

Honeywell

Voyager™ XP Curve 1400g

Area-Imaging Scanner

User Guide

Disclaimer

Honeywell International Inc. (“HII”) reserves the right to make changes in specifications and other information contained in this document without prior notice, and the reader should in all cases consult HII to determine whether any such changes have been made. HII makes no representation or warranties regarding the information provided in this publication.

HII shall not be liable for technical or editorial errors or omissions contained herein; nor for incidental or consequential damages resulting from the furnishing, performance, or use of this material. HII disclaims all responsibility for the selection and use of software and/or hardware to achieve intended results.

This document contains proprietary information that is protected by copyright. All rights are reserved. No part of this document may be photocopied, reproduced, or translated into another language without the prior written consent of HII.

Copyright © 2025 Honeywell Group of Companies. All rights reserved.

Web Address: automation.honeywell.com

Microsoft® Windows® is a trademark or registered trademark of Microsoft Corporation

Other product names or marks mentioned in this document may be trademarks or registered trademarks of other companies and are the property of their respective owners.

For patent information, refer to www.hsmpats.com.

TABLE OF CONTENTS

Customer Support	xi
Technical Assistance	xi
Product Service and Repair	xi
Limited Warranty	xi
Chapter 1 - Get Started	1
About This Manual.....	1
Unpack Your Device.....	1
Connect the Device.....	1
Connect with USB.....	1
Connect with Keyboard Wedge	2
Connect with RS232 Serial Port	3
Reading Techniques.....	4
Menu Barcode Security Settings	5
Set Custom Defaults	5
Reset the Custom Defaults.....	5
Chapter 2 - Program the Interface	7
Introduction.....	7
Program the Interface - Plug and Play	7
Keyboard Wedge	7
Laptop Direct Connect.....	8
RS232 Serial Port.....	8
USB IBM SurePos.....	8

USB PC or Macintosh Keyboard	9
USB HID.....	9
USB Serial.....	10
CTS/RTS Emulation	10
ACK/NAK Mode.....	10
Secondary Interface for USB.....	11
Verifone [®] Ruby Terminal Default Settings	11
Gilbarco [®] Terminal Default Settings.....	12
Honeywell Bioptic Aux Port Configuration.....	12
Datalogic [™] Magellan [©] Bioptic Aux Port Configuration	12
NCR Bioptic Aux Port Configuration.....	13
Wincor Nixdorf Terminal Default Settings.....	13
Wincor Nixdorf Beetle [™] Terminal Default Settings.....	14
Wincor Nixdorf RS232 Mode A.....	14
Keyboard Country Layout.....	15
Keyboard Style	22
Keyboard Conversion	23
Control Character Output.....	24
Keyboard Modifiers.....	24
RS232 Modifiers	26
RS232 Baud Rate	26
RS232 Word Length: Data Bits, Stop Bits, and Parity	27
RS232 Receiver Time-Out	28
RS232 Handshaking.....	28
RS232 Timeout.....	29
XON/XOFF	29
ACK/NAK	30
Scanner to Bioptic Communication.....	30
Scanner-Bioptic Packet Mode	30
Scanner-Bioptic ACK/NAK Mode	31
Scanner-Bioptic ACK/NAK Timeout.....	31

Chapter 3 - Input/Output Settings33

Power Up Beeper	33
Beep on BEL Character	33
Trigger Click.....	34
Good Read and Error Indicators.....	34
Beeper – Good Read	34
Beeper Volume – Good Read	34
Beeper Pitch – Good Read	35
Beeper Pitch – Error	35
Beeper Duration – Good Read.....	36
LED – Good Read.....	36
Number of Beeps – Good Read	36
Number of Beeps – Error	36
Good Read Delay.....	37
User-Specified Good Read Delay	37
Manual Trigger Mode	38
LED Illumination - Manual Trigger.....	38
Serial Trigger Mode	38
Read Time-Out.....	38
Presentation Mode	39
Triggered Presentation Mode	39
Presentation Centering	39
In-Stand Sensor Mode	41
Poor Quality Codes	42
Poor Quality 1D Codes	42
Poor Quality PDF Codes.....	42
CodeGate®	43
Mobile Phone Read Mode	43
Hands Free Time-Out.....	43
Reread Delay	44
User-Specified Reread Delay.....	44
2D Reread Delay	44

Character Activation Mode	45
Activation Character	45
End Character Activation After Good Read	46
Character Activation Timeout	46
Character Deactivation Mode	46
Deactivation Character	47
Illumination Lights.....	47
Aimer Delay	47
User-Specified Aimer Delay	48
Aimer Mode	48
Centering	48
No Read	50
Video Reverse	51
Working Orientation	52

Chapter 4 - Data Edit 53

Prefix/Suffix Overview	53
To Add a Prefix or Suffix:	54
Clear One or All Prefixes or Suffixes	54
Add a Carriage Return Suffix to All Symbologies	55
Prefix Selections	55
Suffix Selections.....	55
Function Code Transmit.....	56
Intercharacter, Interfunction, and Intermessage Delays.....	56
Intercharacter Delay	56
User Specified Intercharacter Delay.....	57
Interfunction Delay	57
Intermessage Delay.....	58

Chapter 5 - Data Format 59

Data Format Editor Introduction.....	59
Show Data Format.....	60
Add a Data Format.....	60

Other Programming Selections	61
Terminal ID Table	62
Data Format Editor Commands	62
Move Commands.....	65
Search Commands.....	66
Miscellaneous Commands	68
Data Formatter.....	71
Primary/Alternate Data Formats	71

Chapter 6 - Symbologies.....73

All Symbologies.....	74
Message Length Description	74
Codabar.....	75
Codabar Concatenation.....	76
Code 39	77
Code 32 Pharmaceutical (PARAF).....	79
Full ASCII.....	80
Code 39 Code Page.....	80
Suppress Code 39	81
Interleaved 2 of 5.....	81
NEC 2 of 5	83
Code 93	84
Code 93 Code Page.....	85
Straight 2 of 5 Industrial (three-bar start/stop).....	86
Straight 2 of 5 IATA (two-bar start/stop)	87
Matrix 2 of 5	88
Code 11	89
Code 128	90
ISBT 128 Concatenation.....	90
Code 128 Code Page.....	91
GS1-128	92
UPC-A	93
UPC-A/EAN-13 with Extended Coupon Code	95

Coupon GS1 DataBar Output	96
UPC-E0	96
UPC-E1	98
EAN/JAN-13	99
Convert UPC-A to EAN-13.....	99
ISBN Translate.....	101
EAN/JAN-8	101
MSI.....	103
GS1 DataBar Omnidirectional.....	105
GS1 DataBar Limited	106
GS1 DataBar Expanded	106
Codablock A	107
Codablock F	108
PDF417	109
MacroPDF417	109
MicroPDF417	110
GS1 Composite Codes	111
UPC/EAN Version	111
GS1 Emulation.....	112
TCIF Linked Code 39 (TLC39)	113
QR Code.....	113
QR Code Append	114
QR Code Page	115
Digimarc Barcode™	115
Digimarc Decoder Attempts	115
Digimarc Barcode	115
Data Matrix.....	117
Data Matrix Code Page	117
MaxiCode	118
Aztec Code	119
Aztec Code Page	120
Chinese Sensible (Han Xin) Code	121

Postal Codes - 2D.....	121
Single 2D Postal Codes:.....	122
Combination 2D Postal Codes:.....	123
Postal Codes - Linear.....	126
China Post (Hong Kong 2 of 5).....	126
Korea Post.....	127

Chapter 7 - Utilities..... 129

Add a Test Code I.D. Prefix to All Symbologies.....	129
Show Decoder Library Version.....	129
Show Software Revision.....	129
Show Data Format.....	130
Test Menu.....	130
EZConfig for Scanning Introduction.....	130
Configure with EZConfig for Scanning.....	130
Reset the Factory Defaults.....	131

Chapter 8 - Serial Programming Commands 133

Conventions.....	133
Menu Command Syntax.....	133
Query Commands.....	134
Trigger Commands.....	136
Reset the Custom Defaults.....	137
Menu Commands.....	137

Chapter 9 - Product Specifications 155

Voyager XP 1400g Scanner Product Specifications.....	155
Depth of Field Charts.....	156
Typical Performance.....	156
Guaranteed Performance.....	157
Standard Cable Pinouts.....	157
Keyboard Wedge.....	158
Serial Output.....	158

USB	159
Chapter 10 - Maintenance and Troubleshooting	161
Repairs	161
Maintenance.....	161
Clean the Scanner.....	161
Inspect Cords and Connectors	162
Replace Cables in Corded Scanners	162
Replace a Corded Scanner Interface Cable.....	162
Troubleshoot a Corded Scanner	162
Appendix A - Reference Charts.....	165
Symbology Charts	165
Linear Symbologies.....	165
2D Symbologies.....	166
Postal Symbologies	167
ASCII Conversion Chart (Code Page 1252).....	168
Lower ASCII Reference Table	169
ISO 2022/ISO 646 Character Replacements.....	172
Keyboard Key References	175
Sample Symbols	177
Programming Chart.....	179

Customer Support

Technical Assistance

Go to honeywell.com/PSStechnicalsupport to search our knowledge base for a solution or to log into the Technical Support portal.

For our latest contact information, see honeywell.com/PSSlocations.

Product Service and Repair

Honeywell International Inc. provides service for all of its products through service centers throughout the world. Go to automation.honeywell.com and select **Support** to find a service center near you or to get a Return Material Authorization number (RMA #) before returning a product.

Limited Warranty

For warranty information, go to automation.honeywell.com and then select **Support > Productivity Solutions > Warranties**.

About This Manual

This User Guide provides installation and programming instructions for the Voyager™ XP Curve 1400g corded area-imaging scanners. Product specifications, dimensions, warranty, and customer support information are also included.

Honeywell barcode scanners are factory programmed for the most common terminal and communications settings. If you need to change these settings, programming is accomplished by scanning the barcodes in this guide.

An asterisk (*) next to an option indicates the default setting.

Unpack Your Device

After you open the shipping carton containing the product, take the following steps:

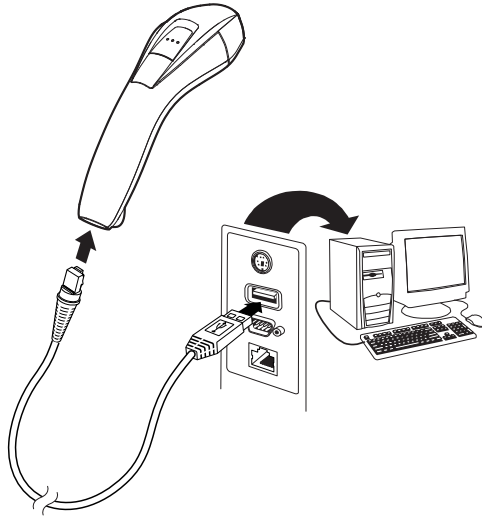
- Check for damage during shipment. Report damage immediately to the carrier who delivered the carton.
- Make sure the items in the carton match your order.
- Save the shipping container for later storage or shipping.

Connect the Device

Connect with USB

A scanner can be connected to the USB port of a computer.

1. Connect the appropriate interface cable to the device first, then to the computer.



Note: The power supply must be ordered separately, if needed.

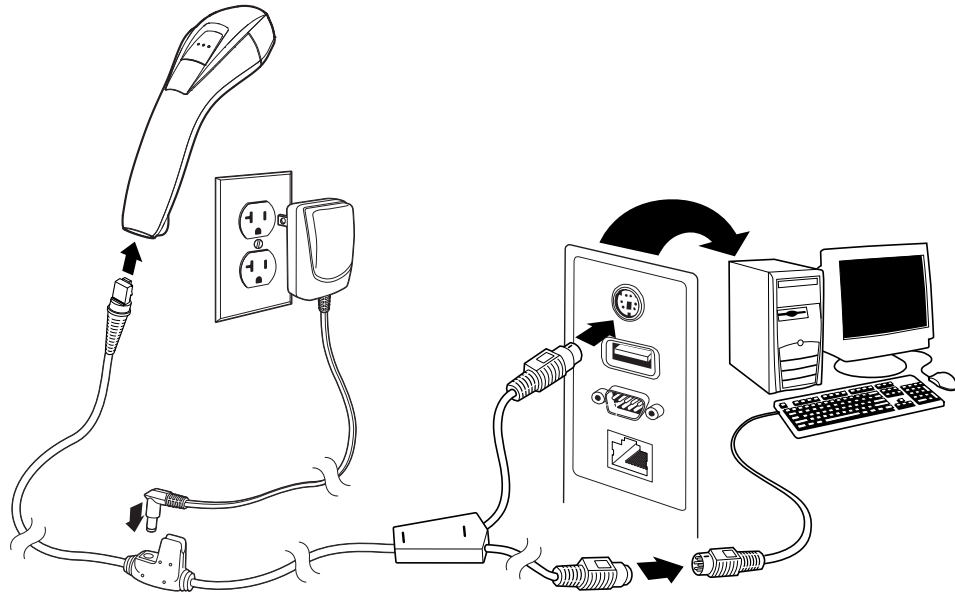
2. The scanner beeps.
3. Verify the scanner operation by scanning a barcode from the [Sample Symbols](#) in the back of this manual.

The unit defaults to a USB PC Keyboard. Refer to [page 9](#) for other USB terminal settings.

Connect with Keyboard Wedge

A scanner can be connected between the keyboard and PC as a “keyboard wedge,” where the scanner provides data output that is similar to keyboard entries. The following is an example of a keyboard wedge connection:

1. Turn off power and disconnect the keyboard cable from the back of the terminal/computer.
2. Connect the appropriate interface cable to the device and to the terminal/computer.



Note: The power supply must be ordered separately, if needed.

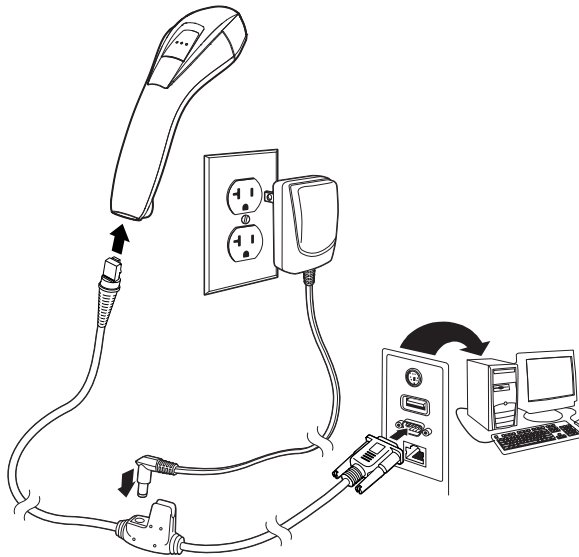
3. Turn the terminal/computer power back on. The scanner beeps.
4. Verify the scanner operation by scanning a barcode from the [Sample Symbols](#) in the back of this manual. The scanner beeps once.

The unit defaults to an IBM PC AT and compatibles keyboard wedge interface with a USA keyboard. A carriage return (CR) suffix is added to barcode data.

Connect with RS232 Serial Port

1. Turn off power to the terminal/computer.
2. Connect the appropriate interface cable to the device.

Note: For the scanner to work properly, you must have the correct cable for your type of terminal/computer.



Note: The power supply must be ordered separately, if needed.

3. Plug the serial connector into the serial port on your computer. Tighten the two screws to secure the connector to the port.
4. Once the scanner has been fully connected, power up the computer.

This interface programs 115,200 baud, 8 data bits, no parity, and 1 stop bit.

Reading Techniques

The scanner has a view finder that projects a bright red aiming dot that corresponds to the scanner's horizontal field of view. The aiming dot should be centered over the barcode, but it can be positioned in any direction for a good read.

Linear barcode



2D Matrix symbol



The aiming dot is smaller when the scanner is closer to the code and larger when it is farther from the code. Symbologies with smaller bars or elements (mil size) should be read closer to the unit. Symbologies with larger bars or elements (mil size) should be read farther from the unit. To read single or multiple symbols (on a page or on an object), hold the scanner at an appropriate distance from the target, press the trigger, and center the aiming dot on the symbol. If the code being scanned is highly reflective (e.g., laminated), it may be necessary to tilt the code up 15° to 18° to prevent unwanted reflection.

Menu Barcode Security Settings

Honeywell scanners are programmed by scanning menu barcodes or by sending serial commands to the scanner. If you want to restrict the ability to scan menu codes, you can use the Menu Barcode Security settings. Please contact the nearest technical support office (see [Customer Support](#) on page xi) for further information.

Set Custom Defaults

You have the ability to create a set of menu commands as your own, custom defaults. To do so, scan the **Set Custom Defaults** barcode below before scanning the menu commands for your custom defaults. If a menu command requires scanning numeric codes from the [Programming Chart](#), then a **Save** code, that entire sequence will be saved to your custom defaults. When you have entered all the commands you want to save for your custom defaults, scan the **Save Custom Defaults** barcode.



You may have a series of custom settings and want to correct a single setting. To do so, just scan the new setting to overwrite the old one. For example, if you had previously saved the setting for Beeper Volume at Low to your custom defaults, and decide you want the beeper volume set to High, just scan the **Set Custom Defaults** barcode, then scan the **Beeper Volume High** menu code, and then **Save Custom Defaults**. The rest of the custom defaults will remain, but the beeper volume setting will be updated.

Reset the Custom Defaults

If you want the custom default settings restored to your scanner, scan the **Activate Custom Defaults** barcode below. This is the recommended default barcode for most users. It resets the scanner to the custom default settings. If there are no cus-

tom defaults, it will reset the scanner to the factory default settings. Any settings that have not been specified through the custom defaults will be defaulted to the factory default settings.



DEFAULT.

Activate Custom Defaults

Introduction

This chapter describes how to program your system for the desired interface.

Program the Interface - Plug and Play

Plug and Play barcodes provide instant scanner set up for commonly used interfaces.

Note: After you scan one of the codes, power cycle the host terminal to have the interface in effect.

Keyboard Wedge

If you want your system programmed for an IBM PC AT and compatibles keyboard wedge interface with a USA keyboard, scan the barcode below. Keyboard wedge is the default interface.

Note: The following barcode also programs a carriage return (CR) suffix.



PAP_AT.

**IBM PC AT and Compatibles with
CR suffix**

Laptop Direct Connect

For most laptops, scanning the **Laptop Direct Connect** barcode allows operation of the scanner in parallel with the integral keyboard. The following **Laptop Direct Connect** barcode also programs a carriage return (CR) suffix and turns on Emulate External Keyboard (page 23).



PAPLTD.

**Laptop Direct Connect
with CR suffix**

RS232 Serial Port

The **RS232 Interface** barcode is used when connecting to the serial port of a PC or terminal. The following **RS232 Interface** barcode also programs a carriage return (CR) and a line feed (LF) suffix, baud rate, and data format as indicated below. It also changes the trigger mode to manual.

Option	Setting
Baud Rate	115,200 bps
Data Format	8 data bits, no parity bit, 1 stop bit



PAP232.

RS232 Interface

USB IBM SurePos

Scan one of the following “Plug and Play” codes to program the scanner for an IBM SurePos (USB handheld scanner) or IBM SurePos (USB tabletop scanner) interface.

Note: After scanning one of these codes, you must power cycle the cash register.



PAPSPH.

**USB IBM SurePos
(USB Handheld Scanner)
Interface**



PAPSPT.

**USB IBM SurePos
(USB Tabletop Scanner)
Interface**

Each barcode above also programs the following suffixes for each symbology:

Symbology	Suffix	Symbology	Suffix
EAN 8	0C	Code 39	00 0A 0B
EAN 13	16	Interleaved 2 of 5	00 0D 0B
UPC A	0D	Code 128	00 18 0B
UPC E	0A		

USB PC or Macintosh Keyboard

Scan one of the following codes to program the scanner for USB PC Keyboard or USB Macintosh Keyboard. Scanning these codes also adds a CR and LF.



PAP124.
USB Keyboard (PC)



PAP125.
USB Keyboard (Mac)



TRMUSB134.
USB Japanese Keyboard (PC)

USB HID

Scan the following code to program the scanner for USB HID barcode scanners.



PAP131.
USB HID Barcode Scanner

USB Serial

Scan the following code to program the scanner to emulate a regular RS232-based COM Port. If you are using a Microsoft® Windows® PC, you will need to download a driver from the Honeywell website (automation.honeywell.com). The driver will use the next available COM Port number. Apple® Macintosh computers recognize the scanner as a USB CDC class device and automatically uses a class driver.



TRMUSB130.

USB Serial

Note: No extra configuration (e.g., baud rate) is necessary.

CTS/RTS Emulation



USBCTS1.

CTS/RTS Emulation On



USBCTS0.

*** CTS/RTS Emulation Off**

ACK/NAK Mode



USBACK1.

ACK/NAK Mode On



USBACK0.

*** ACK/NAK Mode Off**

Secondary Interface for USB

When using a USB interface, you may wish to configure your scanner to communicate with scanner management software. Scan the **Secondary Interface On** barcode to communicate with the scanner management software. To disable this capability, scan **Secondary Interface Off**. *Default = Secondary Interface On.*



Verifone[®] Ruby Terminal Default Settings

Scan the following Plug and Play code to program the scanner for a Verifone Ruby terminal. This barcode sets the baud rate to 1200 bps and the data format to 8 data bits, mark parity bit, 1 stop bit. It also adds a line feed (LF) suffix and programs the following prefixes for each symbology:

Symbology	Prefix
UPC-A	A
UPC-E	A
EAN-8	FF
EAN-13	F



Gilbarco[®] Terminal Default Settings

Scan the following Plug and Play code to program the scanner for a Gilbarco terminal. This barcode sets the baud rate to 2400 bps and the data format to 7 data bits, even parity, 2 stop bits. It also adds a carriage return (CR) suffix and programs the following prefixes for each symbology:

Symbology	Prefix
UPC-A	A
UPC-E	EO
EAN-8	FF
EAN-13	F



PAPGLB.

Gilbarco Settings

Honeywell Bioptic Aux Port Configuration

Scan the following Plug and Play code to program the scanner for a Honeywell bioptic scanner auxiliary port configuration. This barcode sets the baud rate to 38400 bps and the data format to 8 data bits, no parity, 1 stop bit.



PAPBIO.

Honeywell Bioptic Settings

Datalogic[™] Magellan[®] Bioptic Aux Port Configuration

Scan the following Plug and Play code to program the scanner for a Datalogic Magellan bioptic scanner auxiliary port configuration. This barcode sets the baud rate to 9600 bps and the data format to 8 data bits, no parity, 1 stop bit.



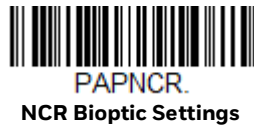
PAPMAG.

Datalogic Magellan Bioptic Settings

NCR Bioptic Aux Port Configuration

Scan the following Plug and Play code to program the scanner for an NCR bioptic scanner auxiliary port configuration. The following prefixes are programmed for each symbology:

Symbology	Prefix	Symbology	Prefix
UPC-A	A	Interleaved 2 of 5	b
UPC-E	E0	Code 128	f
		GS1 DataBar Omnidirectional	r
EAN-8	FF	GS1 DataBar Expanded	r
EAN-13	F	Codabar	N
Code 39	a	Code 32 Pharmaceutical (PARAF)	a



Wincor Nixdorf Terminal Default Settings

Scan the following Plug and Play code to program the scanner for a Wincor Nixdorf terminal. This barcode sets the baud rate to 9600 bps and the data format to 8 data bits, no parity, 1 stop bit.



