User Guide

For RT212/IDE237/IDE302

(V2111)

Chapter 1 Description

This manual provides detailed instructions for setting up and using the RT212 OCR-B & barcode scanner (hereinafter referred to as **"the RT212"** or **"the scanner"**).

Explanation of Icons

Tools	This icon indicates something relevant to this manual.
ATT	This icon indicates this information requires extra attention from the reader.
TIPS	This icon indicates handy tips that can help you use or configure the scanner with ease.
Example	This icon indicates practical examples that can help you to acquaint yourself with operations.

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Scanning Instructions

1. Position the barcode on mobile phone screen or paper in the center of the scan window.

2. For a successful read, the scanner will send the data to the host with its blue Good Read LED flashing once.

Maintenance

✧   The scan window should be kept clean.

✧   Do not scratch the scan window.

✧   Use soft brush to remove the stain from the scan window.

✧   Use the soft cloth to clean the window, such as eyeglass cleaning cloth.

✧   Do not spray any liquid on the scan window.

✧   Do not use any detergent to clean other parts of the device except for water.

Note: The warranty DOES NOT cover damages caused by inappropriate care and maintenance.

Chapter 2 System Settings

Introduction

Barcode Programming

The RT212 can be configured by scanning programming barcodes. All user programmable features/options are described along with their programming barcodes/commands in the following sections.

This programming method is most straight forward. However, it requires manually scanning barcodes. As a result, errors are more likely to occur---so when scanning setting codes, please be sure scan the correct code but not scan the neighbor ones :)

Programming Barcode/ Programming Command/Function

The figure above is an example that shows you the programming barcode and command for the Enter Setup function:

1. The **No Case Conversion** barcode.

2. The **No Case Conversion** command.

3. The description of feature/option.

4. ** indicates factory default settings.

@SETUPE0
** Exit Setup

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Use of Programming Command

The engine can also be configured by serial commands (HEX) sent from the host device. **All commands must be entered in uppercase letters**.

Command Syntax

Prefix StorageType Tag SubTag {Data} [,SubTag {Data}] [;Tag SubTag {Data}] [...] Suffix

Prefix: "~<SOH>0000" (HEX: **7E 01 30 30 30 30**), 6 characters.

StorageType: "@" (HEX: **40**) or "#" (HEX: **23**), 1 character. "@" means permanent setting which will not be lost by removing power from the engine or rebooting it; "#" means temporary setting which will be lost by removing power from the engine or rebooting it.

Tag: A 3-character case-sensitive field that identifies the desired command group. For example, all USB HID Keyboard configuration settings are identified with a Tag of KBW.

SubTag: A 3-character case-sensitive field that identifies the desired parameter within the tag group. For example, the SubTag for the keyboard layout is CTY.

Data: The value for a feature or parameter setting, identified by the Tag and SubTag.

Suffix: ";<ETX>" (HEX: **3B 03**), 2 characters.

Multiple commands can be issued within one Prefix/Suffix sequence. For configuration commands, only the **Tag**, **SubTag**, and **Data** fields must be repeated for each command in sequence. If an additional command is to be applied to the same Tag, then the command is separated with a comma (,) and only the **SubTag** and **Data** fields of the additional commands are issued. If the additional command requires a different **Tag** field, the command is separated from previous command by a semicolon (;).

Query Commands

For query commands, the entry in the **Data** field in the syntax above is one of the following characters means:

* (HEX: **2A**)   What is the engine's current value for the setting(s).

& (HEX: **26**)   What is the factory default value for the setting(s).

^ (HEX: **5E**)   What is the range of possible values for the setting(s).

The value of the **StoreType** field in a query command can be either "@" (HEX: **40**) or "#" (HEX: **23**).

A query command with the **SubTag** field omitted means to query all the settings concerning a tag. For example, to query all the current settings about Code 11, you should enter **7E 01 30 30 30 30 40 43 31 31 2A 3B 03** (i.e. ~<SOH>0000@C11*;<ETX>).

Responses

Different from command sequence, the prefix of a response consists of the six characters of "<STX><SOH>0000" (HEX: **02 01 30 30 30 30**).

The engine responds to serial commands with one of the following three responses:

<ACK> (HEX: **06**)   Indicates a good command which has been processed.

<NAK> (HEX: **15**)   Indicates a good configuration command with its **Data** field entry out of the allowable range for this Tag and SubTag combination (e.g. an entry for an inter-keystroke delay of 100 when the field will only allow 2 digits), or an invalid query command.

<ENQ> (HEX: **05**)   Indicates an invalid Tag or SubTag command.

When responding, the engine echoes back the command sequence with the status character above inserted directly before each of the punctuation marks (the comma or semicolon) in the command.

Example:

Turn off the illumination light:

Under the illumination off setting code, we can find"@ILLSCN0"

@ILLSCN0

The hex value of @ILLSCN0 is: 40 49 4C 4C 53 43 4E 30

Then add prefix hex value: (7E 01 30 30 30 30) and suffix (3B 03)

The final full command is: 7E 01 30 30 30 30 40 49 4C 4C 53 43 4E 30 3B 03

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@SETUPE0
** Exit Setup

Use of Programming Barcodes

Scanning the **Enter Setup** barcode can enable the scanner to enter the setup mode. Then you can scan a number of programming barcodes to configure your scanner. To exit the setup mode, scan the **Exit Setup** barcode or a non- programing barcode, or reboot the scanner.

|||||||||||||||||||||||||||||||| @SETUPE0
** Exit Setup
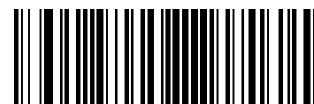
|||||||||||||||||||||||||||||||| @SETUPE1
Enter Setup

Programming barcode data (i.e. the characters under programming barcode) can be transmitted to the host device. Scan the appropriate barcode below to enable or disable the transmission of programming barcode data to the host device.

|||||||||||||||||||||||||||||||| @SETUPT0
** Do Not Transmit Programming Barcode Data
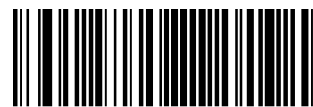
|||||||||||||||||||||||||||||||| @SETUPT1
Transmit Programming Barcode Data

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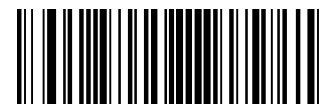
Illumination

A couple of illumination options are provided to improve the lighting conditions during every image capture:

Normal: Illumination LEDs are turned on during image capture.

Always On: Illumination LEDs keep on after the scanner is powered on.

Off: Illumination LEDs are off all the time.

Fade Up: Illumination LEDs are dimly lit when in standby mode and gradually increase their brightness during image capture.

|||||||||||||||||||||||||||||||||
@ILLSCN1
** Normal

|||||||||||||||||||||||||||||||||
@ILLSCN0
Off

|||||||||||||||||||||||||||||||||
@ILLSCN2
Always On

|||||||||||||||||||||||||||||||||
@ILLSCN3
Fade Up

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Aiming

When scanning/capturing image, the scanner projects an aiming pattern which allows positioning the target barcode within its field of view and thus makes decoding easier.

Normal: The scanner projects an aiming pattern only during barcode scanning/capture.

Always On: Aiming pattern is constantly on after the scanner is powered on.

Off: Aiming pattern is off all the time.

||||||||||||||||||||||
@AMLENA1
** Normal

||||||||||||||||||||||
@AMLENA0
Off

||||||||||||||||||||||
@AMLENA2
Always On

Good Read LED

The green LED can be programmed to be On or Off to indicate good read.

||||||||||||||||||||||
@GRLENA1
** On

||||||||||||||||||||||
@GRLENA0
Off

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||||||||||||||||||||||
@SETUPE0
** Exit Setup

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Good Read LED Duration

This parameter sets the amount of time that the Good Read LED to remain on following a good read. It is programmable in 1ms increments from 1ms to 2,500ms.

@GRLDUR20
** Short (20ms)

@GRLDUR120
Medium (120ms)

@GRLDUR220
Long (220ms)

@GRLDUR320
Prolonged (320ms)

@GRLDUR
Custom (1 - 2,500ms）

Set the Good Read LED duration to 800ms:

1. Scan the **Enter Setup** barcode.
2. Scan the **Custom** barcode.
3. Scan the numeric barcodes "8", "0" and "0" from the "Digit Barcodes" section in Appendix.
4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.
5. Scan the **Exit Setup** barcode.

@SETUPE0
** Exit Setup

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Power On Beep

The scanner can be programmed to beep when it is powered on. Scan the **Off** barcode if you do not want a power on beep.

@PWBENA1
** On

@PWBENA0
Off

Good Read Beep

Scanning the **Off** barcode can turn off the beep that indicate successful decode; scanning the **On** barcode can turn it back on.

@GRBENA1
** On

@GRBENA0
Off

@SETUPE0
** Exit Setup

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Good Read Beep Duration

This parameter sets the length of the beep the scanner emits on a good read. It is programmable in 1ms increments from 20ms to 300ms.

@GRBDUR40
Short (40ms)

@GRBDUR80
** Medium (80ms)

@GRBDUR120
Long (120ms)

@GRBDUR
Custom (20 – 300ms)

Set the Good Read Beep duration to 200ms:

1. Scan the **Enter Setup** barcode.
2. Scan the **Custom** barcode.
3. Scan the numeric barcodes "2", "0" and "0" from the "Digit Barcodes" section in Appendix.
4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.
5. Scan the **Exit Setup** barcode.

@SETUPE0
** Exit Setup

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Good Read Beep Frequency

This parameter is programmable in 1Hz increments from 20Hz to 20,000Hz.

@GRBFRQ800
Extra Low (800Hz)

@GRBFRQ1600
Low (1600Hz)

@GRBFRQ2730
** Medium (2730Hz)

@GRBFRQ4200
High (4200Hz)

@GRBFRQ
Custom (20 - 20,000Hz)

Set the Good Read Beep frequency to 2,000Hz:

1. Scan the **Enter Setup** barcode.
2. Scan the **Custom** barcode.
3. Scan the numeric barcodes "2", "0", "0" and "0" from the "Digit Barcodes" section in Appendix.
4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.
5. Scan the **Exit Setup** barcode.

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@SETUPE0
** Exit Setup

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Good Read Beep Volume

@GRBVOL0
** Loud

@GRBVOL1
Medium

@GRBVOL2
Low

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Scan Mode

- **Manual Trigger Mode:** A trigger pull activates a decode session. The decode session continues until a barcode is decoded or you release the trigger.

- **Sense Mode:** The scanner waits for the image stabilization timeout to expire before activating a decode session every time it detects a change in ambient illumination. Decode session continues until a barcode is decoded or the decode session timeout expires. In this mode, a trigger pull can also activate a decode session. The decode session continues until a barcode is decoded or the trigger is released. When the session ends, the scanner continues to monitor ambient illumination.**Timeout between Decodes (Same Barcode)** can avoid undesired rereading of same barcode in a given period of time. **Sensitivity** can change the Sense Mode's sensibility to changes in ambient illumination.

- **Continuous Mode**: The scanner automatically starts one decode session after another. To suspend/resume barcode reading, simply press the trigger. **Timeout between Decodes (Same Barcode)** can avoid undesired rereading of same barcode in a given period of time.

- **Pulse Mode:** When the trigger is pulled and released, scanning is activated until a barcode is decoded or the decode session timeout expires (The decode session timeout begins when the trigger is released).

@SCNMOD0
Manual Trigger
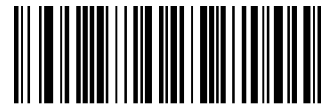
@SCNMOD2
** Sense Mode

@SCNMOD3
Continuous Mode
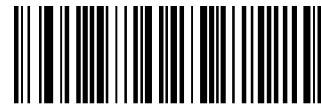
@SCNMOD4
Pulse Mode

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@SETUPE0
** Exit Setup

Decode Session Timeout

This parameter sets the maximum time decode session continues during a scan attempt. It is programmable in 1ms increments from 1ms to 3,600,000ms. When it is set to 0, the timeout is infinite. The default setting is 3,000ms.

||||| |||||| || ||||||| ||| ||||
@ORTSET
Decode Session Timeout

Set the decode session timeout to 1,500ms:

1. Scan the **Enter Setup** barcode.

2. Scan the **Decode Session Timeout** barcode.

3. Scan the numeric barcodes "1", "5", "0" and "0" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Exit Setup** barcode.

||||| |||||| || ||||||| ||| ||||
@SETUPE0
** Exit Setup

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Image Stabilization Timeout (Sense Mode)

This parameter defines the amount of time that the scanner waits for the image to stabilize to a point that it can be decoded with more accuracy. It is programmable in 1ms increments from 0ms to 3,000ms. The default setting is 200ms.

||||| ||| ||||| ||||| |||
@SENIST

Image Stabilization Timeout

Example

Set the image stabilization timeout to 800ms:

1. Scan the **Enter Setup** barcode.
2. Scan the **Image Stabilization Timeout** barcode.
3. Scan the numeric barcodes "8", "0" and "0" from the "Digit Barcodes" section in Appendix.
4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.
5. Scan the **Exit Setup** barcode.

Timeout between Decodes (Same Barcode)

Timeout between Decodes (Same Barcode) can avoid undesired rereading of same barcode in a given period of time. This feature is only applicable to the Sense and Continuous modes.

To enable/disable the Timeout between Decodes (Same Barcode), scan the appropriate barcode below.

Enable Timeout between Decodes (Same Barcode): Do not allow the scanner to re-read same barcode before the timeout between decodes (same barcode) expires.

Disable Timeout between Decodes (Same Barcode): Allow the scanner to re-read same barcode.
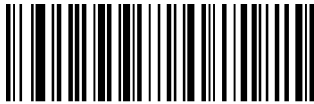
@RRDENA1

Enable Timeout between Decodes (Same Barcode)

@RRDENA0

** Disable Timeout between Decodes (Same Barcode)

The following parameter sets the timeout between decodes for same barcode. It is programmable in 1ms increments from 0ms to 3,600,000ms. When it is set to a value greater than 3,000, the timeout for rereading same programming barcode is limited to 3,000ms. The default setting is 1,500ms.

@RRDDUR

Timeout between Decodes (Same Barcode)

Set the timeout between decodes (same barcode) to 1,000ms:

1. Scan the **Enter Setup** barcode.
2. Scan the **Timeout between Decodes (Same Barcode)** barcode.
3. Scan the numeric barcodes "1", "0", "0" and "0" from the "Digit Barcodes" section in Appendix.
4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.
5. Scan the **Exit Setup** barcode.

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Sensitivity (Sense Mode)

Sensitivity specifies the degree of acuteness of the scanner's response to changes in ambient illumination. The higher the sensitivity, the lower requirement in illumination change to trigger the scanner. You can select an appropriate degree of sensitivity that fits the ambient environment. The feature is only applicable to the Sense mode.

@SENLVL14
Low Sensitivity

@SENLVL11
** Medium Sensitivity

@SENLVL8
High Sensitivity

@SENLVL5
Enhanced Sensitivity
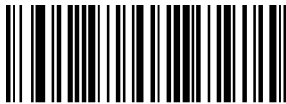
@SENLVL
Custom Sensitivity (Level 1-20)

Set the sensitivity to Level 10:

1. Scan the **Enter Setup** barcode.
2. Scan the **Custom Sensitivity** barcode.
3. Scan the numeric barcodes "1" and "0" from the "Digit Barcodes" section in Appendix.
4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.
5. Scan the **Exit Setup** barcode.

@SETUPE0
** Exit Setup

Scanning Preference

Normal Mode: Select this mode when reading barcodes on paper.

Screen Mode: Select this mode when reading barcodes on the screen.

@EXPLVL0

** Normal Mode

@EXPLVL2

Screen Mode

Decode Area

✧ **Whole Area Decoding:** The scanner attempts to decode barcode(s) within its field of view, from the center to the periphery, and transmits the barcode that has been first decoded.

✧ **Specific Area Decoding:** The scanner attempts to read barcode(s) within a specified decoding area and transmits the barcode that has been first decoded. This option allows the scanner to narrow its field of view to make sure it reads only those barcodes intended by the user. For instance, if multiple barcodes are placed closely together, specific area decoding in conjunction with appropriate pre-defined decoding area will insure that only the desired barcode is read.
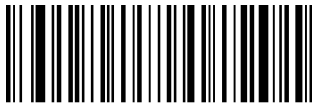
@CADENA0

** Whole Area Decoding

@CADENA1

Specific Area Decoding

@SETUPE0

** Exit Setup

If **Specific Area Decoding** is enabled, the scanner only reads barcodes that intersect the predefined decoding area.

The default decoding area is an area of 40% top, 60% bottom, 40% left and 60% right of the scanner's field of view

You can define the decoding area using the **Top of Decoding Area**, **Bottom of Decoding Area**, **Left of Decoding Area** and **Right of Decoding Area** barcodes as well as numeric barcode(s) that represent(s) a desired percentage (0-100). The value of Bottom must be greater than that of Top; the value of Right must be greater than that of Left.

@CADTOP

Top of Decoding Area

@CADBOT

Bottom of Decoding Area

@CADLEF

Left of Decoding Area

@CADRIG

Right of Decoding Area

Program the scanner to only read Barcode 1 in the figure above by setting the decoding area to 10% top, 45% bottom, 15% left and 30% right:

1. Scan the **Enter Setup** barcode.
2. Scan the **Top of Decoding Area** barcode.
3. Scan the numeric barcode "0" from the "Digit Barcodes" section in Appendix.
4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.
5. Scan the **Bottom of Decoding Area** barcode.
6. Scan the numeric barcodes "4" and "5" from the "Digit Barcodes" section in Appendix.
7. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.
8. Scan the **Top of Decoding Area** barcode.
9. Scan the numeric barcodes "1" and "0" from the "Digit Barcodes" section in Appendix.
10. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.
11. Scan the **Left of Decoding Area** barcode.
12. Scan the numeric barcode "0" from the "Digit Barcodes" section in Appendix.
13. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.
14. Scan the **Right of Decoding Area** barcode.
15. Scan the numeric barcodes "3" and "0" from the "Digit Barcodes" section in Appendix.
16. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.
17. Scan the **Left of Decoding Area** barcode.
18. Scan the numeric barcodes "1" and "5" from the "Digit Barcodes" section in Appendix.
19. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.
20. Scan the **Exit Setup** barcode.

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Image Flipping

** Do Not Flip

Flip Horizontally

Flip Vertically

Flip Horizontally & Vertically

Example of image not flipped

Example of image flipped horizontally

Example of image flipped vertically

Example of image flipped horizontally & vertically

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** Exit Setup

Bad Read Message

Scan the appropriate barcode below to select whether or not to send a bad read message (user-programmable) when a good read does not occur before trigger release, or the decode session timeout expires.

@NGRENA0

** Bad Read Message OFF

@NGRENA1

Bad Read Message ON

Set Bad Read Message

A bad read message can contain up to 7 characters (HEX values from 0x00 to 0xFF). To set a bad read message, scan the **Set Bad Read Message** barcode, the numeric barcodes representing the hexadecimal values of desired character(s) and the **Save** barcode. The default setting is "NG".

