

MAGELLAN 900i

PRODUCT REFERENCE GUIDE



Omni-Directional Imaging Scanner

 **DATALOGIC**

Datalogic S.r.l.

Via S. Vitalino, 13
40012 Calderara di Reno — Italy
Tel. +39 051 3147011
Fax +39 051 3147205

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PREFACE

ABOUT THIS MANUAL

This Product Reference Guide (PRG) is provided for users seeking advanced technical information, including connection, programming, maintenance and specifications. The Quick Reference Guide (QRG) and other publications associated with this product are downloadable free of charge from the website listed on the back cover of this manual.

Typically, units are factory-programmed for the most common terminal and communications settings. If you need to modify any programmable settings, custom configuration can be accomplished by scanning the programming bar codes within this guide.

Programming can alternatively be performed using the Datalogic Aladdin™ Configuration application, which is available from the Datalogic website listed on the back cover of this manual. This multi-platform utility program allows device configuration using a PC. It communicates to the device using a USB cable and can also create configuration bar codes to print.

OVERVIEW

[Chapter 1, Introduction](#) provides a product overview, how to set up the reader and general information about programming the reader.

[Chapter 2, Programming](#) provides instructions and bar code labels for customizing your reader. There are different sections for interface types, general features, data formatting, and symbology-specific features.

[Chapter 3, References](#) provides details concerning programmable features.

[Chapter 4, OEM Mounting](#) provides instructions on how to mount M900i into a Kiosk.

[Appendix A, Product Specifications](#), lists physical and performance characteristics, as well as environmental specifications.

[Appendix B, Cable Pinouts](#), provides standard cable pin-outs.

[Appendix C, Alpha-Numeric Keypad](#)

[Appendix D, Factory Default Settings](#) references common factory default settings for reader features and options.

[Appendix F, Scancode Tables](#), lists key usage maps.

[Appendix F, Host Commands](#), lists RS-232 and USB COM commands.

[Appendix G, Sample Symbols](#), Sample Symbols

Manual Conventions

The following conventions are used in this document:

The symbols listed below are used in this manual to notify the reader of key issues or procedures that must be observed when using the reader:



NOTE: This symbol draws attention to details or procedures that may be useful in improving, maintaining, or enhancing the performance of the hardware or software being discussed.



CAUTION: This symbol advises you of actions that could damage equipment or property.



WARNING: This symbol advises you of actions that could result in harm or injury to the person performing the task.

TECHNICAL SUPPORT

Support Through the Website

Datalogic provides several services as well as technical support through its website. Log on to (www.datalogic.com).

For quick access, from the home page click on the search icon 🔍, and type in the name of the product you're looking for. This allows you access to download Data Sheets, Manuals, Software & Utilities, and Drawings.

Hover over the Support & Service menu for access to Services and Technical Support.

Reseller Technical Support

An excellent source for technical assistance and information is an authorized Datalogic reseller. A reseller is acquainted with specific types of businesses, application software, and computer systems and can provide individualized assistance.

CHAPTER 1

INTRODUCTION

ABOUT THE READER

The Magellan™ 900i Scanner is designed for small counter retail checkout environments where there is a relatively high number of transactions with a fairly small number of items per transaction. The scanner has a small footprint, allowing more room for item merchandising of high margin impulse items clustered around the POS (Point of Sale).

The Magellan 900i uses intelligent illumination technology to optimize reading for a variety of barcode scanner functions including automatic reading of barcodes from printed surfaces, mobile devices and image capture in variable contrast environments.

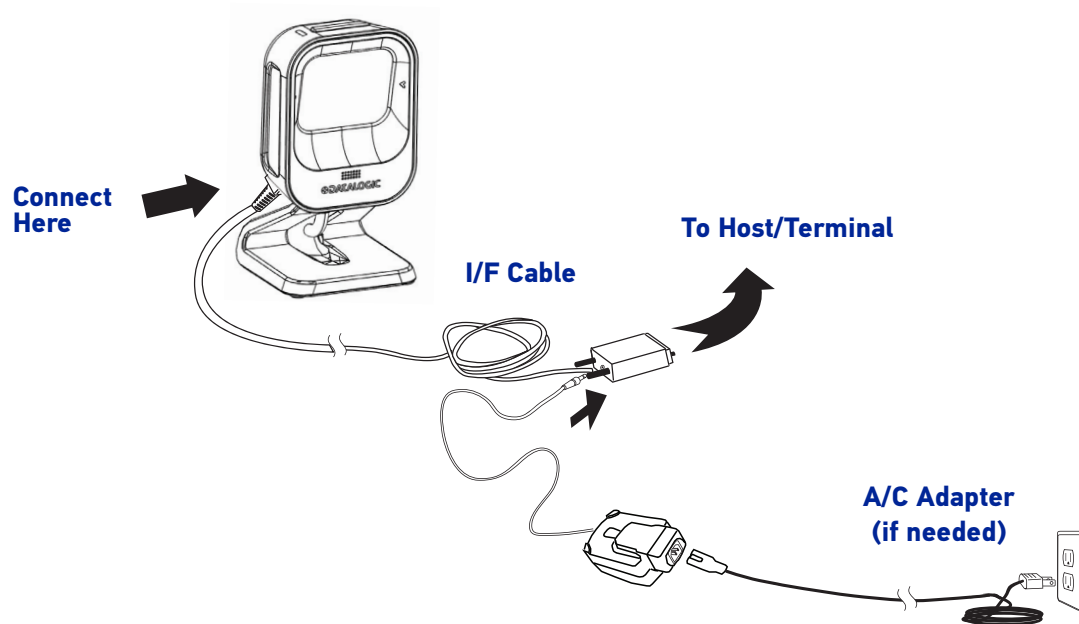
CONNECTING THE SCANNER

Magellan 900i scanner kits generally include a cable that is compatible with your interface and installation needs. Scanners may also be purchased without cable for easy stocking and distribution. Check with your technical support representative about cable compatibility before using any cable not purchased as part of a scanner kit. Use the appropriate instructions below when you're ready to connect the scanner to the terminal, PC or other host device.

Upon completing the connection via the appropriate interface instructions below, proceed to the [Interface Related Features](#) section of this manual and scan the barcode to select the correct interface type.

RS-232 Serial Connection : Turn off power to the terminal/PC and connect the scanner to the terminal/PC serial port via the RS-232 cable as shown in Figure 1. If the terminal will not support POT (Power Off the Terminal) to supply scanner power, use the approved power supply (AC Adapter).

Figure 1. Connecting the Scanner



USB Connection : Connect the scanner to a USB port on the terminal/PC using the correct USB cable for the interface type you ordered.

Figure 2. Scanner Features - Front View

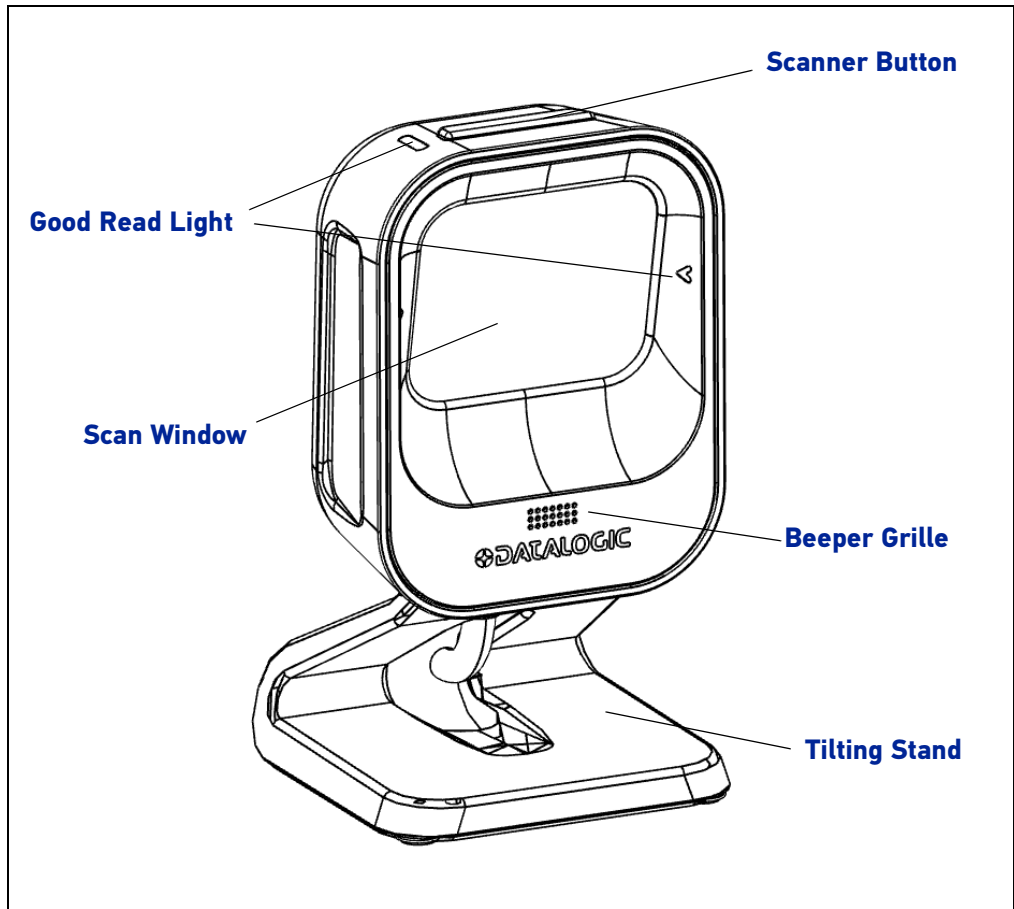
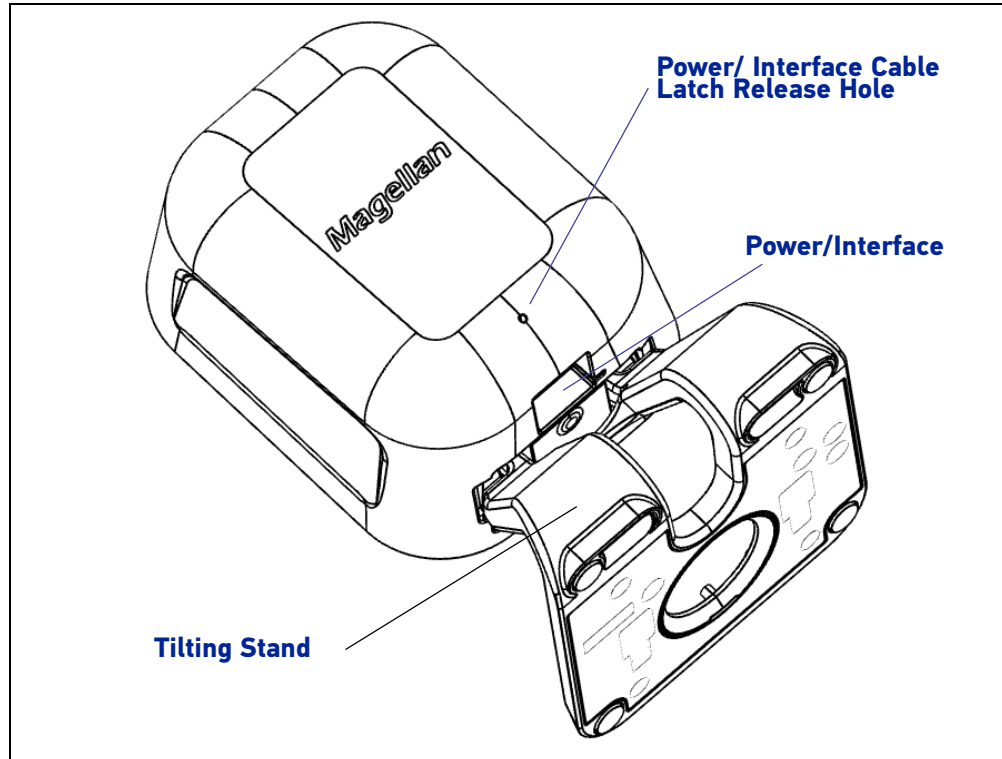


Figure 3. Scanner Features - Bottom View



Optional Magnetic Base Mounting

An optional magnetic swivel base can be used to semi-permanently attach a stand scanner to a flat surface (vertical or horizontal), using the provided adhesive or screw. The scanner can easily be rotated to a desired orientation. The scanner can be detached for portable use by lifting the entire unit as shown in [Figure 6 on page 7](#).

Optional Kiosk Mounting

The Magellan 900i can also be installed into a kiosk, self-checkout or other enclosure. See [OEM Mounting on page 307](#) for more information about mounting and sealing considerations.

Dimensions

Figure 4. Tilting Stand Dimensions.

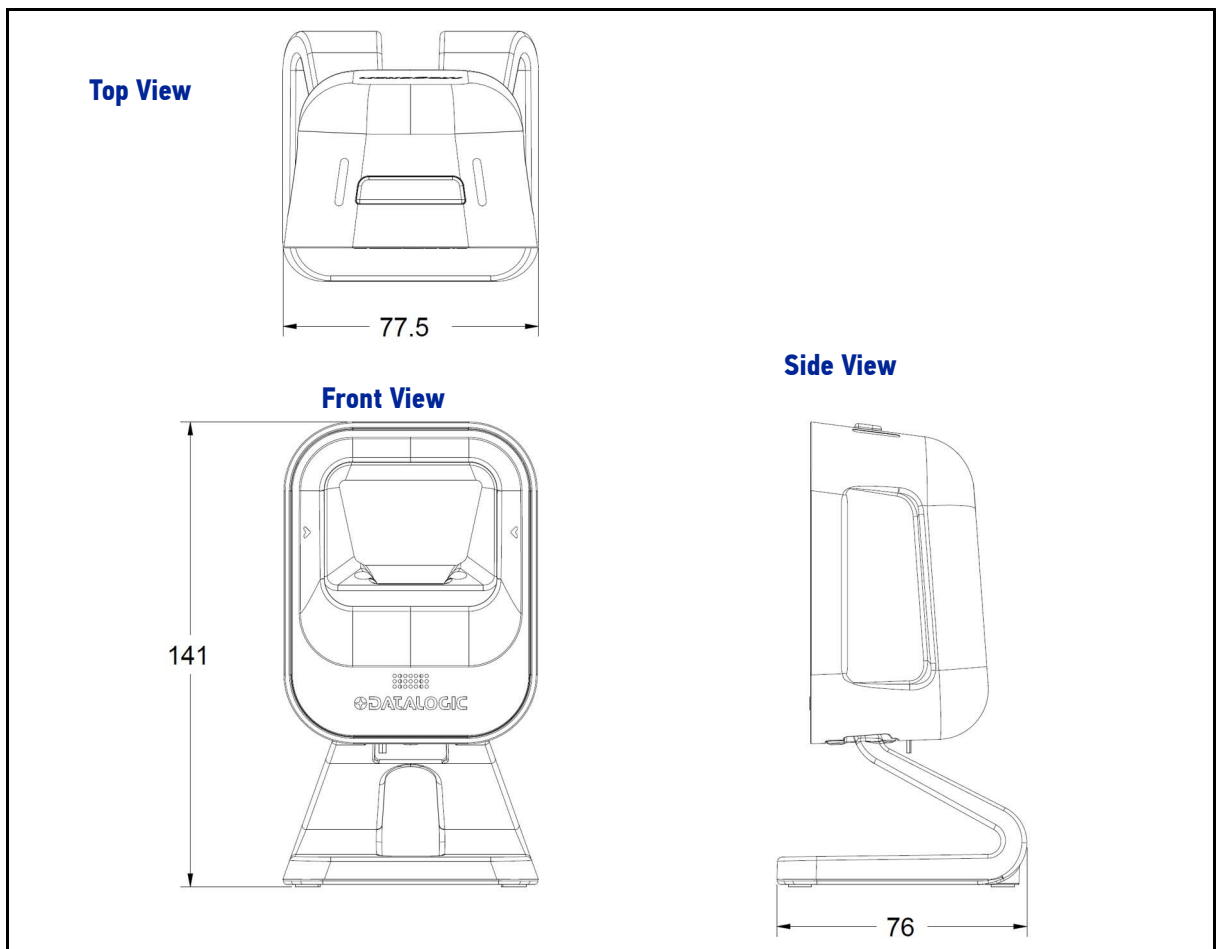
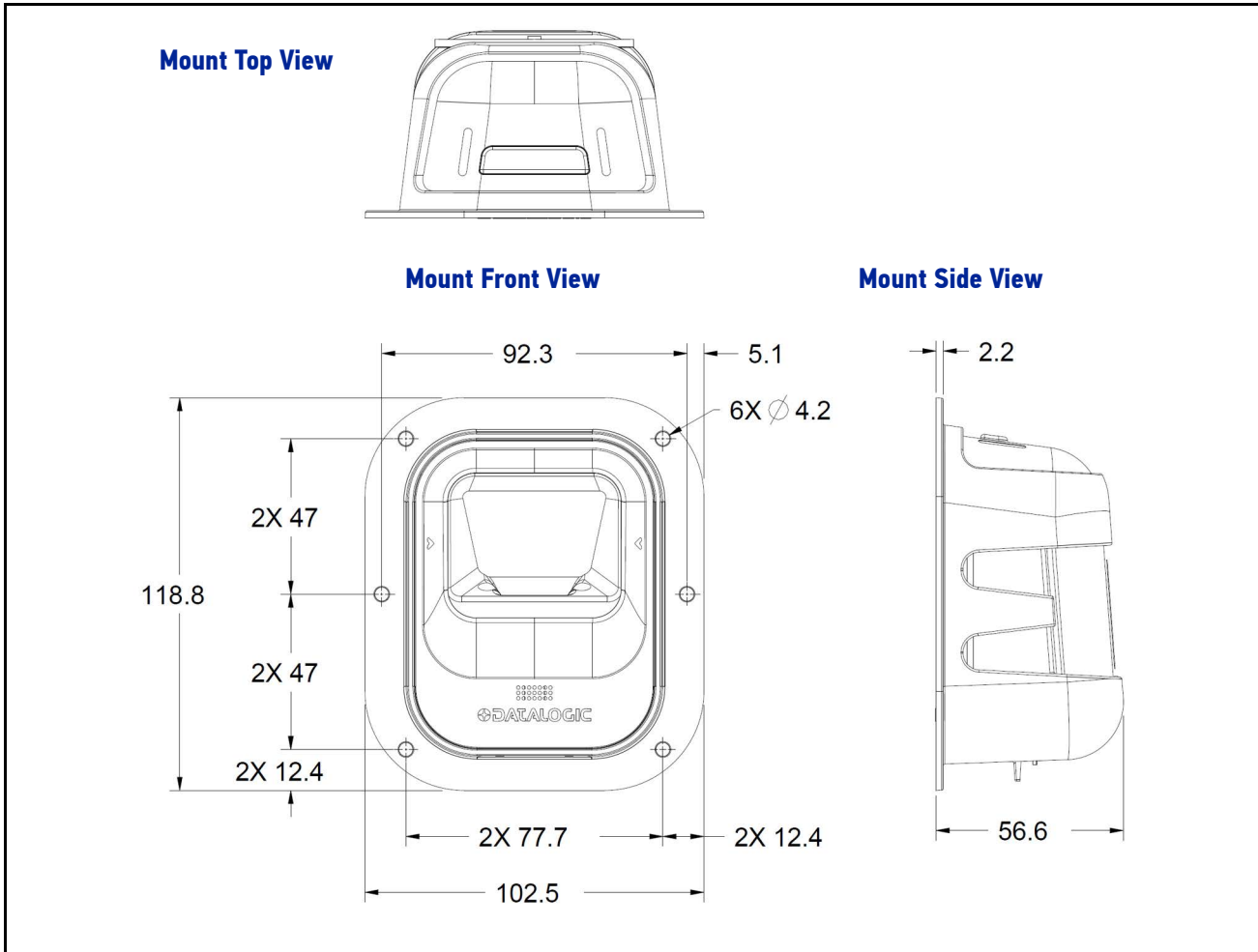


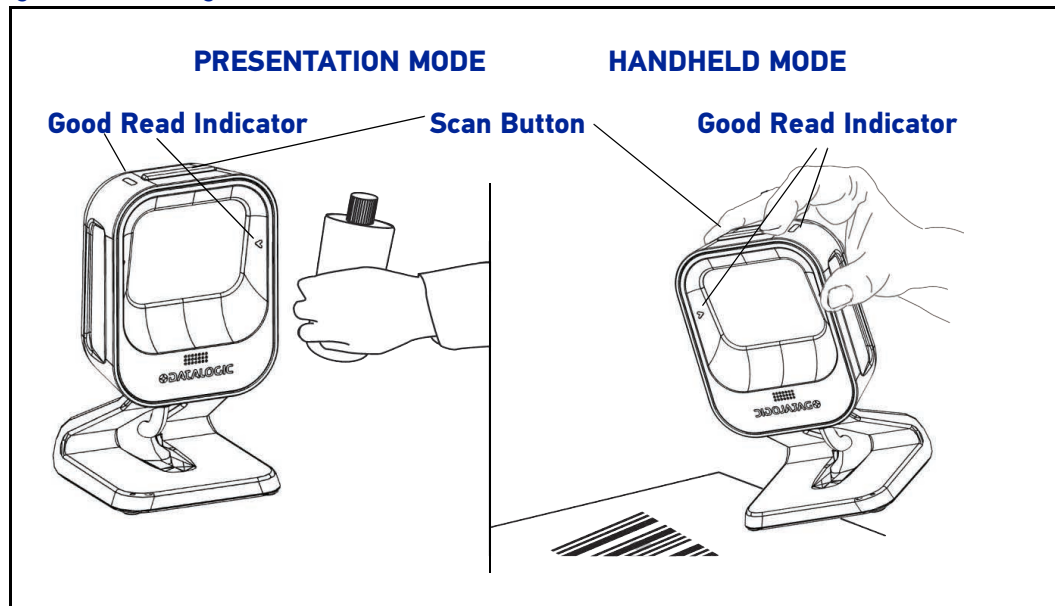
Figure 5. OEM/Kiosk Mount Dimensions



HOW TO SCAN

Barcodes can be presented to the scanner while it is resting on the stand, or the scanner can be picked up for targeted scanning.

Figure 6. Scanning Methods



Handheld Scanning Mode

To read a barcode using Handheld Scanning Mode:

1. Pick up the scanner and click the button - the aimer LED will illuminate.
2. With the aimer over the barcode to be read, press the button.

Upon a successful read, the lights beside the button will blink bright green and the Green-Spot™ will illuminate, highlighting the decoded barcode.

See [Handheld State On Time](#) for programming labels for this feature.

Center Zone Qualification

The configurable Center Zone can be set to limit the scan area to allow Targeted Scanning of pick lists or other special items. Barcodes will read in any orientation. The scanner will return to full pattern Presentation Mode when set back down, after a configurable time has elapsed.

See [Center Zone Enable](#) to set this feature.

Scanner Button

The Scanner Button performs multiple functions, depending on how long it is pressed:

PRESS TYPE	FUNCTION	COMMENT
Momentary (when scanner is asleep)	Wakes scanner from Sleep Mode into Presentation Mode	Alternatively, the scanner can be awakened by moving an object through the scan zone.
Momentary (when scanner is awake)	Switches Scanner to Handheld Mode	Scanner will remain in Handheld mode for a configurable number of seconds
Press button for 2 seconds	Increments volume	Pressing the button for 2 seconds increases speaker volume. When the loudest volume is reached, another 2 second press of the button cycles volume back to the lowest setting, then volume increases on subsequent 2 second press(es). Five volume levels are available.
Press button for 4 seconds	Scanner Diagnostics Mode ^a	This mode allows system support personnel to troubleshoot problems with the scanner and is used to determine if it can read bar codes. Press the button for 8 seconds or cycle power to exit Scanner Diagnostics Mode and reset the scanner.
Press button for 10 seconds	Resets Scanner ^b	Only system support personnel should perform a reset.

- a. By standard default, this function is normally disabled to prevent accidental activation by users.
- b. Users should not perform scanner resets except under the direction of trained systems support personnel.



NOTE

Volume changes made using the Scanner Button are lost when the scanner is powered down and are reset to the configured setting. If you wish to permanently change the volume, use the special programming labels in the Product Reference Guide.

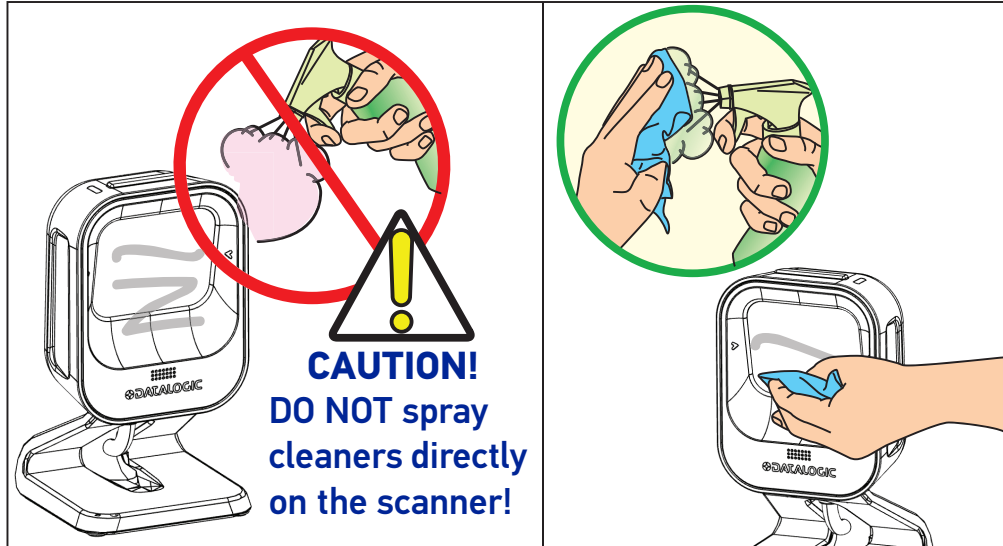


NOTE

In Handheld Mode, the only function of the button is to scan labels. All other button operations are suspended.

CLEANING

Exterior surfaces and scan windows exposed to spills, smudges or debris accumulation require periodic cleaning to assure best performance during scanning. Use a clean, lint-free cloth or paper towel dampened with a nonabrasive, mild, water-based cleaner to wipe away stains, smudges, fingerprints, spills, etc. from the scan window and exterior surfaces.



DO NOT use abrasive cleaning agents or abrasive pads to clean this product. Harsh chemicals, disinfectants, and cleansers can cause damage which will adversely affect scanning performance.

Manufacturer Approved Cleaning Materials

Datalogic recommends the use of the following cleaners on its products.


	APPROVED CLEANERS
<ul style="list-style-type: none"> •Hydrogen Peroxide (not to exceed a 3% solution) •Chlorine bleach (not to exceed a 0.25% solution) •Mild detergent and water •Isopropyl Alcohol (not to exceed a 70% solution) 	



Use of the above cleaners *in combination with each other* is not recommended and may constitute a health hazard. Follow all specified safety precautions when using any cleaning solution.

Do Not Use Abrasive Cleansers!

Under no circumstances should abrasive cleansers, abrasive pads, caustic solutions or other harsh chemicals, including those listed below, be used on any part of the scanner as they can cause damage which will adversely affect scanning performance. Use of such materials, either alone or in combination with other cleaning agents, will void the manufacturer's warranty.

	!!DO NOT USE!!
<ul style="list-style-type: none">•Ammonia solutions•Acetone•Benzene•Ethanolamine•Ethers•Ketones	<ul style="list-style-type: none">•Trichloroethylene•Toluene•Carbolic acid•Aromatic or chlorinated hydrocarbons•Aqueous or alcoholic alkaline solutions

CHAPTER 2

PROGRAMMING

ABOUT PROGRAMMING YOUR SCANNER

This PRG lists the master defaults for the Magellan 900i. These master defaults can be modified depending on the configuration file loaded into the scanner at the time of manufacture. This allows the user to customize and adapt the scanner performance for their changing needs. Specific configuration settings are also optimized for the active host interface. Datalogic Technical Support can assist with creating custom configurations.

The scanner is typically factory-configured with a set of default features standard to the interface type you ordered. The scanner's programmable feature settings can be modified to accommodate your system's unique requirements.

If you need to change these settings, custom programming can be accomplished using one of the following methods:

Using the Programming Barcodes

The programming bar code labels contained in this manual will allow you to customize and configure features and settings for your scanner. Go to "Programming with Barcodes" on page 12 to get started.



NOTE

When you program the scanner using either of the methods listed above, the scanner will store the changes until reprogrammed or returned to factory defaults.

Datalogic Aladdin™

Programming can alternatively be performed using the Datalogic Aladdin™ Configuration application which is available for free download from the Datalogic website.

Datalogic Aladdin™ is a multi-platform utility program providing a quick and user-friendly configuration method via the USB-COM interface. Aladdin allows you to program the reader by selecting configuration commands through a user-friendly graphical interface running on a PC. These commands are sent to the reader over the selected communication interface, or they can be printed as bar codes to be scanned.

Aladdin also facilitates image capturing. In addition, Aladdin also provides the possibility to perform a software upgrade for the connected device. See the Datalogic Aladdin™ Help On-Line for more details.

Aladdin is available for download free of charge on the Datalogic website.

Programming with Barcodes

If you have little or no prior experience with programming using barcode labels, you should review the next few pages of this section to familiarize yourself with the basics of scanner programming before performing any changes to your configuration.

Most scanner programming falls within general categories:

General Scanner Features: features common to all interface types. Examples include beeper adjustments such as volume and length, read verification settings, etc.

Imaging Features: settings specific to Imaging

Interface Related Features: mandatory settings necessary to allow communication. Examples of these settings are: RS-232 baud rate and parity.



NOTE

Ensure that your planned modifications are compatible with the current interface.

Data Editing: Additional information sent to the host computer along with the barcode data. This combination of barcode data and supplementary user-defined data is called a “message string.” The features in this chapter can be used to build specific user-defined data into a message string.

Symbology Programming: Gives the scanner the capability to autodiscriminate as few as one, and as many as all available symbologies. For optimal scanner performance enable only those symbologies required. Additionally the scanner may be programmed with the standard options available for the various symbologies, such as check digit, minimum label length, fixed and variable length bar codes, etc.

The barcode programming section lists the factory default settings for each of the menu commands for the standard RS-232 interface, indicated by a green arrow. Exceptions to default settings for the other interfaces can be found in [Appendix D, Factory Default Settings](#).

If you experience difficulties, have questions or require additional information, contact your local distributor, or call your dealer or sales representative.

Getting Started

After scanning the interface barcode from the [Interface Related Features](#) section, you can select other options and customize your scanner through use of the instructions and programming barcodes available throughout [Chapter 2, Programming](#) of this manual.



NOTE

When you program the scanner using any of the methods above, the scanner will store the changes until reprogrammed or returned to factory defaults.

Programming Mode

Scan the Enter/Exit Programming Mode barcode found at the top of applicable pages once to enter Programming Mode. After the scanner is in Programming Mode, you can scan a number of parameter settings before scanning the Enter/Exit Programming Mode barcode a second time, which will then accept your changes, exit Programming Mode, reset the scanner and return it to normal operation.



NOTE

While in Programming Mode, your scanner will read the 2D programming bar codes in this manual regardless of whether 2D reading capability has been enabled as an option.

The scanner will exit Programming Mode under any of the following conditions:

- the programming sequence has been completed or the Enter/Exit Programming Mode bar code is scanned.
- five minutes have passed without scanning activity. Any data programmed during the current session will be ignored, and the scanner will reset and revert to its condition previous to initiating the exited session.
- power is disconnected. Disconnecting power during Programming Mode, before scanning the Enter/Exit Programming Mode bar code, will cause all new settings to be ignored¹. On powerup, the scanner will return to previous settings.

While in Programming Mode, the scanner only recognizes the special programming bar codes contained in this programming guide. See Appendix A for information about scanner indications while in the Programming Mode.

