



# Generalscan R1522 Scan Engine User Guide

Generalscan Inc.

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- Programming Chart.....



# Input/Output Settings

## Trigger Modes

### Manual Trigger Mode

When in manual trigger mode, the scanner scans until a bar code is read, or until the trigger is released. Two modes are available, Normal and Enhanced. Normal mode offers good scan speed and the longest working ranges (depth of field). Enhanced mode will give you the highest possible scan speed but slightly less range than Normal mode. Enhanced mode is best used when you require a very fast scan speed and don't require a long working range. *Default = Manual Trigger - Normal.*



PAPHHF.

**\* Manual Trigger - Normal**

PAPHHS.

**Manual Trigger - Enhanced**

### LED Illumination - Manual Trigger

If you wish to set the illumination LED brightness, scan one of the bar codes below. This sets the LED illumination for the scan engine 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 scan engine can “see” the bar codes.*

**Note:** *Lower LED illumination settings are more visible to the user on rolling shutter engines than global shutter engines.*



PWRNOLD.

**Off**

PWRNOL100.

**Low**

PWRNOL120.

**Medium**

PWRNOL150.

**\* High**

# Presentation Modes

## Presentation Mode

Presentation Mode uses ambient light and scan engine illumination to detect bar codes. When in Presentation Mode, the LEDs remain dim until a bar code is presented to the scan engine, then the aimer turns on and the LEDs turn up to read the code. If the light level in the room is not high enough, Presentation Mode may not work properly.

Scan the following bar code to program your scan engine for Presentation Mode.



PAPTPR.

**Presentation Mode**

## Streaming Presentation™ Mode

When in Streaming Presentation mode, the scan engine's aimer goes out after a short time, but the scan illumination remains on all the time to continuously search for bar codes. Two modes are available, Normal and Enhanced. Normal mode offers good scan speed and the longest working ranges (depth of field).

Enhanced mode will give you the highest possible scan speed but slightly less range than Normal mode. Enhanced mode is best used when you require a very fast scan speed and don't require a long working range.



PAPSPN.

**Streaming Presentation  
Mode - Normal**



PAPSPE.

**Streaming Presentation  
Mode - Enhanced**

When using [Preferred Symbology](#), a lower priority symbol must be centered on the aiming pattern to be read in Streaming Presentation Mode.

## LED Illumination - Presentation Mode

If you wish to set the illumination LED brightness, scan one of the bar codes below. This sets the LED illumination for the scanner when it is in Presentation Mode. (If the scanner is triggered manually, the LED illumination will switch to the setting for a manual trigger. See "LED Illumination - Manual Trigger") *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 bar codes.

**Note:** Lower LED illumination settings are more visible to the user on rolling shutter engines than global shutter engines.



**Note:** LED Illumination - Presentation Mode does not apply to [Streaming Presentation™ Mode](#) or [Mobile Phone Read Mode](#).

## Idle Illumination - Presentation Mode

**Note:** This setting is not supported by N360X Series.

Scan one of the bar codes below to set the LED illumination for the scanner when it is in an idle state in Presentation Mode. *Default = High.*

**Note:** If you use one of the lower Idle Illumination settings, and there is not enough ambient light, the scanner may have difficulty detecting when a bar code is presented to it. If the scanner has difficulty “waking up” to read bar codes, you may need to set the Idle Illumination to a brighter setting.



## Presentation LED Behavior after Decode

When a scan engine is in presentation mode, the LEDs dim 30 seconds after a bar code is decoded. If you wish to dim the LEDs immediately after a bar code is decoded, scan the **LEDs Off** bar code, below. *Default = LEDs On.*



TRGPCK1.  
\* LEDs On



TRGPCKD.  
LEDs Off

## Presentation Sensitivity

Presentation Sensitivity is a numeric range that increases or decreases the scan engine's reaction time to bar code presentation. To set the sensitivity, scan the **Sensitivity** bar code, then scan the degree of sensitivity (from 0-20) from the inside back cover, and **Save**. 0 is the most sensitive setting, and 20 is the least sensitive. *Default = 1.*