@NGRSET

Set Bad Read Message

Set the bad read message to "F" (HEX: 0x46):

1. Scan the **Enter Setup** barcode.

2. Scan the **Set Bad Read Message** barcode.

3. Scan the numeric barcodes "4" and "6" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Exit Setup** barcode.

@SETUPE0
** Exit Setup

Default Settings

Factory Defaults

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

You may need to reset all parameters to the factory defaults when:

- scanner is not properly configured so that it fails to decode barcodes.

- you forget previous configuration and want to avoid its impact.

@FACDEF

Restore All Factory Defaults

Custom Defaults

Scanning the **Restore All Custom Defaults** barcode can reset all parameters to the custom defaults. Scanning the **Save as Custom Defaults** barcode can set the current settings as custom defaults.

Custom defaults are stored in the non-volatile memory.

@CUSSAV

Save as Custom Defaults

@CUSDEF

Restore All Custom Defaults

Restoring the scanner to the factory defaults will not remove the custom defaults from the scanner.

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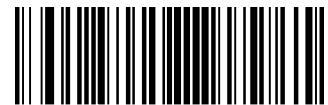
Chapter 3 RS-232/USB Interface

The RT212 supports RS-232 interface or USB interface; for USB interface, supports USB-Virtual Com and USB-HID.

RS-232

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

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

@INTERF0
RS-232

Baud Rate

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

@232BAD8
115200

@232BAD7
57600

@232BAD6
38400

@232BAD5
19200

@232BAD4
14400

@232BAD3
** 9600

@232BAD2
4800

@232BAD1
2400

@SETUPE0
** Exit Setup

Parity Check

Set the parity type to match the host requirements.

- **Odd Parity:** If the data contains an odd number of 1 bits, the parity bit value is set to 0.

- **Even Parity:** If the data contains an even number of 1 bits, the parity bit value is set to 0.

- **None:** Select this option when no parity bit is required.

@232PAR0
** None
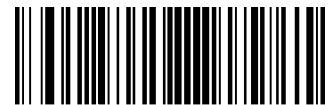
@232PAR1
Even Parity

@232PAR2
Odd Parity

@SETUPE0
** Exit Setup

||||| @SETUPE1
Enter Setup

Data Bit

Set the number of data bits to match the host requirements.

||||| @232DAT1
7 Data Bits

||||| @232DAT0
** 8 Data Bits

Stop Bit
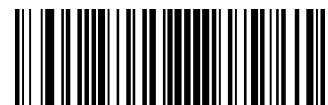
The stop bit(s) at the end of each transmitted character marks the end of transmission of one character and prepares the receiving device for the next character in the serial data stream. Set the number of stop bits to match the host requirements.

||||| @232STP0
** 1 Stop Bit

||||| @232STP1
2 Stop Bits

||||| @SETUPE0
** Exit Setup

USB Virtual Com

Scan setting code below to enable your scanner with Virtual Com communication, the USB Virtual Com feature allows the host device to receive data in the way as a serial port does. Please set communication parameters (including baud rate, parity check, data bit and stop bit) with the setting code in part of "RS-232"

@INTERF8
USB virtual COM

USB HID Keyboard

When the engine is connected to the USB port on a host device, you can enable the USB HID Keyboard feature by scanning the barcode below. Then engine's transmission will be simulated as USB keyboard input. The Host receives keystrokes on the virtual keyboard. It works on a Plug and Play basis and no driver is required.

@INTERF3
** USB HID Keyboard

If the host device allows keyboard input, then no extra software is needed for HID Keyboard input.

@SETUPE0
** Exit Setup

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‖‖‖‖‖‖‖‖‖‖‖‖
@SETUPE1
Enter Setup

USB Country Keyboard Types

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

‖‖‖‖‖‖‖‖‖‖‖‖
@KBWCTY0
** U.S. (English)

‖‖‖‖‖‖‖‖‖‖‖‖
@KBWCTY1
Belgium

‖‖‖‖‖‖‖‖‖‖‖‖
@KBWCTY2
Brazil

‖‖‖‖‖‖‖‖‖‖‖‖
@KBWCTY3
Canada (French)

‖‖‖‖‖‖‖‖‖‖‖‖
@KBWCTY4
Czechoslovakia

‖‖‖‖‖‖‖‖‖‖‖‖
@KBWCTY5
Denmark

‖‖‖‖‖‖‖‖‖‖‖‖
@KBWCTY6
Finland (Swedish)

‖‖‖‖‖‖‖‖‖‖‖‖
@SETUPE0
** Exit Setup

||||| |||| ||| || ||| |||
@SETUPE1
Enter Setup

||||| ||| ||| ||| ||| |||
@KBWCTY7
France

||||| ||| ||| || ||| |||
@KBWCTY8
Germany/ Austria

||||| ||| ||| || ||| |||
@KBWCTY9
Greece
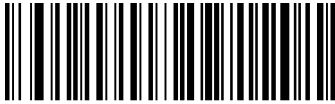
||||| ||| ||| || ||| |||
@KBWCTY10
Hungary

||||| ||| ||| || ||| |||
@KBWCTY11
Israel (Hebrew)

||||| ||| ||| || ||| |||
@KBWCTY12
Italy

||||| ||| ||| || ||| |||
@KBWCTY13
Latin America/ South America

||||| ||| ||| || ||| |||
@KBWCTY14
Netherlands (Dutch)

||||| ||| ||| || ||| |||
@SETUPE0
** Exit Setup

||||||| @SETUPE1
Enter Setup

||||||| @KBWCTY15
Norway

||||||| @KBWCTY16
Poland

||||||| @KBWCTY17
Portugal

||||||| @KBWCTY18
Romania

||||||| @KBWCTY19
Russia

||||||| @KBWCTY21
Slovakia

||||||| @KBWCTY22
Spain

||||||| @KBWCTY23
Sweden

||||||| @SETUPE0
** Exit Setup

@SETUPE1
Enter Setup

@KBWCTY24
Switzerland (German)

@KBWCTY25
Turkey_F

@KBWCTY26
Turkey_Q
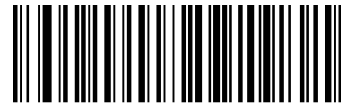
@KBWCTY27
UK

@KBWCTY28
Japan

@SETUPE0
**** Exit Setup**

48

Beep on Unknown Character

Due to the differences in keyboard layouts, some characters contained in barcode data may be unavailable on the selected keyboard. As a result, the engine fails to transmit the unknown characters.

Scan the appropriate barcode below to enable or disable the emission of beep when an unknown character is detected.

@KBWBUC0

** Do Not Beep on Unknown Character

@KBWBUC1

Beep on Unknown Character

Supposing French keyboard (Country Code: 7) is selected and barcode data "AĐF" is being dealted with, the keyboard will fail to locate the "Đ" (0xD0) character and the engine will ignore the character and continue to process the next one.

Do Not Beep on Unknown Character: The engine does not beep and the Host receives "AF".

Beep on Unknown Character: The engine beeps and the Host still receives "AF".

If **Emulate ALT+Keypad ON** is selected, **Beep on Unknown Character** does not function.

Emulate ALT+Keypad

When **Emulate ALT+Keypad** is turned on, ASCII characters (0x20 - 0xFF) are sent over the numeric keypad no matter which keyboard type is selected.

1. ALT Make

2. Enter the number corresponding to a desired character on the keypad.

3. ALT Break

After **Emulate ALT+Keypad ON** is selected, you need to choose the code page with which the barcodes were created and to turn **Unicode Encoding** On or Off depending on the encoding used by the application software.

@KBWALT0

** Emulate ALT+Keypad OFF

@KBWALT1

Emulate ALT+Keypad ON

Since sending a character involves multiple keystroke emulations, this method appears less efficient.

Supposing **Emulate ALT+Keypad** is ON, **Unicode Encoding** is Off, **Code Page 1252 (West European Latin)** is selected, and **Emulate Keypad with Leading Zero** is Off, barcode data "AÐF" (65/208/70) is sent as below:

"A" – "ALT Make" + "065" + "ALT Break"

"Ð" -- "ALT Make" + "208" + "ALT Break"

"F" -- "ALT Make" + "070" + "ALT Break"

@SETUPE0

** Exit Setup

||||| ||| |||| ||||| ||| |||||
@SETUPE1
Enter Setup

Code Page

Code pages define the mapping of character codes to characters. If the data received does not display with the proper characters, it may be because the barcode being scanned was created using a code page that is different from the one the host program is expecting. If this is the case, select the code page with which the barcodes were created by scanning the appropriate barcode below. For PDF417, QR Code, Aztec and Data Matrix, besides setting the code page, you also need to set the character encoding in the "Character Encoding" section in Chapter 6. This feature is only effective when **Emulate ALT+Keypad** is turned on.

||||| ||| |||| ||||| ||| |||||
@KBWCPG0

** Code Page 1252 (West European Latin)

||||| ||| |||| ||||| ||| |||||
@KBWCPG1

Code Page 1251 (Cyrillic)

||||| ||| |||| ||||| ||| |||||
@KBWCPG2

Code Page 1250 (Central and East European Latin)

||||| ||| |||| ||||| ||| |||||
@KBWCPG3

Code Page 1253 (Greek)

||||| ||| |||| ||||| ||| |||||
@KBWCPG4

Code Page 1254 (Turkish)

||||| ||| |||| ||||| ||| |||||
@KBWCPG5

Code Page 1255 (Hebrew)

||||| ||| |||| ||||| ||| |||||
@SETUPE0

** Exit Setup

```
@SETUPE1
```
Enter Setup

```
@KBWCPG6
```
Code Page 1256 (Arabic)

```
@KBWCPG7
```
Code Page 1257 (Baltic)

```
@KBWCPG8
```
Code Page 1258 (Vietnamese)

```
@KBWCPG9
```
Code Page 936 (Simplified Chinese, GB2312,GBK)

```
@KBWCPG10
```
Code Page 950 (Traditional Chinese, Big5)

```
@KBWCPG11
```
Code Page 874 (Thai)

```
@KBWCPG12
```
Code Page 932 (Japanese, Shift-JIS)

```
@SETUPE0
```
** Exit Setup

@SETUPE1

Enter Setup

Unicode Encoding

Different host program may use different character encodings for handling incoming barcode data. For instance, Microsoft Office Word uses Unicode encoding and therefore you should turn **Unicode Encoding** on, whereas Microsoft Office Excel or Notepad uses Code Page encoding and therefore you should turn **Unicode Encoding** off. This feature is only effective when **Emulate ALT+Keypad** is turned on.

@KBWCPU0

** Off

@KBWCPU1

On

Emulate Keypad with Leading Zero

You may turn this feature on to send character sequences sent over the numeric keypad as ISO characters which have a leading zero. For example, ASCII A transmits as "ALT MAKE" 0065 "ALT BREAK". This feature is only effective when **Emulate ALT+Keypad** is enabled.
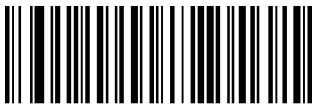
@KBWALZ1

** On

@KBWALZ0

Off

@SETUPE0

** Exit Setup

Function Key Mapping

When **Ctrl+ASCII Mode** is selected, function characters (0x00 - 0x1F) are sent as ASCII sequences.

||||| |||| ||||| ||||| |||| |||||
@KBWFKM0

** Disable

||||| |||| ||||| ||||| |||| |||||
@KBWFKM1

Ctrl+ASCII Mode

||||| |||| ||||| ||||| |||| |||||
@KBWFKM2

Alt+Keypad Mode

If **Ctrl+ASCII Mode** is selected and other parameters of USB HID Keyboard adopt factory defaults, barcode data "A<HT>(i.e. Horizontal Tab)F" (0x41/0x09/0x46) is sent as below:

"A" - Keystroke "A".

<HT> - "Ctrl Make" + Keystroke "I" + "Ctrl Break"

"F" - Keystroke "F"

For some text editors, "Ctrl I" means italic convert. So the output may be "A*F*".

If **Alt+Keypad Mode** is selected and other parameters of USB HID Keyboard adopt factory defaults, the data above is sent as below:

"A" - Keystroke "A".

<HT> - "Alt Make" + Keystrokes "009" + "Alt Break"

"F" - Keystroke "F"

User Guide

ASCII Function Key Mapping Table

ASCII Function	ASCII Value (HEX)	Function Key Mapping Disabled	Ctrl+ASCII
NUL	00	Null	Ctrl+@
SOH	01	Keypad Enter	Ctrl+A
STX	02	Caps Lock	Ctrl+B
ETX	03	ALT	Ctrl+C
EOT	04	Null	Ctrl+D
ENQ	05	CTRL	Ctrl+E
ACK	06	Null	Ctrl+F
BEL	07	Enter	Ctrl+G
BS	08	Left Arrow	Ctrl+H
HT	09	Horizontal Tab	Ctrl+I
LF	0A	Down Arrow	Ctrl+J
VT	0B	Vertical Tab	Ctrl+K
FF	0C	Delete	Ctrl+L
CR	0D	Enter	Ctrl+M
SO	0E	Insert	Ctrl+N
SI	0F	Esc	Ctrl+O
DLE	10	F11	Ctrl+P
DC1	11	Home	Ctrl+Q
DC2	12	PrintScreen	Ctrl+R
DC3	13	Backspace	Ctrl+S
DC4	14	tab+shift	Ctrl+T
NAK	15	F12	Ctrl+U
SYN	16	F1	Ctrl+V
ETB	17	F2	Ctrl+W
CAN	18	F3	Ctrl+X
EM	19	F4	Ctrl+Y
SUB	1A	F5	Ctrl+Z
ESC	11	F6	Ctrl+[
FS	1C	F7	Ctrl+\
GS	1D	F8	Ctrl+]
RS	1E	F9	Ctrl+6
US	1F	F10	Ctrl+-

ASCII Function Key Mapping Table (Continued)

The last five characters (0x1B~0x1F) in the table above apply to US keyboard layout only. The following chart provides the equivalents of these five characters for other countries.

Country	Ctrl+ASCII					
United States	Ctrl+[	Ctrl+\	Ctrl+]	Ctrl+6	Ctrl+-	
Belgium	Ctrl+[	Ctrl+<	Ctrl+]	Ctrl+6	Ctrl+-	
Scandinavia	Ctrl+8	Ctrl+<	Ctrl+9	Ctrl+6	Ctrl+-	
France	Ctrl+^	Ctrl+8	Ctrl+$	Ctrl+6	Ctrl+=	
Germany		Ctrl+Ã	Ctrl++	Ctrl+6	Ctrl+-	
Italy		Ctrl+\	Ctrl++	Ctrl+6	Ctrl+-	
Switzerland		Ctrl+<	Ctrl+..	Ctrl+6	Ctrl+-	
United Kingdom	Ctrl+[	Ctrl+¢	Ctrl+]	Ctrl+6	Ctrl+-	
Denmark	Ctrl+8	Ctrl+\	Ctrl+9	Ctrl+6	Ctrl+-	
Norway	Ctrl+8	Ctrl+\	Ctrl+9	Ctrl+6	Ctrl+-	
Spain	Ctrl+[	Ctrl+\	Ctrl+]	Ctrl+6	Ctrl+-	

User Guide

Inter-Keystroke Delay

This parameter specifies the delay between emulated keystrokes.

||||||||||||||||||||||||||||||
@KBWDLY0

** No Delay

||||||||||||||||||||||||||||||
@KBWDLY40

Long Delay (40ms)
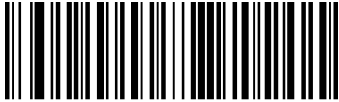
||||||||||||||||||||||||||||||
@KBWDLY20

Short Delay (20ms)

||||||||||||||||||||||
@SETUPE1
Enter Setup

Caps Lock

The **Caps Lock On** options can invert upper and lower case characters contained in barcode data. This inversion occurs regardless of the state of Caps Lock key on the host device's keyboard. To disable this feature, scan the appropriate **Caps Lock OFF** barcode below based on your keyboard.

||||||||||||||||||||||
@KBWCAP0
** Caps Lock OFF, Non-Japanese Keyboard

||||||||||||||||||||||
@KBWCAP1
Caps Lock ON, Non-Japanese Keyboard

||||||||||||||||||||||
@KBWCAP2
Caps Lock OFF, Japanese Keyboard
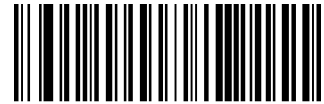
||||||||||||||||||||||
@KBWCAP3
Caps Lock ON, Japanese Keyboard

Emulate ALT+Keypad ON/ Convert All to Upper Case/ Convert All to Lower Case prevails over **Caps Lock ON**.

When the **Caps Lock ON** feature is selected, barcode data "AbC" is transmitted as "aBc".

||||||||||||||||||||||
@SETUPE0
** Exit Setup

User Guide

Convert Case

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

@KBWCAS0

** No Case Conversion

@KBWCAS1

Convert All to Upper Case

@KBWCAS2

Convert All to Lower Case

When the **Convert All to Lower Case** feature is enabled, barcode data "AbC" is transmitted as "abc".

If **Emulate ALT+Keypad ON** is selected, **Convert All to Lower Case** and **Convert All to Upper Case** do not function.

@SETUPE1
Enter Setup

Emulate Numeric Keypad

Do Not Emulate Numeric Keypad 1: Sending a number (0-9) is emulated as keystroke(s) on main keyboard.

Emulate Numeric Keypad 1: Sending a number (0-9) is emulated as keystroke(s) on numeric keypad. The state of Num Lock on the simulated numeric keypad is determined by its equivalent on the host device. If Num Lock on the host device is turned off, the output of simulated numeric keypad is function key instead of number.

Do Not Emulate Numeric Keypad 2: Sending "+", "-", "*" and "/" is emulated as keystroke(s) on main keyboard.

Emulate Numeric Keypad 2: Sending "+", "-", "*" and "/" is emulated as keystroke(s) on numeric keypad.
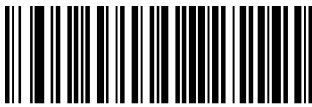
@KBWNUM0
** Do Not Emulate Numeric Keypad 1

@KBWNUM1
Emulate Numeric Keypad 1

@SETUPE0
** Exit Setup

60

@KBWNCH0

** Do Not Emulate Numeric Keypad 2

@KBWNCH1

Emulate Numeric Keypad 2

Emulate ALT+Keypad ON prevails over **Emulate Numeric Keypad**.

Supposing the **Emulate Numeric Keypad 1** feature is enabled:

if Num Lock on the host device is ON, "A4.5" is transmitted as "A4.5"; if

Num Lock on the host device is OFF, "A4.5" is transmitted as ".A":

1. "A" is sent on main keyboard;

2. "4" is sent as the function key "Cursor Move to Left";

3. "." is sent on main keyboard;

4. "5" is not sent as it does not correspond to any function key.

@SETUPE0

** Exit Setup

Fast Mode

When **Fast Mode On** is selected, the engine sends characters to the Host faster. If the Host drops characters, turn the Fast Mode off or change the polling rate to a bigger value.