Some programming barcode labels require only the scan of that single label to enact the change. Most of the programming labels in this manual, however, require the scanner to be placed in Programming Mode prior to scanning them.

1. Exception: If an interface bar code had been read while in Programming Mode, the scanner will operate on the default settings for the new interface.

Programming Session

A typical programming session is conducted as follows:

1. Scan the Enter/Exit Programming Mode bar code to place the scanner in Programming Mode. Depending upon its current programming, the scanner may emit a beep or beeps, indicating it has read the bar code and the green LED will flash on and off slowly while the scanner remains in Programming Mode. Normal scanning functions are disabled.

Scan the programming bar code(s) to make the desired changes. The beeper will sound as programming barcode labels are scanned, indicating progress during scanner configuration. The beep may vary depending upon the feature being configured.



NOTE

Not all features are available for all interfaces and the scanner will sound an error tone when scanning programming bar codes for features invalid to the current interface. Only features supported by the currently active interface will be implemented.



NOTE

If a bar code is scanned that changes the scanner's interface, all previous configuration items scanned in the programming session are lost.

Additionally, when programming a feature requiring you to scan single digits to set a multi-digit number, such as Minimum Label Length, do not scan bar code (or any item tag/item value bar code) before completing all input. To do so will result in an error tone and cause the scanner to exit Programming Mode. Under these circumstances, the current feature you were trying to set is not applied, but any previous bar codes scanned during the session will still take effect.



NOTE

It is recommended that programming sessions be limited to one feature at a time. Should you make a mistake in the programming sequence, it can be difficult to discover where an error has been made if several features are programmed at once. Additionally, it can be confusing to determine which features may or may not have been successfully set following such a session.

2. Scan the Enter/Exit Programming Mode bar code to save any new settings and exit Programming Mode. The scanner will sound a beep and reset upon exiting Programming Mode, and the green LED will return to its usual state (on steady or off).
3. Maintain a good record of all changes made to ensure that you know if the original factory settings have been changed.

If You Make a Mistake...

If, during a programming session, you find that you are unsure of the scanner's settings or wish to reset the scanner's configuration, use the Return to Factory Settings label below to return the scanner's configuration to the factory settings. Scanning this label will also reset any changes made during previous programming sessions.

Return to Factory Settings

Scan the bar code below to return the scanner to the default settings configured at the factory for the currently active interface. This bar code is typically used to return the scanner to a "known" operating state when the present programming status is not known, faulty, or suspect.



CAUTION

Use this bar code with caution, since it will reset ALL features that may have been programmed since the scanner's installation.



NOTE

DO NOT scan the Enter/Exit Programming Mode bar code before and after scanning this bar code.



Standard Product Default Settings

CONFIGURATION | GENERAL SCANNER FEATURES

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<ul style="list-style-type: none"> •Power On Alert on page 26 •External Read Indicator (ERI) on page 27 •ERI Timeout on page 28 •Good Read LED Idle State on page 29 •Scanner Control Button Options on page 30 •Good Read Beep Control on page 31 •Good Read Beep Frequency on page 32 •Good Read Beep Length on page 33 •Good Read Beep Volume on page 34 	<ul style="list-style-type: none"> •Good Read When to Indicate on page 35 •Illumination During Disable Mode on page 36 •Green Spot Enable on page 37 •Green Spot Duration Time on page 38



SCANNING FEATURES

1D Double Read Timeout

The 1D Double Read Timeout feature specifies the minimum allowable time which must pass before reading the same 1D label again (e.g. two identical items in succession).

To set the Double Read Timeout:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



NOTE

If the incidence of multiple reads is not acceptable, increase the Double Read Timeout setting to a higher value.



1D Double Read Timeout = 300ms



1D Double Read Timeout = 400ms



1D Double Read Timeout = 600ms



1D Double Read Timeout = 800ms



2D Double Read Timeout

The 2D Double Read Timeout feature specifies the minimum allowable time which must pass before reading the same 2D label again (e.g. two identical items in succession).

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page at the top of the page.
2. Scan your selection from the barcodes below. You'll need
3. d to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
4. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



If the incidence of multiple reads is not acceptable, increase the Timeout setting to a higher value.

NOTE



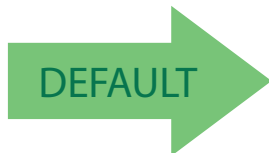
2D Double Read Timeout = 300ms



2D Double Read Timeout = 400ms



2D Double Read Timeout = 600ms



2D Double Read Timeout = 700ms



2D Double Read Timeout = 800ms



Double Read Table Size

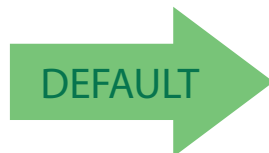
Specifies the number of labels to be tracked if double read protection is needed. Contact Technical Support for more information.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode [Set Double Read Table Size](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired number of entries, using hex values. The selectable range is 01-25. Pad all numbers with leading zeros to yield a two-digit entry.
4. Scan the Enter/Exit Programming Mode barcode at the top of the page to exit Programming Mode.



Set Double Read Table Size



Default setting for this feature is: 7 Entries

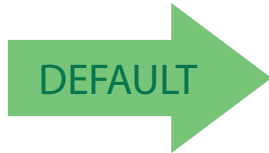


1D Inverse Read Control

This configuration item is used to toggle inverted label reading for 1D barcodes, for example, a label printed as white on black as opposed to black on white.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



1D Inverse Read Control = Enable



1D Inverse Read Control = Disable



1D Inverse Read Control = Enable Normal + Inverse

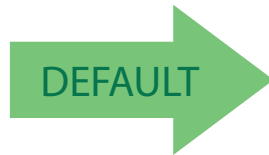


2D Inverse Read Control

This configuration item is used to toggle inverted label reading for 2D barcodes, for example, a label printed as white on black as opposed to black on white.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



2D Inverse Read Control = Disable



2D Inverse Read Control = Enable

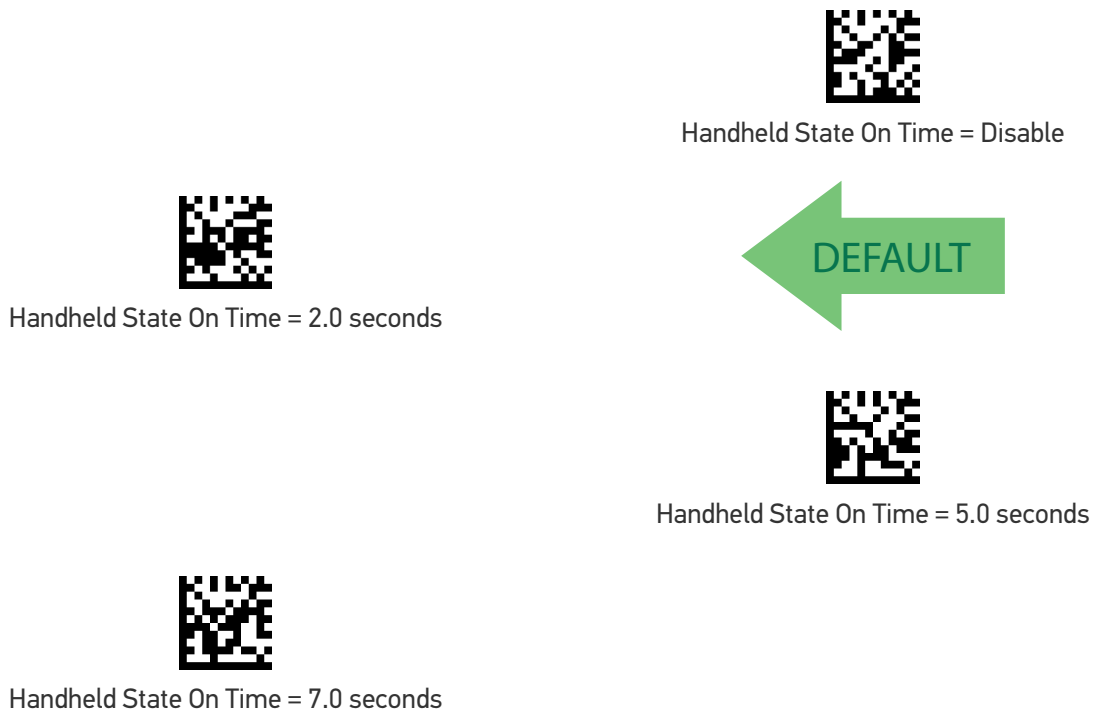


2D Inverse Read Control = Enable Normal + Inverse



Handheld State On Time

This configuration item is to enable handheld scanning for a set time. The scanner will revert to presentation mode after the indicated number of seconds.





Center Zone Enable

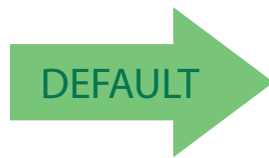
Enables or Disables Center Zone Label Proofing. In "Always On" mode, Zone Proofing will be applied to labels presented to the scanner while in Active State and in HandHeld State.



NOTE

Labels rendered by segment assembly carry no coordinate data, and will not be proofed if Center Zone Label Proofing is enabled.

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Center Zone Proofing = Disable



Center Zone Proofing = On only when in ScannerActive-Mode/ HandheldState



Center Zone Proofing = Always on



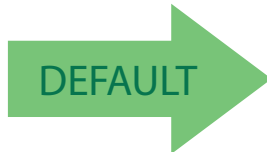
Center Zone Size

Specifies the Center Zone size as a percentage of the full image.

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode [Set Center Zone Size](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired percentage in hex. The selectable range is 01 - 100%. Pad all numbers with leading zeros to yield a two-digit entry (01-100).
4. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Set Center Zone Size



Default setting for this feature is: 10 percent



Sleep Mode Timer

This feature specifies the amount of time of inactivity (with no label reads) before the scanner enters sleep mode.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode [Set Sleep Mode Timer](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) to represent the desired time interval. The selectable range is 000-255 in 15 second increments. Pad all numbers with leading zeros to yield a three-digit entry (000-255).
4. Scan the Enter/Exit Programming Mode barcode at the top of the page to exit Programming Mode.



Set Sleep Mode Timer



Default setting for this feature is: 5 minutes



LED AND BEEPER INDICATORS

Power On Alert

Disables or enables the indication that the scanner has finished all its power up tests and is now ready for operation (usually a single beep).



NOTE

This feature is configurable so the beep can be replaced with a .wav file.



Power-up Tone Control = No Tone



Power-up Tone Control = Play Tone



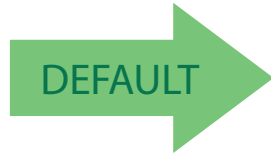


External Read Indicator (ERI)



NOTE

This feature is available only through use of a special cable.



ERI Active State = Active Low



ERI Active State = Active High



ERI Timeout

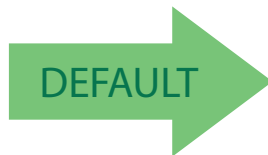
Specifies the amount of time the External Read Indicator (ERI) signal is held active for a good read. Sets the ERI timeout duration using hex values from 000 to 255 in increments of ten milliseconds (10ms or 0.01 seconds).

To configure this feature:

1. Scan the “Enter/Exit Programming Mode” barcode above to place the unit in Programming Mode.
2. Scan “Set ERI Timeout,” followed by the two digits (zero padded) from the [Alpha-Numeric Keypad in Appendix C](#) representing the desired time value.
3. Exit programming mode by scanning the “Enter/Exit Programming Mode” barcode again.



Set ERI Timeout



Default setting for this feature is:
002 -20mS



Good Read LED Idle State

This feature specifies the state of the green scanner LEDs when the scanner is idle and ready to read a label. Options are:

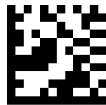
- Off
- On dim

To set the Scanner LEDs Idle State:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Scanner LED Idle State = Off



Scanner LED Idle State = On Dim





Scanner Control Button Options

Configure the Scanner Control Button to one of the following modes of operation:

- Enable all functions: Volume, tone, diagnostics and reset.
- Enable only volume, tone and reset.
- Enable reset only.
- Disable all button functions

To set the desired Scanner Control Button Option:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Scanner Control Button = Enable All Functions



Scanner Control Button = Enable Only Volume Tone and Reset



Scanner Control Button = Enable Reset Only



Scanner Control Button = Disable All Functions



ENTER/EXIT PROGRAMMING MODE

Good Read Beep Control

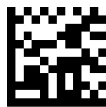
This feature enables/disables scanner beep upon successfully decoding of a label.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Good Read Beep Control = Disable



Good Read Beep Control = Enable





Good Read Beep Frequency

Adjusts the scanner's good read beep to sound at low, medium, or high frequency (controls the beeper's pitch/tone).

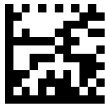
- Low
- Medium
- High

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Good Read Beep Frequency = Low



Good Read Beep Frequency = Medium



Good Read Beep Frequency = High



Good Read Beep Length

Specifies the duration of a good read beep.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set Good Read Beep Length on page 33](#). You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired good read beep length setting. The selectable range is 1-255, which is the timeout in 10-millisecond increments. Times have a tolerance of +/-25%. Pad all single and double digit numbers with leading zeroes to yield a three-digit entry (001-255).

Examples:

001 = 10ms

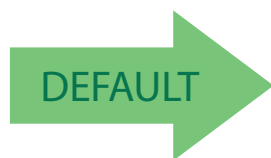
005 = 50ms

040 = 400ms

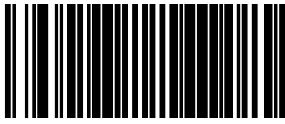
4. The scanner will automatically exit Programming Mode when the appropriate amount of digits have been scanned.



Set Good Read Beep Length



Default setting for this feature is:
008 - 80ms



Good Read Beep Volume

Selects the beeper volume upon a good read beep. There are five selectable volumes, with each volume increment adding approximately five decibels to the previous level:

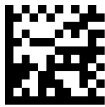
- Low
- Medium Low
- Medium
- Medium High
- High

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Good Read Beep Volume = Low



Good Read Beep Volume = Medium Low



Good Read Beep Volume = Medium



Good Read Beep Volume = Medium High



Good Read Beep Volume = High



Good Read When to Indicate

This feature specifies when the scanner will provide indication (beep and/or flash its green LEDs) upon successfully reading a barcode.

- Good Read = Indicate after decode.
- Good Read = Indicate after transmit.
- Good Read = Indicate after CTS goes inactive, then active.
This mode applies to RS-232 STD and RS-232 WN interfaces only. If set in other interfaces, “Indicate after decode” mode will be implemented.
- Good Read = Indicate after each output structure proofed.
When beeping after each output structure decoded, if there are multiple output structures, there is a delay after the beep has finished. This delay is equal to the [Good Read Beep Length on page 33](#).

To set the Good Read When to Indicate feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the desired mode barcode from those provided below You’ll need to cover any unused barcodes on facing pages to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Good Read When to Indicate = After Decode



Good Read When to Indicate = After Transmit



Good Read When to Indicate = After CTS goes Inactive,
Then Active



Good Read When to Indicate = After Each Output
Structure Proofed



Illumination During Disable Mode

This feature allows illumination to be turned off when the scanner is in “disable” mode. It determines if the imager illumination is controlled by host interface enable/disable commands.

Disable = Illumination is not controlled by host enable/disable commands, illumination stays on when disabled.

Enable = Illumination is controlled by host enable/disable commands, illumination is on when enabled and off when disabled.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Illumination During Disable Mode = Disable



Illumination During Disable Mode = Enable





ENTER/EXIT PROGRAMMING MODE

Green Spot Enable

Enables/disables the ability of the scanner to display a green spot after decoding a label while in presentation mode.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You will need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Green spot disabled



Green spot enabled





Green Spot Duration Time

This feature specifies the time that the Green Spot is active during handheld mode.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Green Spot Duration = Disabled



Green Spot Duration = 50 mS



Green Spot Duration = 100 mS



Green Spot Duration = 300 mS



Green Spot Duration = 1 second



Green Spot Duration = 2.5 sec

CONFIGURATION | IMAGING FEATURES

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<ul style="list-style-type: none">•Cell Phone Mode on page 50	

IMAGING FEATURES

Image Capture to the Host by Host Command

This feature is only available for RS-232 and USB COM interfaces.



NOTE

If the USB COM interface has been selected, follow the instructions in USB Interface Selection on page 54.

The host command format is as follows:

P<cnt>pSBC

where:

P - ASCII 'P' used as preamble of pass-through commands

<cnt> - binary value of 4 indicating 4 bytes to follow

p - ASCII lowercase 'p' ; command to take a picture

S - size value of image as ASCII character

'S' == uses scanner's configuration value

'0' -VGA, (640X480)

'1' -WVGA, (752X480)

'2' -SXGA, (1280x1027)

'3' -CIF (320x240)

B - brightness value in ASCII

'B' == uses scanner's configuration value CI_IMAGE_BRIGHTNESS
else '0' thru'9' specifies brightness

C - contrast value in ASCII

'C' == uses scanner configuration value CI_IMAGE_CONTRAST
else '0' thru'9' specifies contrast

If the image is of a type the scanner supports, capture and transmission occurs, and the command is of proper format

THEN

The scanner will transmit an ACK (0x06) to the Host in response to this command.

The image data transmission starts with a 4 byte binary field representing (Big Endian) number of bytes to follow.

If the "number of bytes to follow" value is zero, there was a problem with generating the image and the request should be retried.

ELSE

The scanner will transmit a BEL (0x07) to the Host in response to this command.

ENDIF

Image Format

This feature specifies the output format for images taken using the camera function of the scanner.

Choices are:

- JPG
- BMP

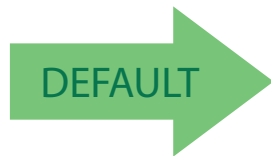


Image Format = BMP



Image Format = JPG

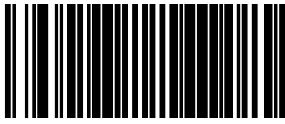


Image Size

This feature specifies the size of the captured image. Choices are:

VGA : Video Graphics Array. 640 x 480 pixels.

WVGA: Wide Video Graphics Array, various physical sizes, 16:9 shape

Full Size: Maximum image height and width. Largest image.

Half VGA: Half of the size of a regular VGA image, 320 x 240 pixels. Smallest image.

Scaled VGA: Video Graphics Array, 640 x 480 pixels.

ROI: The size of an ROI image is determined by the value of the ROI setting. See "[Region of Interest \(ROI\)](#)" on page 48.



Image Size = VGA



Image Size = WVGA

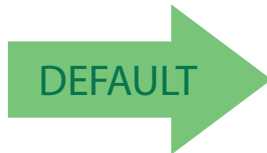


Image Size = Full Size



Image Size = Half VGA



Image Size = Scaled VGA



Image Size = ROI

Image Brightness

Specifies the image brightness value. The selectable range is from 0 to 10, with 10 being the brightest.



Image Brightness = 0



Image Brightness = 1



Image Brightness = 2



Image Brightness = 3



Image Brightness = 4



Image Brightness = 5



Image Brightness = 6



Image Brightness = 7



Image Brightness (continued)



Image Brightness = 8



Image Brightness = 9



Image Brightness = 10

Image Contrast

This feature sets the contrast level for a captured image. The selectable range is from 0 to 10, with 0 being the lowest and 10 being the highest contrast.



Image Contrast = 0



Image Contrast = 1



Image Contrast = 2



Image Contrast = 3



Image Contrast = 4



Image Contrast = 5



Image Contrast = 6



Image Contrast = 7



Image Contrast (continued)



Image Contrast = 8



Image Contrast = 9



Image Contrast = 10

Image Compression

Specifies the starting image compression factor.



Image Compression = 5



Image Compression = 10



Image Compression = 25



Image Compression = 50



Image Compression = 70



Image Compression = 80



Image Compression = 90

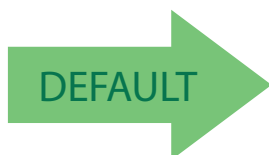
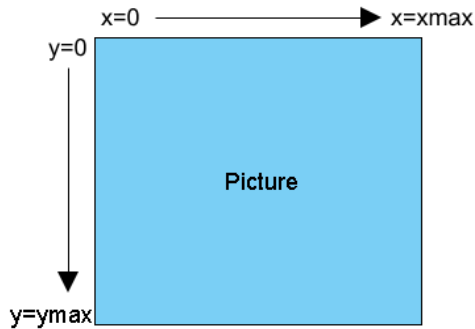


Image Compression = 100



Region of Interest (ROI)

This feature specifies the X-Y coordinates for the Region of Interest (ROI). The region of interest coordinates are defined as follows:



Where **xmax** is the x-size of a full size image (1279 pixels), and **ymax** is the y-size of a full size image (799 pixels).

For example, a coordinate set of 0, 639, 512, 1023 will produce the bottom left section of a full size image.



NOTE

Picture coordinates are NOT defined on a Cartesian coordinate plane.

- Byte [0]-[1]: 16 bit hex value xmin
- Byte [2]-[3]: 16 bit hex value xmax
- Byte [4]-[5]: 16 bit hex value ymin
- Byte [6]-[7]: 16 bit hex value ymax



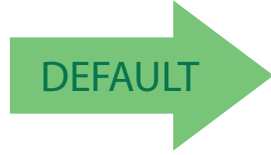
NOTE

If the xmax/ymax values are configured larger than the maximum values above, they will default to 1 less than their respective maximum values.

If the xmin/ymin values are configured larger than xmax/ymax, they will default to 0.

Images extracted with ROI must be in JPG format.

Region of Interest (continued)



Region of Interest = default



Region of Interest = upper left quadrant



Region of Interest = upper right quadrant



Region of Interest = lower left quadrant



Region of Interest = lower right quadrant

CELL PHONE MODE

Cell Phone Mode

Sets the level of cell phone mode reading.



NOTE

Higher cell phone settings will reduce time available for reading printed bar-codes.



Cell Phone Mode = Low



Cell Phone Mode = Medium



Cell Phone Mode = High

NOTES

CONFIGURATION | INTERFACE RELATED FEATURES

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USB-OEM FEATURES starting on page 65	
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INTERFACE SELECTION

INTERFACE TYPE

Specifies the current scanner interface.



NOTE

The correct interface cable is generally included for the reader interface type you ordered.



NOTE

If the scanner's interface type must be changed, always be sure that interface configuration is the **FIRST** item scanned during a programming session. (Selecting an interface type resets **ALL** other configuration items to the factory default for that interface type.)



CAUTION

Great care should be taken to select the correct interface type, since you can cause damage to the scanner and/or POS terminal by attempting to change to an incompatible interface. **ALWAYS** make interface selections with the host cable **DISCONNECTED**.



NOTE

When an interface is selected, the scanner loads the configuration for that interface as the selection is made. Any custom configurations done in the previous interface will not be carried over to the configuration for the new interface.



USB Interface Selection

Remember to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.



CAUTION

Great care should be taken to select the correct interface type, since you can cause damage to the scanner and/or POS terminal by attempting to change to an incompatible interface. ALWAYS make interface selections with the host cable DISCONNECTED.



Interface Type = USB OEM



Interface Type = USB COM



Interface Type = USB Keyboard



RS-232 Interface Selection

This section lists the factory default settings for each of the menu commands for the standard RS-232 interface, indicated by a green arrow. Exceptions to default settings for other interfaces, including Wincor-Nixdorf, can be found in [Appendix D, Factory Default Settings](#).



CAUTION

Great care should be taken to select the correct interface type, since you can cause damage to the scanner and/or POS terminal by attempting to change to an incompatible interface. ALWAYS make interface selections with the host cable DISCONNECTED.



Interface Type = RS-232 Standard



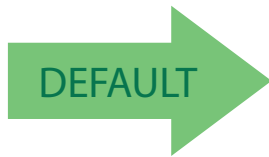
Interface Type = RS-232 Wincor-Nixdorf



INTERFACE FEATURES

Ignore Host Commands

When set to ignore host commands, the scanner will ignore all host commands except the minimum set necessary to keep the interface active and transmit labels. For normal operation of the interface, select Obey Host Commands.



Ignore Host Commands = Don't Ignore



Ignore Host Commands = Ignore

USB INTERFACE FEATURES

USB-COM Interface Setup

The Datalogic USB-COM driver is required to use USB-COM or USB-COM DL interfaces. The Datalogic USB-COM driver can be downloaded from the Datalogic website.

Before plugging your scanner into the Host PC, please ensure you have already copied the executable DLS USB-COM driver file to your PC and that the scanner's interface is set to USB COM or USB COM DL.

1. Execute the DLS USB-COM driver file.
2. When the scanner is first plugged into the PC, Windows will bring up the "Found New Hardware" message.
3. The installation is complete.



USB Keyboard Features

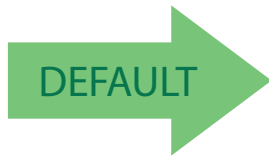
As a keyboard interface, the scanner supports most popular PC terminals.

Keyboard Layout

The Keyboard Layout option supports many countries. For details about Keyboard Layout, please refer to your operating system manual.

USB Keyboard Country Mode

This feature specifies the country/language that will be supported by the keyboard.



USB Keyboard Country Mode = USA



USB Keyboard Country Mode = Belgium



USB Keyboard Country Mode = Britain



USB Keyboard Country Mode = Denmark



USB Keyboard Country Mode = France



USB Keyboard Country Mode = Germany

USB Keyboard Country Mode (continued)



USB Keyboard Country Mode = Italy



USB Keyboard Country Mode =
Norway



USB Keyboard Country Mode =
Portugal



USB Keyboard Country Mode = Spain



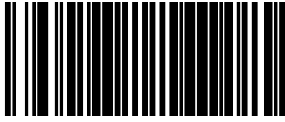
USB Keyboard Country Mode =
Sweden



USB Keyboard Country Mode =
Switzerland



USB Keyboard Country Mode =
Japanese 106-key



USB Keyboard Country Mode (continued)



USB Keyboard Country Mode = Hungary



USB Keyboard Country Mode = Czech Republic



USB Keyboard Country Mode = Slovakia



USB Keyboard Country Mode = Romania



USB Keyboard Country Mode = Croatia



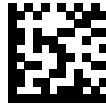
USB Keyboard Country Mode = Poland



USB Keyboard Country Mode = French Canadian



USB Keyboard Country Mode = Turkish



USB Keyboard Country Mode = Russian



USB Keyboard Country Mode = Brazilian Portuguese



USB Keyboard Country Mode = Vietnamese

USB Keyboard Intercharacter Delay

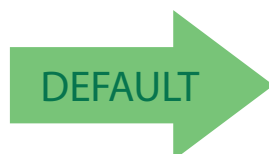
Specifies a time delay between characters.

To set this feature:

1. Scan the Set USB Keyboard Intercharacter Delay barcode below.
2. Scan the appropriate characters/digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired delay. The selectable range for this option is any decimal value from 00 (no delay) to 99 in 10 ms increments. A table containing the ASCII Character Set and their corresponding decimal values is available in the inside back cover of this manual. ASCII parameters must be input by scanning decimal digits for each character. Pad all single digit numbers with leading zero to yield a two-digit entry (00-99). Thus, to set an intercharacter delay of 70ms, barcodes containing the digits '0' and '7' must be scanned.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Set USB Keyboard Intercharacter Delay



Default setting for this feature is: 00 (1ms)



USB Keyboard - ALT Mode Type

Specifies the transmission method for ALT codes.



ALT Mode Type = ALT Codepage
(for non Unicode Applications)



ALT Mode Type = ALT Unicode
(for Unicode Applications)



ALT Mode Type = ALT Universal



ALT Mode Type = ALT Unicode for Linux



ALT Mode Type = ALT Unicode for Linux
(Alternate)

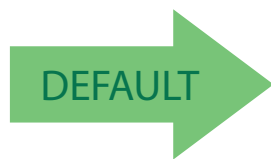


USB Keyboard - ALT Mode Only

Enables sending all characters using Alt codes.

Disable: Scanner will attempt to transmit character with a scancode. If no scancode is present in the current country mode for the character, the scanner transmits the character with an ALT code.

Enable: Scanner always transmits characters as ALT codes regardless of configured country mode.



ALT Mode Only = Disable



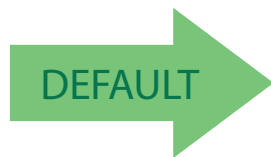
ALT Mode Only = Enable

USB Keyboard - Use NUMPAD

Enables use of NUMPAD instead of number row.

Disable: Scanner will transmit numbers with the keyboard's number row keys.

Enable: Scanner will transmit numbers with the keyboard's numpad keys



Use Numpad = Disable



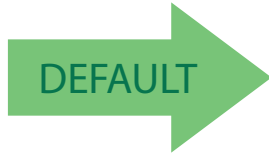
Use Numpad = Enable



USB Keyboard - Control Mode

Specifies how control characters are transmitted.

Reference [Appendix E, SCANCODE TABLES](#) for more information about control characters.



Control Mode = Send Ctrl Key



Control Mode = Send Ctrl Key + Shift Key



Control Mode = Send Special Function Key

USB Keyboard - Encoding Type

Specifies expected encoding method for label characters.



Encoding Type = Standard ASCII



Encoding Type = UTF-8



Encoding Type = Codepage^a

a. Codepage encoding required for proper operation in country modes Russia, Turkey, and Vietnam

USB-OEM Features

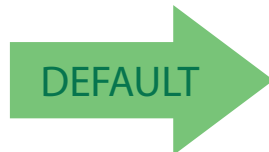
USB OEM Scanner Device Type

The OEM-USB protocol allows for the scanner to be identified as one of two different types of barcode scanners. Depending on what other scanners you may already have connected to a USB POS, you may need to change this setting to enable all scanners to communicate. Options are:

- Table Top Scanner
- Handheld Scanner

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



USB OEM Scanner Device Type = Table Top Scanner



USB OEM Scanner Device Type = Handheld Scanner



RS-232 INTERFACE FEATURES



NOTE

A setting of no parity with 7 data bits is invalid and will default to 8 data bits and no parity.

RS-232 Baud Rate



RS-232 Baud Rate = 1200



RS-232 Baud Rate = 2400



RS-232 Baud Rate = 4800



RS-232 Baud Rate = 9600



RS-232 Baud Rate = 19200



RS-232 Baud Rate = 38400

RS-232 Baud Rate (continued)



RS-232 Baud Rate = 57600



RS-232 Baud Rate = 115200

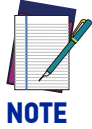


RS-232 Baud Rate = 230400



RS-232 Number of Data Bits

Specifies number of data bits required for sending and receiving data..



A setting of 7 data bits with no parity will default to 8 data bits and no parity.



RS-232 Number of Data Bits = 8

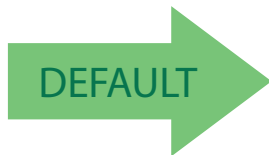


RS-232 Number of Data Bits = 7



RS-232 Number of Stop Bits

Specifies number of stop bits required for sending and receiving data



RS-232 Number of Stop Bits = 1



RS-232 Number of Stop Bits = 2

RS-232 Parity

Specifies parity required for sending and receiving data.

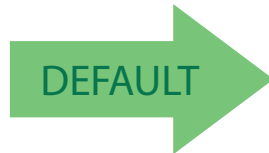
Options for this setting are:

- RS-232 PARITY = NONE
- RS-232 PARITY = EVEN
- RS-232 PARITY = ODD.



NOTE

A setting of no parity with 7 data bits will default to 8 data bits and no parity.



RS-232 Parity = None



RS-232 Parity = Even



RS-232 Parity = Odd

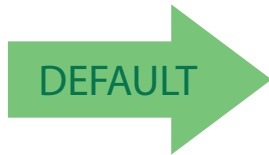


RS-232 Hardware Control

Enables/disables use of the RS-232 CTS signal for flow control and/or scan control.