TRGPMS.  
Sensitivity

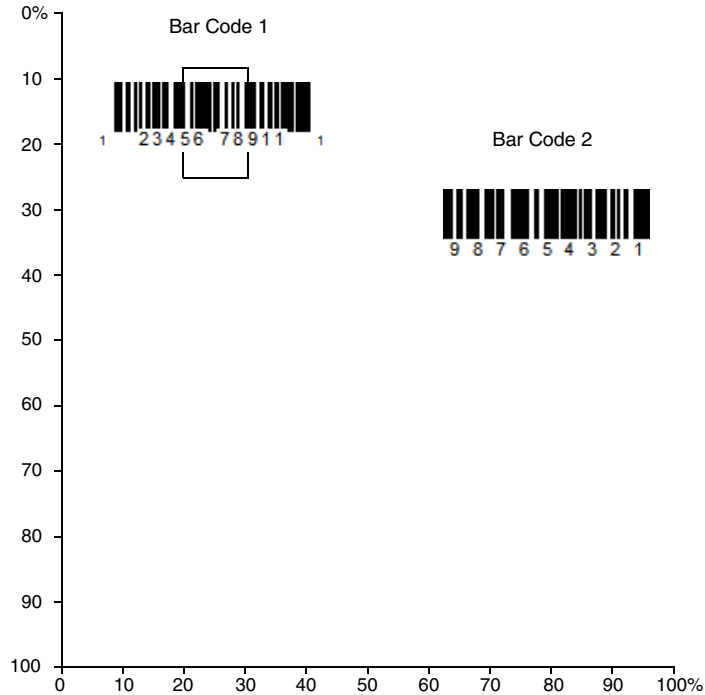
## Presentation Centering

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 bar codes 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 bar code 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 window you specify using the **Top of Presentation Centering Window**, **Bottom of Presentation Centering Window**, **Left**, and **Right of Presentation Centering Window** bar codes.

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 Bar Code 1 passes through the centering window, it will be read. Bar Code 2 does not pass through the centering window, so it will not be read.



**Note:** A bar code 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 bar codes 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 inside back cover of this manual. Scan **Save**. Default Presentation Centering = 40% for Top and Left, 60% for Bottom and Right.





PDCLFT.  
Left of  
Presentation Centering  
Window



PDCRGT.  
Right of Presentation  
Centering Window

## Mobile Phone Read Mode

When this mode is selected, your scan engine is optimized to read bar codes from mobile phone or other LED displays. However, the speed of scanning printed bar codes may be slightly lower when this mode is enabled. You can enable **Mobile Phone Reading** for either a hand held device, or for a hands-free (presentation) application.

**Note:** *Global shutter engines are better for reading bar codes on cell phones and paper since there are dual exposure controls to optimize the reading for each on every other frame.*



PAPHHC.  
Hand Held Scanning - Mobile  
Phone



PAPSPC.  
Streaming Presentation -  
Mobile Phone

**Note:** *To turn off Mobile Phone Read Mode, scan a **Manual** or **Serial Trigger Mode** bar code.*

# Poor Quality Codes

## Hands Free Time-Out

The Presentation Modes are referred to as “hands free” modes. If the scanner’s trigger is pulled 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 pulls) the scanner reverts to the original hands free mode.

Scan the **Hands Free Time-Out** bar code, then scan the time-out duration (from 0-300,000 milliseconds) from the inside back cover, and **Save**. *Default = 5,000 ms.*



TRGPT0.

**Hands Free Time-Out**

## Reread Delay

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



DLYRRD500.

**Short (500 ms)**



DLYRRD750.

**\* Medium (750 ms)**



DLYRRD1000.

**Long (1000 ms)**



DLYRRD2000.

**Extra Long (2000 ms)**

## User-Specified Reread Delay

If you want to set your own length for the reread delay, scan the bar code below, then set the delay (from 0-30,000 milliseconds) by scanning digits from the inside back cover, then scanning Save.



DLYRRD.

User-Specified Reread Delay

## 2D Reread Delay

Sometimes 2D bar codes can take longer to read than other bar codes. If you wish to set a separate Reread Delay for 2D bar codes, 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 bar codes. *Default = 2D Reread Delay Off.*



DLY2RR0.

\* 2D Reread Delay Off



DLY2RR1000.

Short (1000ms)



DLY2RR2000.

Medium (2000ms)



DLY2RR3000.

Long (3000ms)



DLY2RR4000.