@KBWFAS0

** Fast Mode Off

@KBWFAS1

Fast Mode On

User Guide

Polling Rate

This parameter specifies the polling rate for a USB keyboard. If the Host drops characters, change the polling rate to a bigger value.

||||||||||||||||||||
@KBWPOR0
1ms

||||||||||||||||||||
@KBWPOR1
2ms

||||||||||||||||||||
@KBWPOR2
3ms

||||||||||||||||||||
@KBWPOR3
** 4ms

||||||||||||||||||||
@KBWPOR4
5ms

||||||||||||||||||||
@KBWPOR5
6ms

||||||||||||||||||||
@KBWPOR6
7ms

||||||||||||||||||||
@SETUPE0
** Exit Setup

@KBWPOR7
8ms

@KBWPOR8
9ms

@KBWPOR9
10ms

@SETUPE0
** Exit Setup

User Guide

Chapter 4 Symbologies

Introduction

Every symbology (barcode type) has its own unique attributes. This chapter provides programming barcodes for configuring the scanner so that it can identify various symbologies. It is recommended to disable those that are rarely used to increase the efficiency of the scanner.

Global Settings

Enable/Disable All Symbologies

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

@ALLENA1

Enable All Symbologies

@ALLENA0

Disable All Symbologies

Enable/Disable 1D Symbologies

@ALL1DC1

Enable 1D Symbologies

@SETUPE0

** Exit Setup

@SETUPE1
Enter Setup

@ALL1DC0
Disable 1D Symbologies

Enable/Disable 2D Symbologies

@ALL2DC1
Enable 2D Symbologies

@ALL2DC0
Disable 2D Symbologies

Enable Postal Symbologies

@ALLPST1
Enable All Postal Symbologies

@ALLPST0
Disable All Postal Symbologies

66

@SETUPE0
** Exit Setup

1D Twin Code

1D twin code is two 1D barcodes of a symbology or of different symbologies paralleled vertically. Both barcodes must have similar specifications and be placed closely together.

There are 3 options for reading 1D twin code:

- **Single 1D Code Only:** Read either 1D code.

- **Twin 1D Code Only:** Read both 1D codes. Transmission sequence: upper 1D code followed by lower 1D code.

- **Both Single & Twin:** Read both 1D codes. If successful, transmit as twin 1D code only. Otherwise, try single 1D code only.
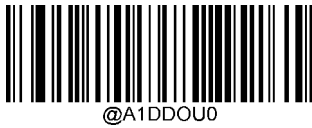
@A1DDOU0
** Single 1D Code Only

@A1DDOU2
Twin 1D Code Only
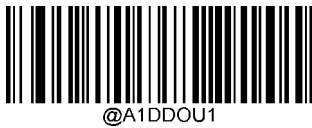
@A1DDOU1
Both Single & Twin

Code 128

Restore Factory Defaults

![@128DEF barcode]

Restore the Factory Defaults of Code 128

Enable/Disable Code 128

![@128ENA1 barcode]

** Enable Code 128

![@128ENA0 barcode]

Disable Code 128

If the scanner fails to identify Code 128 barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Code 128** barcode.

![@SETUPE0 barcode]

** Exit Setup

Set Length Range for Code 128

The scanner can be configured to only decode Code 128 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@128MIN

Set the Minimum Length (Default: 1)

@128MAX

Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes Code 128 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Code 128 barcodes with that length are to be decoded.

Set the scanner to decode Code 128 barcodes containing between 8 and12 characters:

1. Scan the **Enter Setup** barcode.

2. Scan the **Set the Minimum Length** barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Set the Maximum Length** barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the **Exit Setup** barcode.

@SETUPE0
** Exit Setup

EAN-8

Restore Factory Defaults

||||| ||| |||| ||| |||| ||||
@EA8DEF

Restore the Factory Defaults of EAN-8

Enable/Disable EAN-8

||||| |||| ||| ||| |||| |||||
@EA8ENA1
** Enable EAN-8

||||| |||| ||| ||| |||| |||||
@EA8ENA0
Disable EAN-8

If the scanner fails to identify EAN-8 barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable EAN-8** barcode.

Transmit Check Character

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

||||| |||| ||| ||| |||| |||||
@EA8CHK2
** Transmit EAN-8 Check Character

‖|‖‖|‖‖|‖‖|‖
@SETUPE1
Enter Setup

‖|‖‖|‖‖|‖‖|‖
@EA8CHK1
Do Not Transmit EAN-8 Check Character

2-Digit Add-On Code

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

1234 567

‖|‖‖|‖‖|‖‖|‖
@EA8AD20
** Disable 2-Digit Add-On Code

‖|‖‖|‖‖|‖‖|‖
@EA8AD21
Enable 2-Digit Add-On Code

Disable 2-Digit Add-On Code: The scanner decodes EAN-8 and ignores the add-on code when presented with an EAN-8 plus 2-digit add-on barcode. It can also decode EAN-8 barcodes without 2-digit add-on codes.
Enable 2-Digit Add-On Code: The scanner decodes a mix of EAN-8 barcodes with and without 2-digit add-on codes.

‖|‖‖|‖‖|‖‖|‖
@SETUPE0
** Exit Setup

User Guide

5-Digit Add-On Code

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

@EA8AD50

** Disable 5-Digit Add-On Code

@EA8AD51

Enable 5-Digit Add-On Code

Disable 5-Digit Add-On Code: The scanner decodes EAN-8 and ignores the add-on code when presented with an EAN-8 plus 5-digit add-on barcode. It can also decode EAN-8 barcodes without 5-digit add-on codes.
Enable 5-Digit Add-On Code: The scanner decodes a mix of EAN-8 barcodes with and without 5-digit add-on codes.

Convert EAN-8 to EAN-13

Convert EAN-8 to EAN-13: Convert EAN-8 decoded data to EAN-13 format before transmission. After conversion, the data follows EAN-13 format and is affected by EAN-13 programming selections (e.g., Check Character).

Do Not Convert EAN-8 to EAN-13: EAN-8 decoded data is transmitted as EAN-8 data, without conversion.

@EA8EXP0

** Do Not Convert EAN-8 to EAN-13

@EA8EXP1

Convert EAN-8 to EAN-13

@SETUPE0
** Exit Setup

EAN-13

Restore Factory Defaults

||||| ||| |||||| ||| ||||| |||
@E13DEF

Restore the Factory Defaults of EAN-13

Enable/Disable EAN-13

||||| ||| |||||| ||| ||||| |||
@E13ENA1

** Enable EAN-13

||||| ||| |||||| ||| ||||| |||
@E13ENA0

Disable EAN-13

If the scanner fails to identify EAN-13 barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable EAN-13** barcode.
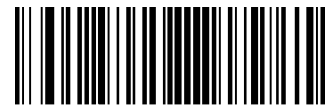
||||||||||||||||||
@SETUPE1
Enter Setup

Transmit Check Character

||||||||||||||||||
@E13CHK2
** Transmit EAN-13 Check Character

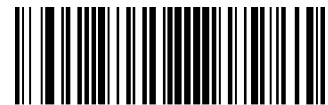||||||||||||||||||
@E13CHK1
Do Not Transmit EAN-13 Check Character

2-Digit Add-On Code

An EAN-13 barcode can be augmented with a two-digit add-on code to form a new one. In the example below, the part surrounded by blue dotted line is an EAN-13 barcode while the part circled by red dotted line is a two-digit add-on code.

||||||||||||||||||
@E13AD20
** Disable 2-Digit Add-On Code

||||||||||||||||||
@E13AD21
Enable 2-Digit Add-On Code

Disable 2-Digit Add-On Code: The scanner decodes EAN-13 and ignores the add-on code when presented with an EAN-13 plus 2-digit add-on barcode. It can also decode EAN-13 barcodes without 2- digit add-on codes.

Enable 2-Digit Add-On Code: The scanner decodes a mix of EAN-13 barcodes with and without 2-digit add-on codes.

||||||||||||||||||
@SETUPE0
** Exit Setup

5-Digit Add-On Code

An EAN-13 barcode can be augmented with a five-digit add-on code to form a new one. In the example below, the part surrounded by blue dotted line is an EAN-13 barcode while the part circled by red dotted line is a five-digit add-on code.

@E13AD50
** Disable 5-Digit Add-On Code

@E13AD51
Enable 5-Digit Add-On Code

Disable 5-Digit Add-On Code: The scanner decodes EAN-13 and ignores the add-on code when presented with an EAN-13 plus 5-digit add-on barcode. It can also decode EAN-13 barcodes without 5- digit add-on codes.

Enable 5-Digit Add-On Code: The scanner decodes a mix of EAN-13 barcodes with and without 5-digit add-on codes.
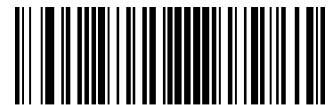
UPC-E

Restore Factory Defaults

@UPEDEF

Restore the Factory Defaults of UPC-E

Enable/Disable UPC-E

@UPEENA1

** Enable UPC-E
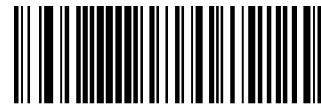
@UPEENA0

Disable UPC-E

If the scanner fails to identify UPC-E barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable UPC-E** barcode.
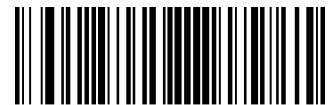
Transmit Check Character

UPC-E is 8 digits in length with the last one as its check character used to verify the integrity of the data.

@UPECHK2

** Transmit UPC-E Check Character

@UPECHK1
Do Not Transmit UPC-E Check Character

2-Digit Add-On Code

A UPC-E barcode can be augmented with a two-digit add-on code to form a new one. In the example below, the part surrounded by blue dotted line is a UPC-E barcode while the part circled by red dotted line is a two-digit add-on code.

@UPEAD20
** Disable 2-Digit Add-On Code
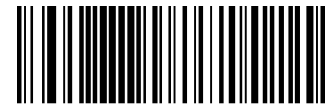
@UPEAD21
Enable 2-Digit Add-On Code

Disable 2-Digit Add-On Code: The scanner decodes UPC-E and ignores the add-on code when presented with a UPC-E plus 2-digit add-on barcode. It can also decode UPC-E barcodes without 2-digit add-on codes.
Enable 2-Digit Add-On Code: The scanner decodes a mix of UPC-E barcodes with and without 2-digit add-on codes.

@SETUPE0
** Exit Setup

5-Digit Add-On Code

A UPC-E barcode can be augmented with a five-digit add-on code to form a new one. In the example below, the part surrounded by blue dotted line is a UPC-E barcode while the part circled by red dotted line is a five-digit add-on code.

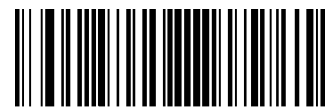@UPEAD50
** Disable 5-Digit Add-On Code

@UPEAD51
Enable 5-Digit Add-On Code

Disable 5-Digit Add-On Code: The scanner decodes UPC-E and ignores the add-on code when presented with a UPC-E plus 5-digit add-on barcode. It can also decode UPC-E barcodes without 5-digit add-on codes.
Enable 5-Digit Add-On Code: The scanner decodes a mix of UPC-E barcodes with and without 5-digit add-on codes.
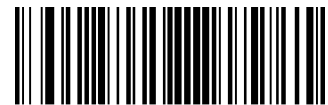
@SETUPE0
** Exit Setup

Transmit Preamble Character

Preamble characters (Country Code and System Character) can be transmitted as part of a UPC-E barcode. Select one of the following options for transmitting UPC-E preamble to the host device: transmit system character only, transmit system character and country code ("0" for USA), or transmit no preamble.

@UPEPRE1

** System Character

@UPEPRE0

No Preamble

@UPEPRE2

System Character & Country Code

Convert UPC-E to UPC-A

Convert UPC-E to UPC-A: Convert UPC-E (zero suppressed) decoded data to UPC-A format before transmission. After conversion, the data follows UPC-A format and is affected by UPC-A programming selections (e.g., Preamble, Check Character).

Do Not Convert UPC-E to UPC-A: UPC-E decoded data is transmitted as UPC-E data, without conversion.

@UPEEXP0

** Do Not Convert UPC-E to UPC-A

@UPEEXP1

Convert UPC-E to UPC-A

84

@SETUPE0

** Exit Setup

User Guide

UPC-A

Restore Factory Defaults

||||| |||||||||||| ||| |||||||
@UPADEF

Restore the Factory Defaults of UPC-A

Enable/Disable UPC-A

||||| ||||||||||||| ||| |||||
@UPAENA1

** Enable UPC-A

||||| ||||||||| ||| |||||||
@UPAENA0

Disable UPC-A

If the scanner fails to identify UPC-A barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable UPC-A** barcode.

Transmit Check Character

UPC-A is 13 digits in length with the last one as its check character used to verify the integrity of the data.

||||| |||||||||| ||| |||||||
@UPACHK2

** Transmit UPC-A Check Character

||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
@SETUPE1
Enter Setup

||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
@UPACHK1
Do Not Transmit UPC-A Check Character

2-Digit Add-On Code

A UPC-A barcode can be augmented with a two-digit add-on code to form a new one. In the example below, the part surrounded by blue dotted line is a UPC-A barcode while the part circled by red dotted line is a two-digit add-on code.

||| ||| ||| ||| ||| ||| ||| ||| |||
@UPAAD20
** Disable 2-Digit Add-On Code
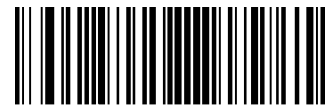
||| ||| ||| ||| ||| ||| ||| ||| |||
@UPAAD21
Enable 2-Digit Add-On Code

Disable 2-Digit Add-On Code: The scanner decodes UPC-A and ignores the add-on code when presented with a UPC-A plus 2-digit add-on barcode. It can also decode UPC-A barcodes without 2-digit add-on codes.
Enable 2-Digit Add-On Code: The scanner decodes a mix of UPC-A barcodes with and without 2-digit add-on codes.

||| ||| ||| ||| ||| ||| ||| ||| ||| |||
@SETUPE0
** Exit Setup

5-Digit Add-On Code

A UPC-A barcode can be augmented with a five-digit add-on code to form a new one. In the example below, the part surrounded by blue dotted line is a UPC-A barcode while the part circled by red dotted line is a five-digit add-on code.

@UPAAD50
** Disable 5-Digit Add-On Code
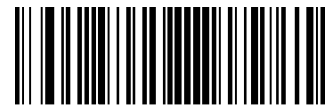
@UPAAD51
Enable 5-Digit Add-On Code

Disable 5-Digit Add-On Code: The scanner decodes UPC-A and ignores the add-on code when presented with a UPC-A plus 5-digit add-on barcode. It can also decode UPC-A barcodes without 5-digit add-on codes.

Enable 5-Digit Add-On Code: The scanner decodes a mix of UPC-A barcodes with and without 5-digit add-on codes.

Transmit Preamble Character

Preamble characters (Country Code and System Character) can be transmitted as part of a UPC-A barcode. Select one of the followingoptions for transmitting UPC-A preamble to the host device: transmit system character only or transmit system character and country code ("0" for USA).

@UPAPRE0

** No Preamble

@UPAPRE1

System Character

@UPAPRE2

System Character & Country Code

88
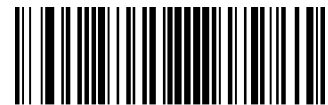
Coupon

UPC-A/EAN-13 with Extended Coupon Code

The following three types of coupon code + extended coupon code are supported:

- UPC-A (starting with "5") + GS1-128

- UPC-A (starting with "5") + GS1 Databar

- EAN-13 (starting with "99") + GS1-128

Use the appropriate barcode below to enable or disable UPC-A/EAN-13 with Extended Coupon Code. When left on the default setting (**Off**), the scanner treats Coupon Codes and Extended Coupon Codes as single bar codes.

If you scan the **Allow Concatenation** code, when the scanner sees the coupon code and the extended coupon code in a single scan, it transmits both as separate symbologies. Otherwise, it transmits the first coupon code it reads.

If you scan the **Require Concatenation** code, the scanner must see and read the coupon code and extended coupon code in a single read to transmit the data. No data is output unless both codes are read.

@CPNENA0
** Off

@CPNENA1
Allow Concatenation

@CPNENA2
Require Concatenation

When using the UPC-A Coupon feature, please ensure that **System Character** or **System Character & Country Code** is selected for the "Transmit UPC-A Preamble Character" feature.

@SETUPE0
** Exit Setup

User Guide

Coupon GS1 Databar Output

If you scan coupons that have both UPC and GS1 Databar codes, you may wish to scan and output only the data from the GS1 Databar code. Scan the **GS1 Output On** barcode below to scan and output only the GS1 Databar code data.

When **GS1 Output Off** is selected, coupons that have both UPC and GS1 Databar codes are transmitted depending on your selection for the "UPC-A/EAN-13 with Extended Coupon Code" feature.

** GS1 Output Off

GS1 Output On

When using the UPC-A Coupon feature, please ensure that **System Character** or **System Character & Country Code** is selected for the "Transmit UPC-A Preamble Character" feature.

** Exit Setup

||||| |||| ||| ||||| |||| |||||
@SETUPE1
Enter Setup

Interleaved 2 of 5

Restore Factory Defaults

||||| ||| |||||| ||| ||||| |||
@I25DEF

Restore the Factory Defaults of Interleaved 2 of 5

Enable/Disable Interleaved 2 of 5

||||| ||| |||||| ||| ||||| |||
@I25ENA1

** Enable Interleaved 2 of 5

||||| ||| |||||| ||| ||||| |||
@I25ENA0

Disable Interleaved 2 of 5

If the scanner fails to identify Interleaved 2 of 5 barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Interleaved 2 of 5** barcode.
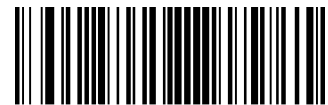
||||| |||| ||| ||||| |||| |||||
@SETUPE0
** Exit Setup

User Guide

Set Length Range for Interleaved 2 of 5

The scanner can be configured to only decode Interleaved 2 of 5 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

||||| |||| ||| |||||| ||||
@I25MIN

Set the Minimum Length (Default: 6)

||||| |||| ||| |||||| ||||
@I25MAX

Set the Maximum Length (Default: 80)

If minimum length is set to be greater than maximum length, the scanner only decodes Interleaved 2 of 5 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Interleaved 2 of 5 barcodes with that length are to be decoded.

Set the scanner to decode Interleaved 2 of 5 barcodes containing between 8 and 12 characters:

1. Scan the **Enter Setup** barcode.

2. Scan the **Set the Minimum Length** barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Set the Maximum Length** barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the **Exit Setup** barcode.

||||| |||| ||| |||||| ||||
@SETUPE0
** Exit Setup

Check Character Verification

A check character is optional for Interleaved 2 of 5 and can be added as the last character. It is a calculated value used to verify the integrity of the data.

- **Disable:** The scanner transmits Interleaved 2 of 5 barcodes as is.

- **Do Not Transmit Check Character After Verification:** The scanner checks the integrity of all Interleaved 2 of 5 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

- **Transmit Check Character After Verification:** The scanner checks the integrity of all Interleaved 2 of 5 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted, whereas those failing it will not be transmitted.

Since Interleaved 2 of 5 must always have an even number of digits, a zero may need to be added as the first digit when the check character is added. The check character is automatically generated when making Interleaved 2 of 5 barcodes.