Options are:

- Disable — The scanner transmits to the host regardless of any activity on the CTS line.
- Enable CTS Flow Control — The CTS signal controls transmission of data to the host.
- Enable CTS Scan Control — The CTS line must be active for scanner to read and transmit data. While the CTS line is inactive, scanner remains in a host-disabled state; following a successful label transmission, the CTS signal must transition to inactive and then to active to enable scanning for the next label.
- Enable Magellan SL CTS Scan Control — Follows the same hardware protocol as older Magellan SL scanners.



RS-232 Hardware Control = Disable



RS-232 Hardware Control = Enable CTS Flow Control



RS-232 Parity = Enable CTS Scan Control



RS-232 Hardware Control = Enable MGL SL CTS Scan Control

RS-232 Software Flow Control

Enables/disables RS-232 Flow Control using XON/ XOFF characters.

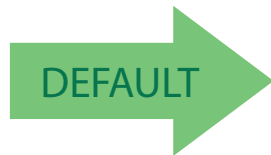


This item will be ignored when the feature, RS-232 NAK Character, is enabled

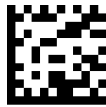
NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



RS-232 Software Flow Control= Disable

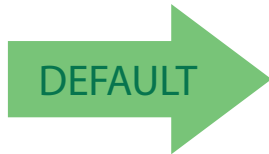


RS-232 Software Flow Control= Enable



RS-232 Beep on ASCII BEL

Enables/disables ability of scanner to beep (sound a good read tone) on receiving an ASCII BEL (07 hex).



RS-232 Beep on ASCII BEL = Disable



RS-232 Beep on ASCII BEL = Enable

Beep on Not on File

Select for the host to beep (or not) when a not-on-file condition is detected by the host.



RS-232 Beep on Not on File = Muted



RS-232 Beep on Not on File = Low Volume



RS-232 Beep on Not on File = Medium Volume



RS-232 Beep on Not on File = High Volume

RS-232 ACK NAK Features

ACK NAK Enable

This enables/disables the ability of the scanner to support the RS-232 ACK/NAK protocol. When configured, the scanner and/or host sends an “ACK” when it receives data properly, and sends “NAK” when the data is in error. Selections for this option are:

- Disable ACK NAK
- Enable for Label Transmission — the scanner expects an ACK/NAK response from the host when a label is sent)
- Enable for Host Acknowledgement — Enabled for Host Commands (the scanner will respond with ACK/NAK when the host sends a command)
- Enable for Label & Host — Enabled for both Label Transmission & Host Command acknowledgement.

To select the option for RS-232 ACK NAK Enable:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the desired option from barcodes below and on the following page. You’ll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



RS-232 ACK NAK = Disable



RS-232 ACK NAK = Enable for Label Transmission



RS-232 ACK NAK = Enable for Host Acknowledgement

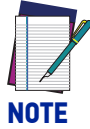


RS-232 ACK NAK = Enable for Label & Host



RS-232 ACK Character

This feature specifies which ASCII character will be used as an ACK character.



NOTE

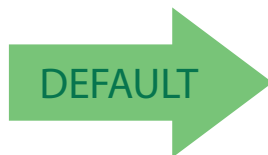
DO NOT set this feature to use previously defined characters such as XON, XOFF or host commands as this will conflict with normal operation of these characters. 8-bit data is not recognized when the feature, RS-232 Number of Data Bits, is set to 7 data bits.

To specify the RS-232 ACK Character:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, SET RS-232 ACK Character below. You'll need to cover any unused barcodes on this and the facing page to ensure the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the hex designation for the desired character. A table containing the ASCII Character Set and their corresponding Hex Values is available in the inside back cover of this manual. ASCII parameters must be input by scanning a pair of hexadecimal digits for the desired character. For example, if ASCII "A" were the desired ACK character, you would scan the digits "4", then "1" (the ASCII corresponding hex value).
4. The scanner will automatically exit Programming Mode when the appropriate amount of digits/characters have been scanned.



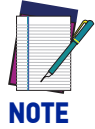
Set RS-232 ACK Character



Default setting for this feature is:
06

RS-232 NAK Character

This feature specifies which ASCII character will be used as a NAK character.



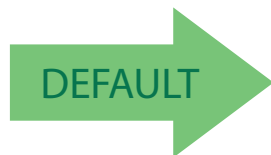
DO NOT set this feature to use previously defined characters such as XON, XOFF or host commands as this will conflict with normal operation of these characters. 8-bit data is not recognized when the feature, RS-232 Number of Data Bits, is set to 7 data bits.

To specify the RS-232 NAK Character:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, SET RS-232 NAK Character below. You'll need to cover any unused barcodes on this and the facing page to ensure the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the hex designation for the desired character. A table containing the ASCII Character Set and their corresponding Hex Values is available in the inside back cover of this manual. ASCII parameters must be input by scanning a pair of hexadecimal digits for the desired character. For example, if ASCII "A" were the desired NAK character, you would scan the digits "4", then "1" (the ASCII corresponding hex value).
4. The scanner will automatically exit Programming Mode when the appropriate amount of digits/characters have been scanned.



Set RS-232 NAK Character



Default setting for this feature is:
15

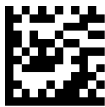


RS-232 Retry on ACK NAK Timeout

This option specifies the action scanner performs on expiration of the RS-232 ACK NAK Timeout Value.



RS-232 Retry on ACK NAK Timeout = Disable



RS-232 Retry on ACK NAK Timeout = Enable



RS-232 ACK NAK Timeout Value

This item specifies the time the scanner will wait for an ACK character from the host following a label transmission.

- 0 = Infinite timeout
- 1 - 75 = Timeout in 200-millisecond increments

To set the ACK NAK Timeout Value:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode below, [Set RS-232 ACK NAK Timeout Value](#). You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired timeout. A setting of 0 specifies an infinite timeout. The remaining selectable range is 1-75, which is the timeout in 200-millisecond increments. Pad all single digit numbers with a leading zero to yield a two-digit entry (00-75).

Examples:

00 = Infinite timeout

01 = 200ms

05 = 1,000ms (1 second)

40 = 8,000ms (8 seconds)

75 = 15,000ms (15 seconds)

The scanner will automatically exit Programming Mode when the appropriate amount of digits have been scanned.



Set RS-232 ACK NAK Timeout Value



Default setting for this feature is:
01 - 200ms

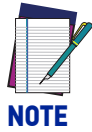


RS-232 ACK NAK Retry Count

This feature sets the number of times for the scanner to retry a label transmission under a retry condition.

To set the RS-232 ACK NAK Retry Count:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set RS-232 ACK NAK Retry Count](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired number. The selectable range is 000-255 resets. Pad all single and double digit numbers with leading zeroes to yield a three-digit entry (000-255).



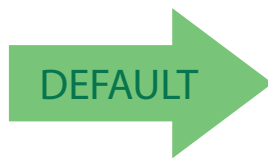
A setting of 255 specifies "retry forever."

NOTE

4. The scanner will automatically exit Programming Mode when the appropriate amount of digits have been scanned.



Set RS-232 ACK NAK Retry Count

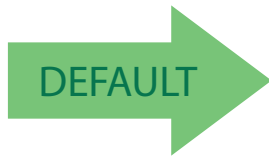


Default setting for this feature is:
003 - Three retrys

RS-232 ACK NAK Error Handling

This item specifies the method the scanner will use to handle errors detected while waiting to receive the ACK character from the host. Errors include unrecognized host commands and communication errors such as parity or framing errors.

- Ignore Errors (recommended setting)
- Assume ACK (risk of lost label data)
- Assume NAK (risk of duplicate label)



RS-232 ACK NAK Error Handling = Ignore Errors



RS-232 ACK NAK Error Handling = Assume ACK



RS-232 ACK NAK Error Handling = Assume NAK



RS-232 Indicate Transmission Failure

This feature enables / disables the ability of the scanner to sound a bad label beep indication when a transmission failure occurs.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the desired option from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



RS-232 Indicate Transmission Failure = Disable



RS-232 Indicate Transmission Failure = Enable



CONFIGURATION | DATA EDITING

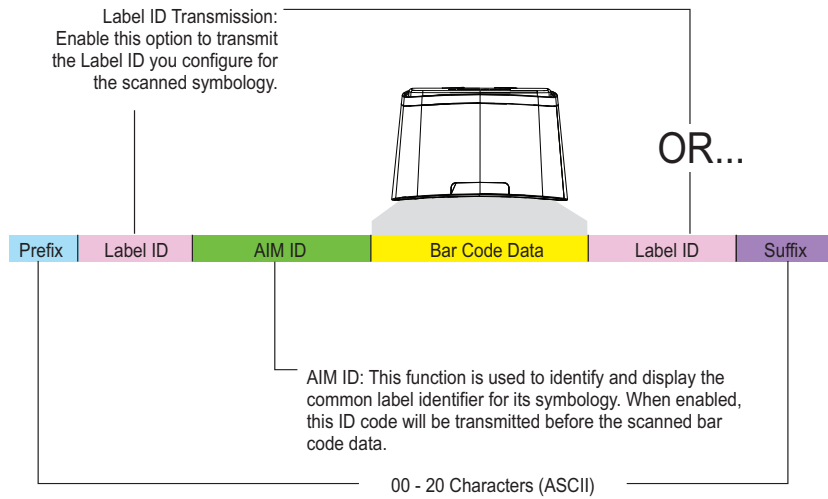
SECTION CONTENTS	
DATA EDITING OVERVIEW starting on page 82	
GLOBAL PREFIX/SUFFIX starting on page 83	
•Global Prefix on page 83	•Global Suffix on page 84
AIM ID starting on page 85	
LABEL ID starting on page 86	
•Label ID Control on page 86 •Setting Label ID on page 87 •1D Symbologies - Label ID on page 88	•2D Symbologies on page 95 •Postal Codes on page 97 •Global Mid-Label ID on page 98
CASE CONVERSION starting on page 99	
CHARACTER CONVERSION starting on page 100	

DATA EDITING OVERVIEW

When a barcode is scanned, additional information can be sent to the host computer along with the barcode data. This combination of barcode data and supplementary user-defined data is called a “message string.” The features in this chapter can be used to build specific user-defined data into a message string.

There are several types of selectable data characters that can be sent before and after scanned data. You can specify if they should be sent with all symbologies, or only with specific symbologies. Figure 7 shows the available elements you can add to a message string:

Figure 7. Breakdown of a Message String



Please Keep In Mind...

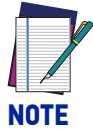
- Modifying a message string is not a mandatory requirement. Data editing is sophisticated feature allowing highly customizable output for advanced users. Factory default settings for data editing is typically set to NONE.
- A prefix or suffix may be applied (reference the [1D Symbologies](#) chapter for these settings) or across all symbologies (set via the Global features in this chapter).
- You can add any character from the [ASCII Character Set](#) (from 00-FF) on the inside back cover of this manual as a prefix, suffix or Label ID.
- Enter prefixes and suffixes in the order in which you want them to appear on the output.

GLOBAL PREFIX/SUFFIX

Global Prefix

This feature applies to RS-232 (Standard or Wincor-Nixdorf), USB-COM, USB-TEC, and USB Keyboard interfaces. It specifies the prefix that is added to the beginning of label transmission. To specify the Global Prefix Character(s):

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode Set Global Prefix below. Cover any unused barcodes to ensure the scanner reads only the barcode you intend to scan.
3. Scan the appropriate characters/digits from the [Alpha-Numeric Keypad on page 324](#) that represent the hex designation for the desired character(s). The ASCII Character Set and their corresponding Hex Values are in the inside back cover of this manual. ASCII parameters must be input by scanning a pair of hexadecimal digits for each character. To set a two-character value of AB, barcodes containing the digits '4', '1', '4', and '2' must be scanned. The selectable range for this option is any hex value from 00 to FF. Up to 20 hex pairs can be designated.



To specify "No Global Prefix," scan 00

NOTE

4. If designating the full 20 hex pairs, the scanner will exit Programming Mode when the appropriate amount of digits have been scanned. If designating less than 20 hex pairs, you can end the programming sequence early by scanning the Terminate Sequence barcode.
5. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Set Global Prefix



Terminate Sequence



Default setting for this feature is:
00 - No Global Prefix



Global Suffix

This feature applies to RS-232 (Standard or Wincor-Nixdorf), USB-COM, USB-TEC, and USB Keyboard interfaces. It specifies the suffix that is added to end of a label transmission. Three standard options are available below. Contact your dealer for other alternate settings for this feature.

- No Global Suffix
- CR — Carriage Return
- CR LF — Carriage Return, Line Feed

To set the Global Suffix:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Global Suffix = No Global Suffix



Global Suffix = CR



Global Suffix = CR LF



AIM ID

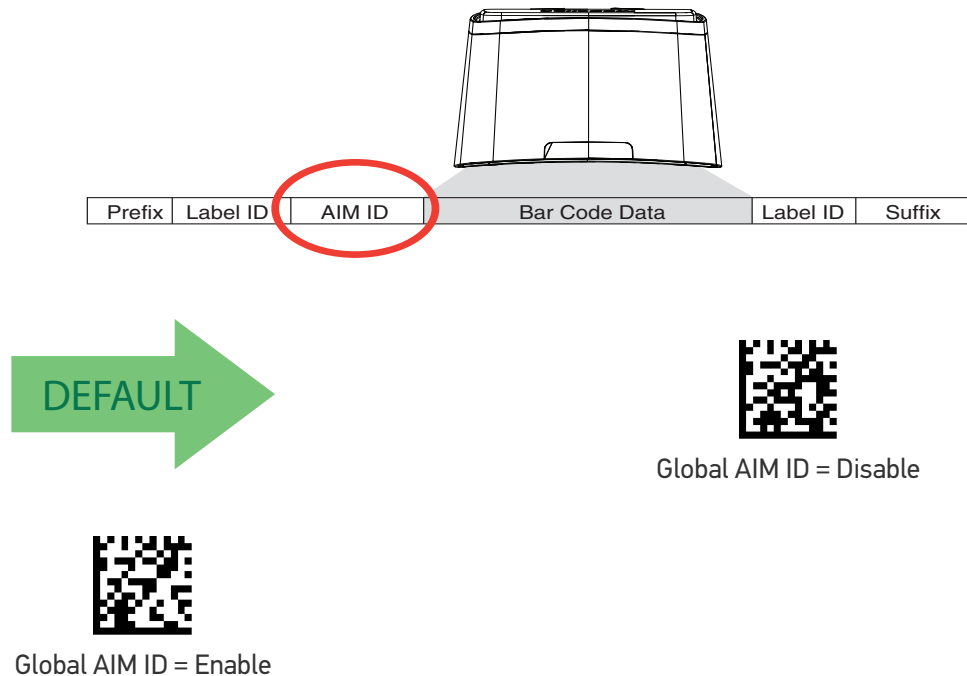
AIM (Automatic Identification Manufacturers) label identifiers are assigned from a globally standardized list — as opposed to custom label ID characters you select yourself — and can be included with scanned barcode data. AIM label identifiers consist of three characters as follows:

- A close brace character (ASCII '['), followed by...
- A code character (see the table below), followed by...
- A modifier character (the modifier character is symbol dependent)

SYMBOLGY	CHAR	SYMBOLGY	CHAR	SYMBOLGY	CHAR
UPC/EAN	E	GS1 Omnidirectional, GS1 Expanded	e	Plessey	P
Code 39	A	Standard 2 of 5	S	QR Code and Micro QR	Q
Codabar	F	ISBN	X ^a	Aztec	z
Interleaved 2 of 5	I	Datamatrix	d	Code 11	H
Code 93	G	PDF417 and MicroPDF	L		
Code 128/EAN 128	C	MSI Plessey	M		

a. ISBN (X with a 0 modifier character). X is used for all unknown label types.

Figure 8. AIM ID





LABEL ID

Label ID Control

This feature specifies whether or not Label IDs are transmitted to the host and if so, whether to attach them as a prefix or suffix.

Choices are:

- Disable
- Enable as a Prefix
- Enable as a Suffix

To select the option for Label ID Control:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the desired option from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Label ID Control = Disable



Label ID Control = Enable as a Prefix



DEFAULT



Label ID Control = Enable as a Suffix



Setting Label ID

This feature allows the setting of custom Label ID character(s) for each available symbology type if other than the default Label ID is desired.








To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode for the desired symbology. You'll need to cover any unused barcodes on this and the facing page to ensure the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad on page 324](#) that represent the desired Label ID characters; entered as two hex pairs. A table containing the ASCII Character Set and their corresponding Hex Values is available in the inside back cover of this manual. ASCII parameters must be input by scanning a pair of hexadecimal digits for each character. Thus, to set a two-character value of AB, barcodes containing the digits '4', '1', '4', and '2' must be scanned. The selectable range for this option is any hex value from 00 to FF.

Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



1D Symbologies - Label ID

Default Label ID for this symbology is: 6F= o	
Anker Plessey Label ID	
	Default Label ID for this symbology is: 25 = %
Codabar Label ID	
Default Label ID for this symbology is: 23 = #	
	Code 128 Label ID
	Default Label ID for this symbology is: 66 = f
Code 128 ISBT Label ID	
Default Label ID for this symbology is: 41 = A	
	Code 32 Label ID
	Default Label ID for this symbology is: 2A = *
Code 39 Label ID	
Default Label ID for this symbology is: 59 = Y	
	Code 39 CIP Label ID



1D Symbologies (continued)



Code39 Danish PPT Label ID

Default Label ID for this symbology is:
2459 = \$Y

Default Label ID for this symbology is:
2461 = \$a



Code39 LaPoste Label ID



Code39 PZN Label ID

Default Label ID for this symbology is:
245A = \$Z

Default Label ID for this symbology is:
26 = &



Code 93 Label ID



DataBar Expanded Composite Label ID

Default Label ID for this symbology is:
5258 = RX

Default Label ID for this symbology is:
5258 = RX



DataBar Expanded Label ID



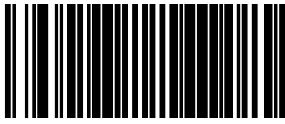
DataBar Limited Composite Label ID

Default Label ID for this symbology is:
5258 = RX

Default Label ID for this symbology is:
5258 = RX



DataBar Limited Label ID



1D Symbolgies (continued)

Default Label ID for this symbology is:
5234 = R4



DataBar Omnidirectional Composite Label ID



DataBar Omnidirectional Label ID

Default Label ID for this symbology is:
5234 = R4

Default Label ID for this symbology is:
50 = P



EAN 128 Label ID



EAN-13 2-Digit Supplemental Label ID

Default Label ID for this symbology is:
46 = F

Default Label ID for this symbology is:
46 = F



EAN-13 5-Digit Supplemental Label ID



EAN-13 Label ID

Default Label ID for this symbology is:
46 = F

Default Label ID for this symbology is:
46 = F











EAN-13 Composite Label ID











EAN-8 2-Digit Supplemental Label ID

Default Label ID for this symbology is:
4646 = FF

**1D Symbologies (continued)**









 EAN-8 5-Digit Supplemental Label ID	Default Label ID for this symbology is: 4646 = FF
Default Label ID for this symbology is: 4646 = FF	 EAN-8 Label ID
 EAN-8 Composite Label ID	Default Label ID for this symbology is: 4646 = FF
Default Label ID for this symbology is: 4F = 0	 Follett 2 of 5 Label ID
 GTIN 2-Digit Supplemental Label ID	Default Label ID for this symbology is: 4732 = G2
Default Label ID for this symbology is: 4735 = G5	 GTIN 5-Digit Supplemental Label ID
 GTIN Label ID	Default Label ID for this symbology is: 47 = G
Default Label ID for this symbology is: 69 = i	 I 2 of 5 Label ID

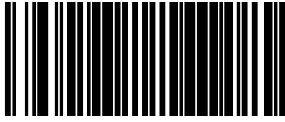


1D Symbologies (continued)	
 I 2 of 5 IATA Label ID	Default Label ID for this symbology is: 4941 = IA
Default Label ID for this symbology is: 65 = e	 I 2 of 5 CIP HR Label ID
 ISBN Label ID	Default Label ID for this symbology is: 49 = I
Default Label ID for this symbology is: 6E = n	 ISSN Label ID
 MSI Label ID	Default Label ID for this symbology is: 40 = @
Default Label ID for this symbology is: 62 = a	 Plessey Label ID
 Standard 2 of 5 Label ID	Default Label ID for this symbology is: 73 = s
Default Label ID for this symbology is: 2454 = \$T	 Trioptic Label ID



1D Symbologies (continued)

<p>Default Label ID for this symbology is: 41 = A</p>	 UPC-A Label ID
 UPC-A 2-Digit Supplemental Label ID	<p>Default Label ID for this symbology is: 41 = A</p>
<p>Default Label ID for this symbology is: 41 = A</p>	 UPC-A 5-Digit Supplemental Label ID
 UPCA Composite Label ID	<p>Default Label ID for this symbology is: 41 = A</p>
<p>Default Label ID for this symbology is: 45 = E</p>	 UPC-E 2-Digit Supplemental Label ID
 UPC-E 5-Digit Supplemental Label ID	<p>Default Label ID for this symbology is: 45 = E</p>
<p>Default Label ID for this symbology is: 45 = E</p>	 UPC-E Label ID
 UPCE Composite Label ID	<p>Default Label ID for this symbology is: 45 = E</p>



1D Symbologies (continued)

Default Label ID for this symbology is:
57 = W



Industrial 2 of 5 label ID



Abc Codabar label ID









Default Label ID for this symbology is:
53 = S

Default Label ID for this symbology is:
0000 = blank



EAN128 Composite label ID

2D Symbolologies

 <p>Aztec Label ID</p>	<p>Default Label ID for this symbology is: 417A = Az</p>
<p>Default Label ID for this symbology is: 446D = Dm</p>	 <p>Data Matrix Label ID</p>
<p>Default Label ID for this symbology is: 4467 = Dg</p>	 <p>GS1 Data Matrix label ID</p>
 <p>GS1 QR Code label ID</p>	<p>Default Label ID for this symbology is: 5147 = QG</p>
<p>Default Label ID for this symbology is: 2453 = \$S</p>	 <p>Han Xin Label ID</p>
 <p>Micro PDF 417 Label ID</p>	<p>Default Label ID for this symbology is: 6D50 = mP</p>
<p>Default Label ID for this symbology is: 2451 = \$Q</p>	 <p>Micro QR Code Label ID</p>
 <p>PDF 417 Label ID</p>	<p>Default Label ID for this symbology is: 50 = P</p>



2D Symbologies (continued)

Default Label ID for this symbology is:
5152 = QR



QR Code Label ID



Maxicode label ID

Default Label ID for this symbology is:
4D43 = MC

Default Label ID for this symbology is:
246F = \$o



OCR-A Label ID



OCR-B Label ID

Default Label ID for this symbology is:
2470 = \$p

Default Label ID for this symbology is:
246D = \$m



MICR Label ID



Postal Codes

Default Label ID for this symbology is: 244C = \$L	 Postnet Label ID
 Planet Code Label ID	Default Label ID for this symbology is: 2457 = \$W
Default Label ID for this symbology is: 244D = \$M	 Royal Mail Label ID
 Kix Label ID	Default Label ID for this symbology is: 2455 = \$U
Default Label ID for this symbology is: 244B = \$K	 Australia Post Label ID
 Japan Post Label ID	Default Label ID for this symbology is: 2452 = \$R
Default Label ID for this symbology is: 2456 = \$V	 IMB Label ID
 Sweden Post Label ID	Default Label ID for this symbology is: 2458 = \$X
Default Label ID for this symbology is: 2450 = \$P	 Portugal Post Label ID



Global Mid-Label ID

This feature specifies a global mid-label ID that is added between two barcodes for transmission.

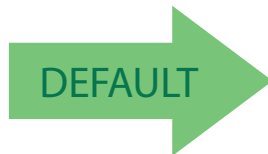
To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode “Set Global Mid-Label ID” below. You’ll need to cover any unused barcodes on this and the facing page to ensure the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the Alpha-Numeric Keypad in [Appendix Appendix C](#) that represent the desired mid-label ID characters; entered as two hex pairs. A table containing the ASCII Character Set and their corresponding Hex Values is available in the inside back cover of this manual. ASCII parameters must be input by scanning a pair of hexadecimal digits for each character. Thus, to set a two-character value of AB, barcodes containing the digits ‘4’, ‘1’, ‘4’, and ‘2’ must be scanned. The selectable range for this option is any hex value from 00 to FF.

Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Set Global Mid-Label ID



Default Label ID for this symbology is:
00 = No Global Mid-label ID

CASE CONVERSION

This option can change the case of all alphabetic characters in scanned barcode data to upper or lower case.

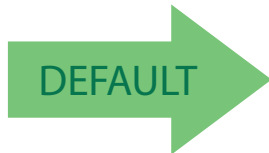


NOTE

Case conversion affects ONLY scanned barcode data, and does not affect Label ID, Prefix, Suffix, or other appended data.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan barcode for the desired option below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Case Conversion = No Case Conversion



Case Conversion = Upper Case



Case Conversion = Lower Case



CHARACTER CONVERSION

Character conversion is an eight byte configuration item. The eight bytes are 4 character pairs represented in hexadecimal ASCII values. The first character in the pair is the character that will be converted. The second character in the pair is the character to convert to. If the character to convert in a pair is FF, then no conversion is done.

For example, if you have the character conversion configuration item set to the following:

41423132FFFFFFF

The first pair is 4142 or AB (41 hex is an ASCII capital A, 42 hex is an ASCII capital B) and the second pair is 3132 or 12 (31 hex is an ASCII 1, 32 is an ASCII 2). The other two pairs are FFFF and FFFF.

With the label, AG15TA81, it would look as follows after the character conversion: BG25TB82.

The A characters were converted to the B character and the 1 characters were converted to the numeral 2 character. Nothing is done with the last two character pairs, since they are all FF.

To set Character Conversion:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the Character Conversion barcode.
3. Determine the desired string. Up to sixteen positions can be determined as in the above example. Next, turn to the ASCII Chart on the inside back cover of this manual and find the equivalent hex digits needed to fulfill the string.



The positions not used must be filled with the character 'F'.

NOTE

4. Turn to the [Alpha-Numeric Keypad on page 324](#) and scan the barcodes representing the hex characters determined in the previous step. When the last character is scanned, the scanner will sound a triple beep.
5. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Set Character Conversion



Default setting for this feature is:
FFFFFFFFFFFFFFFF (No Character Conversion)

CONFIGURATION | 1D SYMBOLOGY PROGRAMMING

1D SYMBOLOGIES



NOTE

If the scanner's interface type must be changed, always be sure that interface configuration is the **FIRST** item scanned during a programming session. (Selecting an interface type resets **ALL** other configuration items — including symbology programming — to the factory default for that interface type.)

The following pages contain configuration information concerning the various barcode types (symbologies) the scanner supports.

SECTION CONTENTS	
COUPON CONTROL starting on page 102	CODE 93 starting on page 208
UPC-A starting on page 105	MSI starting on page 213
UPC-E starting on page 110	STANDARD 2 OF 5 starting on page 221
EAN-13 starting on page 116	IATA starting on page 229
EAN-8 starting on page 121	PLESSEY starting on page 231
OTHER UPC/EAN OPTIONS starting on page 130	ANKER PLESSEY starting on page 236
GTIN starting on page 151	CODE 39 CIP starting on page 238
GS1 DATABAR starting on page 152	TRIOPTIC starting on page 240
DATABAR OMNIDIRECTIONAL starting on page 152	CODE39 PZN starting on page 241
DATABAR LIMITED starting on page 157	CODE128 ISBT starting on page 245
DATABAR EXPANDED starting on page 161	I25 CIP HR starting on page 246
CODE 39 starting on page 169	I25 FOLLETT starting on page 248
CODE 32 ITALIAN PHARMACODE starting on page 178	
CODE 128 starting on page 181	
EAN-128 starting on page 189	
INTERLEAVED 2 OF 5 (I 2 OF 5) starting on page 190	
CODABAR starting on page 197	



COUPON CONTROL

Coupon Control Enable

This feature is used to control the method of processing coupon labels. For the purposes of this feature, coupon labels are defined as:

1. UPC-A labels that start with a '5'
2. GS1 DataBar Expanded labels that start with '8110'

Enable UPC-A Coupons : UPCA coupon labels will decode but RSS/Databar Expanded coupon labels will not. RSS/Databar Expanded labels that are not coupon labels will decode and all UPCA labels will decode.

Enable GS1 DataBar Expanded Coupons : •RSS/Databar Expanded coupon labels will decode but UPCA coupon labels will not. UPCA labels that are not coupon labels and all RSS/Databar Expanded labels will decode.

Priority to UPC-A Coupons: UPCA coupon labels will be given priority.

Priority to GS1 DataBar Expanded Coupons : Databar coupon labels will be given priority.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your choice from the Coupon Control selections below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.

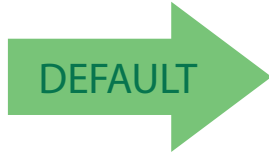


Coupon Control = Disable



Coupon Control = Enable UPC-A Coupons

Coupon Control Enable (continued)



Coupon Control = Priority to UPC-A Coupons



Coupon Control = Enable GS1 DataBar Expanded Coupons



Coupon Control = Priority to GS1 DataBar Expanded Coupons



Coupon Label Priority Timer

This feature sets the duration of the UPCA / DataBar coupon label priority timer.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Coupon Label Priority Timer = 0.1 Seconds



Coupon Label Priority Timer = 0.2 Seconds



Coupon Label Priority Timer = 0.3 Seconds



Coupon Label Priority Timer = 0.4 Seconds



Coupon Label Priority Timer = 0.5 Second



Coupon Label Priority Timer = 1 Second

UPC-A

UPC-A Enable

Enables/disables the ability of the scanner to decode UPC-A labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



UPC-A = Disable



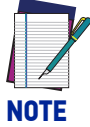
UPC-A = Enable





UPC-A Number System Character Transmission

Enables/disables transmission of a UPC-A number system character.



This item is ignored when the advanced feature, Full Label Edit, is enabled.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



UPC-A Number System Character Transmission =
Disable

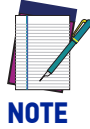


UPC-A Number System Character Transmission =
Enable



UPC-A Check Character Transmission

Enables/disables transmission of a UPC-A check character.



This item is ignored when the advanced feature, Full Label Edit, is enabled.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



UPC-A Check Character Transmission = Disable



UPC-A Check Character Transmission = Enable



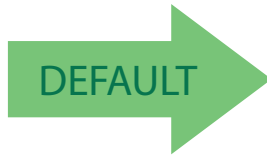


UPC-A Minimum Read

This feature specifies the minimum number of consecutive UPC-A decodes before is accepted as good read.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



UPC-A Minimum Read = 1



UPC-A Minimum Read = 2



UPC-A Minimum Read = 3



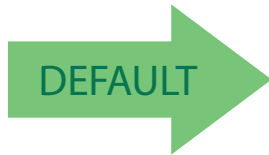
UPC-A Minimum Read = 4

Expand UPC-A to EAN-13

Enables/disables expansion of UPC-A labels to EAN/JAN-13.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Expand UPC-A to EAN-13 = Disable



Expand UPC-A to EAN-13 = Enable



UPC-E

UPC-E Enable

Enables/disables the ability of the scanner to decode UPC-E labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



UPC-E = Disable

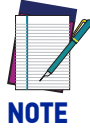


UPC-E = Enable



UPC-E Number System Character Transmission

Enables/disables transmission of a UPC-E number system character.



This item is ignored when the advanced feature, Full Label Edit, is enabled.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



UPC-E Number System Character Transmission = Disable



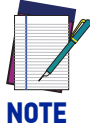
UPC-E Number System Character Transmission = Enable





UPC-E Check Character Transmission

Enables/disables transmission of a UPC-E check character.