Extra Long (4000ms)



# Illumination Lights

If you want the illumination lights on while reading a bar code, scan the **Lights On** or **Lights On - Mobile Phone Reading** bar code, below. However, if you want to turn just the lights off, scan the **Lights Off** bar code. *Default = Lights On.*

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



SCNLED1.  
\* Lights On



SCNLEDO.  
Lights Off



SCNLED3.  
Lights On - Mobile phone  
Reading

# Aimer Delay

The aimer delay allows a delay time for the operator to aim the scan engine 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 illumination 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 bar code below, then set the time-out by scanning digits (0 - 4,000 ms) from the [Programming Chart](#) inside the back cover of this manual, then scan **Save**.



SCNDLY.

**Delay Duration**

## Aimer Mode

This feature allows you to turn the aimer on and off. When the Interlaced bar code is scanned, the aimer is interlaced with the illumination LEDs, when Concurrent is selected the aimer and illumination are on at the same time. *Default = Interlaced.*



SCNAIM0.

**Off**



SCNAIM2.

**\* Interlaced**



SCNAIM3.

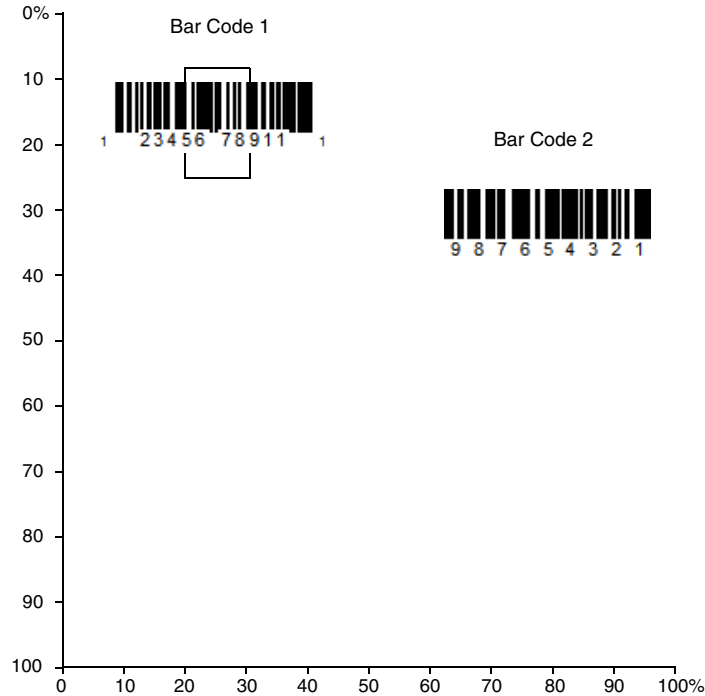
**Concurrent**

## Centering

Use Centering to narrow the scan engine's field of view to make sure that when the scanner is hand-held, it reads only those bar codes intended by the user. For instance, if multiple codes are placed closely together, centering will insure that only the desired codes are read. (Centering can be used in conjunction with [Aimer Delay](#), for the most error-free operation in applications where multiple codes are spaced closely together. Using the Aimer Delay and Centering features, the scanner can emulate the operation of older systems, such as linear laser bar code scanners.)

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

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



A bar code 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 bar codes to change the top and bottom of the centering window. Then scan the percent you want to shift the centering window using digits on the inside back cover of this manual. Scan **Save**.  
*Default Centering = 40% for Top, 60% for Bottom.*



# Output Sequence Overview

## Output Sequence Editor

This programming selection allows you to program the scan engine to output data (when scanning more than one symbol) in whatever order your application requires, regardless of the order in which the bar codes are scanned. Reading the **Default Sequence** symbol programs the scan engine to the Universal values, shown below. These are the defaults. Be certain you want to delete or clear all formats before you read the **Default Sequence** symbol.

**Note:** To make Output Sequence Editor selections, you'll need to know the code I.D., code length, and character match(es) your application requires. Use the Alphanumeric symbols (inside back cover) to read these options. You must hold the trigger while reading each bar code in the sequence.

