiming light alternates on and off in a fixed ~1-second cycle.

While the light is on, the scanner actively scans and can re-read the same barcode multiple times within that window. The Same Barcode Scanning Delay setting controls how often it re-reads: with no delay, it reads the barcode repeatedly during the on phase; a higher delay reduces the number of re-reads. Moving the scanner or barcode out of range stops scanning until repositioned.

- Key Open: The trigger button remains active. You can press it at any time to manually turn scanning on or off.
- Key Off: The trigger button is disabled and has no effect while flashing mode is active.

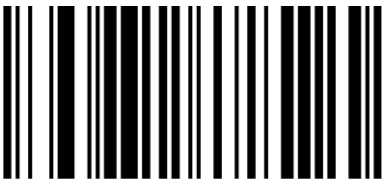
To apply the configuration correctly, first scan “Enter Setup”.



09990

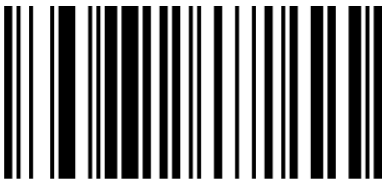
Enter Setup

Then scan your preferred setting.



013306

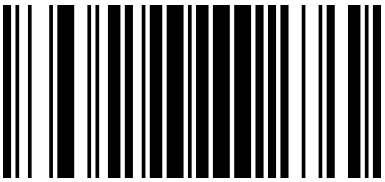
Flashing (Key Open)



013305

Flashing (Key Off)

To confirm the configuration, scan “Exit Setup”.



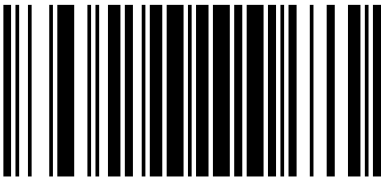
09991

Exit Setup

## 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 Appendix for the Code ID used by each symbology. By default, no Code ID is added.

To apply the configuration correctly, first scan “Enter Setup”.

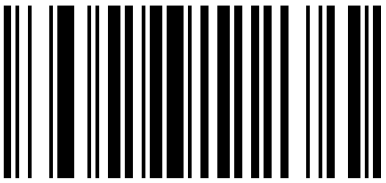


09990
Enter Setup

Then scan your preferred setting.

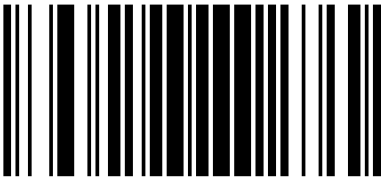


01400
Code ID Off**



01401
Code ID On

To confirm the configuration, scan “Exit Setup”.



09991
Exit Setup

# 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 Inverse Setting

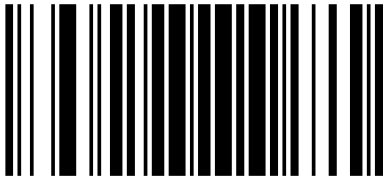
A normal barcode has dark bars on a light background, while an inverted barcode has light bars on a dark background.

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 affects the performance of reading devices.

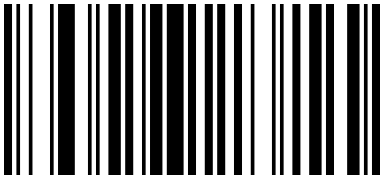
To apply the configuration correctly, first scan “Enter Setup”.



09990

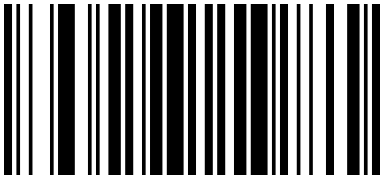
Enter Setup

Then scan your preferred setting.



00161

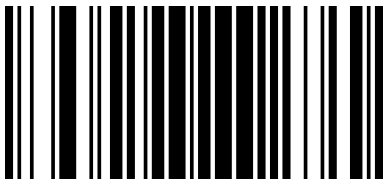
Normal Only**



00160

Normal + Inverse

To confirm the configuration, scan “Exit Setup”.



09991

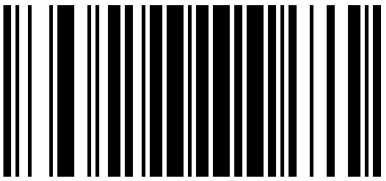
Exit Setup

# UPC-A

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

## *UPC-A – ON/OFF*

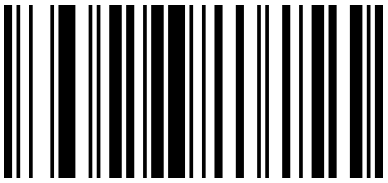
To apply the configuration correctly, first scan “Enter Setup”.



09990

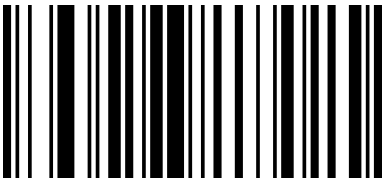
Enter Setup

Then scan your preferred setting.



00340

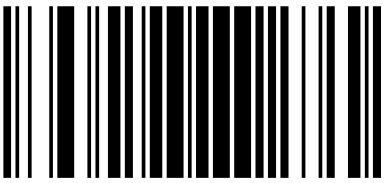
UPC-A Off



00341

UPC-A On**

To confirm the configuration, scan “Exit Setup”.



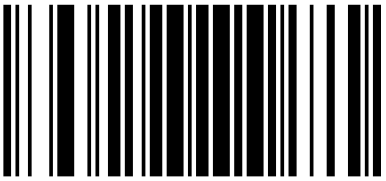
09991

Exit Setup

### *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.

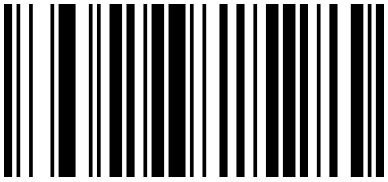
To apply the configuration correctly, first scan “Enter Setup”.



09990

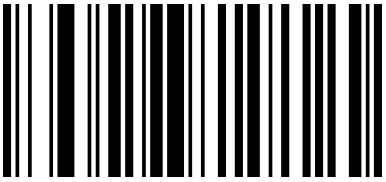
Enter Setup

Then scan your preferred setting.



00420

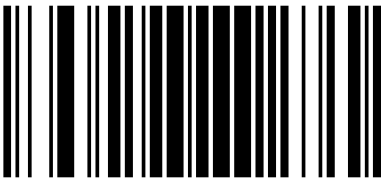
Transmit UPC-A Check Character Off



00421

Transmit UPC-A Check Character On**

To confirm the configuration, scan “Exit Setup”.



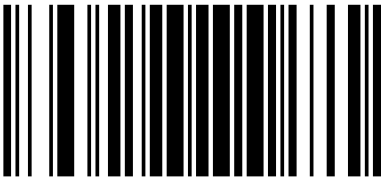
09991

Exit Setup

### *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.

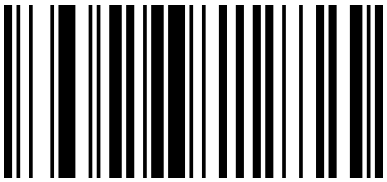
To apply the configuration correctly, first scan “Enter Setup”.



09990

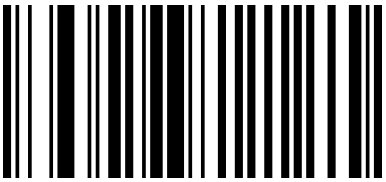
Enter Setup

Then scan your preferred setting.



00401

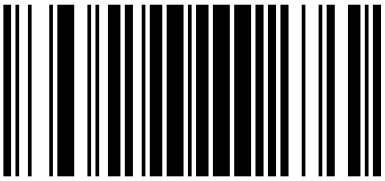
Transmit UPC-A System Character Off



00400

Transmit UPC-A System Character On**

To confirm the configuration, scan “Exit Setup”.



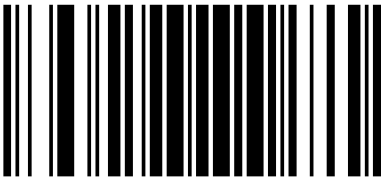
09991

Exit Setup

### *Convert to EAN-13*

UPC-A can be expanded to EAN-13 by adding a leading zero, so the barcode is output as 13 digits instead of 12. By default, conversion is disabled.

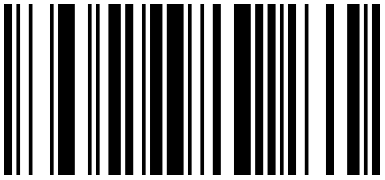
To apply the configuration correctly, first scan “Enter Setup”.



09990

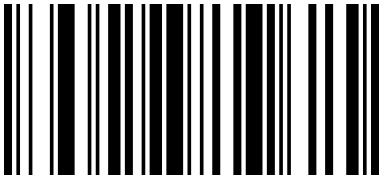
Enter Setup

Then scan your preferred setting.



00391

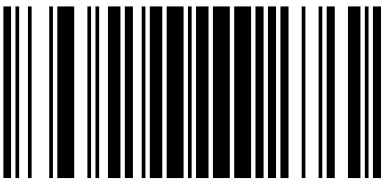
Convert UPC-A to EAN-13 On



00390

Convert UPC-A to EAN-13 Off**

To confirm the configuration, scan “Exit Setup”.



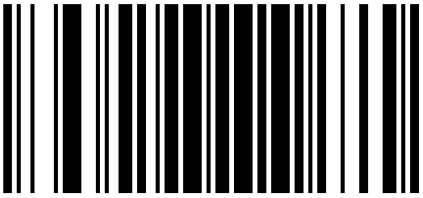
09991

Exit Setup

# UPC-E

## *UPC-E – ON/OFF*

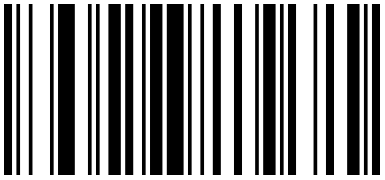
To apply the configuration correctly, first scan “Enter Setup”.



09990

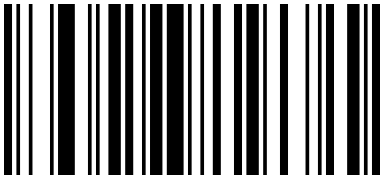
Enter Setup

Then scan your preferred setting.



00350

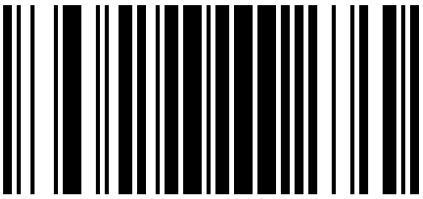
UPC-E Off



00351

UPC-E On**

To confirm the configuration, scan “Exit Setup”.



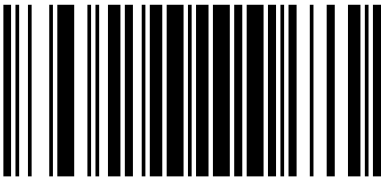
09991

Exit Setup

### *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.

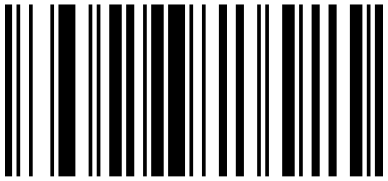
To apply the configuration correctly, first scan “Enter Setup”.



09990

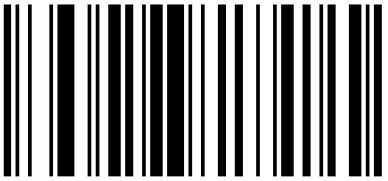
Enter Setup

Then scan your preferred setting.



00440

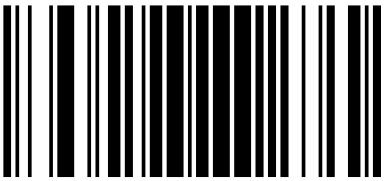
Transmit UPC-E Check Character Off



00441

Transmit UPC-E Check Character On**

To confirm the configuration, scan “Exit Setup”.



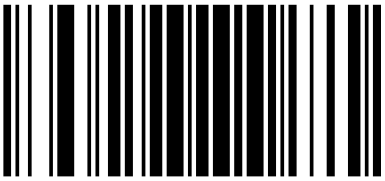
09991

Exit Setup

### *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.

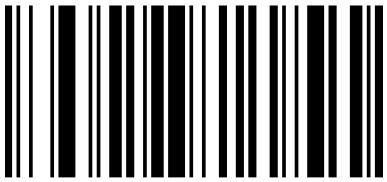
To apply the configuration correctly, first scan “Enter Setup”.



09990

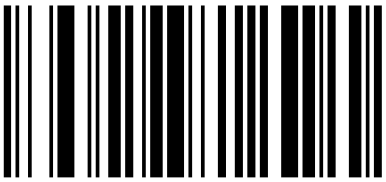
Enter Setup

Then scan your preferred setting.



00431

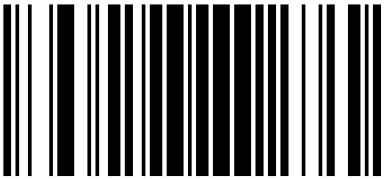
Transmit UPC-E System Character Off



00430

Transmit UPC-E System Character On**

To confirm the configuration, scan “Exit Setup”.



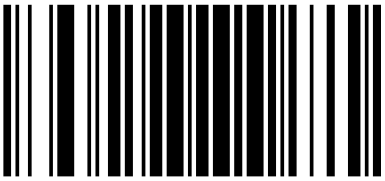
09991

Exit Setup

### *Convert to UPC-A*

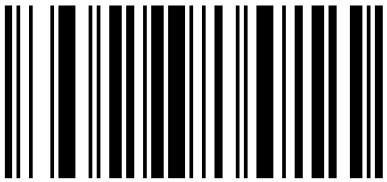
UPC-E can be expanded to a full 12-digit UPC-A code. When this option is enabled, the scanner converts UPC-E barcodes to their equivalent UPC-A representation. By default, conversion is disabled.

To apply the configuration correctly, first scan “Enter Setup”.

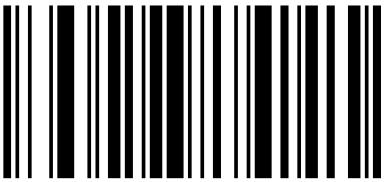


09990
Enter Setup

Then scan your preferred setting.

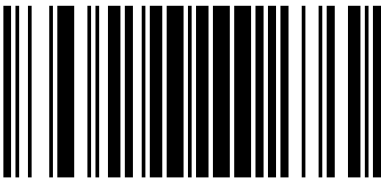


00380
Convert UPC-E to UPC-A Off**



00381
Convert UPC-E to UPC-A On

To confirm the configuration, scan “Exit Setup”.



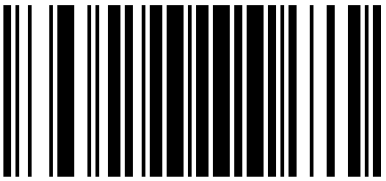
09991
Exit Setup

# EAN-8

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

## *EAN-8 – ON/OFF*

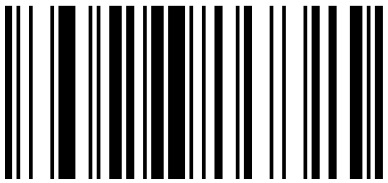
To apply the configuration correctly, first scan “Enter Setup”.



09990

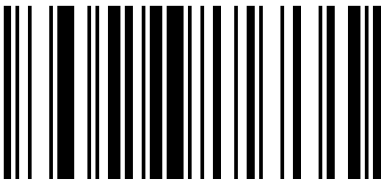
Enter Setup

Then scan your preferred setting.



00370

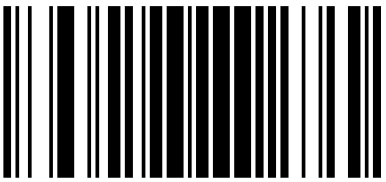
EAN-8 Off



00371

EAN-8 On**

To confirm the configuration, scan “Exit Setup”.



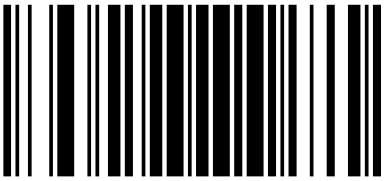
09991

Exit Setup

### *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.

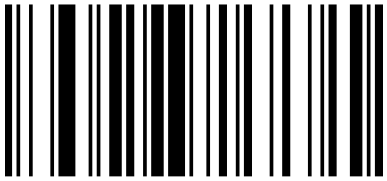
To apply the configuration correctly, first scan “Enter Setup”.



09990

Enter Setup

Then scan your preferred setting.



00440

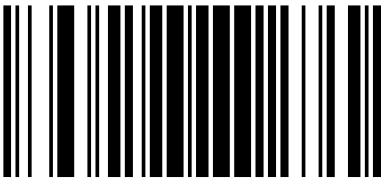
Transmit EAN-8 Check Character Off



00441

Transmit EAN-8 Check Character On**

To confirm the configuration, scan “Exit Setup”.



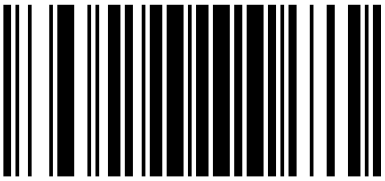
09991

Exit Setup

### *Transmit System Character*

The system character (leading digit) is the first digit of the EAN-8 code and indicates the number system (for example, regular item, coupon, etc.). By default, the scanner transmits this digit.

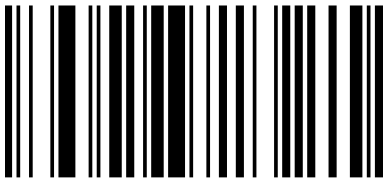
To apply the configuration correctly, first scan “Enter Setup”.



