DATALOGIC

DB0431

OEM Decoder



User's Guide

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See www.patents.datalogic.com for patent list.

Table of Contents

INTRODUCTION 1
About this Manual 1
Manual Conventions 1
Outline 1
Technical Support 2
Support Through the Website 2
Reseller Technical Support 2
About the DB0431 2
Unpacking the Decoder 2
OEM Decoder Care 2
SETUP 3
Unpacking 3
Setting Up the Decoder 3
Connect Host Interface (Demo Kit Only) 3
RS-232 Serial Connection 3
USB Connection 3
Connect Host Interface (DB0431 Stand Alone) 4
USB Connection - microUSB 4
Interface Selection 4
Configuring the Interface 5
Customizing Configuration Settings 6
Using the Programming Bar Codes 6
Datalogic DESP protocol SDK 6
DESP Demo App 6
Datalogic Aladdin™ Utility 6
Interface Settings 7
Configuring Other Features 7
Software Version Transmission 7
Resetting the Product Configuration to Defaults 7
CONFIGURATION USING BAR CODES 9
Configuration Parameters 9
RS-232 ONLY Interface 11
Baud Rate 11
Data Bits 12
Stop Bits 13
Parity 13
Handshaking Control 14
USB Keyboard Only Interface 15
COUNTRY MODE 16
Setup on PC to use ALT Universal 16
Setting Country Mode 17
Setting Encoding Type. 31
Setting ALT Input Type 35
Setting ALT Output Type 35
Keyboard Numeric Keypad 36
Keyboard Send Control Characters 36
USB Keyboard Speed 37
USB-OEM Only Interface 41
USB-OEM Device Usage 42
Data Format 43
Global Prefix/Suffix 44
Global AIM ID 45
GS1-128 AIM ID 46
Reading Parameters 47
Double Read Timeout 48
LED AND SPEAKER INDICATORS 50

Good Read Speaker Volume 50
Enable/Disable Green Spot (Good Read) LED Indicator 51
SCANNING FEATURES 52
Scan Mode 52
Flash On Time 53
Flash Off Time 54
Stand Mode Sensitivity 55
Scanning Active Time 56
Pick Mode 57
Aiming Pointer 58
Green Spot Duration 58
Enhanced Mobile Phone Mode 59
Decode Negative Image 60
Disable All Symbologies 61
1 D Symbologies 62
CODE EAN/UPC 64
Coupon Control 64
UPC-A 64
UPC-A Enable/Disable 64
UPC-A Check Character Transmission 65
Expand UPC-A to EAN-13 65
UPC-A Number System Character Transmission 66
UPC-E 66
UPC-E Enable/Disable 66
UPC-E Check Character Transmission 67
Expand UPC-E to EAN-13 67
Expand UPC-E to UPC-A 68
UPC-E Number System Character Transmission 68
GTIN FORMATTING 69
EAN 13 (JAN 13) 70
EAN 13 Enable/Disable 70
EAN 13 Check Character Transmission 70
EAN-13 ISBN Conversion 71
ISSN 71
ISSN Enable/Disable 71
EAN 8 (JAN 8) 72
EAN 8 Enable/Disable 72
EAN 8 Check Character Transmission 72
Expand EAN 8 to EAN 13 72
UPC/EAN GLOBAL SETTINGS 73
UPC/EAN Price Weight Check 73
ADD-ONS 74
Optional Add-ons 74
Optional Add-On Timer 75
CODE 39 78
Code 39 Enable/Disable 78
Code 39 Check Character Calculation 78
Code 39 Check Character Transmission 79
Code 39 Start/Stop Character Transmission 80
Code 39 Full ASCII 80
Code 39 Quiet zones 81
Code 39 Length Control 82
Code 39 Set Length 1 83
Code 39 Set Length 2 84
Code 39 Interdigit Ratio 85
CODE 32 (ITAL PHARMACEUTICAL CODE) 87
Code 32 Enable/Disable 87
Code 32 Feature Setting Exceptions 87
Code 32 Check Char Transmission 88
Code 32 Start/Stop Character Transmission 88
CODE 39 CIP (FRENCH PHARMACEUTICAL) 89
Code 39 CIP Enable/Disable 89
CODE 128 90
Code 128 Enable/Disable 90
Code 128 Check Character Transmission 90
Code 128 Function Character Transmission 91
Code 128 Quiet Zones 91

Code 128 Length Control 92
Code 128 Set Length 1 93
Code 128 Set Length 2 94
GS1-128 95
GS1-128 Enable 95
CODE ISBT 128 96
ISBT 128 Concatenation 96
ISBT 128 Concatenation Mode 96
ISBT 128 Dynamic Concatenation Timeout 97
ISBT 128 Advanced Concatenation Options 97
INTERLEAVED 2 OF 5 (I 2 OF 5) 98
I 2 of 5 Enable/Disable 98
I 2 of 5 Check Character Calculation 98
I 2 of 5 Check Character Transmission 99
I 2 of 5 Length Control 100
I 2 of 5 Set Length 1 101
I 2 of 5 Set Length 2 102
FOLLETT 2 OF 5 103
Follett 2 of 5 Enable/Disable 103
INTERLEAVED 2 OF 5 CIP HR 103
Interleaved 2 of 5 CIP HR Enable/Disable 103
STANDARD 2 OF 5 104
Standard 2 of 5 Enable/Disable 104
Standard 2 of 5 Check Character Calculation 104
Standard 2 of 5 Check Character Transmission 105
Standard 2 of 5 Length Control 105
Standard 2 of 5 Set Length 1 106
Standard 2 of 5 Set Length 2 107
INDUSTRIAL 2 OF 5 108
Industrial 2 of 5 Enable/Disable 108
Industrial 2 of 5 Check Character Calculation 108
Industrial 2 of 5 Check Character Transmission 109
Industrial 2 of 5 Length Control 109
Industrial 2 of 5 Set Length 1 110
Industrial 2 of 5 Set Length 2 111
CODE IATA 112
IATA Enable/Disable 112
IATA Check Character Transmission 112
DATALOGIC 2 OF 5 113
Datalogic 2 of 5 Enable/Disable 113
Datalogic 2 of 5 Check Character Calculation 113
Datalogic 2 of 5 Length Control 114
Datalogic 2 of 5 Set Length 1 115
Datalogic 2 of 5 Set Length 2 116
CODABAR 117
Codabar Enable/Disable 117
Codabar Check Character Calculation 117
Codabar Check Character Transmission 118
Codabar Start/Stop Character Transmission 118
Codabar Start/Stop Character Match 119
Codabar Quiet Zones 119
Codabar Length Control 120
Codabar Set Length 1 121
Codabar Set Length 2 122
ABC CODABAR 123
ABC Codabar Enable/Disable 123
ABC Codabar Concatenation Mode 123
ABC Codabar Dynamic Concatenation Timeout 124
ABC Codabar Force Concatenation 125
CODE 11 126
Code 11 Enable/Disable 126
Code 11 Check Character Calculation 126
Code 11 Check Character Transmission 127
Code 11 Length Control 127
Code 11 Set Length 1 128
Code 11 Set Length 2 129
GS1 DATABAR™ OMNIDIRECTIONAL 130

GS1 DataBar™ Omnidirectional Enable/Disable 130
GS1 DataBar™ Omnidirectional GS1-128 Emulation 130
GS1 DATABAR™ EXPANDED 131
GS1 DataBar™ Expanded Enable/Disable 131
GS1 DataBar™ Expanded GS1-128 Emulation 131
GS1 DataBar™ Expanded Length Control 132
GS1 DataBar™ Expanded Set Length 1 133
GS1 DataBar™ Expanded Set Length 2 134
GS1 DATABAR™ LIMITED 135
GS1 DataBar™ Limited Enable/Disable 135
GS1 DataBar™ Limited GS1-128 Emulation 135
CODE 93 136
Code 93 Enable/Disable 136
Code 93 Check Character Calculation 136
Code 93 Check Character Transmission 137
Code 93 Length Control 137
Code 93 Set Length 1 138
Code 93 Set Length 2 139
Code 93 Quiet Zones 140
MSI 141
MSI Enable/Disable 141
MSI Check Character Calculation 141
MSI Check Character Transmission 142
MSI Length Control 142
MSI Set Length 1 143
MSI Set Length 2 144
PLESSEY 145
Plessey Enable/Disable 145
Plessey Check Character Calculation 146
Plessey Check Character Transmission 146
Plessey Length Control 147
Plessey Set Length 1 148
Plessey Set Length 2 149
2D Symbologies 151
2D Global Features 152
2D Structured Append 153
2D Normal/Inverse Symbol Control 154
AZTEC CODE 155
Aztec Code Enable / Disable 155
Aztec Code Length Control 156
Aztec Code Set Length 1 157
Aztec Code Set Length 2 158
HAN XIN CODE 159
Han Xin Code Enable / Disable 159
Han Xin Code: Code Length Control 160
Han Xin Code Set Length 1 161
Han Xin Code Set Length 2 162
DATA MATRIX 163
Data Matrix Enable / Disable 163
Data Matrix Square/Rectangular Style 164
Data Matrix Length Control 165
Data Matrix Set Length 1 166
Data Matrix Set Length 2 167
DOTCODE 168
DotCode Enable / Disable 168
DotCode Length Control 168
DotCode Set Length 1 169
DotCode Set Length 2 170
DotCode High Resolution 171
DotCode Constant Position 171
DotCode Maximum Dot Diameter 172
DotCode Minimum Dot Diameter 173
MAXICODE 174
Maxicode Enable / Disable 174
Maxicode Primary Message Transmission 174
Maxicode Length Control 175
Maxicode Set Length 1 176

Maxicode Set Length 2 177
PDF417 178
PDF417 Enable / Disable 178
PDF417 Length Control 178
PDF417 Set Length 1 179
PDF417 Set Length 2 180
MICRO PDF417 181
Micro PDF417 Enable / Disable 181
Micro PDF417 Code 128 GS1-128 Emulation 182
Micro PDF417 Length Control 183
Micro PDF417 Set Length 1 184
Micro PDF417 Set Length 2 185
QR CODE 186
QR Code Enable / Disable 186
QR Code Length Control 186
QR Code Set Length 1 187
QR Code Set Length 2 188
MICRO QR CODE 189
Micro QR Code Enable/Disable 189
Micro QR Code Length Control 190
Micro QR Code Set Length 1 191
Micro QR Code Set Length 2 192
DIGITAL WATERMARK 193
OCR 194
UCC COMPOSITE 195
UCC Optional Composite Timer 195
Postal Code Selection 196
Postnet BB Control 199
NewZealand Postal Control 199

REFERENCES 201
RS-232 Parameters 202
RS-232 Only 202
Baud Rate 202
Data Bits 202
Stop Bits 202
Parity 202
Handshaking Control 202
Data Format 203
Data Editing 203
Global Prefix/Suffix 204
Example: Setting a Prefix 204
Global AIM ID 205
Scanning Features 206
Scan Mode 206
Flash On Time 207
Flash Off Time 208
Symbologies 209
Set Length 209
Set Length 1 209
Set Length 2 210

SAMPLE BAR CODES 211
1D Bar Codes 211
1D Bar Codes - continued 212
GS1 DataBar™ (RSS) 213
GS1 DataBar™-14 213
2D Bar Codes2D Bar Codes 214
..... 214

KEYPAD 217
HID Variable PIN Code 219

NOTES

Chapter 1
Introduction

About this Manual

This User's Guide is provided to give instruction for software integration of DB0431 (designated as "decoder" or "OEM Decoder" in this manual).

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

Notes contain information necessary for properly diagnosing, repairing and operating the reader.



CAUTION

The CAUTION symbol advises you of actions that could damage equipment or property.v

Outline

Chapter 1, (this chapter) presents information about manual conventions and an overview of the decoder features and operation.

Chapter 2, Setup presents information about unpacking and setting up the scanengine and about interface configuration bar codes and details.

Chapter 3, Configuration Using Bar Codes provides instructions and bar code labels for customizing your scanner. There are different sections for interface types, general features, data formatting, and symbology-specific features.

Chapter 4, References provides details concerning programmable features.

Appendix A, provides sample bar codes that are typical representations for their symbology types.

Appendix B, Keypad includes numeric bar codes to be scanned for certain parameter settings.

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.

About the DB0431

The Datalogic DB0431 decoder is a compact, high performance decoder used to decode linear and 2D barcodes and to transmit the decoded information to a host by means of a TTL USART, USB COM, USB HID Keyboard or USB OEM interface.



NOTE

TTL USART interface can be translated to RS232 interface using a proper USART-TTL to RS232 translator circuit (present for example in the Demo Kit). For simplicity, in this manual RS232 and USART will be used with the same meaning.

Unpacking the Decoder

The decoder is shipped in custom packaging. Carefully open the package, and inspect for the following:

- OEM Decoder

If any parts are damaged or you need additional hardware, please contact Technical Support.

OEM Decoder Care

The Decoder contains sensitive components which require special handling. Datalogic may not warrant damage due to improper handling.

- Do not disassemble the scan engine. Doing so will void the warranty.
- Use standard ESD precautions & policies when handling the DB0431 decoder.

Chapter 2
Setup

Unpacking

Check carefully to ensure the device and any cables or accessories ordered are present and undamaged. If any damage occurred during shipment, contact Technical Support on page 3.

KEEP THE PACKAGING. Should the unit ever require service, it should be returned in its original shipping container.

Setting Up the Decoder

Follow the steps provided in the Integration Guide (part number 820109090) to connect the decoder to a host interface. The OEM decoder demo kit (found in DB0431 DEMO or DE201X DEMO) can be used to power the decoder up with a standard Datalogic cable both USB or RS232 with power supply wall adapter.

Connect Host Interface (Demo Kit Only)

The scanner kit you ordered to match your interface should provide a compatible cable for your installation. If this is not so, contact Technical Support.
The scanner can communicate using the following interfaces:

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). Plug the AC Adapter barrel connector into the socket on the RS-232 cable connector and the AC Adapter plug into a standard power outlet as shown in Figure 1. Then scan the barcode for configuring RS232 interface (see "Configuring the Interface" on page 5)

RS-232: The scanner can communicate with a standard RS-232 host.

USB Connection

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



NOTE

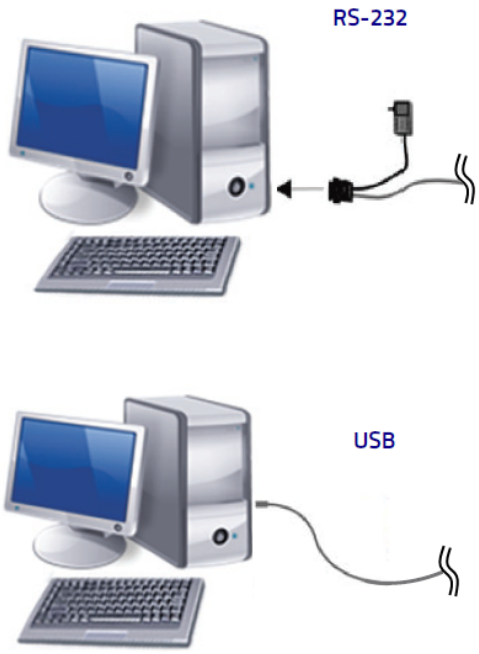
First connect the USB cable to the Demo Kit, then connect the USB connector to the Host preferred USB port.

USB : Select to communicate either by USB Composite (Keyboard+COM), USB OEM, USB COM STD, or USB Keyboard interface types by scanning the appropriate interface type bar codes available in this manual. The default interface is USB Composite (Keyboard + COM).

NOTE

Specific cables are required for connection to different hosts. The connections illustrated in Figure 1 are examples only. Actual connectors may vary from those illustrated, but the steps to connect the scanner remain the same.

Figure 1 - Connection to Host Interface



Connect Host Interface (DB0431 Stand Alone)

The DB0431 has to be connected to a Datalogic 2D undecoded scan engine and to a host by means of its 21 poles and 27 poles FPC/FFC connectors.

Please refer to the DB0431 integration guide and selected scan engine integration guide for details on connection and interface signals.

USB Connection - microUSB

The DB0431 provides a micro USB connector, that can be used with a standard micro USB cable for connection to a host. When the DB0431 is connected in this way, it automatically recognizes that it is with a USB connection and automatically switches to the last selected USB interface configuration (see "Configuring the Interface" on page 5); default is USB Composite.

Interface Selection

Upon completing the physical connection between the scanner and its host, proceed directly to "Configuring the Interface" on page 5 for information and programming for the interface type the scanner is connected to (for example: RS-232, Keyboard USB, etc.) and scan the appropriate bar code in that section to select your system's correct interface type.

The scanner, depending upon the model, will support one of the following sets of host interfaces:

- USB (Keyboard, COM, OEM)
- USB Composite (Keyboard + COM)
- RS-232 STD

Configuring the Interface

Scan the programming bar code from the following section which selects the appropriate interface type to match the system the scanner will be connected to. Next, proceed to the corresponding chapter in this manual (also listed in the table) to configure any desired settings and features associated with that interface. The default interface of OEM decoder is USB–Composite.



NOTE

Unlike some other programming features and options, interface selections require that you scan only one programming bar code label. DO NOT scan an ENTER/EXIT Programming Mode bar code prior to scanning an interface selection bar code.

Table 1. Available Interfaces

RS-232 standard interface (Interface features starting on page 11)	Select RS232-STD
Select USB-COM	USB-Com emulating RS-232 standard interface
USB-OEM (can be used for OPOS/UPOS/JavaPOS) (Interface features starting on page 41)	Select USB-OEM
Select USB-Keyboard	USB-Keyboard with standard key encoding (Interface features starting on page 15)
USB-Composite (combines USB-Keyboard and USB-COM) DEFAULT	Select USB-Composite

Customizing Configuration Settings

Using the Programming Bar Codes

This manual contains feature descriptions and bar codes which allow you to reconfigure your scanner. Some programming bar code labels, like "Resetting the Product Configuration to Defaults" on page 7, 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. Scan an ENTER/EXIT Programming Mode bar code once to enter Programming Mode. Once the scanner is in Programming Mode, you can scan a number of parameter settings before scanning the ENTER/EXIT bar code a second time, which will then accept your changes, exit Programming Mode and return the scanner to normal operation.



NOTE

There are some exceptions to the typical programming sequence described above. Please read the description and setting instructions carefully when configuring each given programmable feature.

Datalogic DESP protocol SDK

The Decoded Engine Serial Protocol (DESP) is a serial communication protocol developed by Datalogic, independent from both the platform and the physical layer. DESP is also available as a software library, in order to enhance the application development. The provided APIs covers the most common activities, such as acquisition and configuration, so that DSM0400 can be controlled and configured using its communication interface with the host. The SDK can also be used for software update.