This item is ignored when the advanced feature, Full Label Edit, is enabled.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



UPC-E Check Character Transmission = Disable



UPC-E Check Character Transmission = Enable

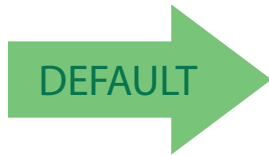


Expand UPC-E to UPC-A

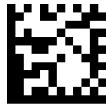
Enables/disables expansion of UPC-E labels to UPC-A.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Expand UPC-E to UPC-A = Disable



Expand UPC-E to UPC-A = Enable

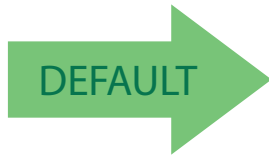


Expand UPC-E to EAN-13

Enables/disables expansion of UPC-E labels to EAN/JAN-13.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Expand UPC-E to EAN-13 = Disable



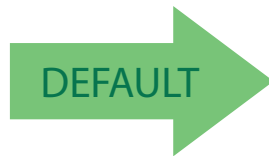
Expand UPC-E to EAN-13 = Enable

UPC-E Minimum Read

This feature specifies the minimum number of consecutive UPC-E decodes before is accepted as good read.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



UPC-E Minimum Read = 1



UPC-E Minimum Read = 2



UPC-E Minimum Read = 3



UPC-E Minimum Read = 4



EAN-13

EAN-13 Enable

Enables/disables the ability of the scanner to decode EAN/JAN-13 labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



EAN-13 = Disable

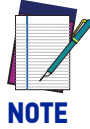


EAN-13 = Enable



EAN-13 First Character Transmission

Enables/disables transmission of EAN/JAN-13 first character.



This item is ignored when the advanced feature, Full Label Edit, is enabled.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.

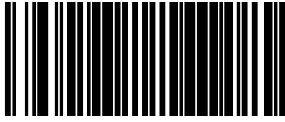


EAN-13 First Character Transmission = Disable



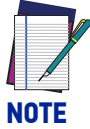
EAN-13 First Character Transmission = Enable





EAN-13 Check Character Transmission

Enables/disables transmission of an EAN/JAN-13 check character.



This item is ignored when the advanced feature, Full Label Edit, is enabled.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



EAN-13 Check Character Transmission = Disable



EAN-13 Check Character Transmission = Enable

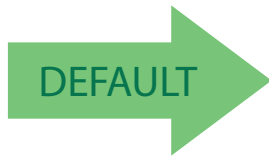


EAN-13 ISBN Conversion Enable

Enables/disables conversion of EAN/JAN-13 labels starting with 978 to Bookland ISBN labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



EAN-13 ISBN Conversion = Disable



EAN-13 ISBN Conversion = Enable

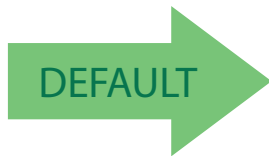


EAN-13 Minimum Read

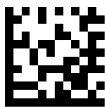
This feature specifies the minimum number of consecutive EAN-13 decodes before is accepted as good read.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



EAN-13 Minimum Read = 1



EAN-13 Minimum Read = 2



EAN-13 Minimum Read = 3



EAN-13 Minimum Read = 4

EAN-8

EAN-8 Enable

Enables/disables the ability of the scanner to decode EAN/JAN-8 labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.

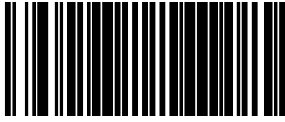


EAN-8 = Enable



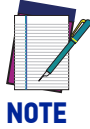
EAN-8 = Disable





EAN-8 Check Character Transmission

Enables/disables transmission of an EAN/JAN-8 check character.



This item is ignored when the advanced feature, Full Label Edit, is enabled.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



EAN-8 Check Character Transmission = Disable



EAN-8 Check Character Transmission = Enable

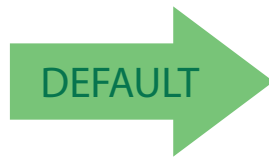


Expand EAN-8 to EAN-13

Enables/disables expansion of EAN/JAN-8 labels to EAN/JAN-13.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Expand EAN-8 to EAN-13 = Disable



Expand EAN-8 to EAN-13 = Enable

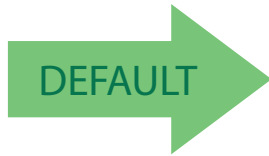


EAN-8 Minimum Read

This feature specifies the minimum number of consecutive EAN-8 decodes before is accepted as good read.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



EAN-8 Minimum Read = 1



EAN-8 Minimum Read = 2



EAN-8 Minimum Read = 3



EAN-8 Minimum Read = 4

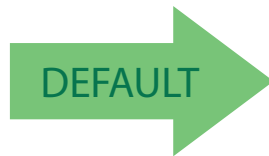


EAN-8 Guard Insertion

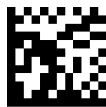
This setting enables the insertion of either a missing leading or trailing guard to a scanned barcode.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



EAN-8 Guard Insertion = Disable



EAN-8 Guard Insertion = Enable

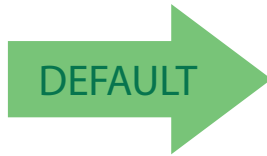


EAN-8 Guard Substitution

This setting enables the scanner to substitute a guard pattern for even-parity 6 for EAN8/JAN8 labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



EAN-8 Guard Insertion = Disable



EAN-8 Guard Insertion = Enable

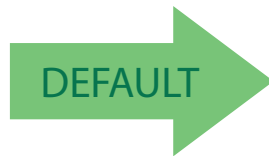


EAN-8 Stitch Exact Label Halves

This setting enables the stitching of exact EAN-8 label halves with no overlapping characters.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



EAN-8 Stitch Exact Label Halves = Disable



EAN-8 Stitch Exact Label Halves = Enable

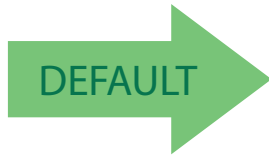


EAN-8 Stitch Unlike Label Halves

This setting enables the stitching of two EAN-8 label halves together that may have different characters.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



EAN-8 Stitch Unlike Label Halves = Disable



EAN-8 Stitch Unlike Label Halves = Enable

EAN-8 Decoding Levels

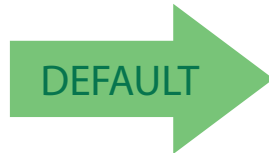
Decoding levels allow the decoder to be set to perform at one of four selectable levels:

- Very Conservative — Slower scan time, virtually eliminates misreads. The most secure setting.
- Slightly More Aggressive — Faster scanning, more aggressive, yet minimizes misreads.
- Moderately Aggressive — Even faster scanning, even more aggressive.
- Very Aggressive — Fastest scan speed, most aggressive.



CAUTION

Use caution when setting this feature, as more aggressive settings for this feature allow a higher potential for misreads.



EAN-8 Decoding Level = Very Conservative



EAN-8 Decoding Level = Slightly More Aggressive



EAN-8 Decoding Level = Moderately Aggressive



EAN-8 Decoding Level = Very Aggressive



OTHER UPC/EAN OPTIONS

The following pages contain other selectable features for UPC/EAN symbologies:

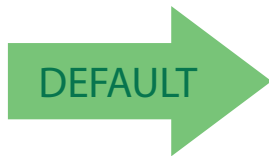
- [In-Store Printed Label Minimum Read on page 131](#)
- [UPC/EAN Correlation on page 132](#)
- [UPC/EAN Guard Insertion on page 133](#)
- [UPC/EAN Stitch Exact Label Halves on page 134](#)
- [UPC/EAN Stitch Unlike Label Halves on page 135](#)
- [UPC/EAN Minimum Segment Length on page 136](#)
- [Price Weight Check on page 138](#)
- [Enable EAN Two Label on page 140](#)
- [Add-ons on page 143](#)

In-Store Printed Label Minimum Read

This feature specifies the minimum number of consecutive In-Store Printed Label decodes before is accepted as good read.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



In-Store Printed Label Minimum Read = 1



In-Store Printed Label Minimum Read = 2



In-Store Printed Label Minimum Read = 3



In-Store Printed Label Minimum Read = 4

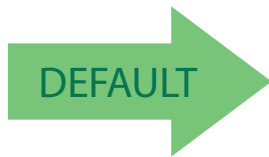


UPC/EAN Correlation

Enables/disables character correlation for UPC/EAN.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



UPC/EAN Correlation = Disable



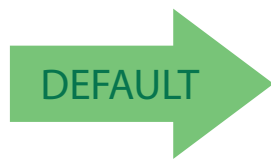
UPC/EAN Correlation = Enable

UPC/EAN Guard Insertion

This setting enables the insertion of either a missing leading or trailing guard to a scanned barcode.

To set this feature:

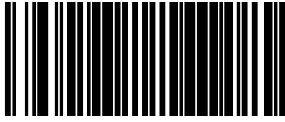
1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



UPC/EAN Guard Insertion = Disable



UPC/EAN Guard Insertion = Enable

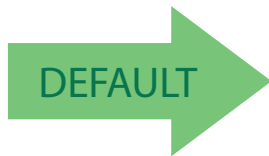


UPC/EAN Stitch Exact Label Halves

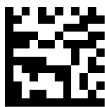
This setting enables the stitching of exact UPC-A/EAN-13 label halves with no overlapping characters.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



UPC/EAN Stitch Exact Label Halves = Disable



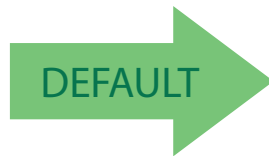
UPC/EAN Stitch Exact Label Halves = Enable

UPC/EAN Stitch Unlike Label Halves

This setting enables the stitching of two UPC-A/EAN-13 label halves together that may have different characters.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



UPC/EAN Stitch Unlike Label Halves = Disable



UPC/EAN Stitch Unlike Label Halves = Enable

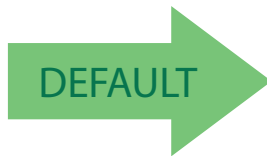


UPC/EAN Minimum Segment Length

This feature specifies the minimum number of characters needed in a UPC/EAN segment in order to be accepted for decoding.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode for the desired setting below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



UPC/EAN Minimum Segment Length = 5 Characters



UPC/EAN Minimum Segment Length = 6 Characters



UPC/EAN Minimum Segment Length = 7 Characters



UPC/EAN Minimum Segment Length = 8 Characters



UPC/EAN Minimum Segment Length = 9 Characters



UPC/EAN Minimum Segment Length (continued)



UPC/EAN Minimum Segment Length = 10 Characters



UPC/EAN Minimum Segment Length = 11 Characters



UPC/EAN Minimum Segment Length = 12 Characters



UPC/EAN Minimum Segment Length = 13 Characters



UPC/EAN Minimum Segment Length = 14 Characters



UPC/EAN Minimum Segment Length = 15 Characters



Price Weight Check

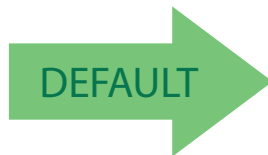
Enables/disables calculation and verification of price/weight check digits. Applies to all UPC-A and EAN/JAN-13 labels with eligible¹ Number System/First Character digits.

Options are:

- Disable
- 4-digit price/weight
- 5-digit price/weight
- 4-digit European price/weight
- 5-digit European price/weight

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode representing the desired option below or on the following pages. You'll need to cover any unused barcodes on facing pages to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Price Weight Check = Disable



Price Weight Check = 4-digit price/weight



Price Weight Check = 5-digit price/weight

1. Price Weight Check generally applies to UPC-A labels with a Number System Digit of 2 and EAN/JAN-13 labels with a First Character of 2. There are a total of six flag digits corresponding to the six types. Checking applies depending upon which type is enabled.



Price Weight Check (continued)



Price Weight Check = 4-digit European price/weight



Price Weight Check = 5-digit European price/weight



Enable EAN Two Label

Enables/disables the ability of the scanner to decode EAN two-label pairs.

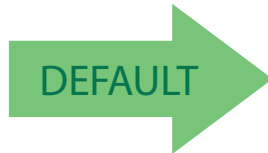
To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



NOTE

Contact Customer Support for details about advanced programming for this feature.



EAN Two Label = Disable



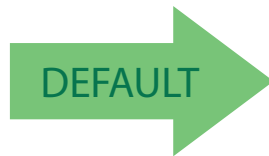
EAN Two Label = Enable

EAN Two Label Minimum Read

This feature specifies the minimum number of consecutive EAN Two Label decodes before is accepted as good read.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



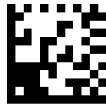
EAN Two Label Minimum Read = 1



EAN Two Label Minimum Read = 2



EAN Two Label Minimum Read = 3



EAN Two Label Minimum Read = 4

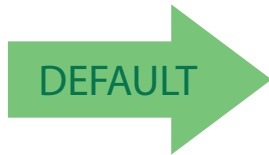


EAN Two Label Combined Transmission

Enables/disables the transmitting of an EAN two label pair as one label.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



EAN Two Label Combined Transmission = Disable



EAN Two Label Combined Transmission = Enable

Add-ons

The scanner is capable of processing different types of add-on codes, including:

- 2-Digit Supplemental
- 5-Digit Supplemental

Options are provided on the following pages for your convenience:

- Disable all add-ons — The scanner will not look for or read add-ons.
- Optional 2-Digit and 5-Digit Supplemental — Barcodes can be read which include 2-Digit or 5-Digit Supplementals, however, it is not required that add-ons be included in barcodes.

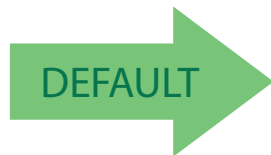


NOTE

Contact customer support for advanced programming of optional and conditional add-ons.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode representing the desired option on this and the following page. You'll need to cover any unused barcodes on facing pages to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Add-ons = Disable All Add-ons



Add-ons = Optional 2-Digit and 5-Digit Supplemental

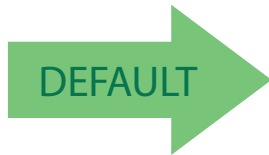


P2 Add-on Minimum Read

This feature specifies the minimum number of times a P2 add-on must decode before it is marked valid.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode representing the desired option on this and the following page. You'll need to cover any unused barcodes on facing pages to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



P2 Add-on Minimum Read = 2



P2 Add-on Minimum Read = 3



P2 Add-on Minimum Read = 4



P2 Add-on Minimum Read = 5



P2 Add-on Minimum Read = 6

P2 Add-on Minimum Read (continued)



P2 Add-on Minimum Read = 7



P2 Add-on Minimum Read = 8



P2 Add-on Minimum Read = 9



P2 Add-on Minimum Read = 10



P2 Add-on Minimum Read = 11



P2 Add-on Minimum Read = 12



P2 Add-on Minimum Read = 13



ENTER/EXIT PROGRAMMING MODE

P2 Add-on Minimum Read (continued)



P2 Add-on Minimum Read = 14



P2 Add-on Minimum Read = 15



P5 Add-on Minimum Read

This feature specifies the minimum number of times a P5 add-on must decode before it is marked valid.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode representing the desired option on this and the following page. You'll need to cover any unused barcodes on facing pages to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



P5 Add-on Minimum Read = 1



DEFAULT



P5 Add-on Minimum Read = 2



P5 Add-on Minimum Read = 3



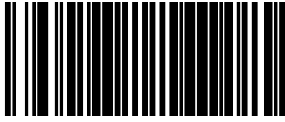
P5 Add-on Minimum Read = 4



P5 Add-on Minimum Read = 5



P5 Add-on Minimum Read = 6



P5 Add-on Minimum Read (continued)



P5 Add-on Minimum Read = 7



P5 Add-on Minimum Read = 8



P5 Add-on Minimum Read = 9



P5 Add-on Minimum Read = 10



P5 Add-on Minimum Read = 11



P5 Add-on Minimum Read = 12



P5 Add-on Minimum Read = 13



P5 Add-on Minimum Read (continued)



P5 Add-on Minimum Read = 14



P5 Add-on Minimum Read = 15



UPC/EAN Composites

Enables/Disables Composites for the UPC/EAN families of labels.

The value is a bit field where the bits mean the following:

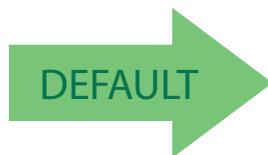
- A setting of 0 (zero) disables this feature.
- Bit0 - if set enabled Composites for UPCE, If clear disables Composites for UPCE
- Bit1 - if set enabled Composites for UPCA, If clear disables Composites for UPCA
- Bit2 - if set enabled Composites for EAN8, If clear disables Composites for EAN8
- Bit3 - if set enabled Composites for EAN13, If clear disables Composites for EAN13:

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad on page 324](#) that represent the desired number. The selectable range is 0-15 resets. Pad all single and double digit numbers with leading zeroes to yield a two-digit entry (00-15).
4. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



SetUPC/EAN Composites

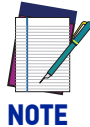


Default setting for this feature is:
00 - Disabled

GTIN

GTIN Enable

Enables/Disables the ability to convert UPCE, UPCA, EAN8, and EAN13 labels into the GTIN 14-character format.

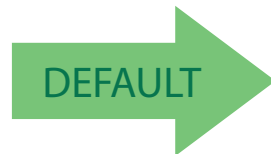


NOTE

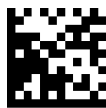
If add-on information is present on the base label prior to the conversion taking place, the add-on information will be appended to the converted GTIN barcode.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



GTIN = Disable



GTIN = Enable



GS1 DATABAR

The symbology family GS1 DataBar™ was formerly known as Reduced Space Symbology (RSS). For the purpose of simplicity, GS1 DataBar variants are listed in this manual as “DataBar.”

DATABAR OMNIDIRECTIONAL

DataBar Omnidirectional Enable

Enables/disables the ability of the scanner to decode DataBar Omnidirectional labels.

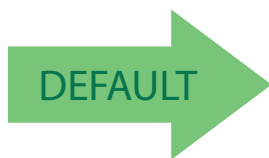


NOTE

This value-added feature is a factory-programmed option. Contact your dealer for information about upgrading your system to include this advanced capability.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



DataBar Omnidirectional = Disable

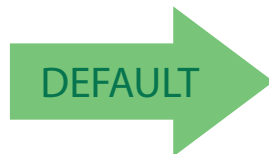


DataBar Omnidirectional = Enable

DataBar Omnidirectional/EAN-128 Emulation

Enables/disables the ability of DataBar Omnidirectional to be transmitted as EAN-128.

1. To set this feature:
2. Scan the Enter/Exit Programming Mode barcode at the top of the page.
3. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



DataBar Omnidirectional/EAN-128 Emulation =
Disable



DataBar Omnidirectional/EAN-128 Emulation = Enable

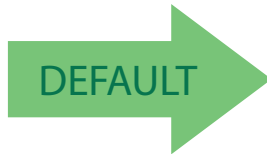


DataBar Omnidirectional 2D Component Enable

When this feature is enabled, the software will not decode an DataBar Omnidirectional barcode with a 2D component associated with it, and the 2D component will be discarded.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



DataBar Omnidirectional 2D Component = Disable



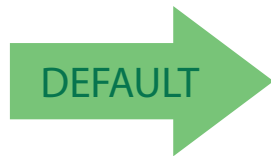
DataBar Omnidirectional 2D Component = Enable

DataBar Omnidirectional Minimum Read

This feature specifies the minimum number of consecutive DataBar Omnidirectional decodes before is accepted as good read.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



DataBar Omnidirectional Minimum Read = 1



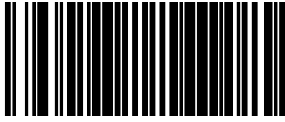
DataBar Omnidirectional Minimum Read = 2



DataBar Omnidirectional Minimum Read = 3



DataBar Omnidirectional Minimum Read = 4



DataBar Omnidirectional Double Read Timeout

Specifies the minimum allowable time which must pass before reading the same DataBar Omnidirectional label again (e.g. two identical items in succession).

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.

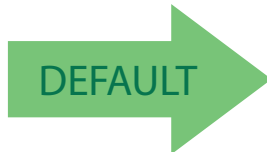
Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



DataBar Omnidirectional Double Read
Timeout = 0.5 Seconds



DataBar Omnidirectional Double Read
Timeout = 1 Second



DataBar Omnidirectional Double Read
Timeout = 2.5 Seconds



DataBar Omnidirectional Double Read
Timeout = 3 Seconds



DataBar Omnidirectional Double Read
Timeout = 3.5 Seconds

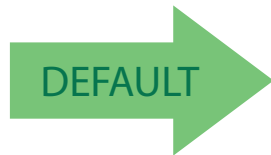
DATABAR LIMITED

DataBar Limited Enable

Enables/disables the ability of the scanner to decode DataBar Limited labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



DataBar Limited = Disable



DataBar Limited = Enable

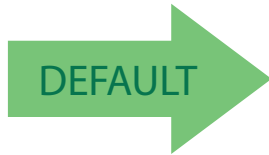


DataBar Limited Minimum Read

This feature specifies the minimum number of consecutive Databar Limited decodes before is accepted as good read.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Databar Limited Minimum Read = 1



Databar Limited Minimum Read = 2



Databar Limited Minimum Read = 3



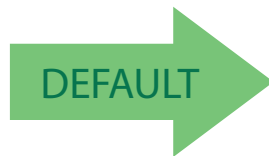
Databar Limited Minimum Read = 4

DataBar Limited 2D Component Enable

This feature controls if a 2D label component be decoded when a Databar Limited base label is decoded.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Databar Limited 2D Component = Disable



Databar Limited 2D Component = Enable

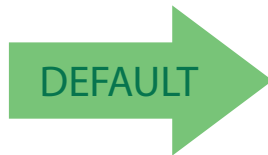


DataBar Limited EAN128 Emulation Enable

Enables/disables GS1-EAN128 emulation for GS1 Databar Limited.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Databar Limited EAN128 Emulation = disable



Databar Limited EAN128 Emulation = enable

DATABAR EXPANDED

DataBar Expanded Enable

Enables/disables the ability of the scanner to decode DataBar Expanded labels.

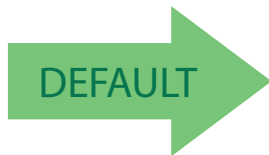


NOTE

This value-added feature is a factory-programmed option. Contact your dealer for information about upgrading your system to include this advanced capability.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



DataBar Expanded = Disable



DataBar Expanded = Enable

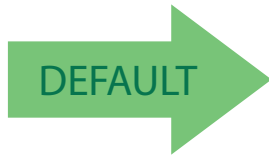


DataBar Expanded EAN-128 Emulation

Enables/disables EAN 128 emulation for DataBar Expanded.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



DataBar Expanded EAN-128 Emulation = Disable



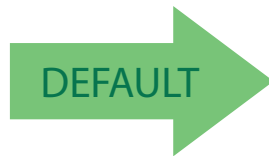
DataBar Expanded EAN-128 Emulation = Enable

DataBar Expanded 2D Component Enable

When this feature is enabled, the software will not decode an DataBar Expanded barcode with a 2D component associated with it, and the 2D component will be discarded.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



DataBar Expanded 2D Component = Disable



DataBar Expanded 2D Component = Enable

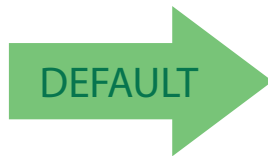


DataBar Expanded Minimum Read

This feature specifies the minimum number of consecutive DataBar Expanded decodes before is accepted as good read.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



DataBar Expanded Minimum Read = 1



DataBar Expanded Minimum Read = 2



DataBar Expanded Minimum Read = 3

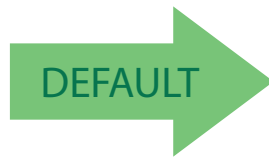


DataBar Expanded Minimum Read = 4

DataBar Expanded Length Control

This feature specifies either variable-length or fixed-length decoding for DataBar Expanded. To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



DataBar Expanded Length Control = Variable Length



DataBar Expanded Length Control = Fixed Length



DataBar Expanded Length 1

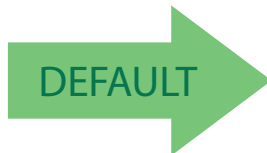
Length 1 is the minimum label length if in variable length mode, or the first fixed length if in fixed length mode. Length includes the barcode's data characters only.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set DataBar Expanded Length 1 on page 166](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 00 to 74. Pad all single digit numbers with a leading zero to yield a two-digit entry (00-74).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set DataBar Expanded Length 1



Default setting for this feature = 01

DataBar Expanded Length 2

Length 2 is the maximum label length if in variable length mode, or the second fixed length if in fixed length mode. Length includes the barcode's data characters only.



When in Fixed Length mode, if Length 2 is set to the value of 00 (zero), then only Length 1 will apply.

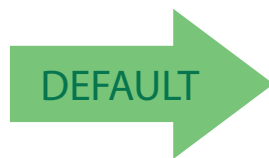
NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set DataBar Expanded Length 2 on page 167](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 00 to 74. Pad all single digit numbers with a leading zero to yield a two-digit entry (00-74).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set DataBar Expanded Length 2



Default setting for this feature = 4A (length = 74)



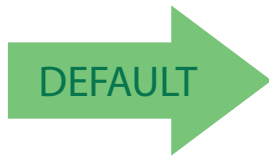
DataBar Expanded Reverse Retry

Enables/disables the reading of out of specification labels where the last row has been printed in reverse.

- When enabled, DataBar Expanded Stacked labels that have the last row incorrectly printed in reverse will be re-decoded.
- When disabled, DataBar Expanded Stacked labels that have the last row incorrectly printed in reverse will not be read.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



DataBar Expanded Reverse Retry = Disable



DataBar Expanded Reverse Retry = Enable

CODE 39

Code 39 Enable

Enables/disables the ability of the scanner to decode Code 39 labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code 39 = Disable



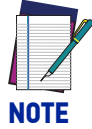
Code 39 = Enable





Code 39 Start Stop Character Transmission

Enables/disables transmission of Code 39 start and stop characters.

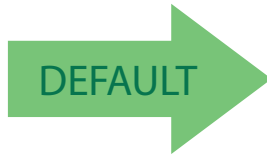


This item is ignored when the advanced feature, Full Label Edit, is enabled

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code 39 Start Stop Character Transmission = Disable



Code 39 Start Stop Character Transmission = Enable

Code 39 Check Character Calculation

Enables/disables calculation and verification of an optional Code 39 check character. When disabled, any check character in label is treated as a data character.

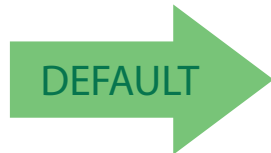


If check calculation is disabled, the risk is increased that a mis-read can occur.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code 39 Check Character Calculation = Disable

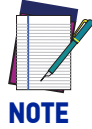


Code 39 Check Character Calculation = Enable



Code 39 Check Character Transmission

Enables/disables transmission of optional Code 39 check character.



This item is ignored when the advanced feature, Full Label Edit, is enabled.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code 39 Check Character Transmission = Disable



Code 39 Check Character Transmission = Enable

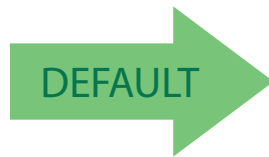


Code 39 Full ASCII

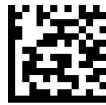
Enables/disables the ability of the scanner to translate to Code 39 full ASCII labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code 39 Full ASCII = Disable



Code 39 Full ASCII = Enable

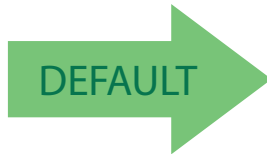


Code 39 Minimum Read

This feature specifies the minimum number of consecutive Code 39 decodes before is accepted as good read.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code 39 Minimum Read = 1



Code 39 Minimum Read = 2



Code 39 Minimum Read = 3



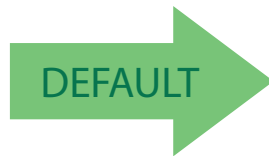
Code 39 Minimum Read = 4

Code 39 Length Control

This feature specifies whether variable-length or fixed-length decoding will be set for Code 39.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code 39 Length Control = Variable Length



Code 39 Length Control = Fixed Length



Code 39 Length 1

If Code 39 Length Control is set to Fixed-Length decoding, this feature specifies Code 39 first fixed length. If Code 39 Length Control is set to Variable-Length decoding, this feature specifies the minimum label length.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set Code 39 Length 1 on page 176](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 00 to 50. Pad all single digit numbers with a leading zero to yield a two-digit entry (00-50).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Code 39 Length 1



Default setting for this feature = 02

Code 39 Length 2

If Code 39 Length Control is set to Fixed-Length decoding, this feature specifies Code 39 second fixed length. If Code 39 Length Control is set to Variable-Length decoding, this feature specifies the maximum label length.



When in Fixed Length mode, if Length 2 is set to the value of 00, then only Length 1 will apply

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set Code 39 Length 2 on page 177](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 00, no second fixed length, or 01 to 50. Pad all single digit numbers with a leading zero to yield a two-digit entry (00-50).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Code 39 Length 2



Default setting for this feature = 32 (length = 50)



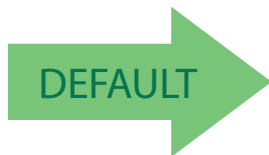
CODE 32 ITALIAN PHARMACODE

Code 32 Italian Pharmacode Enable

Enables/disables the ability of the scanner to decode Italian Pharmaceutical Code 39 labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



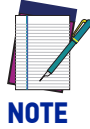
Code 32 Italian Pharmacode Enable = Disable



Code 32 Italian Pharmacode Enable = Enable

Code 32 Start Stop Character Transmission

Enables/ disables transmission of start and stop characters for Code 32.

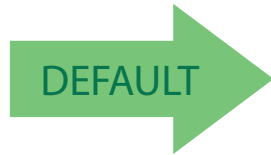


This item is ignored when the advanced feature, Full Label Edit, is enabled.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code 32 Start Stop Character Transmission = Disable

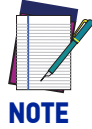


Code 32 Start Stop Character Transmission = Enable



Code 32 Check Character Transmission

Enables/disables transmission of Code 32 check character.

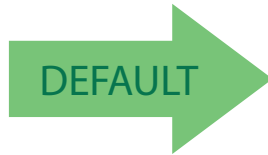


NOTE

This item is ignored when the advanced feature, Full Label Edit, is enabled.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code 32 Check Character Transmission = Disable



Code 32 Check Character Transmission = Enable

CODE 128

Code 128 Enable

Enables/disables the ability of the scanner to decode Code 128 labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code 128 = Enable



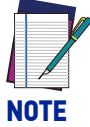
Code 128 = Disable





Code 128 Transmit Function Characters

Enables/disables transmission of Code 128 function characters 1, 2, 3, and 4.

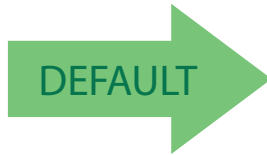


NOTE

Disabled is the recommended setting for all interfaces.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code 128 Transmit Function Characters = Disable



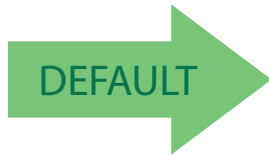
Code 128 Transmit Function Characters = Enable

Expand Code 128 to Code 39

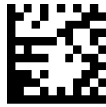
Enables/disables expansion of Code 128 labels to Code 39.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Expand Code128 to Code 39 = Disable



Expand Code128 to Code 39 = Enable

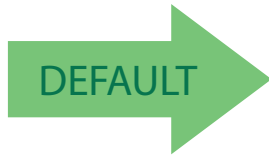


Code 128 Minimum Read

This feature specifies the minimum number of consecutive Code 128 decodes before is accepted as good read.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code 128 Minimum Read = 1



Code 128 Minimum Read = 2



Code 128 Minimum Read = 3



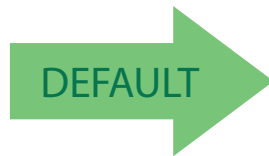
Code 128 Minimum Read = 4

Code 128 Length Control

This feature specifies whether variable-length or fixed-length decoding will be set for Code 128.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code 128 Length Control = Variable Length



Code 128 Length Control = Fixed Length



Code 128 Length 1

If Code 128 Length Control is set to Fixed-Length decoding, this feature specifies Code 128 first fixed length. If Code 128 Length Control is set to Variable-Length decoding, this feature specifies the minimum label length.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set Code 128 Length 1 on page 186](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 01 to 80. Pad all single digit numbers with a leading zero to yield a two-digit entry (01-80).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Code 128 Length 1



Default setting for this feature = 01

Code 128 Length 2

If Code 128 Length Control is set to Fixed-Length decoding, this feature specifies Code 128 second fixed length. If Code 128 Length Control is set to Variable-Length decoding, this feature specifies the maximum label length.