09990

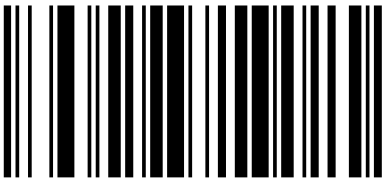
Enter Setup

Then scan your preferred setting.



00561

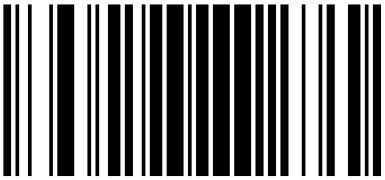
Transmit EAN-8 System Character Off



00560

Transmit EAN-8 System Character On**

To confirm the configuration, scan “Exit Setup”.



09991

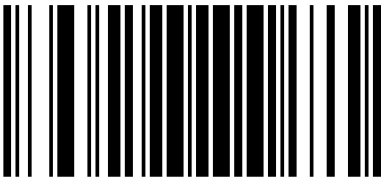
Exit Setup

# EAN-13

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

## *EAN-13 – ON/OFF*

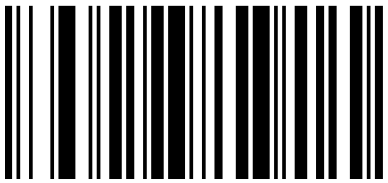
To apply the configuration correctly, first scan “Enter Setup”.



09990

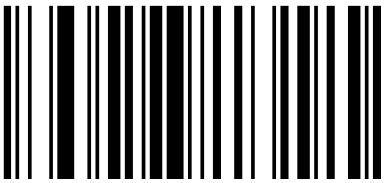
Enter Setup

Then scan your preferred setting.



00360

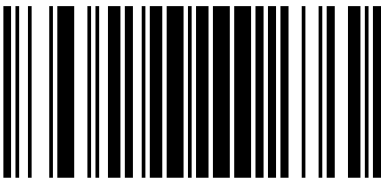
EAN-13 Off



00361

EAN-13 On**

To confirm the configuration, scan “Exit Setup”.



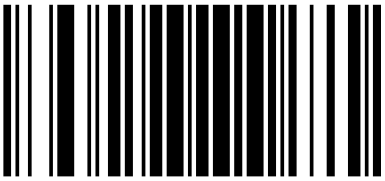
09991

Exit Setup

### *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.

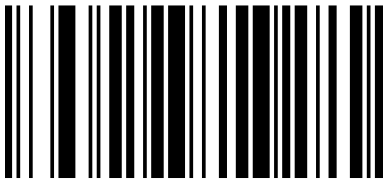
To apply the configuration correctly, first scan “Enter Setup”.



09990

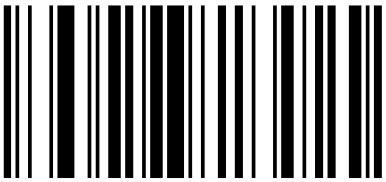
Enter Setup

Then scan your preferred setting.



00460

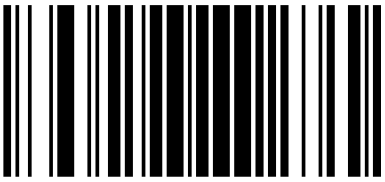
Transmit EAN-13 Check Character Off



00461

Transmit EAN-13 Check Character On**

To confirm the configuration, scan “Exit Setup”.



09991

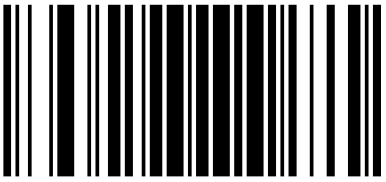
Exit Setup

# 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

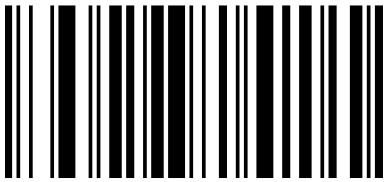
To apply the configuration correctly, first scan “Enter Setup”.



09990

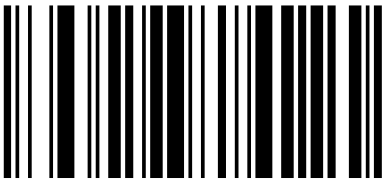
Enter Setup

Then scan your preferred setting.



00480

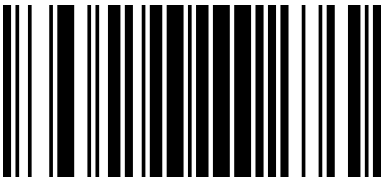
ISBN Mode Off**



00481

ISBN Mode On

To confirm the configuration, scan “Exit Setup”.



09991

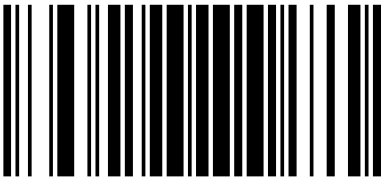
Exit Setup

## 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

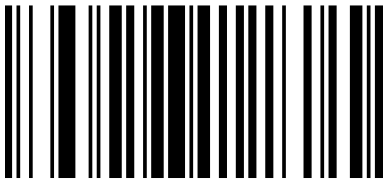
To apply the configuration correctly, first scan “Enter Setup”.



09990

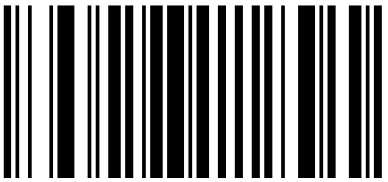
Enter Setup

Then scan your preferred setting.



01500

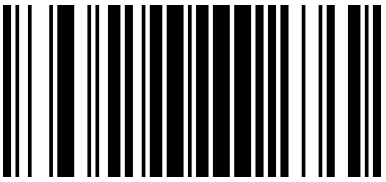
ISSN Mode Off**



01501

ISSN Mode On

To confirm the configuration, scan “Exit Setup”.



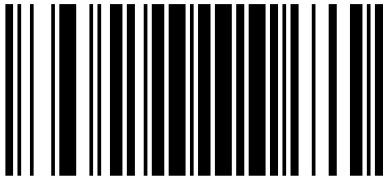
09991

Exit Setup

# Code 128

## *Code 128 – ON/OFF*

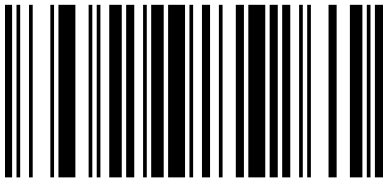
To apply the configuration correctly, first scan “Enter Setup”.



09990

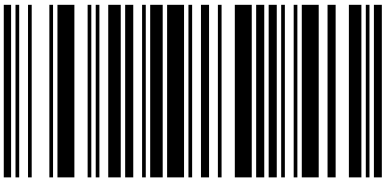
Enter Setup

Then scan your preferred setting.



00690

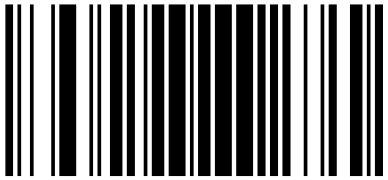
Code 128 Off



00691

Code 128 On**

To confirm the configuration, scan “Exit Setup”.



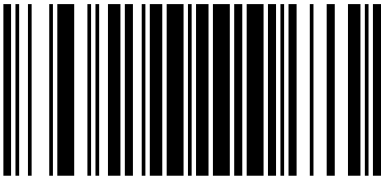
09991

Exit Setup

# Code 39

## *Code 39 – ON/OFF*

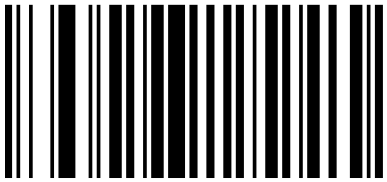
To apply the configuration correctly, first scan “Enter Setup”.



09990

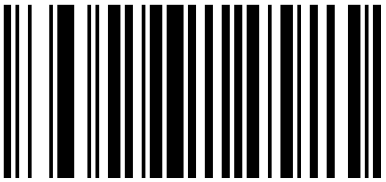
Enter Setup

Then scan your preferred setting.



00220

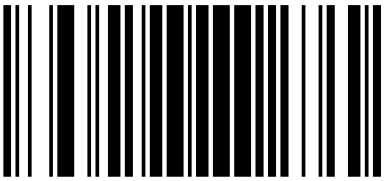
Code 39 Off



00221

Code 39 On**

To confirm the configuration, scan “Exit Setup”.



09991

Exit Setup

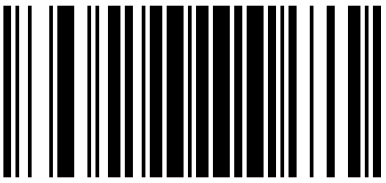
### *Check Character*

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.

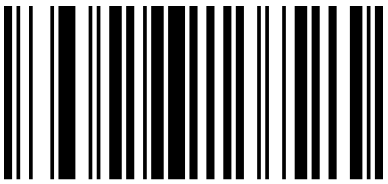
To apply the configuration correctly, first scan “Enter Setup”.



09990

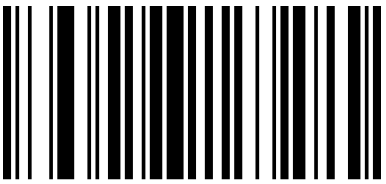
Enter Setup

Then scan your preferred setting.



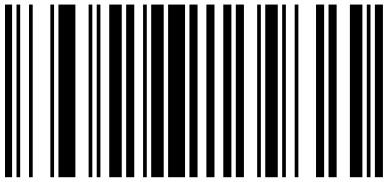
00240

Code 39 No Check Digit (default)



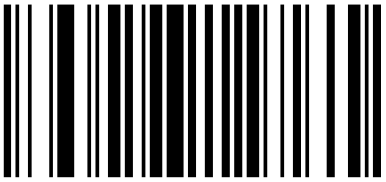
00241

Code 39 Check Digit On



00250

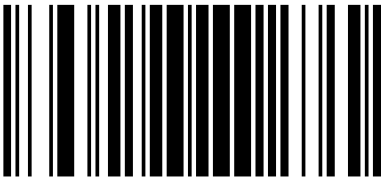
Code 39 Do Not Transmit Check Digit



00251

Code 39 Transmit Check Digit

To confirm the configuration, scan “Exit Setup”.



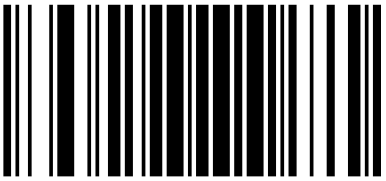
09991

Exit Setup

### *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.

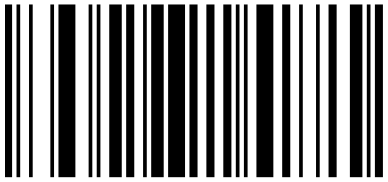
To apply the configuration correctly, first scan “Enter Setup”.



09990

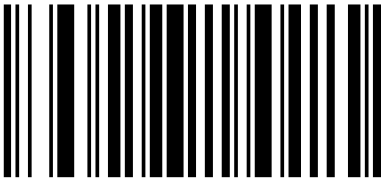
Enter Setup

Then scan your preferred setting.



00280

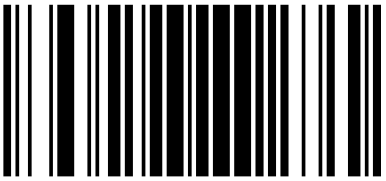
Transmit Code 39 Start/End Characters Off**



00281

Transmit Code 39 Start/End Characters On

To confirm the configuration, scan “Exit Setup”.



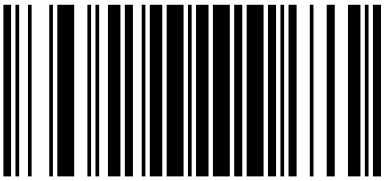
09991

Exit Setup

### *Full ASCII Characters*

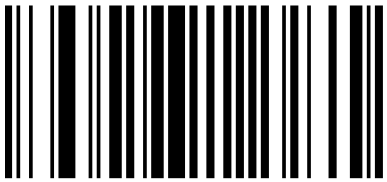
Standard Code 39 supports a limited character set. Full ASCII Code 39 extends this to the full ASCII character set by encoding some characters as pairs. By default, the scanner does not decode the full ASCII set.

To apply the configuration correctly, first scan “Enter Setup”.

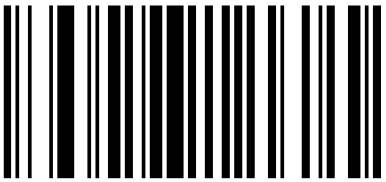


09990
Enter Setup

Then scan your preferred setting.

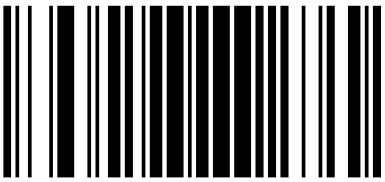


00230
Full Code 39 ASCII Off**



00231
Full Code 39 ASCII On

To confirm the configuration, scan “Exit Setup”.



09991
Exit Setup

### *Number of Recognized Characters (Minimum Limit)*

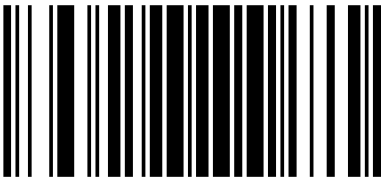
You can limit Code 39 decoding by minimum data length. The default allowed minimum is 1 character, with a maximum settable minimum of 15 characters. There is no maximum length setting for Code 39. The scanner can be set to read only Code 39 barcodes whose length is equal to or greater than the minimum value.

Scan a preset code from the section below or generate your own Code 128 barcode using FNC3 + the setting combination, where XX is the minimum length in hexadecimal (range 01–0F, decimal 1–15). See the Decimal to Hexadecimal Conversion Table in the Appendix to find the hexadecimal value.

- **Format:** FNC3 + 0032XX
  - e.g., minimum length of 2 characters (hex 02): FNC3 + 003202
  - e.g., minimum length of 11 characters (hex 0B): FNC3 + 00320B

**Setting Steps:**

1. Scan "Enter Setup".

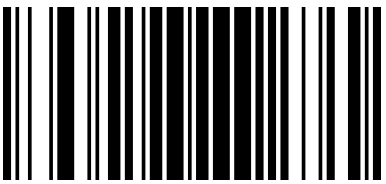


09990

Enter Setup

2. Scan the "Code 39 Minimum Length" barcode for your chosen value (preset below, or your generated Code 128 barcode).

3. Scan "Exit Setup".

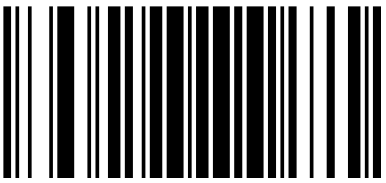


09991

Exit Setup

**Code 39 Minimum Length Presets**

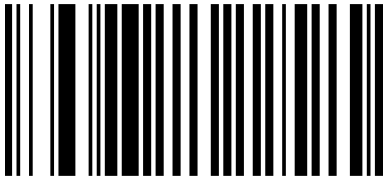
To apply the configuration correctly, first scan “Enter Setup”.



09990

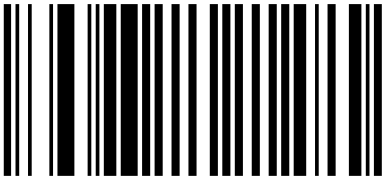
Enter Setup

Then scan the barcode for the preferred setting.



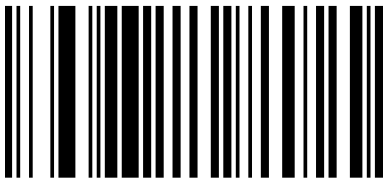
003201

Code 39 Minimum Length 1



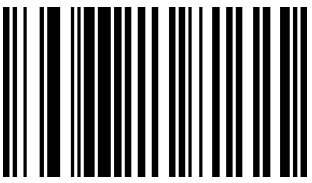
003202

Code 39 Minimum Length 2



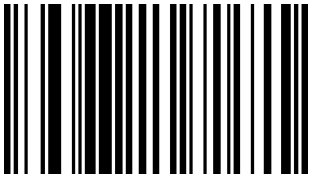
003203

Code 39 Minimum Length 3



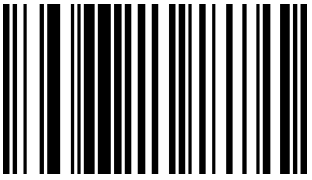
003204

Code 39 Minimum Length 4



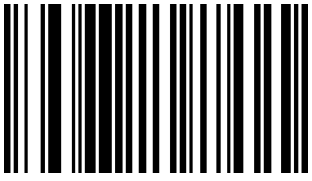
003205

Code 39 Minimum Length 5



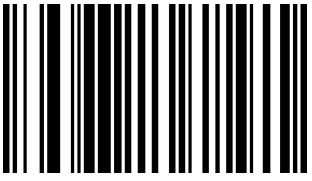
003206

Code 39 Minimum Length 6



003207

Code 39 Minimum Length 7



003208

Code 39 Minimum Length 8



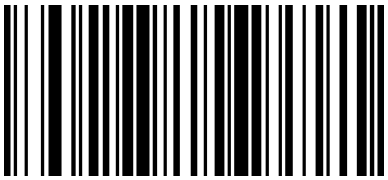
003209

Code 39 Minimum Length 9



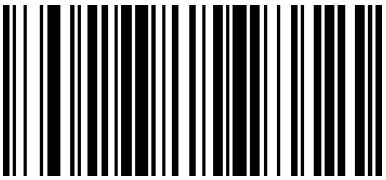
00320A

Code 39 Minimum Length 10



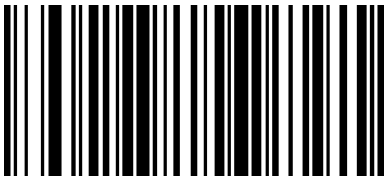
00320B

Code 39 Minimum Length 11



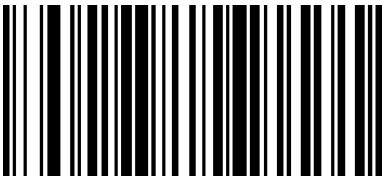
00320C

Code 39 Minimum Length 12



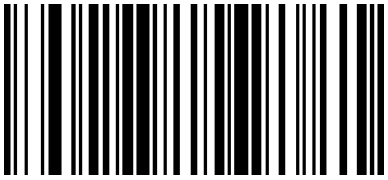
00320D

Code 39 Minimum Length 13



00320E

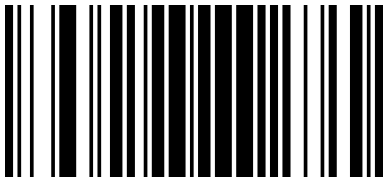
Code 39 Minimum Length 14



00320F

Code 39 Minimum Length 15

To confirm the configuration, scan “Exit Setup”.