## To Add an Output Sequence

1. Scan the **Enter Sequence** symbol (see [Require Output Sequence](#)).
2. **Code I.D.**  
On the [Symbology Charts](#), find the symbology to which you want to apply the output sequence format. Locate the Hex value for that symbology and scan the 2 digit hex value from the Programming Chart (inside back cover).
3. **Length**  
Specify what length (up to 9999 characters) of data output 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.) When calculating the length, you must count any programmed prefixes, suffixes, or formatted characters as part of the length (unless using 9999).
4. **Character Match Sequences**  
On the [ASCII Conversion Chart](#), find the Hex value that represents the character(s) you want to match. Use the Programming Chart to read the alphanumeric combination that represents the ASCII characters. (99 is the Universal number, indicating all characters.)
5. **End Output Sequence Editor**  
Scan **FF** to enter an Output Sequence for an additional symbology, or **Save** to save your entries.

## Other Programming Selections

- **Discard**  
This exits without saving any Output Sequence changes.

## Output Sequence Example

In this example, you are scanning Code 39, Code 128, and Code 39 bar codes, but you want the scanner to output Code 39 1st, Code 128 2nd, and Code 93 3rd, as shown below.

**Note:** Code 93 must be enabled to use this example.



A - Code 39



B - Code 128



C - Code 93

You would set up the sequence editor with the following command line:

**SEQBLK62999941FF6A999942FF69999943FF**

SEQBLK	sequence editor start command
62	code identifier for <b>Code 39</b>
9999	code length that must match for Code 39, 9999 = all lengths
41	start character match for Code 39, 41h = "A"
FF	termination string for first code
6A	code identifier for <b>Code 128</b>
9999	code length that must match for Code 128, 9999 = all lengths
42	start character match for Code 128, 42h = "B"
FF	termination string for second code
69	code identifier for <b>Code 93</b>
9999	code length that must match for Code 93, 9999 = all lengths
43	start character match for Code 93, 43h = "C"
FF	termination string for third code

To program the previous example using specific lengths, you would have to count any programmed prefixes, suffixes, or formatted characters as part of the length. If you use the example, but assume a <CR> suffix and specific code lengths, you would use the following command line:

**SEQBLK62001241FF6A001342FF69001243FF**

SEQBLK	sequence editor start command
62	code identifier for <b>Code 39</b>
0012	A - Code 39 sample length (11) plus CR suffix (1) = 12

41	start character match for Code 39, 41h = "A"
FF	termination string for first code
6A	code identifier for <b>Code 128</b>
0013	B - Code 128 sample length (12) plus CR suffix (1) = 13
42	start character match for Code 128, 42h = "B"
FF	termination string for second code
69	code identifier for <b>Code 93</b>
0012	C - Code 93 sample length (11) plus CR suffix (1) = 12
43	start character match for Code 93, 43h = "C"
FF	termination string for third code

## Output Sequence Editor



## Partial Sequence

If an output sequence operation is terminated before all your output sequence criteria are met, the bar code data acquired to that point is a "partial sequence."

Scan **Discard Partial Sequence** to discard partial sequences when the output sequence operation is terminated before completion. Scan **Transmit Partial Sequence** to transmit partial sequences. (Any fields in the sequence where no data match occurred will be skipped in the output.)



## Require Output Sequence

When an output sequence is **Required**, all output data must conform to an edited sequence or the scan engine will not transmit the output data to the host device. When it's **On/Not Required**, the scan engine will attempt to get the output data to conform to an edited sequence but, if it cannot, the scan engine transmits all output data to the host device as is.

When the output sequence is **Off**, the bar code data is output to the host as the scan engine decodes it. *Default = Off.*

**Note:** This selection is unavailable when the Multiple Symbols Selection is turned on.



## Multiple Symbols

When this programming selection is turned **On**, it allows you to read multiple symbols with a single pull of the scanner's trigger. If you press and hold the trigger, aiming the scanner at a series of symbols, it reads unique symbols once, beeping (if turned on) for each read. The scanner attempts to find and decode new symbols as long as the trigger is pulled. When this programming selection is turned **Off**, the scanner will only read the symbol closest to the aiming beam. *Default = Off.*



# Video Reverse

Video Reverse is used to allow the scan engine to read bar codes that are inverted. The **Video Reverse Off** bar code below is an example of this type of bar code. Scan **Video Reverse Only** to read *only* inverted bar codes. Scan **Video Reverse and Standard Bar Codes** to read both types of codes.