When in Fixed Length mode, if Length 2 is set to the value of 00 (zero), then only Length 1 will apply.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set Code 128 Length 2 on page 187](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 01 to 80. Pad all single digit numbers with a leading zero to yield a two-digit entry (01-80).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Code 128 Length 2



Default setting for this feature = 50 (length = 80)



Code 128 Stitching

Enables/disables stitching for Code 128 labels. When parts of a Code 128 barcode are presented to the scanner with this feature enabled, the barcode parts will be assembled by the scanner's software, and the data will be decoded if all barcode proofing requirements are met.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code 128 Stitching = Disable



Code 128 Stitching = Enable



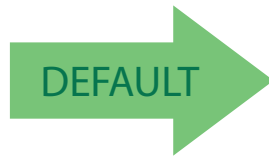
EAN-128

EAN-128 Enable

Enables/disables the ability of the scanner to translate EAN128 labels to the EAN128 data format.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



EAN-128 = Transmit EAN128 labels in Code128 data format



EAN-128 = Transmit EAN128 labels in EAN128 data format



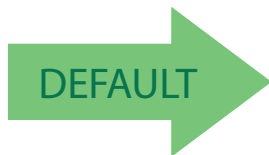
INTERLEAVED 2 OF 5 (I 2 OF 5)

Interleaved 2 of 5 (I 2 OF 5) Enable

Enables/disables the ability of the scanner to decode Interleaved 2 of 5 labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



I 2 of 5 = Disable



I 2 of 5 = Enable

I 2 of 5 Check Character Calculation

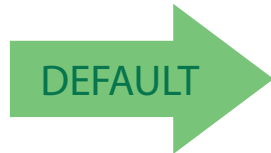
Enables/disables calculation and verification of an optional Interleaved 2 of 5 check character.



NOTE

If check character calculation is disabled, the risk is increased that a misread can occur. When disabled, any check characters in a barcode are treated as data characters.

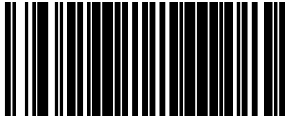
1. To set this feature:
2. Scan the Enter/Exit Programming Mode barcode at the top of the page.
3. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



I 2 of 5 Check Character Calculation = Disable

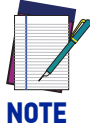


I 2 of 5 Check Character Calculation = Enable



I 2 of 5 Check Character Transmission

Enables/disables transmission of an optional Interleaved 2 of 5 check character.



NOTE

This feature applies only when I 2 of 5 Check Character Calculation is enabled. This item is ignored when the advanced feature, Full Label Edit, is enabled.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



I 2 of 5 Check Character Transmission = Disable



I 2 of 5 Check Character Transmission = Enable

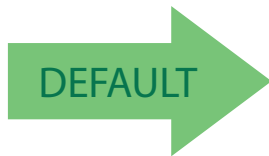


I 2 of 5 Minimum Read

This feature specifies the minimum number of consecutive I 2 of 5 decodes before is accepted as good read.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



I 2 of 5 Minimum Read = 1



I 2 of 5 Minimum Read = 2



I 2 of 5 Minimum Read = 3



I 2 of 5 Minimum Read = 4

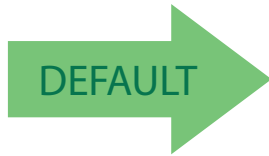


I 2 of 5 Length Control

This feature specifies whether variable-length or fixed-length decoding will be set for I 2 of 5.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



I 2 of 5 Length Control = Variable Length



I 2 of 5 Length Control = Fixed Length

I 2 of 5 Length 1

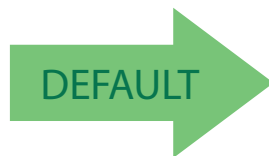
If I 2 of 5 Length Control is set to Fixed-Length decoding, this feature specifies I 2 of 5 first fixed length. If I 2 of 5 Length Control is set to Variable-Length decoding, this feature specifies the minimum label length.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set I 2 of 5 Length 1 on page 195](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 02 to 50, even numbers only. Pad all single digit numbers with a leading zero to yield a two-digit entry (02-50).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set I 2 of 5 Length 1



Default setting for this feature = 06



I 2 of 5 Length 2

If I 2 of 5 Length Control is set to Fixed-Length decoding, this feature specifies I 2 of 5 second fixed length. If I 2 of 5 Length Control is set to Variable-Length decoding, this feature specifies the maximum label length.



When in Fixed Length mode, if Length 2 is set to the value of 00 (zero), then only Length 1 will apply.

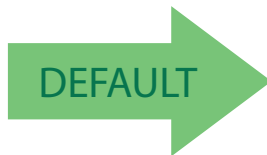
NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set I 2 of 5 Length 2 on page 196](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 00, or 02 to 50; even numbers only. Pad all single digit numbers with a leading zero to yield a two-digit entry (02-50).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set I 2 of 5 Length 2



Default setting for this feature = 32 (length = 50)

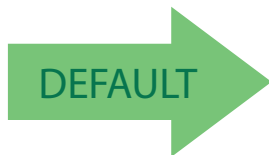
CODABAR

Codabar Enable

Enables/disables the ability of the scanner to decode Codabar labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Codabar = Disable

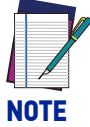


Codabar = Enable



Codabar Start Stop Character Transmission

Enables/disables transmission of Codabar start and stop characters.



This item is ignored when the advanced feature, Full Label Edit, is enabled.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Codabar Start Stop Character Transmission = Disable



Codabar Start Stop Character Transmission = Enable



Codabar Start Stop Character Set

This feature specifies the format of transmitted Codabar start/stop characters.

Options are:

- ABCD/TN* E
- ABCD/ABCD
- abcd/tn* e
- abcd/abcd

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode below or from the following page representing the desired option. You'll need to cover any unused barcodes and facing pages to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Codabar Start Stop Character Set = ABCD/TN* E



Codabar Start Stop Character Set = ABCD/ABCD



Codabar Start Stop Character Set = abcd/tn* e



Codabar Start Stop Character Set = abcd/abcd



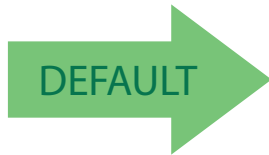


Codabar Start Stop Character Match

Enables/disables the requirement that Codabar start and stop characters match.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



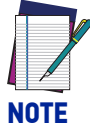
Codabar Start Stop Character Match = Disable



Codabar Start Stop Character Match = Enable

Codabar Check Character Calculation

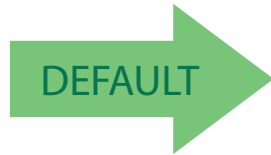
Enables/disables calculation and verification of an optional Codabar check character.



If check character calculation is disabled, the risk is increased that a misread can occur. When disabled, any check characters in a barcode are treated as data characters.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Codabar Check Character Calculation = Disable

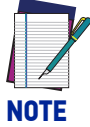


Codabar Check Character Calculation = Enable



Codabar Check Character Transmission

Enables/disables transmission of an optional Codabar check character.



NOTE

Applies only when Codabar Check Character Calculation is enabled. This item is ignored when the advanced feature, Full Label Edit, is enabled.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Codabar Check Character Transmission = Disable



Codabar Check Character Transmission = Enable

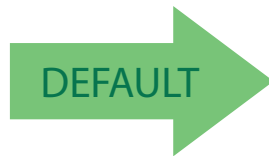


Codabar Minimum Read

This feature specifies the minimum number of consecutive Codabar decodes before is accepted as good read.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Codabar Minimum Read = 1



Codabar Minimum Read = 2



Codabar Minimum Read = 3



Codabar Minimum Read = 4

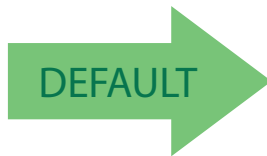


Codabar Length Control

This feature specifies whether variable-length or fixed-length decoding will be set for Codabar.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Codabar Length Control = Variable Length



Codabar Length Control = Fixed Length

Codabar Length 1

If Codabar Length Control is set to Fixed-Length decoding, this feature specifies Codabar first fixed length. If Codabar Length Control is set to Variable-Length decoding, this feature specifies the minimum label length.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set Codabar Length 1 on page 205](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 03 to 50. Pad all single digit numbers with a leading zero to yield a two-digit entry (03-50).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Codabar Length 1



Default setting for this feature = 03



Codabar Length 2

If Codabar Length Control is set to Fixed-Length decoding, this feature specifies Codabar second fixed length. If Codabar Length Control is set to Variable-Length decoding, this feature specifies the maximum label length.



When in Fixed Length mode, if Length 2 is set to the value of 00 (zero), then only Length 1 will apply.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set Codabar Length 2 on page 206](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 00 (meaning ignore this length), or 03 to 50. Pad all single digit numbers with a leading zero to yield a two-digit entry (03-50).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Codabar Length 2



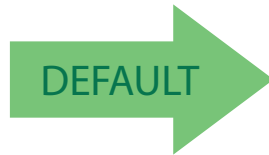
Default setting for this feature = 32 (length = 50)

Codabar Require Margins

Enables/disables the requirement that quiet zones be present in a Codabar barcode.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Codabar Require Margins = Quiet Zones Not Required



Codabar Require Margins = Quiet Zones Required



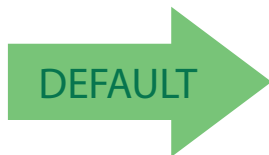
CODE 93

Code 93 Enable

Enables/disables the ability of the scanner to decode Code 93 labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code 93 = Disable



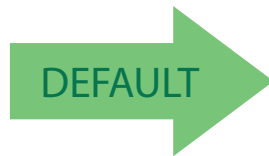
Code 93 = Enable

Code 93 Minimum Read

This feature specifies the minimum number of consecutive Code 93 decodes before is accepted as good read.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code 93 Minimum Read = 1



Code 93 Minimum Read = 2



Code 93 Minimum Read = 3



Code 93 Minimum Read = 4

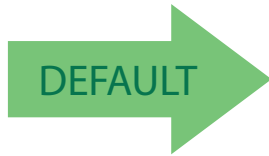


Code 93 Length Control

This feature specifies whether variable-length or fixed-length decoding will be set for Code 93.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code 93 Length Control = Variable Length



Code 93 Length Control = Fixed Length

Code 93 Length 1

If Code 93 Length Control is set to Fixed-Length decoding, this feature specifies Code 93 first fixed length. If Code 93 Length Control is set to Variable-Length decoding, this feature specifies the minimum label length.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set Code 93 Length 1 on page 211](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 01 to 50. Pad all single digit numbers with a leading zero to yield a two-digit entry (01-50).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Code 93 Length 1



Default setting for this feature = 01



Code 93 Length 2

If Code 93 Length Control is set to Fixed-Length decoding, this feature specifies Code 93 second fixed length. If Code 93 Length Control is set to Variable-Length decoding, this feature specifies the maximum label length.



NOTE

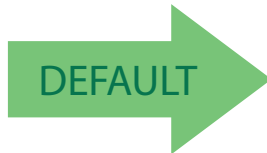
When in Fixed Length mode, if Fixed Length 2 is set to the value of 00 (zero), then only Length 1 will apply.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set Code 93 Length 2 on page 212](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 00 (meaning ignore this length), or 01 to 50. Pad all single digit numbers with a leading zero to yield a two-digit entry (01-50).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Code 93 Length 2



Default setting for this feature = 32 (length = 50)

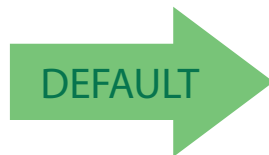
MSI

MSI Enable

Enables/disables the ability of the scanner to decode MSI labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



MSI = Disable

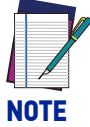


MSI = Enable



MSI Check Character Calculation

Enables/disables calculation and verification of optional MSI check characters.



If check character calculation is disabled, the risk is increased that a misread can occur. When disabled, any check characters in a barcode are treated as data characters.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



MSI Check Character Calculation = Disable

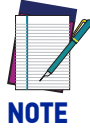


MSI Check Character Calculation = Enable



MSI Number of Check Characters

Specifies number of MSI check characters to be calculated and verified.

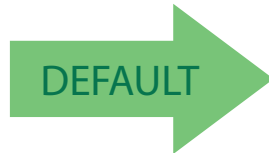


Check characters are always modulus 10.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode below representing the desired number of MSI check characters to be calculated and verified. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



MSI Number of Check Characters = 1

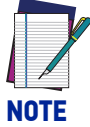


MSI Number of Check Characters = 2



MSI Check Character Transmission

Enables/disables transmission of optional MSI check characters.



NOTE

This feature applies only when MSI Check Character Calculation on page 214 is enabled. This item is ignored when the advanced feature, Full Label Edit, is enabled.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



MSI Check Character Transmission = Disable



MSI Check Character Transmission = Enable

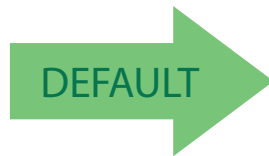


MSI Minimum Read

This feature specifies the minimum number of consecutive MSI decodes before is accepted as good read.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



MSI Minimum Read = 1



MSI Minimum Read = 2



MSI Minimum Read = 3



MSI Minimum Read = 4

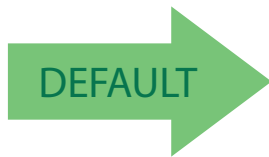


MSI Length Control

This feature specifies whether variable-length or fixed-length decoding will be set for MSI.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



MSI Length Control = Variable Length



MSI Length Control = Fixed Length

MSI Length 1

If MSI Length Control is set to Fixed-Length decoding, this feature specifies MSI first fixed length. If MSI Length Control is set to Variable-Length decoding, this feature specifies the minimum label length.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set MSI Length 1 on page 219](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 4 to 16. Pad all single digit numbers with a leading zero to yield a two-digit entry (04-16).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set MSI Length 1



Default setting for this feature = 04



MSI Length 2

If MSI Length Control is set to Fixed-Length decoding, this feature specifies MSI second fixed length. If MSI Length Control is set to Variable-Length decoding, this feature specifies the maximum label length.



When in Fixed Length mode, if Length 2 is set to the value 00 (zero), then only Length 1 will apply.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set MSI Length 2 on page 220](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 00 (meaning ignore this length), or 04 to 16. Pad all single digit numbers with a leading zero to yield a two-digit entry (00, 04-16).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set MSI Length 2



Default setting for this feature = 10 (length = 16)

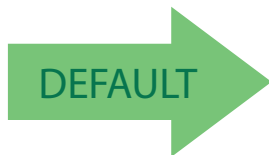
STANDARD 2 OF 5

Standard 2 of 5 Enable

Enables/disables the ability of the scanner to decode Standard 2 of 5 labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Standard 2 of 5 = Disable

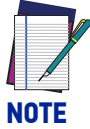


Standard 2 of 5 = Enable



Standard 2 of 5 Check Character Calculation

Enables/disables calculation and verification of an optional Standard 2 of 5 check character.

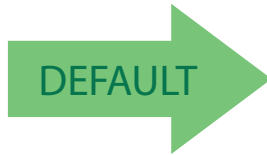


If check character calculation is disabled, the risk is increased that a misread can occur. When disabled, any check character in a barcode is treated as data character.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



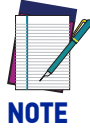
Standard 2 of 5 Check Character Calculation = Disable



Standard 2 of 5 Check Character Calculation = Enable

Standard 2 of 5 Check Character Transmission

Enables/disables transmission of an optional Standard 2 of 5 check character.



This feature applies only when Standard 2 of 5 Check Character Calculation on page 222 **is enabled. This item is ignored when the advanced feature, Full Label Edit, is enabled.**

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Standard 2 of 5 Check Character Transmission = Disable



Standard 2 of 5 Check Character Transmission = Enable



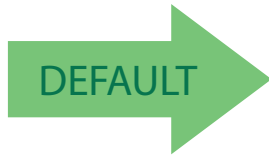


Standard 2 of 5 Minimum Read

This feature specifies the minimum number of consecutive Standard 2 of 5 decodes before is accepted as good read.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Standard 2 of 5 Minimum Read = 1



Standard 2 of 5 Minimum Read = 2



Standard 2 of 5 Minimum Read = 3



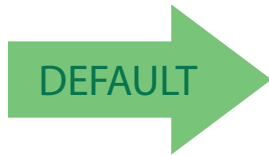
Standard 2 of 5 Minimum Read = 4

Standard 2 of 5 Correlation

Enables/disables character correlation for Standard 2 of 5.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Standard 2 of 5 Correlation = Disable



Standard 2 of 5 Correlation = Enable

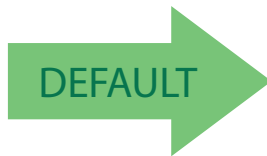


Standard 2 of 5 Length Control

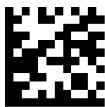
This feature specifies whether variable-length or fixed-length decoding will be set for Standard 2 of 5.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Standard 2 of 5 Length Control = Variable Length



Standard 2 of 5 Length Control = Fixed Length

Standard 2 of 5 Length 1

If Standard 2 of 5 Length Control is set to Fixed-Length decoding, this feature specifies Standard 2 of 5 first fixed length. If Standard 2 of 5 Length Control is set to Variable-Length decoding, this feature specifies the minimum label length.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set Standard 2 of 5 Length 1 on page 227](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 1 to 50. Pad all single digit numbers with a leading zero to yield a two-digit entry (01-50).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Standard 2 of 5 Length 1



Default setting for this feature = 08



Standard 2 of 5 Length 2

If Standard 2 of 5 Length Control is set to Fixed-Length decoding, this feature specifies Standard 2 of 5 second fixed length. If Standard 2 of 5 Length Control is set to Variable-Length decoding, this feature specifies the maximum label length.



NOTE

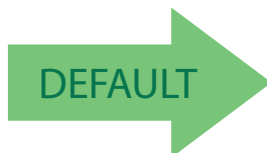
When in Fixed Length mode, if Length 2 is set to the value of 00 (zero), then only Length 1 will apply.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set Standard 2 of 5 Length 2 on page 228](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 1 to 50. Pad all single digit numbers with a leading zero to yield a two-digit entry (01-50).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Standard 2 of 5 Length 2



Default setting for this feature = 32 (length = 50)

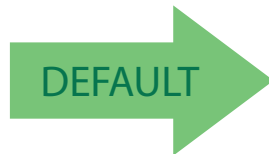
IATA

IATA Enable

Enables/disables the ability of the scanner to decode IATA labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



IATA = disable



IATA = enable



IATA Check Character Transmission

Enables/disables transmission of an optional IATA check character.



NOTE

**This feature applies only when IATA Check Character Calculation is enabled.
This item is ignored when the advanced feature, Full Label Edit, is enabled.**

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



IATA check character transmission = disable



IATA check character transmission = enable



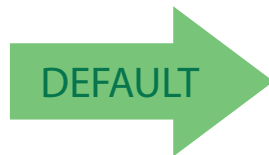
PLESSEY

Plessey Enable

Enables/disables the ability of the scanner to decode Plessey labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Plessey = disable

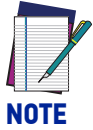


Plessey = enable



Plessey Check Character Calculation

Enables/disables calculation and verification of an optional Plessey check character.

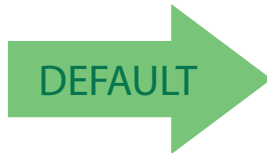


NOTE

If check character calculation is disabled, the risk is increased that a misread can occur. When disabled, any check character in a barcode is treated as data character.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Plessey Check Character Calculation = disable



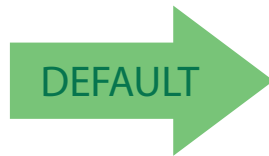
Plessey Check Character Calculation = enable

Plessey Length Control

This feature specifies whether variable-length or fixed-length decoding will be set for Plessey.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Plessey Length Control = Variable Length



Plessey Length Control = Fixed Length



Plessey Length 1

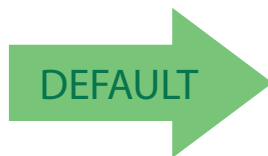
If Plessey Length Control is set to Fixed-Length decoding, this feature specifies Plessey first fixed length. If Plessey Length Control is set to Variable-Length decoding, this feature specifies the minimum label length.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode [Set Plessey Length 1 on page 234](#). You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 01 to 50, even numbers only. Pad all single digit numbers with a leading zero to yield a two-digit entry (01-50).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Plessey Length 1



Default setting for this feature = 01

Plessey Length 2

If Plessey Length Control is set to Fixed-Length decoding, this feature specifies Plessey second fixed length. If Plessey Length Control is set to Variable-Length decoding, this feature specifies the maximum label length.



NOTE

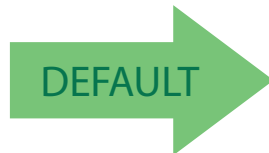
When in Fixed Length mode, if Length 2 is set to the value of 00 (zero), then only Length 1 will apply.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode [Set Plessey Length 2 on page 235](#). You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 00, or 01 to 50; even numbers only. Pad all single digit numbers with a leading zero to yield a two-digit entry (01-50).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Plessey Length 2



Default setting for this feature = 32 (length = 50)



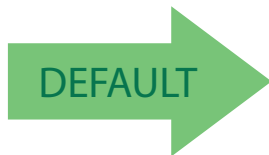
ANKER PLESSEY

Anker Plessey Enable

Enables/disables the ability of the scanner to decode Anker Plessey labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Anker Plessey = disable



Anker Plessey = enable

Anker Plessey Check Character Calculation

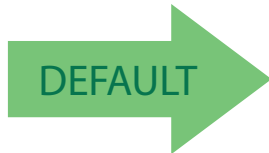
Enables/disables calculation and verification of an optional Anker Plessey check character.



If check character calculation is disabled, the risk is increased that a misread can occur. When disabled, any check character in a barcode is treated as data character.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Anker Plessey Check Character Calculation = disable



Anker Plessey Check Character Calculation = enable



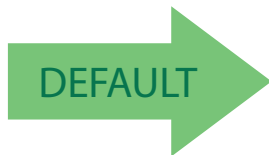
CODE 39 CIP

Code 39 CIP Enable

Enables/disables the ability of the scanner to decode Code 39 CIP labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



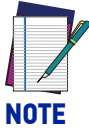
Code 39 CIP = disable



Code 39 CIP = enable

Code 39 CIP Start Stop Character Transmission

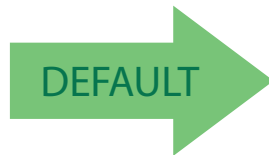
Enables/disables transmission of Code 39 CIP start and stop characters.



This item is ignored when the advanced feature, Full Label Edit, is enabled.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code 39 CIP Start Stop Character Transmission =
Disable



Code 39 CIP Start Stop Character Transmission =
Enable



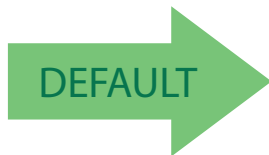
TRIOPTIC

Trioptic Enable

Enables/disables the ability of the scanner to decode Trioptic labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Trioptic = disable



Trioptic = enable

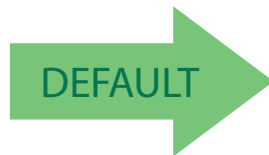
CODE39 PZN

Code39 Pzn Enable

Enables/disables the ability of the scanner to decode Code39 Pzn labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code39 Pzn = disable

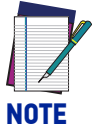


Code39 Pzn = enable



Code39 Pzn Check Character Calculation

Enables/disables calculation and verification of an optional Code39 Pzn check character.

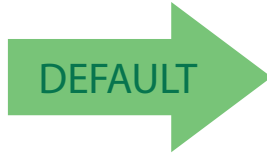


NOTE

If check character calculation is disabled, the risk is increased that a misread can occur. When disabled, any check character in a barcode is treated as data character.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code39 Pzn Check Character Calculation = disable



Code39 Pzn Check Character Calculation = enable

Code39 Pzn Check Character Transmission

Enables/disables transmission of an optional Code39 Pzn check character.



NOTE

This item is ignored when the advanced feature, Full Label Edit, is enabled.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.

059E00(CR)



Code39 Pzn Check Character transmission = disable

059E01(CR)



Code39 Pzn Check Character transmission = enable





Code39 Pzn Start Stop Character Transmission

Enables/disables transmission of Code39 Pzn start and stop characters.

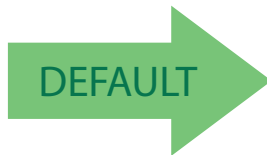


NOTE

This item is ignored when the advanced feature, Full Label Edit, is enabled.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code39 Pzn Start Stop Character Transmission =
Disable



Code39 Pzn Start Stop Character Transmission =
Enable

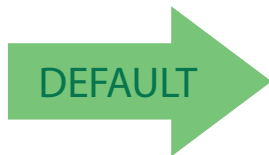
CODE128 ISBT

Code128 Isbt Enable

Enables/disables the ability of the scanner to decode Code128 Isbt labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code128 Isbt = disable



Code128 Isbt = enable



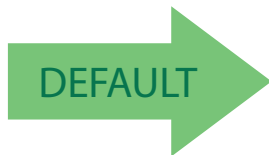
I25 CIP HR

I25 Cip Hr Enable

Enables/disables the ability of the scanner to decode I25 Cip Hr labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



I25 Cip Hr = disable



I25 Cip Hr = enable

I25 Cip Hr Check Character Calculation

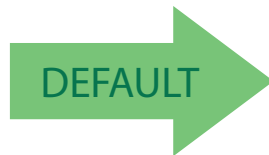
Enables/disables calculation and verification of an optional I25 Cip Hr check character.



If check character calculation is disabled, the risk is increased that a misread can occur. When disabled, any check character in a barcode is treated as data character.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



I25 Cip Hr Check Character Calculation = disable



I25 Cip Hr Check Character Calculation = enable



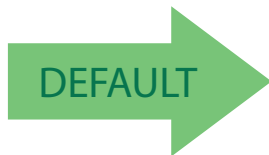
I25 FOLLETT

I25 Follett Enable

Enables/disables the ability of the scanner to decode I25 Follett labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



I25 Follett = disable



I25 Follett = enable

CONFIGURATION |

2D SYMBOLOGIES/POSTAL CODES



NOTE

If the scanner's interface type must be changed, always be sure that interface configuration is the **FIRST** item scanned during a programming session. (Selecting an interface type resets **ALL** other configuration items — including symbology programming — to the factory default for that interface type.)

The following pages contain configuration information concerning the various 2D and Postal Code barcode types the scanner supports.

SECTION CONTENTS	
2D Codes	
DATA MATRIX	starting on page 250
PDF 417	starting on page 254
MICRO PDF 417	starting on page 258
QR CODE	starting on page 262
MICRO QR CODE	starting on page 267
AZTEC CODE	starting on page 270
HAN XIN CODE	starting on page 273
MAXICODE	starting on page 276
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Postal Codes	
POSTNET	starting on page 280
PLANET CODE	starting on page 282
ROYAL MAIL	starting on page 284
KIX	starting on page 286
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PORTUGAL POST	starting on page 291
CODE39 DANISH PTT	starting on page 292
CODE39 LAPOSTE	starting on page 296



ENTER/EXIT PROGRAMMING MODE

DATA MATRIX

Data Matrix Enable

Enables/disables the ability of the scanner to decode Data Matrix labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Data Matrix = Disable



Data Matrix = Enable



Data Matrix Length Control

Fixed Length Decoding: When fixed length decoding is enabled, the scanner will decode a barcode if the label length matches one of the configurable fixed lengths.

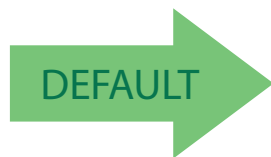
Variable Length Decoding: When variable length decoding is enabled, the scanner will decode a bar code if the label length falls in the range of the configurable minimum and maximum length.

Configuring Fixed Length Decoding:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the Fixed Length Decoding barcode.
3. Scan the Enter/Exit Programming Mode barcode at the top of the page.
4. Set Length 1 to the first fixed length using the [Data Matrix Length 1, Length 2 Programming Instructions on page 252](#) that follow this page.
5. Set Length 2 to the second fixed length (or to '0000' if there is only one fixed length) using the [Data Matrix Length 1, Length 2 Programming Instructions on page 252](#).

Configuring Variable Length Decoding:

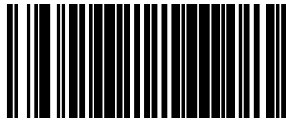
1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the Variable Length Decoding barcode.
3. Scan the Enter/Exit Programming Mode barcode at the top of the page.
4. Set Length 1 to the minimum length using the [Data Matrix Length 1, Length 2 Programming Instructions on page 252](#) that follow this page.
5. Set Length 2 to the maximum length using the [Data Matrix Length 1, Length 2 Programming Instructions on page 252](#).



Data Matrix Length Control = Variable Length



Data Matrix Length Control = Fixed Length



Data Matrix Length 1, Length 2 Programming Instructions

If Data Matrix Length Control is set to Fixed-Length decoding, this feature specifies Data Matrix first fixed length. If Data Matrix Length Control is set to Variable-Length decoding, this feature specifies the minimum label length.



NOTE

For Data Matrix barcodes, only the data characters are included in the length calculations.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set Data Matrix Length 1 on page 252](#) or [Set Data Matrix Length 2 on page 252](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 0001 to 3116. Pad all numbers with leading zeros to yield a four-digit entry (0001-3116).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Data Matrix Length 1
Default setting for this feature = 0001



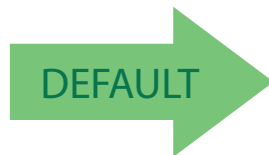
Set Data Matrix Length 2
Default setting for this feature = 0320 (length = 800)

GS1 Datamatrix Enable

Enables/disables the ability of the scanner to decode GS1 Datamatrix labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



GS1 Datamatrix disabled



GS1 Datamatrix enabled



PDF 417

PDF 417 Enable

Enables the processing of PDF417 labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



PDF 417 = Disable



PDF 417 = Enable



PDF 417 Length Control

Fixed Length Decoding: When fixed length decoding is enabled, the scanner will decode a barcode if the label length matches one of the configurable fixed lengths.

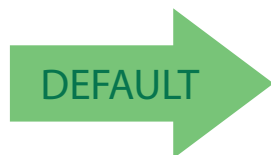
Variable Length Decoding: When variable length decoding is enabled, the scanner will decode a bar code if the label length falls in the range of the configurable minimum and maximum length.

Configuring Fixed Length Decoding:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the Fixed Length Decoding barcode.
3. Scan the Enter/Exit Programming Mode barcode at the top of the page.
4. Set Length 1 to the first fixed length using the [PDF 417 Length 1, Length 2 Programming Instructions on page 256](#) that follow this page.
5. Set Length 2 to the second fixed length (or to '0000' if there is only one fixed length) using the [PDF 417 Length 1, Length 2 Programming Instructions on page 256](#).