DESP Demo App

This is demo application is a GUI-based software that implements the DESP library. It is available for Windows platforms and for RS-232 and USB-COM communication protocols. This application covers all the main features of the protocol and it is very useful to let the user familiarize with the DESP protocol and the product.

Datalogic Aladdin™ Utility

Programming can alternatively be performed using the Datalogic Aladdin™ Configuration application which is available for free download 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 serial or USB cable and can also create configuration bar codes to print.

Datalogic Aladdin™ is a multi-platform utility program providing a quick and user-friendly configuration method via the RS-232/USB-COM interface. The Aladdin utility is available on the Datalogic website. Aladdin allows you to program the scanner by selecting configuration commands through a user-friendly graphical interface running on a PC. These commands are sent to the scanner over the selected communication interface, or they can be printed as bar codes to be scanned.

Aladdin also provides the ability to perform a software upgrade for the connected device (see the Datalogic Aladdin™ Help On-Line for more details).

Interface Settings

The scanner is typically factory-configured with a set of default features standard to the interface type you ordered. See Interface Selection on page 4.

Configuration Using Bar Codes provides settings configurable by all interface types. If your installation requires you to further customize your scanner, you can select other options through use of the instructions and programming bar codes available in the appropriate section for your interface.

- RS-232 ONLY Interface, starting on page 11
- USB Keyboard Only Interface, starting on page 15
- USB-OEM Only Interface, starting on page 41

Configuring Other Features

If your installation requires different programming than the standard factory default settings, the following sections of this manual allow configuration of non-interface-specific settings you might require:

Configuration Using Bar Codes**:** General Features includes programming for scanning, speaker and LED indicators and other such universal settings.

Reading Parameters**:** Reading Parameters include programming for scanning, speaker and LED indicators and other universal settings.

2D Symbologies*:* Includes options concerning the bar code label types (symbologies). These settings allow you to enable/disable symbologies, set label lengths, require check digit, etc.

Software Version Transmission

The software version of the device can be transmitted over the RS-232, Keyboard and USB interfaces by scanning the following label.

Transmit Software Version

Resetting the Product Configuration to Defaults

If you aren't sure what programming options are in your scanner, or you've changed some options and want to restore the Default Configuration, scan the Restore Default Configuration bar code below. This will restore the factory configuration for the currently active interface.



NOTE

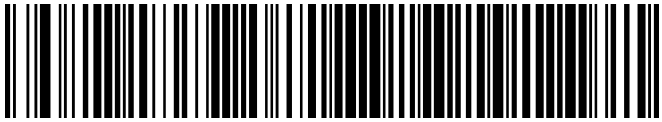
Defaults are based on the interface type. Configure the scanner for the correct interface before scanning this label.



Restore Default Configuration

The OEM decoder supports either DM configuration or C128 configuration bar-codes. In this manual only C128 labels are present.

The OEM decoder default is using C128 labels for configuration. To switch back and forth between the two barcode types, scan the following barcodes:



C128 switches to DM configuration



DM switches to C128 configuration

Chapter 3
Configuration Using Bar Codes

This and following sections provide programming bar codes to configure your scanner by changing the default settings. For details about additional methods of programming, see "Customizing Configuration Settings" on page 6.



NOTE

You must first enable your scanner to read bar codes in order to use this section. If you have not done this, go to Setup, starting on page 3 and complete the appropriate procedure.

Configuration Parameters

Once the scanner is set up, you can change the default parameters to meet your application needs. Refer to "Resetting the Product Configuration to Defaults" on page 7 for initial configuration in order to set the default values and select the interface for your application.

The following configuration parameters are divided into logical groups, making it easy to find the desired function based on its reference group.

Interface Configuration:

- "RS-232 ONLY Interface" on page 11
- "USB Keyboard Only Interface" on page 15
- "USB-OEM Only Interface" on page 41

Parameters common to all interface applications:

- "Global Prefix/Suffix" on page 44
- "Data Format" on page 43 offers advanced configuration options for customization of scanned data output.
- "Reading Parameters" on page 47 control various operating modes and indicators status functioning.

Symbology-specific parameters:

"2D Symbologies" on page 151 defines options for all symbologies and provides the programming bar codes necessary for configuring these features.



NOTE

You must first enable your scanner to read bar codes in order to use this section. If you have not done this, go to Setup, starting on page 3 and complete the appropriate procedure.

To program features:

1. Scan the ENTER/EXIT PROGRAMMING MODE bar code, available at the top of each programming page, when applicable.
2. Scan the bar code to set the desired programming feature. You may need to cover unused bar codes on the page, and possibly the facing page, to ensure that the scanner reads only the bar code you intend to scan.
3. If additional input parameters are needed, go to Appendix B, , and scan the appropriate characters from the keypad.



NOTE

Additional information about many features can be found in Chapter 4, **References.**

If you make a mistake before the last character, scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.

4. Complete the programming sequence by scanning the ENTER/EXIT PROGRAMMING MODE bar code to exit Programming Mode.

For more detailed descriptions, programming information and examples for setting selected configuration items, see Chapter 4, References.



RS-232 ONLY INTERFACE

Use the programming bar codes in this chapter if modifications to the standard RS-232 interface settings are necessary to meet your system's requirements.

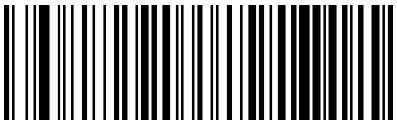
BAUD RATE on page 11	**PARITY** on page 13
DATA BITS on page 12	**HANDSHAKING CONTROL** on page 14
STOP BITS on page 13	

Baud Rate

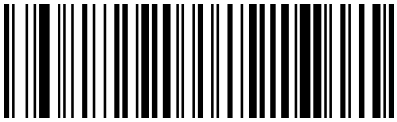
Baud rate is the number of bits of data transmitted per second. Set the scanner's baud rate to match the baud rate setting of the host device. With an improper baud rate setting, data may not reach the host correctly.



Baud Rate = 1200



Baud Rate = 2400



Baud Rate = 4800



Baud Rate = 9600

Baud Rate (continued)

Baud Rate = 19,200

Baud Rate = 38,400

Baud Rate = 57,600

Baud Rate = 115,200

DEFAULT

Data Bits

This parameter allows the reader to interface with devices requiring a 7-bit or 8-bit ASCII protocol for sending and receiving data.

7 Data Bits

8 Data Bits

DEFAULT

Stop Bits

The stop bit(s) at the end of each transmitted character marks the end of transmission of one character and prepares the receiving device for the next character in the serial data stream. The number of stop bits selected (one or two) depends on the number the receiving terminal is programmed to accommodate. Set the number of stop bits to match host device requirements.

DEFAULT

1 Stop Bit

2 Stop Bits

Parity

This feature specifies parity required for sending and receiving data. A parity check bit is the most significant bit of each ASCII coded character. Select the parity type according to host device requirements.

- Select None when no parity bit is required.
- Select Odd parity and the parity bit value is set to 0 or 1, based on data, to ensure that an odd number of 1 bits are contained in the coded character.
- Select Even parity and the parity bit value is set to 0 or 1, based on data, to ensure that an even number of 1 bits are contained in the coded character.

DEFAULT

Parity = None

Parity = Even

Parity = Odd

Handshaking Control

The data interface consists of an RS-232 port designed to operate either with or without the hardware handshaking lines, Request to Send (RTS), and Clear to Send (CTS). Handshaking Control includes the following options:

- None – No HW flow control
- RTS — RTS is asserted during transmissions. CTS is ignored.
- RTS/CTS — RTS is asserted during transmissions. CTS gates transmissions.
- RTS On/CTS — RTS is always asserted. CTS gates transmissions.

DEFAULT

Handshaking Control = None

Handshaking Control = RTS

Handshaking Control = RTS/CTS

Handshaking Control = RTS On/CTS

USB KEYBOARD ONLY INTERFACE

Use the programming bar codes in this chapter to select options for USB Keyboard Interface.

COUNTRY MODE on page 16
KEYBOARD NUMERIC KEYPAD on page 36
KEYBOARD SEND CONTROL CHARACTERS on page 36
USB KEYBOARD SPEED on page 37

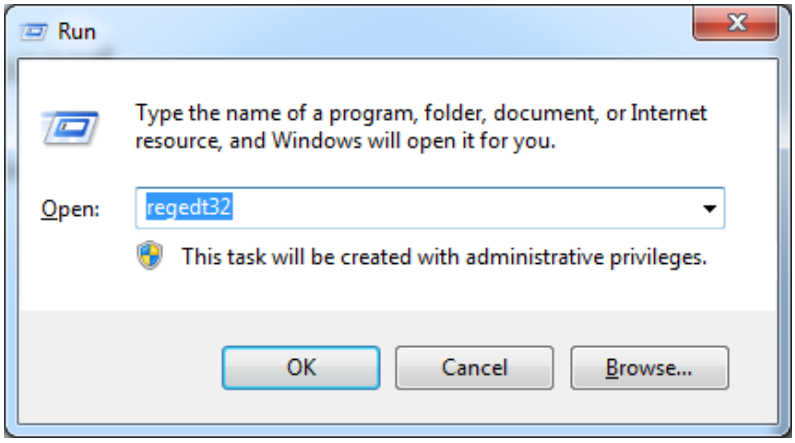
COUNTRY MODE

This feature specifies the country/language supported by the keyboard.

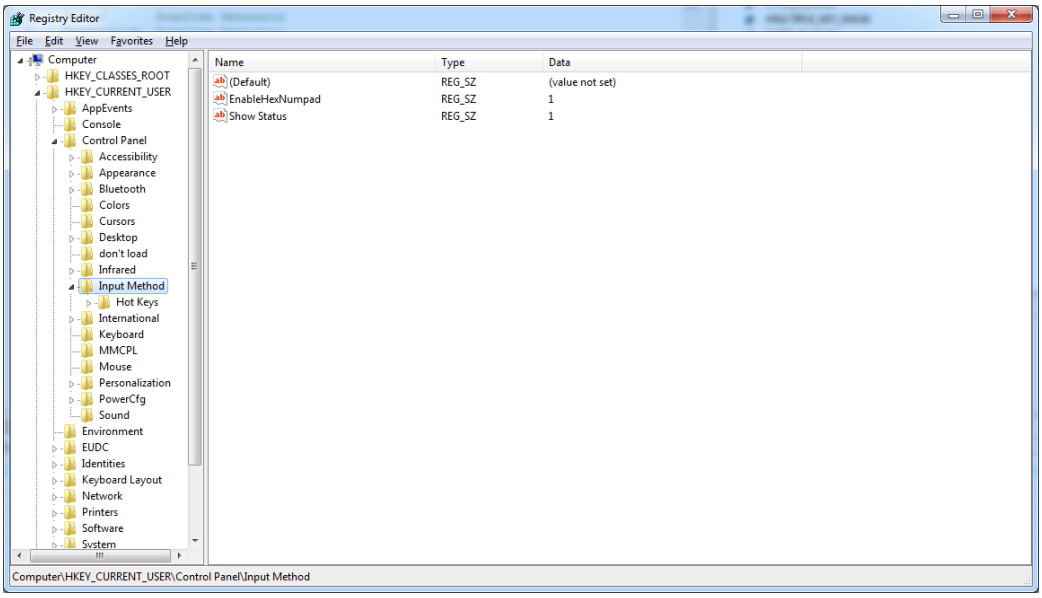
The Country Mode setting is ignored if the interface uses alternate key encoding.

Setup on PC to use ALT Universal

1. Open Registry Edit



2. Set EnableHexNumpad to 1 as follows:



3. Reset the PC.

Setting Country Mode

DEFAULT

United States

French International (Belgian French)

United Kingdom

Danish

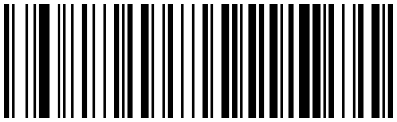
French (France)

German

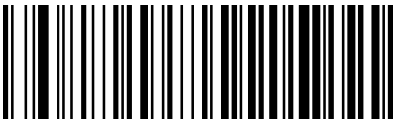
Italian

Norwegian

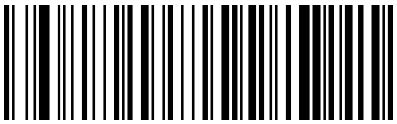
Setting Country Mode (continued)



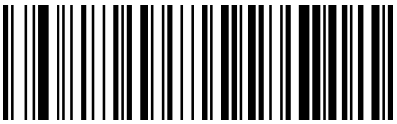
Portuguese Portugal



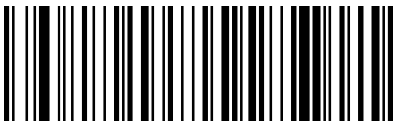
Spanish



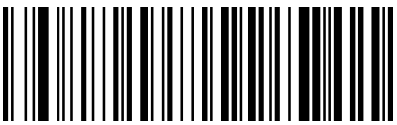
Swedish



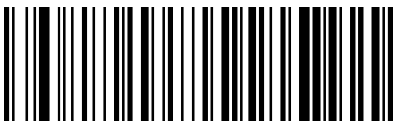
Swiss French



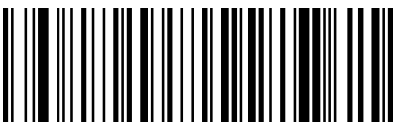
Japanese ASCII



Hungarian



Czech



Slovak

Setting Country Mode (continued)

Romanian

Croatian

Polish_214

Canadian French Win7

Lithuanian

Vietnamese

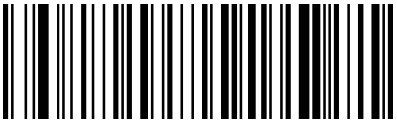
Russian

Arabic 101

Setting Country Mode (continued)



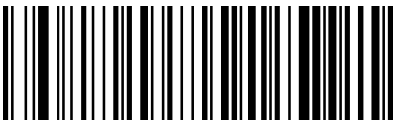
Chinese ASCII



Thai-Kedmanee



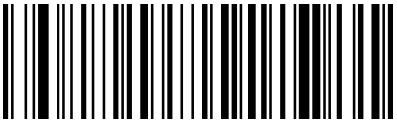
Albanian



Arabic 102



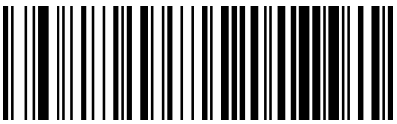
Arabic 102 AZERTY



Azeri Cyrillic



Azeri Latin



Belarusian

Setting Country Mode (continued)

Bosnian Cyrillic

Bosnian Latin

Bulgarian Cyrillic

Bulgarian Latin

Canadian French (Legacy)

Canadian Multilingual

Chinese (Simplified)

Chinese (Traditional)

Setting Country Mode (continued)

Czech Programmers

Czech QWERTY

Dutch Netherland

Estonian

Faeroese

Finnish

French (Canada) 2000/XP

French (Canada) 95/98

Setting Country Mode (continued)

Galician

Greek

Greek Latin

Greek Polytonic

Greek220

Greek220 Latin

Greek319

Greek319 Latin

Setting Country Mode (continued)

Hebrew Israel

Hungarian_101KEY

Icelandic

Irish

Italian_142

Japanese (Shift-JIS)

Kazakh

Korean (Hangul)

Setting Country Mode (continued)

Korean ASCII

Kyrgyz Cyrillic

Latin America

Latvian

Latvian QWERTY

Lithuanian_IBM

Macedonian -FYROM

Maltese_47KEY

Setting Country Mode (continued)

Mongolian-Cyrillic

Polish Programmer

Portuguese Brazil

Portuguese Brazilian ABNT

Portuguese Brazilian ABNT2

Romanian Legacy

Romanian Programmer

Romanian Standard

Setting Country Mode (continued)

Russian Typewriter

Serbian Cyrillic

Serbian Latin

Slovak QWERTY

Slovenian

Spanish Variation

Swiss German

Tatar

Setting Country Mode (continued)

Turkish F

Turkish Q

Ukrainian

US Dvorak

US Dvorak Left Hand

US Dvorak Right Hand

US English (Mac)

US English (North American)

Setting Country Mode (continued)

US International

Uzbek Cyrillic

DEFAULT

Don't use encoding

UTF_8

Windows 874

Windows 932

Windows 936

Windows 949

Setting Country Mode (continued)

Windows 950

Windows 1250

Windows 1251

Windows 1252

Windows 1253

Windows 1254

Windows 1255

Windows 1256

Setting Encoding Type.

Windows 1257

Windows 1258

Windows 20866

ISO 8859-1

ISO 8859-2

ISO 8859-3

ISO 8859-4

ISO 8859-5

Setting Encoding Type. (continued)

ISO 8859-6

ISO 8859-7

ISO 8859-8

ISO 8859-9

ISO 8859-10

ISO 8859-11

ISO 8859-13

ISO 8859-14

Setting Encoding Type (continued)

ISO 8859-15

ISO 8859-16

MS-DOS 437

MS-DOS 737

MS-DOS 775

MS-DOS 850

MS-DOS 852

MS-DOS 855

Setting Encoding Type. (continued)

MS-DOS 857

MS-DOS 860

MS-DOS 861

MS-DOS 862

MS-DOS 863

MS-DOS 865

MS-DOS 866

MS-DOS 869

Mac CP10000

Setting ALT Input Type

This option specifies Usb Keyboard input type to Alt Mode. (Be aware that the scanner may switch automatically between ALT mode & Normal Keyboard Scan-code, to correctly display some characters that are not present in the current Keyboard Country).

Disable ALT Mode

DEFAULT

Enable ALT Mode

Setting ALT Output Type

This option specifies the encode type of ALT Mode when the scanner sends Output Keyboard Data in Alt Mode. (Be aware that the scanner may switch auto-matically between ALT mode & Normal Keyboard Scancode, to correctly display some characters that are not present in the current Keyboard Country).

ALT Codepage: (use on non Unicode application: Notepad)

ALT Unicode: (use on Unicode application: Word)

DEFAULT

ALT Universal: (Use for all)

Keyboard Numeric Keypad

This feature specifies if numeric characters will be sent using the standard keys or the numeric keypad.

DEFAULT

Keyboard Numeric Keypad = Standard Keys

Keyboard Numeric Keypad = Numeric Keypad

Keyboard Send Control Characters

This feature is used by USB Keyboard interface. It specifies how the scanner transmits ASCII control characters to the host.