@I25CHK0
** Disable
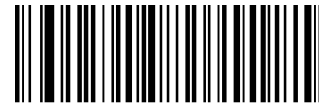
@I25CHK1
Do Not Transmit Check Character After Verification

@I25CHK2
Transmit Check Character After Verification

If the **Do Not Transmit Check Character After Verification** option is enabled, Interleaved 2 of 5 barcodes with a length that is less than the configured minimum length after having the check character excluded will not be decoded. (For example, when the **Do Not Transmit Check Character After Verification** option is enabled and the minimum length is set to 4, Interleaved 2 of 5 barcodes with a total length of 4 characters including the check character cannot be read.)
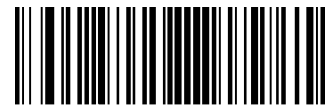
@SETUPE0
** Exit Setup

ITF-14

ITF-14 is a special kind of Interleaved 2 of 5 with a length of 14 characters and the last character as the check character.

ITF-14 priority principle: Forthe Interleaved 2 of 5 barcodes with a length of 14 characters and the last character as the check character, the ITF-14 configurations shall take precedence over the Interleaved 2 of 5 settings.

Restore Factory Defaults

@I14DEF

Restore the Factory Defaults of ITF-14

Enable/Disable ITF-14

@I14ENA0

** Disable ITF-14

@I14ENA1

Enable ITF-14 But Do Not Transmit Check Character
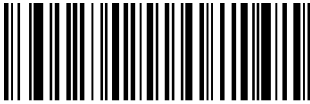
@I14ENA2

Enable ITF-14 and Transmit Check Character

An example of the ITF-14 priority principle: when ITF-14 is enabled and Interleaved 2 of 5 is disabled, the scanner only decodes Interleaved 2 of 5 barcodes with a length of 14 characters and the last character as the check character.

@SETUPE0
** Exit Setup

User Guide

ITF-6

ITF-6 is a special kind of Interleaved 2 of 5 with a length of 6 characters and the last character as the check character.

ITF-6 priority principle: For the Interleaved 2 of 5 barcodes with a length of 6 characters and the last character as the check character, the ITF-6 configurations shall take precedence over the Interleaved 2 of 5 settings.

Restore Factory Defaults

@IT6DEF

Restore the Factory Defaults of ITF-6

Enable/Disable ITF-6
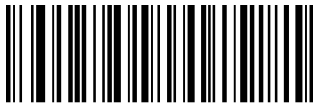
@IT6ENA0

** Disable ITF-6

@IT6ENA1

Enable ITF-6 But Do Not Transmit Check Character

@IT6ENA2

Enable ITF-6 and Transmit Check Character

An example of the ITF-6 priority principle: when ITF-6 is enabled and Interleaved 2 of 5 is disabled, the scanner only decodes Interleaved 2 of 5 barcodes with a length of 6 characters and the last character as the check character.

Matrix 2 of 5

Restore Factory Defaults

@M25DEF

Restore the Factory Defaults of Matrix 2 of 5

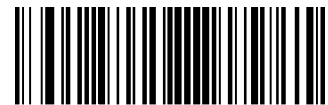### Enable/Disable Matrix 2 of 5

@M25ENA1

** Enable Matrix 2 of 5

@M25ENA0

Disable Matrix 2 of 5

If the scanner fails to identify Matrix 2 of 5 barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Matrix 2 of 5** barcode.

@SETUPE0
** Exit Setup

User Guide

Set Length Range for Matrix 2 of 5

The scanner can be configured to only decode Matrix 2 of 5 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@M25MIN

Set the Minimum Length (Default: 4)

@M25MAX

Set the Maximum Length (Default: 80)

If minimum length is set to be greater than maximum length, the scanner only decodes Matrix 2 of 5 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Matrix 2 of 5 barcodes with that length are to be decoded.

Set the scanner to decode Matrix 2 of 5 barcodes containing between 8 and 12 characters:

1.   Scan the **Enter Setup** barcode.

2.   Scan the **Set the Minimum Length** barcode.

3.   Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5.   Scan the **Set the Maximum Length** barcode.

6.   Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8.   Scan the **Exit Setup** barcode.

Check Character Verification

A check character is optional for Matrix 2 of 5 and can be added as the last character. It is a calculated value used to verify the integrity of the data.

■ **Disable:** The scanner transmitsMatrix 2 of 5 barcodes as is.

■ **Do Not Transmit Check Character After Verification:** The scanner checks the integrity of all Matrix 2 of 5 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

■ **Transmit Check Character After Verification:** The scanner checks the integrity of all Matrix 2 of 5 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted, whereas those failing it will not be transmitted.

Since Matrix 2 of 5 must always have an even number of digits, a zero may need to be added as the first digit when the check character is added. The check character is automatically generated when making Matrix 2 of 5 barcodes.

@M25CHK0
** Disable

@M25CHK1
**Do Not Transmit Check Character After Verification**

@M25CHK2
Transmit Check Character After Verification

If the **Do Not Transmit Check Character After Verification** option is enabled, Matrix 2 of 5 barcodes with a length that is less than the configured minimum length after having the check character excluded will not be decoded. (For example, when the **Do Not Transmit Check Character After Verification** option is enabled and the minimum length is set to 4, Matrix 2 of 5 barcodes with a total length of 4 characters including the check character cannot be read.)

Code 39

Restore Factory Defaults

@C39DEF

Restore the Factory Defaults of Code 39

Enable/Disable Code 39
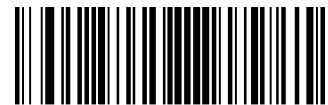
@C39ENA1

** Enable Code 39

@C39ENA0

Disable Code 39

If the scanner fails to identify Code 39 barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Code 39** barcode.

Set Length Range for Code 39

The scanner can be configured to only decode Code 39 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

||||| ||| || |||| ||| ||||||
@C39MIN

Set the Minimum Length (Default: 1)

||||| ||| || |||| ||| ||||||
@C39MAX

Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes Code 39 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Code 39 barcodes with that length are to be decoded.

Set the scanner to decode Code 39 barcodes containing between 8 and 12 characters:

1. Scan the **Enter Setup** barcode.

2. Scan the **Set the Minimum Length** barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Set the Maximum Length** barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the **Exit Setup** barcode.

||||| ||| || |||| ||| ||||||
@SETUPE0
** Exit Setup

Check Character Verification

A check character is optional for Code 39 and can be added as the last character. It is a calculated value used to verify the integrity of the data.

- **Disable:** The scanner transmitsCode 39 barcodes as is.

- **Do Not Transmit Check Character After Verification:** The scanner checks the integrity of all Code 39 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

- **Transmit Check Character After Verification:** The scanner checks the integrity of all Code 39 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted, whereas those failing it will not be transmitted.

@C39CHK0
** Disable

@C39CHK1
Do Not Transmit Check Character After Verification

@C39CHK2
Transmit Check Character After Verification

If the **Do Not Transmit Check Character After Verification** option is enabled, Code 39 barcodes with a length that is less than the configured minimum length after having the check character excluded will not be decoded. (For example, when the **Do Not Transmit Check Character After Verification** option is enabled and the minimum length is set to 4, Code 39 barcodes with a total length of 4 characters including the check character cannot be read.)

Transmit Start/Stop Character

Code 39 uses an asterisk (*) for both the start and the stop characters. You can choose whether or not to transmit the start/stop characters by scanning the appropriate barcode below.

||||| |||| ||| ||||||| ||| |||||
@C39TSC0

** Do Not Transmit Start/Stop Character

||||| |||| ||| ||||||| ||| |||||
@C39TSC1

Transmit Start/Stop Character

Enable/Disable Code 39 Full ASCII

The scanner can be configured to identify all ASCII characters by scanning the appropriate barcode below.

||||| |||| ||| ||||||| ||| |||||
@C39ASC0

** Disable Code 39 Full ASCII

||||| |||| ||| ||||||| ||| |||||
@C39ASC1

Enable Code 39 Full ASCII

||||| |||| ||| ||||||| ||| |||||
@SETUPE0
** Exit Setup

User Guide

Enable/Disable Code 32 (Italian Pharma Code)

Code 32 is a variant of Code 39 used by the Italian pharmaceutical industry. Scan the appropriate bar code below to enable or disable Code 32. Code 39 must be enabled and Code 39 check character verification must be disabled for this parameter to function.

@C39E320
** Disable Code 32

@C39E321
Enable Code 32

Code 32 Prefix

Scan the appropriate barcode below to enable or disable adding the prefix character "A" to all Code 32 barcodes. Code 32 must be enabled for this parameter to function.

@C39S320
** Disable Code 32 Prefix

@C39S321
Enable Code 32 Prefix

@SETUPE0
** Exit Setup

User Guide

Transmit Code 32 Start/Stop Character

Code 32 must be enabled for this parameter to function.

@C39T320

** Do Not Transmit Code 32 Start/Stop Character**

@C39T321

Transmit Code 32 Start/Stop Character

Transmit Code 32 Check Character

Code 32 must be enabled for this parameter to function.

@C39C320

** Do Not Transmit Code 32 Check Character**
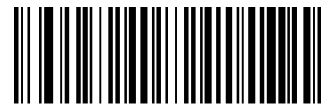
@C39C321

Transmit Code 32 Check Character
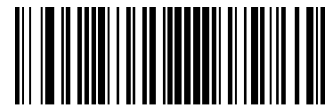
@SETUPE0
** Exit Setup

Codabar

Restore Factory Defaults

```
@CBADEF
```
Restore the Factory Defaults of Codabar

Enable/Disable Codabar

```
@CBAENA1
```
** Enable Codabar

```
@CBAENA0
```
Disable Codabar

If the scanner fails to identify Codabar barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Codabar** barcode.

Set Length Range for Codabar

The scanner can be configured to only decode Codabar barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@CBAMIN

Set the Minimum Length (Default: 2)

@CBAMAX

Set the Maximum Length (Default: 60)

If minimum length is set to be greater than maximum length, the scanner only decodes Codabar barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Codabar barcodes with that length are to be decoded.

Set the scanner to decode Codabar barcodes containing between 8 and 12 characters:

1.   Scan the **Enter Setup** barcode.

2.   Scan the **Set the Minimum Length** barcode.

3.   Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5.   Scan the **Set the Maximum Length** barcode.

6.   Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8.   Scan the **Exit Setup** barcode.

Check Character Verification

A check character is optional for Codabar and can be added as the last character. It is a calculated value used to verify the integrity of the data.

- **Disable:** The scanner transmits Codabar barcodes as is.

- **Do Not Transmit Check Character After Verification:** The scanner checks the integrity of all Codabar barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

- **Transmit Check Character After Verification:** The scanner checks the integrity of all Codabar barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted, whereas those failing it will not be transmitted.
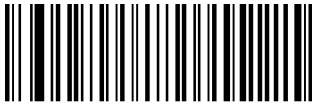
@CBACHK0
** Disable
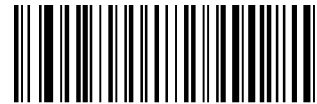
@CBACHK1
Do Not Transmit Check Character After Verification
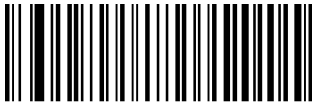
@CBACHK2
Transmit Check Character After Verification

If the **Do Not Transmit Check Character After Verification** option is enabled, Codabar barcodes with a length that is less than the configured minimum length after having the check character excluded will not be decoded. (For example, when the **Do Not Transmit Check Character After Verification** option is enabled and the minimum length is set to 4, Codabar barcodes with a total length of 4 characters including the check character cannot be read.)
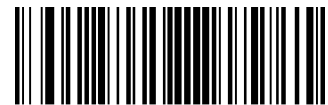
Start/Stop Character

You can set the start/stop characters and choose whether or not to transmit the start/stop characters by scanning the appropriate barcode below.

@CBATSC0

** Do Not Transmit Start/Stop Character
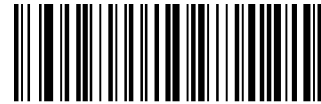
@CBATSC1

Transmit Start/Stop Character

@CBASCF0

** ABCD/ABCD as the Start/Stop Character

@CBASCF1

ABCD/TN*E as the Start/Stop Character

@CBASCF2

abcd/abcd as the Start/Stop Character

@CBASCF3

abcd/tn*e as the Start/Stop Character
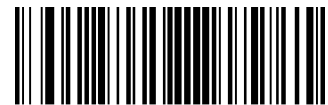
@SETUPE0

** Exit Setup

Code 93

Restore Factory Defaults

@C93DEF

Restore the Factory Defaults of Code 93

Enable/Disable Code 93

@C93ENA1

Enable Code 93

@C93ENA0

** Disable Code 93

If the scanner fails to identify Code 93 barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Code 93** barcode.
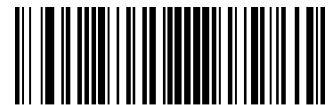
@SETUPE0
** Exit Setup

Set Length Range for Code 93

The scanner can be configured to only decode Code 93 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@C93MIN

Set the Minimum Length (Default: 1)

@C93MAX

Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes Code 93 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Code 93 barcodes with that length are to be decoded.

Set the scanner to decode Code 93 barcodes containing between 8 and 12 characters:

1. Scan the **Enter Setup** barcode.

2. Scan the **Set the Minimum Length** barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Set the Maximum Length** barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the **Exit Setup** barcode.

User Guide

Check Character Verification

Check characters are optional for Code 93 and can be added as the last two characters, which are calculated values used to verify the integrity of the data.

- **Disable:** The scanner transmits Code 93 barcodes as is.

- **Do Not Transmit Check Character After Verification:** The scanner checks the integrity of all Code 93 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the checks will be transmitted except the last two digits, whereas those failing them will not be transmitted.

- **Transmit Check Character After Verification:** The scanner checks the integrity of all Code 93 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the checks will be transmitted, whereas those failing them will not be transmitted.

@C93CHK0
Disable
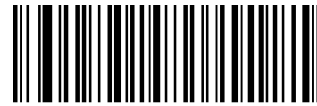
@C93CHK1
** Do Not Transmit Check Character After Verification

@C93CHK2
Transmit Check Character After Verification

If the **Do Not Transmit Check Character After Verification** option is enabled, Code 93 barcodes with a length that is less than the configured minimum length after having the two check characters excluded will not be decoded. (For example, when the **Do Not Transmit Check Character After Verification** option is enabled and the minimum length is set to 4, Code 93 barcodes with a total length of 4 characters including the two check characters cannot be read.)

@SETUPE1
Enter Setup

China Post 25

Restore Factory Defaults

@CHPDEF
Restore the Factory Defaults of China Post 25

Enable/Disable China Post 25

@CHPENA1
Enable China Post 25
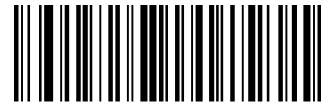
@CHPENA0
** Disable China Post 25

If the scanner fails to identify China Post 25 barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable China Post 25** barcode.
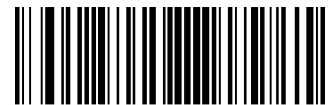
@SETUPE0
** Exit Setup

Set Length Range for China Post 25

The scanner can be configured to only decode China Post 25 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@CHPMIN
Set the Minimum Length (Default: 1)

@CHPMAX
Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes China Post 25 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only China Post 25 barcodes with that length are to be decoded.

Set the scanner to decode China Post 25 barcodes containing between 8 and 12 characters:

1. Scan the **Enter Setup** barcode.

2. Scan the **Set the Minimum Length** barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Set the Maximum Length** barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the **Exit Setup** barcode.

User Guide

Check Character Verification

A check character is optional for China Post 25 and can be added as the last character. It is a calculated value used to verify the integrity of the data.

- **Disable:** The scanner transmits China Post 25 barcodes as is.

- **Do Not Transmit Check Character After Verification:** The scanner checks the integrity of all China Post 25 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

- **Transmit Check Character After Verification:** The scanner checks the integrity of all China Post 25 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted, whereas those failing it will not be transmitted.

@CHPCHK0
** Disable

@CHPCHK1
Do Not Transmit Check Character After Verification

@CHPCHK2
Transmit Check Character After Verification

If the **Do Not Transmit Check Character After Verification** option is enabled, China Post 25 barcodes with a length that is less than the configured minimum length after having the check character excluded will not be decoded. (For example, when the **Do Not Transmit Check Character After Verification** option is enabled and the minimum length is set to 4, China Post 25 barcodes with a total length of 4 characters including the check character cannot be read.)
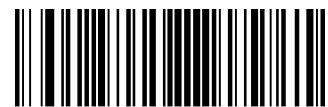
GS1-128 (UCC/EAN-128)

Restore Factory Defaults

@GS1DEF
Restore the Factory Defaults of GS1-128

Enable/Disable GS1-128

@GS1ENA1
** Enable GS1-128

@GS1ENA0
Disable GS1-128

If the scanner fails to identify GS1-128 barcodes, you may first try this solution by scanning the **EnterSetup** barcode and then **Enable GS1-128** barcode.

@SETUPE0
** Exit Setup

Set Length Range for GS1-128

The scanner can be configured to only decode GS1-128 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@GS1MIN

Set the Minimum Length (Default: 1)

@GS1MAX

Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes GS1-128 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only GS1-128 barcodes with that length are to be decoded.

Set the scanner to decode GS1-128 barcodes containing between 8 and 12 characters:

1. Scan the **Enter Setup** barcode.

2. Scan the **Set the Minimum Length** barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Set the Maximum Length** barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the **Exit Setup** barcode.

GS1 Databar (RSS)

Restore Factory Defaults

![@RSSDEF]

Restore the Factory Defaults of GS1 Databar

Enable/Disable GS1 Databar

![@RSSENA1]

** Enable GS1 Databar
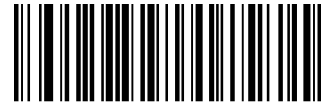
![@RSSENA0]

Disable GS1 Databar

If the scanner fails to identify GS1 Databar barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable GS1 Databar** barcode.

Transmit Application Identifier "01"

![@RSSTAI1]

** Transmit Application Identifier"01"
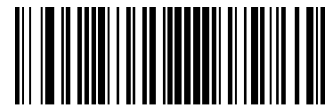
![@SETUPE0]

** Exit Setup

||||||||||||||||||||||
@SETUPE1
Enter Setup

||||||||||||||||||||||
@RSSTAI0
Do Not Transmit Application Identifier"01"

GS1 Composite (EAN·UCC Composite)

Restore Factory Defaults

||||||||||||||||||||||
@CPTDEF
Restore the Factory Defaults of GS1 Composite

Enable/Disable GS1 Composite

||||||||||||||||||||||
@CPTENA1
Enable GS1 Composite
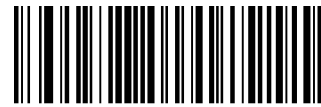
||||||||||||||||||||||
@CPTENA0
** Disable GS1 Composite

If the scanner fails to identify GS1 Composite barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable GS1 Composite** barcode.

||||||||||||||||||||||
@SETUPE0
** Exit Setup

@SETUPE1
Enter Setup

Enable/Disable UPC/EAN Composite

@CPTUPC1
Enable UPC/EAN Composite

@CPTUPC0
** Disable UPC/EAN Composite

Code 11

Restore Factory Defaults

@C11DEF
Restore the Factory Defaults of Code 11

Enable/Disable Code 11

@C11ENA1
Enable Code 11

@C11ENA0
** Disable Code 11

If the scanner fails to identify Code 11 barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Code 11** barcode.