Configuring Variable Length Decoding:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the Variable Length Decoding barcode.
3. Scan the Enter/Exit Programming Mode barcode at the top of the page.
4. Set Length 1 to the minimum length using the [PDF 417 Length 1, Length 2 Programming Instructions on page 256](#) that follow this page.
5. Set Length 2 to the maximum length using the [PDF 417 Length 1, Length 2 Programming Instructions on page 256](#).



PDF 417 Length Control = Variable Length



PDF 417 Length Control = Fixed Length



PDF 417 Length 1, Length 2 Programming Instructions

If PDF417 Length Control is set to Fixed-Length decoding, this feature specifies PDF417 first fixed length. If PDF417 Length Control is set to Variable-Length decoding, this feature specifies the minimum label length.



NOTE

This tag is only valid for units with a model ID that supports PDF.

Length 1 is the minimum label length if in variable length mode, or the first fixed length if in fixed length mode. Length 2 is the maximum label length if in variable length mode, or the second fixed length if in fixed length mode. Length includes the barcode's data characters only. Any value > 2710 will be considered to be 2710.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set PDF 417 Length 1 on page 256](#) or [Set PDF 417 Length 2 on page 256](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 0001 to 2710. Pad all numbers with leading zeros to yield a four-digit entry (0001-2710).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set PDF 417 Length 1
Default setting for this feature = 0001



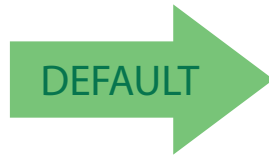
Set PDF 417 Length 2
Default setting for this feature = 0A96 (length = 2710)

PDF 417 Read Option

This feature specifies an additional read control option for PDF 417 barcodes.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



PDF 417 Read Option = None



PDF 417 Read Option = Turn Off Codeword
Length Checking



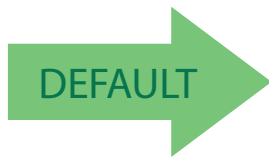
MICRO PDF 417

Micro PDF 417 Enable

Enables/disables the ability of the scanner to decode Micro PDF 417 labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Micro PDF 417 = Disable



Micro PDF 417 = Enable

Micro PDF 417 Length Control

Fixed Length Decoding: When fixed length decoding is enabled, the scanner will decode a barcode if the label length matches one of the configurable fixed lengths.

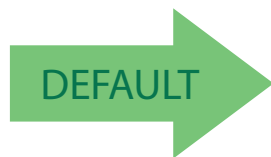
Variable Length Decoding: When variable length decoding is enabled, the scanner will decode a bar code if the label length falls in the range of the configurable minimum and maximum length.

Configuring Fixed Length Decoding:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the Fixed Length Decoding barcode.
3. Scan the Enter/Exit Programming Mode barcode at the top of the page.
4. Set Length 1 to the first fixed length using the [Micro PDF 417 Length 1, Length 2 Programming Instructions on page 260](#) that follow this page.
5. Set Length 2 to the second fixed length (or to '0000' if there is only one fixed length) using the [Micro PDF 417 Length 1, Length 2 Programming Instructions on page 260](#).

Configuring Variable Length Decoding:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the Variable Length Decoding barcode.
3. Scan the Enter/Exit Programming Mode barcode at the top of the page.
4. Set Length 1 to the minimum length using the [Micro PDF 417 Length 1, Length 2 Programming Instructions on page 260](#) that follow this page.
5. Set Length 2 to the maximum length using the [Micro PDF 417 Length 1, Length 2 Programming Instructions on page 260](#).



Micro PDF 417 Length Control = Variable Length



Micro PDF 417 Length Control = Fixed Length



Micro PDF 417 Length 1, Length 2 Programming Instructions

If Micro PDF 417 Length Control is set to Fixed-Length decoding, this feature specifies Micro PDF 417 first fixed length. If Micro PDF 417 Length Control is set to Variable-Length decoding, this feature specifies the minimum label length.



NOTE

This tag is only valid for units with a model ID that supports PDF.

Length 1 is the minimum label length if in variable length mode, or the first fixed length if in fixed length mode. Length 2 is the maximum label length if in variable length mode, or the second fixed length if in fixed length mode. Length includes the barcode's data characters only. Any value > 0366 will be considered to be 0366.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set Micro PDF 417 Length 1 on page 260](#) or [Set Micro PDF 417 Length 2 on page 260](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 0001 to 0366. Pad all numbers with leading zeros to yield a four-digit entry (0001-0366).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Micro PDF 417 Length 1
Default setting for this feature = 0001



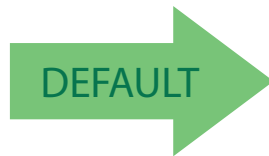
Set Micro PDF 417 Length 2
Default setting for this feature = 016E (length = 366)

Micro PDF 417 128 Emulation

This feature specifies which AIM ID to use for Micro PDF 417 labels when performing Code 128 or EAN 128 emulation.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode below for the desired setting. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Micro PDF 417 128 Emulation = Micro PDF AIM ID and label type when emulating EAN128 or Code 128



Micro PDF 417 128 Emulation = Code 128 / EAN128 AIM ID and label type when emulating EAN128 or Code 128



QR CODE

QR Code Enable

Enables/disables the ability of the scanner to decode QR Code labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



QR Code = Disable



QR Code = Enable



QR Code Length Control

Fixed Length Decoding: When fixed length decoding is enabled, the scanner will decode a barcode if the label length matches one of the configurable fixed lengths.

Variable Length Decoding: When variable length decoding is enabled, the scanner will decode a bar code if the label length falls in the range of the configurable minimum and maximum length.

Configuring Fixed Length Decoding:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the Fixed Length Decoding barcode.
3. Scan the Enter/Exit Programming Mode barcode at the top of the page.
4. Set Length 1 to the first fixed length using the [QR Code Length 1, Length 2 Programming Instructions on page 264](#) that follow this page.
5. Set Length 2 to the second fixed length (or to '0000' if there is only one fixed length) using the [QR Code Length 1, Length 2 Programming Instructions on page 264](#).

Configuring Variable Length Decoding:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the Variable Length Decoding barcode.
3. Scan the Enter/Exit Programming Mode barcode at the top of the page.
4. Set Length 1 to the minimum length using the [QR Code Length 1, Length 2 Programming Instructions on page 264](#) that follow this page.
5. Set Length 2 to the maximum length using the [QR Code Length 1, Length 2 Programming Instructions on page 264](#).



QR Code Length Control = Variable Length



QR Code Length Control = Fixed Length



QR Code Length 1, Length 2 Programming Instructions

If QR Code Length Control is set to Fixed-Length decoding, this feature specifies QR Code first fixed length. If QR Code Length Control is set to Variable-Length decoding, this feature specifies the minimum label length.



NOTE

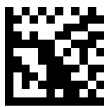
Length 1 is the minimum label length if in variable length mode, or the first fixed length if in fixed length mode. Length 2 is the maximum label length if in variable length mode, or the second fixed length if in fixed length mode. Length includes the barcode's data characters only. Any value > 2710 will be considered to be 2710.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set QR Code Length 1 on page 264](#) or [Set QR Code Length 2 on page 264](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 0001 to 2710. Pad all numbers with leading zeros to yield a four-digit entry (001-02710).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set QR Code Length 1
Default setting for this feature = 0001



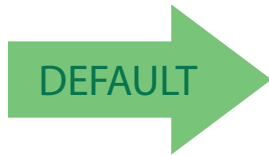
Set QR Code Length 2
Default setting for this feature = 0A96 (length = 2710)

QR Code URL Link Enable

Enables/Disables the decoding of QR codes with a URL link on imagers.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



QR Code URL Link = Disable



QR Code URL Link = Enable

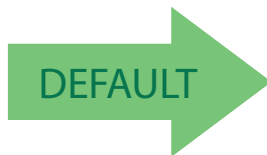


GS1 QR CODE ENABLE

This feature controls the ability of the scanner to decode GS1 QR Code labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



GS1 QR Code = Disable



GS1 QR Code = Enable

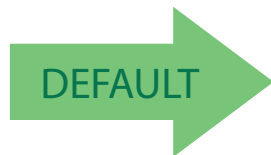
MICRO QR CODE

Micro QR Code Enable

Enables/disables the ability of the scanner to decode Micro QRCode labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Micro QR Code = Disable



Micro QR Code = Enable



Micro QR Code Length Control

Fixed Length Decoding: When fixed length decoding is enabled, the scanner will decode a barcode if the label length matches one of the configurable fixed lengths.

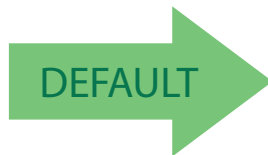
Variable Length Decoding: When variable length decoding is enabled, the scanner will decode a bar code if the label length falls in the range of the configurable minimum and maximum length.

Configuring Fixed Length Decoding:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the Fixed Length Decoding barcode.
3. Scan the Enter/Exit Programming Mode barcode at the top of the page.
4. Set Length 1 to the first fixed length using the [Micro QR Code Length 1, Length 2 Programming Instructions on page 269](#) that follow this page.
5. Set Length 2 to the second fixed length (or to '0000' if there is only one fixed length) using the [Micro QR Code Length 1, Length 2 Programming Instructions on page 269](#).

Configuring Variable Length Decoding:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the Variable Length Decoding barcode.
3. Scan the Enter/Exit Programming Mode barcode at the top of the page.
4. Set Length 1 to the minimum length using the [Micro QR Code Length 1, Length 2 Programming Instructions on page 269](#) that follow this page.
5. Set Length 2 to the maximum length using the [Micro QR Code Length 1, Length 2 Programming Instructions on page 269](#).



Micro QR Code Length Control = Variable Length



Micro QR Code Length Control = Fixed Length

Micro QR Code Length 1, Length 2 Programming Instructions

If Micro QR Code Length Control is set to Fixed-Length decoding, this feature specifies Micro QR Code first fixed length. If Micro QR Code Length Control is set to Variable-Length decoding, this feature specifies the minimum label length.



NOTE

Length 1 is the minimum label length if in variable length mode, or the first fixed length if in fixed length mode. Length 2 is the maximum label length if in variable length mode, or the second fixed length if in fixed length mode. Length includes the barcode's data characters only. Any value > 3700 will be considered to be 3700.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set Aztec Length 1 on page 272](#) or [Set Micro QR Code Length 2 on page 269](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 0001 to 3700. Pad all numbers with leading zeros to yield a four-digit entry (0001-3700).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Micro QR Code Length 1
Default setting for this feature = 0001



Set Micro QR Code Length 2
Default setting for this feature = 0E74 (length = 3700)



AZTEC CODE

Aztec Enable

Enables/disables the ability of the scanner to decode Aztec labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Aztec = Disable



Aztec = Enable



Aztec Length Control

Fixed Length Decoding: When fixed length decoding is enabled, the scanner will decode a barcode if the label length matches one of the configurable fixed lengths.

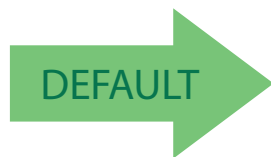
Variable Length Decoding: When variable length decoding is enabled, the scanner will decode a bar code if the label length falls in the range of the configurable minimum and maximum length.

Configuring Fixed Length Decoding:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the Fixed Length Decoding barcode.
3. Scan the Enter/Exit Programming Mode barcode at the top of the page.
4. Set Length 1 to the first fixed length using the [Aztec Length 1, Length 2 Programming Instructions on page 272](#) that follow this page.
5. Set Length 2 to the second fixed length (or to '0000' if there is only one fixed length) using the [Aztec Length 1, Length 2 Programming Instructions on page 272](#).

Configuring Variable Length Decoding:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the Variable Length Decoding barcode.
3. Scan the Enter/Exit Programming Mode barcode at the top of the page.
4. Set Length 1 to the minimum length using the [Aztec Length 1, Length 2 Programming Instructions on page 272](#) that follow this page.
5. Set Length 2 to the maximum length using the [Aztec Length 1, Length 2 Programming Instructions on page 272](#).



Aztec Length Control = Variable Length

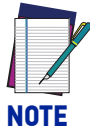


Aztec Length Control = Fixed Length



Aztec Length 1, Length 2 Programming Instructions

If Aztec Length Control is set to Fixed-Length decoding, this feature specifies Aztec first fixed length. If Aztec Length Control is set to Variable-Length decoding, this feature specifies the minimum label length.



NOTE

Length 1 is the minimum label length if in variable length mode, or the first fixed length if in fixed length mode. Length 2 is the maximum label length if in variable length mode, or the second fixed length if in fixed length mode. Length includes the barcode's data characters only. Any value > 3700 will be considered to be 3700.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set Aztec Length 1 on page 272](#) or [Set Aztec Length 2 on page 272](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 0001 to 3700. Pad all numbers with leading zeros to yield a four-digit entry (0001-3700).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Aztec Length 1
Default setting for this feature = 0001



Set Aztec Length 2
Default setting for this feature = 0E74 (length = 3700)

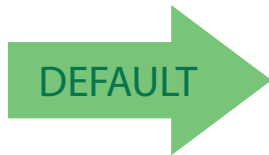
HAN XIN CODE

Han Xin Enable

Enables/disables the ability of the scanner to decode Han Xin labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Han Xin Code = Disable



Han Xin Code = Enable



Han Xin Length Control

Fixed Length Decoding: When fixed length decoding is enabled, the scanner will decode a barcode if the label length matches one of the configurable fixed lengths.

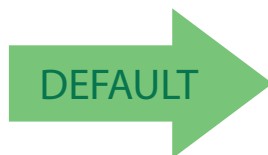
Variable Length Decoding: When variable length decoding is enabled, the scanner will decode a bar code if the label length falls in the range of the configurable minimum and maximum length.

Configuring Fixed Length Decoding:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the Fixed Length Decoding barcode.
3. Scan the Enter/Exit Programming Mode barcode at the top of the page.
4. Set Length 1 to the first fixed length using the [Han Xin Length 1, Length 2 Programming Instructions on page 275](#) that follow this page.
5. Set Length 2 to the second fixed length (or to '0000' if there is only one fixed length) using the [Han Xin Length 1, Length 2 Programming Instructions on page 275](#).

Configuring Variable Length Decoding:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the Variable Length Decoding barcode.
3. Scan the Enter/Exit Programming Mode barcode at the top of the page.
4. Set Length 1 to the minimum length using the [Han Xin Length 1, Length 2 Programming Instructions on page 275](#) that follow this page.
5. Set Length 2 to the maximum length using the [Han Xin Length 1, Length 2 Programming Instructions on page 275](#).



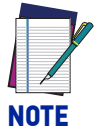
Han Xin Length Control = Variable Length



Han Xin Length Control = Fixed Length

Han Xin Length 1, Length 2 Programming Instructions

If Han Xin Length Control is set to Fixed-Length decoding, this feature specifies Han Xin first fixed length. If Han Xin Length Control is set to Variable-Length decoding, this feature specifies the minimum label length.



NOTE

Length 1 is the minimum label length if in variable length mode, or the first fixed length if in fixed length mode. Length 2 is the maximum label length if in variable length mode, or the second fixed length if in fixed length mode. Length includes the barcode's data characters only. Any value > 3116 will be considered to be 3116.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set Han Xin Length 1 on page 275](#) or [Set Han Xin Length 2 on page 275](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 0001 to 3700. Pad all numbers with leading zeros to yield a four-digit entry (0001-3116).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Han Xin Length 1
Default setting for this feature = 0001



Set Han Xin Length 2
Default setting for this feature = 0320 (length = 800)



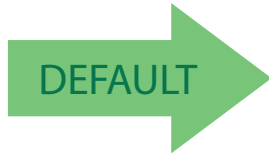
MAXICODE

Maxicode Enable

Enables/disables the ability of the scanner to decode Maxicode labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Maxicode = Disable



Maxicode = Enable

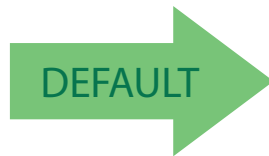


Maxicode Length Control

This feature specifies whether variable-length or fixed-length decoding will be set for Maxicode.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan your selection from the barcodes below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Maxicode Length Control = Variable Length



Maxicode Length Control = Fixed Length



Maxicode Length 1

If Maxicode Length Control is set to Fixed-Length decoding, this feature specifies Maxicode first fixed length. If Maxicode Length Control is set to Variable-Length decoding, this feature specifies the minimum label length.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set Maxicode Length 1 on page 278](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 001 to 138. Pad all single digit numbers with a leading zero to yield a two-digit entry (001-138).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Maxicode Length 1



Default setting for this feature = 001

Maxicode Length 2

If Maxicode Length Control is set to Fixed-Length decoding, this feature specifies Maxicode second fixed length. If Maxicode Length Control is set to Variable-Length decoding, this feature specifies the maximum label length.



When in Fixed Length mode, if Length 2 is set to the value of 000 (zero), then only Length 1 will apply.

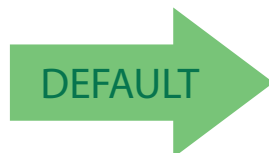
NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the barcode, [Set Maxicode Length 2 on page 279](#) below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Scan the appropriate digits from the [Alpha-Numeric Keypad in Appendix C](#) that represent the desired label length. The selectable range for this option is 001 to 138. Pad all single digit numbers with a leading zero to yield a three-digit entry (001-138).
4. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Set Maxicode Length 2



Default setting for this feature = 08A (length = 138)



POSTAL CODE SELECTION

Enables/disables the ability of the scanner to decode labels of the specified postal symbol-ogy.

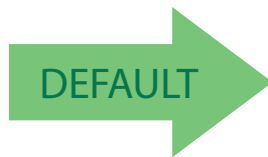
POSTNET

Postnet Enable

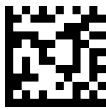
Enables/disables the ability of the scanner to decode Postnet labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused bar-codes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



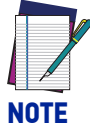
Postnet = Disable



Postnet = Enable

Postnet Check Character Calculation

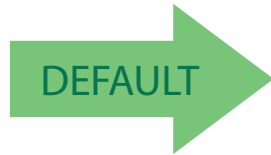
Enables/disables calculation and verification of an optional Postnet check character.



If check character calculation is disabled, the risk is increased that a misread can occur. When disabled, any check characters in a barcode are treated as data characters.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Postnet Check Character Calculation = Disable



Postnet Check Character Calculation = Enable



ENTER/EXIT PROGRAMMING MODE

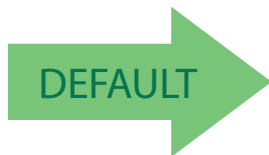
PLANET CODE

Planet Code Enable

Enables/disables the ability of the scanner to decode Planet Code labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



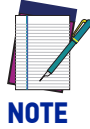
Planet Code = Disable



Planet Code = Enable

Planet Check Character Calculation

Enables/disables calculation and verification of an optional Planet check character.

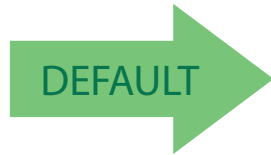


NOTE

If check character calculation is disabled, the risk is increased that a misread can occur. When disabled, any check characters in a barcode are treated as data characters.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Planet Check Character Calculation = Disable



Planet Check Character Calculation = Enable



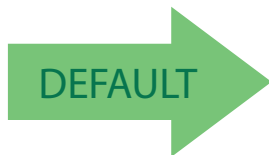
ROYAL MAIL

Royal Mail Enable

Enables/disables the ability of the scanner to decode Royal Mail labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



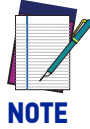
Royal Mail = Disable



Royal Mail = Enable

Royal Mail Check Character Calculation

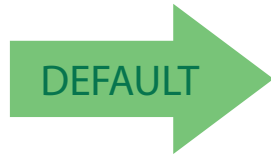
Enables/disables calculation and verification of an optional Royal Mail check character.



If check character calculation is disabled, the risk is increased that a misread can occur. When disabled, any check characters in a barcode are treated as data characters.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Royal Mail Check Character Calculation = Disable



Royal Mail Check Character Calculation = Enable



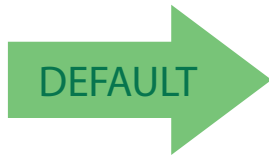
KIX

Kix Enable

Enables/disables the ability of the scanner to decode Kix labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Kix = Disable



Kix = Enable

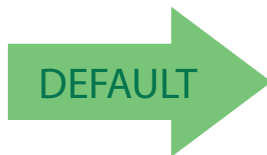
AUSTRALIA POST

Australian Post Enable

Enables/disables the ability of the scanner to decode Australia Post labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Australia Post = Disable



Australia Post = Enable



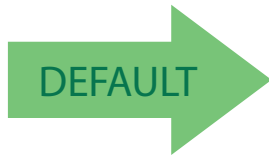
JAPAN POST

Japan Post Enable

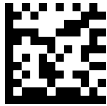
Enables/disables the ability of the scanner to decode Japan Post labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Japan Post = Disable



Japan Post = Enable

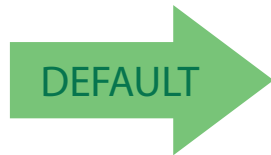
IMB

IMB Enable

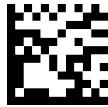
Enables/disables the ability of the scanner to decode IMB labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



IMB = Disable



IMB = Enable



ENTER/EXIT PROGRAMMING MODE

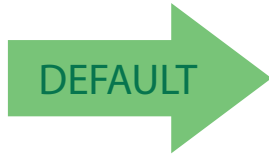
SWEDEN POST

Sweden Post Enable

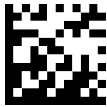
Enables/disables the ability of the scanner to decode Sweden Post labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Sweden Post = Disable



Sweden Post = Enable

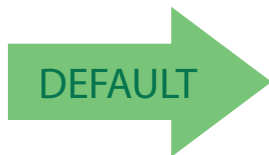
PORTUGAL POST

Portugal Post Enable

Enables/disables the ability of the scanner to decode Portugal Post labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Portugal Post = Disable



Portugal Post = Enable



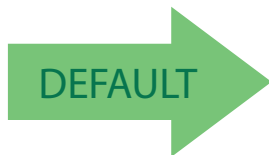
CODE39 DANISH PTT

Code39 Danish Ptt Enable

Enables/disables the ability of the scanner to decode Code39 Danish Ptt labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Code39 Danish Ptt = Disable



Code39 Danish Ptt = Enable

Code39 Danish Ptt Check Character Calculation

Enables/disables calculation and verification of an optional Code39 Danish Ptt check character.

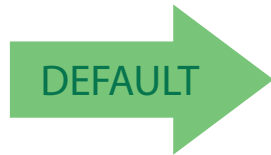


NOTE

If check character calculation is disabled, the risk is increased that a misread can occur. When disabled, any check characters in a barcode are treated as data characters.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code39 Danish Ptt Check Character Calculation =
Disable



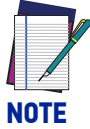
Code39 Danish Ptt Check Character Calculation =
Enable



ENTER/EXIT PROGRAMMING MODE

Code39 Danish Ptt Check Character Transmission

Enables/disables transmission of an optional Code39 Danish Ptt check character.



This item is ignored when the advanced feature, Full Label Edit, is enabled.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code39 Danish Ptt Check Character Transmission =
Disable

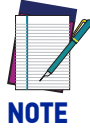


Code39 Danish Ptt Check Character Transmission =
Enable



Code39 Danish Ptt Start Stop Character Transmission

Enables/disables transmission of Code39 Danish Ptt start and stop characters.

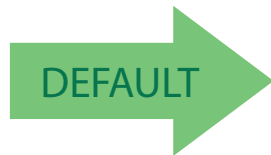


This item is ignored when the advanced feature, Full Label Edit, is enabled

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code39 Danish Ptt Start Stop Character Transmission =
Disable



Code39 Danish Ptt Start Stop Character Transmission =
Enable



ENTER/EXIT PROGRAMMING MODE

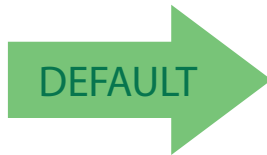
CODE39 LAPOSTE

Code39 Laposte Enable

Enables/disables the ability of the scanner to decode Code39 Laposte labels.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the Enter/Exit Programming Mode barcode.



Code39 Laposte = Disable



Code39 Laposte = Enable

Code39 Laposte Check Character Calculation

Enables/disables calculation and verification of an optional Code39 Laposte check character.

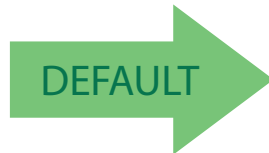


NOTE

If check character calculation is disabled, the risk is increased that a misread can occur. When disabled, any check characters in a barcode are treated as data characters.

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code39 Laposte Check Character Calculation =
Disable

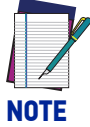


Code39 Laposte Check Character Calculation =
Enable



Code39 Laposte Check Character Transmission

Enables/disables transmission of an optional Code39 Laposte check character.



This item is ignored when the advanced feature, Full Label Edit, is enabled.

NOTE

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code39 Laposte Check Character Transmission =
Disable

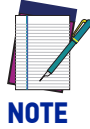


Code39 Laposte Check Character Transmission =
Enable



Code39 Laposte Start Stop Character Transmission

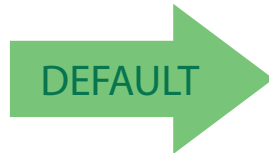
Enables/disables transmission of Code39 Laposte start and stop characters.



This item is ignored when the advanced feature, Full Label Edit, is enabled

To set this feature:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the enable or disable barcode below. You'll need to cover any unused barcodes on this and the facing page to ensure that the scanner reads only the barcode you intend to scan.
3. Complete the programming sequence by scanning the ENTER/EXIT Programming Mode barcode.



Code39 Laposte Start Stop Character Transmission =
Disable



Code39 Laposte Start Stop Character Transmission =
Enable

CHAPTER 3

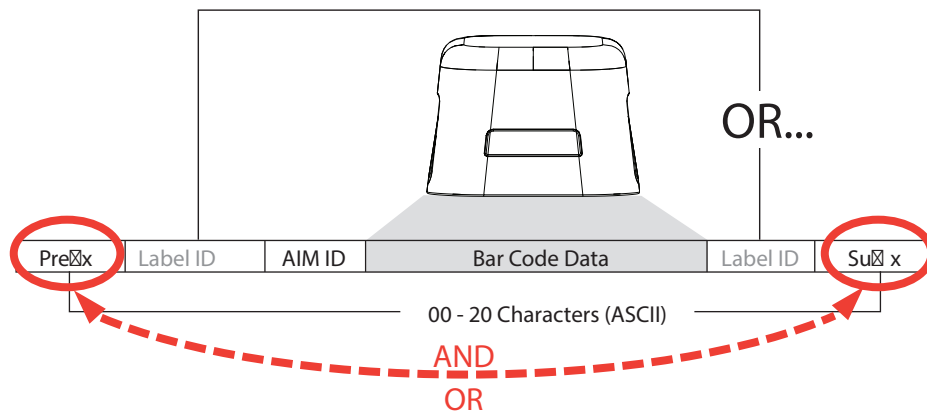
REFERENCES

This section contains explanations and examples of selected barcode features. See the programming sections for the actual barcode labels used to configure the reader.

GLOBAL PREFIX/SUFFIX

Up to 20 ASCII characters may be added as a prefix (in a position before the barcode data) and/or as a suffix (in a position following the barcode data) as indicated in Figure 9.

Figure 9. Prefix and Suffix Positions



Example: Setting a Prefix

In this example, we'll set a prefix for all symbologies.

1. Determine which ASCII character(s) are to be added to scanned barcode data. In this example, we'll add a dollar sign ('\$') as a prefix.
2. Scan the Enter/Exit Programming Mode barcode at the top of the page.
3. Scan the SET PREFIX barcode.
4. Reference the [ASCII Character Set](#) on the inside back cover of this manual, to find the hex value assigned to the desired character. The corresponding hex number for the '\$' character is 24. To enter this selection code, scan the '2' and '4' barcodes from [Appendix C, Alpha-Numeric Keypad](#).

5. Scan the END barcode once to finish the string, then scan END again to exit Programming Mode.



NOTE

If all 20 characters will be used in the prefix or suffix, do not scan the END barcode to finish the string. It is done automatically.

6. The resulting message string would appear as follows:

Scanned barcode data:12345

Resulting message string output: \$12345

LABEL ID

A Label ID is used to identify a barcode (symbology) type. It can be appended previous to or following the transmitted barcode data depending upon how this option is enabled. This feature provides options for configuring custom Label IDs individually per symbology. If you wish to program the scanner to always include an industry standard label identifier for ALL symbology types, see the feature, [AIM ID on page 85](#).

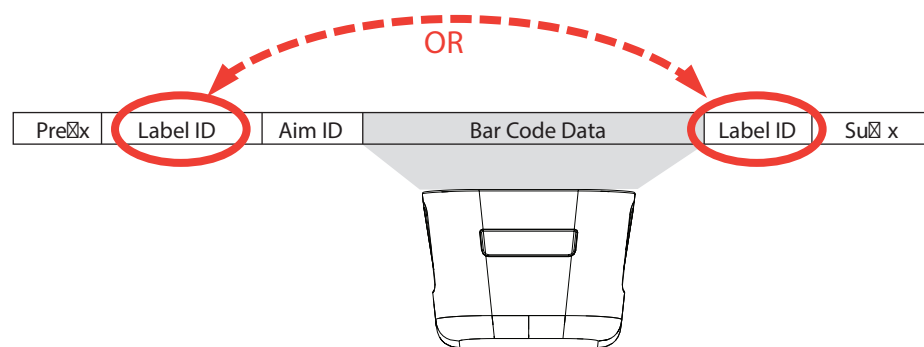
The Label ID is a customizable code of up to three ASCII characters (each of which are hex 00-7F) followed by a control character (00-01). This control character, when set to zero, does nothing. When set to one, it appends the symbology's AIM ID to the Label ID.



NOTE

When the control character is set to 01 for UPC-A and UPC-E, it expands the label to EAN-13 and thus follows the EAN-13 Label ID settings.

Figure 10. Label ID Position Options



See [Label ID on page 86](#) for programming barcodes. See [Appendix D, Factory Default Settings](#), for a listing of common symbologies.

Label ID

Symbology	Default Character	Default ASCII
ANKER PLESSEY	o	6F0000
AZTEC	Az	417A00
Han Xin	\$S	245300
CODABAR	%	250000
CODE11	CE	434500
CODE128	#	230000
CODE32	A	410000
CODE39	*	2A0000
CODE39 CIP	Y	590000
CODE39 DANISH PPT	\$Y	245900
CODE39 LAPOSTE	\$Y	245900
CODE39 PZN	\$Z	245A00
CODE93	&	260000
DATABAR 14	R4	523400
DATABAR 14 COMPOSITE	R4	523400
DATABAR EXPANDED	RX	525800
DATABAR EXPANDED COMPOSITE	RX	525800
DATABAR LIMITED	RL	524C00
DATABAR LIMITED COMPOSITE	RL	524C00
DATA MATRIX	Dm	446D00
DATA MATRIX GS1	Dg	446700
EAN128		000001
EAN13	F	460000
EAN13 P2	F	460000
EAN13 P5	F	460000
EAN13 COMPOSITE	F	460000
EAN8	FF	464600
EAN8 P2	FF	464600
EAN8 P5	FF	464600

Symbology	Default Character	Default ASCII
EAN8 COMPOSITE	FF	464600
FOLLET 20F5	O	4F0000
GTIN	G	470000
GTIN2	G2	473200
GTIN5	G5	473500
I20F5	i	690000
I20F5 CIP HR	e	650000
IATA INDUSTRIAL 20F5	IA	494100
ISBN	l	490000
ISBT128 CONCAT	f	660000
ISSN	n	6E0000
MICRO QR	\$Q	245100
MICRO PDF	mP	6D5000
MSI	@	400000
PDF417	P	500000
PLESSEY	a	610000
POSTAL AUSTRALIAN	\$K	244B00
POSTAL IMB	\$V	245600
POSTAL JAPANESE	\$R	245200
POSTAL KIX	\$U	245500
POSTAL PLANET	\$W	245700
POSTAL PORTUGAL	\$P	245000
POSTAL POSTNET BB	\$L	244C00
POSTAL ROYAL MAIL	\$M	244D00
POSTAL SWEDISH	\$X	245800
QR CODE	QR	515200
QR CODE GS1	QG	514700
S25	s	730000
TRIOPTIC	\$T	245400
UPCA	A	410000

Symbology	Default Character	Default ASCII
UPCA P2	A	410000
UPCA P5	A	410000
UPCA COMPOSITE	A	410000
UPCE	E	450000
UPCE P2	E	450000
UPCE P5	E	450000
UPCE COMPOSITE	E	450000

Length Control

Fixed Length Decoding: When fixed length decoding is enabled, the scanner will decode a barcode if the label length matches one of the configurable fixed lengths.