09991

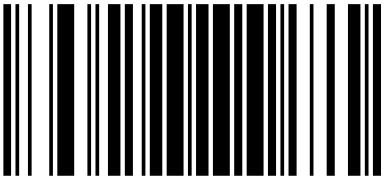
Exit Setup

# 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.

## *Code 32 – ON/OFF*

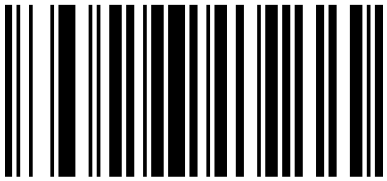
To apply the configuration correctly, first scan “Enter Setup”.



09990

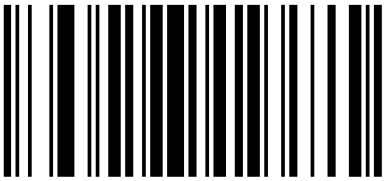
Enter Setup

Then scan your preferred setting.



01950

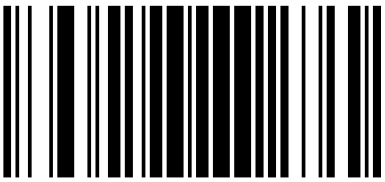
Code 32 Off**



01951

Code 32 On

To confirm the configuration, scan “Exit Setup”.



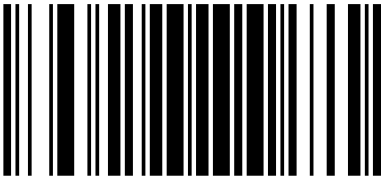
09991

Exit Setup

# Code 93

## *Code 93 – ON/OFF*

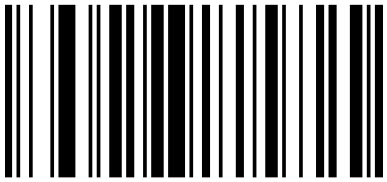
To apply the configuration correctly, first scan “Enter Setup”.



09990

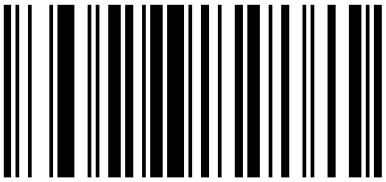
Enter Setup

Then scan your preferred setting.



00220

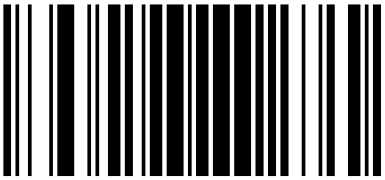
Code 93 Off



00221

Code 93 On**

To confirm the configuration, scan “Exit Setup”.



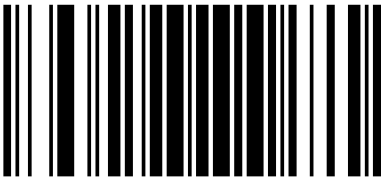
09991

Exit Setup

### *Check Character*

Code 93 can use 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.

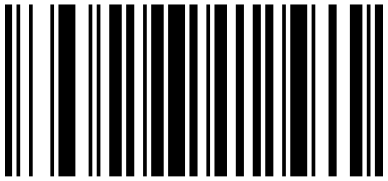
To apply the configuration correctly, first scan “Enter Setup”.



09990

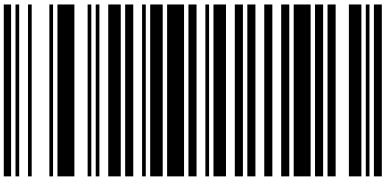
Enter Setup

Then scan your preferred setting.



00440

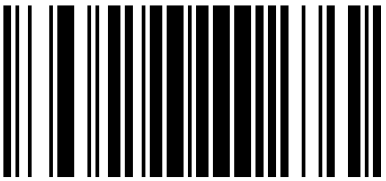
Transmit Code 93 Check Character Off**



00441

Transmit Code 93 Check Character On

To confirm the configuration, scan “Exit Setup”.



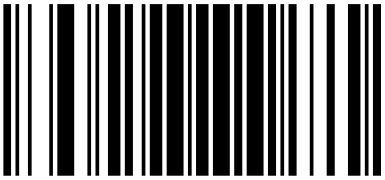
09991

Exit Setup

# Code 11

## *Code 11 – ON/OFF*

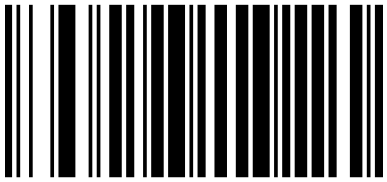
To apply the configuration correctly, first scan “Enter Setup”.



09990

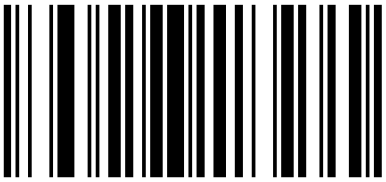
Enter Setup

Then scan your preferred setting.



01260

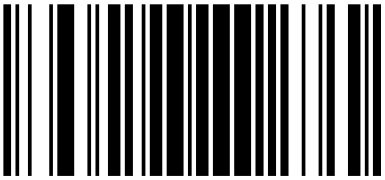
Code 11 Off



01261

Code 11 On**

To confirm the configuration, scan “Exit Setup”.



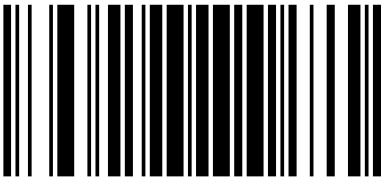
09991

Exit Setup

### *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.

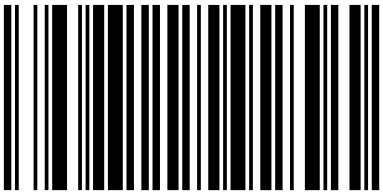
To apply the configuration correctly, first scan “Enter Setup”.



09990

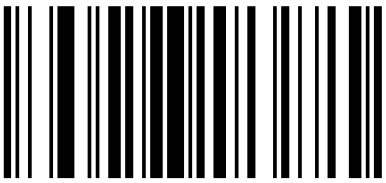
Enter Setup

Then scan your preferred setting.



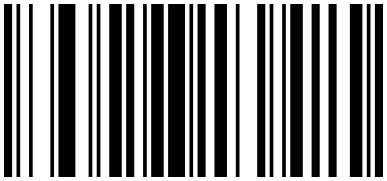
01270

All Code 11 Check Characters Off



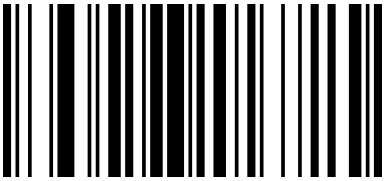
01272

Code 11 - 1 Check Character On*



01273

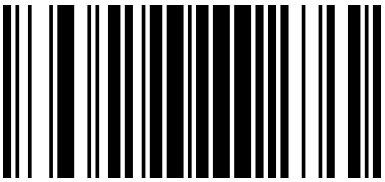
Code 11 - 2 Check Characters On



01271

Code 11 - 1 and 2 Check Characters On

To confirm the configuration, scan “Exit Setup”.



09991

Exit Setup

## *Number of Recognized Characters (Minimum Limit)*

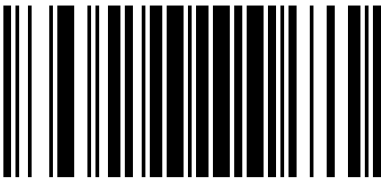
You can limit Code 11 decoding by minimum data length. The default allowed minimum is 1 character, with a maximum settable minimum of 15 characters. There is no maximum length setting for Code 11. The scanner can be set to read only Code 11 barcodes whose length is equal to or greater than the minimum value.

Scan a preset code from the section below or generate your own Code 128 barcode using FNC3 + the setting combination, where XX is the minimum length in hexadecimal (range 01-0F, decimal 1-15). See the Decimal to Hexadecimal Conversion Table in the Appendix to find the hexadecimal value.

- **Format:** FNC3 + 0128XX
  - e.g., minimum length of 2 characters (hex 02): FNC3 + 012802
  - e.g., minimum length of 11 characters (hex 0B): FNC3 + 01280B

**Setting Steps:**

1. Scan "Enter Setup".

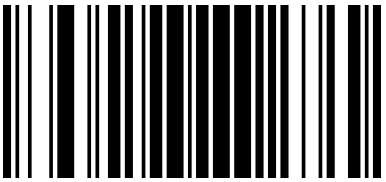


09990

Enter Setup

2. Scan the "Code 11 Minimum Length" barcode for your chosen value (preset below, or your generated Code 128 barcode).

3. Scan "Exit Setup".

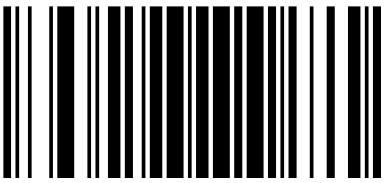


09991

Exit Setup

**Code 11 Minimum Length Presets**

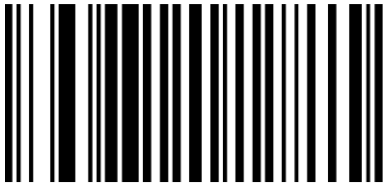
To apply the configuration correctly, first scan “Enter Setup”.



09990

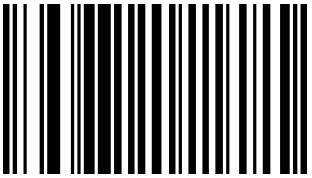
Enter Setup

Then scan the barcode for the preferred setting.



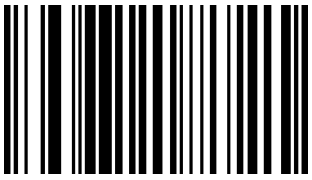
012801

Code 11 Minimum Length 1



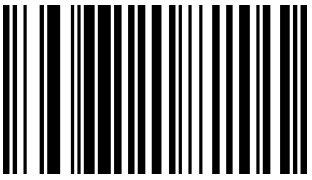
012802

Code 11 Minimum Length 2



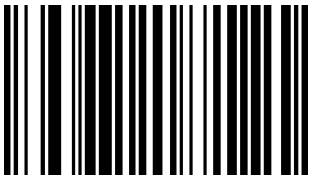
012803

Code 11 Minimum Length 3



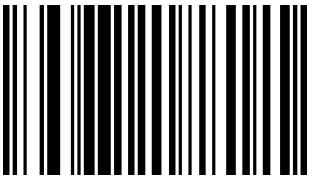
012804

Code 11 Minimum Length 4**



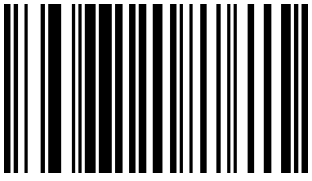
012805

Code 11 Minimum Length 5



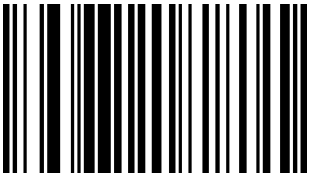
012806

Code 11 Minimum Length 6



012807

Code 11 Minimum Length 7



012808

Code 11 Minimum Length 8



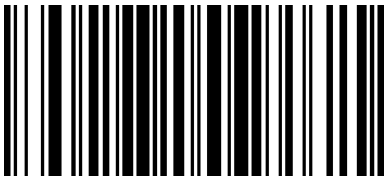
012809

Code 11 Minimum Length 9



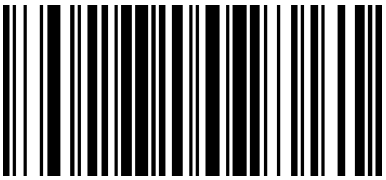
01280A

Code 11 Minimum Length 10



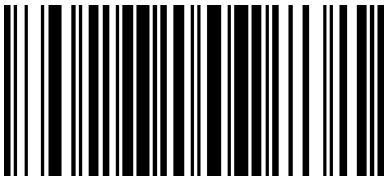
01280B

Code 11 Minimum Length 11



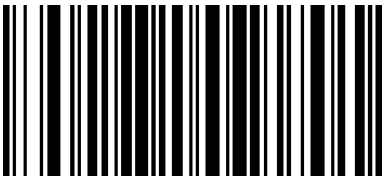
01280C

Code 11 Minimum Length 12



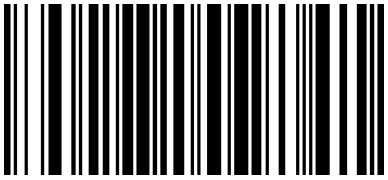
01280D

Code 11 Minimum Length 13



01280E

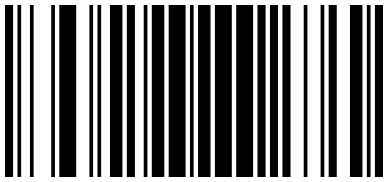
Code 11 Minimum Length 14



01280F

Code 11 Minimum Length 15

To confirm the configuration, scan “Exit Setup”.



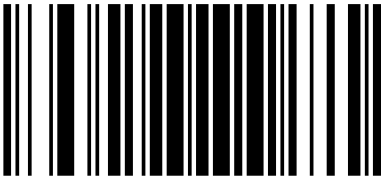
09991

Exit Setup

# Interleaved 2 of 5

## *Interleaved 2 of 5 – ON/OFF*

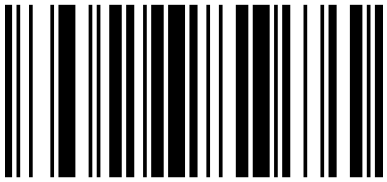
To apply the configuration correctly, first scan “Enter Setup”.



09990

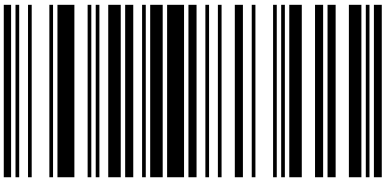
Enter Setup

Then scan your preferred setting.



00960

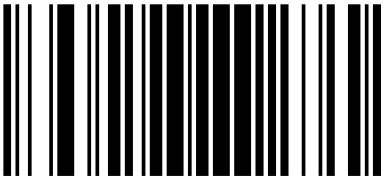
Interleaved 2 of 5 Off



00961

Interleaved 2 of 5 On**

To confirm the configuration, scan “Exit Setup”.



09991

Exit Setup

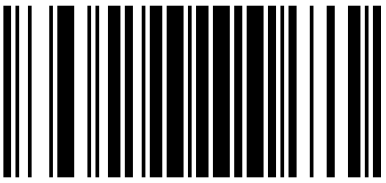
### *Check Character*

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.

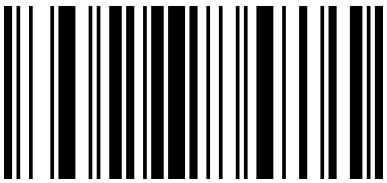
To apply the configuration correctly, first scan “Enter Setup”.



09990

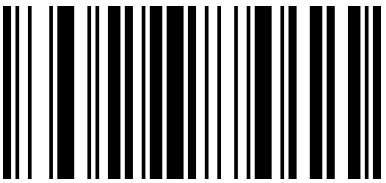
Enter Setup

Then scan your preferred setting.



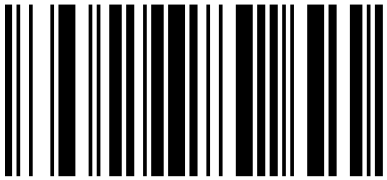
00980

Interleaved 2 of 5 No Check Digit (default)



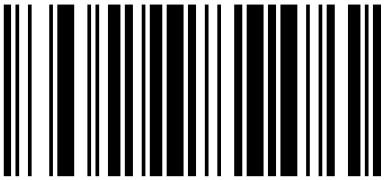
00981

Interleaved 2 of 5 Check Digit On



00991

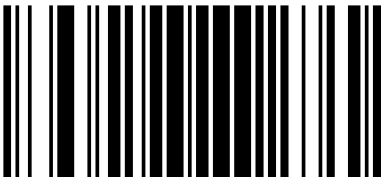
Interleaved 2 of 5 Do Not Transmit Check Digit



00990

Interleaved 2 of 5 Transmit Check Digit

To confirm the configuration, scan “Exit Setup”.



09991

Exit Setup

### *Number of Recognized Characters (Minimum Limit)*

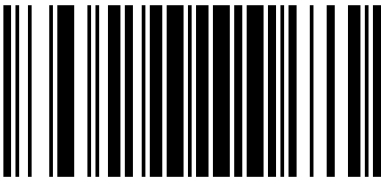
You can limit Interleaved 2 of 5 decoding by minimum data length. The default allowed minimum is 2 characters, with a maximum settable minimum of 14 characters. There is no maximum length setting for Interleaved 2 of 5. The scanner can be set to read only Interleaved 2 of 5 barcodes whose length is equal to or greater than the minimum value.

Scan a preset code from the section below or generate your own Code 128 barcode using FNC3 + the setting combination, where XX is the minimum length in hexadecimal (range 02–0E, decimal 2–14). See the Decimal to Hexadecimal Conversion Table in the Appendix to find the hexadecimal value.