Wincor Nixdorf Beetle™ Terminal Default Settings

Scan the following Plug and Play code to program the scanner for a Wincor Nixdorf Beetle terminal. This barcode sets the baud rate to 115200 bps and the data format to 8 data bits, no parity, 1 stop bit. The following prefixes are programmed for each symbology:

Symbology	Prefix	Symbology	Prefix
Aztec Code	V	Interleaved 2 of 5	I
Codabar	N	MaxiCode	T
Code 93	L	MicroPDF417	S
Code 128	K	PDF417	Q
Data Matrix	R	QR Code	U
EAN-8	B	Straight 2 of 5 IATA	H
EAN-13	A	UPC-A	A0
GS1 DataBar	E	UPC-E	C
GS1-128	P	All other barcodes	M



PAPBTL

Wincor Nixdorf Beetle Settings

Wincor Nixdorf RS232 Mode A

Scan the following Plug and Play code to program the scanner for a Wincor Nixdorf RS232 Mode A terminal. This barcode sets the baud rate to 9600 bps and the data format to 8 data bits, odd parity, 1 stop bit. The following prefixes are programmed for each symbology:

Symbology	Prefix	Symbology	Prefix
Code 128	K	EAN-13	A
Code 93	L	GS1-128	K
Codabar	N	Interleaved 2 of 5	I
UPC-A	A0	Plessey	O
UPC-E	C	Straight 2 of 5 IATA	H
EAN-8	B	GS1 DataBar	E
All other barcodes	M		



PAPWMA

Wincor Nixdorf RS232 Mode A Settings

Keyboard Country Layout

If your interface is USB Keyboard or Keyboard Wedge, your keyboard layout default is a US keyboard. To change this layout, refer to the chart below for your keyboard country. Scan the appropriate barcode below to change the layout.

By default, national character replacements are used for the following characters: # \$ @ [\] ^ _ { | } ~

See [ISO 2022/ISO 646 Character Replacements](#) on page 172 to view the character replacements for each country.

Keyboard Countries



KBDCTY0.
* United States



KBDCTY35.
Albania



KBDCTY81.
Azeri (Cyrillic)



KBDCTY80.
Azeri (Latin)



KBDCTY82.
Belarus



KBDCTY1.
Belgium



KBDCTY33.
Bosnia



KBDCTY16.
Brazil



KBDCTY59.
Brazil (MS)

Keyboard Countries (Continued)



KBDCTY53.
Bulgaria (Latin)



KBDCTY18.
Canada (French)



KBDCTY32.
Croatia



KBDCTY40.
Czech (Programmers)



KBDCTY38.
Czech (QWERTZ)



KBDCTY52.
Bulgaria (Cyrillic)



KBDCTY54.
Canada (French legacy)



KBDCTY55.
Canada (Multilingual)



KBDCTY15.
Czech



KBDCTY39.
Czech (QWERTY)



KBDCTY8.
Denmark

Keyboard Countries (Continued)



KBDCTY11.
Dutch (Netherlands)



KBDCTY83.
Faroese



KBDCTY3.
France



KBDCTY4.
Germany



KBDCTY64.
Greek (220 Latin)



KBDCTY65.
Greek (319 Latin)



KBDCTY41.
Estonia



KBDCTY2.
Finland



KBDCTY84.
Gaelic



KBDCTY17.
Greek



KBDCTY61.
Greek (220)



KBDCTY62.
Greek (319)

Keyboard Countries (Continued)



KBDCTY63.
Greek (Latin)



KBDCTY66.
Greek (MS)



KBDCTY60.
Greek (Polytonic)



KBDCTY12.
Hebrew



KBDCTY50.
Hungarian (101 key)



KBDCTY19.
Hungary



KBDCTY75.
Iceland



KBDCTY73.
Irish



KBDCTY56.
Italian (142)



KBDCTY5.
Italy



KBDCTY28.
Japan ASCII

Keyboard Countries (Continued)



KBDCTY79.
Kyrgyz (Cyrillic)



KBDCTY42.
Latvia



KBDCTY44.
Lithuania



KBDCTY34.
Macedonia



KBDCTY86.
Mongolian (Cyrillic)



KBDCTY20.
Poland



KBDCTY78.
Kazakh



KBDCTY14.
Latin America



KBDCTY43.
Latvia (QWERTY)



KBDCTY45.
Lithuania (IBM)



KBDCTY74.
Malta



KBDCTY9.
Norway

Keyboard Countries (Continued)



KBDCTY58.
Polish (Programmers)



KBDCTY25.
Romania



KBDCTY67.
Russian (MS)



KBDCTY21.
SCS



KBDCTY36.
Serbia (Latin)



KBDCTY57.
Polish (214)



KBDCTY13.
Portugal



KBDCTY26.
Russia



KBDCTY68.
Russian (Typewriter)



KBDCTY37.
Serbia (Cyrillic)



KBDCTY22.
Slovakia

Keyboard Countries (Continued)



KBDCTY49.
Slovakia (QWERTY)



KBDCTY31.
Slovenia



KBDCTY51.
Spanish variation



KBDCTY29.
Switzerland (French)



KBDCTY85.
Tatar



KBDCTY24.
Turkey Q



KBDCTY48.
Slovakia (QWERTZ)



KBDCTY10.
Spain



KBDCTY23.
Sweden



KBDCTY6.
Switzerland (German)



KBDCTY27.
Turkey F



KBDCTY76.
Ukrainian

Keyboard Countries (Continued)



KBDCTY7.
United Kingdom



KBDCTY87.
United States (Dvorak)



KBDCTY88.
United States (Dvorak left)



KBDCTY89.
United States (Dvorak right)



KBDCTY30.
United States (International)



KBDCTY77.
Uzbek (Cyrillic)

Keyboard Style

This programs keyboard styles, such as Caps Lock and Shift Lock. If you have used [Keyboard Conversion](#) settings, they will override any of the following Keyboard Style settings. *Default = Regular.*

Regular is used when you normally have the Caps Lock key off.



KBDSTY0.
* Regular

Caps Lock is used when you normally have the Caps Lock key on.



KBDSTY1.
Caps Lock

Shift Lock is used when you normally have the Shift Lock key on (not common to U.S. keyboards).



Automatic Caps Lock is used if you change the Caps Lock key on and off. The software tracks and reflects if you have Caps Lock on or off. This selection can only be used with systems that have an LED that notes the Caps Lock status (AT keyboards).



The **Autocaps via NumLock** barcode should be scanned in countries (e.g., Germany, France) where the Caps Lock key cannot be used to toggle Caps Lock. The NumLock option works similarly to the regular Autocaps, but uses the NumLock key to retrieve the current state of the Caps Lock.



Emulate External Keyboard should be scanned if you do not have an external keyboard (IBM AT or equivalent).



Note: After scanning the **Emulate External Keyboard** barcode, you must power cycle your computer.

Keyboard Conversion

Alphabetic keyboard characters can be forced to be all upper case or all lowercase. So if you have the following barcode: “abc569GK,” you can make the output “ABC569GK” by scanning **Convert All Characters to Upper Case**, or to “abc569gk” by scanning **Convert All Characters to Lower Case**.

These settings override [Keyboard Style](#) selections.

Note: If your interface is a keyboard wedge, first scan the menu code for [Automatic Caps Lock](#) (page 23). Otherwise, your output may not be as expected.

Default = Keyboard Conversion Off.



KBDCNV0.

* Keyboard Conversion Off



KBDCNV1.

Convert All Characters
to Upper Case



KBDCNV2.

Convert All Characters
to Lower Case

Control Character Output

This selection sends a text string instead of a control character. For example, when the control character for a carriage return is expected, the output would display [CR] instead of the ASCII code of 0D. Refer to [ASCII Conversion Chart \(Code Page 1252\)](#) on page 168. Only codes 00 through 1F are converted (the first column of the chart). *Default = Off.*

Note: *Control + ASCII Mode overrides this mode.*



KBDNPE1.

Control Character Output On



KBDNPE0.

* Control Character Output Off

Keyboard Modifiers

This modifies special keyboard features, such as CTRL+ ASCII codes and Turbo Mode.

Control + ASCII Mode On: The scanner sends key combinations for ASCII control characters for values 00-1F. Windows is the preferred mode. All keyboard country codes are supported. DOS mode is a legacy mode, and it does not support all keyboard country codes. New users should use the Windows mode. Refer to [ASCII Conversion Chart \(Code Page 1252\)](#), page 168 for CTRL+ ASCII Values.

Windows Mode Prefix/Suffix Off: The scanner sends key combinations for ASCII control characters for values 00-1F, but it does not translate any prefix or suffix information.

Default = Control + ASCII Mode Off.



KBDCAS2.
**Windows Mode Control + X
Mode On**



KBDCAS0.
*** Control + X Mode Off**



KBDCAS1.
DOS Mode Control + X Mode On



KBDCAS3.
Windows Mode Prefix/Suffix Off

Turbo Mode: The scanner sends characters to a terminal faster. If the terminal drops characters, do not use Turbo Mode. *Default = Off.*



KBDTMD1.
Turbo Mode On



KBDTMD0.
*** Turbo Mode Off**

Numeric Keypad Mode: Sends numeric characters as if entered from a numeric keypad. *Default = Off.*



KBDNPS1.
Numeric Keypad Mode On



KBDNPS0.
*** Numeric Keypad Mode Off**

Automatic Direct Connect Mode: This selection can be used if you have an IBM AT style terminal and the system is dropping characters. *Default = Off.*



RS232 Modifiers

RS232 Baud Rate

Baud Rate sends the data from the scanner to the terminal at the specified rate. The host terminal must be set for the same baud rate as the scanner. *Default = 115200.*





232BAD6.
19200



232BAD7.
38400



232BAD8.
57,600



232BAD9.
* 115,200

RS232 Word Length: Data Bits, Stop Bits, and Parity

Data Bits sets the word length at 7 or 8 bits of data per character. If an application requires only ASCII Hex characters 0 through 7F decimal (text, digits, and punctuation), select 7 data bits. For applications that require use of the full ASCII set, select 8 data bits per character. *Default = 8.*

Stop Bits sets the stop bits at 1 or 2. *Default = 1.*

Parity provides a means of checking character bit patterns for validity. *Default = None.*



232WRD3.
7 Data, 1 Stop, Parity Even



232WRD0.
7 Data, 1 Stop, Parity None



232WRD6.
7 Data, 1 Stop, Parity Odd



232WRD4.
7 Data, 2 Stop, Parity Even



232WRD1.
7 Data, 2 Stop Parity None



232WRD7.
7 Data, 2 Stop, Parity Odd



232WRD5.
8 Data, 1 Stop, Parity Even



232WRD2.
* 8 Data, 1 Stop, Parity None



232WRD8.
8 Data, 1 Stop, Parity Odd

RS232 Receiver Time-Out

The unit stays awake to receive data until the RS232 Receiver Time-Out expires. A manual trigger resets the time-out. When an RS232 receiver is sleeping, a character may be sent to wake up the receiver and reset the time-out. A transaction on the CTS line will also wake up the receiver. The receiver takes 300 milliseconds to completely come up. Change the RS232 receiver time-out by scanning the barcode below, then scanning digits from the [Programming Chart](#), then scanning **Save**. The range is 0 to 300 seconds. *Default = 0 seconds (no time-out - always on).*



232LPT.
RS232 Receiver Time-Out

RS232 Handshaking

RS232 Handshaking allows control of data transmission from the scanner using software commands from the host device. When RTS/CTS is turned Off, no data flow control is used.

Flow Control, No Timeout: The scanner asserts RTS when it has data to send, and will wait indefinitely for CTS to be asserted by the host.

Two-Direction Flow Control: The scanner asserts RTS when it is OK for the host to transmit. The host asserts CTS when it is OK for the device to transmit.

Flow Control with Timeout: The scanner asserts RTS when it has data to send and waits for a delay (see [RS232 Timeout](#) on page 29) for CTS to be asserted by the host. If the delay time expires and CTS is not asserted, the device transmit buffer is cleared and scanning may resume. *Default = RTS/CTS Off.*



232CTS1.

Flow Control, No Timeout



232CTS2.

Two-Direction Flow Control



232CTS3.

Flow Control with Timeout



232CTS0.

*** RTS/CTS Off**

RS232 Timeout

When using Flow Control with Timeout, you must program the length of the delay you want to wait for CTS from the host. Set the length (in milliseconds) for a timeout by scanning the barcode below, then setting the timeout (from 1-5100 milliseconds) by scanning digits from the [Programming Chart](#), then scanning Save.



232DEL.

RS232 Timeout

XON/XOFF

Standard ASCII control characters can be used to tell the scanner to start sending data (XON/XOFF On) or to stop sending data (XON/XOFF Off). When the host sends the XOFF character (DC3, hex 13) to the scanner, data transmission stops. To resume transmission, the host sends the XON character (DC1, hex 11). Data transmission continues where it left off when XOFF was sent. *Default = XON/XOFF Off.*



232XON1.

XON/XOFF On



ACK/NAK

After transmitting data, the scanner waits for an ACK character (hex 06) or a NAK character (hex 15) response from the host. If ACK is received, the communications cycle is completed and the scanner looks for more barcodes. If NAK is received, the last set of barcode data is retransmitted and the scanner waits for ACK/NAK again. Turn on the ACK/NAK protocol by scanning the **ACK/NAK On** barcode below. To turn off the protocol, scan **ACK/NAK Off**. *Default = ACK/NAK Off.*



Scanner to Bioptic Communication

The following settings are used to set up communication between Honeywell scanners and bioptic scanners.

Note: *The scanner's baud rate must be set to 38400 and the RS232 timeout must be set to 3000 in order to communicate with a bioptic scanner. See "RS232 Baud Rate" on page 26, and [RS232 Timeout](#) on page 29 for further information.*

Scanner-Bioptic Packet Mode

Packet Mode On must be scanned to set the scanner's format so it is compatible with a bioptic scanner. *Default = Packet Mode Off.*



Scanner-Bioptic ACK/NAK Mode

Bioptic ACK/Nak On must be scanned so the scanner will wait for an ACK or NAK from a bioptic scanner after each packet is sent. The Scanner-Bioptic ACK/NAK Timeout (below) controls how long the scanner will wait for a response. *Default = Bioptic ACK/NAK Off.*



Scanner-Bioptic ACK/NAK Timeout

This allows you to set the length (in milliseconds) for a timeout for a bioptic scanner's ACK/NAK response. Scan the barcode below, then set the timeout (from 1-30,000 milliseconds) by scanning digits from the [Programming Chart](#), then scanning **Save**. *Default = 5100.*



Power Up Beeper

The scanner can be programmed to beep when it's powered up. Scan the **Off** barcode(s) if you don't want a power up beep. *Default = Power Up Beeper On - Scanner.*



BEPPWR0.

Power Up Beeper Off -
Scanner



BEPPWR1.

* Power Up Beeper On -
Scanner

Beep on BEL Character

You may wish to force the scanner to beep upon a command sent from the host. If you scan the **Beep on BEL On** barcode below, the scanner will beep every time a BEL character is received from the host. *Default = Beep on BEL Off.*



BELBEP0.

*Beep on BEL Off



BELBEP1.

Beep on BEL On

Trigger Click

To hear an audible click every time the scanner trigger is pressed, scan the **Trigger Click On** barcode below. Scan the **Trigger Click Off** code if you don't wish to hear the click. (This feature has no effect on serial or automatic triggering.) *Default = Trigger Click Off.*



Good Read and Error Indicators

Beeper – Good Read

The beeper may be programmed **On** or **Off** in response to a good read. Turning this option off, only turns off the beeper response to a good read indication. All error and menu beeps are still audible. *Default = Beeper - Good Read On.*



Beeper Volume – Good Read

The beeper volume codes modify the volume of the beep the scanner emits on a good read. *Default = High.*





BEPLVL3.
* High



BEPLVL0.
Off

Beeper Pitch – Good Read

The beeper pitch codes modify the pitch (frequency) of the beep the scanner emits on a good read. *Default = Medium.*



BEPFQ11600.
Low (1600 Hz)



BEPFQ12400.
* Medium (2400 Hz)



BEPFQ14200.
High (4200 Hz)

Beeper Pitch – Error

The beeper pitch codes modify the pitch (frequency) of the sound the scanner emits when there is a bad read or error. *Default = Razz.*



BEPFQ2250.
* Razz (250 Hz)



BEPFQ23250.
Medium (3250 Hz)



BEPFQ24200.
High (4200 Hz)

Beeper Duration – Good Read

The beeper duration codes modify the length of the beep the scanner emits on a good read. *Default = Normal.*



BEPBIP0.

* Normal Beep



BEPBIP1.

Short Beep

LED – Good Read

The LED indicator can be programmed **On** or **Off** in response to a good read. *Default = On.*



BEPLED1.

* LED - Good Read On



BEPLED0.

LED - Good Read Off

Number of Beeps – Good Read

The number of beeps of a good read can be programmed from 1 - 9. The same number of beeps will be applied to the beeper and LED in response to a good read. For example, if you program this option to have five beeps, there will be five beeps and five LED flashes in response to a good read. The beeps and LED flashes are in sync with one another. To change the number of beeps, scan the barcode below and then scan a digit (1-9) barcode and the **Save** barcode on the [Programming Chart](#). *Default = 1.*



BEPRPT.

Number of Good Read Beeps/LED Flashes

Number of Beeps – Error

The number of beeps and LED flashes emitted by the scanner for a bad read or error can be programmed from 1 - 9. For example, if you program this option to have five error beeps, there will be five error beeps and five LED flashes in response

to an error. To change the number of error beeps, scan the barcode below and then scan a digit (1-9) barcode and the **Save** barcode on the [Programming Chart](#).
Default = 1.



Number of Error Beeps/LED Flashes

Good Read Delay

This sets the minimum amount of time before the scanner can read another barcode. *Default = 0 ms (No Delay).*



User-Specified Good Read Delay

If you want to set your own length for the good read delay, scan the barcode below, then set the delay (from 0-30,000 milliseconds) by scanning digits from the [Programming Chart](#), then scanning **Save**.



User-Specified Good Read Delay

Manual Trigger Mode

When in manual trigger mode, the scanner scans until a barcode is read, or until the trigger is released. *Default = Manual Trigger-Normal.*



PAPHHF.

* Manual Trigger - Normal

LED Illumination - Manual Trigger

If you wish to set the illumination LED brightness, scan one of the barcodes below. This sets the LED illumination for the scanner when the trigger is pressed. *Default = High.*

Note: *The LEDs are like a flash on a camera. The lower the ambient light in the room, the brighter the LEDs need to be so the scanner can “see” the barcodes*



PWRNOL15.

Low



PWRNOL50.

Medium



PWRNOL150.

* High

Serial Trigger Mode

You can activate the scanner either by pressing the trigger, or using a serial trigger command (see [Trigger Commands](#) on page 136). When in serial mode, the scanner scans until a barcode has been read or until the deactivate command is sent. The scanner can also be set to turn itself off after a specified time has elapsed (see [Read Time-Out](#), which follows).

Read Time-Out

Use this selection to set a time-out (in milliseconds) of the scanner’s trigger when using serial commands to trigger the scanner. Once the scanner has timed out, you can activate the scanner either by pressing the trigger or using a serial trigger

command. After scanning the **Read Time-Out** barcode, set the time-out duration (from 0-300,000 milliseconds) by scanning digits on the [Programming Chart](#), then scanning **Save**. *Default = 30,000 ms.*



TRGSTO.

Read Time-Out

Presentation Mode

Presentation Mode uses ambient light to detect barcodes. The LED dims until a barcode is presented to the scanner, then the LED brightens to read the code. If the light level in the room is not high enough, Presentation Mode may not work properly.

Scan the following barcode to program your scanner for Presentation Mode.



PAPTPR.

Presentation Mode

Triggered Presentation Mode

This mode uses light to detect the presence of an object. *Default = Ambient and Scanner Light.*



PDCLED0.

Ambient Light Only



PDCLED1.

***Ambient and Scanner Light**

Presentation Centering

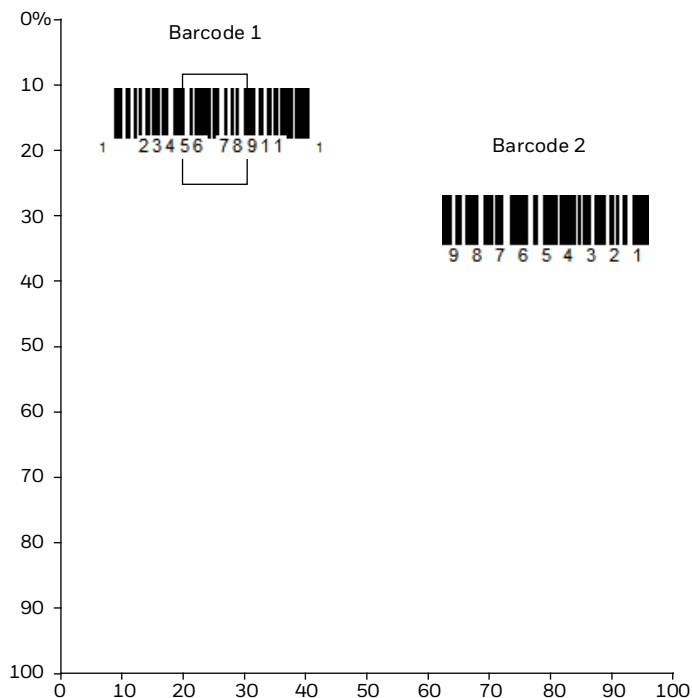
Use Presentation Centering to narrow the scanner's field of view when it is in the stand to make sure the scanner reads only those barcodes intended by the user. For instance, if multiple codes are placed closely together, Presentation Centering will insure that only the desired codes are read.

Note: *To adjust centering when the scanner is hand-held, see [Centering](#).*

If a barcode is not touched by a predefined window, it will not be decoded or output by the scanner. If Presentation Centering is turned on by scanning **Presentation Centering On**, the scanner only reads codes that pass through the centering win-

How you specify using the **Top of Presentation Centering Window, Bottom of Presentation Centering Window, Left, and Right of Presentation Centering Window** barcodes.

In the example below, the white box is the centering window. The centering window has been set to 20% left, 30% right, 8% top, and 25% bottom. Since Barcode 1 passes through the centering window, it will be read. Barcode 2 does not pass through the centering window, so it will not be read.



Note: A barcode needs only to be touched by the centering window in order to be read. It does not need to pass completely through the centering window.

Scan **Presentation Centering On**, then scan one of the following barcodes to change the top, bottom, left, or right of the centering window. Then scan the percent you want to shift the centering window using digits on the [Programming Chart](#). Scan **Save**. Default Presentation Centering = 40% for Top and Left, 60% for Bottom and Right.





PDCTOP.
Top of Presentation
Centering Window



PDCBOT.
Bottom of Presentation
Centering Window



PDCLFT.
Left of
Presentation Centering
Window



PDCRGT.
Right of Presentation
Centering Window

In-Stand Sensor Mode

This feature senses when the scanner is removed from the stand and tells it to begin manual triggering. When **Sensor On** is enabled, the scanner defaults to Presentation Mode when it is in the stand, and to Manual Trigger Mode when it is removed from the stand. *Default = Sensor On.*



TRGSSW0.
* Sensor On



TRGSSW0.
Sensor Off

Poor Quality Codes

Poor Quality 1D Codes

This setting improves the scanner's ability to read damaged or badly printed linear barcodes. When **Poor Quality 1D Reading On** is scanned, poor quality linear barcode reading is improved, but the scanner's snappiness is decreased, making it less aggressive when reading good quality barcodes. This setting does not affect 2D barcode reading. *Default = Poor Quality 1D Reading Off.*



DECLDI1.

Poor Quality 1D Reading On



DECLDI0.

*** Poor Quality 1D Reading Off**

Poor Quality PDF Codes

This setting improves the scanner's ability to read damaged or badly printed PDF codes by combining information from multiple images. It is useful when a complete barcode cannot be seen in one image. This setting does not affect 1D barcode reading. *Default = Poor Quality PDF Reading Off.*



PDFXPR10.

Poor Quality PDF Reading On



PDFXPR0.

*** Poor Quality PDF Reading Off**

CodeGate®

When CodeGate is **On**, the trigger is used to allow decoded data to be transmitted to the host system. The scanner remains on, scanning and decoding barcodes, but the barcode data is not transmitted until the trigger is pressed. When CodeGate is **Off**, barcode data is transmitted when it is decoded. *Default = CodeGate Off Out-of-Stand.*



Mobile Phone Read Mode

When this mode is selected, your scanner is optimized to read barcodes from mobile phone or other LED displays. However, the speed of scanning printed barcodes may be slightly lower when this mode is enabled



Hand Held Scanning - Mobile
Phone

Note: To turn off Mobile Phone Read Mode, scan the [Manual Trigger Mode](#) barcode.