Variable Length Decoding: When variable length decoding is enabled, the scanner will decode a barcode if the label length falls in the range of the configurable minimum and maximum length.

Configuring Fixed Length Decoding:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the Fixed Length Decoding barcode for the desired symbology.
3. Scan the Enter/Exit Programming Mode barcode at the top of the page.
4. Set Length 1 to the first fixed length by following the [Length 1, Length 2 Programming Instructions](#) below.
5. Set Length 2 to the second fixed length (or to '00' if there is only one fixed length) by following the [Length 1, Length 2 Programming Instructions](#) below.

Configuring Variable Length Decoding:

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan the Variable Length Decoding barcode for the desired symbology.
3. Scan the Enter/Exit Programming Mode barcode at the top of the page.
4. Set Length 1 to the first variable length by following the [Length 1, Length 2 Programming Instructions](#) below.
5. Set Length 2 to the second variable length by following the [Length 1, Length 2 Programming Instructions](#) below.

Length 1, Length 2 Programming Instructions

1. Scan the Enter/Exit Programming Mode barcode at the top of the page.
2. Scan either the Set Length 1 or Set Length 2 barcode for the desired symbology.
3. Turn to [Appendix Appendix C](#) and scan the two digits (zero padded) representing the length in decimal notation. The number of characters that can be set varies, depending upon the symbology. Reference the page for your selected symbology to see specific variables.
4. Scan the Enter/Exit Programming Mode barcode at the top of the page.

NOTES

CHAPTER 4

OEM MOUNTING

This section describes how to mount the Magellan 900i into a kiosk for optimum scanner performance.

GENERAL CONSIDERATIONS

A typical system uses the scanner mounted inside a host enclosure, with an opening for the scanning pattern to exit and read bar codes. The opening should be the size of the scanner window at a minimum, but only exposing as much of the scanner as necessary.

Although the scanner has been designed to be impact-resistant, it is important to consider the effect of the environment on the scanner. In particular, mounting should minimize the possibility of foreign objects coming into contact with the window's surface. Such contact will damage the window over time and reduce the scanner's performance. Consideration should also be given to the clearances needed for the scanner's interface cable (reference the following section).

MOUNTING

System integration is made easy with the OEM scanner's mounting features. Six mounting holes are located on the front of the scanner for use with size M3 screws of your required length. [Figure 5 on page 6](#) contains mechanical drawings of the scanner including the position of the mounting features.

The scanner can be mounted upside down with no loss in scanning performance, but the illumination will be more visible to the operator.

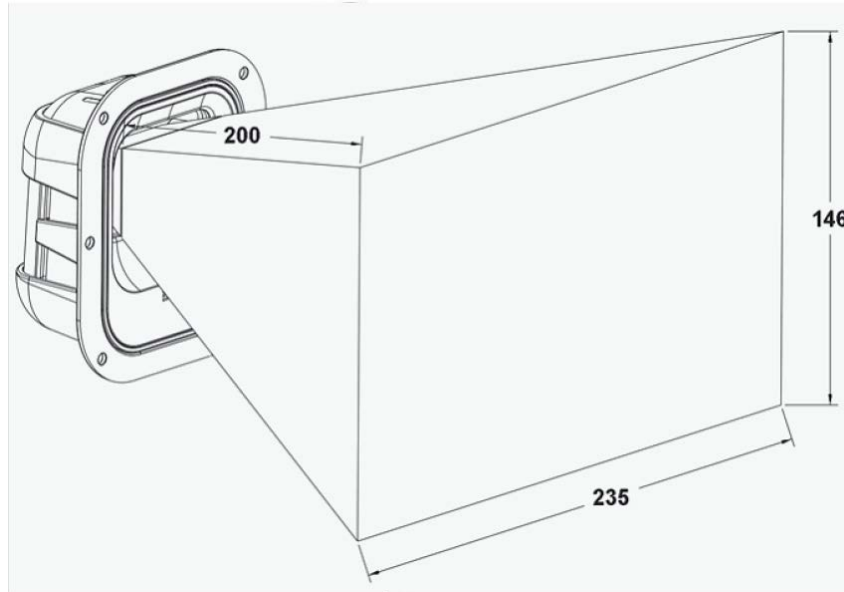
SCANNER VENTILATION

When mounting the scanner inside a secondary enclosure, it is important to have proper ventilation to ensure that the scanner temperature does not exceed the maximum operating temperature as listed in [Appendix A, Product Specifications](#). The reliability of the scanner may be compromised if the temperature range is not maintained.

INTEGRATING THE SCANNER TO READ AT THE PROPER DISTANCE

The scanner must be positioned so that the scan volume and illumination light will cover the entire bar code. The scan volume is shown in [Figure 11 on page 308](#). The combination of the Scan Volume and the illumination light is called the Field of View. Designing around the scanner Field of View is explained more in the following section.

Figure 11 - Scanner Volume



DESIGN OF THE SCANNER OPENING

A typical system uses the scanner mounted inside a host enclosure with an opening for the scanner Field of View to exit the scanner window and read bar codes. If the scanner is flush against the opening, it should be the size of the scanner window at a minimum, but only exposing as much of the front surface of the scanner as necessary. Additional clearance in the opening can also be considered for the speaker opening.

The design and placement of the scanner opening within a host enclosure is critical for optimum system performance. Use the detailed dimensions shown in [Figure 5 on page 6](#) to design the host enclosure and scanner opening along with the following guidelines.

- The opening must not block any of the outgoing illumination light, described by dimensions of the scanner Field of View.
- Ensure that there are no reflective surfaces around the area of the scanner opening.
- The opening or other parts of the host enclosure must not enter the Field of View in order to allow the bar code image to be captured by the scanner.

MOUNTING HOLES

There are six mounting holes located on the KIOSK mount flange. The recommended size for the screws is 3mm. See [Mounting Template on page 311](#) for a 1:1 template drawing of the mounting holes.

INTEGRATING THE SCANNER BEHIND A WINDOW

It is not recommended to place any type of additional window between the scanner and the bar code to be read. The addition of a host enclosure window will significantly degrade scanner performance. This is due to the additional reflective surfaces that will cause optical interference with the imaging.

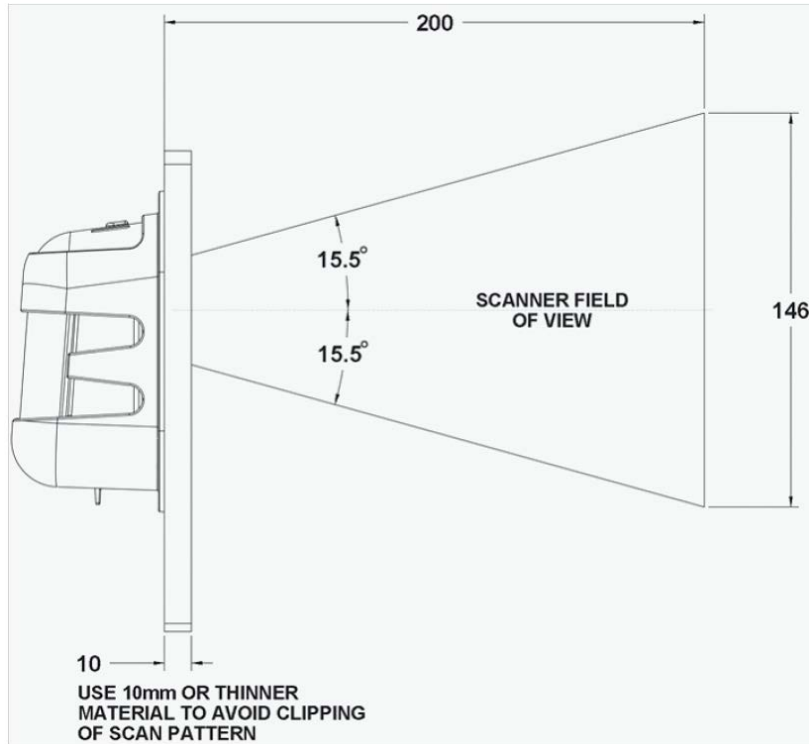
SCANNER CLEARANCE FOR INTEGRATION

To avoid damaging the M900i scanner by accidental impact or Electro Static Discharge, maintain 10mm/0.38" in clearance between the scanner and any other items in the customer enclosure (except front mounting surface).

EXIT WINDOW CLEARANCE

The opening or other parts of the host enclosure must not enter the Field of View of the scanner. The enclosure wall thickness should not exceed 10mm/0.38" to prevent clipping of the FoV, as shown in Figure 12 on page 310.

Figure 12 - Exit Window Clearance



MOUNTING TEMPLATE

The mounting templates on the following pages show the mounting holes for the scanner and two options for exit window size.



NOTE

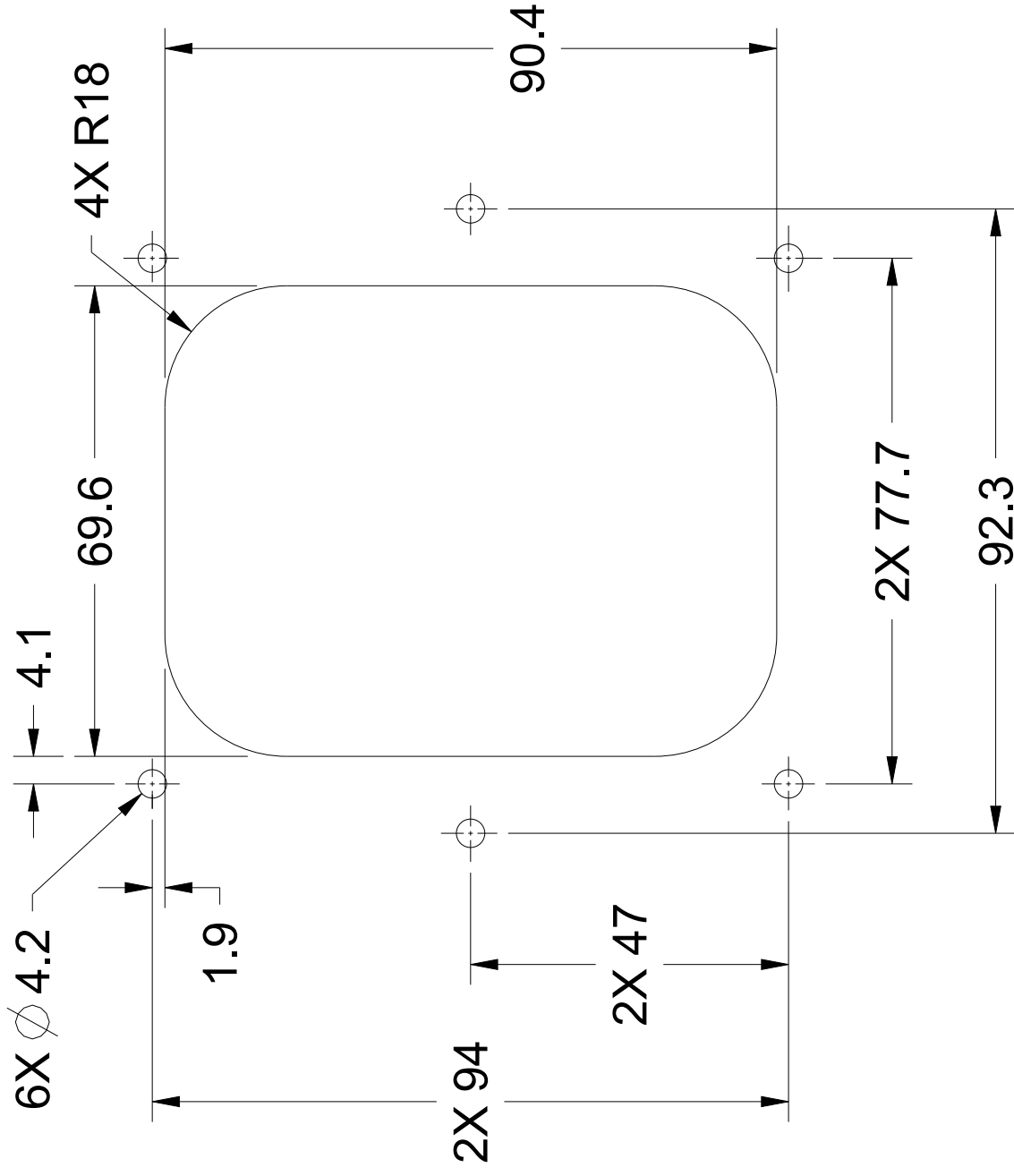
The Mounting Template drawing must be printed actual size to ensure proper dimensions.



NOTE

If you choose to use the small window opening, the good read beeper port will be covered and beep volume of the scanner will be reduced. In this case the scanner's beeper can be disabled and the External Read Indicator (ERI) signal on the scanner host connection used to trigger good read indicators in the POS/Kiosk.

**MOUNTING TEMPLATE - LARGE OPENING
PRINT THIS PAGE AT 1:1 SCALE**

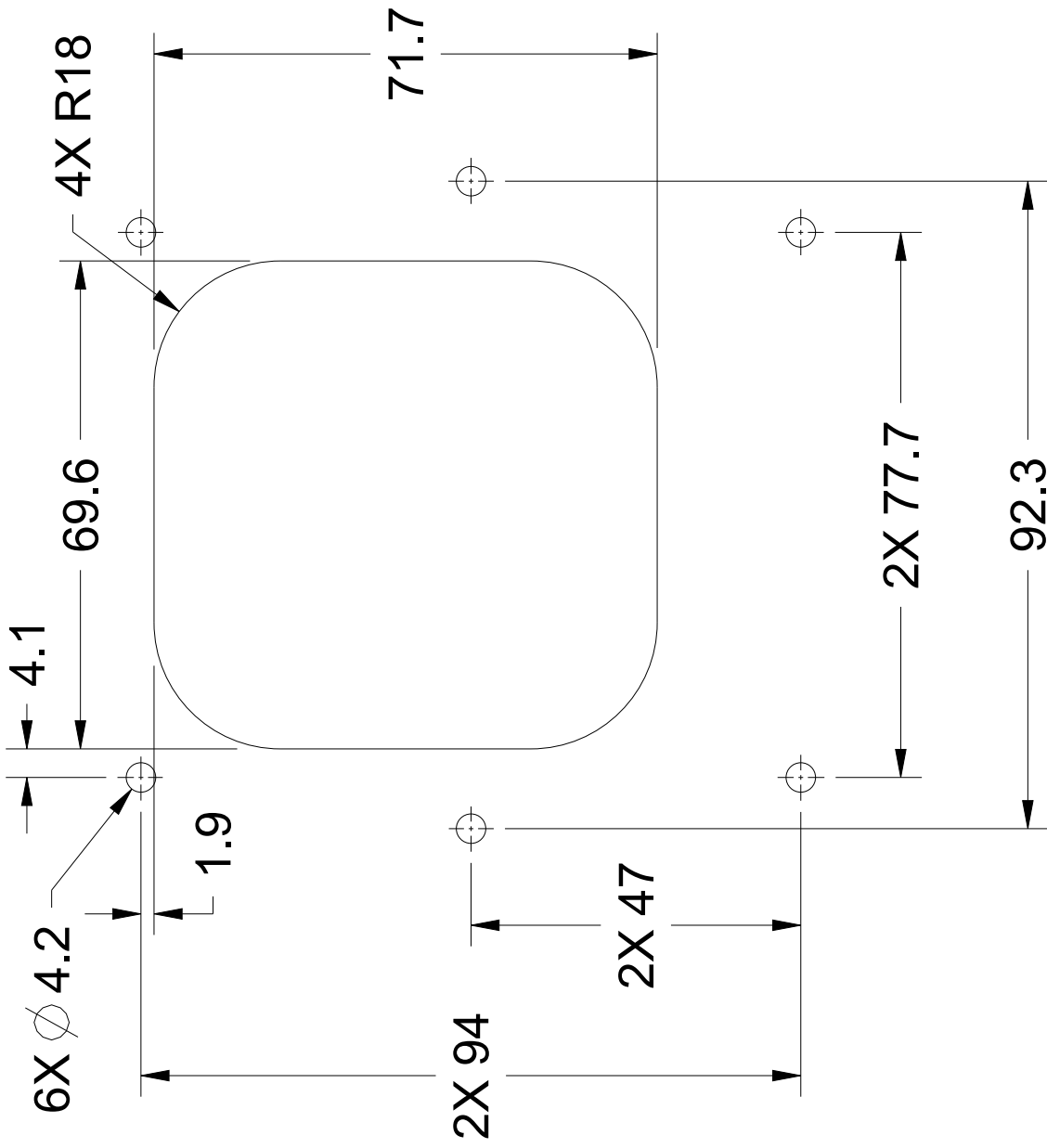


**LARGE OPENING
REPRESENTATION**



**USE 10mm OR THINNER MATERIAL TO AVOID
CLIPPING OF SCAN PATTERN**

**MOUNTING TEMPLATE - SMALL OPENING
PRINT THIS PAGE AT 1:1 SCALE**



**SMALL OPENING
REPRESENTATION**



**USE 10mm OR THINNER MATERIAL TO AVOID
CLIPPING OF SCAN PATTERN**

NOTES

APPENDIX A

PRODUCT SPECIFICATIONS

DECODING CAPABILITY

PARAMETER	SPECIFICATION
1D / Linear Codes	Autodiscriminates All Standard 1D Codes Including GS1 Databar™ Linear Codes.
2D Codes	Aztec Code; Data Matrix; MaxiCode, QR Code
Stacked Codes	GS1 Databar Composites; GS1 Databar Expanded Stacked; GS1 Databar Stacked; GS1 Databar Stacked Omnidirectional; MicroPDF417; PDF417
Postal Codes	Australian Post; British Post; Canadian Post; China Post; IMB; Japanese Post; KIX Post; Planet Code; Portuguese Post; Postnet; Royal Mail Code (RM4SCC); Swedish Post

ELECTRICAL

PARAMETER	SPECIFICATION
Input Voltage	5 VDC +/- 10%;
Current	Operating (Typical): < 300 mA Standby/Idle (Typical): < 170 mA

ENVIRONMENTAL

PARAMETER	SPECIFICATION
Ambient Light	0 - 86,100 Lux
Drop Resistance	Withstands repeated drops from 1.2 m / 4.0 ft onto a concrete surface
ESD Protection (Air Discharge)	25 kV
Humidity (Non-condensing)	5 - 95%
Particulate And Water Sealing	IP52
Temperature	Operating: 0 to 40 °C / 32 to 104 °F Storage/Transport: -40 to 70 °C / -40 to 158 °F

INTERFACES

PARAMETER	SPECIFICATION
Interface	USB Keyboard; USB COM; OEM (IBM) USB; RS-232

OPTIONAL FEATURES

PARAMETER	SPECIFICATION
EAS Features	Checkpoint Systems: Integrated EAS hardware will work with Counterpoint IX and Evolve D11 models Good Read Acknowledgment
Value Added Features	Diagnostic Reporting; Host Download; Magellan ULE Scripting

PHYSICAL CHARACTERISTICS

PARAMETER	SPECIFICATION
Colors	Black
Dimensions	Unit plus: Tilting Stand: 7.6 x 7.8 x 14 cm/ 3.0 x 3.1 x 5.5 in Kiosk/OEM: 10.3 x 7.7 x 11.9 cm/ 4.1 x 3.0 x 4.7 in
Weight	Tilting Stand: 345 g / 12.2 oz Kiosk/OEM: 200 g / 7.0 oz

READING PERFORMANCE

PARAMETER	SPECIFICATION
Aiming	LED aimer for precision scanning
Image Capture	1 MP; 1280 x 800 pixels; Graphic Formats: BMP, JPEG
Print Contrast Ratio (Minimum)	25%
Read Height	14.0 cm / 5.5 in
Reading Indicators	Beeper (Adjustable Tone and Volume); Datalogic 'Green Spot' Good Read Feedback; Good Read LED
Resolution (Maximum)	100 mm / 4 Mils

READING RANGES

PARAMETER	SPECIFICATION
Typical Depth Of Field (DOF)	Printing Resolution, Symbol Length, Scan Angle, Contrast and Ambient Light Dependent
1D / Linear Codes	5 mils: 2.5 to 11.0 cm / 1.0 to 4.3 in
	7.5 mils: 0.0 to 15.0 cm / 0.0 to 5.9 in
	10 mils: 0.0 to 18.0 cm / 0.0 to 7.1 in
	13 mils: UPC: 0.0 to 21.0 cm / 0.0 to 8.3 in
	20 mils: 0.0 to 28.0 cm / 0.0 to 11.0 in
2D Codes (Optional)	10mils DM: 1.0 to 13.0 cm / 0.4 to 5.1 in
	10mils PDF: 0.0 to 18.0 cm / 0.0 to 7.1 in
	15mils DM: 0.0 to 19.0 cm / 0.0 to 7.5 in

SAFETY & REGULATORY

PARAMETER	SPECIFICATION
Agency Approvals	The product meets necessary safety and regulatory approvals for its intended use.
Environmental Compliance	Complies to China RoHS; Complies to EU RoHS; Complies to UAE RoHS
LED Classification	EN62471 and IEC62471 Lamp Illumination Exempt Classification
Safety Standards	UL/EN/IEC62368-1 and CAN/CSA 22.2 No. 62368-1, 3rd Ed

UTILITIES

PARAMETER	SPECIFICATION
OPOS / JavaPOS	JavaPOS Utilities and OPOS Utilities are available for download at no charge.
Remote Host Download	Lowers service costs and improves operations.

WARRANTY

Warranty	3-year Factory Warranty
----------	-------------------------

LED AND BEEPER INDICATORS

The scanner's beeper sounds and its green LED illuminates to indicate various functions or errors on the scanner. The tables below list these indications. The scanner's functions are programmable, and so may or may not be turned on. For example, certain indications such as the power-up beep can be disabled using programming barcode labels.

LED INDICATION	INDICATION	COMMENT
Power-on indication	Bright green flash	Indicates the scanner has finished all its power up tests and is now ready for operation.
Good Read Indication	Bright green flash	Indicates a barcode has been read and decoded.
Scanner Ready	Constant dim green	The scanner is ready for operation. The LED is also configurable to off when idle and ready for operation.
Sleep Mode	Green LED slowly and continuously changes from off to dim to off.	The scanner is in Sleep Mode. To wake the scanner up, move an object in front of its window or press the button atop the unit. This indication is configurable and may be programmed to behave differently.
Host Disable	Constant green flash at 1 Hz (100mS on, 900mS off)	The scanner is disabled due to receiving a disable command from the POS terminal.
Diagnostics	Varies (see " Error Codes " on page A-322 for more information)	The LED can provide diagnostic feedback if the scanner discovers a problem during SelfTest.
Prog. Mode	See Host Disable above.	The scanner is in Programming Mode.

BEEPER INDICATION	INDICATION	COMMENT
Power On Beep	Single beep	The Power-On Beep indication is a configurable feature which can be enabled or disabled. When enabled, this beep Indicates the scanner has finished all its power up tests and is now ready for operation.
Good Read Indication	Single beep	The good read beep indication is configurable. Options include: Enable/disable, frequency, duration and volume. See LED and Beeper Indicators on page 57 for more information.
Diagnostics	Varies (see " Error Codes " on page A-322 for more information)	The Beeper can provide diagnostic feedback if the scanner discovers a problem during SelfTest.
Prog. Mode	Varies depending upon the feature(s) being configured.	The Beeper will sound as programming barcode labels are scanned, indicating progress during scanner configuration.

ERROR CODES

If an error is detected, the scanner will sound a long low tone (for three seconds) and flash its LED, indicating a failure. When this occurs, press the Scanner Pushbutton to hear the error code. If it is configured to do so, the scanner will sound a series of beeps corresponding to the error code and/or flash its LED simultaneous to the beeps. The table below describes what these codes mean and what action should be taken for each.

NUMBER OF LED FLASHES/ BEEPS	ERROR	CORRECTIVE ACTION
1	Configuration	Contact Helpdesk for assistance
2	Interface	
6	Main PCB	
10	Button Error	
11	USB Device	
12	Imager Module	
13	Software ID Failure	
14	Software Fatal Fault	

APPENDIX B

CABLE PINOUTS

STANDARD CABLE PINOUTS (PRIMARY INTERFACE CABLES)

PIN #	RS-232	USB, USB KEYBOARD, USB COM, USB-OEM
1		D+
2	CTS	
3		D-
4	RTS	
5	RxD	
6	TxD	
7	ERI	
8	Vin	VBUS
9	GND	GND

APPENDIX C

ALPHA-NUMERIC KEYPAD



A



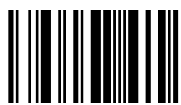
B



C



D



E



F



For numeric entry sequences, the scanner will announce the number of digits remaining to be entered after each label read.

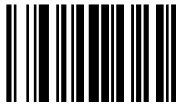
NOTE



1



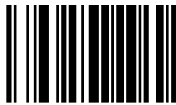
2



3



4



5



6



7



8



9



0

APPENDIX D

FACTORY DEFAULT SETTINGS

The following table provides a listing of the most common factory settings for the interfaces shown.



NOTE

Some of the individual interfaces listed in the defaults table below appear in the same column since they share similar feature settings with few (if any) exceptions.

Keep in mind though, that the actual configuration storage area for each interface is unique and that updates & changes to factory defaults can be made at any time without notice.

Factory Default Settings

FEATURE	DEFAULT MASTER	RS-232	RS-232 WINCOR-NIXDORF	KEYBOARD D	USB-COM	USB OEM
General Scanner Features						
1D Double Read Timeout	28 (400ms)	28 (400ms)	28 (400ms)	28 (400ms)	28 (400ms)	28 (400ms)
2D Double Read Timeout	46 (700ms)	46 (700ms)	46 (700ms)	46 (700ms)	46 (700ms)	46 (700ms)
Double Read Table Size	7 entries	7 entries	7 entries	7 entries	7 entries	7 entries
1D Inverse Read Control	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
2D Inverse Read Control	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Handheld State On Time	01 (2.0 seconds)	01 (2.0 seconds)	01 (2.0 seconds)	01 (2.0 seconds)	01 (2.0 seconds)	01 (2.0 seconds)
Center Zone Enable	0 (off)	0 (off)	0 (off)	0 (off)	0 (off)	0 (off)
Center Zone Size	0A (10 percent)	0A (10 percent)	0A (10 percent)	0A (10 percent)	0A (10 percent)	0A (10 percent)
Sleep Mode Timer	5 minutes	5 minutes	5 minutes	5 minutes	5 minutes	5 minutes
Power On Alert	01 (play tone)	01 (play tone)	01 (play tone)	01 (play tone)	01 (play tone)	01 (play tone)
External Read Indicator (ERI)	00 (low)	00 (low)	00 (low)	00 (low)	00 (low)	00 (low)

FEATURE	DEFAULT MASTER	RS-232	RS-232 WINCOR-NIXDORF	KEYBOARD	USB-COM	USB OEM
ERI Timeout	02 (20 mS)	02 (20 mS)	02 (20 mS)	02 (20 mS)	02 (20 mS)	02 (20 mS)
Good Read LED Idle State	02 (on dim)	02 (on dim)	02 (on dim)	02 (on dim)	02 (on dim)	02 (on dim)
Scanner Control Button Options	01(Enable Only Volume Tone and Reset)	01(Enable Only Volume Tone and Reset)	01(Enable Only Volume Tone and Reset)	01(Enable Only Volume Tone and Reset)	01(Enable Only Volume Tone and Reset)	01(Enable Only Volume Tone and Reset)
Good Read Beep Control	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
Good Read Beep Frequency	01 (med.)	01 (med.)	01 (med.)	01 (med.)	01 (med.)	01 (med.)
Good Read Beep Length	008 (80ms)	008 (80ms)	008 (80ms)	008 (80ms)	008 (80ms)	008 (80ms)
Good Read Beep Volume	03 (med. high)	03 (med. high)	03 (med. high)	03 (med. high)	03 (med. high)	03 (med. high)
Good Read When to Indicate	00 (after decode)	00 (after decode)	00 (after decode)	00 (after decode)	00 (after decode)	00 (after decode)
Illumination During Disable Mode	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
Green Spot Enable	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
Green Spot Duration Time	1E (300 mS)	1E (300 mS)	1E (300 mS)	1E (300 mS)	1E (300 mS)	1E (300 mS)
Imaging Features						
Image Format	00 (JPG)	00 (JPG)	00 (JPG)	00 (JPG)	00 (JPG)	00 (JPG)
Image Size	02 (Full size)	02 (Full size)	02 (Full size)	02 (Full size)	02 (Full size)	02 (Full size)
Image Brightness	Level 0	Level 0	Level 0	Level 0	Level 0	Level 0
Image Contrast	Level 0	Level 0	Level 0	Level 0	Level 0	Level 0
Image Compression	64 (Compression = 100)	64 (Compression = 100)	64 (Compression = 100)	64 (Compression = 100)	64 (Compression = 100)	64 (Compression = 100)
Region of Interest (ROI)	000004FF0 000031F (full size)	000004FF0 000031F (full size)	000004FF0 000031F (full size)	000004FF0 000031F (full size)	000004FF0 000031F (full size)	000004FF0 000031F (full size)
Cell Phone Mode	02 (Medium)	02 (Medium)	02 (Medium)	02 (Medium)	02 (Medium)	02 (Medium)
Interface Related Features						
Ignore Host Commands	00 (don't ignore)	00 (don't ignore)	00 (don't ignore)	00 (don't ignore)	00 (don't ignore)	00 (don't ignore)

FEATURE	DEFAULT MASTER	RS-232	RS-232 WINCORNIXDORF	KEYBOARD	USB-COM	USB OEM
USB Keyboard Features	00 (disable)	00 (disable)	00 (disable)	01 (enable)	00 (disable)	00 (disable)
USB Keyboard Country Mode	00 (USA)			00 (USA)		
USB Keyboard Intercharacter Delay	00 (1ms)			00 (1ms)		
USB Keyboard - ALT Mode Type	01 - ALT Unicode (for Unicode Applications)			01 - ALT Unicode (for Unicode Applications)		
USB Keyboard - ALT Mode Only	00 (Disable)			00 (Disable)		
USB Keyboard - Use NUMPAD	00 (Disable)			00 (Disable)		
USB Keyboard - Control Mode	00 (Send Ctrl Key)			00 (Send Ctrl Key)		
USB-OEM Features	40 (Rev D)	00	00	40 (Rev D)	40 (Rev D)/00	46
USB OEM Scanner Device Type	00 (table top)					00 (table top)
RS-232 Interface Features	00 (disabled upon enumeration)					00 (disabled upon enumeration)
RS-232 Baud Rate	01 (9600)	01 (9600)	01 (9600)		01 (9600)	
RS-232 Number of Data Bits	01 (8 data bits)	01 (8 data bits)	01 (8 data bits)		01 (8 data bits)	
RS-232 Number of Stop Bits	00 (1 stop bit)	00 (1 stop bit)	00 (1 stop bit)		00 (1 stop bit)	
RS-232 Parity	00 (none)	00 (none)	02 (odd)		00 (none)	
RS-232 Hardware Control	00 (disable)	00 (disable)	01 (enable CTS flow control)		00 (disable)	
RS-232 Software Flow Control	00 (disable)	00 (disable)	00 (disable)		00 (disable)	
RS-232 Beep on ASCII BEL	00 (disable)	00 (disable)	00 (disable)		00 (disable)	