Options are as follows:

Send Ctrl+Key . ASCII characters from 00H to 0x1FH inclusive are transmitted in the format Ctrl+Key. Special keys are available in the range from 81H to A1.

Send Ctrl+Shift+Key . The behavior is the same as above, but control keys are sent in the format Ctrl+Shift+Keys.

Send Special Function Key . Send characters between 00H and 1FH according to the special function key mapping table. This is used to send keys that are not in the normal ASCII set. A unique set is provided for each available scancode set.

DEFAULT

Keyboard Send Control Characters = Send Ctrl+Key

Keyboard Send Control Characters = Send Ctrl+Shift+Key

Keyboard Send Control Characters = Send Special Function Key

USB Keyboard Speed

This option specifies the USB poll rate for a USB keyboard.



NOTE

This feature applies ONLY to the USB Keyboard interface.

DEFAULT

USB Keyboard Speed = 1ms

USB Keyboard Speed = 2ms

USB Keyboard Speed = 3ms

USB Keyboard Speed = 4ms

USB Keyboard Speed = 5ms

USB Keyboard Speed = 6ms

USB Keyboard Speed = 7ms

USB Keyboard Speed = 8ms

USB Keyboard Speed - continued



USB Keyboard Speed = 9ms



USB Keyboard Speed = 10ms



USB Keyboard Speed = 11ms



USB Keyboard Speed = 12ms



USB Keyboard Speed = 13ms



USB Keyboard Speed = 14ms



USB Keyboard Speed = 15ms



USB Keyboard Speed = 16ms



USB Keyboard Speed = 17ms

USB Keyboard Speed - continued



USB Keyboard Speed = 18ms



USB Keyboard Speed = 19ms



USB Keyboard Speed = 20ms

NOTES

USB-OEM ONLY INTERFACE

INTRODUCTION on page 41
USB-OEM DEVICE USAGE on page 42

Feature settings for USB interfaces differ depending upon which host type the scanner will be connected with. Use the feature settings in this chapter to specifically configure for the USB-OEM interface. Other USB interfaces are included in the appropriate chapter for their host type.

USB-OEM Device Usage

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

Options are:

- Tabletop Scanner
- Handheld Scanner



NOTE

It may be necessary to switch device usage when connecting two scanners of the same type to a POS system.

DEFAULT

USB-OEM Device Usage = Tabletop Scanner

USB-OEM Device Usage = Handheld Scanner

DATA FORMAT

GLOBAL PREFIX/SUFFIX on page 44
GLOBAL AIM ID on page 45
GS1-128 AIM ID on page 46

The features in this chapter can be used to build specific user-defined data into a message string. See Chapter 4, "References" for more detailed instructions on setting these features.

Global Prefix/Suffix

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

Set the value “00” (two ‘0’ characters) to have no Global Prefix/Suffix.
The default is <CR> character suffix.

To configure this feature, scan the ENTER/EXIT bar code above, then the bar code at left followed by digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again and then exit programming mode by scanning it one more time.



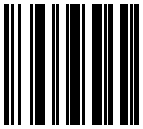
Set Global Prefix



Set Global Suffix

To configure this feature, scan the ENTER/EXIT bar code above, then the bar code at left followed by digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again and then exit programming mode by scanning it one more time.

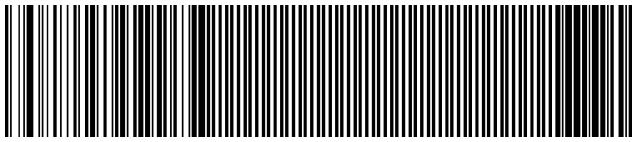
Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.



CANCEL

A commonly used suffix is <CR>. For setting <CR> character as global Suffix, enter Programming Mode, then read the following bar code and then exit Programming Mode

DEFAULT



Global Suffix: 0D (=hex code for <CR>)

Global AIM ID



This feature enables/disables addition of AIM IDs for all symbology types.

NOTE

AIM label identifiers (as opposed to custom characters you select yourself as with label identifiers) can be included with scanned bar code data. See "Global AIM ID" on Chapter 4, "References" for more detailed programming instructions.

DEFAULT

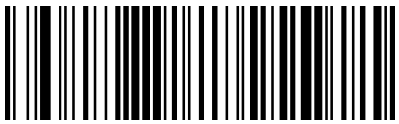
Global AIM ID = Disable

Global AIM ID = Enable

GS1-128 AIM ID

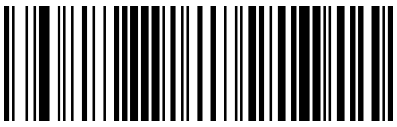
If Global AIM ID is disabled, the AIM ID for GS1-128 can be enabled/disabled independently. The AIM ID for GS1-128 is a]C1,]C2 or]C3.

AIM IDs for other symbologies can be enabled/disabled independently as well. Contact Customer Support for assistance.



GS1-128 AIM ID = Disable

DEFAULT



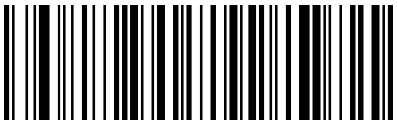
GS1-128 AIM ID = Enable

READING PARAMETERS

DOUBLE READ TIMEOUT on page 48
LED AND SPEAKER INDICATORS on page 50
GOOD READ SPEAKER VOLUME on page 50
ENABLE/DISABLE GREEN SPOT (GOOD READ) LED INDICATOR on page 51
SCANNING FEATURES on page 52
SCAN MODE on page 52
FLASH ON TIME on page 53
FLASH OFF TIME on page 54
STAND MODE SENSITIVITY on page 55
SCANNING ACTIVE TIME on page 56
PICK MODE on page 57

Double Read Timeout

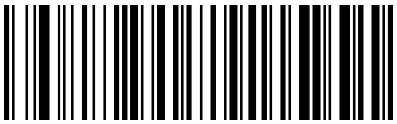
To prevent a double read of the same label, the Double Read Timeout sets the minimum time allowed between reads of labels of the same symbology and data. If the unit reads a label and sees the same label again within the Double Read Timeout, the second read of the label will be ignored. Double Read Time-out does not apply to scan modes that require a trigger pull for each label that is read.



Double Read Timeout = 0.1 Second



Double Read Timeout = 0.2 Second



Double Read Timeout = 0.3 Second



Double Read Timeout = 0.4 Second

Double Read Timeout (continued)

Double Read Timeout = 0.5 Second

Double Read Timeout = 0.6 Second

Double Read Timeout = 0.7 Second

Double Read Timeout = 0.8 Second

Double Read Timeout = 0.9 Second

Double Read Timeout = 1 Second

DEFAULT

LED AND SPEAKER INDICATORS

Good Read Speaker Volume

Selects the speaker volume (loudness) upon a good read beep. There are three selectable volume levels.

Good Read Speaker Volume = Speaker Off

Good Read Speaker Volume = Low

Good Read Speaker Volume = Medium

DEFAULT

Good Read Speaker Volume = High

Enable/Disable Green Spot (Good Read) LED Indicator

Enable/Disable the green spot (good read) LED indicator.

Green Spot = Disable

DEFAULT

Green Spot = Enable

SCANNING FEATURES

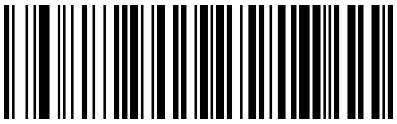
Scan Mode

See on Chapter 4, Scan Mode, for more detailed programming instructions.



Scan Mode = Trigger Single

DEFAULT



Scan Mode = Trigger Hold Multiple



Scan Mode = Trigger Pulse Multiple



Scan Mode = Flashing



Scan Mode = Always On



Scan Mode = Stand Mode

Flash On Time

This feature specifies the ON time for the indicator LED while in Flash Mode. The selectable range is 100 to 9,900 milliseconds (0.1 to 9.9 seconds), in 100 millisecond increments. Always use two digits (e.g.: scan the barcode '0' and the barcode '2' for setting 0.2 seconds). For more detailed programming instructions, see "Chapter 4, Flash On Time"

Select Flash ON Time Setting

To configure this feature, scan the ENTER/EXIT bar code above, then the bar code at left followed by digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **10 = Flash is ON for 1 Second**

Flash Off Time

This feature specifies the OFF time for the indicator LED while in Flash Mode. The selectable range is 100 to 9,900 milliseconds (0.1 to 9.9 seconds), in 100 millisecond increments. Always use two digits (e.g.: scan the barcode '0' and the barcode '2' for setting 0.2 seconds). See "Chapter 4, Flash Off Time" for more detailed programming instructions

Select Flash OFF Time Setting

To configure this feature, scan the ENTER/EXIT bar code above, then the bar code at left followed by digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.

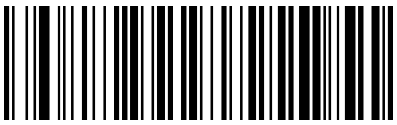
CANCEL

DEFAULT

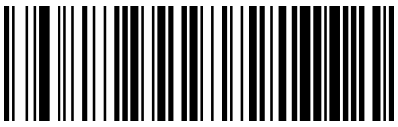
05 = Flash is OFF for 500ms

Stand Mode Sensitivity

Sets the sensitivity level for stand mode wakeup. Choices are low, medium and high.

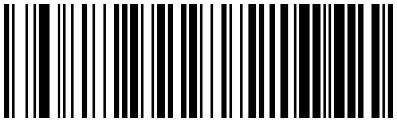


Stand Mode Sensitivity = Low



Stand Mode Sensitivity = Medium

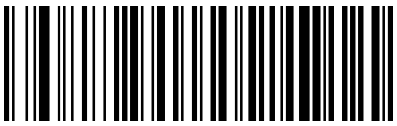
DEFAULT



Stand Mode Sensitivity = High

Scanning Active Time

This setting specifies the amount of time that the reader stays in scan ON state once the state is entered. Here are the labels for quick configuration on 3, 5 or 8 seconds. More options are available using DESP or Aladdin configuration protocols.

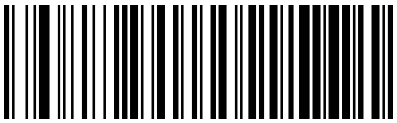


Scanning Active Time = 3 seconds



Scanning Active Time = 5 seconds

DEFAULT



Scanning Active Time = 8 seconds

Pick Mode

Specifies the ability of the reader to decode labels only when they are close to the center of the aiming pattern. This allows the reader to accurately target labels when they are placed close together, such as on a pick sheet.

The Pick Mode can be enabled only in Trigger Single Scan Mode.



NOTE

This feature is not compatible with Multiple Labels Reading in a Volume.

DEFAULT

Pick Mode = Disable

Pick Mode = Enable

Aiming Pointer

Enables/disables the aiming pointer for all symbologies.

Aiming Pointer = Disable

Aiming Pointer = Enable

DEFAULT

Green Spot Duration

Specifies the duration of the good read pointer beam after a good read.

Green Spot Duration = Disable (Green Spot is Off)

Green Spot Duration = Short (300 msec)

DEFAULT

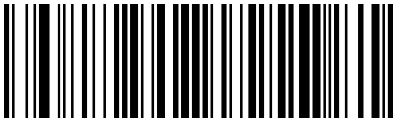
Green Spot Duration = Medium (500 msec)

Green Spot Duration = Long (800 msec)

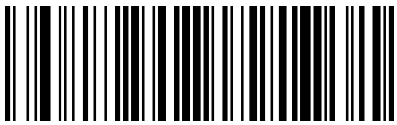
Enhanced Mobile Phone Mode

This mode is useful for improving reading performances when scanning bar codes displayed on a mobile phone.

DEFAULT



Enhanced Mobile Phone Mode = Disable



Enhanced Mobile Phone Mode = Enable

Decode Negative Image

Enable/Disable the ability to decode a negative image for all symbologies. When this feature is enabled, you will be unable to read normally-printed labels or programming labels in this manual. Scan the “Disable” bar code below to return the scanner to its default for this feature. To set decoding for only 2D codes, go to "2D Normal/Inverse Symbol Control" on page 154. For additional options, see the Aladdin configuration application.



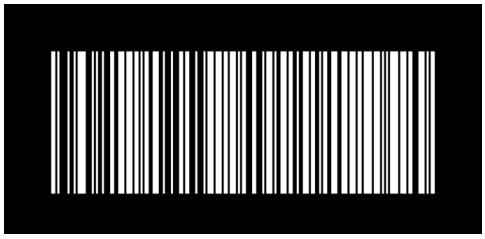
NOTE

Unlike some programming features and options, Decode Negative Image selections require that you scan only one programming bar code label. DO NOT scan an ENTER/EXIT bar code prior to scanning a Decode Negative Image bar code.



CAUTION

When this feature is enabled, you will be unable to read other programming labels in this manual.



Decode Negative Image = Disable





Decode Negative Image = Enable

DISABLE ALL SYMBOLOGIES

Use this feature to disable all symbologies.

1. Scan the ENTER/EXIT PROGRAMMING MODE barcode below.
2. Scan the Disable All Symbologies barcode.
3. Complete the programming sequence by scanning the ENTER/EXIT PROGRAMMING barcode.

ENTER/EXIT PROGRAMMING MODE

Disable All Symbologies

NOTE

This does not disable the reading of programming labels.

1 D SYMBOLOGIES

The decoder supports the following symbologies (barcode types). Symbology-dependent options for each symbology are included in this chapter.

CODE EAN/UPC on page 64
•Coupon Control on page 64
•UPC-A on page 64
•UPC-E on page 66
•EAN 13 (Jan 13) on page 70
•ISSN on page 71
•EAN 8 (Jan 8) on page 72
•UPC/EAN Global Settings on page 73
CODE 39 on page 78
•Code 32 (ITAL Pharmaceutical Code) on page 87
•Code 39 CIP (French Pharmaceutical) on page 89
CODE 128 on page 90
•GS1-128 on page 95
CODE ISBT 128 on page 96
INTERLEAVED 2 OF 5 (I 2 OF 5) on page 98
•Follett 2 of 5 on page 103
•Interleaved 2 of 5 CIP HR on page 103
STANDARD 2 OF 5 on page 104
INDUSTRIAL 2 OF 5 on page 108
•Code IATA on page 112

DATALOGIC 2 OF 5 on page 113
CODABAR on page 117
•ABC Codabar on page 123
CODE 11 on page 126
GS1 DATABAR™ OMNIDIRECTIONAL on page 130
•GS1 DataBar™ Omnidirectional on page 130
•GS1 DataBar™ Expanded on page 131
•GS1 DataBar™ Limited on page 135
CODE 93 on page 136
MSI on page 141
PLESSEY on page 145

Default settings are indicated at each feature/option with a green arrow. That section also provides space to record any custom settings needed or implemented for your system.

To set most features:

1. Scan the ENTER/EXIT PROGRAMMING barcode at the top of applicable programming pages.
2. Scan the correct barcode to set the desired programming feature or parameter. You may need to cover unused barcodes on the page, and possibly the facing page, to ensure that the reader reads only the barcode you intend to scan.
3. If additional input parameters are needed, go to Appendix B, , and scan the appropriate characters from the keypad.



NOTE

Additional information about many features can be found in the Chapter 4, "References".
If you make a mistake before the last character, scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.

4. Complete the programming sequence by scanning the ENTER/EXIT PROGRAMMING barcode to exit Programming Mode.

CODE EAN/UPC

Coupon Control

This feature is used to control the reader's method of processing coupon labels.

Coupon Control = Allow all coupon barcodes to be decoded

Coupon Control = Enable only UPCA coupon decoding

DEFAULT

Coupon Control = Enable only GS1 DataBar™ coupon decoding

UPC-A

The following options apply to the UPC–A symbology.

UPC-A Enable/Disable

When disabled, the reader will not read UPC–A barcodes.

UPC-A = Disable

UPC-A = Enable

DEFAULT

UPC-A Check Character Transmission

Enable this option to transmit the check character along with UPC-A barcode data.

UPC-A Check Character Transmission = Don't Send

UPC-A Check Character Transmission = Send

DEFAULT

Expand UPC-A to EAN-13

Expands UPC-A data to the EAN-13 data format. Selecting this feature also changes the symbology ID to match those required for EAN-13.

DEFAULT

UPC-A to EAN-13 = Don't Expand

UPC-A to EAN-13 = Expand

UPC-A Number System Character Transmission

This feature enables/disables transmission of the UPC-A number system character.

UPC-A Number System Character = Do not transmit

UPC-A Number System Character = Transmit

DEFAULT

UPC-E

The following options apply to the UPC-E symbology.

UPC-E Enable/Disable

When disabled, the reader will not read UPC-E barcodes.

UPC-E = Disable

UPC-E = Enable

DEFAULT

UPC-E Check Character Transmission

Enable this option to transmit the check character along with UPC-E barcode data.

UPC-E Check Character Transmission = Don't Send

UPC-E Check Character Transmission = Send

DEFAULT

Expand UPC-E to EAN-13

Expands UPC-E data to the EAN-13 data format. Selecting this feature also changes the symbology ID to match those required for EAN-13.

DEFAULT

UPC-E to EAN-13 = Don't Expand

UPC-E to EAN-13 = Expand

Expand UPC-E to UPC-A

Expands UPC–E data to the UPC–A data format.

DEFAULT

UPC-E to UPC-A = Don't Expand

UPC-E to UPC-A = Expand

UPC-E Number System Character Transmission

This feature enables/disables transmission of the UPC–E system number character.

UPC-E Number System Character = Do not transmit

UPC-E Number System Character = Transmit

DEFAULT

GTIN FORMATTING

This feature enables/disables the ability to convert UPC–E, UPC–A, EAN 8, and EAN 13 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 label.

DEFAULT

GTIN Formatting = Disable

GTIN Formatting = Enable

EAN 13 (JAN 13)

The following options apply to the EAN 13 (Jan 13) symbology.

EAN 13 Enable/Disable

When disabled, the reader will not read EAN 13/JAN 13 barcodes.

EAN 13 = Disable

EAN 13 = Enable

DEFAULT

EAN 13 Check Character Transmission

Enable this option to transmit the check character along with EAN 13 barcode data.

EAN 13 Check Character Transmission = Don't Send

EAN 13 Check Character Transmission = Send

DEFAULT

EAN-13 ISBN Conversion

This option enables/disables conversion of EAN 13/JAN 13 Bookland labels starting with 978 to ISBN labels.

DEFAULT

EAN-13 ISBN Conversion = Disable

EAN-13 ISBN Conversion = Convert to ISBN

ISSN

The following options apply to the ISSN symbology.

ISSN Enable/Disable

Enables/disables conversion of EAN/JAN13 Bookland labels starting with 977 to ISSN labels.