- **Format:** FNC3 + 0097XX
  - e.g., minimum length of 2 characters (hex 02): FNC3 + 009702
  - e.g., minimum length of 11 characters (hex 0B): FNC3 + 00970B

**Setting Steps:**

1. Scan "Enter Setup".

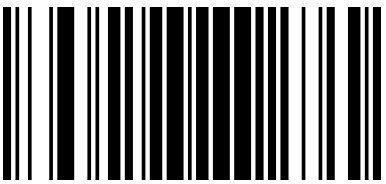


09990

Enter Setup

2. Scan the "Interleaved 2 of 5 Minimum Length" barcode for your chosen value (preset below, or your generated Code 128 barcode).

3. Scan "Exit Setup".

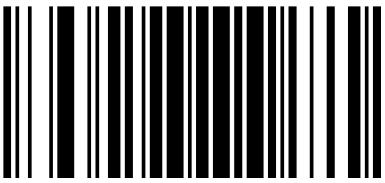


09991

Exit Setup

**Interleaved 2 of 5 Minimum Length Presets**

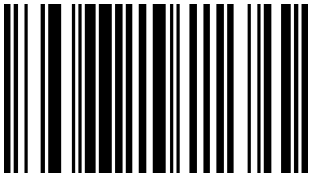
To apply the configuration correctly, first scan “Enter Setup”.



09990

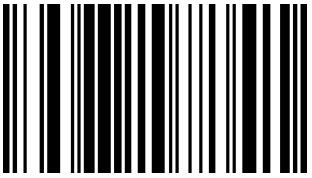
Enter Setup

Then scan the barcode for the preferred setting.



011802

Interleaved 2 of 5 Minimum Length 2



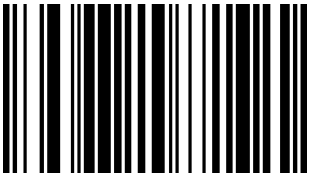
011803

Interleaved 2 of 5 Minimum Length 3



011804

Interleaved 2 of 5 Minimum Length 4**



011805

Interleaved 2 of 5 Minimum Length 5



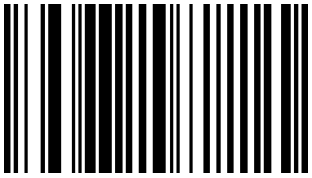
011806

Interleaved 2 of 5 Minimum Length 6



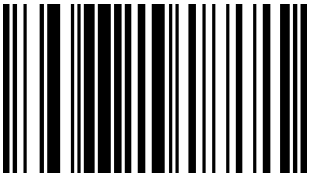
011807

Interleaved 2 of 5 Minimum Length 7



011808

Interleaved 2 of 5 Minimum Length 8



011809

Interleaved 2 of 5 Minimum Length 9



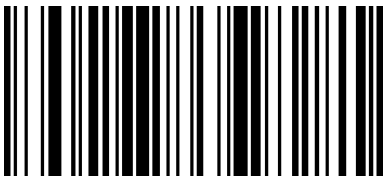
01180A

Interleaved 2 of 5 Minimum Length 10



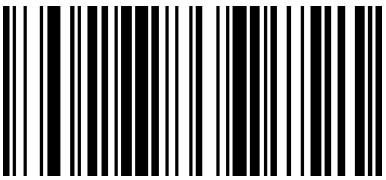
01180B

Interleaved 2 of 5 Minimum Length 11



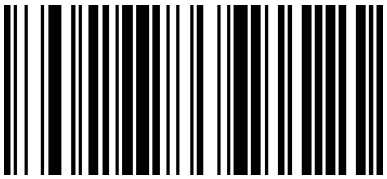
01180C

Interleaved 2 of 5 Minimum Length 12



01180D

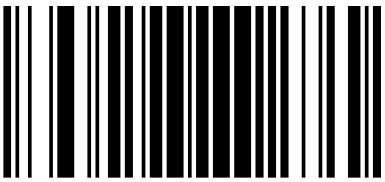
Interleaved 2 of 5 Minimum Length 13



01180E

Interleaved 2 of 5 Minimum Length 14

To confirm the configuration, scan “Exit Setup”.



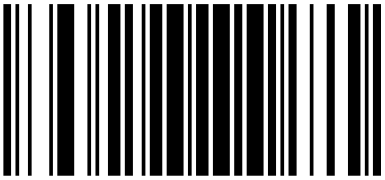
09991

Exit Setup

# Matrix 2 of 5

## *Matrix 2 of 5 – ON/OFF*

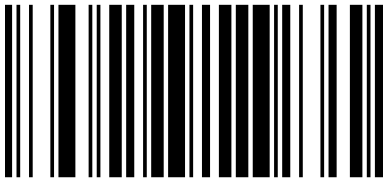
To apply the configuration correctly, first scan “Enter Setup”.



09990

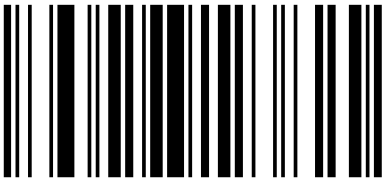
Enter Setup

Then scan your preferred setting.



01460

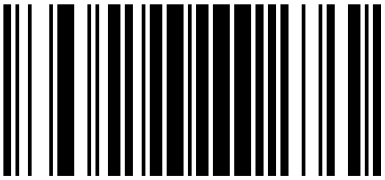
Matrix 2 of 5 Off



01461

Matrix 2 of 5 On**

To confirm the configuration, scan “Exit Setup”.



09991

Exit Setup

### *Number of Recognized Characters (Minimum Limit)*

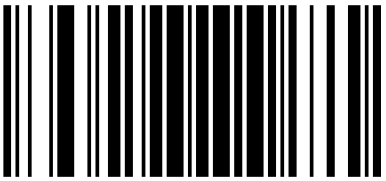
You can limit Matrix 2 of 5 decoding by minimum data length. The default allowed minimum is 1 character, with a maximum settable minimum of 15 characters. There is no maximum length setting for Matrix 2 of 5. The scanner can be set to read only Matrix 2 of 5 barcodes whose length is equal to or greater than the minimum value.

Scan a preset code from the section below or generate your own Code 128 barcode using FNC3 + the setting combination, where XX is the minimum length in hexadecimal (range 01–0F, decimal 1–15). See the Decimal to Hexadecimal Conversion Table in the Appendix to find the hexadecimal value.

- **Format:** FNC3 + 0148XX
  - e.g., minimum length of 2 characters (hex 02): FNC3 + 014802
  - e.g., minimum length of 11 characters (hex 0B): FNC3 + 01480B

**Setting Steps:**

1. Scan "Enter Setup".

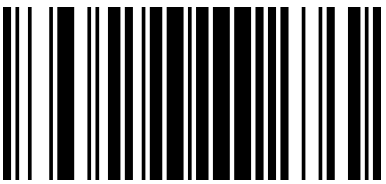


09990

Enter Setup

2. Scan the "Matrix 2 of 5 Minimum Length" barcode for your chosen value (preset below, or your generated Code 128 barcode).

3. Scan "Exit Setup".

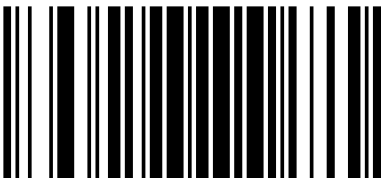


09991

Exit Setup

**Matrix 2 of 5 Minimum Length Presets**

To apply the configuration correctly, first scan “Enter Setup”.



09990

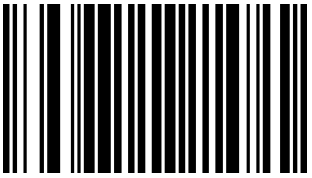
Enter Setup

Then scan the barcode for the preferred setting.



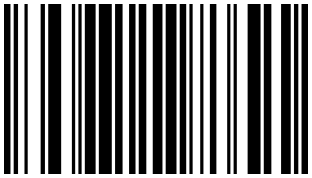
014801

Matrix 2 of 5 Minimum Length 1



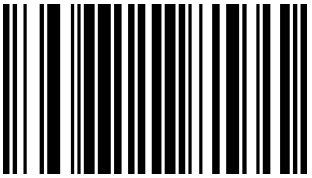
014802

Matrix 2 of 5 Minimum Length 2



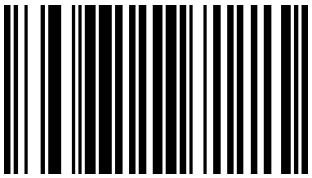
014803

Matrix 2 of 5 Minimum Length 3



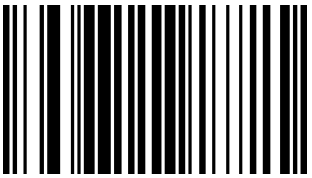
014804

Matrix 2 of 5 Minimum Length 4**



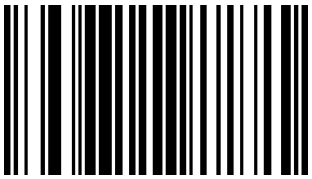
014805

Matrix 2 of 5 Minimum Length 5



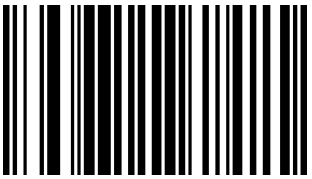
014806

Matrix 2 of 5 Minimum Length 6



014807

Matrix 2 of 5 Minimum Length 7



014808

Matrix 2 of 5 Minimum Length 8



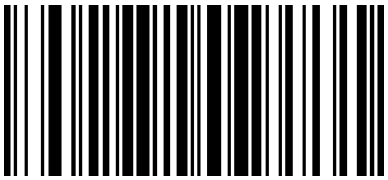
014809

Matrix 2 of 5 Minimum Length 9



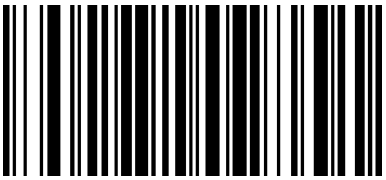
01480A

Matrix 2 of 5 Minimum Length 10



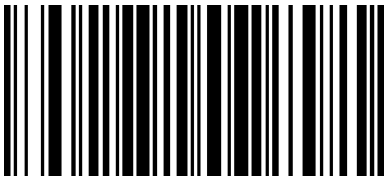
01480B

Matrix 2 of 5 Minimum Length 11



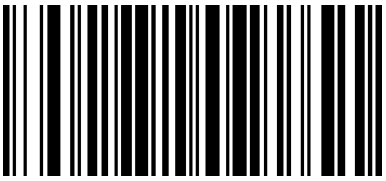
01480C

Matrix 2 of 5 Minimum Length 12



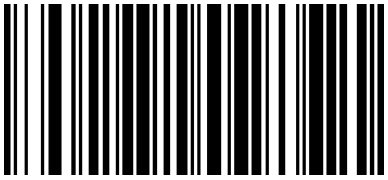
01480D

Matrix 2 of 5 Minimum Length 13



01480E

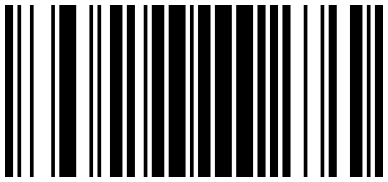
Matrix 2 of 5 Minimum Length 14



01480F

Matrix 2 of 5 Minimum Length 15

To confirm the configuration, scan “Exit Setup”.



09991

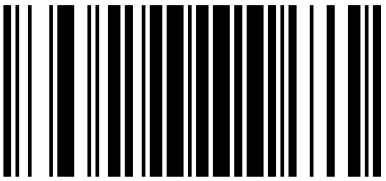
Exit Setup

# Industrial 2 of 5

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

## *Industrial 2 of 5 – ON/OFF*

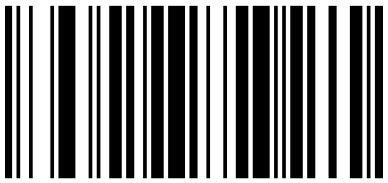
To apply the configuration correctly, first scan “Enter Setup”.



09990

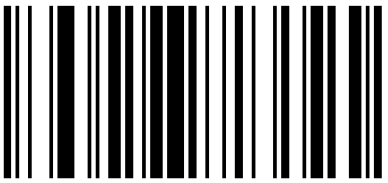
Enter Setup

Then scan your preferred setting.



01060

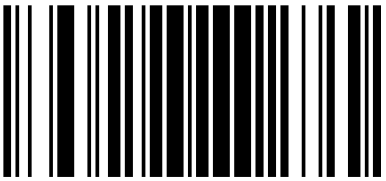
Industrial 2 of 5 Off



01061

Industrial 2 of 5 On**

To confirm the configuration, scan “Exit Setup”.



09991

Exit Setup

### *Number of Recognized Characters (Minimum Limit)*

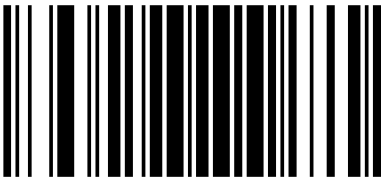
You can limit Industrial 2 of 5 decoding by minimum data length. The default allowed minimum is 1 character, with a maximum settable minimum of 15 characters. There is no maximum length setting for Industrial 2 of 5. The scanner can be set to read only Industrial 2 of 5 barcodes whose length is equal to or greater than the minimum value.

Scan a preset code from the section below or generate your own Code 128 barcode using FNC3 + the setting combination, where XX is the minimum length in hexadecimal (range 01–0F, decimal 1–15). See the Decimal to Hexadecimal Conversion Table in the Appendix to find the hexadecimal value.

- **Format:** FNC3 + 0107XX
  - e.g., minimum length of 2 characters (hex 02): FNC3 + 010702
  - e.g., minimum length of 11 characters (hex 0B): FNC3 + 01070B

**Setting Steps:**

1. Scan "Enter Setup".

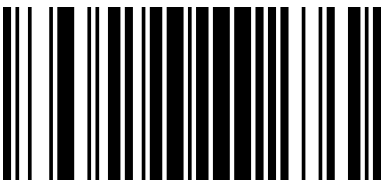


09990

Enter Setup

2. Scan the "Industrial 2 of 5 Minimum Length" barcode for your chosen value (preset below, or your generated Code 128 barcode).

3. Scan "Exit Setup".

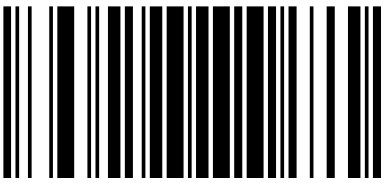


09991

Exit Setup

**Industrial 2 of 5 Minimum Length Presets**

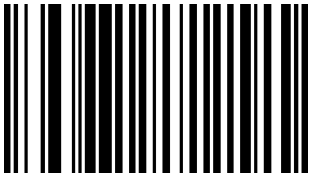
To apply the configuration correctly, first scan “Enter Setup”.



09990

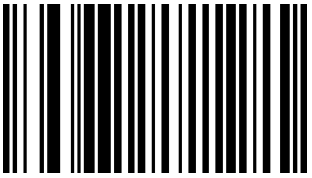
Enter Setup

Then scan the barcode for the preferred setting.



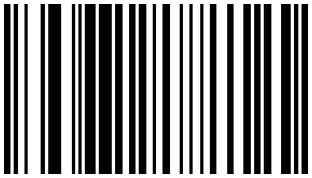
010701

Industrial 2 of 5 Minimum Length 1



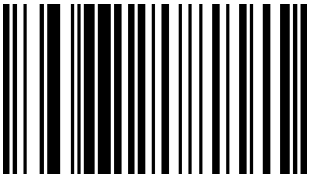
010702

Industrial 2 of 5 Minimum Length 2



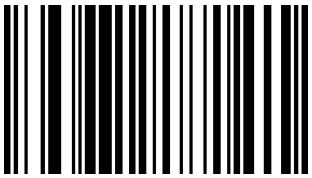
010703

Industrial 2 of 5 Minimum Length 3



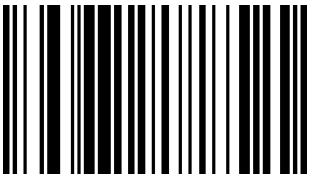
010704

Industrial 2 of 5 Minimum Length 4**



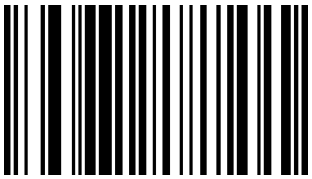
010705

Industrial 2 of 5 Minimum Length 5



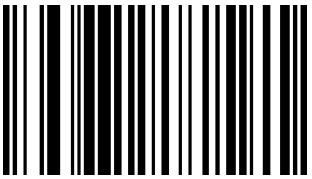
010706

Industrial 2 of 5 Minimum Length 6



010707

Industrial 2 of 5 Minimum Length 7



010708

Industrial 2 of 5 Minimum Length 8



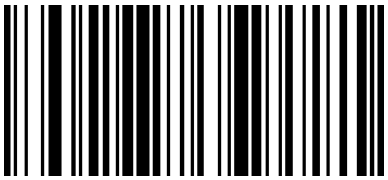
010709

Industrial 2 of 5 Minimum Length 9



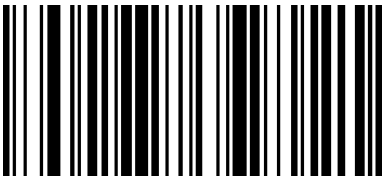
01070A

Industrial 2 of 5 Minimum Length 10



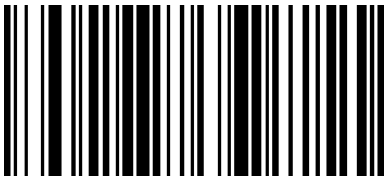
01070B

Industrial 2 of 5 Minimum Length 11



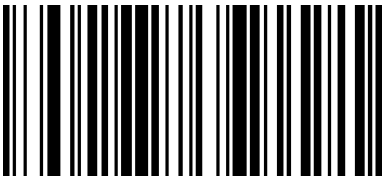
01070C

Industrial 2 of 5 Minimum Length 12



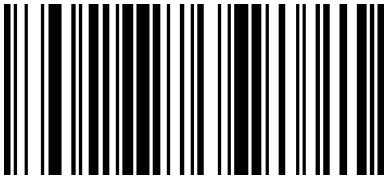
01070D

Industrial 2 of 5 Minimum Length 13



01070E

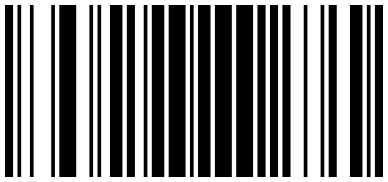
Industrial 2 of 5 Minimum Length 14



01070F

Industrial 2 of 5 Minimum Length 15

To confirm the configuration, scan “Exit Setup”.