FEATURE	DEFAULT MASTER	RS-232	RS-232 WINCOR-NIXDORF	KEYBOARD	USB-COM	USB OEM
Beep on Not on File	01 (low vol)	01 (low vol)	01 (low vol)		01 (low vol)	01 (low vol)
ACK NAK Enable	00 (disable)	00 (disable)	00 (disable)		00 (disable)	
RS-232 ACK Character	06 (ACK)	06 (ACK)	06 (ACK)		06 (ACK)	
RS-232 NAK Character	15 (NAK)	15 (NAK)	15 (NAK)		15 (NAK)	
RS-232 Retry on ACK NAK Timeout	01 (enable)	01 (enable)	01 (enable)		01 (enable)	
RS-232 ACK NAK Timeout Value	01 (200ms)	01 (200ms)	01 (200ms)		01 (200ms)	
RS-232 ACK NAK Retry Count	03 (3 retries)	03 (3 retries)	03 (3 retries)		03 (3 retries)	
RS-232 ACK NAK Error Handling	00 (ignore)	00 (ignore)	00 (ignore)		00 (ignore)	
RS-232 Indicate Transmission Failure	01 (enable)	01 (enable)	01 (enable)		01 (enable)	
Data Editing						
Global Prefix	00 (no prefix)	00 (no prefix)	00 (no prefix)	00 (no prefix)	00 (no prefix)	00 (no prefix)
Global Suffix	0D00 (CR)	0D00 (CR)	0D00 (CR)	0D00 (CR)	0D00 (CR)	0D00 (CR)
AIM ID	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	
Label ID	01 (Enable as prefix)	01 (Enable as prefix)	01 (Enable as prefix)	01 (Enable as prefix)	01 (Enable as prefix)	
Global Mid-Label ID	00 (no mid-label ID)	00 (no mid-label ID)	00 (no mid-label ID)	00 (no mid-label ID)	00 (no mid-label ID)	
Case Conversion	00 (no case convers'n)	00 (no case convers'n)	00 (no case convers'n)	00 (no case convers'n)	00 (no case convers'n)	00 (no case convers'n)
Character Conversion	FFFFFFFF FFFFFFFF (no char. convers'n)	FFFFFFFF FFFFFFFF (no char. convers'n)	FFFFFFFF FFFFFFFF (no char. convers'n)	FFFFFFFF FFFFFFFF (no char. convers'n)	FFFFFFFF FFFFFFFF (no char. convers'n)	FFFFFFFF FFFFFFFF (no char. convers'n)
1D Symbology Programming						

FEATURE	DEFAULT MASTER	RS-232	RS-232 WINCOR-NIXDORF	KEYBOARD	USB-COM	USB OEM
Coupon Control Enable	02 (Enable GS1 DataBar Expanded Coupons)	02 (Enable GS1 DataBar Expanded Coupons)	02 (Enable GS1 DataBar Expanded Coupons)	02 (Enable GS1 DataBar Expanded Coupons)	02 (Enable GS1 DataBar Expanded Coupons)	02 (Enable GS1 DataBar Expanded Coupons)
Coupon Label Priority Timer	0.2 Sec.	0.2 Sec.	0.2 Sec.	0.2 Sec.	0.2 Sec.	0.2 Sec.
UPC-A Enable	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
UPC-A Number System Character Transmission	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
UPC-A Check Character Transmission	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
UPC-A Minimum Read	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)
Expand UPC-A to EAN-13	00 (disable)	00 (disable)	01 (enable)	00 (disable)	00 (disable)	00 (disable)
UPC-E Enable	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
UPC-E Number System Character Transmission	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
UPC-E Check Character Transmission	01 (enable)	01 (enable)	00 (disable)	01 (enable)	01 (enable)	01 (enable)
Expand UPC-E to UPC-A	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Expand UPC-E to EAN-13	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
UPC-E Minimum Read	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)
EAN-13	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
EAN-13 First Character Transmission	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
EAN-13 Check Character Transmission	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
EAN-13 ISBN Conversion Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
EAN-13 Minimum Read	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)
EAN-8	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
EAN-8 Check Character Transmission	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)

FEATURE	DEFAULT MASTER	RS-232	RS-232 WINCOR-NIXDORF	KEYBOARD	USB-COM	USB OEM
Expand EAN-8 to EAN-13	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
EAN-8 Minimum Read	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)
EAN-8 Guard Insertion	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
EAN-8 Guard Substitution	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
EAN-8 Stitch Exact Label Halves	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
EAN-8 Stitch Unlike Label Halves	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
EAN-8 Decoding Levels	01 (very conservative)	01 (very conservative)	01 (very conservative)	01 (very conservative)	01 (very conservative)	01 (very conservative)
In-Store Printed Label Minimum Read	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)
UPC/EAN Correlation	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
UPC/EAN Guard Insertion	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
UPC/EAN Stitch Exact Label Halves	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
UPC/EAN Stitch Unlike Label Halves	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
UPC/EAN Minimum Segment Length	05 (5 char.)	05 (5 char.)	05 (5 char.)	05 (5 char.)	05 (5 char.)	05 (5 char.)
Price Weight Check	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Enable EAN Two Label	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
EAN Two Label Minimum Read	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)
EAN Two Label Combined Transmission	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	
Add-ons	disable all	disable all	disable all	disable all	disable all	disable all
P2 Add-on Minimum Read	02 (2 reads)	02 (2 reads)	02 (2 reads)	02 (2 reads)	02 (2 reads)	02 (2 reads)

FEATURE	DEFAULT MASTER	RS-232	RS-232 WINCOR-NIXDORF	KEYBOARD	USB-COM	USB OEM
P5 Add-on Minimum Read	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)
UPC/EAN Composites	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
GTIN	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	
DataBar Omnidirectional Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
DataBar Omnidirectional/EAN-128 Emulation	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
DataBar Omnidirectional 2D Component Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
DataBar Omnidirectional Minimum Read	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)
DataBar Omnidirectional Double Read Timeout	2.5 Sec.	2.5 Sec.	2.5 Sec.	2.5 Sec.	2.5 Sec.	2.5 Sec.
DataBar Limited Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
DataBar Limited Minimum Read	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)
DataBar Limited 2D Component Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
DataBar Limited EAN128 Emulation Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
DataBar Expanded	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
DataBar Expanded EAN-128 Emulation	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
DataBar Expanded 2D Component Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
DataBar Expanded Minimum Read	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)
DataBar Expanded Length Control	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)
DataBar Expanded Length 1	01	01	01	01	01	01
DataBar Expanded Length 2	4A	4A	4A	4A	4A	4A

FEATURE	DEFAULT MASTER	RS-232	RS-232 WINCOR-NIXDORF	KEYBOARD	USB-COM	USB OEM
DataBar Expanded Reverse Retry	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code 39	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
Code 39 Start Stop Character Transmission	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code 39 Check Character Calculation	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code 39 Check Character Transmission	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
Code 39 Full ASCII	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code 39 Minimum Read	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)
Code 39 Length Control	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)
Code 39 Length 1	02	02	02	02	02	02
Code 39 Length 2	32	32	32	32	32	32
Code 32 Italian Pharmacode	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code 32 Start Stop Character Transmission	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code 32 Check Character Transmission	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	
Code 128	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
Code 128 Transmit Function Characters	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Expand Code128 to Code 39	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code 128 Minimum Read	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)
Code 128 Length Control	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)
Code 128 Length 1	01	01	01	01	01	01
Code 128 Length 2	50	50	50	50	50	50
Code 128 Stitching	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)

FEATURE	DEFAULT MASTER	RS-232	RS-232 WINCOR-NIXDORF	KEYBOARD	USB-COM	USB OEM
EAN-128	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Interleaved 2 of 5 (I 2 OF 5)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
I 2 of 5 Check Character Calculation	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
I 2 of 5 Check Character Transmission	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
I 2 of 5 Minimum Read	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)
I 2 of 5 Length Control	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)
I 2 of 5 Length 1	06	06	06	06	06	06
I 2 of 5 Length 2	32	32	32	32	32	32
Codabar	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Codabar Start Stop Character Transmission	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
Codabar Start Stop Character Set	03 (abcd/abcd)	03 (abcd/abcd)	03 (abcd/abcd)	03 (abcd/abcd)	03 (abcd/abcd)	03 (abcd/abcd)
Codabar Start Stop Character Match	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Codabar Check Character Calculation	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Codabar Check Character Transmission	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
Codabar Minimum Read	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)
Codabar Length Control	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)
Codabar Length 1	03	03	03	03	03	03
Codabar Length 2	32	32	32	32	32	32
Codabar Require Margins	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code 93	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)

FEATURE	DEFAULT MASTER	RS-232	RS-232 WINCOR-NIXDORF	KEYBOARD	USB-COM	USB OEM
Code 93 Minimum Read	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)
Code 93 Length Control	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)
Code 93 Length 1	01	01	01	01	01	01
Code 93 Length 2	32	32	32	32	32	32
MSI	00 (dis- able)	00 (dis- able)	00 (dis- able)	00 (dis- able)	00 (dis- able)	
MSI Check Character Calculation	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	
MSI Number of Check Characters	00 (1 char)	00 (1 char)	00 (1 char)	00 (1 char)	00 (1 char)	
MSI Check Character Transmission	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	
MSI Minimum Read	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	
MSI Length Control	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)	
MSI Length 1	04	04	04	04	04	
MSI Length 2	10	10	10	10	10	
Standard 2 of 5	00 (dis- able)	00 (dis- able)	00 (dis- able)	00 (dis- able)	00 (dis- able)	00 (dis- able)
Standard 2 of 5 Check Character Calculation	00 (dis- able)	00 (dis- able)	00 (dis- able)	00 (dis- able)	00 (dis- able)	00 (dis- able)
Standard 2 of 5 Check Character Transmission	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
Standard 2 of 5 Minimum Read	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)	01 (1 read)
Standard 2 of 5 Correlation	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Standard 2 of 5 Length Control	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)
Standard 2 of 5 Length 1	08	08	08	08	08	08
Standard 2 of 5 Length 2	32	32	32	32	32	32
IATA Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)

FEATURE	DEFAULT MASTER	RS-232	RS-232 WINCOR-NIXDORF	KEYBOARD	USB-COM	USB OEM
IATA Check Character Transmission	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
Plessey Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Plessey Check Character Calculation	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Plessey Length Control	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)
Plessey Length 1	01 (length = 1)	01 (length = 1)	01 (length = 1)	01 (length = 1)	01 (length = 1)	01 (length = 1)
Plessey Length 2	32 (length=50)	32 (length=50)	32 (length=50)	32 (length=50)	32 (length=50)	32 (length=50)
Anker Plessey Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Anker Plessey Check Character Calculation	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code 39 CIP Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code 39 CIP Start Stop Character Transmission	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Trioptic Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code39 Pzn Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code39 Pzn Check Character Calculation	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code39 Pzn Check Character Transmission	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
Code39 Pzn Start Stop Character Transmission	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code128 Isbt Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
I25 Cip Hr Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
I25 Cip Hr Check Character Calculation	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
I25 Follett Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)

FEATURE	DEFAULT MASTER	RS-232	RS-232 WINCOR-NIXDORF	KEYBOARD	USB-COM	USB OEM
2D Symbology Programming						
Data Matrix	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
Data Matrix Length Control	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)
Set Data Matrix Length 1	0001	0001	0001	0001	0001	0001
Set Data Matrix Length 2	0320	0320	0320	0320	0320	0320
GS1 Datamatrix Enable	00 (transmit as std Data-matrix label)	00 (transmit as std Data-matrix label)	01 (transmit as GS1 Data-matrix label)	00 (transmit as std Data-matrix label)	00 (transmit as std Data-matrix label)	00 (transmit as std Data-matrix label)
PDF 417 Enable	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
PDF 417 Length Control	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)
Set PDF 417 Length 1	0001	0001	0001	0001	0001	0001
Set PDF 417 Length 2	0A96	0A96	0A96	0A96	0A96	0A96
PDF 417 Read Option	00 (none)	00 (none)	00 (none)	00 (none)	00 (none)	00 (none)
Micro PDF 417	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Micro PDF 417 Length Control	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)
Set Micro PDF 417 Length 1	0001	0001	0001	0001	0001	0001
Set Micro PDF 417 Length 2	016E	016E	016E	016E	016E	016E
Micro PDF 417 128 Emulation	00 (Micro PDF 417 AIM ID & label type)	00 (Micro PDF 417 AIM ID & label type)	00 (Micro PDF 417 AIM ID & label type)	00 (Micro PDF 417 AIM ID & label type)	00 (Micro PDF 417 AIM ID & label type)	00 (Micro PDF 417 AIM ID & label type)
QR Code	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
QR Code Length Control	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)
Set QR Code Length 1	0001	0001	0001	0001	0001	0001
Set QR Code Length 2	0A96	0A96	0A96	0A96	0A96	0A96

FEATURE	DEFAULT MASTER	RS-232	RS-232 WINCOR-NIXDORF	KEYBOARD	USB-COM	USB OEM
QR Code URL Link Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
GS1 QR Code Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Micro QR Code	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Micro QR Code Length Control	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)
Set Micro QR Code Length 1	0001	0001	0001	0001	0001	0001
Set Micro QR Code Length 2	0E74	0E74	0E74	0E74	0E74	0E74
Aztec Code	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
Aztec Length Control	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)
Set Aztec Length 1	0001	0001	0001	0001	0001	0001
Set Aztec Length 2	0E74	0E74	0E74	0E74	0E74	0E74
Han Xin Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Han Xin Length Control	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)
Set Han Xin Length 1	0001 (length = 1)	0001 (length = 1)	0001 (length = 1)	0001 (length = 1)	0001 (length = 1)	0001 (length = 1)
Set Han Xin Length 2	0320	0320	0320	0320	0320	0320
Maxicode Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Maxicode Length Control	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)	00 (variable)
Maxicode Length 1	001 (length = 1)	001 (length = 1)	001 (length = 1)	001 (length = 1)	001 (length = 1)	001 (length = 1)
Maxicode Length 2	08A (length = 138)	08A (length = 138)	08A (length = 138)	08A (length = 138)	08A (length = 138)	08A (length = 138)
Postal Code Symbology Programming						
Postnet Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)

FEATURE	DEFAULT MASTER	RS-232	RS-232 WINCOR-NIXDORF	KEYBOARD	USB-COM	USB OEM
Postnet Check Character Calculation	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Planet Code Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Planet Check Character Calculation	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Royal Mail Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Royal Mail Check Character Calculation	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Kix Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Australian Post Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Japan Post Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
IMB Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Sweden Post Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Portugal Post Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code39 Danish Ptt Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code39 Danish Ptt Check Character Calculation	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code39 Danish Ptt Check Character Transmission	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)
Code39 Danish Ptt Start Stop Character Transmission	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code39 Laposte Enable	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code39 Laposte Check Character Calculation	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)
Code39 Laposte Check Character Transmission	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)	01 (enable)

FEATURE	DEFAULT MASTER	RS-232	RS-232 WINCOR-NIXDORF	KEYBOARD	USB-COM	USB OEM
Code39 Laposte Start Stop Character Transmission	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)	00 (disable)

APPENDIX E

SCANCODE TABLES

CONTROL CHARACTER EMULATION

Control character emulation selects from different scancode tables as listed in this appendix. Each of the control character sets below are detailed by interface type in the tables. These apply to Wedge and USB Keyboard platforms.

Control Character 00 : Characters from 00 to 0x1F are sent as control character Ctrl+Keys, special keys are located from 0x80 to 0xA1.

Control Character 01 : Characters from 00 to 0x1F are sent as control character Ctrl+Capital Key, special keys are located from 0x80 to 0xA1.

Control Character 02 : Special keys are located from 00 to 0x1F and characters from 0x80 to 0xFE are intended as an extended ASCII table (Microsoft Windows Codepage 1252).

Single Press and Release Keys

In the following tables, Ar↓ means Alt right pressed and Ar↑ means Alt right released and so on. Definitions for other keys are Al (Alt left), Cr (Control Right) Cl (Control Left) Sh (shift). This method can be used for combining Alt, Control or Shift with other keys.

Example: Consider a Control character set to 00. If AltRight+A is required before sending a label to the host, it could be done by setting three Prefix keys in this way: 0x99 0x41 0x9A.

INTERFACE TYPE PC AT PS/2, USB-KEYBOARD OR USB-KEYBOARD FOR APPLE

Table 1. Scancode Set When Control Character is 00 or 01

	x0	x1	x2	x3	x4	x5	x6	x7	x8	x9	xA	xB	xC	xD	xE	xF
0x	NULL C+@	SOH C(S)+A	STX C(S)+B	ETX C(S)+C	EOT C(S)+D	ENQ C(S)+E	ACK C(S)+F	BEL C(S)+G	BS CAN C(S)+X	HT TAB EM C(S)+Y	LF C(S)+J	VT C(S)+K	FF C(S)+L	CR Enter GS C+]	SO C(S)+N	SI C(S)+O
1x	DLE C(S)+P	DC1 C(S)+Q	DC2 C(S)+R	DC3 C(S)+S	DC4 C(S)+T	NAK C(S)+U	SYN C(S)+V	ETB C(S)+W	CAN C(S)+X	EM C(S)+Y	SUB C(S)+Z	ESC Esc	FS C+^	GS C+]	RS C+^	US C(S)+_
2x	SP	!	"	#	\$	%	&	'	()	*	+	,	-	.	/
3x	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
4x	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
5x	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_
6x	,	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
7x	p	q	r	s	t	u	v	w	x	y	z	{	|	}	~	Del
8x	€	Sh↓	Sh↑	Ins	Ent (keyp)	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11
9x	F12	Home	End	Pg Up	Pg Dwn	↑	↓	←	→	Ar↓	Ar↑	Al↓	Al↑	Cl↓	Cl↑	Cr↓
Ax	Cr↑	'	”	<i>f</i>	”	...	†	‡	^	%	Š	◀	Š	◀	œ	
Bx	°	±	’	³	’	μ	¶	·	,	ı	¼	»	¼	½	¾	ı
Cx	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
Dx	Ð	Ò	Ó	Ô	Õ	Ö	Ø	×	Ù	Ú	Û	Ü	Ý	Þ	ß	
Ex	à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
Fx	ø	ñ	ò	ó	ô	õ	ö	÷	ø	ù	ú	û	ü	ý	þ	ÿ

Extended characters (sky blue) are sent through dedicated keys (when available in the selected country mode) or by using an Alt Mode sequence.

INTERFACE TYPE PC AT PS/2, USB-KEYBOARD OR USB-KEYBOARD FOR APPLE — CONT.

Table 2. Scancode Set When Control Character is 02

	x0	x1	x2	x3	x4	x5	x6	x7	x8	x9	xA	xB	xC	xD	xE	xF
0x	Ar↓	Ar↑	Al↓	Al↑	Cl↓	Cl↑	Cr↓	Cr↑	BS	Tab	→	S+ Tab	Enter Keyprd	Enter	Ins	Pg Up
1x	Pg Dwn	Home	←	↓	↑	F6	F1	F2	F3	F4	F5	ESC	F7	F8	F9	F10
2x	Space	!	“	#	\$	%	&	'	()	*	+	,	-	.	/
3x	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
4x	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
5x	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_
6x	,	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
7x	p	q	r	s	t	u	v	w	x	y	z	{	|	}	~	Del
8x	€	'	'	f	”	...	†	‡	^	%	Š	<	Š	<	œ	
9x		'	'	“	”	•	—	—	~	™	š	>	œ		ž	ÿ
Ax	NBSP	i	ø	£	¤	¥	¦	§	¨	©	ª	«	¬	-	®	-
Bx	°	±	²	³	´	µ	¶	·	¸	¹	º	»	¼	½	¾	¿
Cx	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
Dx	Ð		Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	Þ	ß
Ex	à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
Fx	ð	ñ	ò	ó	ô	õ	ö	÷	ø	ù	ú	û	ü	ý	þ	ÿ

INTERFACE TYPE PC AT PS/2 ALT MODE OR USB-KEYBOARD ALT MODE

Table 3. Scancode Set When Control Character is 00 or 01

	x0	x1	x2	x3	x4	x5	x6	x7	x8	x9	xA	xB	xC	xD	xE	xF
0x	Alt+000	Alt+001	Alt+002	Alt+003	Alt+004	Alt+005	Alt+006	Alt+007	BS	HT TAB	Alt+010	Alt+011	Alt+012	CR Enter	Alt+014	Alt+015
1x	Alt+016	Alt+017	Alt+018	Alt+019	Alt+020	Alt+021	Alt+022	Alt+023	Alt+024	Alt+025	Alt+026	ESC Esc	Alt+028	Alt+029	Alt+030	Alt+031
2x	A+032	A+033	A+034	A+035	A+036	A+037	A+038	A+039	A+040	A+041	A+042	A+043	A+044	A+045	A+046	A+047
3x	A+048	A+049	A+050	A+051	A+052	A+053	A+054	A+055	A+056	A+057	A+058	A+059	A+060	A+061	A+062	A+063
4x	A+064	A+065	A+066	A+067	A+068	A+069	A+070	A+071	A+072	A+073	A+074	A+075	A+076	A+077	A+078	A+079
5x	A+080	A+081	A+082	A+083	A+084	A+085	A+086	A+087	A+088	A+089	A+090	A+091	A+092	A+093	A+094	A+095
6x	A+096	A+097	A+098	A+099	A+100	A+101	A+102	A+103	A+104	A+105	A+106	A+107	A+108	A+109	A+110	A+111
7x	A+112	A+113	A+114	A+115	A+116	A+117	A+118	A+119	A+120	A+121	A+122	A+123	A+124	A+125	A+126	A+127
8x	€	Sh↓	Sh↑	Ins	Ent (keyp)	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11
9x	F12	Home	End	Pg Up	Pg Dwn	↑	↓	←	→	Ar↓	Ar↑	Al↓	Al↑	Cl↓	Cl↑	Cr↓
Ax	Cr↑	A+0161	A+0162	A+0163	A+0164	A+0165	A+0166	A+0167	A+0168	A+0169	A+0170	A+0171	A+0172	A+0173	A+0174	A+0175
Bx	A+0176	A+0177	A+0178	A+0179	A+0180	A+0181	A+0182	A+0183	A+0184	A+0185	A+0186	A+0187	A+0188	A+0189	A+0190	A+0191
Cx	A+0192	A+0193	A+0194	A+0195	A+0196	A+0197	A+0198	A+0199	A+0200	A+0201	A+0202	A+0203	A+0204	A+0205	A+0206	A+0207
Dx	A+0208	A+0209	A+0210	A+0211	A+0212	A+0213	A+0214	A+0215	A+0216	A+0217	A+0218	A+0219	A+0220	A+0221	A+0222	A+0223
Ex	A+0224	A+0225	A+0226	A+0227	A+0228	A+0229	A+0230	A+0231	A+0232	A+0233	A+0234	A+0235	A+0236	A+0237	A+0238	A+0239
Fx	A+0240	A+0241	A+0242	A+0243	A+0244	A+0245	A+0246	A+0247	A+0248	A+0249	A+0250	A+0251	A+0252	A+0253	A+0254	A+0255

INTERFACE TYPE PC AT PS/2 ALT MODE OR USB-KEYBOARD ALT MODE — CONT.

Table 4. Scancode Set When Control Character is 02

	x0	x1	x2	x3	x4	x5	x6	x7	x8	x9	xA	xB	xC	xD	xE	xF
0x	Arl	Ar↑	Al↓	Al↑	Cl↓	Cl↑	Cr↓	Cr↑	BS	Tab	→	S+ Tab	Enter Keypd	Enter	Ins	Pg Up
1x	Pg Dwn	Home	←	↓	↑	F6	F1	F2	F3	F4	F5	ESC	F7	F8	F9	F10
2x	A+032	A+033	A+034	A+035	A+036	A+037	A+038	A+039	A+040	A+041	A+042	A+043	A+044	A+045	A+046	A+047
3x	A+048	A+049	A+050	A+051	A+052	A+053	A+054	A+055	A+056	A+057	A+058	A+059	A+060	A+061	A+062	A+063
4x	A+064	A+065	A+066	A+067	A+068	A+069	A+070	A+071	A+072	A+073	A+074	A+075	A+076	A+077	A+078	A+079
5x	A+080	A+081	A+082	A+083	A+084	A+085	A+086	A+087	A+088	A+089	A+090	A+091	A+092	A+093	A+094	A+095
6x	A+096	A+097	A+098	A+099	A+100	A+101	A+102	A+103	A+104	A+105	A+106	A+107	A+108	A+109	A+110	A+111
7x	A+112	A+113	A+114	A+115	A+116	A+117	A+118	A+119	A+120	A+121	A+122	A+123	A+124	A+125	A+126	A+127
8x	A+0128	A+0129	A+0130	A+0131	A+0132	A+0133	A+0134	A+0135	A+0136	A+0137	A+0138	A+0139	A+0140	A+0141	A+0142	A+0143
9x	A+0144	A+0145	A+0146	A+0147	A+0148	A+0149	A+0150	A+0151	A+0152	A+0153	A+0154	A+0155	A+0156	A+0157	A+0158	A+0159
Ax	A+0160	A+0161	A+0162	A+0163	A+0164	A+0165	A+0166	A+0167	A+0168	A+0169	A+0170	A+0171	A+0172	A+0173	A+0174	A+0175
Bx	A+0176	A+0177	A+0178	A+0179	A+0180	A+0181	A+0182	A+0183	A+0184	A+0185	A+0186	A+0187	A+0188	A+0189	A+0190	A+0191
Cx	A+0192	A+0193	A+0194	A+0195	A+0196	A+0197	A+0198	A+0199	A+0200	A+0201	A+0202	A+0203	A+0204	A+0205	A+0206	A+0207
Dx	A+0208	A+0209	A+0210	A+0211	A+0212	A+0213	A+0214	A+0215	A+0216	A+0217	A+0218	A+0219	A+0220	A+0221	A+0222	A+0223
Ex	A+0224	A+0225	A+0226	A+0227	A+0228	A+0229	A+0230	A+0231	A+0232	A+0233	A+0234	A+0235	A+0236	A+0237	A+0238	A+0239
Fx	A+0240	A+0241	A+0242	A+0243	A+0244	A+0245	A+0246	A+0247	A+0248	A+0249	A+0250	A+0251	A+0252	A+0253	A+0254	A+0255

APPENDIX F

HOST COMMANDS

ACCEPTING RS-232 AND USB COM COMMANDS

The scanner responds to the following RS-232, RS232-WN and USB COM commands:

COMMAND	ASCII	HEX	COMMENT
Enable Scanner	E	0x45	
Disable Scanner	D	0x44	
Reset Scanner	R	0x52	
Not On File Indication	F	0x46	Long series of beeps
Beep Good Read Tone	B	0x42	Beeps if Good Read Beep is enabled
Force Good Read Tone	n/a	0x01	Beeps regardless of beep setting
Identification request	i	0x69	Returns long response ^a
Health request	h	0x68	Returns long response ^a
Status request	s	0x73	Returns long response ^a
Beep on ASCII BEL	!	0x07	Beeps if Beep on ASCII BEL is enabled

a. Call Tech Support for information.

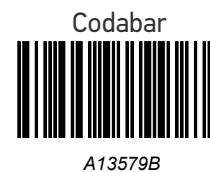
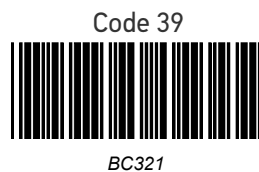
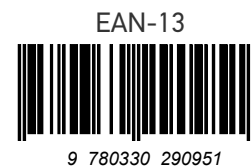
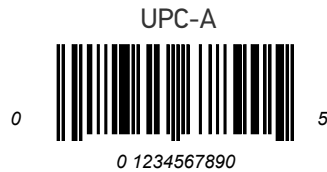
If one of the above commands is received, the scanner will perform the steps indicated for the command. Host commands for other interfaces are also available. Contact Tech Support for more details.

Information about additional features can be found in "[Image Capture to the Host by Host Command](#)" on page 40.

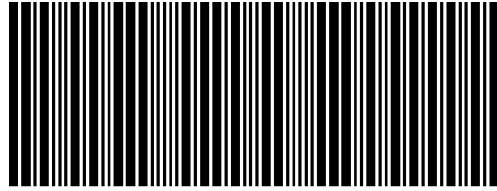
APPENDIX G

SAMPLE SYMBOLS

1D SYMBOL SAMPLES



Code 2 of 5



123456

GS1 DataBar Omnidirectional



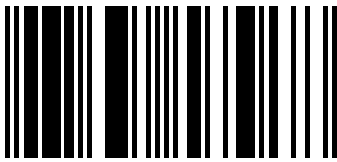
(01)00123456789012

GS1 DataBar Expanded



0100123456789050

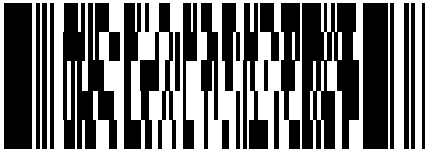
GS1 DataBar Limited



(01)16543210987654

2D SAMPLE SYMBOLS

PDF 417



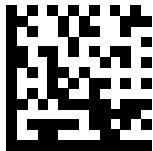
A12B3C

Micro PDF 417



BV17453

Datamatrix



1314H17LL

QR Code



35900G9

Micro QR Code



ABCDEF

Aztec



This is an Aztec Code

COMPOSITE SAMPLE SYMBOLS

GS1 DataBar Limited Composite

(17) 050923 (10) ABC123



(01) 0 4012345 67890 1

GS1 DataBar Truncated Composite

(17)050923(10)ABC123



(01) 09876543217899

NOTES

ASCII Character Set

ASCII Char.	Hex No.	ASCII Char.	Hex No.	ASCII Char.	Hex No.	ASCII Char.	Hex No.
NUL	00	SP	20	@	40	'	60
SOH	01	!	21	A	41	a	61
STX	02	"	22	B	42	b	62
ETX	03	#	23	C	43	c	63
EOT	04	\$	24	D	44	d	64
ENQ	05	%	25	E	45	e	65
ACK	06	&	26	F	46	f	66
BEL	07	'	27	G	47	g	67
BS	08	(	28	H	48	h	68
HT	09	)	29	I	49	i	69
LF	0A	*	2A	J	4A	j	6A
VT	0B	+	2B	K	4B	k	6B
FF	0C	,	2C	L	4C	l	6C
CR	0D	-	2D	M	4D	m	6D
SO	0E	.	2E	N	4E	n	6E
SI	0F	/	2F	O	4F	o	6F
DLE	10	0	30	P	50	p	70
DC1	11	1	31	Q	51	q	71
DC2	12	2	32	R	52	r	72
DC3	13	3	33	S	53	s	73
DC4	14	4	34	T	54	t	74
NAK	15	5	35	U	55	u	75
SYN	16	6	36	V	56	v	76
ETB	17	7	37	W	57	w	77
CAN	18	8	38	X	58	x	78
EM	19	9	39	Y	59	y	79
SUB	1A	:	3A	Z	5A	z	7A
ESC	1B	;	3B	[5B	{	7B
FS	1C	<	3C	\	5C		7C
GS	1D	=	3D]	5D	}	7D
RS	1E	>	3E	^	5E	~	7E
US	1F	?	3F	_	5F	DEL	7F

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Datalogic S.r.l.

Via S. Vitalino, 13 | 40012 Calderara di Reno | Bologna - Italy
Tel. +39 051 3147011 | Fax +39 051 3147205