Hands Free Time-Out

The Scan Stand and Presentation Modes are referred to as “hands free” modes. If the scanner’s trigger is pressed when using a hands free mode, the scanner changes to manual trigger mode. You can set the time the scanner should remain in manual trigger mode by setting the Hands Free Time-Out. Once the time-out value is reached, (if there have been no further trigger presses) the scanner reverts to the original hands free mode.

Scan the **Hands Free Time-Out** barcode, then scan the time-out duration (from 0-300,000 milliseconds) from the [Programming Chart](#), and **Save**. *Default = 5,000 ms.*



Hands Free Time-Out

Reread Delay

This sets the time period before the scanner can read the *same* barcode a second time. Setting a reread delay protects against accidental rereads of the same barcode. Longer delays are effective in minimizing accidental rereads. Use shorter delays in applications where repetitive barcode scanning is required. Reread Delay only works when in [Presentation Mode](#). *Default = Medium*.



User-Specified Reread Delay

If you want to set your own length for the reread delay, scan the barcode below, then set the delay (from 0-30,000 milliseconds) by scanning digits from the [Programming Chart](#), then scanning **Save**.



User-Specified Reread Delay

2D Reread Delay

Sometimes 2D barcodes can take longer to read than other barcodes. If you wish to set a separate Reread Delay for 2D barcodes, scan one of the programming codes that follows. **2D Reread Delay Off** indicates that the time set for [Reread Delay](#) is used for both 1D and 2D barcodes. *Default = 2D Reread Delay Off*.





DLY2RR2000.

Medium (2000ms)



DLY2RR1000.

Short (1000ms)



DLY2RR3000.

Long (3000ms)



DLY2RR4000.

Extra Long (4000ms)

Character Activation Mode

You may use a character sent from the host to trigger the scanner to begin scanning. When the activation character is received, the scanner continues scanning until either the [Character Activation Timeout](#), the deactivation character is received (see [Deactivation Character](#)), or a barcode is transmitted. Scan the following **On** barcode to use character activation, then use Activation Character (following) to select the character you will send from the host to start scanning. *Default = Off.*



HSTCEN0.

* Off



HSTCEN1.

On

Activation Character

This sets the character used to trigger scanning when using Character Activation Mode. On the [ASCII Conversion Chart \(Code Page 1252\)](#), find the hex value that represents the character you want to use to trigger scanning. Scan the following barcode, then use the [Programming Chart](#) to read the alphanumeric combination that represents that ASCII character. Scan **Save** to finish.



HSTACH.

Activation Character

End Character Activation After Good Read

After a barcode is successfully detected and read from the scanner, the aimer can be programmed either to remain on and scanning, or to turn off. When **End Character Activation After Good Read** is enabled, the aimer turns off and stops scanning after a good read. If you scan **Do Not End Character Activation After Good Read**, the aimer remains on after a good read. *Default = End Character Activation After Good Read.*



HSTCGD0.

**Do Not End Character
Activation After Good Read**



HSTCGD1.

*** End Character Activation
After Good Read**

Character Activation Timeout

You can set a timeout for the length of time the aimer remains on and attempting to decode barcodes when using [Character Activation Mode](#). Set the length (in milliseconds) for a timeout by scanning the following barcode, then setting the timeout (from 1-65535 milliseconds) by scanning digits from the [Programming Chart](#), then scanning **Save**. *Default = 5000 ms.*



HSTCDT.

Character Activation Timeout

Character Deactivation Mode

If you have sent a character from the host to trigger the scanner to begin scanning, you can also send a deactivation character to stop scanning. Scan the following **On** barcode to use character deactivation, then use [Deactivation Character](#) to select the character you will send from the host to terminate scanning. *Default = Off.*



HSTDEN0.

*** Off**



HSTDEN1.

On

Deactivation Character

This sets the character used to terminate scanning when using Character Deactivation Mode. On the [ASCII Conversion Chart \(Code Page 1252\)](#), find the hex value that represents the character you want to use to terminate scanning. Scan the following barcode, then use the [Programming Chart](#) to read the alphanumeric combination that represents that ASCII character. Scan **Save** to finish.



HSTDCH.

Deactivation Character

Illumination Lights

If you want the illumination lights on while reading a barcode, scan the **Lights On** barcode, below. However, if you want to turn just the lights off, scan the **Lights Off** barcode. *Default = Lights On.*

Note: *This setting does not affect the aimer light. The aiming light can be set using [Aimer Mode](#)*



SCNLED1.

* Lights On



SCNLED0.

Lights Off

Aimer Delay

The aimer delay allows a delay time for the operator to aim the scanner before the picture is taken. Use these codes to set the time between when the trigger is pulled and when the picture is taken. During the delay time, the aiming light will appear, but the LEDs won't turn on until the delay time is over. *Default = Off.*



SCNDLY200.

200 milliseconds



SCNDLY400.

400 milliseconds



SCNDLY0.
* Off (no delay)

User-Specified Aimer Delay

If you want to set your own length for the duration of the delay, scan the barcode below, then set the time-out by scanning digits (0 - 4,000 ms) from the [Programming Chart](#), then scan **Save**.



SCNDLY.
Delay Duration

Aimer Mode

This feature allows you to turn the aimer so that it is always on, always off, or in pulse mode. Pulse mode provides the best scan performance. **Always On** mode turns the aimer On while taking a picture. **Pulse Mode** turns the aimer Off while taking a picture and pulses the aimer when not taking a picture.

Default = Pulse Mode.



SCNAIM0.
Always Off



SCNAIM3.
Always On



SCNAIM5
*Pulse Mode

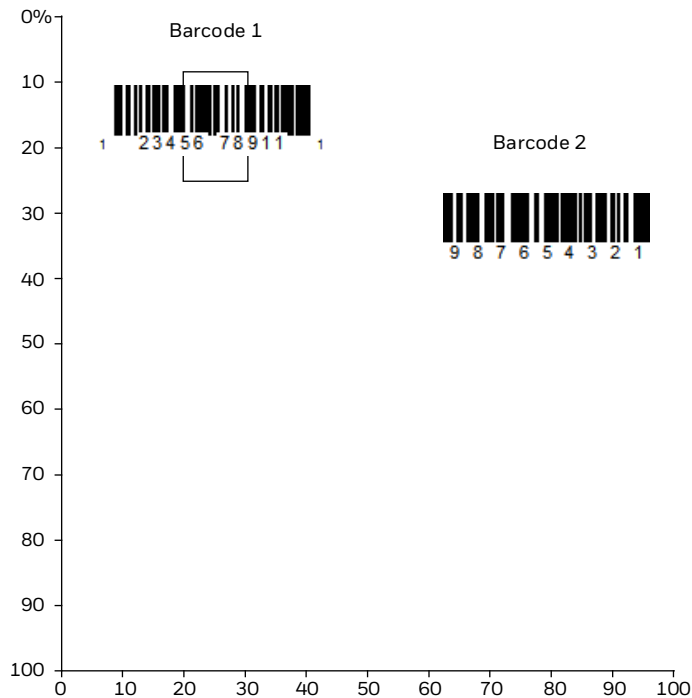
Centering

Use Centering to narrow the scanner's field of view to make sure that when the scanner is hand-held, it reads only those barcodes intended by the user. For instance, if multiple codes are placed closely together, centering will insure that only the desired codes are read.

Note: To adjust centering when the scanner is in the stand, see [Presentation Centering](#) (page 3-39).

If a barcode is not touched by a predefined window, it will not be decoded or output by the scanner. If centering is turned on by scanning **Centering On**, the scanner only reads codes that pass through the centering window you specify using the **Top of Centering Window**, **Bottom of Centering Window**, **Left**, and **Right of Centering Window** barcodes.

In the example below, the white box is the centering window. The centering window has been set to 20% left, 30% right, 8% top, and 25% bottom. Since Barcode 1 passes through the centering window, it will be read. Barcode 2 does not pass through the centering window, so it will not be read.



Note: A barcode needs only to be touched by the centering window in order to be read. It does not need to pass completely through the centering window.

Scan **Centering On**, then scan one of the following barcodes to change the top, bottom, left, or right of the centering window. Then scan the percent you want to shift the centering window using digits on the [Programming Chart](#). Scan **Save**. Default Centering = 40% for Top and Left, 60% for Bottom and Right.





No Read

With No Read turned On, the scanner notifies you if a code cannot be read. If using an EZConfig for Scanning Tool Scan Data Window (see page 130), an “NR” appears when a code cannot be read. If No Read is turned Off, the “NR” will not appear.
Default = Off.



If you want a different notation than “NR,” for example, “Error,” or “Bad Code,” you can edit the output message (see [Data Format](#)). The hex code for the No Read symbol is **9C**.

Video Reverse

Video Reverse is used to allow the scanner to read barcodes that are inverted. The **Video Reverse Off** barcode below is an example of this type of barcode. Scan **Video Reverse Only** to read *only* inverted barcodes. Scan **Video Reverse and Standard Barcodes** to read both types of codes.

Note: After scanning **Video Reverse Only**, menu barcodes cannot be read. You must scan **Video Reverse Off** or **Video Reverse and Standard Barcodes** in order to read menu barcodes.

Note: Images downloaded from the unit are not reversed. This is a setting for decoding only.



VIDREV1.

Video Reverse Only



VIDREV2.

Video Reverse and Standard Barcodes



VIDREV0.

* Video Reverse Off

Working Orientation

Some barcodes are direction-sensitive. For example, KIX codes and OCR can misread when scanned sideways or upside down. Use the working orientation settings if your direction-sensitive codes will not usually be presented upright to the scanner. *Default = Upright.*

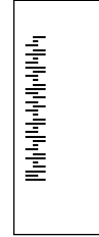
Upright:



Upside Down:



**Vertical, Top to Bottom:
(Rotate CW 90°)**



**Vertical, Bottom to Top:
(Rotate CCW 90°)**



ROTATN0.
* Upright



ROTATN2.
Upside Down



ROTATN1.
Vertical, Bottom to Top

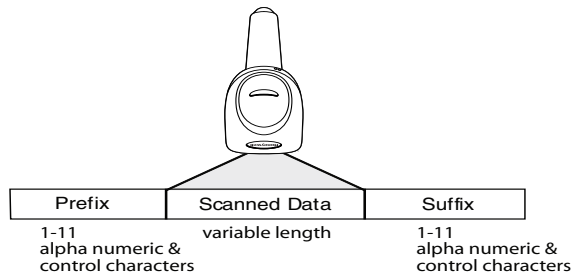


ROTATN3.
Vertical, Top to Bottom

Prefix/Suffix Overview

When a barcode is scanned, additional information is sent to the host computer along with the barcode data. This group of barcode data and additional, user-defined data is called a “message string.” The selections in this section are used to build the user-defined data into the message string.

Prefix and Suffix characters are 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 illustration shows the breakdown of a message string:



Points to Keep In Mind

- It is not necessary to build a message string. The selections in this chapter are only used if you wish to alter the default settings. *Default prefix = None. Default suffix = None.*
- A prefix or suffix may be added or cleared from one symbology or all symbologies.
- You can add any prefix or suffix from the [ASCII Conversion Chart \(Code Page 1252\)](#), plus Code I.D. and AIM I.D.
- You can string together several entries for several symbologies at one time.
- Enter prefixes and suffixes in the order in which you want them to appear on the output.

- When setting up for specific symbologies (as opposed to all symbologies), the specific symbology ID value counts as an added prefix or suffix character.
- The maximum size of a prefix or suffix configuration is 200 characters, which includes header information.

To Add a Prefix or Suffix:

- Step 1. Scan the **Add Prefix** or **Add Suffix** symbol ([page 55](#)).
- Step 2. Determine the 2 digit Hex value from the Symbology Chart (included in the [Symbology Charts](#)) for the symbology to which you want to apply the prefix or suffix. For example, for Code 128, Code ID is “j” and Hex ID is “6A”.
- Step 3. Scan the 2 hex digits from the [Programming Chart](#) or scan **9, 9** for all symbologies.

To add the Code I.D., scan **5, C, 8, 0**.

To add the AIM I.D., scan **5, C, 8, 1**.

To add the serial number, scan **5, C, 8, 8**.

To add a backslash (\), scan **5, C, 5, C**.

Note: *When adding a backslash (\), you must scan 5C twice – once to create the leading backslash and then to create the backslash itself.*

- Step 4. Repeat Steps 2 and 3 for every prefix or suffix character.
- Step 5. Scan **Save** to exit and save, or scan **Discard** to exit without saving.

Repeat the steps above to add a prefix or suffix for another symbology.

Example: Add a Tab Suffix to All Symbologies

- Step 1. Scan **Add Suffix**.
- Step 2. Scan **9, 9** from the [Programming Chart](#) to apply this suffix to all symbologies.
- Step 3. Scan **0, 9** from the [Programming Chart](#). This corresponds with the hex value for a horizontal tab, shown in the [ASCII Conversion Chart \(Code Page 1252\)](#), beginning on page 168.
- Step 4. Scan **Save**, or scan **Discard** to exit without saving.

Clear One or All Prefixes or Suffixes

You can clear a single prefix or suffix, or clear all prefixes/suffixes for a symbology. If you have been entering prefixes and suffixes for single symbologies, you can use **Clear One Prefix (Suffix)** to delete a specific character from a symbology. When you **Clear All Prefixes (Suffixes)**, all the prefixes or suffixes for a symbology are deleted.

- Step 1. Scan the **Clear One Prefix** or **Clear One Suffix** symbol.
- Step 2. Determine the 2 digit Hex value from the [Symbology Charts](#) for the symbology from which you want to clear the prefix or suffix.
- Step 3. Scan the 2 digit hex value from the [Programming Chart](#) or scan **9, 9** for all symbologies.

Your change is automatically saved.

Add a Carriage Return Suffix to All Symbologies

Scan the following barcode if you wish to add a carriage return suffix to all symbologies at once. This action first clears all current suffixes, then programs a carriage return suffix for all symbologies.



Prefix Selections



Suffix Selections





Function Code Transmit

When this selection is enabled and function codes are contained within the scanned data, the scanner transmits the function code to the terminal. Charts of these function codes are provided in the [ASCII Conversion Chart \(Code Page 1252\)](#). When the scanner is in keyboard wedge mode, the scan code is converted to a key code before it is transmitted. *Default = Enable.*

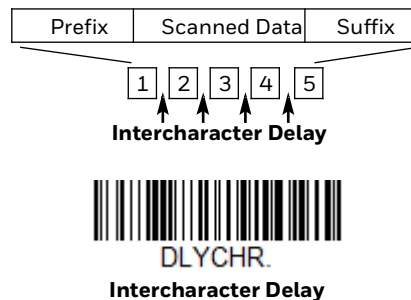


Intercharacter, Interfunction, and Intermessage Delays

Some terminals drop information (characters) if data comes through too quickly. Intercharacter, interfunction, and intermessage delays slow the transmission of data, increasing data integrity.

Intercharacter Delay

An intercharacter delay of up to 5000 milliseconds (in 5ms increments) may be placed between the transmission of each character of scanned data. Scan the **Intercharacter Delay** barcode below, then scan the number of 5ms delays, and the **Save** barcode using the [Programming Chart](#).



To remove this delay, scan the Intercharacter Delay barcode, then set the number of delays to **0**. Scan the **Save** barcode using the [Programming Chart](#).

Note: *Intercharacter delays are not supported in USB serial emulation.*

User Specified Intercharacter Delay

An intercharacter delay of up to 5000 milliseconds (in 5ms increments) may be placed after the transmission of a particular character of scanned data. Scan the **Delay Length** barcode below, then scan the number of 5ms delays, and the **Save** barcode using the [Programming Chart](#).

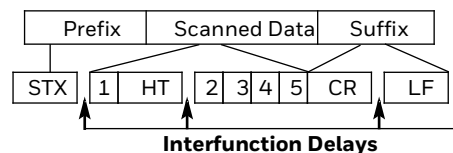
Next, scan the **Character to Trigger Delay** barcode, then the 2-digit hex value for a printable character to trigger the delay. See [ISO 2022/ISO 646 Character Replacements](#) on page A-172..



To remove this delay, scan the **Delay Length** barcode, and set the number of delays to **0**. Scan the **Save** barcode using the [Programming Chart](#).

Interfunction Delay

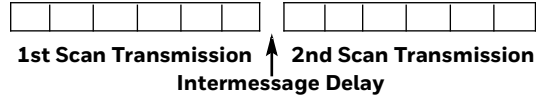
An interfunction delay of up to 5000 milliseconds (in 5ms increments) may be placed between the transmission of each segment of the message string. Scan the **Interfunction Delay** barcode below, then scan the number of 5ms delays, and the **Save** barcode using the [Programming Chart](#).



To remove this delay, scan the **Interfunction Delay** barcode, then set the number of delays to **0**. Scan the **Save** barcode using the [Programming Chart](#).

Intermessage Delay

An intermessage delay of up to 5000 milliseconds (in 5ms increments) may be placed between each scan transmission. Scan the **Intermessage Delay** barcode below, then scan the number of 5ms delays, and the **Save** barcode using the [Programming Chart](#).



DLYMSG.

Intermessage Delay

To remove this delay, scan the **Intermessage Delay** barcode, then set the number of delays to **0**. Scan the **Save** barcode using the [Programming Chart](#).

Data Format Editor Introduction

You may use the Data Format Editor to change the scanner's output. For example, you can use the Data Format Editor to insert characters at certain points in barcode data as it is scanned. The selections in the following pages are used only if you wish to alter the output. *Default Data Format setting = None.*

Normally, when you scan a barcode, it gets outputted automatically; however when you create a format, you must use a "send" command [Send Commands](#) within the format program to output data.

Multiple formats may be programmed into the scanner. They are stacked in the order in which they are entered. However, the following list presents the order in which formats are applied:

1. Specific Terminal ID, Actual Code ID, Actual Length
2. Specific Terminal ID, Actual Code ID, Universal Length
3. Specific Terminal ID, Universal Code ID, Actual Length
4. Specific Terminal ID, Universal Code ID, Universal Length
5. Universal Terminal ID, Actual Code ID, Actual Length
6. Universal Terminal ID, Actual Code ID, Universal Length
7. Universal Terminal ID, Universal Code ID, Actual Length
8. Universal Terminal ID, Universal Code ID, Universal Length

The maximum size of a data format configuration is 2000 bytes, which includes header information.

If you have changed data format settings, and wish to clear all formats and return to the factory defaults, scan the **Default Data Format** code below.



DFMDF3.

* Default Data Format

Show Data Format

Scan the barcode below to show current data format settings.



DFMBK3?

Data Format Settings

Add a Data Format

- Step 1. Scan the [Enter Data Format](#) symbol.
- Step 2. Select **Primary/Alternate** Format
Determine if this will be your primary data format, or one of 3 alternate formats. This allows you to save a total of 4 different data formats. To program your primary format, scan **0** using the [Programming Chart](#). If you are programming an alternate format, scan **1, 2, or 3**, depending on which alternate format you are programming. (See [Primary/Alternate Data Formats](#) for further information.)
- Step 3. **Terminal Type**
Refer to [Terminal ID Table](#) and locate the Terminal ID number for your PC. Scan three numeric barcodes on the [Programming Chart](#) to program the scanner for your terminal ID (you must enter 3 digits). For example, scan **003** for an AT wedge.

Note: **099** indicates all terminal types.

- Step 4. **Code I.D.**
In the [Symbology Charts](#), find the symbology to which you want to apply the data format. Locate the Hex value for that symbology and scan the 2 digit hex value from the [Programming Chart](#).

Note: If you are creating a data format for Batch Mode Quantity, use **35** for the Code I.D.

- Step 5. **Length**
Specify what length (up to 9999 characters) of data will be acceptable for this symbology. Scan the four digit data length from the [Programming Chart](#). (Note: 50 characters is entered as 0050. 9999 is a universal number, indicating all lengths.)

Note: **9999** indicates all lengths.

- Step 6. **Editor Commands**
Refer to [Data Format Editor Commands](#). Scan the symbols that represent the command you want to enter.
- Step 7. Scan **Save** to save your data format, or **Discard** to exit without saving your changes.



DFMBK3

Enter Data Format



Other Programming Selections

- **Clear One Data Format**
This deletes one data format for one symbology. If you are clearing the primary format, scan **0** from the [Programming Chart](#). If you are clearing an alternate format, scan **1**, **2**, or **3**, depending on the format you are clearing. Scan the Terminal Type and Code I.D. (see [Symbology Charts](#)), and the barcode data length for the specific data format that you want to delete. All other formats remain unaffected.
- **Clear all Data Formats**
This clears all data formats.
- **Save** to exit and save your data format changes.
- **Discard** to exit without saving any data format changes.



Terminal ID Table

Terminal	Model(s)	Terminal ID
USB	PC keyboard (HID)	124
	Mac Keyboard	125
	PC Keyboard (Japanese)	134
	Serial (COM driver required)	130
	HID POS	131
	USB SurePOS Handheld	128
	USB SurePOS Tabletop	129
Serial	RS232 TTL	000
	RS232 True	000
Keyboard	PS2 compatibles	003

Data Format Editor Commands

When working with the Data Format Editor, a virtual cursor is moved along your input data string. The following commands are used to both move this cursor to different positions, and to select, replace, and insert data into the final output.

Send Commands

Send all characters

- F1** Include in the output message all of the characters from the input message, starting from current cursor position, followed by an insert character. *Syntax = F1xx* where xx stands for the insert character's hex value for its ASCII code. Refer to the [ASCII Conversion Chart \(Code Page 1252\)](#) for decimal, hex and character codes.

Send a number of characters

- F2** Include in the output message a number of characters followed by an insert character. Start from the current cursor position and continue for "nn" characters or through the last character in the input message, followed by character "xx." *Syntax = F2nnxx* where nn stands for the numeric value (00-99) for the number of characters, and xx stands for the insert character's hex value for its ASCII code. Refer to the [ASCII Conversion Chart \(Code Page 1252\)](#), beginning on page 168 for decimal, hex and character codes.

F2 Example: Send a number of characters



Send the first 10 characters from the barcode above, followed by a carriage return.
Command string: F2100D

F2 is the “Send a number of characters” command

10 is the number of characters to send

0D is the hex value for a CR

The data is output as: **1234567890**

F2 and F1 Example: Split characters into 2 lines

Send the first 10 characters from the barcode above, followed by a carriage return, followed by the rest of the characters.

Command string: **F2100DF10D**

F2 is the “Send a number of characters” command

10 is the number of characters to send for the first line

0D is the hex value for a CR

F1 is the “Send all characters” command

0D is the hex value for a CR

The data is output as:

1234567890

ABCDEFGHIJ

<CR>

Send all characters up to a particular character

F3 Include in the output message all characters from the input message, starting with the character at the current cursor position and continuing to, but not including, the search character “ss,” followed by an insert character. The cursor is moved forward to the “ss” character. *Syntax = F3ssxx* where ss stands for the search character’s hex value for its ASCII code, and xx stands for the insert character’s hex value for its ASCII code.

Refer to the [ASCII Conversion Chart \(Code Page 1252\)](#) for decimal, hex and character codes.

F3 Example: Send all characters up to a particular character



Using the barcode above, send all characters up to but not including “D,” followed by a carriage return.

Command string: **F3440D**

F3 is the “Send all characters up to a particular character” command

44 is the hex value for a 'D’

0D is the hex value for a CR

The data is output as:

1234567890ABC

<CR>

Send all but the last characters

E9 Include in the output message all but the last “nn” characters, starting from the current cursor position. The cursor is moved forward to one position past the last input message character included. *Syntax = E9nn* where nn stands for the numeric value (00-99) for the number of characters that will not be sent at the end of the message.

Insert a character multiple times

F4 Send “xx” character “nn” times in the output message, leaving the cursor in the current position. *Syntax = F4xxnn* where xx stands for the insert character’s hex value for its ASCII code, and nn is the numeric value (00-99) for the number of times it should be sent.

Refer to the [ASCII Conversion Chart \(Code Page 1252\)](#), beginning on page 168 for decimal, hex and character codes.

E9 and F4 Example: Send all but the last characters, followed by 2 tabs



1234567890ABCDEFGHIJ

Send all characters except for the last 8 from the barcode above, followed by 2 tabs.