DEFAULT

ISSN = Disable

ISSN = Enable

EAN 8 (JAN 8)

The following options apply to the EAN 8 (Jan 8) symbology.

EAN 8 Enable/Disable

When disabled, the reader will not read EAN 8/JAN 8 barcodes.

EAN 8 = Disable

EAN 8 = Enable

DEFAULT

EAN 8 Check Character Transmission

Enable this option to transmit the check character along with EAN 8 barcode data.

EAN 8 Check Character Transmission = Don't Send

EAN 8 Check Character Transmission = Send

DEFAULT

Expand EAN 8 to EAN 13

Enable this option to expand EAN 8/JAN 8 labels to EAN 13/JAN 13.

DEFAULT

Expand EAN 8 to EAN 13 = Disable

Expand EAN 8 to EAN 13 = Enable

UPC/EAN GLOBAL SETTINGS

This section provides configuration settings for UPC–A, UPC–E, EAN 13 and EAN 8 symbologies, and affects all of these unless otherwise marked for each feature description.

UPC/EAN Price Weight Check

This feature enables/disables calculation and verification of price/weight check digits.

DEFAULT

Price Weight Check = Disabled

Price Weight Check = 4-digit price-weight check

Price Weight Check = 5-digit price-weight check

Price Weight Check = European 4-digit price-weight check

Price Weight Check = European 5-digit price-weight check

ADD-ONS

Contact Customer Support for advanced programming of optional and conditional add-ons.

Optional Add-ons

The reader can be enabled to optionally read the following add-ons (supplementals):



NOTE

If a UPC/EAN base label and an add-on are both decoded, the reader will transmit the base label and add-on. If a UPC/EAN base label is decoded without an add-on, the base label will be transmitted without an add-on.
Conditional add-on settings (if enabled) are considered by the reader before optional add-on settings.

DEFAULT

Optional Add-Ons = Disable P2

Optional Add-Ons = Enable P2

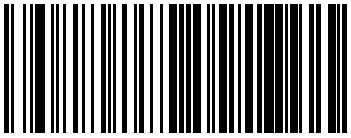
DEFAULT

Optional Add-Ons = Disable P5

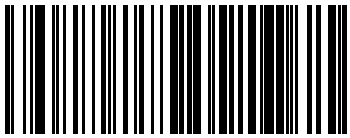
Optional Add-Ons = Enable P5

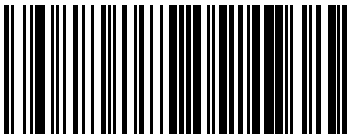
Optional Add-On Timer

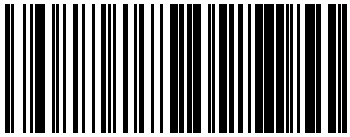
This option sets the time the reader will look for an add-on when an add-on fragment has been seen and optional add-ons are enabled.)

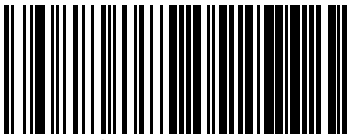

Optional Add-on Timer = 10ms

DEFAULT


Optional Add-on Timer = 20ms


Optional Add-on Timer = 30ms


Optional Add-on Timer = 40ms


Optional Add-on Timer = 50ms

Optional Add-On Timer (continued)

Optional Add-on Timer = 60ms

Optional Add-on Timer = 70ms

Optional Add-on Timer = 100ms

Optional Add-on Timer = 120ms

Optional Add-on Timer = 140ms

Optional Add-on Timer = 160ms

Optional Add-On Timer (continued)

Optional Add-on Timer = 180ms

Optional Add-on Timer = 200ms

Optional Add-on Timer = 220ms

Optional Add-on Timer = 240ms

Optional Add-on Timer = 260ms

Optional Add-on Timer = 280ms

Optional Add-on Timer = 300ms

CODE 39

The following options apply to the Code 39 symbology.

Code 39 Enable/Disable

Code 39 = Disable

Code 39 = Enable

DEFAULT

Code 39 Check Character Calculation

Enable this option to enables/disables calculation and verification of an optional Code 39 check character. When disabled, any check character in the label is treated as a data character

DEFAULT

Code 39 Check Character Calculation = Don't Calculate

Code 39 Check Character Calculation = Calculate Std Check

Code 39 Check Character Calculation = Calculate Mod 7 Check

Code 39 Check Character Calculation (continued)

Code 39 Check Character Calculation = Enable Italian Post Check

Code 39 Check Character Calculation = Enable Daimler Chrysler Check

Code 39 Check Character Transmission

Enable this option to transmit the check character along with Code 39 barcode data.

Code 39 Check Character Transmission = Don't Send

Code 39 Check Character Transmission = Send

DEFAULT

Code 39 Start/Stop Character Transmission

Enable this option to enable/disable transmission of Code 39 start and stop characters.

DEFAULT

Code 39 Start/Stop Character Transmission = Don't Transmit

Code 39 Start/Stop Character Transmission = Transmit

Code 39 Full ASCII

Enables/disables the translation of Code 39 characters to Code 39 full-ASCII characters.

DEFAULT

Code 39 Full ASCII = Disable

Code 39 Full ASCII = Enable

Code 39 Quiet zones

This feature specifies the number of quiet zones for Code 39 labels. Quiet zones are blank areas at the ends of a bar code, typically 10 times the width of the narrowest bar or space in the label.

Read the Enter/Exit Programming Mode bar code at the top of this page and then one of the following bar codes.

DEFAULT

Quiet zones = Auto

Quiet Zones = Small Quiet Zones on two side

Code 39 Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for the Code 39 symbology.

Variable Length: For variable length decoding, a minimum and maximum length may be set.

Fixed Length: For fixed length decoding, two different lengths may be set.

Code 39 Length Control = Variable Length

Code 39 Length Control = Fixed Length

DEFAULT

Code 39 Length Control = No check

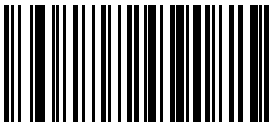
Code 39 Set Length 1

This feature specifies one of the barcode lengths for Code 39. Length 1 is the minimum label length if in Variable Length on page 82 Mode, or the first fixed length if in Fixed Length on page 82 Mode. Length includes the barcode's data characters only. The length can be set from 0 to 50 characters. For more detailed programming instructions, see Chapter 4, Set Length.

Table 2 provides examples for setting Length 1.

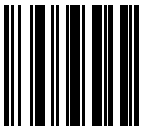
Table 2. Code 39 Length 1 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	00 Characters	07 Characters	15 Characters	50 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT CODE 39 LENGTH 1 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '0'	'0' and '7'	'1' and '5'	'5' AND '0'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				



Select Code 39 Set Length 1 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.



CANCEL

DEFAULT **01 = Length 1 is 1 Characters**

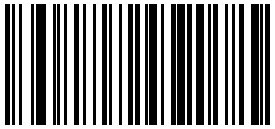
Code 39 Set Length 2

This feature specifies one of the barcode lengths for Code 39. Length 2 is the maximum label length if in Variable Length on page 82 Mode, or the second fixed length if in Fixed Length on page 82 Mode. Length includes the barcode's check, data, and full–ASCII shift characters. The length does not include start/stop characters. For more detailed programming instructions, see Chapter 4, Set Length.

Table 3 provides examples for setting Length 2.

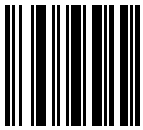
Table 3. Code 39 Length 2 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	00 (Ignore This Length)	07 Characters	15 Characters	50 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT CODE 39 LENGTH 2 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '0'	'0' and '7'	'1' and '5'	'5' AND '0'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				



Select Code 39Length 2 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.



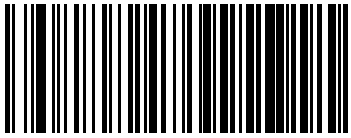
CANCEL

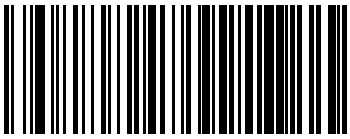
DEFAULT **50 = Length 2 is 50 Characters**

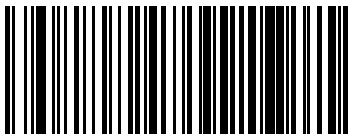
Code 39 Interdigit Ratio

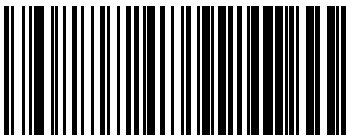
This feature specifies the ratio between an intercharacter space and module for Code 39 labels.

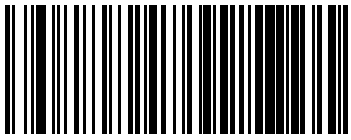
DEFAULT

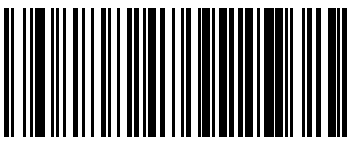

Code 39 Interdigit Ratio = Disable


Code 39 Interdigit Ratio = 1


Code 39 Interdigit Ratio = 2


Code 39 Interdigit Ratio = 3


Code 39 Interdigit Ratio = 4


Code 39 Interdigit Ratio = 5

Code 39 Interdigit Ratio (continued)

Code 39 Interdigit Ratio = 6

Code 39 Interdigit Ratio = 7

Code 39 Interdigit Ratio = 8

Code 39 Interdigit Ratio = 9

Code 39 Interdigit Ratio = 10

CODE 32 (ITAL PHARMACEUTICAL CODE)

The following options apply to the Code 32 (Italian Pharmaceutical Code) symbology.

Code 32 Enable/Disable

When disabled, the reader will not read Code 32 barcodes.

DEFAULT

Code 32 = Disable

Code 32 = Enable

Code 32 Feature Setting Exceptions

NOTE

The following features are set for Code 32 by using these Code 39 settings:

"Code 39 Length Control" **on page 82**
"Code 39 Interdigit Ratio" **on page 85**

Code 32 Check Char Transmission

Enable this option to transmit the check character along with Code 32 barcode data.

DEFAULT

Code 32 Check Character Transmission = Don't Send

Code 32 Check Character Transmission = Send

Code 32 Start/Stop Character Transmission

This option enables/disables transmission of Code 32 start and stop characters.

DEFAULT

Code 32 Start/Stop Character Transmission = Don't Transmit

Code 32 Start/Stop Character Transmission = Transmit

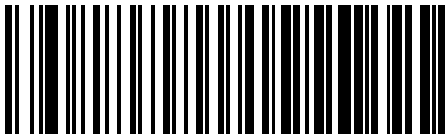
CODE 39 CIP (FRENCH PHARMACEUTICAL)

The following options apply to the Code 39 CIP symbology.

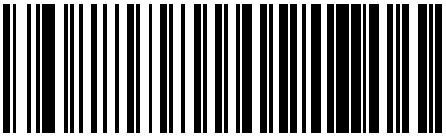
Code 39 CIP Enable/Disable

Enables/Disables ability of the reader to decode Code 39 CIP labels.

DEFAULT



Code 39 CIP = Disable



Code 39 CIP = Enable

CODE 128

The following options apply to the Code 128 symbology.

Code 128 Enable/Disable

When disabled, the reader will not read Code 128 barcodes.

Code 128 = Disable

Code 128 = Enable

DEFAULT

Code 128 Check Character Transmission

Enable this option to transmit the check character along with Code 128 barcode data.

DEFAULT

Code 128 Check Character Transmission = Don't Send

Code 128 Check Character Transmission = Send

Code 128 Function Character Transmission

Enables/disables transmission of Code128 function characters 1, 2, 3, and 4.

DEFAULT

Code 128 Function Character Transmission = Don't Send

Code 128 Function Character Transmission = Send

Code 128 Quiet Zones

This feature specifies the number of quiet zones for Code 128 labels. Quiet zones are blank areas at the ends of a barcode and are typically 10 times the width of the narrowest bar or space in the label.

Code 128 Quiet Zones = No Quiet Zones

Code 128 Quiet Zones = Auto

DEFAULT

Code 128 Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for the Code 128 symbology.

Code 128 Length Control = Variable Length

Code 128 Length Control = Fixed Length

DEFAULT

Code 128 Length Control = No Check

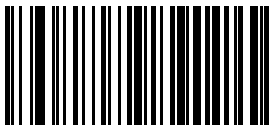
Code 128 Set Length 1

Specifies one of the barcode lengths for Code 128. Length 1 is the minimum label length if in Variable Length on page 82 Mode, or the first fixed length if in Fixed Length on page 82 Mode. Length includes the barcode's data characters only. The length can be set from 1 to 80 characters. For more detailed programming instructions, see Chapter 4, Set Length.

Table 4 provides some examples for setting Length 1.

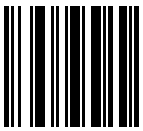
Table 4. Code 128 Length 1 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	01 Character	07 Characters	15 Characters	80 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT CODE 128 LENGTH 1 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '1'	'0' and '7'	'1' and '5'	'8' and '0'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				



Select Code 128 Set Length 1 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.



CANCEL

DEFAULT **01 = Length 1 is 1 Character**

Code 128 Set Length 2

This feature specifies one of the barcode lengths for Code 128. Length 2 is the maximum label length if in Variable Length on page 82 Mode, or the second fixed length if in Fixed Length on page 82 Mode. Length includes the barcode's data characters only. The length can be set from 1 to 80 characters. A setting of 0 specifies to ignore this length (only one fixed length). For more detailed programming instructions, see Chapter 4, Set Length.

Table 5 provides examples for setting Length 2.

Table 5. Code 128 Length 2 Setting Examples

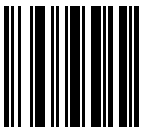
STEP	ACTION	EXAMPLES			
1	**Desired Setting**	00 (Ignore This Length)	07 Characters	15 Characters	80 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT CODE 128 LENGTH 2 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '0'	'0' and '7'	`1' and `5'	`8' and `0'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				

.



Select Code 128 Length 2 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.



CANCEL

DEFAULT **80 = Length 2 is 80 Characters**

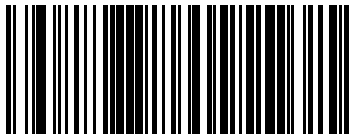
GS1-128

The following options apply to the GS1-128 symbology. (Also known as USS-128, GS1-128, GTIN-128, UCC-128, EAN-128.)

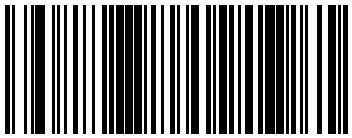
GS1-128 Enable

This option enables/disables the ability of the reader to translate GS1-128 labels to the GS1-128 data format. Options are:

- Transmit GS1-128 labels in Code 128 data format.
- Transmit GS1-128 labels in GS1-128 data format.
- Do not transmit GS1-128 labels.

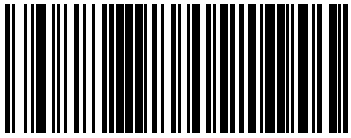


GS1-128 = Transmit in Code 128 data format



GS1-128 = Transmit in GS1-128 data format

DEFAULT



GS1-128 = Do not transmit GS1-128 labels

CODE ISBT 128

The following options apply to the ISBT 128 symbology.

ISBT 128 Concatenation

Use this option to enable/disable ISBT128 concatenation of 2 labels.

DEFAULT

ISBN 128 Concatenation = Disable

ISBN 128 Concatenation = Enable

ISBT 128 Concatenation Mode

Specifies the concatenation mode between Static and Dynamic.

NOTE

This option is only valid when ISBT 128 Concatenation on page 96 is enabled (see page <Links>4-96).

DEFAULT

ISBT 128 Concatenation Mode = Static

ISBT 128 Concatenation Mode = Dynamic

ISBT 128 Dynamic Concatenation Timeout

Specifies the timeout used by the ISBT 128 Dynamic Concatenation Mode.

ISBT 128 Dynamic Concatenation Timeout = 50 msec

ISBT 128 Dynamic Concatenation Timeout = 100 msec

DEFAULT

ISBT 128 Dynamic Concatenation Timeout = 200 msec

ISBT 128 Dynamic Concatenation Timeout = 500 msec

ISBT 128 Dynamic Concatenation Timeout = 750 msec

ISBT 128 Dynamic Concatenation Timeout = 1 second

ISBT 128 Advanced Concatenation Options



NOTE

To set up pairs of label types for concatenation, use the Datalogic Aladdin configuration application or contact Datalogic Technical Support.

INTERLEAVED 2 OF 5 (I 2 OF 5)

The following options apply to the I 2 of 5 symbology.

I 2 of 5 Enable/Disable

When disabled, the reader will not read I 2 of 5 barcodes.

DEFAULT

I 2 of 5 = Disable

I 2 of 5 = Enable

I 2 of 5 Check Character Calculation

This option enables/disables calculation and verification of an optional I 2 of 5 check character.

DEFAULT

I 2 of 5 Check Character Calculation = Disable

I 2 of 5 Check Character Calculation = Check Standard (Modulo 10)

I 2 of 5 Check Character Calculation = Check German Parcel

I 2 of 5 Check Character Calculation (continued)

I 2 of 5 Check Character Calculation = Check DHL

I 2 of 5 Check Character Calculation = Check Daimler Chrysler

I 2 of 5 Check Character Calculation = Check Bosch

I 2 of 5 Check Character Calculation = Italian Post

I 2 of 5 Check Character Transmission

Enable this option to transmit the check character along with I 2 of 5 barcode data.

I 2 of 5 Check Character Transmission = Don't Send

DEFAULT

I 2 of 5 Check Character Transmission = Send

I 2 of 5 Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for the I 2 of 5 symbology.

Variable Length: For variable length decoding, a minimum and maximum length may be set.

Fixed Length: For fixed length decoding, two different lengths may be set.

I 2 of 5 Length Control = Variable Length

I 2 of 5 Length Control = Fixed Length

DEFAULT

I 2 of 5 Length Control = No Check

I 2 of 5 Set Length 1

This feature specifies one of the barcode lengths for I 2 of 5 Length Control on page 100. Length 1 is the minimum label length if in Variable Length on page 114 Mode, or the first fixed length if in Fixed Length on page 82 Mode. The length includes the barcode's check and data characters. The length can be set from 2 to 50 characters in increments of two. For more detailed programming instructions, see Chapter 4, Set Length.

Table 6 provides some examples for setting Length 1.