@SETUPE0
** Exit Setup

User Guide

Set Length Range for Code 11

The scanner can be configured to only decode Code 11 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@C11MIN
Set the Minimum Length (Default: 4)

@C11MAX
Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes Code 11 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Code 11 barcodes with that length are to be decoded.

Set the scanner to decode Code 11 barcodes containing between 8 and 12 characters:

1. Scan the **Enter Setup** barcode.

2. Scan the **Set the Minimum Length** barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Set the Maximum Length** barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the **Exit Setup** barcode.

User Guide

Check Character Verification

Check characters are optional for Code 11 and can be added as the last one or two characters, which are calculated values used to verify the integrity of the data.

If the **Disable** option is enabled, the scanner transmits Code 11 barcodes as is.

@C11CHK0
Disable

@C11CHK1
** One Check Character, MOD11

@C11CHK2
Two Check Characters, MOD11/MOD11

@C11CHK3
Two Check Characters, MOD11/MOD9

@C11CHK4
One Check Character, MOD11 (Len<=10) Two Check Characters, MOD11/MOD11(Len>10)

@C11CHK5
One Check Character, MOD11 (Len<=10) Two Check Characters, MOD11/MOD9 (Len>10)

@SETUPE0
** Exit Setup

User Guide

Transmit Check Character

![barcode @C11TCK0]

@C11TCK0

Do Not Transmit Code 11 Check Character
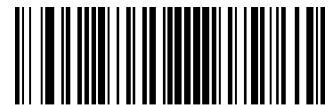
![barcode @C11TCK1]

@C11TCK1

** Transmit Code 11 Check Character

If you select a check character algorithm and the **Do Not Transmit Check Character** option, Code 11 barcodes with a length that is less than the configured minimum length after having the check character(s) excluded will not be decoded. (For example, when the **One Check Character, MOD11** and **Do Not Transmit Check Character** options are enabled and the minimum length is set to 4, Code 11 barcodes with a total length of 4 characters including the check character cannot be read.)

User Guide

ISBN

Restore Factory Defaults

|||||||||||||||||||||||||||||||
@ISBDEF
Restore the Factory Defaults of ISBN

Enable/Disable ISBN

|||||||||||||||||||||||||||||||
@ISBENA1
Enable ISBN

|||||||||||||||||||||||||||||||
@ISBENA0
** Disable ISBN

If the scanner fails to identify ISBN barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable ISBN** barcode.

User Guide

Set ISBN Format

@ISBT101
** ISBN-10

@ISBT100
ISBN-13
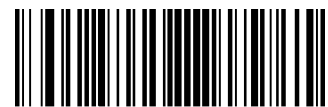
@SETUPE0
** Exit Setup

ISSN

Restore Factory Defaults

@ISSDEF
Restore the Factory Defaults of ISSN
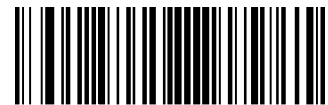
Enable/Disable ISSN

@ISSENA1
Enable ISSN

@ISSENA0
** Disable ISSN

If the scanner fails to identify ISSN barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable ISSN** barcode.

Industrial 25

User Guide

Restore Factory Defaults

@L25DEF
Restore the Factory Defaults of Industrial 25

Enable/Disable Industrial 25

@L25ENA1
Enable Industrial 25

@L25ENA0
** Disable Industrial 25

If the scanner fails to identify Industrial 25 barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Industrial 25** barcode.

126

Set Length Range for Industrial 25

The scanner can be configured to only decode Industrial 25 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

||||| ||||||| |||| ||||||
@L25MIN

Set the Minimum Length (Default: 6)

||||| ||||||| |||| ||||||
@L25MAX

Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes Industrial 25 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Industrial 25 barcodes with that length are to be decoded.

Set the scanner to decode Industrial 25 barcodes containing between 8 and 12 characters:

1.   Scan the **Enter Setup** barcode.

2.   Scan the **Set the Minimum Length** barcode.

3.   Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5.   Scan the **Set the Maximum Length** barcode.

6.   Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8.   Scan the **Exit Setup** barcode.

Check Character Verification

A check character is optional for Industrial 25 and can be added as the last character. It is a calculated value used to verify the integrity of the data.

- **Disable:** The scanner transmits Industrial 25 barcodes as is.

- **Do Not Transmit Check Character After Verification:** The scanner checks the integrity of all Industrial 25 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

- **Transmit Check Character After Verification:** The scanner checks the integrity of all Industrial 25 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted, whereas those failing it will not be transmitted.

@L25CHK0
** Disable
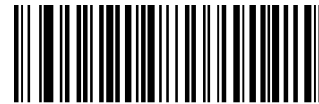
@L25CHK1
Do Not Transmit Check Character After Verification

@L25CHK2
Transmit Check Character After Verification

If the **Do Not Transmit Check Character After Verification** option is enabled, Industrial 25 barcodes with a length that is less than the configured minimum length after having the check character excluded will not be decoded. (For example, when the **Do Not Transmit Check Character After Verification** option is enabled and the minimum length is set to 4, Industrial 25 barcodes with a total length of 4 characters including the check character cannot be read.)

User Guide

Standard 25

Restore Factory Defaults

@S25DEF
Restore the Factory Defaults of Standard 25

Enable/Disable Standard 25

@S25ENA1
Enable Standard 25

@S25ENA0
** Disable Standard 25

If the scanner fails to identify Standard 25 barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Standard 25** barcode.

User Guide

Set Length Range for Standard 25

The scanner can be configured to only decode Standard 25 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@S25MIN

Set the Minimum Length (Default: 6)

@S25MAX

Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes Standard 25 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Standard 25 barcodes with that length are to be decoded.

Set the scanner to decode Standard 25 barcodes containing between 8 and 12 characters:

1. Scan the **Enter Setup** barcode.

2. Scan the **Set the Minimum Length** barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Set the Maximum Length** barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the **Exit Setup** barcode.

@SETUPE0
** Exit Setup

User Guide

Check Character Verification

A check character is optional for Standard 25 and can be added as the last character. It is a calculated value used to verify the integrity of the data.

- **Disable:** The scanner transmits Standard 25 barcodes as is.

- **Do Not Transmit Check Character After Verification:** The scanner checks the integrity of all Standard 25 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

- **Transmit Check Character After Verification:** The scanner checks the integrity of all Standard 25 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted, whereas those failing it will not be transmitted.

||||| ||||||||| |||| | | ||||| |||||||||
@S25CHK0
** Disable

||| |||| ||||||| ||| |||| || |||||||
@S25CHK1
Do Not Transmit Check Character After Verification

||||| |||||||||| || ||||| | ||||| |||||||
@S25CHK2
Transmit Check Character After Verification

If the **Do Not Transmit Check Character After Verification** option is enabled, Standard 25 barcodes with a length that is less than the configured minimum length after having the check character excluded will not be decoded. (For example, when the **Do Not Transmit Check Character After Verification** option is enabled and the minimum length is set to 4, Standard 25 barcodes with a total length of 4 characters including the check character cannot be read.)

Plessey

Restore Factory Defaults

@PLYDEF
Restore the Factory Defaults of Plessey

Enable/Disable Plessey

@PLYENA1
Enable Plessey

@PLYENA0
** Disable Plessey

If the scanner fails to identify Plessey barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Plessey** barcode.

User Guide

Set Length Range for Plessey

The scanner can be configured to only decode Plessey barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@PLYMIN
Set the Minimum Length (Default: 4)

@PLYMAX
Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes Plessey barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Plessey barcodes with that length are to be decoded.

Set the scanner to decode Plessey barcodes containing between 8 and 12 characters:

1. Scan the **Enter Setup** barcode.

2. Scan the **Set the Minimum Length** barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Set the Maximum Length** barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the **Exit Setup** barcode.

@SETUPE0
** Exit Setup

User Guide

Check Character Verification

Check characters are optional for Plessey and can be added as the last two characters, which are calculated values used to verify the integrity of the data.

- **Disable:** The scanner transmits Plessey barcodes as is.

- **Do Not Transmit Check Character After Verification:** The scanner checks the integrity of all Plessey barcodes to verify that the data complies with the check character algorithm. Barcodes passing the checks will be transmitted except the last two digits, whereas those failing them will not be transmitted.

- **Transmit Check Character After Verification:** The scanner checks the integrity of all Plessey barcodes to verify that the data complies with the check character algorithm. Barcodes passing the checks will be transmitted, whereas those failing them will not be transmitted.

@PLYCHK0
** Disable
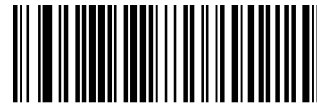
@PLYCHK1
Do Not Transmit Check Character After Verification

@PLYCHK2
Transmit Check Character After Verification

If the **Do Not Transmit Check Character After Verification** option is enabled, Plessey barcodes with a length that is less than the configured minimum length after having the check characters excluded will not be decoded. (For example, when the **Do Not Transmit Check Character After Verification** option is enabled and the minimum length is set to 4, Plessey barcodes with a total length of 4 characters including the check characters cannot be read.)

@SETUPE0
** Exit Setup

User Guide
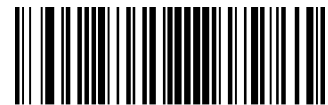
MSI-Plessey

Restore Factory Defaults

@MSIDEF
Restore the Factory Defaults of MSI-Plessey

Enable/Disable MSI-Plessey

@MSIENA1
Enable MSI-Plessey

@MSIENA0
** Disable MSI-Plessey

If the scanner fails to identify MSI-Plessey barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable MSI-Plessey** barcode.

Set Length Range for MSI-Plessey

The scanner can be configured to only decode MSI-Plessey barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

||||||| ||||| ||||| |||||||
@MSIMIN

Set the Minimum Length (Default: 4)

||||||| ||||| ||||| |||||||
@MSIMAX
Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes MSI-Plessey barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only MSI-Plessey barcodes with that length are to be decoded.

Set the scanner to decode MSI-Plessey barcodes containing between 8 and 12 characters:

1.   Scan the **Enter Setup** barcode.

2.   Scan the **Set the Minimum Length** barcode.

3.   Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5.   Scan the **Set the Maximum Length** barcode.

6.   Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8.   Scan the **Exit Setup** barcode.

||||||| ||||| ||||| |||||||
@SETUPE0
** Exit Setup

User Guide

Check Character Verification

Check characters are optional for MSI-Plessey and can be added as the last one or two characters, which are calculated values used to verify the integrity of the data.

If the **Disable** option is enabled, the scanner transmits MSI-Plessey barcodes as is.

Disable

** One Check Character, MOD10

Two Check Characters, MOD10/MOD10

Two Check Characters, MOD10/MOD11

User Guide

Transmit Check Character

![barcode @MSITCK1]

@MSITCK1

** Transmit MSI-Plessey Check Character

![barcode @MSITCK0]

@MSITCK0

Do Not Transmit MSI-Plessey Check Character

If you select a check character algorithm and the **Do Not Transmit Check Character** option, MSI-Plessey barcodes with a length that is less than the configured minimum length after having the check character(s) excluded will not be decoded. (For example, when the **One Check Character, MOD10** and **Do Not Transmit Check Character** options are enabled and the minimum length is set to 4, MSI-Plessey barcodes with a total length of 4 characters including the check character cannot be read.)

![barcode @SETUPE0]

@SETUPE0

** Exit Setup

AIM 128

Restore Factory Defaults

@AIMDEF
Restore the Factory Defaults of AIM 128

Enable/Disable AIM 128
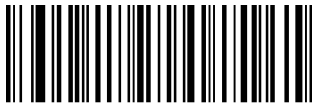
@AIMENA1
Enable AIM 128

@AIMENA0
** Disable AIM 128

If the scanner fails to identify AIM 128 barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable AIM 128** barcode.

Set Length Range for AIM 128

The scanner can be configured to only decode AIM 128 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@AIMMIN
Set the Minimum Length (Default: 1)

@AIMMAX
Set the Maximum Length (Default: 48)
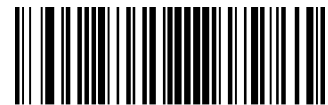
If minimum length is set to be greater than maximum length, the scanner only decodes AIM 128 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only AIM 128 barcodes with that length are to be decoded.

Set the scanner to decode AIM 128 barcodes containing between 8 and 12 characters:

1.   Scan the **Enter Setup** barcode.

2.   Scan the **Set the Minimum Length** barcode.

3.   Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5.   Scan the **Set the Maximum Length** barcode.

6.   Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8.   Scan the **Exit Setup** barcode.

User Guide

ISBT 128

Restore Factory Defaults

@IBTDEF
Restore the Factory Defaults of ISBT 128

Enable/Disable ISBT 128

@IBTENA1
Enable ISBT 128

@IBTENA0
** Disable ISBT 128

If the scanner fails to identify ISBT 128 barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable ISBT 128** barcode.

User Guide

Code 49

Restore Factory Defaults

@C49DEF

Restore the Factory Defaults of Code 49

Enable/Disable Code 49

@C49ENA1

Enable Code 49

@C49ENA0

** Disable Code 49

If the scanner fails to identify Code 49 barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Code 49** barcode.

@SETUPE0
** Exit Setup

Set Length Range for Code 49

The scanner can be configured to only decode Code 49 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@C49MIN

Set the Minimum Length (Default: 1)
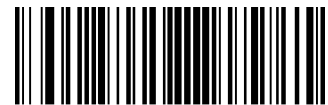
@C49MAX

Set the Maximum Length (Default: 80)

If minimum length is set to be greater than maximum length, the scanner only decodes Code 49 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Code 49 barcodes with that length are to be decoded.

Set the scanner to decode Code 49 barcodes containing between 8 and 12 characters:

1. Scan the **Enter Setup** barcode.

2. Scan the **Set the Minimum Length** barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Set the Maximum Length** barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the **Exit Setup** barcode.

User Guide

Code 16K

Restore Factory Defaults

@16KDEF
Restore the Factory Defaults of Code 16K

Enable/Disable Code 16K

@16KENA1
Enable Code 16K

@16KENA0
** Disable Code 16K

If the scanner fails to identify Code 16K barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Code 16K** barcode.
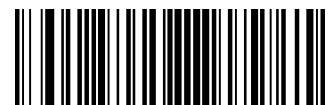
Set Length Range for Code 16K

The scanner can be configured to only decode Code 16K barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

Set the Minimum Length (Default: 1)

Set the Maximum Length (Default: 80)

If minimum length is set to be greater than maximum length, the scanner only decodes Code 16K barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Code 16K barcodes with that length are to be decoded.

Set the scanner to decode Code 16K barcodes containing between 8 and 12 characters:

1.   Scan the **Enter Setup** barcode.

2.   Scan the **Set the Minimum Length** barcode.

3.   Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5.   Scan the **Set the Maximum Length** barcode.

6.   Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8.   Scan the **Exit Setup** barcode.

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PDF417

Restore Factory Defaults

@PDFDEF
Restore the Factory Defaults of PDF417

Enable/Disable PDF417

@PDFENA1
** Enable PDF417

@PDFENA0
Disable PDF417

If the scanner fails to identify PDF417 barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable PDF417** barcode.

User Guide
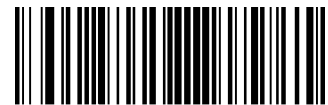
Set Length Range for PDF417

The scanner can be configured to only decode PDF417 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

```
@PDFMIN
```
Set the Minimum Length (Default: 1)

```
@PDFMAX
```
Set the Maximum Length (Default: 2710)

Minimum length is not allowed to be greater than maximum length. If you only want to read PDF417 barcodes with a specific length, set both minimum and maximum lengths to be that desired length.

Set the scanner to decode PDF417 barcodes containing between 8 and 12 characters:

1.   Scan the **Enter Setup** barcode.

2.   Scan the **Set the Minimum Length** barcode.

3.   Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5.   Scan the **Set the Maximum Length** barcode.

6.   Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8.   Scan the **Exit Setup** barcode.

User Guide

PDF417 Twin Code

PDF417 twin code is 2 PDF417 barcodes paralleled vertically or horizontally. They must both be either regular or inverse barcodes. They must have similar specifications and be placed closely together.

There are 3 options for reading PDF417 twin codes:

■ **Single PDF417 Only:** Read either PDF417 code.

■ **Twin PDF417 Only:** Read both PDF417 codes.

■ **Both Single & Twin:** Read both PDF417 codes. If successful, transmit as twin PDF417 only. Otherwise, try single PDF417 only.

@PDFDOU0
** Single PDF417 Only

@PDFDOU1
Twin PDF417 Only

@PDFDOU2
Both Single & Twin

User Guide
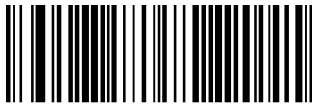
PDF417 Inverse

Regular barcode: Dark bars on a bright background.

Inverse barcode: Bright bars on a dark background.

@PDFINV0
** Decode Regular PDF417 Barcodes Only

@PDFINV1
Decode Inverse PDF417 Barcodes Only

@PDFINV2
Decode Both

Character Encoding

@PDFENC0
** Default Character Encoding

@PDFENC1
UTF-8

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User Guide
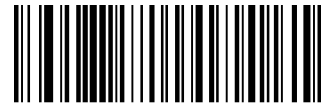
PDF417 ECI Output

@PDFECI0

Disable PDF417 ECI Output

@PDFECI1

** Enable PDF417 ECI Output

@SETUPE0
** Exit Setup

User Guide
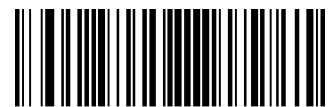
Micro PDF417

Restore Factory Defaults

@MPDDEF
Restore the Factory Defaults of Micro PDF417

Enable/Disable Micro PDF417

@MPDENA0
Enable Micro PDF417

@MPDENA1
** Disable Micro PDF417

If the scanner fails to identify Micro PDF417 barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Micro PDF417** barcode.

Set Length Range for Micro PDF417

The scanner can be configured to only decode Micro PDF417 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@MPDMIN

Set the Minimum Length (Default: 1)

@MPDMAX

Set the Maximum Length (Default: 366)

Minimum length is not allowed to be greater than maximum length. If you only want to read Micro PDF417 barcodes with a specific length, set both minimum and maximum lengths to be that desired length.

Set the scanner to decode Micro PDF417 barcodes containing between 8 and 12 characters:

1. Scan the **Enter Setup** barcode.

2. Scan the **Set the Minimum Length** barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Set the Maximum Length** barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the **Exit Setup** barcode.

User Guide

QR Code

Restore Factory Defaults

@QRCDEF
**Restore the Factory Defaults of QR Code**

Enable/Disable QR Code

@QRCENA1
** Enable QR Code

@QRCENA0
Disable QR Code

If the scanner fails to identify QR Code barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable QR Code** barcode.