Command string: **E908F40902**

E9 is the “Send all but the last characters” command

08 is the number of characters at the end to ignore

F4 is the “Insert a character multiple times” command

09 is the hex value for a horizontal tab

02 is the number of times the tab character is sent

The data is output as: **1234567890AB <tab><tab>**

Move Commands

Move the cursor forward a number of characters

F5 Move the cursor ahead “nn” characters from current cursor position.
Syntax = F5nn where nn is the numeric value (00-99) for the number of characters the cursor should be moved ahead.

F5 Example: Move the cursor forward and send the data



Move the cursor forward 3 characters, then send the rest of the barcode data from the barcode above. End with a carriage return.

Command string: **F503F10D**

F5 is the “Move the cursor forward a number of characters” command

03 is the number of characters to move the cursor

F1 is the “Send all characters” command

0D is the hex value for a CR

The data is output as:

4567890ABCDEFGHIJ

<CR>

Move the cursor backward a number of characters

F6 Move the cursor back “nn” characters from current cursor position.
Syntax = F6nn where nn is the numeric value (00-99) for the number of characters the cursor should be moved back.

Move the cursor to the beginning

F7 Move the cursor to the first character in the input message. *Syntax = F7.*

FE and F7 Example: Manipulate barcodes that begin with a 1



Search for barcodes that begin with a 1. If a barcode matches, move the cursor back to the beginning of the data and send 6 characters followed by a carriage return. Using the barcode above:

Command string: **FE31F7F2060D**

FE is the “Compare characters” command

31 is the hex value for 1

F7 is the “Move the cursor to the beginning” command

F2 is the “Send a number of characters” command

06 is the number of characters to send

0D is the hex value for a CR

The data is output as:

123456

<CR>

Move the cursor to the end

EA Move the cursor to the last character in the input message. *Syntax = EA.*

Search Commands

Search forward for a character

F8 Search the input message forward for “xx” character from the current cursor position, leaving the cursor pointing to the “xx” character. *Syntax = F8xx* where xx stands for the search character’s hex value for its ASCII code. Refer to the [ASCII Conversion Chart \(Code Page 1252\)](#), beginning on page 168 for decimal, hex and character codes.

F8 Example: Send barcode data that starts after a particular character



Search for the letter “D” in barcodes and send all the data that follows, including the “D.” Using the barcode above:

Command string: **F844F10D**

F8 is the “Search forward for a character” command

44 is the hex value for “D”

F1 is the “Send all characters” command

0D is the hex value for a CR

The data is output as:

DEFGHIJ

<CR>

Search backward for a character

- F9** Search the input message backward for “xx” character from the current cursor position, leaving the cursor pointing to the “xx” character. *Syntax = F9xx* where xx stands for the search character’s hex value for its ASCII code. Refer to the [ASCII Conversion Chart \(Code Page 1252\)](#), beginning on page 168 for decimal, hex and character codes.

Search forward for a non-matching character

- E6** Search the input message forward for the first non-“xx” character from the current cursor position, leaving the cursor pointing to the non-“xx” character. *Syntax = E6xx* where xx stands for the search character’s hex value for its ASCII code. Refer to the [ASCII Conversion Chart \(Code Page 1252\)](#), beginning on page 168 for decimal, hex and character codes.

E6 Example: Remove zeros at the beginning of barcode data



This example shows a barcode that has been zero filled. You may want to ignore the zeroes and send all the data that follows. E6 searches forward for the first character that is not zero, then sends all the data after, followed by a carriage return. Using the barcode above:

Command string: **E630F10D**

E6 is the “Search forward for a non-matching character” command

30 is the hex value for 0

F1 is the “Send all characters” command

0D is the hex value for a CR

The data is output as:

37692

<CR>

Search backward for a non-matching character

- E7** Search the input message backward for the first non-“xx” character from the current cursor position, leaving the cursor pointing to the non-“xx” character. *Syntax = E7xx* where xx stands for the search character’s hex value for its ASCII code. Refer to the [ASCII Conversion Chart \(Code Page 1252\)](#), beginning on page 168 for decimal, hex and character codes.

Miscellaneous Commands

Suppress characters

FB Suppress all occurrences of up to 15 different characters, starting at the current cursor position, as the cursor is advanced by other commands. When the FC command is encountered, the suppress function is terminated. The cursor is not moved by the FB command.

Syntax = FBnnxxyy ..zz where nn is a count of the number of suppressed characters in the list, and xxyy .. zz is the list of characters to be suppressed.

FB Example: Remove spaces in barcode data



This example shows a barcode that has spaces in the data. You may want to remove the spaces before sending the data. Using the barcode above:

Command string: **FB0120F10D**

FB is the “Suppress characters” command

01 is the number of character types to be suppressed

20 is the hex value for a space

F1 is the “Send all characters” command

0D is the hex value for a CR

The data is output as:

34567890

<CR>

Stop suppressing characters

FC Disables suppress filter and clear all suppressed characters. Syntax = FC.

Replace characters

E4 Replaces up to 15 characters in the output message, without moving the cursor. Replacement continues until the E5 command is encountered. Syntax = E4nnxx₁xx₂yy₁yy₂...zz₁zz₂ where nn is the total count of the number of characters in the list (characters to be replaced plus replacement characters); xx₁ defines characters to be replaced and xx₂ defines replacement characters, continuing through zz₁ and zz₂.

E4 Example: Replace zeros with CRs in barcode data



If the barcode has characters that the host application does not want included, you can use the E4 command to replace those characters with something else. In this example, you will replace the zeroes in the barcode above with carriage returns.

Command string: **E402300DF10D**

E4 is the “Replace characters” command

02 is the total count of characters to be replaced, plus the replacement characters (0 is replaced by CR, so total characters = 2)

30 is the hex value for 0

0D is the hex value for a CR (the character that will replace the 0)

F1 is the “Send all characters” command

0D is the hex value for a CR

The data is output as:

1234

5678

ABC

<CR>

Stop replacing characters

E5 Terminates character replacement. *Syntax = E5.*

Compare characters

FE Compare the character in the current cursor position to the character “xx.” If characters are equal, move the cursor forward one position. *Syntax = FExx* where xx stands for the comparison character’s hex value for its ASCII code.

Refer to the [ASCII Conversion Chart \(Code Page 1252\)](#), beginning on page 168 for decimal, hex and character codes.

Check for a number

EC Check to make sure there is an ASCII number at the current cursor position. The format is aborted if the character is not numeric.

EC Example: Only output the data if the barcode begins with a number


If you want only data from barcodes that begin with a number, you can use EC to check for the number.

Command string: **ECF10D**

EC is the “Check for a number” command

F1 is the “Send all characters” command

0D is the hex value for a CR

If this barcode is read,  the next data format, if there is one, will be used on the data. If there is no other format, the format fails and the raw data is output as **AB1234**.

If this barcode is read:  the data is output as:

1234AB
<CR>

Check for non-numeric character

ED Check to make sure there is a non-numeric ASCII character at the current cursor position. The format is aborted if the character is numeric.

ED Example: Only output the data if the barcode begins with a letter


If you want only data from barcodes that begin with a letter, you can use ED to check for the letter.

Command string: **EDF10D**

ED is the “Check for a non-numeric character” command

F1 is the “Send all characters” command

0D is the hex value for a CR

If this barcode is read,  the next data format, if there is one, will be used on this data. If there is no other format, the format fails and the raw data is output as **1234AB**.

If this barcode is read:  the data is output as:

AB1234
<CR>

Insert a delay

EF Inserts a delay of up to 49,995 milliseconds (in multiples of 5), starting from the current cursor position. Syntax = EFnnnn where nnnn stands for the delay in 5ms increments, up to 9999. This command can only be used with keyboard emulation.

Data Formatter

When Data Formatter is turned **Off**, the barcode data is output to the host as read, including prefixes and suffixes.



You may wish to require the data to conform to a data format you have created and saved. The following settings can be applied to your data format:

- **Data Formatter On, Not Required, Keep Prefix/Suffix**
Scanned data is modified according to your data format, and prefixes and suffixes are transmitted.
- **Data Format Required, Keep Prefix/Suffix**
Scanned data is modified according to your data format, and prefixes and suffixes are transmitted. Any data that does not match your data format requirements generates an error tone and the data in that barcode is not transmitted.

Default = Data Formatter On, Not Required, Keep Prefix/Suffix.



Primary/Alternate Data Formats

You can save up to four data formats, and switch between these formats. Your primary data format is saved under **0**. Your other three formats are saved under **1**, **2**, and **3**. To set your device to use one of these formats, scan one of the barcodes below.





ALTFNM2.
Data Format 2



ALTFNM1.
Data Format 1



ALTFNM3.
Data Format 3

SYMBOLOLOGIES

This programming section contains the following menu selections. Refer to [Chapter 8](#) for settings and defaults.

- All Symbolologies
- Aztec Code
- China Post (Hong Kong 2 of 5)
- Chinese Sensible (Han Xin) Code
- Codabar
- Codablock A
- Codablock F
- Code 11
- Code 128
- Code 32 Pharmaceutical (PARAF)
- Code 39
- Code 93
- Data Matrix
- Digimarc Barcode™
- EAN/JAN-13
- EAN/JAN-8
- GS1 Composite Codes
- GS1 DataBar Expanded
- GS1 DataBar Limited
- GS1 DataBar Omnidirectional
- GS1 Emulation
- GS1-128
- Interleaved 2 of 5
- Korea Post On/Off
- Matrix 2 of 5
- MaxiCode
- MicroPDF417
- MSI
- NEC 2 of 5
- Postal Codes - 2D
- Postal Codes - Linear
- PDF417
- GS1 DataBar Omnidirectional
- QR Code
- Straight 2 of 5 IATA (two-bar start/stop)
- Straight 2 of 5 Industrial (three-bar start/stop)
- TCIF Linked Code 39 (TLC39)
- UPC-A
- UPC-A/EAN-13 with Extended Coupon Code
- UPC-E0
- UPC-E1

All Symbologies

For best scanner performance, we recommend you only enable the symbologies that you need. Scan **All Symbologies Off** to disable all symbologies, then enable the symbologies you need by scanning the **On** barcode for each symbology.



ALLENA0.

All Symbologies Off

If you want to decode all the symbologies allowable for your scanner, scan the *All Symbologies On* code. If on the other hand, you want to decode only a particular symbology, scan All Symbologies Off followed by the On symbol for that particular symbology.

Note: *All Symbologies On should only be used when needed (or you are instructed to do so) and may result in slower performance.*



ALLENA1.

All Symbologies On



ALLENA0.

All Symbologies Off

Note: *When All Symbologies On is scanned, 2D Postal Codes are not enabled. 2D Postal Codes must be enabled separately.*

Message Length Description

You are able to set the valid reading length of some of the barcode symbologies. You may wish to set the same value for minimum and maximum length to force the scanner to read fixed length barcode data. This helps reduce the chances of a mis-read.

Example: Decode only those barcodes with a count of 9-20 characters.
Min. length = 09Max. length = 20

Example: Decode only those barcodes with a count of 15 characters.
Min. length = 15Max. length = 15

For a value other than the minimum and maximum message length defaults, scan the barcode included in the explanation of the symbology, then scan the digit value of the message length and **Save** barcodes on the [Programming Chart](#). The minimum and maximum lengths and the defaults are included with the respective symbologies.

Codabar

<Default All Codabar Settings>



Codabar On/Off



Codabar Start / Stop Characters

Start/Stop characters identify the leading and trailing ends of the barcode. You may either transmit, or not transmit Start/Stop characters. *Default = Don't Transmit.*



Codabar Check Character

Codabar check characters are created using different “modulos.” You can program the scanner to read only Codabar barcodes with Modulo 16 check characters. *Default = No Check Character.*

No Check Character indicates that the scanner reads and transmits barcode data with or without a check character.

When Check Character is set to **Validate and Transmit**, the scanner will only read Codabar barcodes printed with a check character, and will transmit this character at the end of the scanned data.

When Check Character is set to **Validate, but Don't Transmit**, the unit will only read Codabar barcodes printed *with* a check character, but will not transmit the check character with the scanned data.



Codabar Concatenation

Codabar supports symbol concatenation. When you enable concatenation, the scanner looks for a Codabar symbol having a “D” start character, adjacent to a symbol having a “D” stop character. In this case the two messages are concatenated into one with the “D” characters omitted.



Select **Require** to prevent the scanner from decoding a single “D” Codabar symbol without its companion. This selection has no effect on Codabar symbols without Stop/Start D characters.



Codabar Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 2-60. Minimum Default = 4, Maximum Default = 60.



CBRMIN.

Minimum Message Length



CBRMAX.

Maximum Message Length

Code 39

< Default All Code 39 Settings >



C39DFT.

Code 39 On/Off



C39ENA1.

* On



C39ENA0.

Off

Code 39 Start/Stop Characters

Start/Stop characters identify the leading and trailing ends of the barcode. You may either transmit, or not transmit Start/Stop characters. *Default = Don't Transmit.*



C39SSX1.

Transmit



C39SSX0.
* Don't Transmit

Code 39 Check Character

No Check Character indicates that the scanner reads and transmits barcode data with or without a check character.

When Check Character is set to **Validate, but Don't Transmit**, the unit only reads Code 39 barcodes printed with a check character, but will not transmit the check character with the scanned data.

When Check Character is set to **Validate and Transmit**, the scanner only reads Code 39 barcodes printed with a check character, and will transmit this character at the end of the scanned data. *Default = No Check Character.*



C39CK20.
* No Check Character



C39CK21.
Validate, but Don't Transmit



C39CK22.
Validate and Transmit

Code 39 Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 0-48. Minimum Default = 0, Maximum Default = 48.



C39MIN.
Minimum Message Length



C39MAX.
Maximum Message Length

Code 39 Append

This function allows the scanner to append the data from several Code 39 barcodes together before transmitting them to the host computer. When the scanner encounters a Code 39 barcode with the append trigger character(s), it buffers Code 39 barcodes until it reads a Code 39 barcode that does not have the append trigger. The data is then transmitted in the order in which the barcodes were read (FIFO). *Default = Off.*



Code 32 Pharmaceutical (PARAF)

Code 32 Pharmaceutical is a form of the Code 39 symbology used by Italian pharmacies. This symbology is also known as PARAF.



Full ASCII

If Full ASCII Code 39 decoding is enabled, certain character pairs within the barcode symbol will be interpreted as a single character. For example: \$V will be decoded as the ASCII character SYN, and /C will be decoded as the ASCII character #. *Default = Off.*

NUL %U	DLE \$P	SP SPACE	O O	@ %V	P P	' %W	p +P
SOH \$A	DC1 \$Q	! /A	1 1	A A	Q Q	a +A	q +Q
STX \$B	DC2 \$R	" /B	2 2	B B	R R	b +B	r +R
ETX \$C	DC3 \$S	# /C	3 3	C C	S S	c +C	s +S
EOT \$D	DC4 \$T	\$ /D	4 4	D D	T T	d +D	t +T
ENQ \$E	NAK \$U	% /E	5 5	E E	U U	e +E	u +U
ACK \$F	SYN \$V	& /F	6 6	F F	V V	f +F	v +V
BEL \$G	ETB \$W	' /G	7 7	G G	W W	g +G	w +W
BS \$H	CAN \$X	(/H	8 8	H H	X X	h +H	x +X
HT \$I	EM \$Y	) /I	9 9	I I	Y Y	i +I	y +Y
LF \$J	SUB \$Z	* /J	: /Z	J J	Z Z	j +J	z +Z
VT \$K	ESC %A	+ /K	; %F	K K	[%K	k +K	{ %P
FF \$L	FS %B	, /L	< %G	L L	\ %L	l +L	| %Q
CR \$M	GS %C	- -	= %H	M M	] %M	m +M	} %R
SO \$N	RS %D	. .	> %I	N N	^ %N	n +N	~ %S
SI \$O	US %E	/ /O	? %J	O O	_ %O	o +O	DEL %T

Character pairs /M and /N decode as a minus sign and period respectively. Character pairs /P through /Y decode as 0 through 9.



C39ASC1.
Full ASCII On



C39ASC0.
* Full ASCII Off

Code 39 Code Page

Code pages define the mapping of character codes to characters. If the data received does not display with the proper characters, it may be because the barcode being scanned was created using a code page that is different from the one the host program is expecting. If this is the case, scan the barcode below, select the

code page with which the barcodes were created (see [ISO 2022/ISO 646 Character Replacements](#) on page 172), and scan the value and the Save barcode from the [Programming Chart](#). The data characters should then appear properly.



C39DCP.

Code 39 Code Page

Suppress Code 39

Note: *It is recommended if you are reading Code 39 barcodes, Codablock A should remain disabled.*

The Do Not Suppress Code 39 setting allows you to scan a mix of Code 39 and Codablock A barcodes. Once [Codablock A](#) is enabled, scan the **Do Not Suppress Code 39** barcode. *Default = Suppress Code 39.*



C39SCC1.

* Suppress Code 39



C39SCC0.

Do Not Suppress Code 39

Interleaved 2 of 5

< Default All Interleaved 2 of 5 Settings >



I25DFT.

Interleaved 2 of 5 On/Off



I25ENA1.

* On



I25ENA0.

Off

Check Digit

No Check Digit indicates that the scanner reads and transmits barcode data with or without a check digit.

When Check Digit is set to **Validate, but Don't Transmit**, the unit only reads Interleaved 2 of 5 barcodes printed with a check digit, but will not transmit the check digit with the scanned data.

When Check Digit is set to **Validate and Transmit**, the scanner only reads Interleaved 2 of 5 barcodes printed with a check digit, and will transmit this digit at the end of the scanned data. *Default = No Check Digit.*



Interleaved 2 of 5 Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 2-80. Minimum Default = 4, Maximum Default = 80.



NEC 2 of 5

< Default All NEC 2 of 5 Settings >



NEC 2 of 5 On/Off



Check Digit

No Check Digit indicates that the scanner reads and transmits barcode data with or without a check digit.

When Check Digit is set to **Validate, but Don't Transmit**, the unit only reads NEC 2 of 5 barcodes printed with a check digit, but will not transmit the check digit with the scanned data.

When Check Digit is set to **Validate and Transmit**, the scanner only reads NEC 2 of 5 barcodes printed with a check digit, and will transmit this digit at the end of the scanned data. *Default = No Check Digit.*



NEC 2 of 5 Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 2-80. Minimum Default = 4, Maximum Default = 80.



N25MIN.

Minimum Message Length



N25MAX.

Maximum Message Length

Code 93

< Default All Code 93 Settings >



C93DFT.

Code 93 On/Off



C93ENA1.

* On



C93ENA0.

Off

Code 93 Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 0-80. Minimum Default = 0, Maximum Default = 80.



C93MIN.

Minimum Message Length



C93MAX.

Maximum Message Length

Code 93 Append

This function allows the scanner to append the data from several Code 93 barcodes together before transmitting them to the host computer. When this function is enabled, the scanner stores those Code 93 barcodes that start with a space (excluding the start and stop symbols), and does not immediately transmit the data. The scanner stores the data in the order in which the barcodes are read, deleting the first space from each. The scanner transmits the appended data when it reads a Code 93 barcode that starts with a character other than a space. *Default = Off.*



C93APP1.

On



C93APP0.

* Off

Code 93 Code Page

Code pages define the mapping of character codes to characters. If the data received does not display with the proper characters, it may be because the barcode being scanned was created using a code page that is different from the one the host program is expecting. If this is the case, scan the barcode below, select the code page with which the barcodes were created (see [ISO 2022/ISO 646 Character Replacements](#) on page 172), and scan the value and the **Save** barcode from the [Programming Chart](#). The data characters should then appear properly.



C93DCP.

Code 93 Code Page

Straight 2 of 5 Industrial (three-bar start/stop)

<Default All Straight 2 of 5 Industrial Settings>



Straight 2 of 5 Industrial On/Off



Straight 2 of 5 Industrial Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 1-48. Minimum Default = 4, Maximum Default = 48.



Straight 2 of 5 IATA (two-bar start/stop)

<Default All Straight 2 of 5 IATA Settings>



Straight 2 of 5 IATA On/Off



Straight 2 of 5 IATA Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 1-48. Minimum Default = 4, Maximum Default = 48.



Matrix 2 of 5

<Default All Matrix 2 of 5 Settings>



Matrix 2 of 5 On/Off



Matrix 2 of 5 Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 1-80. Minimum Default = 4, Maximum Default = 80.



Code 11

<Default All Code 11 Settings>



Code 11 On/Off



Check Digits Required

This option sets whether 1 or 2 check digits are required with Code 11 barcodes.
Default = Two Check Digits.



Code 11 Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 1-80. Minimum Default = 4, Maximum Default = 80.



Code 128

<Default All Code 128 Settings>



Code 128 On/Off



ISBT 128 Concatenation

In 1994 the International Society of Blood Transfusion (ISBT) ratified a standard for communicating critical blood information in a uniform manner. The use of ISBT formats requires a paid license. The ISBT 128 Application Specification describes 1) the critical data elements for labeling blood products, 2) the current recommendation to use Code 128 due to its high degree of security and its space-efficient design, 3) a variation of Code 128 that supports concatenation of neighboring symbols, and 4) the standard layout for barcodes on a blood product label. Use the barcodes below to turn concatenation on or off. *Default =Off.*



Code 128 Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 0-80. Minimum Default = 0, Maximum Default = 80.



128MIN.

Minimum Message Length



128MAX.

Maximum Message Length

Code 128 Append

This function allows the scanner to append the data from several Code 128 barcodes together before transmitting them to the host computer. When the scanner encounters a Code 128 barcode with the append trigger character(s), it buffers Code 128 barcodes until it reads a Code 128 barcode that does not have the append trigger. The data is then transmitted in the order in which the barcodes were read (FIFO). *Default = On.*



128APP1.

*** On**



128APP0.

Off

Code 128 Code Page

Code pages define the mapping of character codes to characters. If the data received does not display with the proper characters, it may be because the barcode being scanned was created using a code page that is different from the one the host program is expecting. If this is the case, scan the barcode below, select the code page with which the barcodes were created (see [ISO 2022/ISO 646 Character Replacements](#) on page 172), and scan the value and the Save barcode from the [Programming Chart](#). The data characters should then appear properly.



128DCP.

Code 128 Code Page

GS1-128

<Default All GS1-128 Settings>



GS1-128 On/Off



GS1-128 Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 1-80. Minimum Default = 1, Maximum Default = 80.

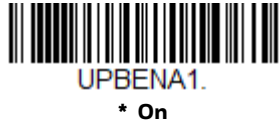


UPC-A

<Default All UPC-A Settings>



UPC-A On/Off



Note: To convert UPC-A barcodes to EAN-13, see [Convert UPC-A to EAN-13](#) on page 99.

UPC-A Check Digit

This selection allows you to specify whether the check digit should be transmitted at the end of the scanned data or not. *Default = On.*



UPC-A Number System

The numeric system digit of a U.P.C. symbol is normally transmitted at the beginning of the scanned data, but the unit can be programmed so it will not transmit it. *Default = On.*





UPC-A Addenda

This selection adds 2 or 5 digits to the end of all scanned UPC-A data.
Default = Off for both 2 Digit and 5 Digit Addenda.



UPC-A Addenda Required

When **Required** is scanned, the scanner will only read UPC-A barcodes that have addenda. You must then turn on a 2 or 5 digit addenda listed on [page 94](#). *Default = Not Required.*



UPC-A Addenda Separator

When this feature is on, there is a space between the data from the barcode and the data from the addenda. When turned off, there is no space. *Default = On.*



UPAADS1.

* On



UPAADS0.

Off

UPC-A/EAN-13 with Extended Coupon Code

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

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

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



CPNENA0.

* Off



CPNENA1.

Allow Concatenation



CPNENA2.

Require Concatenation

Coupon GS1 DataBar Output

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



CPNGS10.
* **GS1 Output Off**



CPNGS11.
GS1 Output On

UPC-E0

<Default All UPC-E Settings>



UPEDFT.