Table 6. I 2 of 5 Length 1 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	2 Characters	6 Characters	14 Characters	50 Characters
2	**Pad with leading zeroes to yield two digits**	02	06	14	50
3	**Scan ENTER/EXIT PROGRAMMING MODE**				
4	**Scan SELECT I 2 of 5 LENGTH 1 SETTING**				
5	**Scan Two Characters From** Appendix B,	'0' and '2'	'0' and '6'	'1' and '4'	'5' AND '0'
6	**Scan ENTER/EXIT PROGRAMMING MODE**				

Select I 2 of 5 Length 1 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **06 = Length 1 is 6 Characters**

I 2 of 5 Set Length 2

This feature specifies one of the barcode lengths for I 2 of 5 Length Control on page 100. Length 2 is the maximum label length if in Variable Length on page 82 Mode, or the second fixed length if in Fixed Length on page 82 Mode. The length includes the barcode's check and data characters.

The length can be set from 2 to 50 characters in increments of 2. A setting of 0 specifies to ignore this length (only one fixed length). For more detailed programming instructions, see Chapter 4, Set Length.

Table 7 provides examples for setting Length 2.

Table 7. I 2 of 5 Length 2 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	Ignore This Length	4 Characters	14 Characters	50 Characters
2	**Pad with leading zeroes to yield two digits**	00	04	14	50
3	**Scan ENTER/EXIT PROGRAMMING MODE**				
4	**Scan SELECT I 2 OF 5 LENGTH 2 SETTING**				
5	**Scan Two Characters From** Appendix B,	'0' and '0'	'0' and '4'	'1' and '4'	'5' AND '0'
6	**Scan ENTER/EXIT PROGRAMMING MODE**				

Select I 2 of 5 Length 2 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **50 = Length 2 is 50 Characters**

FOLLETT 2 OF 5

The following options apply to the Follett 2 of 5 symbology.

Follett 2 of 5 Enable/Disable

Enables/Disables ability of imager to decode Follett 2 of 5 labels.

DEFAULT

Follett 2 of 5 = Disable

Follett 2 of 5 = Enable

INTERLEAVED 2 OF 5 CIP HR

The following options apply to the Interleaved 2 of 5 CIP HR symbology.

Interleaved 2 of 5 CIP HR Enable/Disable

Enables/Disables ability of reader to decode Interleaved 2 of 5 CIP HR labels.

DEFAULT

Interleaved 2 of 5 CIP HR = Disable

Interleaved 2 of 5 CIP HR = Enable

STANDARD 2 OF 5

The following options apply to the Standard 2 of 5 symbology.

Standard 2 of 5 Enable/Disable

When disabled, the reader will not read Standard 2 of 5 barcodes.

DEFAULT

Standard 2 of 5 = Disable

Standard 2 of 5 = Enable

Standard 2 of 5 Check Character Calculation

This option enables/disables calculation and verification of an optional Standard 2 of 5 check character.

DEFAULT

Standard 2 of 5 Check Character Calculation = Disable

Standard 2 of 5 Check Character Calculation = Enable

Standard 2 of 5 Check Character Transmission

This feature enables/disables transmission of an optional Standard 2 of 5 check character.

Standard 2 of 5 Check Character Transmission = Don't Send

Standard 2 of 5 Check Character Transmission = Send

DEFAULT

Standard 2 of 5 Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for the Standard 2 of 5 symbology.

Variable Length: For variable length decoding, a minimum and maximum length may be set.

Fixed Length: For fixed length decoding, two different lengths may be set.

Standard 2 of 5 Length Control = Variable Length

Standard 2 of 5 Length Control = Fixed Length

DEFAULT

Standard 2 of 5 Length Control = No Check

Standard 2 of 5 Set Length 1

This feature specifies one of the barcode lengths for Standard 2 of 5. Length 1 is the minimum label length if in Variable Length on page 105 Mode, or the first fixed length if in Fixed Length on page 82 Mode. Length includes the barcode's check and data characters. The length can be set from 1 to 50 characters. For more detailed programming instructions, see Chapter 4, Set Length.

Table 8 provides some examples for setting Length 1.

Table 8. Standard 2 of 5 Length 1 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	01 Character	07 Characters	15 Characters	50 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT STANDARD 2 OF 5 LENGTH 1 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '1'	'0' and '7'	'1' and '5'	'5' AND '0'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				

Select Standard 2 of 5 Length 1 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **06 = Length 1 is 6 Characters**

Standard 2 of 5 Set Length 2

This feature specifies one of the barcode lengths for for Standard 2 of 5. Length 2 is the maximum label length if in Variable Length on page 105 Mode, or the second fixed length if in Fixed Length on page 82 Mode. Length includes the barcode's check and data characters.

The length can be set from 1 to 50 characters. A setting of 0 specifies to ignore this length (only one fixed length). For more detailed programming instructions, see Chapter 4, Set Length.

Table 9 provides examples for setting Length 2.

Table 9. Standard 2 of 5 Length 2 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting (pad with leading zeroes)**	00 (Ignore This Length)	07 Characters	15 Characters	50 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT STANDARD 2 OF 5 LENGTH 2 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '0'	'0' and '7'	'1' and '5'	'5' AND '0'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				

Select Standard 2 of 5 Length 2 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **50 = Length 2 is 50 Characters**

INDUSTRIAL 2 OF 5

The following options apply to the Industrial 2 of 5 symbology.

Industrial 2 of 5 Enable/Disable

Enables/Disables ability of reader to decode Industrial 2 of 5 labels.

DEFAULT

Industrial 2 of 5 = Disable

Industrial 2 of 5 = Enable

Industrial 2 of 5 Check Character Calculation

Enables/Disables calculation and verification of an optional Industrial 2 of 5 check character.

DEFAULT

Industrial 2 of 5 Check Character Calculation = Disable

Industrial 2 of 5 Check Character Calculation = Enable

Industrial 2 of 5 Check Character Transmission

Enables/disables transmission of an Industrial 2 of 5 check character.

Industrial 2 of 5 Check Character Transmission = Disable

Industrial 2 of 5 Check Character Transmission = Enable

DEFAULT

Industrial 2 of 5 Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for the Industrial 2 of 5 symbology.

Variable Length: For variable length decoding, a minimum and maximum length may be set.

Fixed Length: For fixed length decoding, two different lengths may be set.

Industrial 2 of 5 Length Control = Variable Length

Industrial 2 of 5 = Fixed Length

DEFAULT

Industrial 2 of 5 Length Control = No Check

Industrial 2 of 5 Set Length 1

This feature specifies one of the barcode lengths for Industrial 2 of 5. Length 1 is the minimum label length if in Variable Length on page 82 Mode, or the first fixed length if in Fixed Length on page 82 Mode. Length includes the barcode's data characters only. The length can be set from 0 to 50 characters. For more detailed programming instructions, see Chapter 4, Set Length.

Table 10 provides some examples for setting Length 1.

Table 10. Industrial 2 of 5 Length 1 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	00 Characters	07 Characters	15 Characters	50 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT INDUSTRIAL 2 OF 5 LENGTH 1 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '0'	'0' and '7'	'1' and '5'	'5' AND '0'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				

Select Industrial 2 of 5 Set Length 1 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **06 = Length 1 is 6 Characters**

Industrial 2 of 5 Set Length 2

This feature specifies one of the barcode lengths for Industrial 2 of 5. Length 2 is the maximum label length if in Variable Length on page 82 Mode, or the second fixed length if in Fixed Length on page 82 Mode. Length includes the barcode's check, data, and full–ASCII shift characters. The length does not include start/stop characters.

The length can be set from 1 to 50 characters. A setting of 0 specifies to ignore this length (only one fixed length). For more detailed programming instructions, see Chapter 4, Set Length.

Table 11 provides examples for setting Length 2.

Table 11. Industrial 2 of 5 Length 2 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	00 (Ignore This Length)	07 Characters	15 Characters	50 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT INDUSTRIAL 2 OF 5 LENGTH 2 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '0'	'0' and '7'	'1' and '5'	'5' AND '0'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				

Select Industrial 2 of5 Length 2 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **50 = Length 2 is 50 Characters**

CODE IATA

The following options apply to the IATA symbology.

IATA Enable/Disable

Enables/Disables the ability of the reader to decode IATA labels.

DEFAULT

IATA = Disable

IATA = Enable

IATA Check Character Transmission

Enables/Disables calculation and verification of an optional Industrial 2 of 5 check character.

IATA Check Character Transmission = Disable

IATA Check Character Transmission = Enable

DEFAULT

DATALOGIC 2 OF 5

The following options apply to the Datalogic 2 of 5 symbology.

Datalogic 2 of 5 Enable/Disable

When disabled, the reader will not read Datalogic 2 of 5 barcodes.

DEFAULT

Datalogic 2 of 5 = Disable

Datalogic 2 of 5 = Enable

Datalogic 2 of 5 Check Character Calculation

This option enables/disables calculation and verification of an optional Datalogic 2 of 5 check character.

DEFAULT

Datalogic 2 of 5 Check Character Calculation = Disable

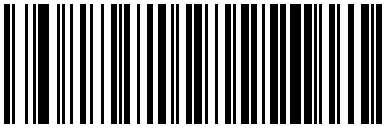
Datalogic 2 of 5 Check Character Calculation = Enable

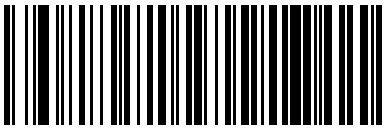
Datalogic 2 of 5 Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for the Datalogic 2 of 5 symbology.

Variable Length: For variable length decoding, a minimum and maximum length may be set.

Fixed Length: For fixed length decoding, two different lengths may be set.


Datalogic 2 of 5 Length Control = Variable Length


Datalogic 2 of 5 Length Control = Fixed Length

DEFAULT


Datalogic 2 of 5 Length Control = No Check

Datalogic 2 of 5 Set Length 1

This feature specifies one of the barcode lengths for Datalogic 2 of 5. Length 1 is the minimum label length if in Variable Length on page 100 Mode, or the first fixed length if in Fixed Length on page 100 Mode. The length includes the bar-code's check and data characters. The length can be set from 2 to 50 characters. For more detailed programming instructions, see Chapter 4, Set Length.

Table 12 provides some examples for setting Length 1.

Table 12. Datalogic 2 of 5 Length 1 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	2 Characters	6 Characters	14 Characters	50 Characters
2	**Pad with leading zeroes to yield two digits**	02	06	14	50
3	**Scan ENTER/EXIT PROGRAMMING MODE**				
4	**Scan SELECT Datalogic 2 of 5 LENGTH 1 SETTING**				
5	**Scan Two Characters From** Appendix B,	'0' and '2'	'0' and '6'	'1' and '4'	'5' AND '0'
6	**Scan ENTER/EXIT PROGRAMMING MODE**				

Select Datalogic 2 of 5 Length 1 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **01 = Length 1 is 1 Characters**

Datalogic 2 of 5 Set Length 2

This feature specifies one of the barcode lengths for Datalogic 2 of 5 Length Control on page 114. Length 2 is the maximum label length if in Variable Length on page 100 Mode, or the second fixed length if in Fixed Length on page 100 Mode. The length includes the barcode's check and data characters.

The length can be set from 2 to 50 characters. A setting of 0 specifies to ignore this length (only one fixed length). For more detailed programming instructions, see Chapter 4, Set Length.

Table 13 provides examples for setting Length 2.

Table 13. Datalogic 2 of 5 Length 2 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	Ignore This Length	4 Characters	14 Characters	50 Characters
2	**Pad with leading zeroes to yield two digits**	00	04	14	50
3	**Scan ENTER/EXIT PROGRAMMING MODE**				
4	**Scan SELECT DATALOGIC 2 OF 5 LENGTH 2 SETTING**				
5	**Scan Two Characters From** Appendix B,	'0' and '0'	'0' and '4'	'1' and '4'	'5' AND '0'
6	**Scan ENTER/EXIT PROGRAMMING MODE**				

Select Datalogic 2 of 5 Length 2 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **50 = Length 2 is 50 Characters**

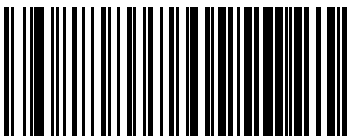
CODABAR

The following options apply to the Codabar symbology.

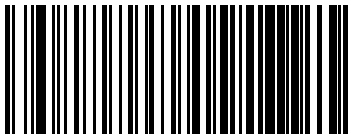
Codabar Enable/Disable

When disabled, the reader will not read Codabar barcodes.

DEFAULT



Codabar = Disable

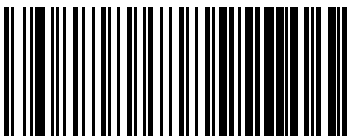


Codabar = Enable

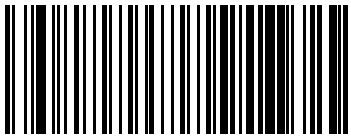
Codabar Check Character Calculation

Enable this option to enables/disables calculation and verification of an optional Codabar check character. When disabled, any check character in the label is treated as a data character

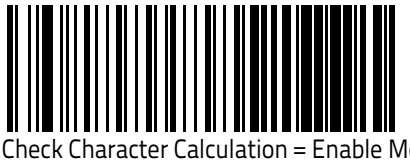
DEFAULT



Codabar Check Character Calculation = Don't Calculate



Codabar Check Character Calculation = Enable AIM standard check char.



Codabar Check Character Calculation = Enable Modulo 10 check char.

Codabar Check Character Transmission

Enable this option to transmit the check character along with Codabar barcode data.

Codabar Check Character Transmission = Don't Send

Codabar Check Character Transmission = Send

DEFAULT

Codabar Start/Stop Character Transmission

Enable this option to enable/disable transmission of Codabar start and stop characters.

Codabar Start/Stop Character Transmission = Don't Transmit

Codabar Start/Stop Character Transmission = Transmit

DEFAULT

Codabar Start/Stop Character Match

When enabled, this option requires that start and stop characters match.

DEFAULT

Codabar Start/Stop Character Match = Don't Require Match

Codabar Start/Stop Character Match = Require Match

Codabar Quiet Zones

Specifies the number of quiet zones for Codabar labels. Quiet zones are blank areas at the ends of a barcode and are typically 10 times the width of the narrowest bar or space in the label.

Codabar Quiet Zones = Auto

DEFAULT

Codabar Quiet Zones = Small Quiet Zones on two sides

Codabar Length Control

This feature specifies either variable length decoding or fixed length decoding for the Codabar symbology.

Variable Length: For variable length decoding, a minimum and maximum length may be set.

Fixed Length: For fixed length decoding, two different lengths may be set.

Codabar Length Control = Variable Length

Codabar Length Control = Fixed Length

DEFAULT

Codabar Length Control = No Check

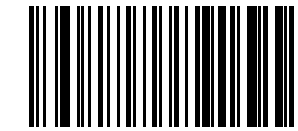
Codabar Set Length 1

This feature specifies one of the barcode lengths for Codabar. Length 1 is the minimum label length if in Variable Length on page 82 Mode, or the first fixed length if in Fixed Length on page 82 Mode. Length includes the barcode's start, stop, check and data characters. The length must include at least one data character. The length can be set from 3 to 50 characters. For more detailed programming instructions, see Chapter 4, Set Length.

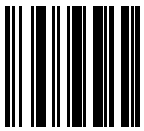
Table 14 provides some examples for setting Length 1.

Table 14. Codabar Length 1 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting (and pad with leading zeroes)**	03 Characters	09 Characters	15 Characters	50 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT CODABAR LENGTH 1 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '3'	'0' and '9'	'1' and '5'	'5' AND '0'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				


Select Codabar Length 1 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.


CANCEL

DEFAULT **01 = Length 1 is 1 Character**

Codabar Set Length 2

This feature specifies one of the barcode lengths for Codabar. Length 2 is the maximum label length if in Variable Length on page 82 Mode, or the second fixed length if in Fixed Length on page 82 Mode. The length includes the barcode's start, stop, check and data characters. The length must include at least one data character.

The length can be set from 3 to 50 characters. A setting of 0 specifies to ignore this length (only one fixed length). For more detailed programming instructions, see Chapter 4, Set Length.

Table 15 provides examples for setting Length 2.

Table 15. Codabar Length 2 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting (and pad with leading zeroes)**	00 Ignore This Length	07 Characters	15 Characters	50 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT CODABAR LENGTH 2 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '0'	'0' and '7'	'1' and '5'	'5' AND '0'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				

Select Codabar Length 2 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **50 = Length 2 is 50 Characters**

ABC CODABAR

The following options apply to the ABC Codabar symbology.

ABC Codabar Enable/Disable

Enables/Disables ability of reader to decode ABC Codabar labels.

DEFAULT

ABC Codabar = Disable

ABC Codabar = Enable

ABC Codabar Concatenation Mode

Specifies the concatenation mode between Static and Dynamic.

DEFAULT

ABC Codabar Concatenation Mode = Static

ABC Codabar Concatenation Mode = Dynamic

ABC Codabar Dynamic Concatenation Timeout

Specifies the timeout in 10-millisecond ticks used by the ABC Codabar Dynamic Concatenation Mode.

ABC Codabar Dynamic Concatenation Timeout = 50 msec

ABC Codabar Dynamic Concatenation Timeout = 100 msec

DEFAULT

ABC Codabar Dynamic Concatenation Timeout = 200 msec

ABC Codabar Dynamic Concatenation Timeout = 500 msec

ABC Codabar Dynamic Concatenation Timeout = 750 msec

ABC Codabar Dynamic Concatenation Timeout = 1 Second

ABC Codabar Force Concatenation

Forces labels starting or ending with D to be concatenated.

DEFAULT

ABC Codabar Force Concatenation = Disable

ABC Codabar Force Concatenation = Enable

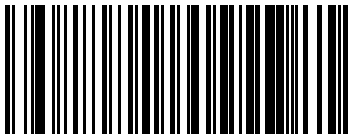
CODE 11

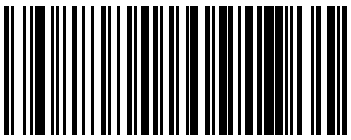
The following options apply to the Code 11 symbology.

Code 11 Enable/Disable

When disabled, the reader will not read Code 11 barcodes.

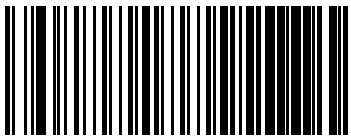
DEFAULT

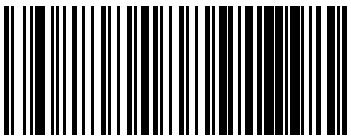

Code 11 = Disable

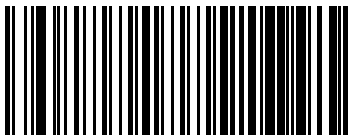

Code 11 = Enable

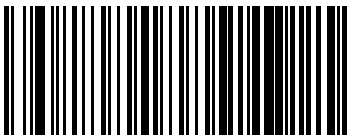
Code 11 Check Character Calculation

This option enables/disables calculation and verification of optional Code 11 check character.