09991

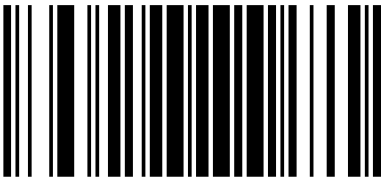
Exit Setup

# Standard 2 of 5

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

## *Standard 2 of 5 – ON/OFF*

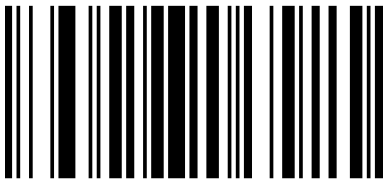
To apply the configuration correctly, first scan “Enter Setup”.



09990

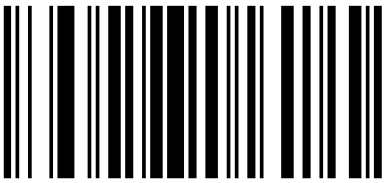
Enter Setup

Then scan your preferred setting.



01870

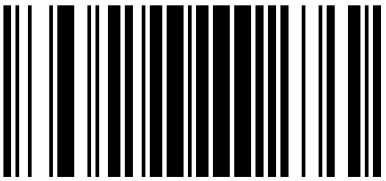
Standard 2 of 5 Off



01871

Standard 2 of 5 On**

To confirm the configuration, scan “Exit Setup”.



09991

Exit Setup

### *Number of Recognized Characters (Minimum Limit)*

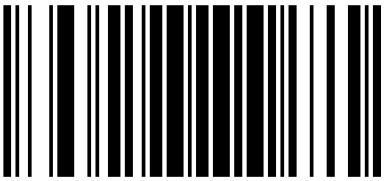
You can limit Standard 2 of 5 decoding by minimum data length. The default allowed minimum is 1 character, with a maximum settable minimum of 15 characters. There is no maximum length setting for Standard 2 of 5. The scanner can be set to read only Standard 2 of 5 barcodes whose length is equal to or greater than the minimum value.

Scan a preset code from the section below or generate your own Code 128 barcode using FNC3 + the setting combination, where XX is the minimum length in hexadecimal (range 01–0F, decimal 1–15). See the Decimal to Hexadecimal Conversion Table in the Appendix to find the hexadecimal value.

- **Format:** FNC3 + 0189XX
  - e.g., minimum length of 2 characters (hex 02): FNC3 + 018902
  - e.g., minimum length of 11 characters (hex 0B): FNC3 + 01890B

**Setting Steps:**

1. Scan "Enter Setup".

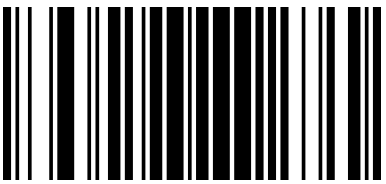


09990

Enter Setup

2. Scan the "Standard 2 of 5 Minimum Length" barcode for your chosen value (preset below, or your generated Code 128 barcode).

3. Scan "Exit Setup".

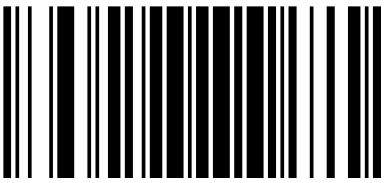


09991

Exit Setup

**Standard 2 of 5 Minimum Length Presets**

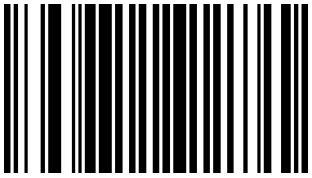
To apply the configuration correctly, first scan “Enter Setup”.



09990

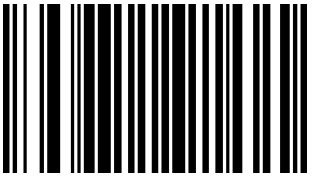
Enter Setup

Then scan the barcode for the preferred setting.



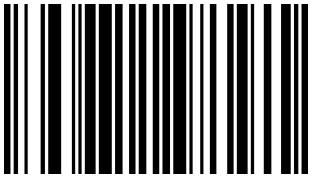
018901

Standard 2 of 5 Minimum Length 1



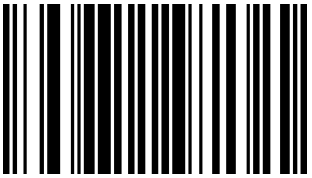
018902

Standard 2 of 5 Minimum Length 2



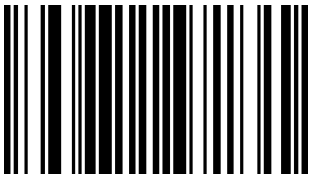
018903

Standard 2 of 5 Minimum Length 3



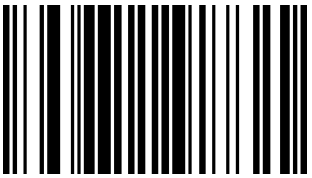
018904

Industrial 2 of 5 Minimum Length 4**



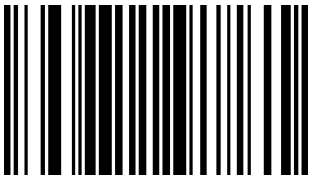
018905

Standard 2 of 5 Minimum Length 5



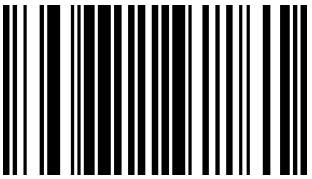
018906

Standard 2 of 5 Minimum Length 6



018907

Standard 2 of 5 Minimum Length 7



018908

Standard 2 of 5 Minimum Length 8



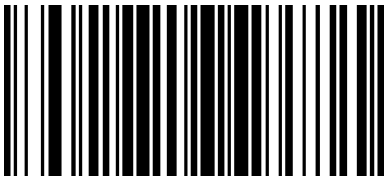
018909

Standard 2 of 5 Minimum Length 9



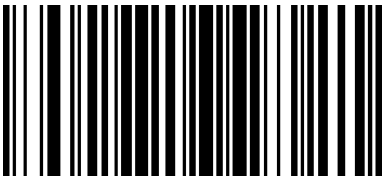
01890A

Standard 2 of 5 Minimum Length 10



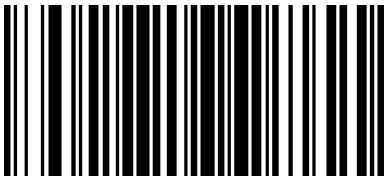
01890B

Standard 2 of 5 Minimum Length 11



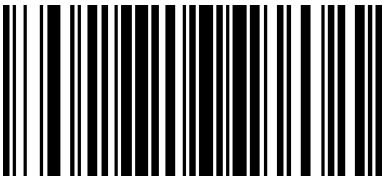
01890C

Standard 2 of 5 Minimum Length 12



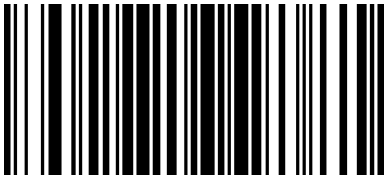
01890D

Standard 2 of 5 Minimum Length 13



01890E

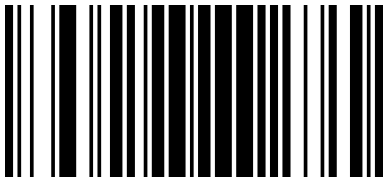
Standard 2 of 5 Minimum Length 14



01890F

Standard 2 of 5 Minimum Length 15

To confirm the configuration, scan “Exit Setup”.



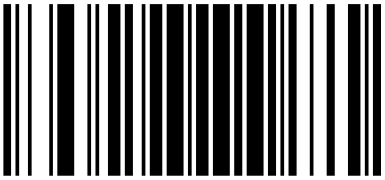
09991

Exit Setup

# Codabar (NW-7)

## *Codabar - ON/OFF*

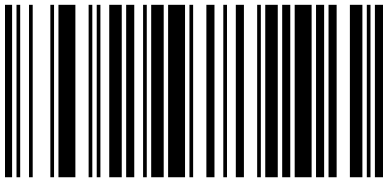
To apply the configuration correctly, first scan “Enter Setup”.



09990

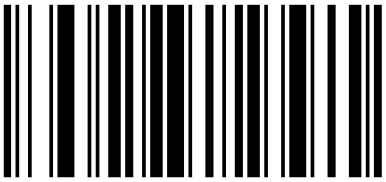
Enter Setup

Then scan your preferred setting.



00850

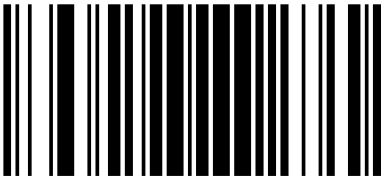
Codabar Off



00851

Codabar On**

To confirm the configuration, scan “Exit Setup”.



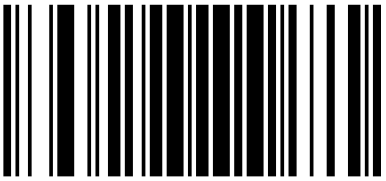
09991

Exit Setup

### *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.

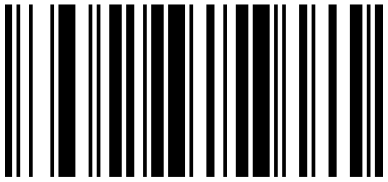
To apply the configuration correctly, first scan “Enter Setup”.



09990

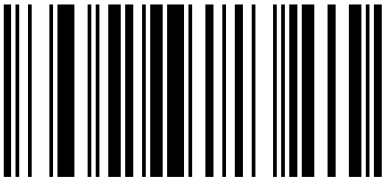
Enter Setup

Then scan your preferred setting.



00860

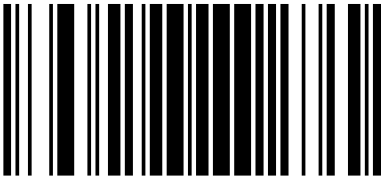
Transmit Start/End Characters Off**



00861

Transmit Start/End Characters On

To confirm the configuration, scan “Exit Setup”.



09991

Exit Setup

### *Number of Recognized Characters (Minimum Limit)*

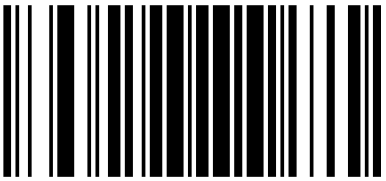
You can limit Codabar decoding by minimum data length. The default allowed minimum is 1 character, with a maximum settable minimum of 15 characters. There is no maximum length setting for Codabar. The scanner can be set to read only Codabar barcodes whose length is equal to or greater than the minimum value.

Scan a preset code from the section below or generate your own Code 128 barcode using FNC3 + the setting combination, where XX is the minimum length in hexadecimal (range 01–0F, decimal 1–15). See the Decimal to Hexadecimal Conversion Table in the Appendix to find the hexadecimal value.

- **Format:** FNC3 + 0187XX
  - e.g., minimum length of 2 characters (hex 02): FNC3 + 018702
  - e.g., minimum length of 11 characters (hex 0B): FNC3 + 01870B

**Setting Steps:**

1. Scan "Enter Setup".

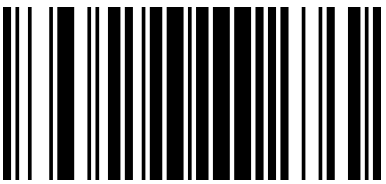


09990

Enter Setup

2. Scan the "Codabar Minimum Length" barcode for your chosen value (preset below, or your generated Code 128 barcode).

3. Scan "Exit Setup".

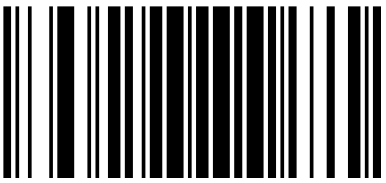


09991

Exit Setup

**Codabar Minimum Length Presets**

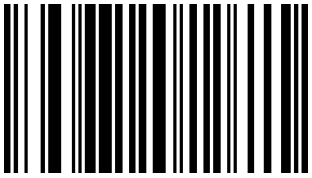
To apply the configuration correctly, first scan “Enter Setup”.



09990

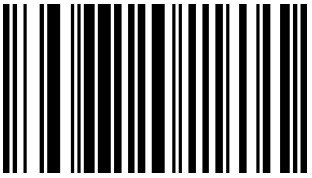
Enter Setup

Then scan the barcode for the preferred setting.



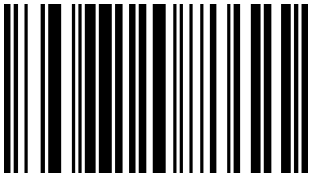
018701

Codabar Minimum Length 1



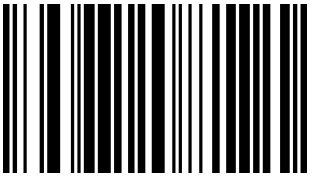
018702

Codabar Minimum Length 2



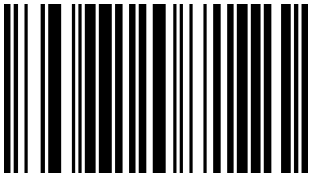
018703

Codabar Minimum Length 3



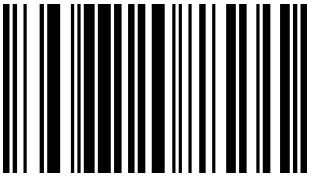
018704

Codabar Minimum Length 4**



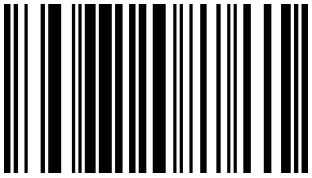
018705

Codabar Minimum Length 5



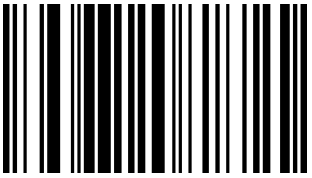
018706

Codabar Minimum Length 6



018707

Codabar Minimum Length 7



018708

Codabar Minimum Length 8



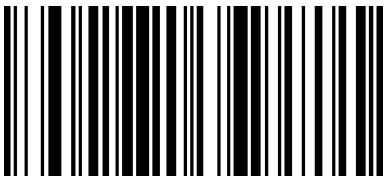
018709

Codabar Minimum Length 9



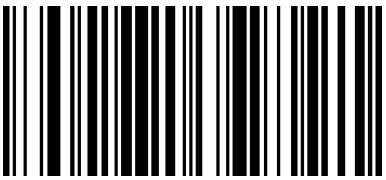
01870A

Codabar Minimum Length 10



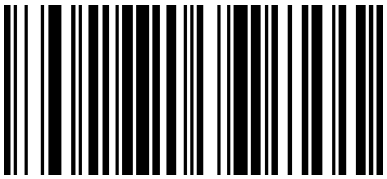
01870B

Codabar Minimum Length 11



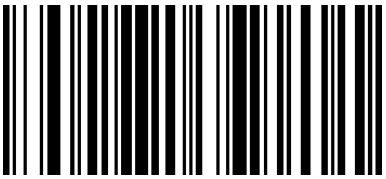
01870C

Codabar Minimum Length 12



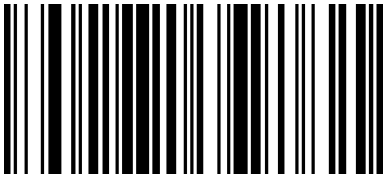
01870D

Codabar Minimum Length 13



01870E

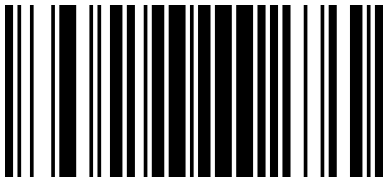
Codabar Minimum Length 14



01870F

Codabar Minimum Length 15

To confirm the configuration, scan “Exit Setup”.



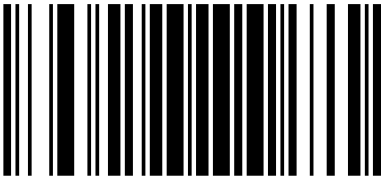
09991

Exit Setup

# Plessey

## *Plessey - ON/OFF*

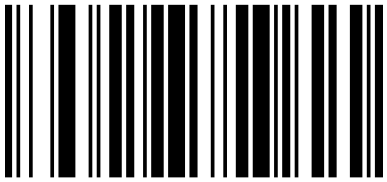
To apply the configuration correctly, first scan “Enter Setup”.



09990

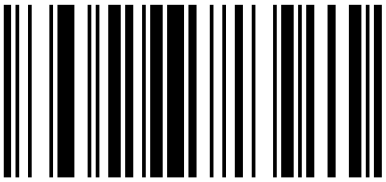
Enter Setup

Then scan your preferred setting.



01160

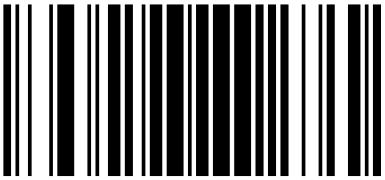
Plessey Off



01161

Plessey On**

To confirm the configuration, scan “Exit Setup”.