UPC-E0 On/Off

Most U.P.C. barcodes lead with the 0 number system. To read these codes, use the **UPC-E0 On** selection. If you need to read codes that lead with the 1 number system, use [UPC-E1](#) (page 98). *Default = On.*



UPEEN01.
* **UPC-E0 On**



UPEEN00.
UPC-E0 Off

UPC-E0 Expand

UPC-E Expand expands the UPC-E code to the 12 digit, UPC-A format. *Default = Off.*



UPEEXP1.
On



UPC-E0 Addenda Required

When **Required** is scanned, the scanner will only read UPC-E barcodes that have addenda. *Default = Not Required.*



UPC-E0 Addenda Separator

When this feature is **On**, there is a space between the data from the barcode and the data from the addenda. When turned **Off**, there is no space. *Default = On.*



UPC-E0 Check Digit

Check Digit specifies whether the check digit should be transmitted at the end of the scanned data or not. *Default = On.*



UPC-E0 Leading Zero

This feature allows the transmission of a leading zero (0) at the beginning of scanned data. To prevent transmission, scan **Off**. *Default = On.*



UPENSX1.

* On



UPENSX0.

Off

UPC-E0 Addenda

This selection adds 2 or 5 digits to the end of all scanned UPC-E data. *Default = Off for both 2 Digit and 5 Digit Addenda.*



UPEAD21.

2 Digit Addenda On



UPEAD20.

* 2 Digit Addenda Off



UPEAD51.

5 Digit Addenda On



UPEAD50.

* 5 Digit Addenda Off

UPC-E1

Most U.P.C. barcodes lead with the 0 number system. For these codes, use [UPC-E0](#) (page 96). If you need to read codes that lead with the 1 number system, use the **UPC-E1 On** selection. *Default = Off.*



UPEEN11.

UPC-E1 On



UPEEN10.
* UPC-E1 Off

EAN/JAN-13

<Default All EAN/JAN Settings>



E13DFT.

EAN/JAN-13 On/Off



E13ENA1.
* On



E13ENA0.
Off

Convert UPC-A to EAN-13

When **UPC-A Converted to EAN-13** is selected, UPC-A barcodes are converted to 13 digit EAN-13 codes by adding a zero to the front. When **Do not Convert UPC-A** is selected, UPC-A codes are read as UPC-A.



UPAENA0.
UPC-A Converted to EAN-13



UPAENA1.
* Do not Convert UPC-A

EAN/JAN-13 Check Digit

This selection allows you to specify whether the check digit should be transmitted at the end of the scanned data or not. *Default = On.*



E13CKX1.

* On



E13CKX0.

Off

EAN/JAN-13 Addenda

This selection adds 2 or 5 digits to the end of all scanned EAN/JAN-13 data. *Default = Off for both 2 Digit and 5 Digit Addenda.*



E13AD21.

2 Digit Addenda On



E13AD20.

* 2 Digit Addenda Off



E13AD51.

5 Digit Addenda On



E13AD50.

* 5 Digit Addenda Off

EAN/JAN-13 Addenda Required

When **Required** is scanned, the scanner will only read EAN/JAN-13 barcodes that have addenda. *Default = Not Required.*



E13ARQ1.

Required



E13ARQ0.

* Not Required

EAN/JAN-13 Addenda Separator

When this feature is **On**, there is a space between the data from the barcode and the data from the addenda. When turned **Off**, there is no space. *Default = On.*



E13ADS1.
* On



E13ADS0.
Off

Note: If you want to enable or disable EAN13 with Extended Coupon Code, refer to [UPC-A/
EAN-13 with Extended Coupon Code](#) (page 95).

ISBN Translate

When **On** is scanned, EAN-13 Bookland symbols are translated into their equivalent ISBN number format. *Default = Off.*



E13ISB1.
On



E13ISB0.
* Off

EAN/JAN-8

<Default All EAN/JAN-8 Settings>



EA8DFT.

EAN/JAN-8 On/Off



EA8ENA1.
* On



EAN/JAN-8 Check Digit

This selection allows you to specify whether the check digit should be transmitted at the end of the scanned data or not. *Default = On.*



EAN/JAN-8 Addenda

This selection adds 2 or 5 digits to the end of all scanned EAN/JAN-8 data. *Default = Off for both 2 Digit and 5 Digit Addenda.*



EAN/JAN-8 Addenda Required

When **Required** is scanned, the scanner will only read EAN/JAN-8 barcodes that have addenda. *Default = Not Required.*



EA8ARQ1.
Required



EA8ARQ0.
*** Not Required**

EAN/JAN-8 Addenda Separator

When this feature is **On**, there is a space between the data from the barcode and the data from the addenda. When turned **Off**, there is no space. *Default = On.*



EA8ADS1.
*** On**



EA8ADS0.
Off

MSI

<Default All MSI Settings>



MSIDFT.

MSI On/Off



MSIENA1.
On



MSIENA0.
*** Off**

MSI Check Character

Different types of check characters are used with MSI barcodes. You can program the scanner to read MSI barcodes with Type 10 check characters. *Default = Validate Type 10, but Don't Transmit.*

When Check Character is set to **Validate Type 10/11 and Transmit**, the scanner will only read MSI barcodes printed with the specified type check character(s), and will transmit the character(s) at the end of the scanned data.

When Check Character is set to **Validate Type 10/11, but Don't Transmit**, the unit will only read MSI barcodes printed with the specified type check character(s), but will not transmit the check character(s) with the scanned data.



MSICLK0.

* **Validate Type 10, but Don't Transmit**



MSICLK1.

Validate Type 10 and Transmit



MSICLK2.

Validate 2 Type 10 Characters, but Don't Transmit



MSICLK3.

Validate 2 Type 10 Characters and Transmit



MSICLK4.

Validate Type 11 then Type 10 Character, but Don't Transmit



MSICLK5.

Validate Type 11 then Type 10 Character and Transmit



MSICLK6.

Disable MSI Check Characters

MSI Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 4-48. Minimum Default = 4, Maximum Default = 48.



MSIMIN.

Minimum Message Length



MSIMAX.

Maximum Message Length

GS1 DataBar Omnidirectional

< Default All GS1 DataBar Omnidirectional Settings >



RSSDFT.

GS1 DataBar Omnidirectional On/Off



RSENA1.

*** On**



RSENA0.

Off

GS1 DataBar Limited

< Default All GS1 DataBar Limited Settings >



GS1 DataBar Limited On/Off



GS1 DataBar Expanded

< Default All GS1 DataBar Expanded Settings >



GS1 DataBar Expanded On/Off



GS1 DataBar Expanded Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 4-74. Minimum Default = 4, Maximum Default = 74.



RSEMIN.

Minimum Message Length



RSEMAX.

Maximum Message Length

Codablock A

<Default All Codablock A Settings>



CBADFT.

Codablock A On/Off



CBAENA1.

On



CBAENA0.

* Off

Codablock A Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 1-600. Minimum Default = 1, Maximum Default = 600.



CBAMIN.

Minimum Message Length



Codablock F

<Default All Codablock F Settings>



Codablock F On/Off



Codablock F Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 1-2048. Minimum Default = 1, Maximum Default = 2048.



PDF417

< Default All PDF417 Settings >



PDF417 On/Off



PDF417 Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 1-2750. Minimum Default = 1, Maximum Default = 2750.



MacroPDF417

MacroPDF417 is an implementation of PDF417 capable of encoding very large amounts of data into multiple PDF417 barcodes. When this selection is enabled, these multiple barcodes are assembled into a single data string. *Default = On.*





MicroPDF417

< Default All MicroPDF417 Settings >



MicroPDF417 On/Off



MicroPDF417 Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 1-366. Minimum Default = 1, Maximum Default = 366.



GS1 Composite Codes

Linear codes are combined with a unique 2D composite component to form a new class called GS1 Composite symbology. GS1 Composite symbologies allow for the co-existence of symbologies already in use. *Default = Off.*



UPC/EAN Version

Scan the **UPC/EAN Version On** barcode to decode GS1 Composite symbols that have a U.P.C. or an EAN linear component. (This does not affect GS1 Composite symbols with a GS1-128 or GS1 linear component.) *Default = UPC/EAN Version Off.*



Note: *If you scan coupons that have both UPC and GS1 DataBar codes, you may wish to scan and output only the data from the GS1 DataBar code. See [Coupon GS1 DataBar Output](#) (page 96) for further information.*

GS1 Composite Code Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 1-2435. Minimum Default = 1, Maximum Default = 2435.



GS1 Emulation

The scanner can automatically format the output from any GS1 data carrier to emulate what would be encoded in an equivalent GS1-128 or GS1 DataBar symbol. GS1 data carriers include UPC-A and UPC-E, EAN-13 and EAN-8, ITF-14, GS1-128, and GS1-128 DataBar and GS1 Composites. (Any application that accepts GS1 data can be simplified since it only needs to recognize one data carrier type.)

If **GS1-128 Emulation** is scanned, all retail codes (U.P.C., UPC-E, EAN8, EAN13) are expanded out to 16 digits. If the AIM ID is enabled, the value will be the GS1-128 AIM ID,]C1 (see [Symbology Charts](#) on page 165).

If **GS1 DataBar Emulation** is scanned, all retail codes (U.P.C., UPC-E, EAN8, EAN13) are expanded out to 16 digits. If the AIM ID is enabled, the value will be the GS1-DataBar AIM ID,]em (see [Symbology Charts](#) on page 165).

If **GS1 Code Expansion Off** is scanned, retail code expansion is disabled, and UPC-E expansion is controlled by the [UPC-E0 Expand](#) (page 96) setting. If the AIM ID is enabled, the value will be the GS1-128 AIM ID,]C1 (see [Symbology Charts](#) on page 165).

If **EAN8 to EAN13 Conversion** is scanned, all EAN8 barcodes are converted to EAN13 format.

Default = GS1 Emulation Off.



EANEMU1.
GS1-128 Emulation



EANEMU2.
GS1 DataBar Emulation



EANEMU3.
GS1 Code Expansion Off



EANEMU4.
EAN8 to EAN13 Conversion



EANEMU0.
* GS1 Emulation Off

TCIF Linked Code 39 (TLC39)

This code is a composite code since it has a Code 39 linear component and a MicroPDF417 stacked code component. All barcode readers are capable of reading the Code 39 linear component. The MicroPDF417 component can only be decoded if TLC39 On is selected. The linear component may be decoded as Code 39 even if TLC39 is off. *Default = Off.*



QR Code

< Default All QR Code Settings >



QR Code On/Off

This selection applies to both QR Code and Micro QR Code.



QR Code Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 1-7089. Minimum Default = 1, Maximum Default = 7089.



QRCMIN.

Minimum Message Length



QRCMAX.

Maximum Message Length

QR Code Append

This function allows the scanner to append the data from several QR Code barcodes together before transmitting them to the host computer. When the scanner encounters an QR Code barcode with the append trigger character(s), it buffers the number of QR Code barcodes determined by information encoded in those barcodes. Once the proper number of codes is reached, the data is output in the order specified in the barcodes. There are 3 ways to scan appended QR Code:

- **One scan**—Pull the trigger one time and all appended QR Codes in the same image are decoded
- **Swipe**—Pull and hold down the trigger and scan all appended QR Codes while keeping the trigger pressed. The scanner emits short beeps for each partial QR Code that is scanned and buffered. One long beep is emitted after the last QR Code is scanned and the data is complete. Not compatible with Presentation mode.
- **Point and shoot**—Pull the trigger one time for each image. The scanner emits a short beep for each partial QR Code that is scanned and buffered. One long beep is emitted after the last QR Code is scanned and the data is complete. Not compatible with Presentation mode.

Default = One Scan.



QRCAPP1.

* One Scan



QRCAPP2.

Swipe



QRCAPP3.

Point and Shoot



QR Code Page

QR Code pages define the mapping of character codes to characters. If the data received does not display with the proper characters, it may be because the barcode being scanned was created using a code page that is different from the one the host program is expecting. If this is the case, scan the barcode below, select the code page with which the barcodes were created (see [ISO 2022/ISO 646 Character Replacements](#) on page 172), and scan the value and the Save barcode from the [Programming Chart](#). The data characters should then appear properly.



Digimarc Barcode™

Digimarc Decoder Attempts

Set the number of attempts by scanning the barcode below, then setting the number of attempts (0-10) by scanning digits from the [Programming Chart](#) beginning on page 179 of this manual, the **Save**. *Minimum to Maximum attempts = 0-10. Default = 3.*



Digimarc Barcode

This setting programs the scanner to decode Digimarc Barcode using Digimarc and ID decoders. When Digimarc Barcode is set to **On**, the Digimarc decoder is used on most frames and the ID decoder will read every fifth frame.

When Digimarc Barcode is set to **Uses ID Decoder then Both Decoders**, the ID decoder will read the number of attempts set by the Digimarc Decoder Attempts and then will use both ID and Digimarc decoders. When Digimarc Barcode is set to **Uses Digimarc Decoder then Both Decoders**, the Digimarc decoder will read the number of attempts set by the Digimarc Decoder Attempts and then will use both ID and Digimarc decoders.

When Digimarc Barcode is set to **Uses ID Decoder then Alternates Decoders**, the ID decoder will read the number of attempts set by the Digimarc Decoder Attempts and then will alternate between ID and Digimarc decoders. When Digimarc Barcode is set to **Uses Digimarc Decoder then Alternates Decoders**, the Digimarc decoder will read the number of attempts set by the Digimarc Decoder Attempts and then will alternate between ID and Digimarc decoders.

Default = Uses Digimarc Decoder then Both Decoders.



DIGENA0.

Off



DIGENA1.

On



DIGENA2.

Uses ID Decoder then Both Decoders



DIGENA3.

*** Uses Digimarc Decoder then Both Decoders**



DIGENA4.

Uses ID Decoder then Alternates Decoders



DIGENA5.

Uses Digimarc Decoder then Alternates Decoders

Data Matrix

< Default All Data Matrix Settings >



Data Matrix On/Off



Data Matrix Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 1-3116. Minimum Default = 1, Maximum Default = 3116.



Minimum Message Length



Maximum Message Length

Data Matrix Code Page

Data Matrix Code pages define the mapping of character codes to characters. If the data received does not display with the proper characters, it may be because the barcode being scanned was created using a code page that is different from the one the host program is expecting. If this is the case, scan the barcode below, select the code page with which the barcodes were created (see [ISO 2022/ISO 646 Character Replacements](#) on page 172), and scan the value and the Save barcode from the [Programming Chart](#). The data characters should then appear properly.



Data Matrix Code Page

MaxiCode

< Default All MaxiCode Settings >



MaxiCode On/Off



MaxiCode Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 1-150. Minimum Default = 1, Maximum Default = 150.



Aztec Code

< Default All Aztec Code Settings >



Aztec Code On/Off



Aztec Code Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 1-3832. Minimum Default = 1, Maximum Default = 3832.



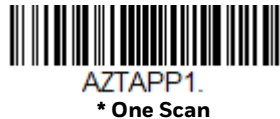
Aztec Append

This function allows the scanner to append the data from several Aztec barcodes together before transmitting them to the host computer. When the scanner encounters an Aztec barcode with the append trigger character(s), it buffers the number of Aztec barcodes determined by information encoded in those barcodes. Once the proper number of codes is reached, the data is output in the order specified in the barcodes. There are 3 ways to scan appended Aztec Code:

- **One scan**—Pull the trigger one time and all appended Aztec Codes in the same image are decoded

- **Swipe**—Pull and hold down the trigger and scan all appended Aztec Codes while keeping the trigger pressed. The scanner emits short beeps for each partial Aztec Code that is scanned and buffered. One long beep is emitted after the last Aztec Code is scanned and the data is complete. Not compatible with Presentation mode.
- **Point and shoot**—Pull the trigger one time for each image. The scanner emits a short beep for each partial Aztec Code that is scanned and buffered. One long beep is emitted after the last Aztec Code is scanned and the data is complete. Not compatible with Presentation mode.

Default = One Scan.



Aztec Code Page

Aztec Code pages define the mapping of character codes to characters. If the data received does not display with the proper characters, it may be because the barcode being scanned was created using a code page that is different from the one the host program is expecting. If this is the case, scan the barcode below, select the code page with which the barcodes were created (see [ISO 2022/ISO 646 Character Replacements](#) on page 172), and scan the value and the Save barcode from the [Programming Chart](#). The data characters should then appear properly.

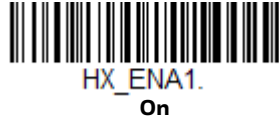


Chinese Sensible (Han Xin) Code

< Default All Han Xin Settings >



Han Xin Code On/Off



Han Xin Code Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 1-7833. Minimum Default = 1, Maximum Default = 7833.



Postal Codes - 2D

The following lists the possible 2D postal codes, and 2D postal code combinations that are allowed. Only one 2D postal code selection can be active at a time. If you scan a second 2D postal code selection, the first selection is overwritten. *Default = 2D Postal Codes Off.*



Single 2D Postal Codes:



POSTAL1.
Australian Post On



POSTAL30.
Canadian Post On



POSTAL3.
Japanese Post On



POSTAL5.
Planet Code On

Also see [Planet Code Check Digit](#), page 125.



POSTAL6.
Postnet On

Also see [Postnet Check Digit](#) on page 125.



POSTAL7.
British Post On



POSTAL10.
Intelligent Mail Barcode On



POSTAL4.
KIX Post On



POSTAL9.
Postal-4i On



POSTAL11.
Postnet with B and B' Fields On



POSTAL2.
InfoMail On

Combination 2D Postal Codes:



POSTAL8.
InfoMail and British
Post On



POSTAL14.
Postnet and
Postal-4i On



POSTAL17.
Postal-4i and
Intelligent Mail Barcode On



POSTAL12.
Planet Code and
Postnet On



POSTAL13.
Planet Code and
Postal-4i On



POSTAL20.
Intelligent Mail Barcode and
Postnet with B and B' Fields On



POSTAL16.
Postnet and
Intelligent Mail Barcode On



POSTAL19.
Postal-4i and
Postnet with B and B' Fields On



POSTAL18.
Planet Code and
Postnet with B and B' Fields On



POSTAL21.
Planet Code,
Postnet, and
Postal-4i On



POSTAL23.
Planet Code,
Postal-4i, and
Intelligent Mail Barcode On



POSTAL25.
Planet Code,
Postal-4i, and
Postnet with B and B' Fields On



POSTAL27.
Postal-4i,
Intelligent Mail Barcode, and
Postnet with B and B' Fields On



POSTAL15.
Planet Code and
Intelligent Mail Barcode



POSTAL22.
Planet Code,
Postnet, and
Intelligent Mail Barcode On



POSTAL24.
Postnet,
Postal-4i, and
Intelligent Mail Barcode On



POSTAL26.
Planet Code,
Intelligent Mail Barcode, and
Postnet with B and B' Fields On



POSTAL28.
Planet Code,
Postal-4i,
Intelligent Mail Barcode, and
Postnet On



POSTAL29.
Planet Code,
Postal-4i,
Intelligent Mail Barcode, and
Postnet with B and B' Fields On

Planet Code Check Digit

This selection allows you to specify whether the check digit should be transmitted at the end of Planet Code data. *Default = Don't Transmit.*



PLNCKX1.
Transmit Check Digit



PLNCKX0.

* Don't Transmit Check Digit

Postnet Check Digit

This selection allows you to specify whether the check digit should be transmitted at the end of Postnet data. *Default = Don't Transmit.*



NETCKX1.
Transmit Check Digit



NETCKX0.

* Don't Transmit Check Digit

Australian Post Interpretation

This option controls what interpretation is applied to customer fields in Australian 4-State symbols.

Bar Output lists the bar patterns in "0123" format.

Numeric N Table causes that field to be interpreted as numeric data using the N Table.

Alphanumeric C Table causes the field to be interpreted as alphanumeric data using the C Table. Refer to the Australian Post Specification Tables.

Combination C and N Tables causes the field to be interpreted using either the C or N Tables.



AUSINT0.

* Bar Output



AUSINT1.

Numeric N Table



AUSINT2.

Alphanumeric C Table



AUSINT3.

Combination C and N Tables

Postal Codes - Linear

The following lists linear postal codes. Any combination of linear postal code selections can be active at a time.

China Post (Hong Kong 2 of 5)

<Default All China Post (Hong Kong 2 of 5) Settings>



CPCDFT.

China Post (Hong Kong 2 of 5) On/Off



CPCENA1.

On



CPCENA0.

* Off

China Post (Hong Kong 2 of 5) Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 2-80. Minimum Default = 4, Maximum Default = 80.



CPCMIn.

Minimum Message Length



CPCMAx.

Maximum Message Length

Korea Post

<Default All Korea Post Settings>



KPCDFT.

Korea Post On/Off



KPCENA1.

On



KPCENA0.

* Off

Korea Post Message Length

Scan the barcodes below to change the message length. Refer to [Message Length Description](#) (page 74) for additional information. Minimum and Maximum lengths = 2-80. Minimum Default = 4, Maximum Default = 48.



KPCMIN.

Minimum Message Length



KPCMAx.

Maximum Message Length

Korea Post Check Digit

This selection allows you to specify whether the check digit should be transmitted.
Default = Don't Transmit.



KPCCHK1.

Transmit Check Digit



KPCCHK0.

*** Don't Transmit Check Digit**

Add a Test Code I.D. Prefix to All Symbologies

This selection allows you to turn on transmission of a Code I.D. before the decoded symbology. (See the [Symbology Charts](#), beginning on page 165) for the single character code that identifies each symbology.) This action first clears all current prefixes, then programs a Code I.D. prefix for all symbologies. This is a temporary setting that will be removed when the unit is power cycled.



PRECA2,BK2995C80!

**Add Code I.D. Prefix to
All Symbologies (Temporary)**

Show Decoder Library Version

Scan the barcode below to output the decoder library version.



REV_AD.

**Show Decoder Library
Version**

Show Software Revision

Scan the barcode below to output the current software revision, unit serial number, and other product information for both the scanner and the base.



REVINF.

Show Revision

Show Data Format

See "Show Data Format" on page 60.

Test Menu

When you scan the **Test Menu On** code, then scan a programming code in this manual, the scanner displays the content of a programming code. The programming function will still occur, but in addition, the content of that programming code is output to the terminal.

Note: *This feature should not be used during normal scanner operation.*



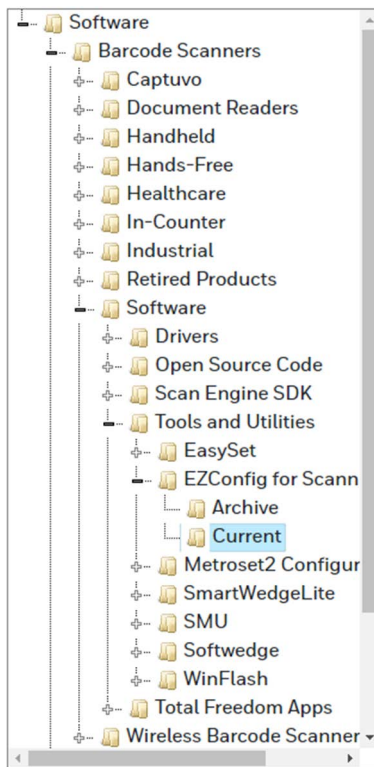
EZConfig for Scanning Introduction

EZConfig for Scanning provides a wide range of PC-based programming functions that can be performed on the scanner connected to your PC. EZConfig for Scanning allows you to download upgrades to the scanner's firmware, change programmed parameters, and create and print programming barcodes. Using EZConfig for Scanning, you can even save/open the programming parameters. This saved file can be e-mailed or, if required, you can create a single barcode that contains all the customized programming parameters and mail or fax that barcode to any location. Users in other locations can scan the barcode to load in the customized programming.

Configure with EZConfig for Scanning

Use the EZConfig for Scanning tool to configure your scanner online:

1. Access the Honeywell Technical Support Downloads Portal at honeywell.com/PSSsoftware-downloads.
2. Go to **Software > Barcode Scanners > Software > Tools and Utilities > EZConfig for Scanning > Current**.



3. Download the **Setup** version of EZConfig for Scanning.
4. Open EZConfig to configure your scanner.

Reset the Factory Defaults



Caution: *This selection erases all your settings and resets the scanner to the original factory defaults. It also disables all plugins.*

If you aren't sure what programming options are in your scanner, or you've changed some options and want to restore the scanner to factory default settings, first scan the **Remove Custom Defaults** barcode, then scan **Activate Defaults**. This resets the scanner to the factory default settings.



DEFOVR.

Remove Custom Defaults



DEFAULT.

Activate Defaults

The [Menu Commands](#), beginning on page 137 list the factory default settings for each of the commands (indicated by an asterisk (*) on the programming pages).