Code 11 Check Character Calculation = Disable


Code 11 Check Character Calculation = Check C


Code 11 Check Character Calculation = Check K


Code 11 Check Character Calculation = Check C and K

DEFAULT

Code 11 Check Character Transmission

This feature enables/disables transmission of an optional Code 11 check character.

Code 11 Check Character Transmission = Don't Send

Code 11 Check Character Transmission = Send

DEFAULT

Code 11 Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for the Code 11 symbology.

Variable Length: For variable length decoding, a minimum and maximum length may be set.

Fixed Length: For fixed length decoding, two different lengths may be set.

Code 11 Length Control = Variable Length

Code 11 Length Control = Fixed Length

DEFAULT

Code 11 Length Control = No Check

Code 11 Set Length 1

This feature specifies one of the barcode lengths for Code 11. Length 1 is the minimum label length if in Variable Length on page 82 Mode, or the first fixed length if in Fixed Length on page 82 Mode. Length includes the barcode's check and data characters. The length can be set from 2 to 50 characters. For more detailed programming instructions, see Chapter 4, Set Length.

Table 16 provides some examples for setting Length 1.

Table 16. Code 11 Length 1 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting (pad with leading zeroes)**	02 Characters	07 Characters	15 Characters	50 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT CODE 11 LENGTH 1 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '2'	'0' and '7'	'1' and '5'	'5' AND '0'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				

Select Code 11 Set Length 1 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **01 = Length 1 is 1 Character**

Code 11 Set Length 2

This feature specifies one of the barcode lengths for Code 11. Length 2 is the maximum label length if in Variable Length on page 82 Mode, or the second fixed length if in Fixed Length on page 82 Mode. Length includes the barcode's check and data characters.

The length can be set from 2 to 50 characters. A setting of 0 specifies to ignore this length (only one fixed length). For more detailed programming instructions, see Chapter 4, Set Length.

Table 17 provides examples for setting Length 2.

Table 17. Code 11 Length 2 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting (pad with leading zeroes)**	00 (Ignore This Length)	07 Characters	15 Characters	50 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT CODE 11 LENGTH 2 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '0'	'0' and '7'	'0' and 'F'	'3' AND 2'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				

Select Code 11 Length 2 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **50 = Length 2 is 50 Characters**

GS1 DATABAR™ OMNIDIRECTIONAL

The following options apply to the GS1 DataBar™ Omnidirectional (formerly RSS-14) symbology.

GS1 DataBar™ Omnidirectional Enable/Disable

When disabled, the reader will not read GS1 DataBar™ Omnidirectional barcodes.

DEFAULT

GS1 DataBar™ Omnidirectional = Disable

GS1 DataBar™ Omnidirectional = Enable

GS1 DataBar™ Omnidirectional GS1-128 Emulation

When enabled, GS1 DataBar™ Omnidirectional barcodes will be translated to the GS1-128 label data format.

DEFAULT

GS1 DataBar™ Omnidirectional GS1-128 Emulation = Disable

GS1 DataBar™ Omnidirectional GS1-128 Emulation = Enable

GS1 DATABAR™ EXPANDED

The following options apply to the GS1 DataBar™ Expanded (formerly RSS Expanded) symbology.

GS1 DataBar™ Expanded Enable/Disable

When disabled, the reader will not read GS1 DataBar™ Expanded barcodes.

DEFAULT

GS1 DataBar™ Expanded = Disable

GS1 DataBar™ Expanded = Enable

GS1 DataBar™ Expanded GS1-128 Emulation

When enabled, GS1 DataBar™ Expanded barcodes will be translated to the GS1-128 label data format.

DEFAULT

GS1 DataBar™ Expanded GS1-128 Emulation = Disable

GS1 DataBar™ Expanded GS1-128 Emulation = Enable

GS1 DataBar™ Expanded Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for the GS1 DataBar™ Expanded symbology.

Variable Length. For variable-length decoding, a minimum length may be set.

Fixed Length. For fixed-length decoding, two different lengths may be set.

GS1 DataBar™ Expanded Length Control = Variable Length

GS1 DataBar™ Expanded Length Control = Fixed Length

DEFAULT

GS1 DataBar™ Expanded Length Control = No check

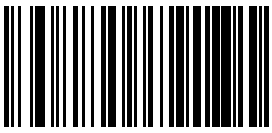
GS1 DataBar™ Expanded Set Length 1

This feature specifies one of the barcode lengths for GS1 DataBar™ Expanded. Length 1 is the minimum label length if in Variable Length on page 82 Mode, or the first fixed length if in Fixed Length on page 82 Mode. Length includes the bar-code's data characters only. The length can be set from 1 to 74 characters. For more detailed programming instructions, see Chapter 4, Set Length.

Table 18 provides some examples for setting Length 1.

Table 18. GS1 DataBar™ Expanded Length 1 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	01 Character	07 Characters	52 Characters	74 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT GS1 DataBar™ EXPANDED LENGTH 1SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '1'	'0' and '7'	'5' and '2'	'7' AND '4'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				



Select GS1 DataBar™ Expanded Set Length 1 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.



CANCEL

DEFAULT **01 = Length 1 is 1 Character**

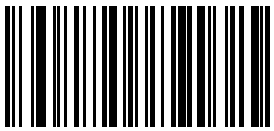
GS1 DataBar™ Expanded Set Length 2

This feature specifies one of the barcode lengths for GS1 DataBar™ Expanded Length Control on page 132. Length 2 is the maximum label length if in Variable Length on page 82 Mode, or the second fixed length if in Fixed Length on page 82 Mode. Length includes the barcode's data characters only. The length can be set from 1 to 74 characters. A setting of 0 specifies to ignore this length (only one fixed length). For more detailed programming instructions, see Chapter 4, Set Length.

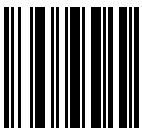
Table 19 provides examples for setting Length 2.

Table 19. GS1 DataBar™ Expanded Length 2 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	00 (ignore second length)	07 Characters	52 Characters	74 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT GS1 DataBar™ EXPANDED LENGTH 2 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '0'	'0' and '7'	'5' and '2'	'7' and '4'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				


Select GS1 DataBar™ Expanded Set Length 2 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.


CANCEL

DEFAULT **74 = Length 2 is 74 Characters**

GS1 DATABAR™ LIMITED

The following options apply to the GS1 DataBar™ Limited (formerly RSS Limited) symbology.

GS1 DataBar™ Limited Enable/Disable

When disabled, the reader will not read GS1 DataBar™ Limited barcodes.

DEFAULT

GS1 DataBar™ Limited = Disable

GS1 DataBar™ Limited = Enable

GS1 DataBar™ Limited GS1-128 Emulation

When enabled, GS1 DataBar™ Limited barcodes will be translated to the GS1-128 label data format.

DEFAULT

GS1 DataBar™ Limited GS1-128 Emulation = Disable

GS1 DataBar™ Limited GS1-128 Emulation = Enable

CODE 93

The following options apply to the Code 93 symbology.

Code 93 Enable/Disable

Enables/Disables ability of reader to decode Code 93 labels.

DEFAULT

Code 93 = Disable

Code 93 = Enable

Code 93 Check Character Calculation

Enables/disables calculation and verification of an optional Code 93 check character.

Code 93 Check Character Calculation = Disable

Code 93 Check Character Calculation = Enable Check C

Code 93 Check Character Calculation = Enable Check K

Code 93 Check Character Calculation = Enable Check C and K

DEFAULT

Code 93 Check Character Transmission

Enables/disables transmission of an optional Code 93 check character.

DEFAULT

Code 93 Check Character Transmission = Disable

Code 93 Check Character Transmission = Enable

Code 93 Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for the Code 93 symbology.

Variable Length: For variable length decoding, a minimum and maximum length may be set.

Fixed Length: For fixed length decoding, two different lengths may be set.

Code 93 Length Control = Variable Length

Code 93 = Fixed Length

DEFAULT

Code 93 Length Control = No Check

Code 93 Set Length 1

Specifies one of the barcode lengths for Code 93. Length 1 is the minimum label length if in Variable Length on page 82 Mode, or the first fixed length if in Fixed Length on page 82 Mode. Length includes the barcode's data characters only. The length can be set from 01 to 50 characters. For more detailed programming instructions, see Chapter 4, Set Length.

Table 20 provides some examples for setting Length 1.

Table 20. Code 93 Length 1 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	01 Characters	07 Characters	15 Characters	50 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT CODE 93 LENGTH 1 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '1'	'0' and '7'	'1' and '5'	'5' AND '0'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				

Select Code 93 Set Length 1 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **01 = Length 1 is 1 Character**

Code 93 Set Length 2

This feature specifies one of the barcode lengths for Code 93. Length 2 is the maximum label length if in Variable Length on page 82 Mode, or the second fixed length if in Fixed Length on page 82 Mode. Length includes the barcode's check, data, and full–ASCII shift characters. The length does not include start/stop characters. The length can be set from 1 to 50 characters. A setting of 0 specifies to ignore this length (only one fixed length). For more detailed programming instructions, see Chapter 4, Set Length.

Table 21 provides examples for setting Length 2.

Table 21. CODE 93 Length 2 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	00 (Ignore This Length)	07 Characters	15 Characters	50 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT CODE 93 LENGTH 2 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '0'	'0' and '7'	'1' and '5'	'5' AND '0'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				

Select Code 93 Length 2 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **50 = Length 2 is 50 Characters**

Code 93 Quiet Zones

Enables/disables quiet zones for Code 93.

Code 93 Quiet Zones = No Quiet Zones

Code 93 Quiet Zones = Auto

DEFAULT

MSI

The following options apply to the MSI symbology.

MSI Enable/Disable

Enables/Disables ability of reader to decode MSI labels.

DEFAULT

MSI = Disable

MSI = Enable

MSI Check Character Calculation

Enables/Disables calculation and verification of an optional MSI check character.

MSI Check Character Calculation = Disable

MSI Check Character Calculation = Enable Mod10

DEFAULT

MSI Check Character Calculation = Enable Mod11/10

MSI Check Character Calculation = Enable Mod10/10

MSI Check Character Transmission

Enables/disables transmission of an MSI check character.

MSI Check Character Transmission = Disable

MSI Check Character Transmission = Enable

DEFAULT

MSI Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for the MSI symbology.

Variable Length: For variable length decoding, a minimum and maximum length may be set.

Fixed Length: For fixed length decoding, two different lengths may be set.

MSI Length Control = Variable Length

MSI = Fixed Length

DEFAULT

MSI Length Control = No Check

MSI Set Length 1

This feature specifies one of the barcode lengths for MSI. Length 1 is the minimum label length if in Variable Length on page 82 Mode, or the first fixed length if in Fixed Length on page 82 Mode. Length includes the barcode's data characters only. The length can be set from 01 to 50 characters. For more detailed programming instructions, see Chapter 4, Set Length.

Table 22 provides some examples for setting Length 1.

Table 22. MSI Length 1 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	01 Characters	07 Characters	15 Characters	50 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT MSI LENGTH 1 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '1'	'0' and '7'	'1' and '5'	'5' AND '0'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				

Select MSI Set Length 1 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **01 = Length 1 is 1 Character**

MSI Set Length 2

This feature specifies one of the barcode lengths for MSI. Length 2 is the maximum label length if in Variable Length on page 82 Mode, or the second fixed length if in Fixed Length on page 82 Mode. Length includes the barcode's check, data, and full–ASCII shift characters. The length does not include start/stop characters.

The length can be set from 1 to 50 characters. A setting of 0 specifies to ignore this length (only one fixed length). For more detailed programming instructions, see Chapter 4, Set Length.

Table 23 provides examples for setting Length 2.

Table 23. MSI Length 2 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	00 (Ignore This Length)	07 Characters	15 Characters	50 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT MSI LENGTH 2 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '0'	'0' and '7'	'1' and '5'	'5' AND '0'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				

Select MSI Length 2 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **50 = Length 2 is 50 Characters**

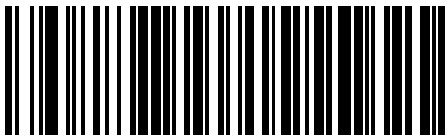
PLESSEY

The following options apply to the Plessey symbology.

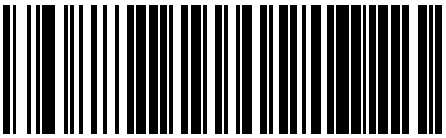
Plessey Enable/Disable

Enables/Disables ability of reader to decode Plessey labels.

DEFAULT



Plessey = Disable



Plessey = Enable

Plessey Check Character Calculation

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

Plessey Check Character Calculation = Disable

DEFAULT

Plessey Check Character Calculation =
Enable Plessey std. check char. verification

Plessey Check Character Calculation =
Enable Anker check char. verification

Plessey Check Character Calculation =
Enable Plessey std. and Anker check char verification

Plessey Check Character Transmission

Enables/disables transmission of an MSI check character.

Plessey Check Character Transmission = Disable

DEFAULT

Plessey Check Character Transmission = Enable

Plessey Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for the Plessey symbology.

Variable Length: For variable length decoding, a minimum and maximum length may be set.

Fixed Length: For fixed length decoding, two different lengths may be set.

Plessey Length Control = Variable Length

Plessey = Fixed Length

DEFAULT

Plessey Length Control = No Check

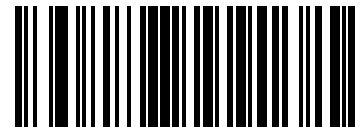
Plessey Set Length 1

This feature specifies one of the barcode lengths for Plessey Length Control on page 147. Length 1 is the minimum label length if in Variable Length on page 82 Mode, or the first fixed length if in Fixed Length on page 82 Mode. Length includes the barcode's data characters only. The length can be set from 01 to 50 characters. For more detailed programming instructions, see Chapter 4, Set Length.

Table 24 provides some examples for setting Length 1.

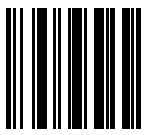
Table 24. Plessey Length 1 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	01 Characters	07 Characters	15 Characters	50 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT Plessey LENGTH 1 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '1'	'0' and '7'	'1' and '5'	'5' AND '0'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				



Select Plessey Set Length 1 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.



CANCEL

DEFAULT **01 = Length 1 is 1 Character**

Plessey Set Length 2

This feature specifies one of the barcode lengths for Plessey Length Control on page 147. Length 2 is the maximum label length if in Variable Length on page 82 Mode, or the second fixed length if in Fixed Length on page 82 Mode. Length includes the barcode's check, data, and full-ASCII shift characters. The length does not include start/stop characters.

The length can be set from 1 to 50 characters. A setting of 0 specifies to ignore this length (only one fixed length). For more detailed programming instructions, see Chapter 4, Set Length.

Table 25 provides examples for setting Length 2.

Table 25. Plessey Length 2 Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	00 (Ignore This Length)	07 Characters	15 Characters	50 Characters
2	**Scan ENTER/EXIT PROGRAMMING MODE**				
3	**Scan SELECT PLESSEY LENGTH 2 SETTING**				
4	**Scan Two Characters From** Appendix B,	'0' and '0'	'0' and '7'	'1' and '5'	'5' AND '0'
5	**Scan ENTER/EXIT PROGRAMMING MODE**				

Select Plessey Length 2 Setting

Make a mistake? Scan the CANCEL barcode to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **50 = Length 2 is 50 Characters**

NOTES

2D SYMBOLOGIES

2D Global Features
• **2D STRUCTURED APPEND** on page 153
• **2D NORMAL/INVERSE SYMBOL CONTROL** on page 154

The reader supports the following 2D symbologies (bar code types). Symbology-dependent options for each symbology are included in this chapter.

2D Symbologies
• **AZTEC CODE** on page 155
• **HAN XIN CODE** on page 159
• **DATA MATRIX** on page 163
• **DOTCODE** on page 168
• **MAXICODE** on page 174
• **PDF417** on page 178
• **MICRO PDF417** on page 181
• **QR CODE** on page 186
• **MICRO QR CODE** on page 189
• **DIGITAL WATERMARK** on page 193
• **OCR** on page 194
• **UCC COMPOSITE** on page 195
• **POSTAL CODE SELECTION** on page 196

2D Global Features

The following features are common to all, or in some cases, most of the available 2D symbologies. Default settings are indicated at each feature/option with a green arrow. To set most features:

1. Scan the ENTER/EXIT PROGRAMMING bar code at the top of applicable programming pages.
2. Scan the correct bar code to set the desired programming feature or parameter. You may need to cover unused bar codes on the page, and possibly the facing page, to ensure that the reader reads only the bar code you intend to scan.
3. If additional input parameters are needed, go to Appendix B,, and scan the appropriate characters from the keypad.



NOTE

Additional information about many features can be found in the "References" chapter.

If you make a mistake before the last character, scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.

Complete the programming sequence by scanning the ENTER/EXIT PROGRAMMING bar code to exit Programming Mode.

2D Structured Append

Enables/disables ability of reader to append multiple 2D Codes labels in a structured format. The structured append property is globally applied to the following symbologies, if these are enabled:

- Aztec
- Data Matrix
- PDF 417
- QR Code

DEFAULT

Structured Append = Disable

Structured Append = Enable

2D Normal/Inverse Symbol Control

Specifies the options available for decoding normal/negative printed 2D symbols. This configuration item applies globally to all the 2D symbologies that support that feature according to Standard AIM Specification: Data Matrix, QR, MicroQR, Aztec and Han Xin Code .

Normal/Inverse Symbol Control = Normal

Normal/Inverse Symbol Control = Inverse

DEFAULT

Normal/Inverse Symbol Control = Both Normal and Inverse

AZTEC CODE

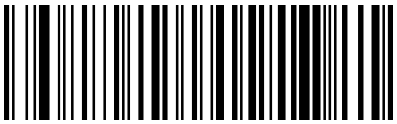
Aztec Code Enable / Disable

Enables/disables the ability of the reader to decode Aztec Code labels.

DEFAULT



Aztec Code = Disable



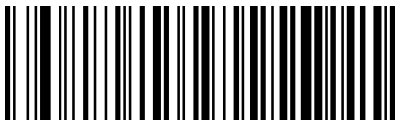
Aztec Code = Enable

Aztec Code Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for this symbology.

Variable Length. For variable length decoding, a minimum and maximum length may be set.

Fixed Length. For fixed length decoding, two different lengths may be set.