@SETUPE0
** Exit Setup

Set Length Range for QR Code

The scanner can be configured to only decode QR Code barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@QRCMIN
Set the Minimum Length (Default: 1)

@QRCMAX
Set the Maximum Length (Default: 7089)

Minimum length is not allowed to be greater than maximum length. If you only want to read QR Code barcodes with a specific length, set both minimum and maximum lengths to be that desired length.

Set the scanner to decode QR Code barcodes containing between 8 and 12 characters:

1. Scan the **Enter Setup** barcode.

2. Scan the **Set the Minimum Length** barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Set the Maximum Length** barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the **Exit Setup** barcode.

User Guide

QR Twin Code

QR twin code is 2 QR barcodes paralleled vertically or horizontally. They must both be either regular or inverse barcodes. They must have similar specifications and be placed closely together.

There are 3 options for reading QR twin codes:

- **Single QR Only:** Read either QR code.

- **Twin QR Only:** Read both QR codes. Transmission sequence: left (upper) QR code followed by right (lower) QR code.

- **Both Single & Twin:** Read both QR codes. If successful, transmit as twin QR only. Otherwise, try single QR only.
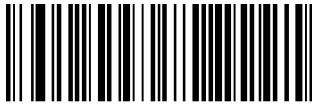
@QRCDOU0
** Single QR Only

@QRCDOU1
Twin QR Only

@QRCDOU2
Both Single & Twin

User Guide
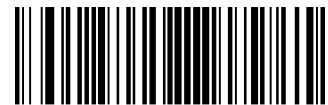
QR Inverse

Regular barcode: Dark bars on a bright background.

Inverse barcode: Bright bars on a dark background.
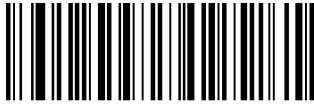
@QRCINV0

** Decode Regular QR Barcodes Only

@QRCINV1

Decode Inverse QR Barcodes Only

@QRCINV2

Decode Both

Character Encoding

@QRCENC0

** Default Character Encoding

@QRCENC1

UTF-8
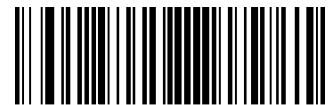
User Guide

QR ECI Output

Disable QR ECI Output

** Enable QR ECI Output

Micro QR Code

Restore Factory Defaults

@MQRDEF
Restore the Factory Defaults of Micro QR

Enable/Disable Micro QR

@MQRENA1
** Enable Micro QR

@MQRENA0
Disable Micro QR

If the scanner fails to identify Micro QR barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Micro QR** barcode.

User Guide

Set Length Range for Micro QR

The scanner can be configured to only decode Micro QR barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@MQRMIN

Set the Minimum Length (Default: 1)

@MQRMAX

Set the Maximum Length (Default: 35)

Minimum length is not allowed to be greater than maximum length. If you only want to read Micro QR barcodes with a specific length, set both minimum and maximum lengths to be that desired length.

Set the scanner to decode Micro QR Code barcodes containing between 8 and 12 characters:

1. Scan the **Enter Setup** barcode.

2. Scan the **Set the Minimum Length** barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Set the Maximum Length** barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the **Exit Setup** barcode.
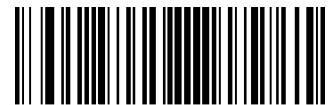
Aztec

Restore Factory Defaults

@AZTDEF
Restore the Factory Defaults of Aztec Code

Enable/Disable Aztec Code

@AZTENA1
Enable Aztec Code

@AZTENA0
** Disable Aztec Code

If the scanner fails to identify Aztec Code barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Aztec Code** barcode.

@SETUPE0
** Exit Setup

Set Length Range for Aztec Code

The scanner can be configured to only decode Aztec barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@AZTMIN
Set the Minimum Length (Default: 1)

@AZTMAX
Set the Maximum Length (Default: 3832)

Minimum length is not allowed to be greater than maximum length. If you only want to read Aztec barcodes with a specific length, set both minimum and maximum lengths to be that desired length.

Set the scanner to decode Aztec barcodes containing between 8 and 12 characters:

1.   Scan the **Enter Setup** barcode.

2.   Scan the **Set the Minimum Length** barcode.

3.   Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5.   Scan the **Set the Maximum Length** barcode.

6.   Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8.   Scan the **Exit Setup** barcode.

User Guide

Read Multi-barcodes on an Image

There are three options:

- ■ **Mode 1:** Read one barcode only.

- ■ **Mode 2:** Read fixed number of barcodes only.

- ■ **Mode 3:** Composite Reading. Read fixed number of barcodes first. If unsuccessful, read one barcode only.
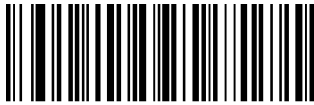
@AZTMOD1
** Mode 1

@AZTMOD2
Mode 2

@AZTMOD3
Mode 3

@SETUPE0
** Exit Setup

Set the Number of Barcodes

@AZTMUL1
** 1

@AZTMUL2
2
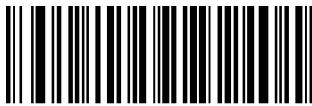
@AZTMUL3
3

@AZTMUL4
4

@AZTMUL5
5

@AZTMUL6
6

@AZTMUL7
7

@AZTMUL8
8

@SETUPE0
** Exit Setup

Character Encoding

||||| ||| ||||| |||| ||||| |||||
@AZTENC0

** Default Character Encoding

||||| ||| ||||| |||| ||||| |||||
@AZTENC1
UTF-8

Aztec ECI Output
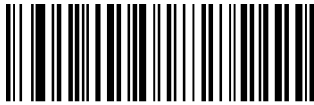
||||| ||| ||||| |||| ||||| |||||
@AZTECI0

Disable Aztec ECI Output

||||| ||| ||||| |||| ||||| |||||
@AZTECI1
** Enable Aztec ECI Output
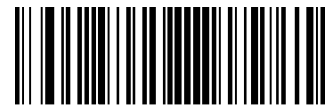
||||| ||| ||||| |||| ||||| |||||
@SETUPE0
** Exit Setup

Data Matrix

Restore Factory Defaults

@DMCDEF

Restore the Factory Defaults of Data Matrix

Enable/Disable Data Matrix

@DMCENA1

** Enable Data Matrix

@DMCENA0

Disable Data Matrix

If the scanner fails to identify Data Matrix barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Data Matrix** barcode.

@SETUPE0

** Exit Setup

User Guide

Set Length Range for Data Matrix

The scanner can be configured to only decode Data Matrix barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

```
@DMCMIN
```
Set the Minimum Length (Default: 1)

```
@DMCMAX
```
Set the Maximum Length (Default: 3116)

Minimum length is not allowed to be greater than maximum length. If you only want to read Data Matrix barcodes with a specific length, set both minimum and maximum lengths to be that desired length.

Set the scanner to decode Data Matrix barcodes containing between 8 and 12 characters:

1. Scan the **Enter Setup** barcode.

2. Scan the **Set the Minimum Length** barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Set the Maximum Length** barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the **Exit Setup** barcode.

Data Matrix Twin Code

Data Matrix twin code is 2 Data Matrix barcodes paralleled vertically or horizontally. They must both be either regular or inverse barcodes. They must have similar specifications and be placed closely together.

There are 3 options for reading Data Matrix twin codes:

- ■ **Single Data Matrix Only:** Read either Data Matrix code.

- ■ **Twin Data Matrix Only:** Read both Data Matrix codes. Transmission sequence: left (upper) Data Matrix code followed by right (lower) Data Matrix code.

- ■ **Both Single & Twin:** Read both Data Matrix codes. If successful, transmit as twin Data Matrix only. Otherwise, try single Data Matrix only.

@DMCDOU0

** Single Data Matrix Only

@DMCDOU1

Twin Data Matrix Only

@DMCDOU2

Both Single & Twin

@SETUPE0
** Exit Setup

User Guide

Rectangular Barcode

Data Matrix has two formats:

Square barcodes having the same amount of modules in length and width: 10*10, 12*12.... 144*144.

Rectangular barcodes having different amounts of models in length and width: 6*16, 6*14...14*22.
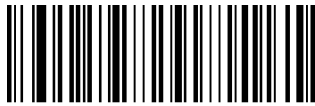
@DMCREC1

** Enable Rectangular Barcode

@DMCREC0

Disable Rectangular Barcode

Data Matrix Inverse

Regular barcode: Dark bars on a bright background.

Inverse barcode: Bright bars on a dark background.

@DMCINV0

** Decode Regular Data Matrix Barcodes Only

@DMCINV1

Decode Inverse Data Matrix Barcodes Only

@DMCINV2

Decode Both

@SETUPE0
** Exit Setup

User Guide

Character Encoding

![barcode @DMCENC0]

** Default Character Encoding**

![barcode @DMCENC1]

UTF-8

Data Matrix ECI Output

![barcode @DMCECI0]

Disable Data Matrix ECI Output

![barcode @DMCECI1]

** Enable Data Matrix ECI Output**

User Guide

Maxicode

Restore Factory Defaults

@MXCDEF
Restore the Factory Defaults of Maxicode

Enable/Disable Maxicode

@MXCENA1
Enable Maxicode

@MXCENA0
** Disable Maxicode

If the scanner fails to identify Maxicode barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Maxicode** barcode.

User Guide

Set Length Range for Maxicode

The scanner can be configured to only decode Maxicode barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@MXCMIN

Set the Minimum Length (Default: 1)

@MXCMAX

**Set the Maximum Length (Default:150)**

Minimum length is not allowed to be greater than maximum length. If you only want to read Maxicode barcodes with a specific length, set both minimum and maximum lengths to be that desired length.

Set the scanner to decode Maxicode barcodes containing between 8 and 12 characters:

1. Scan the **Enter Setup** barcode.

2. Scan the **Set the Minimum Length** barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Set the Maximum Length** barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the **Exit Setup** barcode.

User Guide

Chinese Sensible Code

Restore Factory Defaults

@CSCDEF
Restore the Factory Defaults of Chinese Sensible Code

Enable/Disable Chinese Sensible Code

@CSCENA1
Enable Chinese Sensible Code

@CSCENA0
** Disable Chinese Sensible Code

If the scanner fails to identify Chinese Sensible Code barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Chinese Sensible Code** barcode.

@SETUPE0
** Exit Setup

User Guide

Set Length Range for Chinese Sensible Code

The scanner can be configured to only decode Chinese Sensible Code barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@CSCMIN

Set the Minimum Length (Default: 1)

@CSCMAX

Set the Maximum Length (Default: 7827)

Minimum length is not allowed to be greater than maximum length. If you only want to read Chinese Sensible Code barcodes with a specific length, set both minimum and maximum lengths to be that desired length.

Set the scanner to decode Chinese Sensible Code barcodes containing between 8 and 12 characters:

1.   Scan the **Enter Setup** barcode.

2.   Scan the **Set the Minimum Length** barcode.

3.   Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5.   Scan the **Set the Maximum Length** barcode.

6.   Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8.   Scan the **Exit Setup** barcode.

## Chinese Sensible Twin Code

Chinese Sensible twin code is 2 Chinese Sensible barcodes paralleled vertically or horizontally. They must both be either regular or inverse barcodes. They must have similar specifications and be placed closely together.

There are 3 options for reading Chinese Sensible twin codes:

- **Single Chinese Sensible Code Only:** Read either Chinese Sensible code.

- **Twin Chinese Sensible Code Only:** Read both Chinese Sensible codes. Transmission sequence: left (upper) Chinese Sensible code followed by right (lower) Chinese Sensible code.

- **Both Single & Twin:** Read both Chinese Sensible codes. If successful, transmit as twin Chinese Sensible Code only. Otherwise, try single Chinese Sensible Code only.

@CSCDOU0
** Single Chinese Sensible Code Only

@CSCDOU1
Twin Chinese Sensible Code Only

@CSCDOU2
Both Single & Twin

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Chinese Sensible Code Inverse

Regular barcode: Dark bars on a bright background.

Inverse barcode: Bright bars on a dark background.
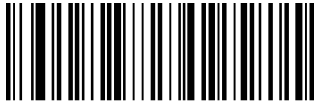
@CSCINV0
** Decode Regular Chinese Sensible Barcodes Only

@CSCINV1
Decode Inverse Chinese Sensible Barcodes Only
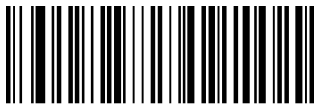
@CSCINV2
Decode Both

GM Code

Restore Factory Defaults

@GMCDEF
Restore the Factory Defaults of GM

Enable/Disable GM

@GMCENA1
Enable GM

@GMCENA0
** Disable GM

If the scanner fails to identify GM barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable GM** barcode.

User Guide

Set Length Range for GM

The scanner can be configured to only decode GM barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@GMCMIN

Set the Minimum Length (Default: 1)

@GMCMAX

Set the Maximum Length (Default: 2751)

Minimum length is not allowed to be greater than maximum length. If you only want to read GM barcodes with a specific length, set both minimum and maximum lengths to be that desired length.

Set the scanner to decode GM barcodes containing between 8 and 12 characters:

1. Scan the **Enter Setup** barcode.

2. Scan the **Set the Minimum Length** barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Set the Maximum Length** barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the **Exit Setup** barcode.

Code One

Restore Factory Defaults

||||| |||| ||| ||||||| |||||
@ONEDEF

Restore the Factory Defaults of Code One

Enable/Disable Code One

||||| |||| ||| ||||||| |||||
@ONEENA1

Enable Code One

||||| |||| ||| ||||||| |||||
@ONEENA0

** Disable Code One

If the scanner fails to identify Code One barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Code One** barcode.

Set Length Range for Code One

The scanner can be configured to only decode Code One barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@ONEMIN

Set the Minimum Length (Default: 1)

@ONEMAX

Set the Maximum Length (Default: 3550)

Minimum length is not allowed to be greater than maximum length. If you only want to read Code One barcodes with a specific length, set both minimum and maximum lengths to be that desired length.

Set the scanner to decode Code One barcodes containing between 8 and 12 characters:

1. Scan the **Enter Setup** barcode.

2. Scan the **Set the Minimum Length** barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Set the Maximum Length** barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the **Exit Setup** barcode.

USPS Postnet

Restore Factory Defaults

Restore the Factory Defaults of USPS Postnet

Enable/Disable USPS Postnet
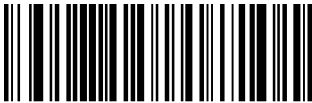
Enable USPS Postnet

** Disable USPS Postnet

If the scanner fails to identify USPS Postnet barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable USPS Postnet** barcode.

Transmit Check Character

Do Not Transmit USPS Postnet Check Character

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||||||||||||||||||||||||
@SETUPE1
Enter Setup

||||||||||||||||||||||||
@PNTCHK2
** Transmit USPS Postnet Check Character

USPS Intelligent Mail

Restore Factory Defaults

||||||||||||||||||||||||
@ILGDEF
Restore the Factory Defaults of USPS Intelligent Mail

Enable/Disable USPS Intelligent Mail

||||||||||||||||||||||||
@ILGENA1
Enable USPS Intelligent Mail

||||||||||||||||||||||||
@ILGENA0
** Disable USPS Intelligent Mail

If the scanner fails to identify USPS Intelligent Mail barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable USPS Intelligent Mail** barcode.

||||||||||||||||||||||||
@SETUPE0
** Exit Setup

Royal Mail

Restore Factory Defaults

@ROYDEF

Restore the Factory Defaults of Royal Mail

Enable/Disable Royal Mail

@ROYENA1

Enable Royal Mail

@ROYENA0

** Disable Royal Mail

If the scanner fails to identify Royal Mail barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Royal Mail** barcode.
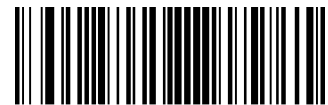
USPS Planet

Restore Factory Defaults

||||| |||| ||||||||| ||| |||||
@PLADEF

Restore the Factory Defaults of USPS Planet

Enable/Disable USPS Planet

||| ||||||||| |||| |||||
@PLAENA1

Enable USPS Planet

||| |||||||| ||| || |||||||
@PLAENA0

** Disable USPS Planet

If the scanner fails to identify USPS Planet barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable USPS Planet** barcode.

Transmit Check Character

||| |||||| ||| |||||
@PLACHK1

Do Not Transmit USPS Planet Check Character

```
@SETUPE1
```
Enter Setup

```
@PLACHK2
```
** Transmit USPS Planet Check Character

KIX Post

Restore Factory Defaults

```
@KIXDEF
```
Restore the Factory Defaults of KIX Post

Enable/Disable KIX Post

```
@KIXENA1
```
Enable KIX Post

```
@KIXENA0
```
** Disable KIX Post

If the scanner fails to identify KIX Post barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable KIX Post** barcode.

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```
@SETUPE0
```
** Exit Setup

User Guide

Australian Postal

Restore Factory Defaults

@APLDEF
Restore the Factory Defaults of Australian Postal

Enable/Disable Australian Postal

@APLENA1
Enable Australian Postal

@APLENA0
** Disable Australian Postal

If the scanner fails to identify Australian Postal barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Australian Postal** barcode.

Specific OCR-B

Enable/Disable Specific OCR-B

@SOBENA1

**Enable Specific OCR-B

@SOBENA0

Disable Specific OCR-B

If the scanner fails to identify Specific OCR-B barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Specific OCR-B** barcode.

@SETUPE0

** Exit Setup

Passport OCR

Enable/Disable Passport OCR

@PASENA1

**Enable Passport OCR

@PASENA0

Disable Passport OCR

If the scanner fails to identify Passport OCR barcodes, you may first try this solution by scanning the **Enter Setup** barcode and then **Enable Passport OCR** barcode.

@SETUPE0

** Exit Setup

Chapter 5 Data Formatter

Introduction

You may use the Data Formatter to modify the scanner's output. For example, you can use the Data Formatter to insert characters at certain points in barcode data or to suppress/ replace/ send certain characters in barcode data as it is scanned.

Normally, when you scan a barcode, it gets outputted automatically; however, when you create a format, you must use a "send" command (see the "Send Commands" section in this chapter) within the format programming to output data. The maximum size of formatter commands in a data format is 500 characters. By default, the data formatter is disabled. Enable it when required. If you have changed data format settings, and wish to clear all formats and return to the factory defaults, scan the **Default Data Format** code below.

@DFMDEF

Default Data Format

Add a Data Format

Data format is used to edit barcode data only. You can program up to four data formats, i.e. Format_0, Format_1, Format_2 and Format_3. When you create a data format, you must specify the application scope of your data format (such as barcode type and data length) and include formatter commands. When scanned data does not match your data format requirements, you will hear the non-match error beep (if the non-match error beep is ON).

There are two methods to program a data format: Programming with barcodes and programming with serial commands.

Programming with Barcodes

The following explains how to program a data format by scanning the specific barcodes. Scanning any irrelevant barcode or failing to follow the setting procedure will result in programming failure. To find the alphanumeric barcodes needed to create a data format, see the "Digit Barcodes" section in Appendix.

Step 1: Scan the **Enter Setup** barcode.

@SETUPE0
** Exit Setup

```
@SETUPE1
```
Enter Setup

Step 2: Scan the **Add Data Format** barcode.