09991

Exit Setup

### *Number of Recognized Characters (Minimum Limit)*

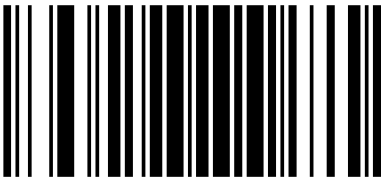
You can limit Plessey decoding by minimum data length. The default allowed minimum is 1 character, with a maximum settable minimum of 15 characters. There is no maximum length setting for Plessey. The scanner can be set to read only Plessey barcodes whose length is equal to or greater than the minimum value.

Scan a preset code from the section below or generate your own Code 128 barcode using FNC3 + the setting combination, where XX is the minimum length in hexadecimal (range 01–0F, decimal 1–15). See the Decimal to Hexadecimal Conversion Table in the Appendix to find the hexadecimal value.

- **Format:** FNC3 + 0119XX
  - e.g., minimum length of 2 characters (hex 02): FNC3 + 011902
  - e.g., minimum length of 11 characters (hex 0B): FNC3 + 01190B

**Setting Steps:**

1. Scan "Enter Setup".

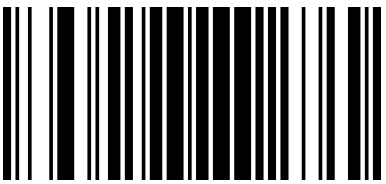


09990

Enter Setup

2. Scan the "Plessey Minimum Length" barcode for your chosen value (preset below, or your generated Code 128 barcode).

3. Scan "Exit Setup".

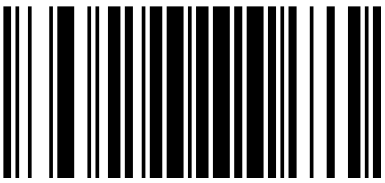


09991

Exit Setup

**Plessey Minimum Length Presets**

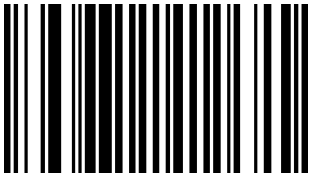
To apply the configuration correctly, first scan “Enter Setup”.



09990

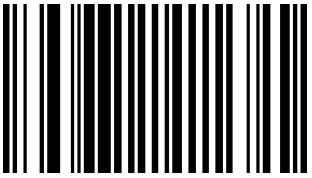
Enter Setup

Then scan the barcode for the preferred setting.



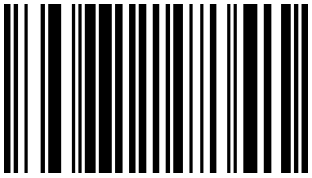
011901

Plessey Minimum Length 1



011902

Plessey Minimum Length 2



011903

Plessey Minimum Length 3



011904

Plessey Minimum Length 4**



011905

Plessey Minimum Length 5



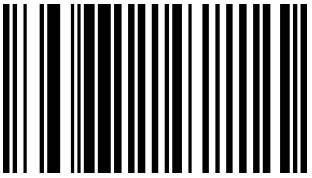
011906

Plessey Minimum Length 6



011907

Plessey Minimum Length 7



011908

Plessey Minimum Length 8



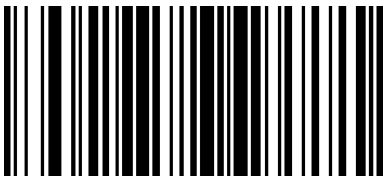
011909

Plessey Minimum Length 9



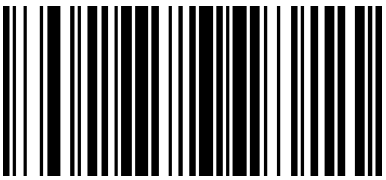
01190A

Plessey Minimum Length 10



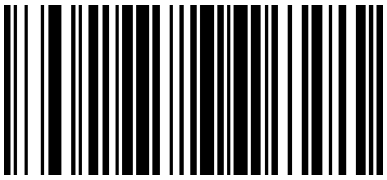
01190B

Plessey Minimum Length 11



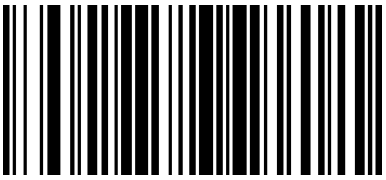
01190C

Plessey Minimum Length 12



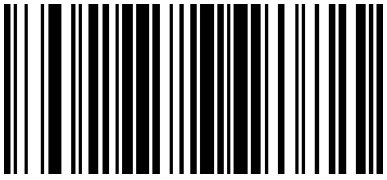
01190D

Plessey Minimum Length 13



01190E

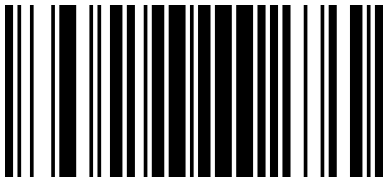
Plessey Minimum Length 14



01190F

Plessey Minimum Length 15

To confirm the configuration, scan “Exit Setup”.



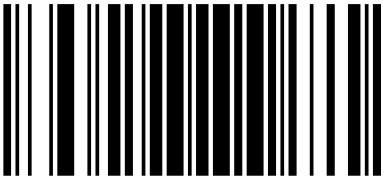
09991

Exit Setup

# MSI Plessey

## *MSI Plessey - ON/OFF*

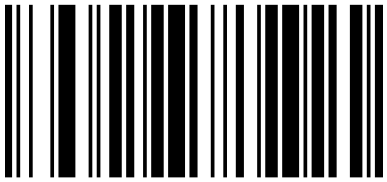
To apply the configuration correctly, first scan “Enter Setup”.



09990

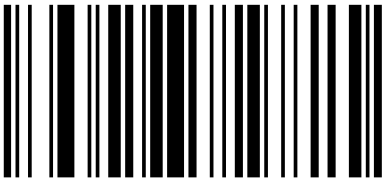
Enter Setup

Then scan your preferred setting.



01150

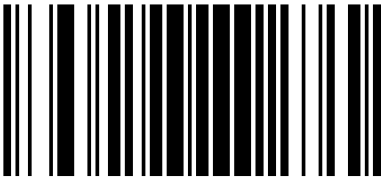
MSI Plessey Off



01151

MSI Plessey On**

To confirm the configuration, scan “Exit Setup”.



09991

Exit Setup

### *Number of Recognized Characters (Minimum Limit)*

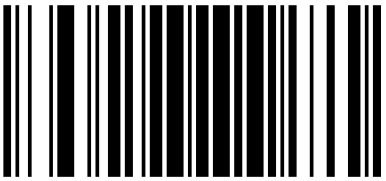
You can limit MSI Plessey decoding by minimum data length. The default allowed minimum is 1 character, with a maximum settable minimum of 15 characters. There is no maximum length setting for MSI Plessey. The scanner can be set to read only MSI Plessey barcodes whose length is equal to or greater than the minimum value.

Scan a preset code from the section below or generate your own Code 128 barcode using FNC3 + the setting combination, where XX is the minimum length in hexadecimal (range 01–0F, decimal 1–15). See the Decimal to Hexadecimal Conversion Table in the Appendix to find the hexadecimal value.

- **Format:** FNC3 + 0118XX
  - e.g., minimum length of 2 characters (hex 02): FNC3 + 011802
  - e.g., minimum length of 11 characters (hex 0B): FNC3 + 01180B

**Setting Steps:**

1. Scan "Enter Setup".

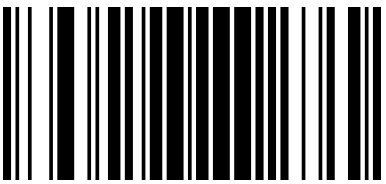


09990

Enter Setup

2. Scan the "MSI Plessey Minimum Length" barcode for your chosen value (preset below, or your generated Code 128 barcode).

3. Scan "Exit Setup".

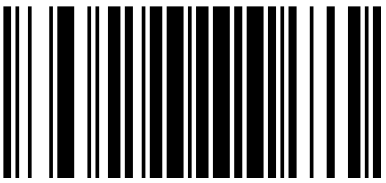


09991

Exit Setup

**MSI Plessey Minimum Length Presets**

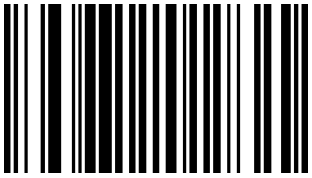
To apply the configuration correctly, first scan “Enter Setup”.



09990

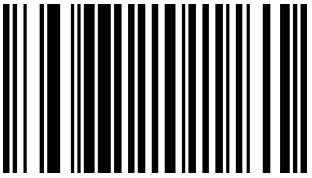
Enter Setup

Then scan the barcode for the preferred setting.



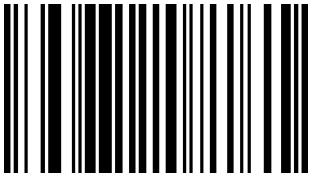
011801

MSI Plessey Minimum Length 1



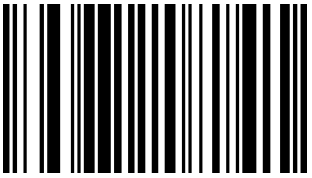
011802

MSI Plessey Minimum Length 2



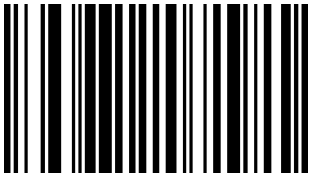
011803

MSI Plessey Minimum Length 3



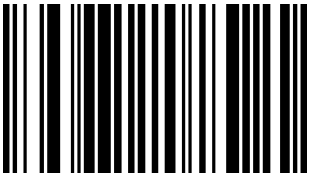
011804

MSI Plessey Minimum Length 4**



011805

MSI Plessey Minimum Length 5



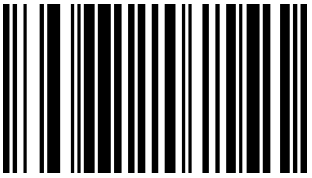
011806

MSI Plessey Minimum Length 6



011807

MSI Plessey Minimum Length 7



011808

MSI Plessey Minimum Length 8



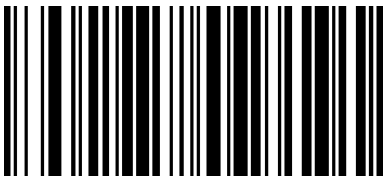
011809

MSI Plessey Minimum Length 9



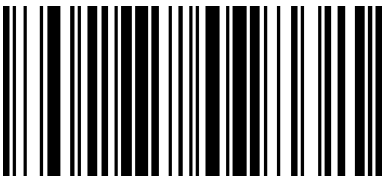
01180A

MSI Plessey Minimum Length 10



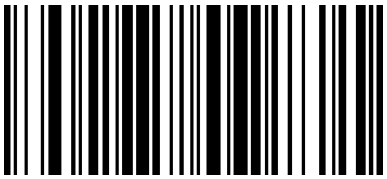
01180B

MSI Plessey Minimum Length 11



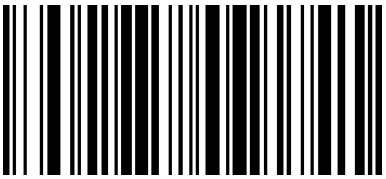
01180C

MSI Plessey Minimum Length 12



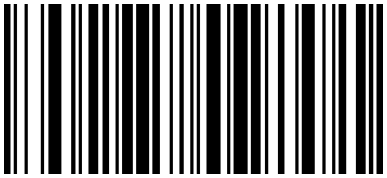
01180D

MSI Plessey Minimum Length 13



01180E

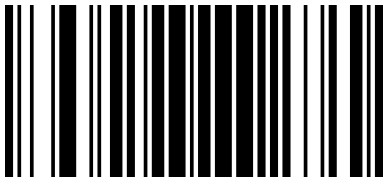
MSI Plessey Minimum Length 14



01180F

MSI Plessey Minimum Length 15

To confirm the configuration, scan “Exit Setup”.



09991

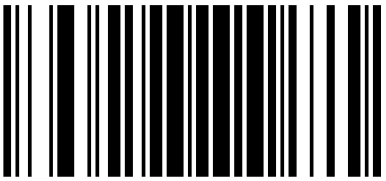
Exit Setup

# GS1 DataBar Limited

*Note: GS1 DataBar Limited is also known as RSS Limited.*

## *GS1 DataBar Limited – ON/OFF*

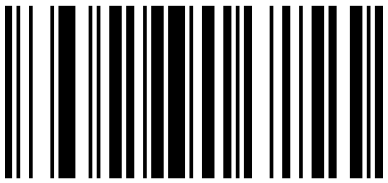
To apply the configuration correctly, first scan “Enter Setup”.



09990

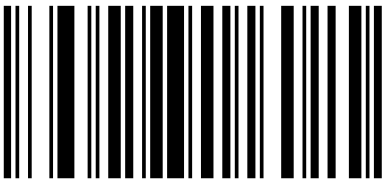
Enter Setup

Then scan your preferred setting.



01770

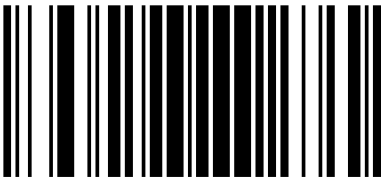
GS1 DataBar Limited Off



01771

GS1 DataBar Limited On**

To confirm the configuration, scan “Exit Setup”.



09991

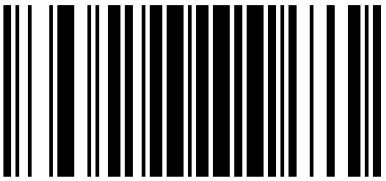
Exit Setup

# GS1 DataBar-14

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

## *GS1 DataBar-14 – ON/OFF*

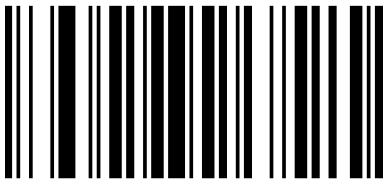
To apply the configuration correctly, first scan “Enter Setup”.



09990

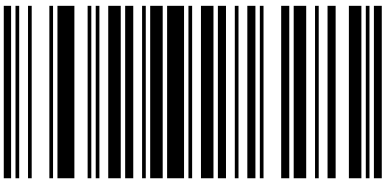
Enter Setup

Then scan your preferred setting.



01670

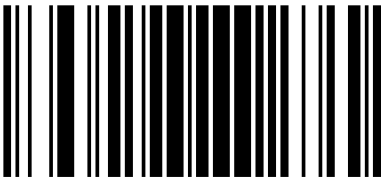
GS1 DataBar-14 Off



01671

GS1 DataBar-14 On**

To confirm the configuration, scan “Exit Setup”.



09991

Exit Setup

# 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.




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.

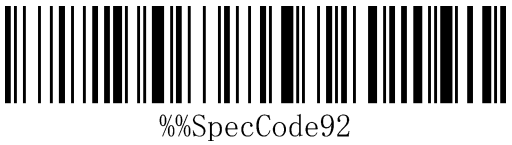
# Setting Custom Default Settings

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.

**WARNING!** Once configured, the new custom defaults cannot be reverted to the factory settings by using the “Restore Wireless Parameters” function.




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



%%SpecCodeA9

Virtual Bluetooth Mode



%%SpecCodeAA

Bluetooth HID Mode



%%SpecCodeAB

Bluetooth SPP Mode



%%SpecCodeAC

Bluetooth BLE Mode

2. Scan the “Pair with Receiver” barcode. The blue 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

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

2.4G Mode

2. Scan the “Pair with USB Dongle Receiver” barcode and enter the pairing state.
a. The blue 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

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)**

*This method must be enabled first. See "Long Press 8 Seconds to Enter Bluetooth HID Search" below.*

1. Start the scanner and press the button for 8 seconds to enter Bluetooth HID Matching Mode.
    a. The blue LED will flash alternately.
2. Enable Bluetooth on the target device and search for “ScanAvengerHID”.
3. Select “ScanAvengerHID” to pair.
4. Upon successful pairing, you will hear a beep, and the blue LED will remain solid.

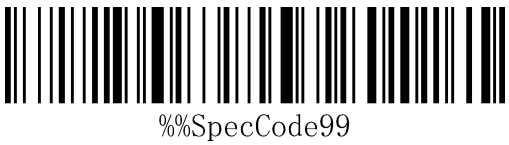
**Method 2: Manual Setup**

1. Scan the “Bluetooth HID Mode” barcode to set the scanner to Bluetooth HID mode




Bluetooth HID Mode

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




Pair with Receiver

3. Turn on Bluetooth and search for “ScanAvengerHID” in your device’s Bluetooth settings.

4. Select “ScanAvengerHID“ 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



%%SpecCode78

Disable Long Press 8 Seconds to Enter Bluetooth HID Search**

### *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.




Bluetooth SPP Mode

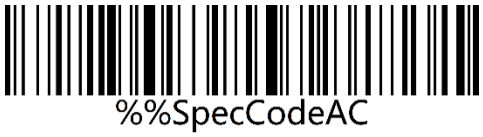
   a. The blue LED will start flashing, indicating pairing mode.
   b. The device will automatically switch to SPP mode and enter the broadcast state.
   c. The device name “ScanAvengerSPP” will be available for selection in the SPP software.
2. Search for “ScanAvengerSPP” in the SPP transmission software.
3. Select “ScanAvengerSPP” 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.




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 “ScanAvengerBLE” will be available for selection in the BLE software.
2. Search for “ScanAvengerBLE” in the BLE transmission software.
3. Select “ScanAvengerBLE” 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




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




Sample Bluetooth Name “Scanner”

**Read Bluetooth Name**

To check the current Bluetooth name, scan the “Read Bluetooth Name” barcode.




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.