SERIAL PROGRAMMING COMMANDS

The serial programming commands can be used in place of the programming barcodes. Both the serial commands and the programming barcodes will program the scanner. For complete descriptions and examples of each serial programming command, refer to the corresponding programming barcode in this manual.

The device must be set to an RS232 interface (see [page 8](#)). The following commands can be sent via a PC COM port using terminal emulation software.

Conventions

The following conventions are used for menu and query command descriptions:

<i>parameter</i>	A label representing the actual value you should send as part of a command.
[<i>option</i>]	An optional part of a command.
{Data}	Alternatives in a command.
bold	Names of menus, menu commands, buttons, dialog boxes, and windows that appear on the screen.

Menu Command Syntax

Menu commands have the following syntax (spaces have been used for clarity only):

Prefix [:Name:] Tag SubTag {Data} [, SubTag {Data}] [; Tag SubTag {Data}] [...] Storage

Prefix Three ASCII characters: SYN M CR (ASCII 22,77,13).

Tag A 3 character case-insensitive field that identifies the desired menu command group. For example, all RS232 configuration settings are identified with a Tag of **232**.

SubTag	A 3 character case-insensitive field that identifies the desired menu command within the tag group. For example, the SubTag for the RS232 baud rate is BAD .
Data	The new value for a menu setting, identified by the Tag and SubTag.
Storage	A single character that specifies the storage table to which the command is applied. An exclamation point (!) performs the command's operation on the device's volatile menu configuration table. A period (.) performs the command's operation on the device's non-volatile menu configuration table. Use the non-volatile table only for semi-permanent changes you want saved through a power cycle.

Query Commands

Several special characters can be used to query the device about its settings.

^	What is the default value for the setting(s).
?	What is the device's current value for the setting(s).
*	What is the range of possible values for the setting(s). (The device's response uses a dash (-) to indicate a continuous range of values. A pipe (|) separates items in a list of non-continuous values.)

:Name: Field Usage (Optional)

This command returns the query information from the scanner.

Tag Field Usage

When a query is used in place of a Tag field, the query applies to the *entire* set of commands available for the particular storage table indicated by the Storage field of the command. In this case, the SubTag and Data fields should not be used because they are ignored by the device.

SubTag Field Usage

When a query is used in place of a SubTag field, the query applies only to the subset of commands available that match the Tag field. In this case, the Data field should not be used because it is ignored by the device.

Data Field Usage

When a query is used in place of the Data field, the query applies only to the specific command identified by the Tag and SubTag fields.

Concatenation of Multiple Commands

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

Responses

The device responds to serial commands with one of three responses:

ACK	Indicates a good command which has been processed.
ENQ	Indicates an invalid Tag or SubTag command.
NAK	Indicates the command was good, but the Data field entry was out of the allowable range for this Tag and SubTag combination, e.g., an entry for a minimum message length of 100 when the field will only accept 2 characters.

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

Examples of Query Commands

In the following examples, a bracketed notation [] depicts a non-displayable response.

Example: What is the range of possible values for Codabar Coding Enable?

Enter: **cbrena*.**

Response: **CBRENA0-1[ACK]**

This response indicates that Codabar Coding Enable (CBRENA) has a range of values from 0 to 1 (off and on).

Example: What is the default value for Codabar Coding Enable?

Enter: **cbrena^.**

Response: **CBRENA1[ACK]**

This response indicates that the default setting for Codabar Coding Enable (CBRENA) is 1, or on.

Example: What is the device's current setting for Codabar Coding Enable?

Enter: **cbrena?.**

Response: CBRENA1[ACK]

This response indicates that the device's Codabar Coding Enable (CBRENA) is set to 1, or on.

Example: What are the device's settings for all Codabar selections?

Enter: cbr?.

**Response: CBRENA1[ACK],
SSX0[ACK],
CK20[ACK],
CCT1[ACK],
MIN2[ACK],
MAX60[ACK],
DFT[ACK].**

This response indicates that the device's Codabar Coding Enable (CBRENA) is set to 1, or on;
the Start/Stop Character (SSX) is set to 0, or Don't Transmit;
the Check Character (CK2) is set to 0, or Not Required;
concatenation (CCT) is set to 1, or Enabled;
the Minimum Message Length (MIN) is set to 2 characters;
the Maximum Message Length (MAX) is set to 60 characters;
and the Default setting (DFT) has no value.

Trigger Commands

You can activate and deactivate the scanner with serial trigger commands. First, the scanner must be put in Manual Trigger Mode by scanning a Manual Trigger Mode barcode ([page 38](#)), or by sending a serial menu command for triggering ([page 38](#)). Once the scanner is in serial trigger mode, the trigger is activated and deactivated by sending the following commands:

Activate: **SYN T CR**

Deactivate: **SYN U CR**

The scanner scans until a barcode has been read, until the deactivate command is sent, or until the serial time-out has been reached (see "Read Time-Out" on [page 3-38](#) for a description, and the serial command on [page 143](#)).

Reset the Custom Defaults

If you want the custom default settings restored to your scanner, scan the **Activate Custom Defaults** barcode below. This resets the scanner to the custom default settings. If there are no custom defaults, it will reset the scanner to the factory default settings. Any settings that have not been specified through the custom defaults will be defaulted to the factory default settings.



Activate Custom Defaults

The charts on the following pages list the factory default settings for each of the commands (indicated by an asterisk (*) on the programming pages).

Menu Commands

Selection	Setting * Indicates default	Serial Command # Indicates a numeric entry	Page
Product Default Settings			
Set Custom Defaults	Set Custom Defaults	MNUCDP	5
	Save Custom Defaults	MNUCDS	5
Reset the Custom Defaults	Activate Custom Defaults	DEFAULT	6
Program the Interface			
Plug and Play Codes	Keyboard Wedge: IBM PC AT and Compatibles with CR suffix	PAP_AT	7
	Laptop Direct Connect with CR suffix	PAPLTD	8
	RS232 Serial Port	PAP232	8
Plug and Play Codes: IBM SurePos	USB IBM SurePos Handheld	PAPSPH	8
	USB IBM SurePos Tabletop	PAPSPT	8
Plug and Play Codes: USB	USB Keyboard (PC)	PAP124	9
	USB Keyboard (Mac)	PAP125	9
	USB Japanese Keyboard (PC)	TRMUSB134	9
	USB HID	PAP131	9
	USB Serial	TRMUSB130	10
	CTS/RTS Emulation On	USBCTS1	10
	CTS/RTS Emulation Off*	USBCTS0	10
	ACK/NAK Mode On	USBACK1	10
ACK/NAK Mode Off*	USBACK0	10	

Selection	Setting * Indicates default	Serial Command # Indicates a numeric entry	Page
Secondary Interface for USB	Off	REMIFC0	11
	*On	REMIFC1	11
Plug and Play Codes	Verifone Ruby Terminal	PAPRBY	11
	Gilbarco Terminal	PAPGLB	12
	Honeywell Bioptic Aux Port	PAPBIO	12
	Datalogic Magellan Bioptic Aux Port	PAPMAG	12
	NCR Bioptic Aux Port	PAPNCR	13
	Wincor Nixdorf Terminal	PAPWNX	13
	Wincor Nixdorf Beetle	PAPBTL	14
	Wincor Nixdorf RS232 Mode A	PAPWMA	14
Program Keyboard Country	*U.S.A.	KBDCTY0	15
	Albania	KBDCTY35	15
	Azeri (Cyrillic)	KBDCTY81	15
	Azeri (Latin)	KBDCTY80	15
	Belarus	KBDCTY82	15
	Belgium	KBDCTY1	15
	Bosnia	KBDCTY33	15
	Brazil	KBDCTY16	15
	Brazil (MS)	KBDCTY59	15
	Bulgaria (Cyrillic)	KBDCTY52	16
	Bulgaria (Latin)	KBDCTY53	16
	Canada (French legacy)	KBDCTY54	16
	Canada (French)	KBDCTY18	16
	Canada (Multilingual)	KBDCTY55	16
	Croatia	KBDCTY32	16
	Czech	KBDCTY15	16
	Czech (Programmers)	KBDCTY40	16
	Czech (QWERTY)	KBDCTY39	16
	Czech (QWERTZ)	KBDCTY38	16
	Denmark	KBDCTY8	16
	Dutch (Netherlands)	KBDCTY11	17
	Estonia	KBDCTY41	17
	Faroese	KBDCTY83	17
	Finland	KBDCTY2	17
	France	KBDCTY3	17
	Gaelic	KBDCTY84	17
	Germany	KBDCTY4	17

Selection	Setting * Indicates default	Serial Command # Indicates a numeric entry	Page
	Greek	KBDCTY17	17
	Greek (220 Latin)	KBDCTY64	17
	Greek (220)	KBDCTY61	17
	Greek (319 Latin)	KBDCTY65	17
	Greek (319)	KBDCTY62	17
	Greek (Latin)	KBDCTY63	18
	Greek (MS)	KBDCTY66	18
	Greek (Polytonic)	KBDCTY60	18
	Hebrew	KBDCTY12	18
	Hungarian (101 key)	KBDCTY50	18
	Hungary	KBDCTY19	18
	Iceland	KBDCTY75	18
	Irish	KBDCTY73	18
	Italian (142)	KBDCTY56	18
	Italy	KBDCTY5	18
	Japan ASCII	KBDCTY28	18
	Kazakh	KBDCTY78	19
	Kyrgyz (Cyrillic)	KBDCTY79	19
	Latin America	KBDCTY14	19
	Latvia	KBDCTY42	19
	Latvia (QWERTY)	KBDCTY43	19
	Lithuania	KBDCTY44	19
	Lithuania (IBM)	KBDCTY45	19
	Macedonia	KBDCTY34	19
	Malta	KBDCTY74	19
	Mongolian (Cyrillic)	KBDCTY86	19
	Norway	KBDCTY9	19
	Poland	KBDCTY20	19
	Polish (214)	KBDCTY57	20
	Polish (Programmers)	KBDCTY58	20
	Portugal	KBDCTY13	20
	Romania	KBDCTY25	20
	Russia	KBDCTY26	20
	Russian (MS)	KBDCTY67	20
	Russian (Typewriter)	KBDCTY68	20
	SCS	KBDCTY21	20
	Serbia (Cyrillic)	KBDCTY37	20

Selection	Setting * Indicates default	Serial Command # Indicates a numeric entry	Page
	Serbia (Latin)	KBDCTY36	20
	Slovakia	KBDCTY22	20
	Slovakia (QWERTY)	KBDCTY49	21
	Slovakia (QWERTZ)	KBDCTY48	21
	Slovenia	KBDCTY31	21
	Spain	KBDCTY10	21
	Spanish variation	KBDCTY51	21
	Sweden	KBDCTY23	21
	Switzerland (French)	KBDCTY29	21
	Switzerland (German)	KBDCTY6	21
	Tatar	KBDCTY85	21
	Turkey F	KBDCTY27	21
	Turkey Q	KBDCTY24	21
	Ukrainian	KBDCTY76	21
	United Kingdom	KBDCTY7	22
	United States (Dvorak right)	KBDCTY89	22
	United States (Dvorak left)	KBDCTY88	22
	United States (Dvorak)	KBDCTY87	22
	United States (International)	KBDCTY30	22
	Uzbek (Cyrillic)	KBDCTY77	22
Keyboard Style	*Regular	KBDSTY0	22
	Caps Lock	KBDSTY1	22
	Shift Lock	KBDSTY2	23
	Automatic Caps Lock	KBDSTY6	23
	Emulate External Keyboard	KBDSTY5	23
Keyboard Conversion	*Keyboard Conversion Off	KBDCNV0	24
	Convert all Characters to Upper Case	KBDCNV1	24
	Convert all Characters to Lower Case	KBDCNV1	24
Control Character Output	*Control Character Output Off	KBDNPE0	24
	*Control Character Output On	KBDNPE1	24
Keyboard Modifiers	*Control + ASCII Off	KBDCAS0	25
	DOS Mode Control + ASCII On	KBDCAS1	25
	Windows Mode Control + ASCII On	KBDCAS2	25
	Windows Mode Prefix/Suffix Off	KBDCAS3	25
	*Turbo Mode Off	KBDTMD0	25

Selection	Setting * Indicates default	Serial Command # Indicates a numeric entry	Page
	Turbo Mode On	KBDTMD1	25
	*Numeric Keypad Off	KBDNPS0	25
	Numeric Keypad On	KBDNPS1	25
	*Auto Direct Connect Off	KBDADC0	26
	Auto Direct Connect On	KBDADC1	26
Baud Rate	300 BPS	232BAD0	26
	600 BPS	232BAD1	26
	1200 BPS	232BAD2	26
	2400 BPS	232BAD3	26
	4800 BPS	232BAD4	26
	9600 BPS	232BAD5	27
	19200 BPS	232BAD6	27
	38400 BPS	232BAD7	27
	57600 BPS	232BAD8	27
	*115200 BPS	232BAD9	27
Word Length: Data Bits, Stop Bits, and Parity	7 Data, 1 Stop, Parity Even	232WRD3	27
	7 Data, 1 Stop, Parity None	232WRD0	27
	7 Data, 1 Stop, Parity Odd	232WRD6	27
	7 Data, 2 Stop, Parity Even	232WRD4	27
	7 Data, 2 Stop, Parity None	232WRD1	27
	7 Data, 2 Stop, Parity Odd	232WRD7	28
	8 Data, 1 Stop, Parity Even	232WRD5	28
	*8 Data, 1 Stop, Parity None	232WRD2	28
	8 Data, 1 Stop, Parity Odd	232WRD8	28
RS232 Receiver Time-out	Range 0 - 300 seconds (*0)	232LPT###	28
RS232 Handshaking	*RTS/CTS Off	232CTS0	29
	Flow Control, No Timeout	232CTS1	29
	Two-Direction Flow Control	232CTS2	29
	Flow Control with Timeout	232CTS3	29
	RS232 Timeout (Range 1-5100ms)	232DEL####	29
	*XON/XOFF Off	232XON0	30
	XON/XOFF On	232XON1	29
	*ACK/NAK Off	232ACK0	30
	ACK/NAK On	232ACK1	30
Scanner-Bioptic Packet Mode	*Packet Mode Off	232PKT0	30
	Packet Mode On	232PKT2	30

Selection	Setting * Indicates default	Serial Command # Indicates a numeric entry	Page
Scanner-Bioptic ACK/NAK Mode	*Bioptic ACK/NAK Off	232NAKO	31
	Bioptic ACK/NAK On	232NAK1	31
Scanner-Bioptic ACK/NAK Timeout	ACK/NAK Timeout (Range 1-5100ms) *5100	232DLK#####	31
Input/Output Selections			
Power Up Beeper	Power Up Beeper Off - Scanner	BEPPWRO	33
	*Power Up Beeper On - Scanner	BEPPWR1	33
Beep on BEL Character	Beep on BEL On	BELBEP1	33
	*Beep on BEL Off	BELBEPO	33
Trigger Click	On	BEPTRG1	34
	*Off	BEPTRG0	34
Beeper - Good Read	Off	BEPBEPO	34
	*On	BEPBEP1	34
Beeper Volume - Good Read	Off	BEPLVL0	34
	Low	BEPLVL1	34
	Medium	BEPLVL2	34
	*High	BEPLVL3	35
Beeper Pitch - Good Read (Frequency)	Low (1600) (min 400Hz)	BEPFQ11600	35
	*Medium (2400)	BEPFQ12400	35
	High (4200) (max 9000Hz)	BEPFQ14200	35
Beeper Pitch - Error (Frequency)	*Razz (250) (min 200Hz)	BEPFQ2250	35
	Medium (3250)	BEPFQ23250	35
	High (4200) (max 9000Hz)	BEPFQ24200	35
Beeper Duration - Good Read	*Normal Beep	BEPBIP0	36
	Short Beep	BEPBIP1	36
LED - Good Read	Off	BEPLED0	36
	*On	BEPLED1	36
Number of Beeps - Error	Range 1 - 9 (*1)	BEPERR#	37
Number of Beeps - Good Read	Range 1 - 9 (*1)	BEPRPT#	36
Good Read Delay	*No Delay	DLYGRD0	37
	Short Delay (500 ms)	DLYGRD500	37
	Medium Delay (1000 ms)	DLYGRD1000	37
	Long Delay (1500 ms)	DLYGRD1500	37
User-Specified Good Read Delay	Range 0 - 30,000 ms	DLYGRD#####	37
Manual Trigger Mode	*Manual Trigger - Normal	PAPHHF	38
LED Illumination - Manual Trigger	Low	PWRNOL15	38
	Medium	PWRNOL50	38
	*High	PWRNOL150	38

Selection	Setting * Indicates default	Serial Command # Indicates a numeric entry	Page
Serial Trigger Mode	Read Time-Out (range 0-300,000) *30,000	TRGSTO#####	38
Presentation	Presentation Mode	PAPTPR	39
Triggered Presentation Mode	Ambient Light Only	PDCLEDO	39
	* Ambient and Scanner Light	PDCLED1	39
Presentation Centering Window	Presentation Centering On	PDCWIN1	40
	*Presentation Centering Off	PDCWIN0	40
	Left of Presentation Centering Window (*40%)	PDCLFT###	41
	Right of Presentation Centering Window (*60%)	PDCRGT###	41
	Top of Presentation Centering Window (*40%)	PDCTOP###	41
	Bottom of Presentation Centering Window (*60%)	PDCBOT###	41
In-Stand Sensor Mode	*Sensor On	TRGSSW1	41
	Sensor Off	TRGSSW0	41
Poor Quality Codes	Poor Quality 1D Reading On	DECLD11	42
	*Poor Quality 1D Reading Off	DECLD10	42
	Poor Quality PDF Reading On	PDFXPR10	42
	*Poor Quality PDF Reading Off	PDFXPR0	42
CodeGate	*CodeGate Off Out-of-Stand	AOSCGD0.	43
	CodeGate On Out-of-Stand	AOSCGD1.	43
Mobile Phone Read Mode	Hand Held Scanning - Mobile Phone	PAPHHC	43
Hands Free Time-Out	Range 0 - 300,000 ms (*5000 ms)	TRGPTO#####	43
Reread Delay	Short (500 ms)	DLYRRD500	44
	*Medium (750 ms)	DLYRRD750	44
	Long (1000 ms)	DLYRRD1000	44
	Extra Long (2000 ms)	DLYRRD2000	44
User-Specified Reread Delay	Range 0 - 30,000 ms	DLYRRD#####	44
2D Reread Delay	*2D Reread Delay Off	DLY2RR0	44
	Short (1000ms)	DLY2RR1000	45
	Medium (2000ms)	DLY2RR2000	45
	Long (3000ms)	DLY2RR3000	45
	Extra Long (4000ms)	DLY2RR4000	45

Selection	Setting * Indicates default	Serial Command # Indicates a numeric entry	Page
Character Activation Mode	*Off	HSTCEN0	45
	On	HSTCEN1	45
	Activation Character	HSTACH##	45
	Do Not End Character Activation After Good Read	HSTCGD0	46
	*End Character Activation After Good Read	HSTCGD1	46
	Character Activation Timeout (Range 1 - 65525) *5000 ms	HSTCDT#####	46
Character Deactivation Mode	*Off	HSTDEN0	46
	On	HSTDEN1	46
	Deactivation Character	HSTDCH##	47
Illumination Lights	*Lights On	SCNLED1	47
	Lights Off	SCNLED0	47
Aimer Delay	200 milliseconds	SCNDLY200	47
	400 milliseconds	SCNDLY400	47
	*Off (no delay)	SCNDLY0	48
User-Specified Aimer Delay	Range 0 - 4,000 ms	SCNDLY#####	48
Aimer Mode	Off	SCNAIM0	48
	On	SCNAIM3	48
	*Pulse Mode	SCNAIM5	48
Centering Window	Centering On	DECWIN1	49
	*Centering Off	DECWIN0	49
	Left of Centering Window (*40%)	DECLFT###	50
	Right of Centering Window (*60%)	DECRGT###	50
	Top of Centering Window (*40%)	DECTOP###	50
	Bottom of Centering Window (*60%)	DECBOT###	50
No Read	On	SHWNRD1	50
	*Off	SHWNRD0	50
Video Reverse	Video Reverse Only	VIDREV1	51
	Video Reverse and Standard Barcodes	VIDREV2	51
	*Video Reverse Off	VIDREVO	51
Working Orientation	*Upright	ROTATN0	52
	Vertical, Bottom to Top (Rotate CCW 90°)	ROTATN1	52
	Upside Down	ROTATN2	52
	Vertical, Top to Bottom (Rotate CW 90°)	ROTATN3	52
Prefix/Suffix Selections			
Add CR Suffix to All Symbologies		VSUF CR	55

Selection	Setting * Indicates default	Serial Command # Indicates a numeric entry	Page
Prefix	Add Prefix	PREBK2##	55
	Clear One Prefix	PRECL2	55
	Clear All Prefixes	PRECA2	55
Suffix	Add Suffix	SUFBK2##	55
	Clear One Suffix	SUFCL2	55
	Clear All Suffixes	SUFCA2	55
Function Code Transmit	*Enable	RMVFNC0	56
	Disable	RMVFNC1	56
Intercharacter Delay	Range 0 - 1000 (5ms increments)	DLYCHR##	56
User Specified Intercharacter Delay	Delay Length 0 - 1000 (5ms increments)	DLYCRX##	57
	Character to Trigger Delay	DLY_XX##	57
Interfunction Delay	Range 0 - 1000 (5ms increments)	DLYFNC##	57
Intermessage Delay	Range 0 - 1000 (5ms increments)	DLYMSG##	58
Data Formatter Selections			
Data Format Editor	*Default Data Format (None)	DFMDF3	59
	Show Data Format	DFMBK3?	60
	Enter Data Format	DFMBK3##	60
	Clear One Data Format	DFMCL3	61
	Clear All Data Formats	DFMCA3	61
Data Formatter	Data Formatter Off	DFM_EN0	71
	*Data Formatter On, Not Required, Keep Prefix/Suffix	DFM_EN1	71
	Data Format Required, Keep Prefix/Suffix	DFM_EN2	71
Primary/Alternate Data Formats	Primary Data Format	ALTFNM0	71
	Data Format 1	ALTFNM1	72
	Data Format 2	ALTFNM2	72
	Data Format 3	ALTFNM3	72
Symbologies			
All Symbologies	All Symbologies Off	ALLENA0	74
	All Symbologies On	ALLENA1	74
Codabar	Default All Codabar Settings	CBRDFT	75
	Off	CBRENA0	75
	*On	CBRENA1	75
Codabar Start/Stop Char.	*Don't Transmit	CBRSSX0	75
	Transmit	CBRSSX1	75
Codabar Check Char.	*No Check Char.	CBRCK20	76

Selection	Setting * Indicates default	Serial Command # Indicates a numeric entry	Page
	Validate, But Don't Transmit	CBRCK21	76
	Validate, and Transmit	CBRCK22	76
Codabar Concatenation	*Off	CBRCCT0	76
	On	CBRCCT1	76
	Require	CBRCCT2	76
Codabar Message Length	Minimum (2 - 60) *4	CBRMIN##	77
	Maximum (2 - 60) *60	CBRMAX##	77
Code 39	Default All Code 39 Settings	C39DFT	77
	Off	C39ENAO	77
	*On	C39ENA1	77
Code 39 Start/Stop Char.	*Don't Transmit	C39SSX0	78
	Transmit	C39SSX1	77
Code 39 Check Char.	*No Check Char.	C39CK20	78
	Validate, But Don't Transmit	C39CK21	78
	Validate, and Transmit	C39CK22	78
Code 39 Message Length	Minimum (0 - 48) *0	C39MIN##	78
	Maximum (0 - 48) *48	C39MAX##	78
Code 39 Append	*Off	C39APP0	79
	On	C39APP1	79
Code 32 Pharmaceutical (PARAF)	*Off	C39B320	79
	On	C39B321	79
Code 39 Full ASCII	*Off	C39ASC0	80
	On	C39ASC1	80
	Code 39 Code Page	C39DCP	81
Suppress Code 39	*Suppress Code 39	C39SCC1	81
	Do Not Suppress Code 39	C39SCC0	81
Interleaved 2 of 5	Default All Interleaved 2 of 5 Settings	I25DFT	81
	Off	I25ENAO	81
	*On	I25ENA1	81
Interleaved 2 of 5 Check Digit	*No Check Digit	I25CK20	82
	Validate, But Don't Transmit	I25CK21	82
	Validate, and Transmit	I25CK22	82
Interleaved 2 of 5 Message Length	Minimum (2 - 80) *4	I25MIN##	82
	Maximum (2 - 80) *80	I25MAX##	82
NEC 2 of 5	Default All NEC 2 of 5 Settings	N25DFT	83
	Off	N25ENAO	83