```
@DFMSET
```
Add Data Format

Step 3: Select data format.

Scan a numeric barcode **0** or **1** or **2** or **3** to set this to Format_0 or Format_1 or Format_2 or Format_3.

Step 4: Select formatter command type.

Specify what type of formatter commands will be used. Scan a numeric barcode "6" to select formatter command type 6. (See the "Formatter Command Type 6" section in this chapter for more information)

Step 5: Set interface type

Scan **999** for any interface type.

Step 6: Set Symbology ID Number

Refer to the "Symbology ID Number" section in Appendix and find the ID number of the symbology to which you want to apply the data format. Scan three numeric barcodes for the symbology ID number. If you wish to create a data format for all symbologies, scan **999**.

Step 7: Set barcode data length

Specify what length of data will be acceptable for this symbology. Scan the four numeric barcodes that represent the data length. 9999 is a universal number, indicating all lengths. For example, 32 characters should be entered as 0032.

Step 8: Enter formatter command

Refer to the "Formatter Command Type 6" section in this chapter. Scan the alphanumeric barcodes that represent the command you need to edit data. For example, when a command is F141, you should scan F141. A command can contain up to 500 characters.

Step 9: Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix to save your data format.

```
@SETUPE0
```
** Exit Setup

Example: Program format_0 using formatter command type 6, Code 128 containing 10 characters applicable, send all characters followed by "A".

1. Scan the **Enter Setup** barcode   Enter the Setup mode

2. Scan the **Add Data Format** barcode   Add a data format

3. Scan the **0** barcode   Select format_0

4. Scan the **6** barcode   Select formatter command type 6

5. Scan the **9** barcode three times   All interface types applicable

6. Scan the barcodes **002**   Only Code 128 applicable

7. Scan the barcodes **0010**   Only a length of 10 characters applicable

8. Scan the alphanumeric barcodes **F141**   Send all characters followed by "A" (HEX: 41)

9. Scan the **Save** barcode   Save the data format

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Enable/Disable Data Formatter

When Data Formatter is disabled, the data format you have enabled becomes invalid.

@DFMENA0
** Disable Data Formatter

You may wish to require the data to conform to a data format you have created. The following settings can be applied to your data format:

Enable Data Formatter, Required, Keep Prefix/Suffix: Scanned data that meets your data format requirements is modified accordingly and gets outputted along with prefixes and suffixes (if prefix and suffix are enabled). Any data that does not match your data format requirements generates an error beep (if Non-Match Error Beep is turned ON) and the data in that barcode is not transmitted.

Enable Data Formatter, Required, Drop Prefix/Suffix: Scanned data that meets your data format requirements is modified accordingly and gets outputted without prefixes and suffixes (even if prefix and suffix are enabled). Any data that does not match your data format requirements generates an error beep (if Non-Match Error Beep is turned ON) and the data in that barcode is not transmitted.

Enable Data Formatter, Not Required, Keep Prefix/Suffix: Scanned data that meets your data format requirements is modified accordingly and gets outputted along with prefixes and suffixes (if prefix and suffix are enabled). Barcode data that does not match your data format requirements is transmitted as read along with prefixes and suffixes (if prefix and suffix are enabled).

Enable Data Formatter, Not Required, Drop Prefix/Suffix: Scanned data that meets your data format requirements is modified accordingly and gets outputted without prefixes and suffixes (even if prefix and suffix are enabled). Barcode data that does not match your data format requirements is transmitted as read along with prefixes and suffixes (if prefix and suffix are enabled).

@SETUPE0
** Exit Setup

![@DFMENA1]
Enable Data Formatter, Required, Keep Prefix/Suffix

![@DFMENA2]
Enable Data Formatter, Required, Drop Prefix/Suffix

![@DFMENA3]
Enable Data Formatter, Not Required, Keep Prefix/Suffix

![@DFMENA4]
Enable Data Formatter, Not Required, Drop Prefix/Suffix

Non-Match Error Beep

If Non-Match Error Beep is turned ON, the scanner generates an error beep when a barcode is encountered that does not match your required data format.
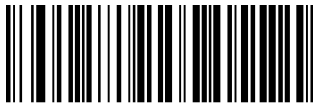
![@DFMTON0]
Non-Match Error Beep Off

![@DFMTON1]
** Non-Match Error Beep On

Multiple Data Formats

After the Data Formatter is enabled, you can set the scanner to use one or multiple data formats by scanning the appropriate barcode below.

Multiple Data Formats Off: Only one data format (default: Format_0) is put into use. To learn how to switch to another data format, see the "Data Format Selection" section below.

Multiple Data Formats On: The scanner toggles from Format_0 through Format_3 until scanned data matches the requirements of one data format. If no match is found, the scanner generates an error beep (if Non-Match Error Beep is turned ON) and the data is not transmitted.

@DFMMEN0
** Multiple Formats Off

@DFMMEN1
Multiple Formats On

@SETUPE0
** Exit Setup

Data Format Selection

You can select a data format you want to use by scanning the appropriate barcode below. Note that this setting is valid only when the **Multiple Data Formats** feature is turned off.

||||| |||| ||| |||||| ||| |||||
@DFMUSE0
** Format_0

||||| |||| ||| |||||| ||| |||||
@DFMUSE1
Format_1

||||| |||| ||| |||||| ||| |||||
@DFMUSE2
Format_2

||||| |||| ||| |||||| ||| |||||
@DFMUSE3
Format_3

||||| |||| ||| |||||| ||| |||||
@SETUPE0
** Exit Setup

<div style="writing-mode: vertical">RT212 User Guide</div>

Change Data Format for a Single Scan

You can switch between data formats for a single scan. The next barcode is scanned using the data format selected here, then reverts to the format you have selected above. This setting is valid only when the **Multiple Data Formats** feature is turned off.

For example, you may have set your scanner to use the data format you saved as Format_3. You can switch to Format_1 for a single trigger pull by scanning the **Single Scan – Format_1** barcode below. The next barcode that is scanned uses Format_1, then reverts back to Format_3.

Note: This setting will be lost by removing power from the scanner, or turning off/ rebooting the device.

@DFMSIN0

Single Scan – Format_0

@DFMSIN1

Single Scan – Format_1

@DFMSIN2

Single Scan – Format_2

@DFMSIN3

Single Scan – Format_3

@SETUPE0
** Exit Setup

Clear Data Format

There are two methods to remove data format created from your scanner:

Delete one data format: Scan the **Clear One** barcode, a numeric barcode (0-3) and the **Save** barcode. For example, to delete Format_2, you should scan the **Clear One** barcode, the **2** barcode and the **Save** barcode

Delete all data formats: Scan the **Clear All** barcode.

@DFMCAL
Clear All

@DFMCLR
Clear One

Query Data Formats

You may scan the appropriate barcode below to get the information of data format(s) created by you or preset by manufacturer. For instance, if you have added Format_0 as per the example in the "Add a Data Format" section in this chapter, scanning the **Query Current Data Formats** barcode, you will get the result: **Data Format0:069990020010F141;**.

@DFMQCU
Query Current Data Formats

@DFMQFA
Query Preset Data Formats

@SETUPE0
** Exit Setup

Chapter 6 Prefix & Suffix

Introduction

A 1D barcode could contain digits, letters, symbols, etc. A 2D barcode could contain more data, such as Chinese characters and other multi-byte characters. However, in real applications, they do not and should not have all information we need, such as barcode type, data acquisition time and delimiter, in order to keep the barcodes short and flexible.

Preffix and suffix are how to fulfill the needs mentioned above. They can be added, removed and modified while the original barcode data remains intact.

Barcode processing procedure:

1. Edit data with Data Formatter

2. Append prefix/suffix

3. Pack data

4. Append terminating character
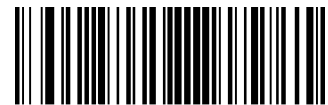
||||| |||||||||||| |||||||||
@SETUPE1
Enter Setup

Global Settings

Enable/Disable All Prefixes/Suffixes

Disable All Prefixes/Suffixes: Transmit barcode data with no prefix/suffix.

Enable All Prefixes/Suffixes: Allow to append Code ID prefix, AIM ID prefix, custom prefix/suffix and terminating character to the barcode data before the transmission.

||||| ||||||||||| ||||||||
@APSENA0
** Disable All Prefixes/Suffixes

||||| |||||||||| |||||||||
@APSENA1
Enable All Prefixes/Suffixes

Prefix Sequence

||||| ||||||||| ||||||||
@PRESEQ0
** Code ID+ Custom +AIM ID

||||| |||||||||| |||||||||
@PRESEQ1
Custom + Code ID + AIM ID

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||||| |||||||||| ||||||||
@SETUPE0
** Exit Setup

@SETUPE1
Enter Setup

Custom Prefix

Enable/Disable Custom Prefix

If custom prefix is enabled, you are allowed to append to the data a user-defined prefix that cannot exceed 10 characters. For example, if the custom prefix is "AB" and the barcode data is "123", the Host will receive "AB123".

@CPRENA0
** Disable Custom Prefix

@CPRENA1
Enable Custom Prefix

Set Custom Prefix

To set a custom prefix, scan the **Set Custom Prefix** barcode then the numeric barcodes corresponding to the hexadecimal value of a desired prefix then the **Save** barcode.

Note: A custom prefix cannot exceed 10 characters.

@CPRSET
Set Custom Prefix

Set the custom prefix to "CODE" (HEX: 0x43/0x4F/0x44/0x45):

1. Scan the **Enter Setup** barcode.
2. Scan the **Set Custom Prefix** barcode.
3. Scan the numeric barcodes "4", "3", "4", "F", "4", "4", "4" and "5" from the "Digit Barcodes" section in Appendix.
4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.
5. Scan the **Enable Custom Prefix** barcode.
6. Scan the **Exit Setup** barcode.
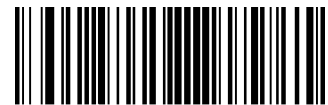
@SETUPE0
** Exit Setup

AIM ID Prefix

AIM (Automatic Identification Manufacturers) ID defines symbology identifier (For the details, see the "AIM ID Table" section in Appendix). If AIM ID prefix is enabled, the scanner will add the symbology identifier before the scanned data after decoding.

@AIDENA0

** Disable AIM ID Prefix

@AIDENA1

Enable AIM ID Prefix

AIM ID is not user programmable.

Code ID Prefix

Code ID can also be used to identify barcode type. Unlike AIM ID, Code ID is user programmable. Code ID can only consist of one or two English letters.

@CIDENA0

** Disable Code ID Prefix

@CIDENA1

Enable Code ID Prefix

Restore All Default Code IDs

For the information of default Code IDs, see the "Code ID Table" section in Appendix.

@CIDDEF

Restore All Default Code IDs

Modify Code ID

See the examples below to learn how to modify a Code ID and restore the default Code IDs of all symbologies.

Modify PDF417 Code ID to be "p" (HEX: 0x70):

1.   Scan the **Enter Setup** barcode.

2.   Scan the **Modify PDF417 Code ID** barcode.

3.   Scan the numeric barcodes "7" and "0" from the "Digit Barcodes" section in Appendix.

4.   Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5.   Scan the **Exit Setup** barcode.

Restore the default Code IDs of all symbologies:

1.   Scan the **Enter Setup** barcode.

2.   Scan the **Restore All Default Code IDs** barcode.

3.   Scan the **Exit Setup** barcode.
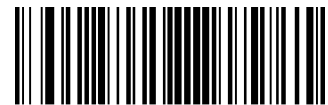
1D symbologies:

@CID002

Modify Code 128 Code ID

@CID003

Modify GS1-128 Code ID

@CID004

Modify EAN-8 Code ID

@CID005

Modify EAN-13 Code ID

@CID006

Modify UPC-E Code ID

@CID007

Modify UPC-A Code ID

@CID008

Modify Interleaved 2 of 5 Code ID

||||||||||||||||||||
@SETUPE1
Enter Setup

||||||||||||||||||||
@CID009
Modify ITF-14 Code ID
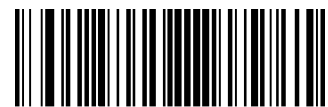
||||||||||||||||||||
@CID010
Modify ITF-6 Code ID

||||||||||||||||||||
@CID011
Modify Matrix 2 of 5 Code ID

||||||||||||||||||||
@CID013
Modify Code 39 Code ID

||||||||||||||||||||
@CID015
Modify Codabar Code ID

||||||||||||||||||||
@CID017
Modify Code 93 Code ID

||||||||||||||||||||
@CID019
Modify China Post 25 Code ID

||||||||||||||||||||
@CID020
Modify AIM 128 Code ID

||||||||||||||||||||
@SETUPE0
** Exit Setup

‖‖‖‖‖‖‖‖‖‖‖
@SETUPE1
Enter Setup

‖‖‖‖‖‖‖‖‖‖‖
@CID021
Modify ISBT 128 Code ID

‖‖‖‖‖‖‖‖‖‖‖
@CID023
Modify ISSN Code ID

‖‖‖‖‖‖‖‖‖‖‖
@CID024
Modify ISBN Code ID

‖‖‖‖‖‖‖‖‖‖‖
@CID025
Modify Industrial 25 Code ID

‖‖‖‖‖‖‖‖‖‖‖
@CID026
Modify Standard 25 Code ID

‖‖‖‖‖‖‖‖‖‖‖
@CID027
Modify Plessey Code ID

‖‖‖‖‖‖‖‖‖‖‖
@CID028
Modify Code 11 Code ID

‖‖‖‖‖‖‖‖‖‖‖
@CID029
Modify MSI-Plessy Code ID

‖‖‖‖‖‖‖‖‖‖‖
@SETUPE0
** Exit Setup

@SETUPE1
Enter Setup

@CID030
Modify GS1 Composite Code ID

@CID031
Modify GS1 Databar Code ID
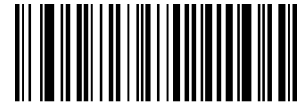
@CID132
Modify Code 49 Code ID

@CID133
Modify Code 16K Code ID

@SETUPE0
** Exit Setup

2D symbologies:

||||||| |||| ||| ||||||||
@CID032
Modify PDF417 Code ID

||||||| |||| ||| ||||||||
@CID033
Modify QR Code ID

||||||| |||| ||| ||||||||
@CID034
Modify Aztec Code ID

||||||| |||| ||| ||||||||
@CID035
Modify Data Matrix Code ID
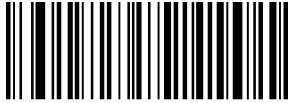
||||||| |||| ||| ||||||||
@CID036
Modify Maxicode Code ID

||||||| |||| ||| ||||||||
@CID039
Modify Chinese Sensible Code ID

||||||| |||| ||| ||||||||
@CID041
Modify GM Code ID

@SETUPE1
Enter Setup

@CID042
Modify Micro PDF417 Code ID

@CID043
Modify Micro QR Code ID

@CID048
Modify Code One Code ID

@SETUPE0
** Exit Setup

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Postal symbologies:

Modify USPS Postnet Code ID

@CID096

Modify USPS Inteligent Mail Code ID

@CID097

Modify Royal Mail Code ID
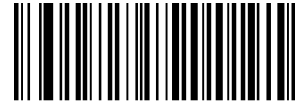
@CID098

Modify USPS Planet Code ID

@CID099

Modify KIX Post Code ID

@CID100

Modify Australian Postal Code ID

@CID101

225
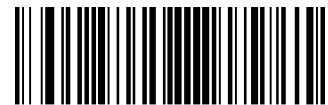
Custom Suffix

Enable/Disable Custom Suffix

If custom suffix is enabled, you are allowed to append to the data a user-defined suffix that cannot exceed 10 characters. For example, if the custom suffix is "AB" and the barcode data is "123", the Host will receive "123AB".

║█║▌║█▌║█║▌║██║▌
@CSUENA0

** Disable Custom Suffix

║█║▌║█▌║█║▌║██║▌
@CSUENA1
Enable Custom Suffix

Set Custom Suffix

To set a custom suffix, scan the **Set Custom Suffix** barcode then the numeric barcodes corresponding to the hexadecimal value of a desired suffix then the **Save** barcode.

**Note:** A custom suffix cannot exceed 10 characters.
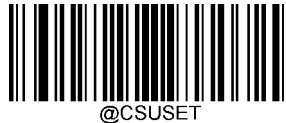
║█║▌║█▌║█║▌║██║▌
@CSUSET
Set Custom Suffix

Example

Set the custom suffix to "CODE" (HEX: 0x43/0x4F/0x44/0x45):

1. Scan the **Enter Setup** barcode.
2. Scan the **Set Custom Suffix** barcode.
3. Scan the numeric barcodes "4", "3", "4", "F", "4", "4", "4" and "5" from the "Digit Barcodes" section in Appendix.
4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.
5. Scan the **Enable Custom Suffix** barcode.