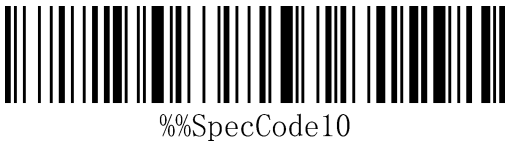

Battery Level Display

# 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.

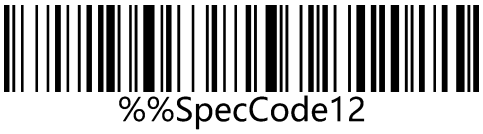



Trigger Upload Mode**

## *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.

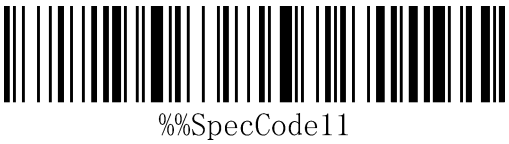
**Note**: Not recommended for Bluetooth HID, SPP, or BLE.




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.




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.




Data Upload

***Total 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.




Total Barcodes Scanned

***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.




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.




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




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.




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):




Fast**




Medium




Low




Very Low

If there are any issues using this feature in USB Dongle (2.4G) mode, scan the code below.



## 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



%%SpecCode77

Turn On Vibration**

## 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



%%SpecCode31

Sleep Interval 1 min



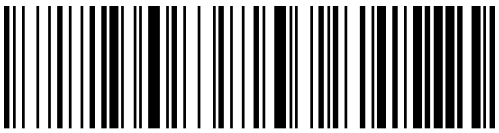
%%SpecCode32

Sleep Interval 2 min



%%SpecCode33

Sleep Interval 5 min



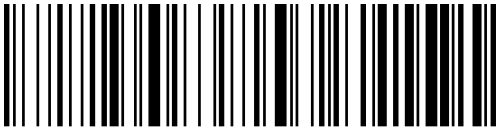
%%SpecCode34

Sleep Interval 10 min



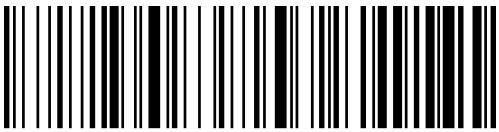
%%SpecCode35

Sleep Interval 30 min**



%%SpecCode36

Never Sleep



%%SpecCode38

Sleep Immediately

## 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)):




English (US)**




German




French




Spanish




Italian




Japanese




Belgian French




Portuguese




English (UK)




German IOS keyboard




Brazilian Portuguese




Russian




Czech




Italy 142




Q (Turkey Q)




F (Turkey F)




Sweden / Finland




Mexican Spanish




Denmark




Written Norwegian




Croatian / Serbian




Swiss German




Swiss French




Dutch




Hungarian




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.

**Important:**

- This feature is only available on SA1000, SA3500, and SA3600 units from a specific production batch onward. Contact ScanAvenger support with your serial number to verify compatibility.
- 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:




Timestamp Prefix




Timestamp Suffix

To remove the timestamp, scan the code below:




Remove Timestamp

To output current time, scan the code below:



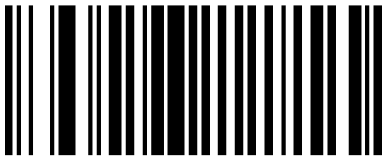

Output Current Time

# User Default and Factory Reset

## User Default Settings

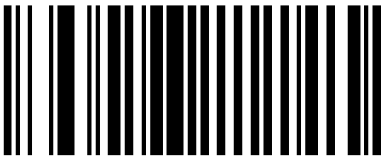
You can save your current configuration as a custom default. Once saved, this configuration persists even after a power failure, and it will be used in place of the factory defaults whenever you restore defaults.

- **Save Current Configuration as User Default:** marks the current configuration to be saved as the new user default.
- **Restore User Default Settings:** confirms and saves the marked configuration, overwriting any previously saved user default.



00000

Set User Default Settings



00001

Save User Default Settings

Setting steps:

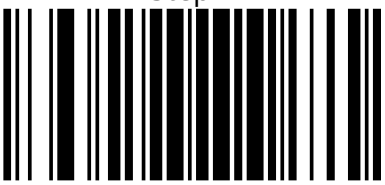
1. Scan "Enter Setup" found in the Enter/Exit Setup Mode Appendix
2. Scan the barcode(s) for the settings you want to save
3. Scan "Set User Default Settings"
4. Scan "Save User Default Settings"
5. Scan "Exit Setup" found in the Enter/Exit Setup Mode Appendix

**Note:** Steps 3 and 4 must be scanned together, in sequence, to save the current configuration as the new default. After doing so, scanning "Restore Default Settings" 000B0 will restore this saved configuration instead of the original factory 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



09990

Enter Setup

Step 2




000B0

Restore User Default Settings for Scanning Engine

Step 3



09991

Exit Setup

Step 2



%%SpecCode93

Restore Factory Default for Wireless Connection Engine

Step 3



%%SpecCode79

Step 4




Step 5



Step 6




Step 7



Step 8




Step 9



Step 10




Step 11

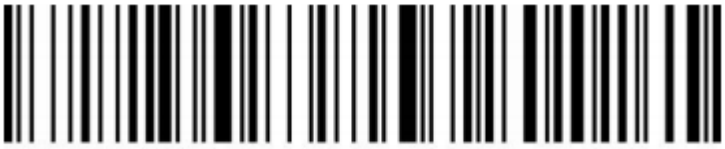


Step 12



%%SpecCodeA8

Step 13



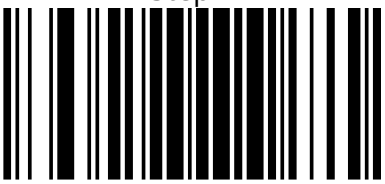
%%SpecCode99

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 “ScanAvengerHID” 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



09990

Enter Setup

Step 2



000B0

000B0

Restore User Default Settings for Scanning Engine

Step 3



09991

Exit Setup

Step 2



%%SpecCode93

Restore Factory Default for Wireless Connection Engine

Step 3



%%SpecCode79

Step 4




Step 5



Step 6




Step 7



Step 8




Step 9



Step 10




Step 11



Step 12




Step 13




3. Pair the Scanner:
    a. The scanner light should start flashing blue, indicating it's ready to pair.
    b. Go to Bluetooth Settings and select “ScanAvengerHID” 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) |

| | | |
|---|---|---|
| **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 |
|---|---|---|---|---|---|
| 32 | 20 | <SPACE> | 91 | 5B | [ |
| 33 | 21 | ! | 92 | 5C | \ |
| 34 | 22 | “ | 93 | 5D | ] |
| 35 | 23 | # | 94 | 5E | ^ |
| 36 | 24 | $ | 95 | 5F | _ |
| 37 | 25 | % | 96 | 60 | ` |
| 38 | 26 | & | 97 | 61 | a |
| 39 | 27 | ‘ | 98 | 62 | b |
| 40 | 28 | ( | 99 | 63 | c |
| 41 | 29 | ) | 100 | 64 | d |
| 42 | 2A | * | 101 | 65 | e |
| 43 | 2B | + | 102 | 66 | f |
| 44 | 2C | , | 103 | 67 | g |
| 45 | 2D | - | 104 | 68 | h |
| 46 | 2E | . | 105 | 69 | i |
| 47 | 2F | / | 106 | 6A | j |
| 48 | 30 | 0 | 107 | 6B | k |
| 49 | 31 | 1 | 108 | 6C | l |
| 50 | 32 | 2 | 109 | 6D | m |
| 51 | 33 | 3 | 110 | 6E | n |
| 52 | 34 | 4 | 111 | 6F | o |
| 53 | 35 | 5 | 112 | 70 | p |
| 54 | 36 | 6 | 113 | 71 | q |
| 55 | 37 | 7 | 114 | 72 | r |

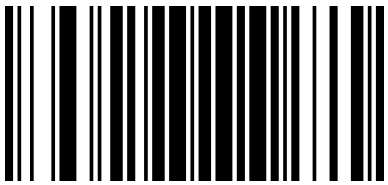
| 56 | 38 | 8 | 115 | 73 | s |
|---|---|---|---|---|---|
| 57 | 39 | 9 | 116 | 74 | t |
| 58 | 3A | : | 117 | 75 | u |
| 59 | 3B | ; | 118 | 76 | v |
| 60 | 3C | < | 119 | 77 | w |
| 61 | 3D | = | 120 | 78 | x |
| 62 | 3E | > | 121 | 79 | y |
| 63 | 3F | ? | 122 | 7A | z |
| 64 | 40 | @ | 123 | 7B | { |
| 65 | 41 | A | 124 | 7C | \| |
| 66 | 42 | B | 125 | 7D | } |
| 67 | 43 | C | 126 | 7E | ~ |
| 68 | 44 | D | 127 | 7F | DEL |
| 69 | 45 | E | 128 | N/A | F1 |
| 70 | 46 | F | 129 | N/A | F2 |
| 71 | 47 | G | 130 | N/A | F3 |
| 72 | 48 | H | 131 | N/A | F4 |
| 73 | 49 | I | 132 | N/A | F5 |
| 74 | 4A | J | 133 | N/A | F6 |
| 75 | 4B | K | 134 | N/A | F7 |
| 76 | 4C | L | 135 | N/A | F8 |
| 77 | 4D | M | 136 | N/A | F9 |
| 78 | 4E | N | 137 | N/A | F10 |
| 79 | 4F | O | 138 | N/A | F11 |
| 80 | 50 | P | 139 | N/A | F12 |
| 81 | 51 | Q | 140 | N/A | Insert |
| 82 | 52 | R | 141 | N/A | Home |

| | | | | | |
|---|---|---|---|---|---|
| 83 | 53 | S | 142 | N/A | Page Up |
| 84 | 54 | T | 143 | N/A | Delete |
| 85 | 55 | U | 144 | N/A | END |
| 86 | 56 | V | 145 | N/A | Page Arrow |
| 87 | 57 | W | 146 | N/A | Right Arrow |
| 88 | 58 | X | 147 | N/A | Left Arrow |
| 89 | 59 | Y | 148 | N/A | Down Arrow |
| 90 | 5A | Z | 149 | N/A | Up Arrow |

# Appendix - Data and Edit Barcodes

## *Appendix - Enter/Exit Setup Mode (Basic Codes Specific)*

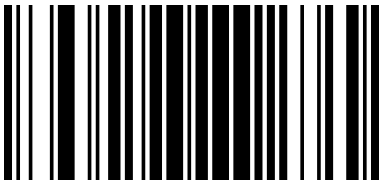
Some settings, including prefix/suffix configuration, digit hiding, and other basic configuration codes, require scanning the “Enter Setup” code below to apply the configuration.



09990

Enter Setup

To save your settings, scan the “Exit Setup” code below.



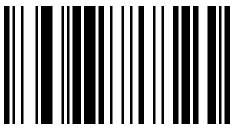
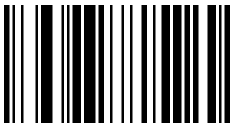
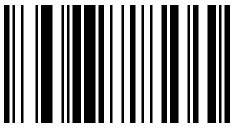
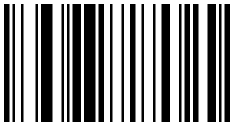
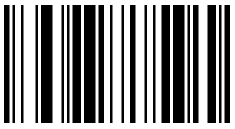
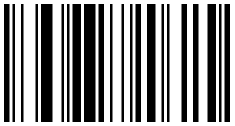
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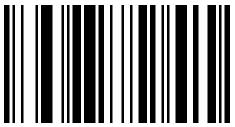
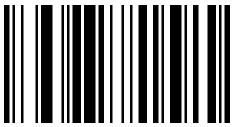
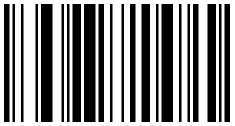
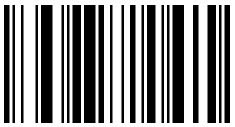
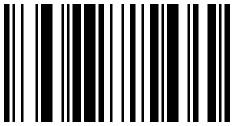
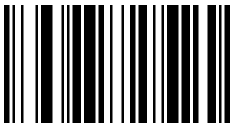
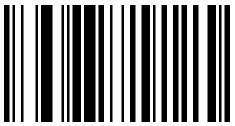
Exit Setup

# Appendix - Characters' Barcodes for Basic Codes

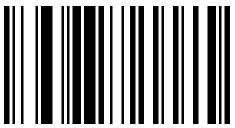
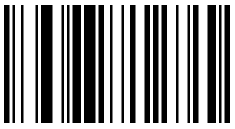
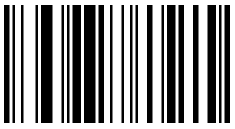
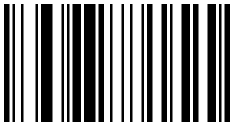
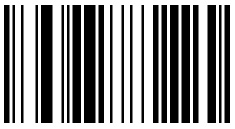
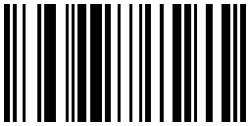
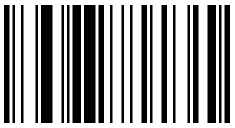
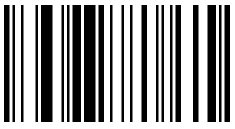
To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

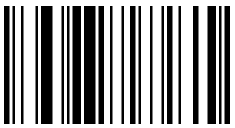
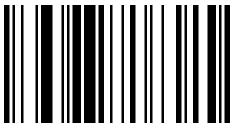
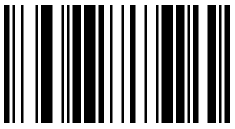
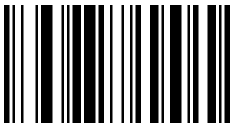
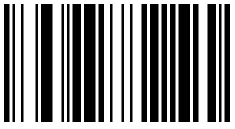
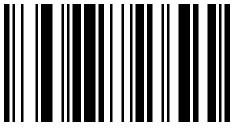
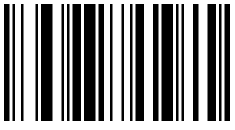
| Decimal Value | Hexadecimal Value | Character | Setup Code |
|---|---|---|---|
| 1 | 01 | SOH | 1001 |
| 2 | 02 | STX | 1002 |
| 3 | 03 | ETX | 1003 |
| 4 | 04 | EOT | 1004 |
| 5 | 05 | ENQ | 1005 |
| 6 | 06 | ACK | 1006 |

| | | | |
|---|---|---|---|
| 7 | 07 | BEL | <br>1007 |
| 8 | 08 | Back Space | <br>1008 |
| 9 | 09 | Tab (HT) | <br>1009 |
| 10 | 0A | LF | <br>1010 |
| 11 | 0B | VT | <br>1011 |
| 12 | 0C | FF | <br>1012 |
| 13 | 0D | CR | <br>1013 |
| 14 | 0E | SO | <br>1014 |

| | | | |
|---|---|---|---|
| 15 | 0F | SI |  1015 |
| 16 | 10 | DEL |  1016 |
| 17 | 11 | DC1 |  1017 |
| 18 | 12 | DC2 |  1018 |
| 19 | 13 | DC3 |  1019 |
| 20 | 14 | DC4 |  1020 |
| 21 | 15 | NAK |  1021 |
| 22 | 16 | SYN |  1022 |

| | | | |
|---|---|---|---|
| 23 | 17 | ETB | 1023 |
| 24 | 18 | CAN | 1024 |
| 25 | 19 | EM | 1025 |
| 26 | 1A | SUB | 1026 |
| 27 | 1B | Esc | 1027 |
| 28 | 1C | FS | 1028 |
| 29 | 1D | GS | 1029 |
| 30 | 1E | RS | 1030 |

| | | | |
|---|---|---|---|
| 31 | 1F | US |  1031 |
| 32 | 20 | Space |  1032 |
| 33 | 21 | ! |  1033 |
| 34 | 22 | “ |  1034 |
| 35 | 23 | # |  1035 |
| 36 | 24 | $ |  1036 |
| 37 | 25 | % |  1037 |
| 38 | 26 | & |  1038 |

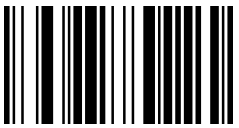
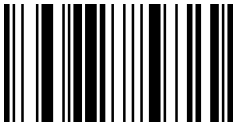
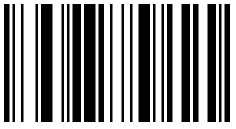
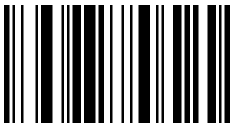
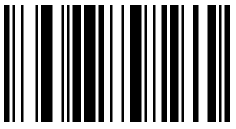
| | | | |
|---|---|---|---|
| 39 | 27 | ' |  1039 |
| 40 | 28 | ( |  1040 |
| 41 | 29 | ) |  1041 |
| 42 | 2A | * |  1042 |
| 43 | 2B | + |  1043 |
| 44 | 2C | , |  1044 |
| 45 | 2D | - |  1045 |
| 46 | 2E | . |  1046 |

| | | | |
|---|---|---|---|
| 47 | 2F | / | 1047 |
| 48 | 30 | 0 | 1048 |
| 49 | 31 | 1 | 1049 |
| 50 | 32 | 2 | 1050 |
| 51 | 33 | 3 | 1051 |
| 52 | 34 | 4 | 1052 |
| 53 | 35 | 5 | 1053 |
| 54 | 36 | 6 | 1054 |