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

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



\*Video Reverse Off



Video Revers Only



Video Reverse and Standard  
Bar Codes



# Working Orientation

Some bar codes are direction-sensitive. For example, KIX codes and OCR can mis-read 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°)**



ROTATND.  
**\* Upright**



ROTATN2.  
**Upside Down**



ROTATN1.  
**Vertical, Bottom to Top**



ROTATN3.  
**Vertical, Top to Bottom**

# SYMBOLOLOGIES

This programming section contains the following menu selections.

- All Symbologies
- 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™
- DotCode
- EAN/JAN-13
- EAN/JAN-8
- Grid Matrix
- GS1 Composite Codes
- GS1 DataBar Expanded
- GS1 DataBar Limited
- MSI Redundancy
- 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
- 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)
- Telepen
- Trioptic Code
- UPC-A
- UPC-A/EAN-13 with Extended Coupon Code
- UPC-E0
- UPC-E1

# All Symbologies

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:** *Scanner performance may reduce by scanning **All Symbologies On**. Only scan when needed.*



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 bar code symbologies. You may wish to set the same value for minimum and maximum length to force the scanner to read fixed length bar code data. This helps reduce the chances of a mis-read.

**Example:** Decode only those bar codes with a count of 9-20 characters.

Min. length = 09Max. length = 20

**Example:** Decode only those bar codes 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 bar codes included in the explanation of the symbology, then scan the digit value of the message length and Save bar codes on the [Programming Chart](#) inside the back cover of this manual. 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 bar code. 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 bar codes with Modulo 16 check characters. *Default = No Check Character.*

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

When Check Character is set to **Validate and Transmit**, the scanner will only read Codabar bar codes 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 bar codes 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.

On



## Codabar Message Length

Scan the bar codes below to change the message length. Refer to [Message Length Description](#) 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**



C39ENAO.

**Off**

If your are reading Code 39 bar codes, Codablock A should remain disabled. If you are enabling Codablock A, you should disable Code 39.

## Code 39 Start/Stop Characters

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



C39SSX1.

**Transmit**



C39SSXD.  
\* Don't Transmit

## Code 39 Check Character

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

When Check Character is set to **Validate, but Don't Transmit**, the unit only reads Code 39 bar codes 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 bar codes 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 bar codes below to change the message length. Refer to [Message Length Description](#) 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 Redundancy

If you are encountering errors when reading Code 39 bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To adjust the redundancy, scan the Code 39 Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



C39VOT.

Code 39 Redundancy

## Code 39 Append

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



C39APP1.

On



C39APP0.

\* 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.

**Note:** *Trioptic Code must be turned off while scanning Code 32 Pharmaceutical codes.*



C39B321.

On



C39B320.

\* Off



# Full ASCII

If Full ASCII Code 39 decoding is enabled, certain character pairs within the bar code 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	0 0	@ %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.



C39ASCII.  
Full ASCII On



C39ASCII.  
\* 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 bar code 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 bar code below, select the code page with which the bar codes were created (see [ISO 2022/ISO 646](#))

Character Replacements), and scan the value and the **Save** bar code from the [Programming Chart](#) on the inside the back cover of this manual. The data characters should then appear properly.



C39DCP.  
Code 39 Code Page

## Code 39 Unconventional Inter-Character Gaps

Use this setting to configure the scanner to read Code 39 bar codes with unconventional inter-character gaps. Default = Off.



C39UIC1.  
On



C39UIC0.  
\* Off

## Trioptic Code

**Note:** If you are going to scan Code 32 Pharmaceutical codes, Trioptic Code must be off.

Trioptic Code is used for labeling magnetic storage media.



TRIENA1.  
On



TRIENA0.  
\* Off

## Trioptic Redundancy

If you are encountering errors when reading Trioptic bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To

adjust the redundancy, scan the Trioptic Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



TRIVOT.

**Trioptic Redundancy**

## 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 bar code 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 bar codes 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 bar codes printed with a check digit, and will transmit this digit at the end of the scanned data. *Default = No Check Digit.*



I25CK20.

**\* No Check Digit**



I25CK21.

**Validate, but Don't Transmit**



I25CK22.

**Validate and Transmit**

## Interleaved 2 of 5 Message Length

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



I25MIN.

**Minimum Message Length**

I25MAX.