Aztec Code Length Control = Variable Length



Aztec Code Length Control = Fixed Length

DEFAULT



Aztec Code Length Control = No Check

Aztec Code Set Length 1

Specifies one of the bar code lengths for Aztec Code. Length 1 is the minimum label length if in Variable Length Mode, or the first fixed length if in Fixed Length Mode. Characters can be set from 0001 to 3,832 characters in increments of 0001 (pad with zeroes). Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting length = 2). For more detailed programming instructions, see Chapter 4, Set Length.

Select Aztec Code Length 1 Setting

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **0001 = Length 1 is 1 Character**

Aztec Code Set Length 2

This feature specifies one of the bar code lengths for Aztec Code. Length 2 is the maximum label length if in Variable Length Mode, or the second fixed length if in Fixed Length Mode. Characters can be set from 0001 to 3,832 characters in increments of 0001 (pad with zeroes). Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting length = 2). For more detailed programming instructions, see Chapter 4, Set Length.

Select Aztec Code Length 2 Setting

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **Length 2 is 3,832 Characters**

HAN XIN CODE

Han Xin Code Enable / Disable

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

DEFAULT

Han Xin Code = Disable

Han Xin Code = Enable

Han Xin Code: Code Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for this symbology.

Variable Length. For variable length decoding, a minimum and maximum length may be set.

Fixed Length. For fixed length decoding, two different lengths may be set.

Han Xin Code Length Control = Variable Length

Han Xin Code Length Control = Fixed Length

DEFAULT

Han Xin Code Length Control = No Check

Han Xin Code Set Length 1

Specifies one of the bar code lengths for Han Xin Code. Length 1 is the minimum label length if in Variable Length Mode, or the first fixed length if in Fixed Length Mode. Characters can be set from 0001 to 7,827 characters in increments of 0001 (pad with zeroes). Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting length = 2). For more detailed programming instructions, see Chapter 4, Set Length.

Select Han Xin Code Length 1 Setting

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **0001 = Length 1 is 1 Character**

Han Xin Code Set Length 2

This feature specifies one of the bar code lengths for Han Xin Code. Length 2 is the maximum label length if in Variable Length Mode, or the second fixed length if in Fixed Length Mode. Characters can be set from 0001 to 7,827 characters in increments of 0001 (pad with zeroes). Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting length = 2). For more detailed programming instructions, see Chapter 4, Set Length.

Select Han Xin Code Length 2 Setting

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **Length 2 is 7,827 Characters**

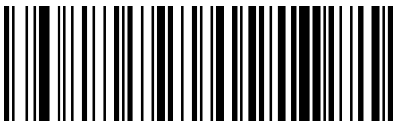
DATA MATRIX

Data Matrix Enable / Disable

Enables/disables ability of reader to decode Data Matrix labels.



Data Matrix = Disable



Data Matrix = Enable

DEFAULT

Data Matrix Square/Rectangular Style

Specifies the options available when reading Data Matrix with different form factors. Choices are:

- Square Style
- Rectangular Style
- Both Square and Rectangular Style

The configuration item can also be configured as a bit mask to filter one or more Data Matrix labels with different symbol size AND shape styles.

Data Matrix Dimensions Mask = Square Style

Data Matrix Dimensions Mask = Rectangular Style

DEFAULT

Data Matrix Dimensions Mask =
Both Square and Rectangular Style

Data Matrix Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for this symbology.

Variable Length. For variable length decoding, a minimum and maximum length may be set.

Fixed Length. For fixed length decoding, two different lengths may be set.

Data Matrix Length Control = Variable Length

Data Matrix Length Control = Fixed Length

DEFAULT

Data Matrix Length Control = No Check

Data Matrix Set Length 1

Specifies one of the bar code lengths for Data Matrix. Length 1 is the minimum label length if in Variable Length Mode, or the first fixed length if in Fixed Length Mode. Characters can be set from 0001 to 3,116 characters in increments of 0001 (pad with zeroes). Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting length = 2). For more detailed programming instructions, see Chapter 4, Set Length.

Select Data Matrix Length 1 Setting

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **0001 = Length 1 is 1 Character**

Data Matrix Set Length 2

This feature specifies one of the bar code lengths for Data Matrix. Length 2 is the maximum label length if in Variable Length Mode, or the second fixed length if in Fixed Length Mode. Characters can be set from 0001 to 3,116 characters in increments of 0001 (pad with zeroes). Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting length = 2). For more detailed programming instructions, see Chapter 4, Set Length.

Select Data Matrix Length 2 Setting

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **Length 2 is 3,116 Characters**

DOTCODE

DotCode Enable / Disable

Enables/disables ability of reader to decode DotCode labels.

DEFAULT


DotCode = Disable

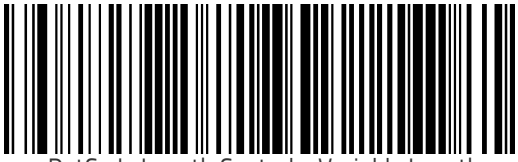

DotCode = Enable

DotCode Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for this symbology.

Variable Length. For variable length decoding, a minimum and maximum length may be set.

Fixed Length. For fixed length decoding, two different lengths may be set.


DotCode Length Control = Variable Length


DotCode Length Control = Fixed Length

DEFAULT


DotCode Length Control = No Check

DotCode Set Length 1

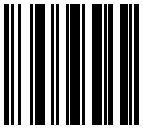
Specifies one of the bar code lengths for DotCode. Length 1 is the minimum label length if in Variable Length on page 168, or the first fixed length if in Fixed Length on page 168. Characters can be set from 0001 to 9999 characters (default: 1) in increments of 0001 (pad with zeroes). Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting length = 2). See "Set Length" on References on page 201 for more detailed programming instructions.



Select DotCode Length 1 Setting

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.



CANCEL

DEFAULT

0001 = Length 1 is 1 Character

DotCode Set Length 2

This feature specifies one of the bar code lengths for DotCode. Length 2 iis the minimum label length if in Variable Length on page 168, or the first fixed length if in Fixed Length on page 168. Characters can be set from 0001 to 9999 characters (default: 7000) in increments of 0001 (pad with zeroes). Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting length = 2). See "Set Length" on References on page 201 for more detailed programming instructions.

Select DotCode Length 2 Setting

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT

7000 = Length 2 is 7000 Characters

DotCode High Resolution

Enables or disables the high resolution configuration for detecting codes. Useful for decoding high resolution DotCode.

DEFAULT

DotCode High Resolution = Disable

DotCode High Resolution = Enable

DotCode Constant Position

Enables or disables a mode useful for decoding a series of DotCodes that will be presented in about the same area of the field of view.

DEFAULT

DotCode Constant Position = Disable

DotCode Constant Position = Enable

DotCode Maximum Dot Diameter

This feature specifies the maximum dot diameter of a DotCode to be decoded: the measurement unit is pixel and it refers to the diameter of the dots as they appear on the acquired image. Characters can be set from 0001 to 0512 in increments of 1 (pad with zeroes). Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting diameter = 2). Default value is 0016.

Maximum Dot Diameter

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT

0016 = Maximum Dot Diameter is 16 pixels

DotCode Minimum Dot Diameter

This feature specifies the minimum dot diameter of a DotCode to be decoded: the measurement unit is pixel and it refers to the diameter of the dots as they appear on the acquired image. Characters can be set from 0001 to 0512 in increments of 1 (pad with zeroes). Always use four digits (e.g.: scan the bar-codes '0', '0', '0', '2' for setting diameter = 2). Default value is 0001.

Minimum Dot Diameter

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT

0001 = Minimum Dot Diameter is 1 pixel

MAXICODE

Maxicode Enable / Disable

Enables/disables ability of reader to decode Maxicode labels.

DEFAULT

Maxicode = Disable

Maxicode = Enable

Maxicode Primary Message Transmission

Enables/disables the transmission of only the Primary Message when the Secondary Message is not readable.

DEFAULT

Maxicode Primary Message Transmission = Disable

Maxicode Primary Message Transmission = Enable

Maxicode Length Control

This feature specifies either variable length decodin, fixed length decoding or no check length decoding for this symbology.

Variable Length. For variable length decoding, a minimum and maximum length may be set.

Fixed Length. For fixed length decoding, two different lengths may be set.

Maxicode Length Control = Variable Length

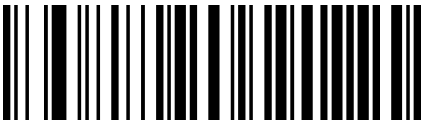
Maxicode Length Control = Fixed Length

DEFAULT

Maxicode Length Control = No Check

Maxicode Set Length 1

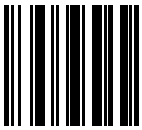
Specifies one of the bar code lengths for Maxicode. Length 1 is the minimum label length if in Variable Length Mode, or the first fixed length if in Fixed Length Mode. Characters can be set from 0001 to 0145 characters in increments of 0001 (pad with zeroes). Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting length = 2). For more detailed programming instructions, see Chapter 4, Set Length.



Select Maxicode Length 1 Setting

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.



CANCEL

DEFAULT **0001 = Length 1 is 1 Character**

Maxicode Set Length 2

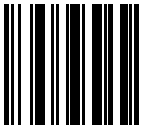
This feature specifies one of the bar code lengths for Maxicode. Length 2 is the maximum label length if in Variable Length Mode, or the second fixed length if in Fixed Length Mode. Characters can be set from 0001 to 0138 characters in increments of 0001 (pad with zeroes). Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting length = 2). For more detailed programming instructions, see Chapter 4, Set Length.



Select Maxicode Length 2 Setting

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.



CANCEL

DEFAULT **Length 2 is 0138 Characters**

PDF417

PDF417 Enable / Disable

Enables/disables the ability of the reader to decode PDF417 labels.

PDF417 = Disable

PDF417 = Enable

DEFAULT

PDF417 Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for this symbology.

Variable Length. For variable length decoding, a minimum and maximum length may be set.

Fixed Length. For fixed length decoding, two different lengths may be set.

PDF417 Length Control = Variable Length

PDF417 Length Control = Fixed Length

DEFAULT

PDF417 Length Control = No Check

PDF417 Set Length 1

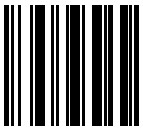
Specifies one of the bar code lengths for PDF417. Length 1 is the minimum label length if in Variable Length Mode, or the first fixed length if in Fixed Length Mode. Length includes the bar code's data characters only. Characters can be set from 0001 to 2,710 characters (pad with zeroes) in increments of 01. Any value greater than 2,710 will be considered to be 2,710. Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting length = 2). For more detailed programming instructions, see Chapter 4, Set Length.



Select PDF417 Length 1 Setting

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.



CANCEL

DEFAULT **0001 = Length 1 is 1 Character**

PDF417 Set Length 2

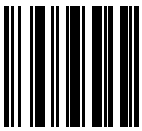
This feature specifies one of the bar code lengths for PDF417. Length 2 is the maximum label length if in Variable Length Mode, or the second fixed length if in Fixed Length Mode. Length includes the bar code's check, data, and full-ASCII shift characters. The length does not include start/stop characters. Characters can be set from 01 to 2,710 characters (pad with zeroes) in increments of 01. Any value greater than 2,710 will be considered to be 2,710. Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting length = 2). For more detailed programming instructions, see Chapter 4, Set Length.



Select PDF417 Length 2 Setting

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.



CANCEL

DEFAULT **Length 2 is 2,710 Characters**

MICRO PDF417

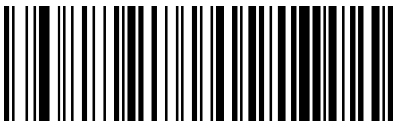
Micro PDF417 Enable / Disable

Enables/disables the ability of the reader to decode Micro PDF417 labels.

DEFAULT



Micro PDF417 = Disable



Micro PDF417 = Enable

Micro PDF417 Code 128 GS1-128 Emulation

Specifies which AIM ID to use for MicroPDF labels when doing Code 128 or GS1-128 emulation.

Emulation choices are:

- Micro PDF AIM ID and label type
- Code 128 / EAN128 AIM Id and label type

DEFAULT

Micro PDF417 Code 128 GS1-128 Emulation = Micro PDF AIM ID and label type

Micro PDF417 Code 128 GS1-128 Emulation = Code 128 / EAN128 AIM ID and label type

Micro PDF417 Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for this symbology.

Variable Length. For variable length decoding, a minimum and maximum length may be set.

Fixed Length. For fixed length decoding, two different lengths may be set.

Micro PDF417 Length Control = Variable Length

Micro PDF417 Length Control = Fixed Length

DEFAULT

Micro PDF417 Length Control = No Check

Micro PDF417 Set Length 1

Specifies one of the bar code lengths for Micro PDF417. 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 bar code's data characters only. Characters can be set from 0001 to 0366 characters (pad with zeroes) in increments of 01. Any value greater than 0366 will be considered to be 0366. Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting length = 2). For more detailed programming instructions, see Chapter 4, Set Length.

Select Micro PDF417 Length 1 Setting

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **0001 = Length 1 is 1 Character**

Micro PDF417 Set Length 2

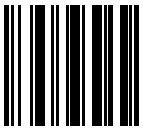
This feature specifies one of the bar code lengths for Micro PDF417. Length 2 is the maximum label length if in Variable Length Mode, or the second fixed length if in Fixed Length includes the bar code's data characters only. Characters can be set from 0001 to 0366 characters (pad with zeroes) in increments of 01. Any value greater than 0366 will be considered to be 0366. Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting length = 2). For more detailed programming instructions, see Chapter 4, Set Length.



Select Micro PDF417 Length 2 Setting

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.



CANCEL

DEFAULT **Length 2 is 0366 Characters**

QR CODE

QR Code Enable / Disable

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

QR Code = Disable

QR Code = Enable

DEFAULT

QR Code Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for this symbology.

Variable Length. For variable length decoding, a minimum and maximum length may be set.

Fixed Length. For fixed length decoding, two different lengths may be set.

QR Code Length Control = Variable Length

QR Code Length Control = Fixed Length

DEFAULT

QR Code Length Control = No Check

QR Code Set Length 1

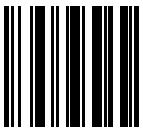
Specifies one of the bar code lengths for QR Code Length Control on page 186. Length 1 is the minimum label length if in Variable Length Mode, or the first fixed length if in Fixed Length Mode. Characters can be set from 0001 to 7,089 characters in increments of 0001 (pad with zeroes). Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting length = 2). For more detailed programming instructions, see Chapter 4, Set Length.



Select QR Code Length 1 Setting

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.



CANCEL

DEFAULT **0001 = Length 1 is 1 Character**

QR Code Set Length 2

This feature specifies one of the bar code lengths for QR Code Length Control on page 186. Length 2 is the maximum label length if in Variable Length Mode, or the second fixed length if in Fixed Length Mode. Characters can be set from 0001 to 7,089 characters in increments of 0001 (pad with zeroes). Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting length = 2).

For more detailed programming instructions, see Chapter 4, Set Length.

Select QR Code Length 2 Setting

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **Length 2 is 7,089 Characters**

MICRO QR CODE

Micro QR Code Enable/Disable

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

DEFAULT

Micro QR Code = Disable

Micro QR Code = Enable

Micro QR Code Length Control

This feature specifies either variable length decoding, fixed length decoding or no check length decoding for this symbology.

Variable Length. For variable length decoding, a minimum and maximum length may be set.

Fixed Length. For fixed length decoding, two different lengths may be set.



Micro QR Code Length Control = Variable Length



Micro QR Code Length Control = Fixed Length

DEFAULT



Micro QR Code Length Control = No Check

Micro QR Code Set Length 1

Specifies one of the bar code lengths for Micro QR Code. Length 1 is the minimum label length if in Variable Length Mode, or the first fixed length if in Fixed Length Mode. Characters can be set from 0001 to 0035 characters in increments of 0001 (pad with zeroes). Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting length = 2). For more detailed programming instructions, see Chapter 4, Set Length.

Select Micro QR Code Length 1 Setting

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.

CANCEL

DEFAULT **0001 = Length 1 is 1 Character**

Micro QR Code Set Length 2

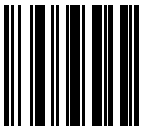
This feature specifies one of the bar code lengths for Micro QR Code. Length 2 is the maximum label length if in Variable Length Mode, or the second fixed length if in Fixed Length Mode. Characters can be set from 0001 to 0035 characters in increments of 0001 (pad with zeroes). Always use four digits (e.g.: scan the barcodes '0', '0', '0', '2' for setting length = 2). For more detailed programming instructions, see Chapter 4, Set Length.



Select Micro QR Code Length 2 Setting

To configure this feature, scan the ENTER/EXIT PROGRAMMING MODE bar code above, then the bar code at left followed by the digits from the Alphanumeric characters in Appendix B, representing your desired character(s). End by scanning the ENTER/EXIT bar code again.

Make a mistake? Scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.



CANCEL

DEFAULT **Length 2 is 0035 Characters**

DIGITAL WATERMARK

Enables or disables the capability to decode images including Digimarc® digital watermark technology. When enabling Digimarc, also make sure to have enabled the EAN 13, EAN 8, UPC–A, UPC–E, CODE 128, GS1–128 and GS1 DataBar™ Expanded symbologies. For additional details and configuration options please contact technical support for assistance.

Digimarc Disable

DEFAULT

Digimarc Enable

NOTE

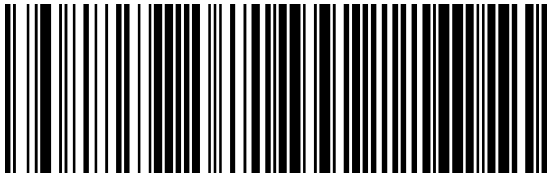
IMPORTANT: For decoding Digimarc® a red illumination is required.

NOTE

When enabling Digimarc® also make sure that the following symbologies are enabled: EAN 13, EAN 8, UPC-A, UPC-E, CODE 128, GS1-128, GS1 DataBar™ Expanded.

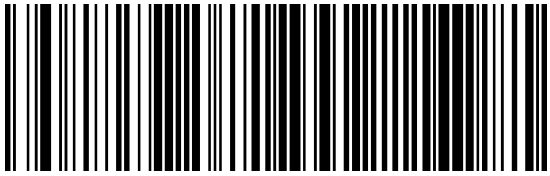
OCR

Enables or disables the Optical Character Recognition (OCR) capability of the decoder. For additional details and configuration options please contact technical support for assistance.



OCR Disable

DEFAULT



OCR Enable

UCC COMPOSITE

UCC Optional Composite Timer

Specifies the amount of time the system will wait for the stacked part of a UCC Composite label before transmitting the linear label without an add-on.