Selection	Setting * Indicates default	Serial Command # Indicates a numeric entry	Page
	*On	N25ENA1	83
NEC 2 of 5 Check Digit	*No Check Char.	N25CK20	83
	Validate, But Don't Transmit	N25CK21	83
	Validate, and Transmit	N25CK22	83
NEC 2 of 5 Message Length	Minimum (2 - 80) *4	N25MIN##	84
	Maximum (2 - 80) *80	N25MAX##	84
Code 93	Default All Code 93 Settings	C93DFT	84
	Off	C93ENAO	84
	*On	C93ENA1	86
Code 93 Message Length	Minimum (0 - 80) *0	C93MIN##	84
	Maximum (0 - 80) *80	C93MAX##	85
Code 93 Append	On	C93APP1	85
	*Off	C93APP0	85
Code 93 Code Page	Code 93 Code Page	C93DCP	85
Straight 2 of 5 Industrial	Default All Straight 2 of 5 Industrial Settings	R25DFT	86
	*Off	R25ENAO	86
	On	R25ENA1	86
Straight 2 of 5 Industrial Message Length	Minimum (1 - 48) *4	R25MIN##	86
	Maximum (1 - 48) *48	R25MAX##	86
Straight 2 of 5 IATA	Default All Straight 2 of 5 IATA Settings	A25DFT	87
Straight 2 of 5 IATA	*Off	A25ENAO	87
	On	A25ENA1	87
Straight 2 of 5 IATA Message Length	Minimum (1 - 48) *4	A25MIN##	87
	Maximum (1 - 48) *48	A25MAX##	87
Matrix 2 of 5	Default All Matrix 2 of 5 Settings	X25DFT	88
	*Off	X25ENAO	88
	On	X25ENA1	88
Matrix 2 of 5 Message Length	Minimum (1 - 80) *4	X25MIN##	88
	Maximum (1 - 80) *80	X25MAX##	88
Code 11	Default All Code 11 Settings	C11DFT	89
	*Off	C11ENAO	89
	On	C11ENA1	89
Code 11 Check Digits Required	One Check Digit	C11CK20	89
	*Two Check Digits	C11CK21	89
Code 11 Message Length	Minimum (1 - 80) *4	C11MIN##	89
	Maximum (1 - 80) *80	C11MAX##	89
Code 128	Default All Code 128 Settings	128DFT	90

Selection	Setting * Indicates default	Serial Command # Indicates a numeric entry	Page
	Off	128ENAO	90
	*On	128ENA1	90
ISBT Concatenation	*Off	ISBENA0	90
	On	ISBENA1	90
Code 128 Message Length	Minimum (0 - 80) *0	128MIN##	91
	Maximum (0 - 80) *80	128MAX##	91
Code 128 Append	*On	128APP1	90
	Off	128APP0	91
Code 128 Code Page	Code 128 Code Page	128DCP##	91
GS1-128	Default All GS1-128 Settings	GS1DFT	92
	*On	GS1ENA1	92
	Off	GS1ENAO	92
GS1-128 Message Length	Minimum (1 - 80) *1	GS1MIN##	92
	Maximum (0 - 80) *80	GS1MAX##	92
UPC-A	Default All UPC-A Settings	UPADFT	93
	Off	UPBENA0	93
	*On	UPBENA1	93
UPC-A Check Digit	Off	UPACKX0	93
	*On	UPACKX1	93
UPC-A Number System	Off	UPANSX0	94
	*On	UPANSX1	93
UPC-A 2 Digit Addenda	*Off	UPAAD20	94
	On	UPAAD21	94
UPC-A 5 Digit Addenda	*Off	UPAAD50	94
	On	UPAAD51	94
UPC-A Addenda Required	*Not Required	UPAARQ0	94
	Required	UPAARQ1	94
UPC-A Addenda Separator	Off	UPAADS0	95
	*On	UPAADS1	95
UPC-A/EAN-13 with Extended Coupon Code	*Off	CPNENA0	95
	Allow Concatenation	CPNENA1	95
	Require Concatenation	CPNENA2	95
Coupon GS1 DataBar Output	*GS1 Output Off	CPNGS10	96
	GS1 Output On	CPNGS11	96
UPC-E0	Default All UPC-E Settings	UPEDFT	96
	Off	UPEEN00	96
	*On	UPEEN01	96

Selection	Setting * Indicates default	Serial Command # Indicates a numeric entry	Page
UPC-E0 Expand	*Off	UPEEXP0	97
	On	UPEEXP1	96
UPC-E0 Addenda Required	Required	UPEARQ1	97
	*Not Required	UPEARQ0	97
UPC-E0 Addenda Separator	*On	UPEADS1	97
	Off	UPEADS0	97
UPC-E0 Check Digit	Off	UPECKX0	97
	*On	UPECKX1	97
UPC-E0 Number System	Off	UPENSX0	98
	*On	UPENSX1	98
UPC-E0 Addenda	2 Digit Addenda On	UPEAD21	98
	*2 Digit Addenda Off	UPEAD20	98
	5 Digit Addenda On	UPEAD51	98
	*5 Digit Addenda Off	UPEAD50	98
UPC-E1	*Off	UPEEN10	99
	On	UPEEN11	98
EAN/JAN-13	Default All EAN/JAN Settings	E13DFT	99
	Off	E13ENAO	99
	*On	E13ENA1	99
EAN/JAN-13 Check Digit	Off	E13CKX0	100
	*On	E13CKX1	99
EAN/JAN-13 2 Digit Addenda	2 Digit Addenda On	E13AD21	100
	*2 Digit Addenda Off	E13AD20	100
	5 Digit Addenda On	E13AD51	100
	*5 Digit Addenda Off	E13AD50	100
EAN/JAN-13 Addenda Required	*Not Required	E13ARQ0	100
	Required	E13ARQ1	100
EAN/JAN-13 Addenda Separator	Off	E13ADS0	101
	*On	E13ADS1	101
ISBN Translate	*Off	E13ISB0	101
	On	E13ISB1	101
EAN/JAN-8	Default All EAN/JAN 8 Settings	EA8DFT	101
	Off	EA8ENAO	102
	*On	EA8ENA1	101
EAN/JAN-8 Check Digit	Off	EA8CKX0	102
	*On	EA8CKX1	101
EAN/JAN-8 Addenda	*2 Digit Addenda Off	EA8AD20	102

Selection	Setting * Indicates default	Serial Command # Indicates a numeric entry	Page
	2 Digit Addenda On	EA8AD21	102
	*5 Digit Addenda Off	EA8AD50	102
	5 Digit Addenda On	EA8AD51	102
EAN/JAN-8 Addenda Required	*Not Required	EA8ARQ0	103
	Required	EA8ARQ1	103
EAN/JAN-8 Addenda Separator	Off	EA8ADS0	103
	*On	EA8ADS1	103
MSI	Default All MSI Settings	MSIDFT	103
	*Off	MSIENA0	103
	On	MSIENA1	103
MSI Check Character	*Validate Type 10, but Don't Transmit	MSICHK0	104
	Validate Type 10 and Transmit	MSICHK1	104
	Validate 2 Type 10 Chars, but Don't Transmit	MSICHK2	104
	Validate 2 Type 10 Chars and Transmit	MSICHK3	104
	Validate Type 10 then Type 11 Char, but Don't Transmit	MSICHK4	104
	Validate Type 10 then Type 11 Char and Transmit	MSICHK5	104
	Disable MSI Check Characters	MSICHK6	104
MSI Message Length	Minimum (4 - 48) *4	MSIMIN##	105
	Maximum (4 - 48) *48	MSIMAX##	105
GS1 DataBar Omnidirectional	Default All GS1 DataBar Omnidirectional Settings	RSSDFT	105
	Off	RSEENA0	105
	*On	RSEENA1	105
GS1 DataBar Limited	Default All GS1 DataBar Limited Settings	RSLDFT	106
	Off	RSEENA0	106
	*On	RSEENA1	106
GS1 DataBar Expanded	Default All GS1 DataBar Expanded Settings	RSEDFT	106
	Off	RSEENA0	106
	*On	RSEENA1	106
GS1 DataBar Expanded Msg. Length	Minimum (4 - 74) *4	RSEMIN##	107
	Maximum (4 - 74) *74	RSEMAX##	107
Codablock A	Default All Codablock A Settings	CBADFT	107
	*Off	CBAENA0	107
	On	CBAENA1	107

Selection	Setting * Indicates default	Serial Command # Indicates a numeric entry	Page
Codablock A Msg. Length	Minimum (1 - 600) *1	CBAMIN####	107
	Maximum (1 - 600) *600	CBAMAX####	108
Codablock F	Default All Codablock F Settings	CBFDFT	108
	*Off	CBFENA0	108
	On	CBFENA1	108
Codablock F Msg. Length	Minimum (1 - 2048) *1	CBFMIN####	108
	Maximum (1 - 2048) *2048	CBFMAX####	108
PDF417	Default All PDF417 Settings	PDFDFT	109
	*On	PDFENA1	109
	Off	PDFENA0	109
PDF417 Msg. Length	Minimum (1-2750) *1	PDFMIN####	109
	Maximum (1-2750) *2750	PDFMAX####	109
MacroPDF417	*On	PDFMAC1	109
	Off	PDFMAC0	110
MicroPDF417	Default All Micro PDF417 Settings	MPDDFT	110
	On	MPDENA1	110
	*Off	MPDENA0	110
MicroPDF417 Msg. Length	Minimum (1-366) *1	MPDMIN###	110
	Maximum (1-366) *366	MPDMAX###	110
GS1 Composite Codes	On	COMENA1	111
	*Off	COMENA0	111
UPC/EAN Version	On	COMUPC1	111
	*Off	COMUPC0	111
GS1 Composite Codes Msg. Length	Minimum (1-2435) *1	COMMINS###	111
	Maximum (1-2435) *2435	COMMINS###	111
GS1 Emulation	GS1-128 Emulation	EANEMU1	112
	GS1 DataBar Emulation	EANEMU2	112
	GS1 Code Expansion Off	EANEMU3	112
	EAN8 to EAN13 Conversion	EANEMU4	112
	*GS1 Emulation Off	EANEMU0	112
TCIF Linked Code 39	On	T39ENA1	113
	*Off	T39ENA0	113
QR Code	Default All QR Code Settings	QRCDFT	121
	*On	QRCENA1	113
	Off	QRCENA0	113
QR Code Msg. Length	Minimum (1-7089) *1	QRCMIN####	114
	Maximum (1-7089) *7089	QRCMAX####	114

Selection	Setting * Indicates default	Serial Command # Indicates a numeric entry	Page
QR Code Append	*One Scan	QRCAPP1	114
	Swipe	QRCAPP2	114
	Point and Shoot	QRCAPP3	114
	Off	QRCAPP0	115
QR Code Page	QR Code Page	QRCDP###	115
Digimarc Barcode	Digimarc Decoder Attempts	DIGSTR	115
	Off	DIGENA0	115
	On	DIGENA1	115
	Uses ID Decoder then Both Decoders	DIGENA2	115
	*Uses Digimarc Decoder then Both Decoders	DIGENA3	115
	Uses ID Decoder then Alternates Decoders	DIGENA4	115
	Uses Digimarc Decoder then Alternates Decoders	DIGENA5	115
Data Matrix	Default All Data Matrix Settings	IDMDFT	117
	*On	IDMENA1	117
	Off	IDMENA0	117
Data Matrix Msg. Length	Minimum (1-3116) *1	IDMMIN####	117
	Maximum (1-3116) *3116	IDMMAX####	117
Data Matrix Code Page	Data Matrix Code Page	IDMDCP##	117
MaxiCode	Default All MaxiCode Settings	MAXDFT	118
	On	MAXENA1	118
	*Off	MAXENA0	118
MaxiCode Msg. Length	Minimum (1-150) *1	MAXMIN###	118
	Maximum (1-150) *150	MAXMAX###	118
Aztec Code	Default All Aztec Code Settings	AZTDFT	119
	*On	AZTENA1	119
	Off	AZTENA0	119
Aztec Code Msg. Length	Minimum (1-3832) *1	AZTMIN####	119
	Maximum (1-3832) *3832	AZTMAX####	119
Aztec Append	*One Scan	AZTAPP1	120
	Swipe	AZTAPP2	120
	Point and Shoot	AZTAPP3	120
	Off	AZTAPP0	120
Aztec Code Page	Aztec Code Page	AZTDCP##	120

Selection	Setting * Indicates default	Serial Command # Indicates a numeric entry	Page
Chinese Sensible (Han Xin) Code	Default All Han Xin Code Settings	HX_DFT	121
	On	HX_ENA1	121
	*Off	HX_ENA0	121
Chinese Sensible (Han Xin) Code Msg. Length	Minimum (1-7833) *1	HX_MIN####	121
	Maximum (1-7833) *7833	HX_MAX####	121
Postal Codes - 2D			
2D Postal Codes	*Off	POSTAL0	128
Single 2D Postal Codes	Australian Post On	POSTAL1	122
	British Post On	POSTAL7	122
	Canadian Post On	POSTAL30	122
	Intelligent Mail Barcode On	POSTAL10	122
	Japanese Post On	POSTAL3	122
	KIX Post On	POSTAL4	122
	Planet Code On	POSTAL5	122
	Postal-4i On	POSTAL9	122
	Postnet On	POSTAL6	122
	Postnet with B and B' Fields On	POSTAL11	122
Combination 2D Postal Codes	InfoMail On	POSTAL2	123
	InfoMail and British Post On	POSTAL8	123
	Intelligent Mail Barcode and Postnet with B and B' Fields On	POSTAL20	123
	Postnet and Postal-4i On	POSTAL14	123
	Postnet and Intelligent Mail Barcode On	POSTAL16	123
	Postal-4i and Intelligent Mail Barcode On	POSTAL17	123
	Postal-4i and Postnet with B and B' Fields On	POSTAL19	123
	Planet and Postnet On	POSTAL12	123
	Planet and Postnet with B and B' Fields On	POSTAL18	123
	Planet and Postal-4i On	POSTAL13	123
	Planet and Intelligent Mail Barcode On	POSTAL15	124
	Planet, Postnet, and Postal-4i On	POSTAL21	124
	Planet, Postnet, and Intelligent Mail Barcode On	POSTAL22	124
	Planet, Postal-4i, and Intelligent Mail Barcode On	POSTAL23	124
	Postnet, Postal-4i, and Intelligent Mail Barcode On	POSTAL24	124
Planet, Postal-4i, and Postnet with B and B' Fields On	POSTAL25	124	

Selection	Setting * Indicates default	Serial Command # Indicates a numeric entry	Page
	Planet, Intelligent Mail Barcode, and Postnet with B and B' Fields On	POSTAL26	124
	Postal-4i, Intelligent Mail Barcode, and Postnet with B and B' Fields On	POSTAL27	124
	Planet, Postal-4i, Intelligent Mail Barcode, and Postnet On	POSTAL28	124
	Planet, Postal-4i, Intelligent Mail Barcode, and Postnet with B and B' Fields On	POSTAL29	125
Planet Code Check Digit	Transmit	PLNCKX1	125
	*Don't Transmit	PLNCKX0	125
Postnet Check Digit	Transmit	NETCKX1	125
	*Don't Transmit	NETCKX0	125
Australian Post Interpretation	Bar Output	AUSINT0	126
	Numeric N Table	AUSINT1	126
	Alphanumeric C Table	AUSINT2	126
	Combination N and C Tables	AUSINT3	126
Postal Codes - Linear			
China Post (Hong Kong 2 of 5)	Default All China Post (Hong Kong 2 of 5) Settings	CPCDFT	126
	*Off	CPCENA0	126
	On	CPCENA1	126
China Post (Hong Kong 2 of 5) Msg. Length	Minimum (2 - 80) *4	CPCMIN##	127
	Maximum (2 - 80) *80	CPCMAX##	127
Korea Post	Default All Korea Post Settings	KPCDFT	127
	*Off	KPCENA0	127
	On	KPCENA1	127
Korea Post Msg. Length	Minimum (2 - 80) *4	KPCMIN##	127
	Maximum (2 - 80) *48	KPCMAX##	127
Korea Post Check Digit	Transmit Check Digit	KPCCHK1	128
	*Don't Transmit Check Digit	KPCCHK0	128
Utilities			
Add Code I.D. Prefix to All Symbologies (Temporary)		PRECA2,BK2995C80!	129
Show Decoder Library Version		REV_AD	129
Show Software Revision		REVINF	129
Test Menu	On	TSTMNU1	130
	*Off	TSTMNU0	130
Reset the Factory Defaults	Remove Custom Defaults	DEFOVR	131
	Activate Defaults	DEFALT	131

Voyager XP 1400g Scanner Product Specifications

Parameter	Specification
Mechanical	
Height	1.7 in. (43mm)
Length	7.1 in. (180mm)
Width	2.6 in. (66mm)
Weight	4.2 oz. (119g)
Electrical	
Input Voltage	4.0 - 5.5VDC
Operating Power	2W (400mA @ 5VDC)
Standby Power	0.45W (90mA @ 5VDC)
Illumination	Warm white color (CCT 2700K)
Aiming	Red dot, 624nm peak wavelength
Environmental	
Operating Temperature	32°F to 122°F (0°C to 50°C)
Storage Temperature	-40°F to 140°F (-40°C to 60°C)
Humidity	5 to 95% non-condensing
Drop	Operational after 30 drops to concrete from 5.9 ft. (1.8m)
Environmental Sealing	IP42
Light Levels	0 to 100,000 lux (9,290 foot-candles)
ESD	15kV Air, 8kV contact
Image	
Image Size	1040 x 720 pixels

Parameter	Specification
Frame per Second	60 FPS
Scan Performance	
Pitch, Skew	± 65°, ± 70°
Motion Tolerance: Presentation Mode	up to 70cm per second for 13 mil UPC
Print Contrast	15%

Depth of Field Charts

Typical Performance

Focus			
Symbology		Near Distance	Far Distance
5 mil Code 39	in.	1.0	8.7
	mm	25	220
13 mil UPC-A	in.	1.0	16.1
	mm	25	410
6.7 mil PDF417	in.	0.8	7.9
	mm	20	200
10 mil Data Matrix	in.	0.6	7.1
	mm	15	180
20 mil QR Code	in.	0.4	14.2
	mm	10	360

Resolution (Code 39)	3 mil	0.076 mm
Resolution (PDF417)	4 mil	0.102 mm
Resolution (QR)	6 mil	0.152 mm
Resolution (DM)	5 mil	0.127 mm

Guaranteed Performance

Focus			
Symbology		Near Distance	Far Distance
5 mil Code 39	in.	1.0	8.3
	mm	25	210

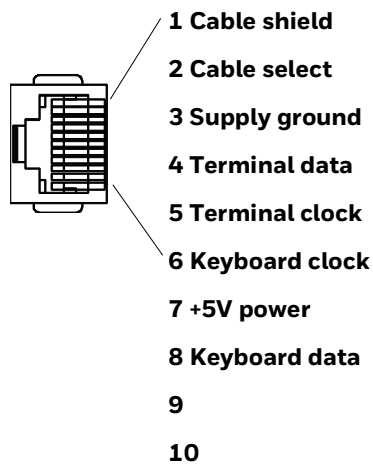
Focus (Continued)			
Symbology (Continued)		Near Distance	Far Distance
13 mil UPC-A	in.	1.0	14.6
	mm	25	370
6.7 mil PDF417	in.	1.0	7.5
	mm	25	190
10 mil Data Matrix	in.	0.6	6.5
	mm	15	165
20 mil QR Code	in.	0.4	13.4
	mm	10	340

Standard Cable Pinouts

Note: The following pin assignments are not compatible with Honeywell legacy products. Use of a cable with improper pin assignments may lead to damage to the unit. Use of any cables not provided by the manufacturer may result in damage not covered by your warranty.

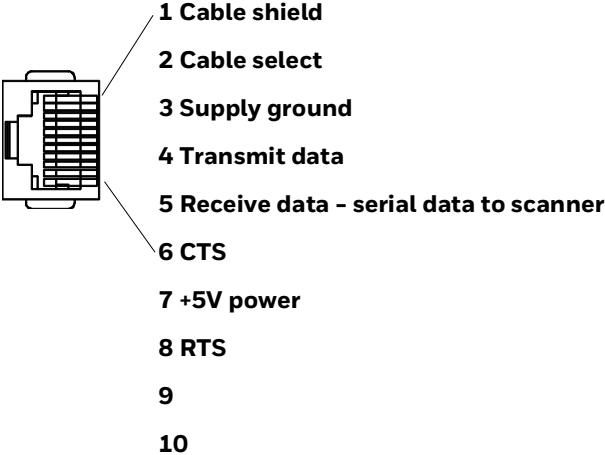
Keyboard Wedge

10 Pin RJ41 Modular Plug



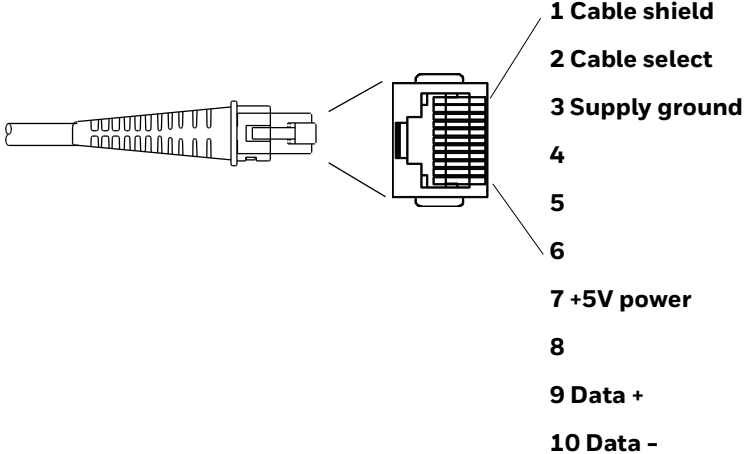
Serial Output

10 Pin RJ41 Modular Plug

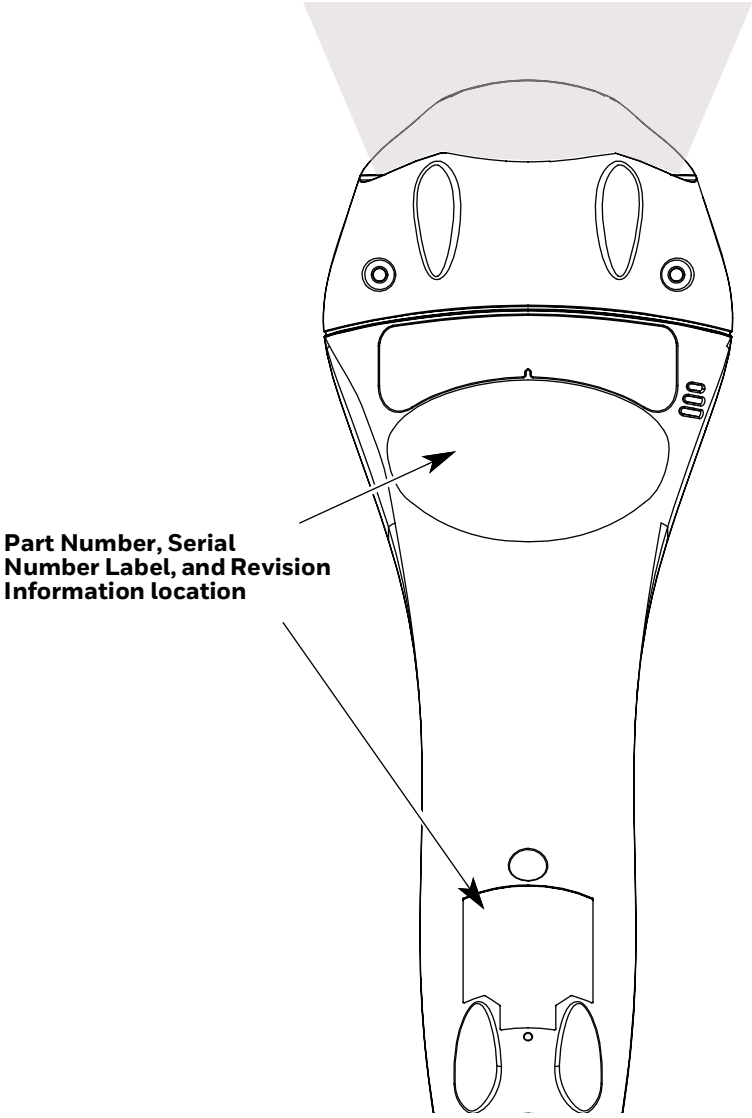


USB

10 Pin Modular Plug



Required Safety Labels



MAINTENANCE AND TROUBLESHOOTING

Repairs

Repairs and/or upgrades are not to be performed on this product. These services are to be performed only by an authorized service center (see [Customer Support](#) on page xi).