**Maximum Message Length**

## FEBRABAN Decode

Febraban is an I 2 of 5 bar code that requires special check characters to be inserted in the transmitted data stream. It is used by the Brazilian Federation of Banks. Scan the bar codes below to turn FEBRABAN Boletto decoding on or off.  
*Default = Off.*



I25PAY1.

**FEBRABAN Decode On**

I25PAY0.

**FEBRABAN Decode Off**

## NEC 2 of 5

< Default All NEC 2 of 5 Settings >



N25DFT.

## NEC 2 of 5 On/Off



## Check Digit

No Check Digit indicates that the scanner reads and transmits bar code 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 bar codes 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 bar codes 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 bar codes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 2-80. Minimum Default = 4, Maximum Default = 80.





N25MAX.

Maximum Message Length

## NEC 2 of 5 Redundancy

If you are encountering errors when reading NEC 2 of 5 bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To adjust the redundancy, scan the NEC 2 of 5 Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



N25VOT.

NEC 2 of 5 Redundancy

## Code 93

< Default All Code 93 Settings >



C93DFT.

## Code 93 On/Off



C93ENA1.

**\* On**

C93ENA0.

**Off**

## Code 93 Message Length

Scan the bar codes below to change the message length. Refer to [Message Length Description](#) 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 Redundancy

If you are encountering errors when reading Code 93 bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To adjust the redundancy, scan the Code 93 Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



C93VOT.

**Code 93 Redundancy**

## Code 93 Append

This function allows the scanner to append the data from several Code 93 bar codes together before transmitting them to the host computer. When this function is enabled, the scanner stores those Code 93 bar codes 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 bar codes are read, deleting the first space from each. The scanner transmits the appended data when it reads a Code 93 bar code 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 bar code 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 bar code below, select the code page with which the bar codes were created (see [ISO 2022/ISO 646 Character Replacements](#)), and scan the value and the **Save** bar code from the [Programming Chart](#) on the inside the back cover of this manual. The data characters should then appear properly.



C93DCP.

Code 93 Code Page

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

&lt;Default All Straight 2 of 5 Industrial Settings&gt;



R25DFT.

## Straight 2 of 5 Industrial On/Off



R25ENA1.

On



R25ENA0.

\* Off

## Straight 2 of 5 Industrial Message Length

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



R25MIN.

Minimum Message Length



R25MAX.

Maximum Message Length



## Straight 2 of 5 Industrial Redundancy

If you are encountering errors when reading Straight 2 of 5 Industrial bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To adjust the redundancy, scan the Straight 2 of 5 Industrial Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



N25VOT.

Straight 2 of 5 Industrial  
Redundancy

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

<Default All Straight 2 of 5 IATA Settings>



A25DFT.

## Straight 2 of 5 IATA On/Off



A25ENA1.

On



A25ENAO.

\* Off

## Straight 2 of 5 IATA Message Length

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



A25MIN.

Minimum Message Length



## Straight 2 of 5 IATA Redundancy

If you are encountering errors when reading Straight 2 of 5 IATA bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To adjust the redundancy, scan the Straight 2 of 5 IATA Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



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



**Minimum Message Length**



**Maximum Message Length**

## Matrix 2 of 5 Redundancy

If you are encountering errors when reading Matrix 2 of 5 bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To adjust the redundancy, scan the Matrix 2 of 5 Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



**Matrix 2 of 5 Redundancy**

## Code 11

<Default All Code 11 Settings>



## Code 11 On/Off



**On**



## Check Digits Required

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



## Code 11 Message Length

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



## Code 11 Redundancy

If you are encountering errors when reading Code 11 bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To adjust the redundancy, scan the Code 11 Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



## Code 128

<Default All Code 128 Settings>



## Code 128 On/Off



If you are reading Code 128 bar codes, Codablock F should remain disabled. If you are enabling Codablock F, you should disable Code 128.

## 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 bar codes on a blood product label. Use the bar codes below to turn concatenation on or off. *Default =Off.*



## Code 128 Message Length

Scan the bar codes below to change the message length. Refer to [Message Length Description](#) 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 bar codes together before transmitting them to the host computer. When the scanner encounters a Code 128 bar code with the append trigger character(s), it buffers Code 128 bar codes until it reads a Code 128 bar code that does not have the append trigger. The data is then transmitted in the order in which the bar codes 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 bar code 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 bar code below, select the code page with which the bar codes were created (see [ISO 2022/ISO 646 Character Replacements](#)), and scan the value and the **Save** bar code from the [Programming Chart](#) on the inside the back cover of this manual. The data characters should then appear properly.