DEFAULT

UCC Optional Composite Timer = Timer Disabled

UCC Optional Composite Timer = 100msec

UCC Optional Composite Timer = 200msec

UCC Optional Composite Timer = 300msec

UCC Optional Composite Timer = 400msec

UCC Optional Composite Timer = 500msec

Postal Code Selection

Enables/disables the ability of the scanner to decode labels of a specific postal symbology.

- Postnet
- Planet
- Royal Mail
- Kix
- Australian Post
- Japanese Post
- IMB
- Swedish Post
- Portuguese Post
- PostNet BB
- NewZealand Postal

PostNet = Enable

PostNet = Disable

DEFAULT

PlaNet = Enable

PlaNet = Disable

DEFAULT

RoyalMail = Enable

RoyalMail = Disable

DEFAULT

Postal Code Selection (continued)

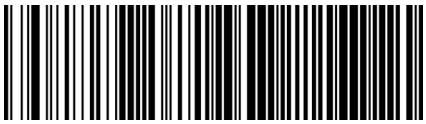


Kix = Enable



Kix = Disable

DEFAULT

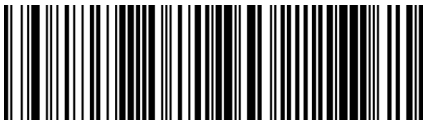


Australian Post = Enable

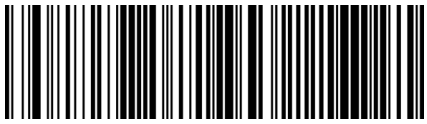


Australian Post = Disable

DEFAULT



Japanese Post = Enable



Japanese Post = Disable

DEFAULT

Postal Code Selection (continued)



IMB Post = Enable



IMB Post = Disable

DEFAULT



Swedish Postal = Enable



Swedish Postal = Disable

DEFAULT



Portugal Post = Enable



Portugal Post = Disable

DEFAULT

Postnet BB Control

Controls the ability of the scanner to decode B and B' fields of Postnet labels.

PostNet BB = Enable

PostNet BB = Disable

DEFAULT

NewZealand Postal Control

Controls the ability of the scanner to decode NewZealand Postal labels.

NewZealand Postal = Enable

NewZealand Postal = Disable

DEFAULT

NOTES

Chapter 4
References

This section contains explanations and examples of selected bar code features. See "Configuration Using Bar Codes" starting on page 9 for the actual bar code labels used to configure the scanner.

RS-232 PARAMETERS on page 202
RS-232 Only on page 202
DATA FORMAT on page 203
Data Editing on page 203
Global Prefix/Suffix on page 204
Global AIM ID on page 205
SCANNING FEATURES on page 206
Scan Mode on page 206
Flash On Time on page 207
Flash Off Time on page 208
SYMBOLOGIES on page 209
Set Length on page 209

RS-232 Parameters

RS-232 Only

Baud Rate

Baud rate is the number of bits of data transmitted per second. Set the scanner's baud rate to match the baud rate setting of the host device. With an improper baud rate setting, data may not reach the host correctly.

Data Bits

This parameter allows the reader to interface with devices requiring a 7-bit or 8-bit ASCII protocol for sending and receiving data.

Stop Bits

The stop bit(s) at the end of each transmitted character marks the end of transmission of one character and prepares the receiving device for the next character in the serial data stream. The number of stop bits selected (one or two) depends on the number the receiving terminal is programmed to accommodate. Set the number of stop bits to match host device requirements.

Parity

This feature specifies parity required for sending and receiving data. A parity check bit is the most significant bit of each ASCII coded character. Select the parity type according to host device requirements.

- Select None when no parity bit is required.
- Select Odd parity and the parity bit value is set to 0 or 1, based on data, to ensure that an odd number of 1 bits are contained in the coded character.
- Select Even parity and the parity bit value is set to 0 or 1, based on data, to ensure that an even number of 1 bits are contained in the coded character.

Handshaking Control

The data interface consists of a UART port designed to operate either with or without the hardware handshaking lines, Request to Send (RTS), and Clear to Send (CTS). Handshaking Control includes the following options:

- None - no hardware handshaking lines, only TX and RX communication lines are used
- RTS — RTS is asserted during transmissions. CTS is ignored.
- RTS/CTS — RTS is asserted during transmissions. CTS gates transmissions.
- RTS On/CTS — RTS is always asserted. CTS gates transmissions.

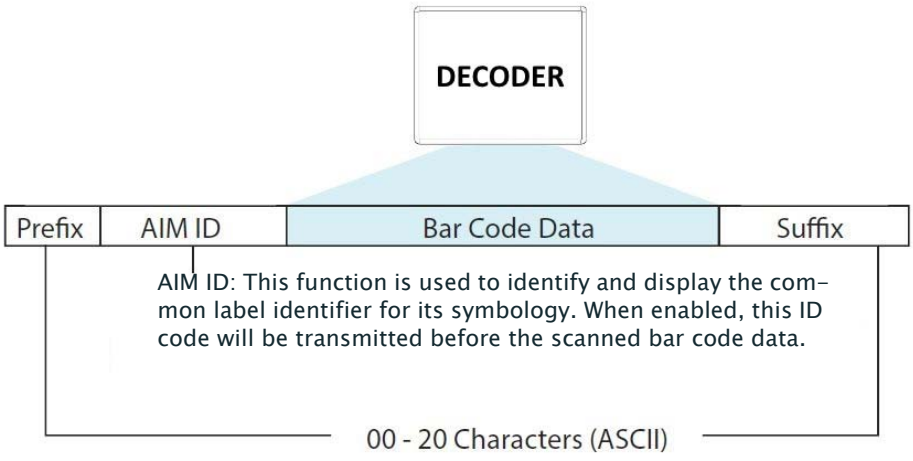
Data Format

Data Editing

When a bar code is scanned, additional information can be sent to the host computer along with the bar code data. This combination of bar code data and supplementary user-defined data is called a “message string.” The Data Editing features 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. The following shows the available elements you can add to a message string:

Figure 2. Breakdown of a Message String





NOTE

Additional advanced editing is available. Contact Technical Support (see page 2) for more information.

Please Keep In Mind...

- Modifying a message string is not a mandatory requirement. Data editing is a 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 across all symbologies (set via the Global features in Configuration Using Bar Codes, starting on page 9).
- You can add any character from the ASCII Chart on page 215 (from 00-FF) on the inside back cover of this manual as a prefix or suffix.
- Enter prefixes and suffixes in the order in which you want them to appear on the output.

Global Prefix/Suffix

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

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 bar code data. In this example, we'll add a dollar sign ('$') as a prefix.
2. Go to page 44 and scan the ENTER/EXIT PROGRAMMING MODE bar code, then scan the SET GLOBAL PREFIX bar code.
3. Reference the ASCII Chart on page 215 on the inside back cover of this manual to find the hex value assigned to the desired character. The corresponding hex number for the '$' character is 24. To enter this selection code, scan the '2' and '4' bar codes from Appendix B, Keypad.



NOTE **If you make a mistake before the last character, scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.**

4. If less than the expected string of 20 characters are selected, scan the ENTER/EXIT bar code to terminate the string.
5. Scan the ENTER/EXIT bar code once again to exit Programming Mode.
6. The resulting message string would appear as follows:
   Scanned bar code data: **12345**
   Resulting message string output: **$12345**

Global AIM ID



NOTE

This feature enables/disables addition of AIM IDs for all symbology types.

AIM label identifiers (as opposed to custom characters you select yourself as with label identifiers) can be included with scanned bar code 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).

SYMBOLOGY	CHAR	SYMBOLOGY	CHAR
UPC/EAN	E[a]	Code 128/GS1-128	C
Code 39 and Code 32	A	DataBar Omnidirectional, DataBar Expanded	e
Codabar	F	Standard 2 of 5	S
Interleaved 2 of 5	I	ISBN	X[b]
Code 93	G	Code 11	H

a. UPC-A and UPC-E labels are converted to EAN 13 when adding AIM IDs.
b. ISBN (X with a 0 modifier character)

Scanning Features

Scan Mode

Selects the scan operating mode for the reader. Selections are:

Trigger Single: Scanning is activated through the trigger signal line on the host interface or through a DESP command. When the device is triggered, AIM and illumination are turned on and the scanner attempts to read a label. Scanning is activated until one of the following occurs:

- the programmable “Scanning Active Time” has elapsed
- a label has been read
- the trigger is released (stop command or external trigger line low)

Trigger Hold Multiple : When the trigger is pulled, scanning starts and the product scans until the trigger is released or Scanning Active Time has elapsed. Reading a label does not disable scanning. Double Read Timeout prevents undesired multiple reads of the same label while in this mode.

Trigger Pulse Multiple: When the trigger is pulled, continuous scanning is activated until Scanning Active Time has elapsed or the trigger has been released and pulled again. Double Read Timeout prevents undesired multiple reads of the same label while in this mode.

Flashing: The reader flashes[1] on and off regardless of the trigger status. Flash rate is controlled by Flash On Time and Flash Off Time. When Flash is ON the reader reads continuously. When Flash is OFF scanning is deactivated.

Always On: No trigger pull is required to read a bar code. Scanning is continuously on. Double Read Timeout prevents undesired multiple reads of the same label while in this mode.



CAUTION

Always On mode is not recommended for continuous and prolonged operation. Use Stand Mode (Automatic - Object Sense) instead

Stand Mode: No trigger is required to read a bar code. Scanning turns on automatically when an item is placed in reader's field of view. While in this mode, the reader AIM is always on and illumination LED goes from OFF to ON when a movement is detected in the field of view.

[1] Controlled by Flash On Time.

Flash On Time

This feature specifies the ON time for the indicator LED while in Flash Mode. The selectable range is 100 to 9,900 milliseconds (0.1 to 9.9 seconds), in 100 millisecond increments.

Follow these instructions to set this feature.

1. Determine the desired setting in milliseconds.
2. Divide the desired setting by 100 (setting is in 100ms increments). Pad the result with leading zeroes to yield two digits. For example: 0 = 00, 5 = 05, 20 = 20, etc.
3. Scan the ENTER/EXIT PROGRAMMING MODE bar code to enter Programming Mode.
4. Scan the bar code: SELECT FLASH ON TIME SETTING on page 53
5. Scan the appropriate two digits from the keypad in Appendix B, Keypad representing the duration which was determined in the steps above. You will hear a two-beep indication after the last character.



NOTE **If you make a mistake before the last character, scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.**

6. Scan the ENTER/EXIT PROGRAMMING MODE bar code to exit Programming Mode.

This completes the procedure. See the table below for examples of how to set this feature.

Table 26. Flash On Time Setting Examples

STEP	ACTION	EXAMPLES			
1	**Desired Setting**	500ms	1,000ms (1 sec.)	5200ms (5.2 sec.)	9,900ms (9.9 sec.)
2	**Divide by 100 (and pad with leading zeroes to yield two digits)**	05	10	52	99
3	**Scan ENTER/EXIT PROGRAMMING MODE**				
4	**Scan SELECT FLASH ON TIME SETTING**				
5	**Scan Two Characters From** Appendix B, Keypad	'0' and '5'	'1' and '0'	'5' and '2'	'9' and '9'
6	**Scan ENTER/EXIT PROGRAMMING MODE**				

Flash Off Time

This feature specifies the OFF time for the indicator LED while in Flash Mode. The selectable range is 100 to 9,900 milliseconds (0.1 to 9.9 seconds), in 100 millisecond increments.

Follow these instructions to set this feature.

1. Determine the desired setting in milliseconds.
2. Divide the desired setting by 100 (setting is in 100ms increments). Pad the result with leading zeroes to yield two digits. For example: 0 = 00, 5 = 05, 20 = 20, etc.
3. Scan the ENTER/EXIT PROGRAMMING MODE bar code to enter Programming Mode.
4. Scan the bar code: SELECT FLASH OFF TIME SETTING on page 54.
5. Scan the appropriate two digits from the keypad in Appendix B, Keypad, that represent the duration which was determined in the steps above. You will hear a two-beep indication after the last character.



NOTE **If you make a mistake before the last character, scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.**

6. Scan the ENTER/EXIT PROGRAMMING MODE bar code to exit Programming Mode.

This completes the procedure. See the table below for examples of how to set this feature.

Table 27. Flash Off Time Setting Examples

STEP	ACTION	EXAMPLES			
1	Desired Setting	500ms	1,000ms (1 sec.)	5200ms (5.2 sec.)	9,900ms (9.9 sec.)
2	Divide by 100 (and pad with leading zeroes to yield two digits)	05	10	52	99
3	Scan ENTER/EXIT PROGRAMMING MODE				
4	Scan SELECT FLASH OFF TIME SETTING				
5	Scan Two Characters From Appendix B, Keypad	'0' and '5'	'1' and '0'	'5' and '2'	'9' and '9'
6	Scan ENTER/EXIT PROGRAMMING MODE				

Symbologies

Set Length

Length Control allows you to select either variable length decoding or fixed length decoding for the specified symbology.

Variable Length: For variable length decoding, a minimum and maximum length may be set.

Fixed Length: For fixed length decoding, two different lengths may be set.

Set Length 1

This feature specifies one of the bar code lengths for a given symbology. Length 1 is the minimum label length if in Variable Length Mode, or the first fixed length if in Fixed Length Mode.

Reference the 1 D Symbologies on page 62 section to view the selectable range (number of characters) for the symbology being set.

Follow these instructions to set this feature:

1. Determine the desired character length. Pad the number with leading zeroes to yield two digits. For example: 0 = 00, 5 = 05, 20 = 20, etc.
2. Scan the ENTER/EXIT PROGRAMMING MODE bar code to enter Programming Mode.
3. Scan the "Select Length 1 Setting" for the symbology being set.
4. Scan the appropriate two digits from the keypad in Appendix B, Keypad, that represent the length setting which was determined in the steps above. You will hear a two-beep indication after the last character.



If you make a mistake before the last character, scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.

NOTE

5. Scan the ENTER/EXIT PROGRAMMING MODE bar code to exit Programming Mode.

This completes the procedure. See the table below for examples of how to set this feature.

Table 28. Length 1 Setting Examples

STEP	ACTION	EXAMPLES			
1	Desired Setting	01 Character	07 Characters	52 Characters	74 Characters
2	Scan ENTER/EXIT PROGRAMMING MODE				
3	Scan SELECT LENGTH 1SETTING for the desired symbology				
4	Scan Two Characters From Appendix B, Keypad	'0' and '1'	'0' and '7'	'5' and '2'	'7' AND '4'
5	Scan ENTER/EXIT PROGRAMMING MODE				

Set Length 2

This feature specifies one of the bar code lengths for a given symbology. Length 2 is the maximum label length if in Variable Length Mode, or the second fixed length if in Fixed Length Mode.

Reference the 1 D Symbologies on page 62 section to view the selectable range (number of characters) for the symbology being set. A setting of 00 specifies to ignore this length (only one fixed length).

Follow these instructions to set this feature:

1. Determine the desired character length. Pad the number with leading zeroes to yield two digits. For example: 0 = 00, 5 = 05, 20 = 20, etc.
2. Scan the ENTER/EXIT PROGRAMMING MODE bar code to enter Programming Mode.
3. Scan the “Select Length 2 Setting” for the symbology being set.
4. Scan the appropriate two digits from the keypad in Appendix B, Keypad, that represent the length setting which was determined in the steps above. You will hear a two-beep indication after the last character.



NOTE **If you make a mistake before the last character, scan the CANCEL bar code to abort and not save the entry string. You can then start again at the beginning.**

5. Scan the ENTER/EXIT PROGRAMMING MODE bar code to exit Programming Mode.

This completes the procedure. See the table below for examples of how to set this feature.

Table 29. Length 2 Setting Examples

STEP	ACTION	EXAMPLES			
1	Desired Setting	00 (ignore second length)	07 Characters	52 Characters	74 Characters
2	Scan ENTER/EXIT PROGRAMMING MODE				
3	Scan SELECT LENGTH 2 SETTING				
4	Scan Two Characters From Appendix B, Keypad	‘0’ and ‘0’	‘0’ and ‘7’	‘5’ and ‘2’	‘7’ and ‘4’
5	Scan ENTER/EXIT PROGRAMMING MODE				

Appendix A
Sample Bar Codes

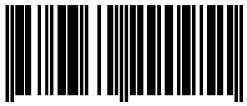
The sample bar codes in this appendix are typical representations for their symbology types.

1D Bar Codes

UPC-A



EAN-13



Code 39



Code 128



Interleaved 2 of 5



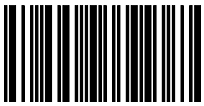
1D Bar Codes - continued

Code 32



345678902

Codabar



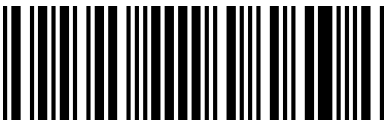
13579

Code 93



ABCDEF

Code 11



123456779

GS1 DataBar™ (RSS)

NOTE

GS1 DataBar™ variants must be enabled to read the bar codes below (see "GS1 DataBar™ Omnidirectional" on page 130).

GS1 DataBar™ Expanded Stacked



1029384756019283746501928374602947845036652 3

GS1 DataBar™ Expanded



1234890hjio9900mnb

GS1 DataBar™ Limited



08672345650916

GS1 DataBar™-14

GS1 DataBar™ Omnidirectional Truncated



55432198673467

GS1 DataBar™ Omnidirectional Stacked



90876523412674

GS1 DataBar™ Omnidirectional Stacked



78123465709811

2D Bar Codes2D Bar Codes

Aztec



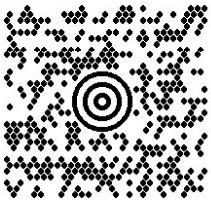
Datamatrix



China Sensible Code

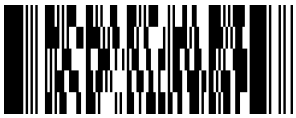


MaxiCode



Test Message

PDF 417



ABCabc

Micro PDF 417



BV17453

QR Code



35900G9

Micro QR Code



123456

UCC Composite

(17) 050923 (10) ABC123



(01) 0 4012345 67890 1 1

ASCII Chart

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

NOTES

Appendix B
Keypad

Use the barcodes in this appendix to enter numbers as you would select digits/characters from a keypad.

0	
	1
2	
	3
4	
	5

6	
	7
8	
	9

HID Variable PIN Code

Cancel an incomplete HID Variable PIN Code	
	Exit HID Variable PIN Code
A	
	B
C	
	D
E	
	F

NOTES

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