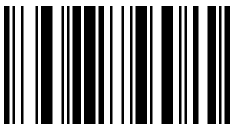
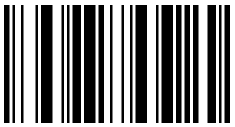
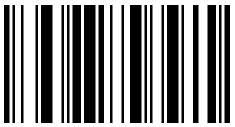
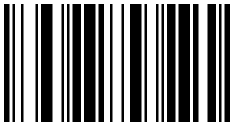
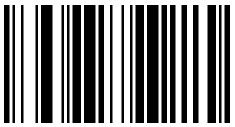
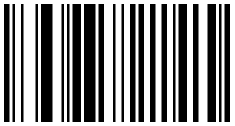
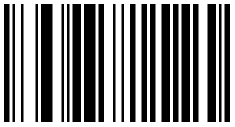
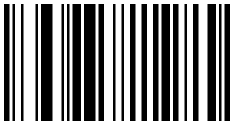
| | | | |
|---|---|---|---|
| 55 | 37 | 7 | 1055 |
| 56 | 38 | 8 | 1056 |
| 57 | 39 | 9 | 1057 |
| 58 | 3A | : | 1058 |
| 59 | 3B | ; | 1059 |
| 60 | 3C | < | 1060 |
| 61 | 3D | = | 1061 |
| 62 | 3E | > | 1062 |

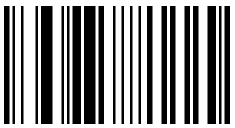
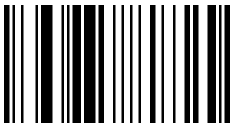
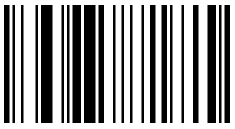
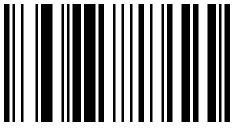
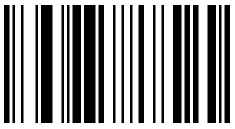
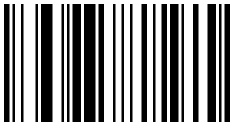
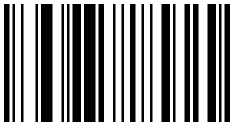
| | | | |
|---|---|---|---|
| 63 | 3F | ? | 1063 |
| 64 | 40 | @ | 1064 |
| 65 | 41 | A | 1065 |
| 66 | 42 | B | 1066 |
| 67 | 43 | C | 1067 |
| 68 | 44 | D | 1068 |
| 69 | 45 | E | 1069 |
| 70 | 46 | F | 1070 |

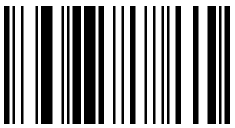
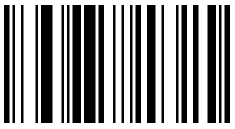
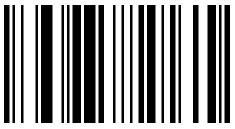
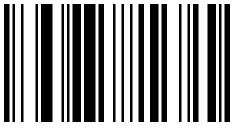
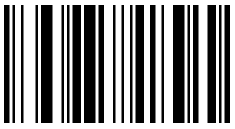
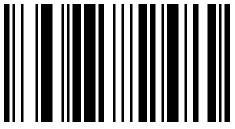
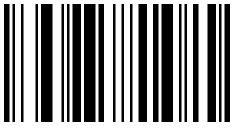
| | | | |
|---|---|---|---|
| 71 | 47 | G | 1071 |
| 72 | 48 | H | 1072 |
| 73 | 49 | I | 1073 |
| 74 | 4A | J | 1074 |
| 75 | 4B | K | 1075 |
| 76 | 4C | L | 1076 |
| 77 | 4D | M | 1077 |
| 78 | 4E | N | 1078 |

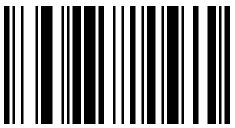
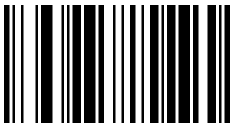
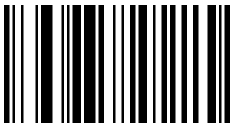
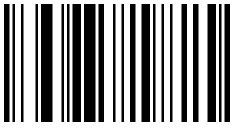
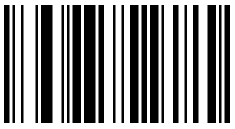
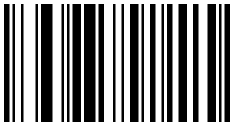
| | | | |
|---|---|---|---|
| 79 | 4F | O |  1079 |
| 80 | 50 | P |  1080 |
| 81 | 51 | Q |  1081 |
| 82 | 52 | R |  1082 |
| 83 | 53 | S |  1083 |
| 84 | 54 | T |  1084 |
| 85 | 55 | U |  1085 |
| 86 | 56 | V |  1086 |

| | | | |
|---|---|---|---|
| 87 | 57 | W | 1087 |
| 88 | 58 | X | 1088 |
| 89 | 59 | Y | 1089 |
| 90 | 5A | Z | 1090 |
| 91 | 5B | [ | 1091 |
| 92 | 5C | \ | 1092 |
| 93 | 5D | ] | 1093 |
| 94 | 5E | ^ | 1094 |

| | | | |
|---|---|---|---|
| 95 | 5F | _ |  1095 |
| 96 | 60 | ` |  1096 |
| 97 | 61 | a |  1097 |
| 98 | 62 | b |  1098 |
| 99 | 63 | c |  1099 |
| 100 | 64 | d |  1100 |
| 101 | 65 | e |  1101 |
| 102 | 66 | f |  1102 |

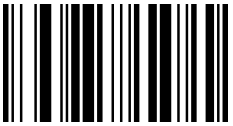
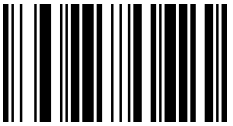
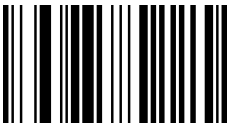
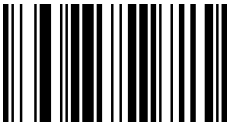
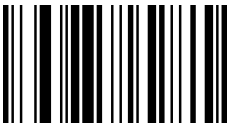
| | | | |
|---|---|---|---|
| 103 | 67 | g |  1103 |
| 104 | 68 | h |  1104 |
| 105 | 69 | i |  1105 |
| 106 | 6A | j |  1106 |
| 107 | 6B | k |  1107 |
| 108 | 6C | l |  1108 |
| 109 | 6D | m |  1109 |
| 110 | 6E | n |  1110 |

| | | | |
|---|---|---|---|
| 111 | 6F | o | <br>1111 |
| 112 | 70 | p | <br>1112 |
| 113 | 71 | q | <br>1113 |
| 114 | 72 | r | <br>1114 |
| 115 | 73 | s | <br>1115 |
| 116 | 74 | t | <br>1116 |
| 117 | 75 | u | <br>1117 |
| 118 | 76 | v | <br>1118 |

| | | | |
|---|---|---|---|
| 119 | 77 | w | <br>1119 |
| 120 | 78 | x | <br>1120 |
| 121 | 79 | y | <br>1121 |
| 122 | 7A | z | <br>1122 |
| 123 | 7B | { | <br>1123 |
| 124 | 7C | \| | <br>1124 |
| 125 | 7D | } | <br>1125 |
| 126 | 7E | ~ | <br>1126 |

| | | | |
|---|---|---|---|
| 127 | 7F | DEL | 1127 |
| 128 | N/A | F1 | 1128 |
| 129 | N/A | F2 | 1129 |
| 130 | N/A | F3 | 1130 |
| 131 | N/A | F4 | 1131 |
| 132 | N/A | F5 | 1132 |
| 133 | N/A | F6 | 1133 |
| 134 | N/A | F7 | 1134 |

| | | | |
|---|---|---|---|
| 135 | N/A | F8 | 1135 |
| 136 | N/A | F9 | 1136 |
| 137 | N/A | F10 | 1137 |
| 138 | N/A | F11 | 1138 |
| 139 | N/A | F12 | 1139 |
| 140 | N/A | Insert | 1140 |
| 141 | N/A | Home | 1141 |
| 142 | N/A | Page Up | 1142 |

| | | | |
|---|---|---|---|
| 143 | N/A | Delete | <br>1143 |
| 144 | N/A | END | <br>1144 |
| 145 | N/A | Page Arrow | <br>1145 |
| 146 | N/A | Right Arrow | <br>1146 |
| 147 | N/A | Left Arrow | <br>1147 |
| 148 | N/A | Down Arrow | <br>1148 |
| 149 | N/A | Up Arrow | <br>1149 |

# Appendix - Characters' Barcodes for Special Codes

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

| Decimal Value | Hexadecimal Value | Character | Setup Code |
|---|---|---|---|
| 1 | 01 | SOH (Character set 3 needs to be enabled) |  %%01 |
| 2 | 02 | STX (Character set 3 needs to be enabled) |  %%02 |
| 3 | 03 | ETX (Character set 3 needs to be enabled) |  %%03 |
| 4 | 04 | EOT (Character set 3 needs to be enabled) |  %%04 |
| 5 | 05 | ENQ (Character set 3 needs to be enabled) |  %%05 |
| 6 | 06 | ACK (Character set 3 needs to be enabled) |  %%06 |
| 7 | 07 | BEL (Character set 3 needs to be enabled) |  %%07 |

| | | | |
|---|---|---|---|
| 8 | 08 | Back Space |  %%08 |
| 9 | 09 | Tab (HT) |  %%09 |
| 10 | 0A | LF |  %%0A |
| 11 | 0B | NULL (can be used to set ″VT″ with Character Set 3) |  %%0B |
| 12 | 0C | NULL (can be used to set ″FF″ with Character Set 3) |  %%0C |
| 13 | 0D | CR |  %%0D |
| 14 | 0E | F1 |  %%0E |
| 15 | 0F | F2 |  %%0F |

| | | | |
|---|---|---|---|
| 16 | 10 | F3 | %%10 |
| 17 | 11 | F4 | %%11 |
| 18 | 12 | F5 | %%12 |
| 19 | 13 | F6 | %%13 |
| 20 | 14 | F7 | %%14 |
| 21 | 15 | F8 | %%15 |
| 22 | 16 | F9 | %%16 |
| 23 | 17 | F10 | %%17 |

| | | | |
|---|---|---|---|
| 24 | 18 | F11 | %%18 |
| 25 | 19 | F12 | %%19 |
| 26 | 1A | NULL (can be used to set ″SUB″ with Character Set 3) | %%1A |
| 27 | 1B | Esc | %%1B |
| 28 | 1C | FS | %%1C |
| 29 | 1D | GS | %%1D |
| 30 | 1E | NULL (can be used to set ″RS″ with Character Set 3) | %%1E |
| 31 | 1F | NULL (can be used to set ″US″ with Character Set 3) | %%1F |

| | | | |
|---|---|---|---|
| 32 | 20 | Space | %%20 |
| 33 | 21 | ! | %%21 |
| 34 | 22 | “ | %%22 |
| 35 | 23 | # | %%23 |
| 36 | 24 | $ | %%24 |
| 37 | 25 | % | %%25 |
| 38 | 26 | & | %%26 |
| 39 | 27 | ' | %%27 |

| | | | |
|---|---|---|---|
| 40 | 28 | ( | %%28 |
| 41 | 29 | ) | %%29 |
| 42 | 2A | * | %%2A |
| 43 | 2B | + | %%2B |
| 44 | 2C | , | %%2C |
| 45 | 2D | - | %%2D |
| 46 | 2E | . | %%2E |
| 47 | 2F | / | %%2F |

| | | | |
|---|---|---|---|
| 48 | 30 | 0 | %%30 |
| 49 | 31 | 1 | %%31 |
| 50 | 32 | 2 | %%32 |
| 51 | 33 | 3 | %%33 |
| 52 | 34 | 4 | %%34 |
| 53 | 35 | 5 | %%35 |
| 54 | 36 | 6 | %%36 |
| 55 | 37 | 7 | %%37 |

| | | | |
|---|---|---|---|
| 56 | 38 | 8 | %%38 |
| 57 | 39 | 9 | %%39 |
| 58 | 3A | : | %%3A |
| 59 | 3B | ; | %%3B |
| 60 | 3C | < | %%3C |
| 61 | 3D | = | %%3D |
| 62 | 3E | > | %%3E |
| 63 | 3F | ? | %%3F |

| | | | |
|---|---|---|---|
| 64 | 40 | @ |  |
| 65 | 41 | A |  |
| 66 | 42 | B |  |
| 67 | 43 | C |  |
| 68 | 44 | D |  |
| 69 | 45 | E |  |
| 70 | 46 | F |  |
| 71 | 47 | G |  |

| | | | |
|---|---|---|---|
| 72 | 48 | H | %%48 |
| 73 | 49 | I | %%49 |
| 74 | 4A | J | %%4A |
| 75 | 4B | K | %%4B |
| 76 | 4C | L | %%4C |
| 77 | 4D | M | %%4D |
| 78 | 4E | N | %%4E |
| 79 | 4F | O | %%4F |

| | | | |
|---|---|---|---|
| 80 | 50 | P | %%50 |
| 81 | 51 | Q | %%51 |
| 82 | 52 | R | %%52 |
| 83 | 53 | S | %%53 |
| 84 | 54 | T | %%54 |
| 85 | 55 | U | %%55 |
| 86 | 56 | V | %%56 |
| 87 | 57 | W | %%57 |

| | | | |
|---|---|---|---|
| 88 | 58 | X |  %%58 |
| 89 | 59 | Y |  %%59 |
| 90 | 5A | Z |  %%5A |
| 91 | 5B | [ |  %%5B |
| 92 | 5C | \ |  %%5C |
| 93 | 5D | ] |  %%5D |
| 94 | 5E | ^ |  %%5E |
| 95 | 5F | _ |  %%5F |

| | | | |
|---|---|---|---|
| 96 | 60 | ` | %%60 |
| 97 | 61 | a | %%61 |
| 98 | 62 | b | %%62 |
| 99 | 63 | c | %%63 |
| 100 | 64 | d | %%64 |
| 101 | 65 | e | %%65 |
| 102 | 66 | f | %%66 |
| 103 | 67 | g | %%67 |

| | | | |
|---|---|---|---|
| 104 | 68 | h | %%68 |
| 105 | 69 | i | %%69 |
| 106 | 6A | j | %%6A |
| 107 | 6B | k | %%6B |
| 108 | 6C | l | %%6C |
| 109 | 6D | m | %%6D |
| 110 | 6E | n | %%6E |
| 111 | 6F | o | %%6F |

| | | | |
|---|---|---|---|
| 112 | 70 | p | %%70 |
| 113 | 71 | q | %%71 |
| 114 | 72 | r | %%72 |
| 115 | 73 | s | %%73 |
| 116 | 74 | t | %%74 |
| 117 | 75 | u | %%75 |
| 118 | 76 | v | %%76 |
| 119 | 77 | w | %%77 |

| | | | |
|---|---|---|---|
| 120 | 78 | x | %%78 |
| 121 | 79 | y | %%79 |
| 122 | 7A | z | %%7A |
| 123 | 7B | { | %%7B |
| 124 | 7C | \| | %%7C |
| 125 | 7D | } | %%7D |
| 126 | 7E | ~ | %%7E |
| 127 | 7F | DEL | %%7F |

# 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 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 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:




Character Set 0 (Default)




Character Set 1




Character Set 2




Character Set 3



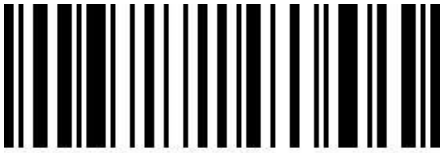

Character Set 4

# 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].

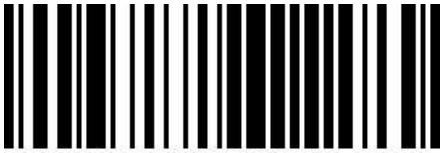
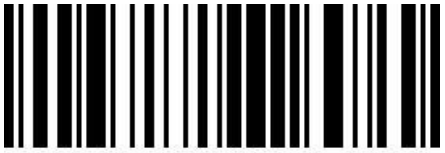
To avoid scanning the wrong code by mistake, cover nearby barcodes while scanning the intended one.

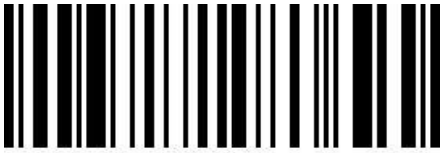
| Value | Key | Setup Code | Value | Key | Setup Code |
|---|---|---|---|---|---|
| 00 | NA |  | 34 | ' SHIFT ON: " |  |
| 04 | A |  | 35 | ` SHIFT ON: ~ |  |
| 05 | B |  | 36 | , SHIFT ON: < |  |
| 06 | C |  | 37 | . SHIFT ON: > |  |
| 07 | D |  | 38 | / SHIFT ON: ? |  |
| 08 | E |  | 39 | Caps Lock |  |

| | | | | | |
|---|---|---|---|---|---|
| 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 |

| | | | | | |
|---|---|---|---|---|---|
| 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 |

| | | | | | |
|---|---|---|---|---|---|
| 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 |

| | | | | | |
|---|---|---|---|---|---|
| 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 |

| | | | | | |
|---|---|---|---|---|---|
| 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 |

| | | | | | |
|---|---|---|---|---|---|
| 31 | \<br>SHIFT<br>ON: \| | %%31 | 62 | Pad 0 | %%62 |
| 33 | ;<br>SHIFT<br>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 |

| | |
|---|---|
| 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 |

| | | | |
|---|---|---|---|
| 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 |

| 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 |

| | | | |
|---|---|---|---|
| 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

The table below lists the Code 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 |
|---|---|---|
| **1** | UPC-A | e |
| **2** | UPC-E | f |
| **3** | EAN-8 | c |
| **4** | EAN-13 | d |
| **5** | Code 128 | a |
| **6** | Code 39 | m |
| **7** | Code 32 | L |
| **8** | Code 93 | i |
| **9** | Code 11 | u |
| **10** | Codabar | v |
| **11** | Interleaved 2 of 5 | n |
| **12** | Matrix 2 of 5 | q |
| **13** | Industrial 2 of 5 | o |
| **14** | Standard 2 of 5 | p |
| **15** | Plessey | t |
| **16** | MSI Plessey | s |
| **17** | GS1 Databar-14 | j |
| **18** | GS1 Databar Limited | k |