Maintenance

Your device provides reliable and efficient operation with a minimum of care. Although specific maintenance is not required, the following sections describe periodic checks to ensure dependable operation.

Clean the Scanner

Please refer to the General Purpose Disinfectant-Ready Housing Cleaning Guide located on your device's product page at automation.honeywell.com.

Note: *Reading performance may degrade if the scanner's window is not clean. If the window is visibly dirty, or if the scanner isn't operating well, clean the window.*



Caution: **Do not submerge the scanner in water or cleaning solution. Do not use abrasive wipes or cloths on the scanner's window. Abrasive wipes may scratch the window. Never use solvents (e.g., acetone) on the housing or window. Solvents may damage the finish or the window.**

Caution: **Ensure all components are dry prior to mating the scanner with charging accessories or other peripheral devices. Mating wet components may cause damage not covered by the warranty.**

Inspect Cords and Connectors

Inspect the interface cable and connector for wear or other signs of damage. A badly worn cable or damaged connector may interfere with scanner operation. Contact your distributor for information about cable replacement. Cable replacement instructions are on [page 162](#).

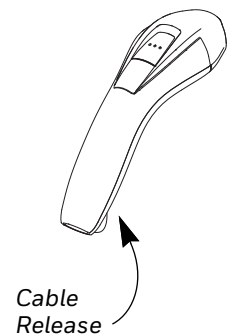
Replace Cables in Corded Scanners

The standard interface cable is attached to the scanner with an 10-pin modular connector. When properly seated, the connector is held in the scanner's handle by a flexible retention tab. The interface cable is designed to be field replaceable.

- Order replacement cables from Honeywell or from an authorized distributor.
- When ordering a replacement cable, specify the cable part number of the original interface cable.

Replace a Corded Scanner Interface Cable

1. Turn the power to the host system OFF.
2. Disconnect the scanner's cable from the terminal or computer.
3. Locate the small hole on the back of the scanner's handle. This is the cable release.
4. Straighten one end of a paper clip.
5. Insert the end of the paper clip into the small hole and press in. This depresses the retention tab, releasing the connector. Pull the connector out while maintaining pressure on the paper clip, then remove the paper clip.
6. Replace with the new cable.
Insert the connector into the opening and press firmly. The connector is keyed to go in only one way, and will click into place.



Troubleshoot a Corded Scanner

The scanner automatically performs self-tests whenever you turn it on. If your scanner is not functioning properly, review the following Troubleshooting Guide to try to isolate the problem.

Is the power on? Is the aimer on?

If the aimer isn't illuminated, check that:

- The cable is connected properly.

- The host system power is on (if external power isn't used).
- The trigger works.

Is the scanner having trouble reading your symbols?

If the scanner isn't reading symbols well, check that the symbols:

- Aren't smeared, rough, scratched, or exhibiting voids.
- Aren't coated with frost or water droplets on the surface.
- Are enabled in the scanner or in the decoder to which the scanner connects.

Is the barcode displayed but not entered?

The barcode is displayed on the host device correctly, but you still have to press a key to enter it (the Enter/Return key or the Tab key, for example).

- You need to program a suffix. Programming a suffix enables the scanner to output the barcode data plus the key you need (such as "CR") to enter the data into your application. Refer to [Prefix/Suffix Overview](#) beginning on page 53 for further information.

If you aren't sure what programming options have been set in the scanner, or if you want the factory default settings restored, refer to [Reset the Custom Defaults](#) on page 137.

REFERENCE CHARTS

Symbology Charts

Note: “m” represents the AIM modifier character. Refer to *International Technical Specification, Symbology Identifiers*, for AIM modifier character details.

Prefix/Suffix entries for specific symbologies override the universal (*All Symbologies*, 99) entry.

Refer to [Data Edit](#) beginning on page 53 and [Data Format](#) beginning on page 59 for information about using Code ID and AIM ID.

Linear Symbologies

Symbology	AIM		Honeywell	
	ID	Possible modifiers (m)	ID	Hex
<i>All Symbologies</i>				99
Codabar	JFm	0-1	a	61
Code 11	JH3		h	68
Code 128	JCm	0, 1, 2, 4	j	6A
Code 32 Pharmaceutical (PARAF)	JX0		<	3C
Code 39 (supports Full ASCII mode)	JAm	0, 1, 3, 4, 5, 7	b	62
TCIF Linked Code 39 (TLC39)	JL2		T	54
Code 93 and 93i	JGm	0-9, A-Z, a-m	i	69
EAN	JEm	0, 1, 3, 4	d	64
EAN-13 (including Bookland EAN)	JE0		d	64
EAN-13 with Add-On	JE3		d	64
EAN-13 with Extended Coupon Code	JE3		d	64
EAN-8	JE4		D	44

Symbology	AIM		Honeywell	
	ID	Possible modifiers (m)	ID	Hex
EAN-8 with Add-On	JE3		D	44
GS1				
GS1 DataBar	jem	0	y	79
GS1 DataBar Limited	jem		{	7B
GS1 DataBar Expanded	jem		}	7D
GS1-128	JC1		l	49
2 of 5				
China Post (Hong Kong 2 of 5)	JX0		Q	51
Interleaved 2 of 5	Jlm	0, 1, 3	e	65
Matrix 2 of 5	JX0		m	6D
NEC 2 of 5	JX0		Y	59
Straight 2 of 5 IATA	JRm	0, 1, 3	f	66
Straight 2 of 5 Industrial	JS0		f	66
MSI	JMm	0, 1	g	67
Telepen	JBm		t	74
UPC		0, 1, 2, 3, 8, 9, A, B, C		
UPC-A	JE0		c	63
UPC-A with Add-On	JE3		c	63
UPC-A with Extended Coupon Code	JE3		c	63
UPC-E	JE0		E	45
UPC-E with Add-On	JE3		E	45
UPC-E1	JX0		E	45

Add Honeywell Code ID				5C80
Add AIM Code ID				5C81
Add Backslash				5C5C
Batch mode quantity			5	35

2D Symbologies

Symbology	AIM		Honeywell	
	ID	Possible modifiers (m)	ID	Hex
All Symbologies				99
Aztec Code	zjm	0-9, A-C	z	7A

Symbology	AIM		Honeywell	
	ID	Possible modifiers (m)	ID	Hex
Chinese Sensible Code (Han Xin Code)	]h0		H	48
Codablock A	]06	0, 1, 4, 5, 6	V	56
Codablock F	]0m	0, 1, 4, 5, 6	q	71
Code 49	]Tm	0, 1, 2, 4	l	6C
Data Matrix	]dm	0-6	w	77
GS1	]em	0-3	y	79
GS1 Composite	]em	0-3	y	79
GS1 DataBar Omnidirectional	]em	0-3	y	79
MaxiCode	]Um	0-3	x	78
PDF417	]Lm	0-2	r	72
MicroPDF417	]Lm	0-5	R	52
QR Code	]Qm	0-6	s	73
Micro QR Code	]Qm		s	73

Postal Symbologies

Symbology	AIM		Honeywell	
	ID	Possible modifiers (m)	ID	Hex
All Symbologies				99
Australian Post	]X0		A	41
British Post	]X0		B	42
Canadian Post	]X0		C	43
China Post	]X0		Q	51
InfoMail	]X0		,	2c
Intelligent Mail Barcode	]X0		M	4D
Japanese Post	]X0		J	4A
KIX (Netherlands) Post	]X0		K	4B
Korea Post	]X0		?	3F
Planet Code	]X0		L	4C
Postal-4i	]X0		N	4E
Postnet	]X0		P	50

ASCII Conversion Chart (Code Page 1252)

In keyboard applications, ASCII Control Characters can be represented in 3 different ways, as shown below. The CTRL+X function is OS and application dependent. The following table lists some commonly used Microsoft functionality. This table applies to U.S. style keyboards. Certain characters may differ depending on your Country Code/PC regional settings.

Non-printable ASCII control characters			Keyboard Control + ASCII (CTRL+X) Mode		
DEC	HEX	Char	Control + X Mode Off (KBDCAS0)	Windows Mode Control + X Mode On (KBDCAS2)	
				CTRL + X	CTRL + X function
0	00	NUL	Reserved	CTRL+ @	?
1	01	SOH	NP Enter	CTRL+ A	Select all
2	02	STX	Caps Lock	CTRL+ B	Bold
3	03	ETX	ALT Make	CTRL+ C	Copy
4	04	EOT	ALT Break	CTRL+ D	Bookmark
5	05	ENQ	CTRL Make	CTRL+ E	Center
6	06	ACK	CTRL Break	CTRL+ F	Find
7	07	BEL	Enter / Ret	CTRL+ G	
8	08	BS	<i>(Apple Make)</i>	CTRL+ H	History
9	09	HT	Tab	CTRL+ I	Italic
10	0A	LF	<i>(Apple Break)</i>	CTRL+ J	Justify
11	0B	VT	Tab	CTRL+ K	hyperlink
12	0C	FF	Delete	CTRL+ L	list, left align
13	0D	CR	Enter / Ret	CTRL+ M	?
14	0E	SO	Insert	CTRL+ N	New
15	0F	SI	ESC	CTRL+ O	Open
16	10	DLE	F11	CTRL+ P	Print
17	11	DC1	Home	CTRL+ Q	Quit
18	12	DC2	PrtScn	CTRL+ R	?
19	13	DC3	Backspace	CTRL+ S	Save
20	14	DC4	Back Tab	CTRL+ T	?
21	15	NAK	F12	CTRL+ U	?
22	16	SYN	F1	CTRL+ V	Paste
23	17	ETB	F2	CTRL+ W	?
24	18	CAN	F3	CTRL+ X	?
25	19	EM	F4	CTRL+ Y	
26	1A	SUB	F5	CTRL+ Z	
27	1B	ESC	F6	CTRL+ [
28	1C	FS	F7	CTRL+ \	
29	1D	GS	F8	CTRL+]	
30	1E	RS	F9	CTRL+ ^	
31	1F	US	F10	CTRL+ -	
127	7F	Δ	NP Enter		

Lower ASCII Reference Table

Note: Windows Code page 1252 and lower ASCII use the same characters.

Printable Characters								
DEC	HEX	Character	DEC	HEX	Character	DEC	HEX	Character
32	20	<SPACE>	64	40	@	96	60	`
33	21	!	65	41	A	97	61	a
34	22	"	66	42	B	98	62	b
35	23	#	67	43	C	99	63	c
36	24	\$	68	44	D	100	64	d
37	25	%	69	45	E	101	65	e
38	26	&	70	46	F	102	66	f
39	27	'	71	47	G	103	67	g
40	28	(	72	48	H	104	68	h
41	29	)	73	49	I	105	69	i
42	2A	*	74	4A	J	106	6A	j
43	2B	+	75	4B	K	107	6B	k
44	2C	,	76	4C	L	108	6C	l
45	2D	-	77	4D	M	109	6D	m
46	2E	.	78	4E	N	110	6E	n
47	2F	/	79	4F	O	111	6F	o
48	30	0	80	50	P	112	70	p
49	31	1	81	51	Q	113	71	q
50	32	2	82	52	R	114	72	r
51	33	3	83	53	S	115	73	s
52	34	4	84	54	T	116	74	t
53	35	5	85	55	U	117	75	u
54	36	6	86	56	V	118	76	v
55	37	7	87	57	W	119	77	w
56	38	8	88	58	X	120	78	x
57	39	9	89	59	Y	121	79	y
58	3A	:	90	5A	Z	122	7A	z
59	3B	;	91	5B	[	123	7B	{
60	3C	<	92	5C	\	124	7C	|
61	3D	=	93	5D	]	125	7D	}
62	3E	>	94	5E	^	126	7E	~
63	3F	?	95	5F	_	127	7F	△

Extended ASCII Characters					
DEC	HEX	CP 1252	ASCII	Alternate Extended	PS2 Scan Code
128	80	€	Ç	up arrow ↑	0x48
129	81		ü	down arrow ↓	0x50
130	82	,	é	right arrow →	0x4B
131	83	f	â	left arrow ←	0x4D
132	84	„	ä	Insert	0x52
133	85	...	à	Delete	0x53
134	86	†	å	Home	0x47
135	87	‡	ç	End	0x4F
136	88	^	ê	Page Up	0x49
137	89	‰	ë	Page Down	0x51
138	8A	Š	è	Right ALT	0x38
139	8B	<	ï	Right CTRL	0x1D

Extended ASCII Characters (Continued)

DEC	HEX	CP 1252	ASCII	Alternate Extended	PS2 Scan Code
140	8C	Œ	î	Reserved	n/a
141	8D		ï	Reserved	n/a
142	8E	Ž	Ā	Numeric Keypad Enter	0x1C
143	8F		Ă	Numeric Keypad /	0x35
144	90		É	F1	0x3B
145	91	‘	æ	F2	0x3C
146	92	’	Æ	F3	0x3D
147	93	“	ô	F4	0x3E
148	94	”	ö	F5	0x3F
149	95	•	ò	F6	0x40
150	96	–	û	F7	0x41
151	97	—	ù	F8	0x42
152	98	˜	ÿ	F9	0x43
153	99	™	Ö	F10	0x44
154	9A	š	Ü	F11	0x57
155	9B	›	ç	F12	0x58
156	9C	œ	£	Numeric Keypad +	0x4E
157	9D		¥	Numeric Keypad -	0x4A
158	9E	ž	Ps	Numeric Keypad *	0x37
159	9F	ÿ	f	Caps Lock	0x3A
160	A0		á	Num Lock	0x45
161	A1	ı	í	Left Alt	0x38
162	A2	ç	ó	Left Ctrl	0x1D
163	A3	£	ú	Left Shift	0x2A
164	A4	¤	ñ	Right Shift	0x36
165	A5	¥	Ñ	Print Screen	n/a
166	A6	ı	ª	Tab	0x0F
167	A7	§	º	Shift Tab	0x8F
168	A8	¨	¿	Enter	0x1C
169	A9	©	ƒ	Esc	0x01
170	AA	ª	¬	Alt Make	0x36
171	AB	«	½	Alt Break	0xB6
172	AC	¬	¼	Control Make	0x1D
173	AD		ı	Control Break	0x9D
174	AE	®	«	Alt Sequence with 1 Character	0x36
175	AF	¯	»	Ctrl Sequence with 1 Character	0x1D
176	B0	°	⌘		
177	B1	±	⌘		
178	B2	²	⌘		
179	B3	³	⌘		
180	B4	´	⌘		
181	B5	µ	⌘		
182	B6	¶	⌘		
183	B7	·	⌘		
184	B8	¸	⌘		
185	B9	¹	⌘		
186	BA	º	⌘		
187	BB	»	⌘		
188	BC	¼	⌘		
189	BD	½	⌘		
190	BE	¾	⌘		
191	BF	¿	⌘		
192	C0	À	⌘		
193	C1	Á	⌘		

Extended ASCII Characters (Continued)

DEC	HEX	CP 1252	ASCII	Alternate Extended	PS2 Scan Code
194	C2	Â	T		
195	C3	Ã	†		
196	C4	Ä	—		
197	C5	Å	í		
198	C6	Æ	ƒ		
199	C7	Ç	‡		
200	C8	È	ℓ		
201	C9	É	ƒ		
202	CA	Ê	ℓ		
203	CB	Ë	‡		
204	CC	Ì	‡		
205	CD	Í	=		
206	CE	Î	‡		
207	CF	Ï	ℓ		
208	D0	Ð	ℓ		
209	D1	Ñ	‡		
210	D2	Ò	‡		
211	D3	Ó	ℓ		
212	D4	Ô	ℓ		
213	D5	Õ	F		
214	D6	Ö	‡		
215	D7	×	‡		
216	D8	Ø	‡		
217	D9	Ù	J		
218	DA	Ú	Γ		
219	DB	Û	■		
220	DC	Ü	■		
221	DD	Ý	■		
222	DE	Þ	■		
223	DF	ß	■		
224	E0	à	α		
225	E1	á	β		
226	E2	â	Γ		
227	E3	ã	π		
228	E4	ä	Σ		
229	E5	å	σ		
230	E6	æ	μ		
231	E7	ç	τ		
232	E8	è	Φ		
233	E9	é	Θ		
234	EA	ê	Ω		
235	EB	ë	δ		
236	EC	ì	∞		
237	ED	í	φ		
238	EE	î	ε		
239	EF	ï	∩		
240	F0	ð	≡		
241	F1	ñ	±		
242	F2	ò	≥		
243	F3	ó	≤		
244	F4	ô	|		
245	F5	õ	|		
246	F6	ö	+		
247	F7	÷	≈		

Extended ASCII Characters (Continued)					
DEC	HEX	CP 1252	ASCII	Alternate Extended	PS2 Scan Code
248	F8	ø	°		
249	F9	ù	·		
250	FA	ú	·		
251	FB	û	√		
252	FC	ü	ñ		
253	FD	ý	²		
254	FE	þ	■		
255	FF	ÿ			

ISO 2022/ISO 646 Character Replacements

Code pages define the mapping of character codes to characters. If the data received does not display with the proper characters, it may be because the barcode being scanned was created using a code page that is different from the one the host program is expecting. If this is the case, select the code page with which the barcodes were created. The data characters should then appear properly.

Code Page Selection Method/ Country	Standard	Keyboard Country	Honeywell Code Page Option
United States (standard ASCII)	ISO/IEC 646-IRV	n/a	1
Automatic National Character Replacement	ISO/IEC 2022	n/a	2 (default)
Binary Code page	n/a	n/a	3
Default "Automatic National Character replacement" will select the below Honeywell Code Page options for Code128, Code 39 and Code 93.			
United States	ISO/IEC 646-06	0	1
Canada	ISO /IEC 646-121	54	95
Canada	ISO /IEC 646-122	18	96
Japan	ISO/IEC 646-14	28	98
China	ISO/IEC 646-57	92	99
Great Britain (UK)	ISO /IEC 646-04	7	87
France	ISO /IEC 646-69	3	83
Germany	ISO/IEC646-21	4	84
Switzerland	ISO /IEC 646-CH	6	86
Sweden / Finland (extended Annex C)	ISO/IEC 646-11	2	82
Ireland	ISO /IEC 646-207	73	97
Denmark	ISO/IEC 646-08	8	88
Norway	ISO/IEC 646-60	9	94
Italy	ISO/IEC 646-15	5	85
Portugal	ISO/IEC 646-16	13	92

Code Page Selection Method/ Country	Standard	Keyboard Country	Honeywell Code Page Option
Spain	ISO/IEC 646-17	10	90
Spain	ISO/IEC 646-85	51	91

Dec			35	36	64	91	92	93	94	96	123	124	125	126
Hex			23	24	40	5B	5C	5D	5E	60	7B	7C	7D	7E
US	0	1	#	\$	@	[	\	\]	^	`	{	|	}	~
CA	54	95	#	\$	à	â	ç	ê	î	ô	é	ù	è	û
CA	18	96	#	\$	à	â	ç	ê	É	ô	é	ù	è	û
JP	28	98	#	\$	@	[	¥	]	^	`	{	|	}	-
CN	92	99	#	¥	@	[	\	\]	^	`	{	|	}	-
GB	7	87	£	\$	@	[	\	\]	^	`	{	|	}	~
FR	3	83	£	\$	à	°	ç	§	^	μ	é	ù	è	¨
DE	4	84	#	\$	§	Ä	Ö	Ü	^	`	ä	ö	ü	ß
CH	6	86	ù	\$	à	é	ç	ê	î	ô	ä	ö	ü	û
SE/FI	2	82	#	¤	É	Ä	Ö	Å	Ü	é	ä	ö	å	ü
DK	8	88	#	\$	@	Æ	Ø	Å	^	`	æ	ø	å	~
NO	9	94	#	\$	@	Æ	Ø	Å	^	`	æ	ø	å	-
IE	73	97	£	\$	Ó	É	Í	Ú	Á	ó	é	í	ú	á
IT	5	85	£	\$	§	°	ç	é	^	ù	à	ò	è	ì
PT	13	92	#	\$	§	Ã	Ç	Õ	^	`	ã	ç	õ	°
ES	10	90	#	\$	§	i	Ñ	¿	^	`	°	ñ	ç	~
ES	51	91	#	\$	·	i	Ñ	Ç	¿	`	´	ñ	ç	¨
COUNTRY	Country Keyboard	Honeywell CodePage	ISO / IEC 646 National Character Replacements											

Keyboard Key References

6E	70	71	72	73	74	75	76	77	78	79	7A	7B	7C	7D	7E					
01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0F	4B	50	55	5A	5F	64	69
10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	4C	51	56	5B	60	65	6A
1E	1F	20	21	22	23	24	25	26	27	28	29	2B					5C	61	66	
2C	2E	2F	30	31	32	33	34	35	36	37	39			53			5D	62	67	6C
3A	3B	3C			3D				3E	3F	38	40	4F	54	59		63	68		

104 Key U.S. Style Keyboard

6E	70	71	72	73	74	75	76	77	78	79	7A	7B	7C	7D	7E					
01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0F	4B	50	55	5A	5F	64	69
10	11	12	13	14	15	16	17	18	19	1A	1B	1C	2B	4C	51	56	5B	60	65	6A
1E	1F	20	21	22	23	24	25	26	27	28	29	2A					5C	61	66	
2C	2D	2E	2F	30	31	32	33	34	35	36	37	39			53		5D	62	67	6C
3A	3B	3C			3D				3E	3F	38	40	4F	54	59		63	68		

105 Key European Style Keyboard

SAMPLE SYMBOLS

UPC-A



0 123456 7890

Interleaved 2 of 5



01234567890

EAN-13



9 780330 290951

Code 128



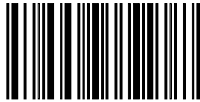
Code 128

Code 39



BC321

Codabar



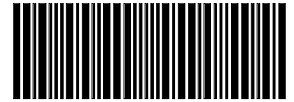
A13579B

Code 93



123456-9\$

Straight 2 of 5 Industrial



123456

Matrix 2 of 5



6543210

RSS-14



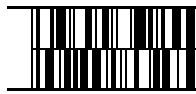
(01) 00123456789012

PDF417



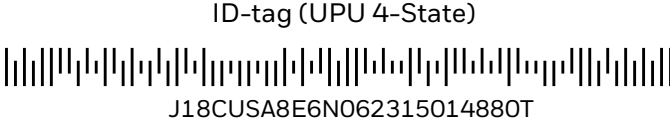
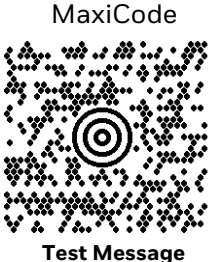
Car Registration

Code 49



1234567890

SAMPLE SYMBOLS (CONTINUED)



PROGRAMMING CHART



K0K
0



K2K
2



K4K
4



K6K
6



K8K
8



K1K
1



K3K
3



K5K
5



K7K
7



K9K
9

PROGRAMMING CHART (CONTINUED)



KAK
A



KBK
B



KCK
C



KDK
D



KEK
E



KFK
F



MNUSAV.
Save



MNUABT.
Discard



RESET_
Reset

Note: If you make an error while scanning the letters or digits (before scanning **Save**), scan **Discard**, scan the correct letters or digits, and **Save** again.

Honeywell
855 S. Mint St.
Charlotte, SC 28202

automation.honeywell.com