6. Scan the **Exit Setup** barcode.
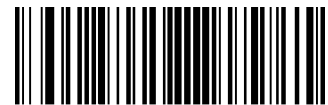
║█║▌║█▌║█║▌║██║▌
@SETUPE0
** Exit Setup

Terminating Character Suffix

Enable/Disable Terminating Character Suffix

A terminating character such as carriage return (CR) or carriage return/line feed pair (CRLF) can only be used to mark the end of data, which means nothing can be added after it.

![@TSUENA0 barcode]

** Disable Terminating Character Suffix

![@TSUENA1 barcode]

Enable Terminating Character Suffix

Set Terminating Character Suffix

To set a terminating character suffix, scan the **Set Terminating Character Suffix** barcode then the numeric barcodes corresponding to the hexadecimal value of a desired terminating character then the **Save** barcode.

Note: A terminating character suffix cannot exceed 2 characters.

![@TSUSET barcode]

Set Terminating Character Suffix

![@TSUSET0D barcode]

Set Terminating Character to CR (0x0D)

![@TSUSET0D0A barcode]

Set Terminating Character to CRLF (0x0D,0x0A)
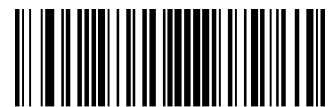
![@SETUPE0 barcode]

** Exit Setup

Example

Set the terminating character suffix to 0x0A:

1. Scan the **Enter Setup** barcode.

2. Scan the **Set Terminating Character Suffix** barcode.

3. Scan the numeric barcodes "0" and "A" from the "Digit Barcodes" section in Appendix.

4. Scan the **Save** barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the **Enable Terminating Character Suffix** barcode.

6. Scan the **Exit Setup** barcode.
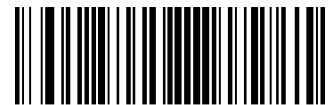
Chapter 7 Batch Programming

Introduction

Batch programming enables users to integrate a batch of commands into a single batch barcode.

Listed below are batch programming rules:

1. Command format: Command + Parameter Value.

2. Each command is terminated by a semicolon (;). Note that there is no space between a command and its terminator semicolon.

3. Use the barcode generator software to generate a 2D batch barcode.

Example: Create a batch barcode for **Illumination Always On**, **Sense Mode**, **Decode Session Timeout** = 2s:

1. Input the commands:

   @ILLSCN2;SCNMOD2;ORTSET2000;

2. Generate a batch barcode.

When setting up a scanner with the above configuration, scan the **Enable Batch Barcode** barcode and then the batch barcode generated.

@BATCHS
Enable Batch Barcode

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Create a Batch Command

A batch command may contain a number of individual commands each of which is terminated by a semicolon (;). For

more information, refer to the *Serial Programming Command Manual*.

Create a Batch Barcode

Batch barcodes can be produced in the format of PDF417, QR Code or Data Matrix.

Example: Create a batch barcode for **lllumination Always On**, **Sense Mode**, **Decode Session Timeout** = 2s:

1. Input the following commands:

    @ILLSCN2;SCNMOD2;ORTSET2000;

 2. Generate a PDF417 batch barcode.

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Use Batch Barcode

To put a batch barcode into use, scan the following barcodes. (Use the example above.)

@SETUPE1
Enter Setup

@BATCHS
Enable Batch Barcode

Batch Barcode
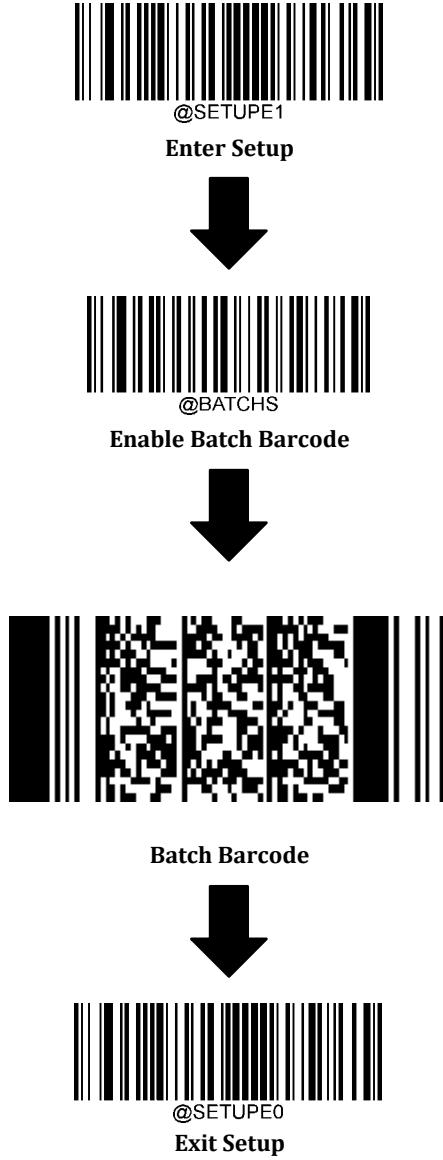
@SETUPE0
Exit Setup

@SETUPE1
Enter Setup

Appendix

Digit Barcodes

0~9

@DIGIT0
0

@DIGIT1
1

@DIGIT2
2

@DIGIT3
3

@DIGIT4
4

@DIGIT5
5

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‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@DIGIT6
6

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@DIGIT7
7

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@DIGIT8
8

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@DIGIT9
9

A~F

||||||||||||||||
@DIGITA
A

||||||||||||||||
@DIGITB
B

||||||||||||||||
@DIGITC
C

||||||||||||||||
@DIGITD
D

||||||||||||||||
@DIGITE
E

||||||||||||||||
@DIGITF
F

Save/Cancel Barcodes

After reading numeric barcode(s), you need to scan the **Save** barcode to save the data. If you scan the wrong digit(s), you can either scan the **Cancel** barcode and then start the configuration all over again, or scan the **Delete the Last Digit** barcode and then the correct digit, or scan the **Delete All Digits** barcode and then the digits you want.

For instance, after reading the **Maximum Length** barcode and numeric barcodes "1", "2" and "3", you scan:

■ **Delete the Last Digit:** The last digit "3" will be removed.

■ **Delete All Digits:** All digits "123" will be removed.

■ **Cancel:** The maximum length configuration will be cancelled. And the scanner is still in the setup mode.

@DIGSAV

Save

@DIGCAN

Cancel
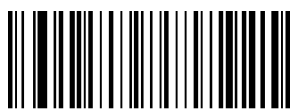
@DIGDEL

Delete the Last Digit

@DIGDAL

Delete All Digits

Factory Defaults Table

Parameter	Factory Default	Remark
System Settings		
Barcode Programming	Disabled (Exit Setup)	
Programming Barcode Data	Do not transmit	
Illumination	Normal	
Aiming	Normal	
Good Read LED	On	
Good Read LED Duration	Short (20ms)	
Power On Beep	On	
Good Read Beep	On	
Good Read Beep Duration	Medium (80ms)	
Good Read Beep Frequency	Medium (2730Hz)	
Good Read Beep Volume	Loud	
Scan Mode	Sense Mode	
Decode Session Timeout	3,000ms.	1-3,600,000ms; 0: Infinite
Image Stabilization Timeout (Sense Mode)	200ms	0-3,000ms
Timeout between Decodes (Same	Disabled	
Barcode)	1,500ms	0-3,600,000ms
Sensitivity	Medium Sensitivity	
Trigger Commands	Disabled	
Scanning Preference	Normal Mode	
Decode Area	Whole Area Decoding	
Specify Decoding Area	40% top, 60% bottom, 40% left, 60% right	
Image Flipping	Do Not Flip	
Bad Read Message	Off	
	NG	1-7 characters
RS-232/ USB Virtual Com Interface		
Baud Rate	115200	
Parity Check	None	
Data Bits	8	
Stop Bits	1	
Hardware Auto Flow Control	Disabled	

Symbologies		
Global Settings		
1D Twin Code	Single 1D Code Only	
Code 128		
Code 128	Enabled	
Maximum Length	48	
Minimum Length	1	
EAN-8		
EAN-8	Enabled	
Check Character	Transmit	
2-Digit Add-On Code	Disabled	
5-Digit Add-On Code	Disabled	
Convert EAN-8 to EAN-13	Disabled	
EAN-13		
EAN-13	Enabled	
Check Character	Transmit	
2-Digit Add-On Code	Disabled	
5-Digit Add-On Code	Disabled	
UPC-E		
UPC-E	Enabled	
Check Character	Transmit	
2-Digit Add-On Code	Disabled	
5-Digit Add-On Code	Disabled	

Transmit Preamble Character	System Character	
Convert UPC-E to UPC-A	Disabled	
UPC-A		
UPC-A	Enabled	
Check Character	Transmit	
2-Digit Add-On Code	Disabled	
5-Digit Add-On Code	Disabled	
Transmit Preamble Character	No Preamble	
Coupon		
UPC-A/EAN-13 with Extended Coupon Code	Off	
Coupon GS1 DataBar Output	Off	
Interleaved 2 of 5		
Interleaved 2 of 5	Enabled	
Maximum Length	80	
Minimum Length	6	No less than 4
Check Character Verification	Disabled	
ITF-14		
ITF-14	Disabled	
ITF-6		
ITF-6	Disabled	
Matrix 2 of 5		
Matrix 2 of 5	Enabled	
Maximum Length	80	
Minimum Length	4	No less than 4
Check Character Verification	Disabled	
Code 39		
Code 39	Enabled	
Maximum Length	48	
Minimum Length	1	
Check Character Verification	Disabled	
Start/Stop Character	Do not transmit	
Code 39 Full ASCII	Disabled	
Code 32 Pharmaceutical (PARAF)	Disabled	
Code 32 Prefix	Disabled	
Code 32 Start/Stop Character	Do not transmit	

Code 32 Check Character	Do not transmit	
Codabar		
Codabar	Enabled	
Maximum Length	60	
Minimum Length	2	
Check Character Verification	Disabled	
Start/Stop Character	Do not transmit	
	ABCD/ABCD	
Code 93		
Code 93	Disabled	
Maximum Length	48	
Minimum Length	1	
Check Character Verification	Do Not Transmit Check Character After Verification	
China Post 25		
China Post 25	Disabled	
Maximum Length	48	
Minimum Length	1	
Check Character Verification	Disabled	
GS1-128 (UCC/EAN-128)		
GS1-128	Enabled	
Maximum Length	48	
Minimum Length	1	
GS1 Databar		
GS1 Databar	Enabled	
Application Identifier "01"	Transmit	
EAN•UCC Composite		
GS1 Composite	Disabled	
UPC/EAN Composite	Disabled	
Code 11		
Code 11	Disabled	
Maximum Length	48	
Minimum Length	4	No less than 4
Check Character Verification	One Check Character, MOD11	
Check Character	Transmit	
ISBN		
ISBN	Disabled	

Set ISBN Format	ISBN-10	
ISSN		
ISSN	Disabled	
Industrial 25		
Industrial 25	Disabled	
Maximum Length	48	
Minimum Length	6	No less than 4
Check Character Verification	Disabled	
Standard 25		
Standard 25	Disabled	
Maximum Length	48	
Minimum Length	6	No less than 4
Check Character Verification	Disabled	
Plessey		
Plessey	Disabled	
Maximum Length	48	
Minimum Length	4	No less than 4
Check Character Verification	Disabled	
MSI-Plessey		
MSI-Plessey	Disabled	
Maximum Length	48	
Minimum Length	4	No less than 4
Check Character Verification	One Check Character, MOD10	
Check Character	Transmit	
AIM 128		
AIM 128	Disabled	
Maximum Length	48	
Minimum Length	1	
ISBT 128		
ISBT 128	Disabled	
Code 49		
Code 49	Disabled	
Maximum Length	80	
Minimum Length	1	
Code 16K		
Code 16K	Disabled	

Maximum Length	80	
Minimum Length	1	
PDF417		
PDF417	Enabled	
Maximum Length	2710	
Minimum Length	1	
PDF417 Twin Code	Single PDF417 Only	
PDF417 Inverse	Decode Regular PDF417 Barcodes Only	
Character Encoding	Default Character Encoding	
PDF417 ECI Output	Enabled	
Micro PDF417		
Micro PDF417	Disabled	
Maximum Length	366	
Minimum Length	1	
QR Code		
QR Code	Enabled	
Maximum Length	7089	
Minimum Length	1	
QR Twin Code	Single QR Only	
QR Inverse	Decode Regular QR Barcodes Only	
Character Encoding	Default Character Encoding	
QR ECI Output	Enabled	
Micro QR Code		
Micro QR	Enabled	
Maximum Length	35	
Minimum Length	1	
Aztec		
Aztec Code	Disabled	
Maximum Length	3832	
Minimum Length	1	
Read Multi-barcodes on an Image	Mode 1	
Character Encoding	Default Character Encoding	
Aztec ECI Output	Enabled	
Data Matrix		
Data Matrix	Enabled	
Maximum Length	3116	

Minimum Length	1	
Data Matrix Twin Code	Single Data Matrix Only	
Rectangular Barcode	Enabled	
Data Matrix Inverse	Decode Regular Data Matrix Barcodes Only	
Character Encoding	Default Character Encoding	
Data Matrix ECI Output	Enabled	
Maxicode		
Maxicode	Disabled	
Maximum Length	150	
Minimum Length	1	
Chinese Sensible Code		
Chinese Sensible Code	Disabled	
Maximum Length	7827	
Minimum Length	1	
Chinese Sensible Twin Code	Single Chinese Sensible Code Only	
Chinese Sensible Code Inverse	Decode Regular Chinese Sensible Barcodes Only	
GM Code		
GM	Disabled	
Maximum Length	2571	
Minimum Length	1	
Code One		
Code One	Disabled	
Maximum Length	3550	
Minimum Length	1	
USPS Postnet		
USPS Postnet	Disabled	
Check Character	Transmit	
USPS Intelligent Mail		
USPS Intelligent Mail	Disabled	
Royal Mail		
Royal Mail	Disabled	
USPS Planet		
USPS Planet	Disabled	
Check Character	Transmit	
KIX Post		
KIX Post	Disabled	

Australian Postal		
Australian Postal	Disabled	
Specific OCR-B		
Specific OCR-B	Enabled	
Passport OCR		
Passport OCR	Enabled	
Data Formatter		
Data Formatter	Disabled	
Non-Match Error Beep	On	
Multiple Data Formats	Off	
Data Format Selection	Format_0	
Prefix & Suffix		
All Prefixes/Suffixes	Disabled	
Prefix Sequence	Code ID+ Custom +AIM ID	
Custom Prefix	Disabled	
AIM ID Prefix	Disabled	
Code ID Prefix	Disabled	
Custom Suffix	Disabled	
Data Packing	Disable Data Packing	
Terminating Character Suffix	Disabled	

AIM ID Table

Symbology	AIM ID	Possible AIM ID Modifiers (m)
Code128	]C0	
GS1-128 (UCC/EAN-128)	]C1	
EAN-8	]E4	
EAN-8 with Addon	]E3	
EAN-13	]E0	
EAN-13 with Addon	]E3	
UPC-E	]E0	
UPC-E with Addon	]E3	
UPC-A	]E0	
UPC-A with Addon	]E3	
Interleaved 2 of 5	]Im	0, 1, 3
ITF-14	]Im	1, 3
ITF-6	]Im	1, 3
Matrix 2 of 5	]X0	
Code 39	]Am	0, 1, 3, 4, 5, 7
Codabar	]Fm	0, 2, 4
Code 93	]G0	
China Post 25	]X0	
AIM 128	]C2	
ISBT 128	]C4	
ISSN	]X0	
ISBN	]X0	
Industrial 25	]S0	
Standard 25	]R0	
Plessey	]P0	
Code 11	]Hm	0, 1, 3
MSI Plessey	]Mm	0, 1
GS1 Composite	]em	0-3
GS1 Databar (RSS)	]e0	
Code 49	]T0	
Code 16K	]K0	

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Symbology	AIM ID	Possible AIM ID Modifiers (m)
PDF417	]Lm	0-2
QR Code	]Qm	0-6
Aztec	]zm	0-9, A-C
Data Matrix	]dm	0-6
Maxicode	]Um	0-3
Chinese Sensible Code	]X0	
GM	]gm	(0~9)
Micro PDF417	]L0	
Micro QR	]Q1	
Code One	]X0	
USPS Postnet	]X0	
USPS Inteligent Mail	]X0	
Royal Mail	]X0	
USPS Planet	]X0	
KIX Post	]X0	
Australian Postal	]X0	
Specific OCR-B	]o2	
Passport OCR	]o2	

Note: "m" represents the AIM modifier character. Refer to ISO/IEC 15424:2008 Information technology – Automatic identification and data capture techniques – Data Carrier Identifiers (including Symbology Identifiers) for AIM modifier character details.

Code ID Table

Symbology	Code ID
Code128	j
GS1-128 (UCC/EAN-128)	j
EAN-8	d
EAN-13	d
UPC-E	c
UPC-A	c
Interleaved 2 of 5	e
ITF-14	e
ITF-6	e
Matrix 2 of 5	v
Code 39	b
Codabar	a
Code 93	i
China Post 25	X
AIM 128	X
ISBT 128	X
ISSN	g
ISBN	B
Industrial 25	I
Standard 25	f
Plessey	n
Code 11	H
MSI Plessey	m
GS1 Composite	y
GS1 Databar (RSS)	R
Code 49	X
Code 16K	X
PDF417	r
QR Code	s
Aztec	z
Data Matrix	u

Symbology	Code ID
MaxiCode	x
Chinese Sensible Code	h
GM Code	x
Micro PDF417	R
Micro QR	X
Code One	X
USPS Postnet	P
USPS Inteligent Mail	M
Royal Mail	x
USPS Planet	L
KIX Post	K
Australian Postal	A
Specific OCR-B	S
Passport OCR	O

Symbology ID Number

Symbology	ID Number
Code 128	002
GS1-128 (UCC/EAN-128)	003
EAN-8	004
EAN-13	005
UPC-E	006
UPC-A	007
Interleaved 2 of 5	008
ITF-14	009
ITF-6	010
Matrix 2 of 5	011
Code 39	013
Codabar	015
Code 93	017
China Post 25	019
AIM 128	020
ISBT 128	021
ISSN	023
ISBN	024
Industrial25	025
Standard25	026
Plessey	027
Code11	028
MSI-Plessey	029
GS1 Composite	030
GS1 Databar (RSS)	031
PDF417	032
QR Code	033
Aztec	034
Data Matrix	035
Maxicode	036
Chinese Sensible Code	039

Symbology	ID Number
GM Code	040
Micro PDF417	042
Micro QR	043
Code One	048
Specific OCR-B	064
Passport OCR	066
USPS Postnet	096
USPS Inteligent Mail	097
Royal Mail	098
USPS Planet	099
KIX Post	100
Australian Postal	101

ASCII Table

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

Hex	Dec	Char
1e	30	RS (Request to Send)
1f	31	US (Unit Separator)
20	32	SP (Space)
21	33	! (Exclamation Mark)
22	34	" (Double Quote)
23	35	# (Number Sign)
24	36	$ (Dollar Sign)
25	37	% (Percent)
26	38	& (Ampersand)
27	39	` (Single Quote)
28	40	((Left/ Opening Parenthesis)
29	41	) (Right/ Closing Parenthesis)
2a	42	* (Asterisk)
2b	43	+ (Plus)
2c	44	, (Comma)
2d	45	- (Minus/ Dash)
2e	46	. (Dot)
2f	47	/ (Forward Slash)
30	48	0
31	49	1
32	50	2
33	51	3
34	52	4
35	53	5
36	54	6
37	55	7
38	56	8
39	57	9
3a	58	: (Colon)
3b	59	; (Semi-colon)
3c	60	< (Less Than)
3d	61	= (Equal Sign)

Hex	Dec	Char
3e	62	> (Greater Than)
3f	63	? (Question Mark)
40	64	@ (AT Symbol)
41	65	A
42	66	B
43	67	C
44	68	D
45	69	E
46	70	F
47	71	G
48	72	H
49	73	I
4a	74	J
4b	75	K
4c	76	L
4d	77	M
4e	78	N
4f	79	O
50	80	P
51	81	Q
52	82	R
53	83	S
54	84	T
55	85	U
56	86	V
57	87	W
58	88	X
59	89	Y
5a	90	Z
5b	91	[(Left/ Opening Bracket)
5c	92	\ (Back Slash)
5d	93	] (Right/ Closing Bracket)

Hex	Dec	Char
5e	94	^ (Caret/ Circumflex)
5f	95	_ (Underscore)
60	96	' (Grave Accent)
61	97	a
62	98	b
63	99	c
64	100	d
65	101	e
66	102	f
67	103	g
68	104	h
69	105	i
6a	106	j
6b	107	k
6c	108	l
6d	109	m
6e	110	n
6f	111	o
70	112	p
71	113	q
72	114	r
73	115	s
74	116	t
75	117	u
76	118	v
77	119	w
78	120	x
79	121	y
7a	122	z
7b	123	{ (Left/ Opening Brace)
7c	124		(Vertical Bar)
7d	125	} (Right/ Closing Brace)
7e	126	~ (Tilde)
7f	127	DEL (Delete)

Questions?

For any technical question, please contact us at :
support@rtscan.net