128DCP.

**Code 128 Code Page**

## Code 128 Redundancy

If you are encountering errors when reading Code 128 bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To adjust the redundancy, scan the Code 128 Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



128VOT.

**Code 128 Redundancy**

## GS1-128

&lt;Default All GS1-128 Settings&gt;



GS1DFT.

## GS1-128 On/Off



GS1ENA1.

**\* On**

GS1ENAD.

**Off**

## GS1-128 Message Length

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



GS1MIN.

**Minimum Message Length**

GS1MAX.

**Maximum Message Length**

## GS1-128 Redundancy

If you are encountering errors when reading GS1-128 bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To adjust the redundancy, scan the GS1-128 Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



GS1VOT.

**GS1-128 Redundancy**

## Telepen

&lt;Default All Telepen Settings&gt;



TELDFT.

## Telepen On/Off



TELENA1.

**On**

TELENA0.

**\* Off**

## Telepen Output

Using AIM Telepen Output, the scanner reads symbols with start/stop pattern 1 and decodes them as standard full ASCII (start/stop pattern 1). When Original Telepen Output is selected, the scanner reads symbols with start/stop pattern 1 and decodes them as compressed numeric with optional full ASCII (start/stop pattern 2). *Default = AIM Telepen Output.*



TELOLD0.

**\* AIM Telepen Output**





TELOLD1.

**Original Telepen Output**

## Telepen Message Length

Scan the bar codes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 1-60. Minimum Default = 1, Maximum Default = 60.



TELMIN.

**Minimum Message Length**

TELMAX.

**Maximum Message Length**

## Telepen Redundancy

If you are encountering errors when reading Telepen bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To adjust the redundancy, scan the Telepen Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



TELVOT.

**Telepen Redundancy**

## UPC-A

<Default All UPC-A Settings>



UPADFT.

## UPC-A On/Off



UPBENA1.

**\* On**

UPBENAD.

**Off**

**Note:** To convert UPC-A bar codes to EAN-13, see [Convert UPC-A to EAN-13](#).

## 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.*



UPACKX1.

**\* On**

UPACKXD.

**Off**

## 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.*



UPANSX1.

**\* On**

UPANSXD.

**Off**

## UPC-A Redundancy

If you are encountering errors when reading UPC-A bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To

adjust the redundancy, scan the UPC-A Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



UPAVOT.  
UPC-A Redundancy

## 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.*



UPAAD21.  
2 Digit Addenda On



UPAAD20.  
\* 2 Digit Addenda Off



UPAAD51.  
5 Digit Addenda On



UPAAD50.  
\* 5 Digit Addenda Off

## UPC-A Addenda Required

When *Required* is scanned, the scanner will only read UPC-A bar codes that have addenda. You must then turn on a 2 or 5 digit addenda listed. *Default = Not Required.*



UPAARQ1.  
Required



UPAARQ0.  
\* Not Required

## Addenda Timeout

You can set a time during which the scanner looks for an addenda. If an addenda is not found within this time period, the data can be either transmitted or discarded, based on the setting you are using for [UPC-A Addenda Required](#). Set the length (in milliseconds) for this timeout by scanning the bar code below, then setting the timeout (from 0-65535 milliseconds) by scanning digits from the [Programming Chart](#), then scanning Save. Default = 100.



DLYADD.

**Addenda Timeout**

## UPC-A Addenda Separator

When this feature is on, there is a space between the data from the bar code 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 bar codes.

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

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



UPEEXP0.

**\* Off**

## UPC-E0 Redundancy

If you are encountering errors when reading UPC-E0 bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To adjust the redundancy, scan the UPC-E0 Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



UPEVOT.

**UPC-E0 Redundancy**

## UPC-E0 Addenda Required

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



UPEARQ1.

**Required**



UPEARQ0.

**\* Not Required**

## UPC-E0 Addenda Separator

When this feature is On, there is a space between the data from the bar code 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.*



## 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. bar codes lead with the 0 number system. For these codes, use [UPC-E0](#). 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



E13ENAD.

Off

## Convert UPC-A to EAN-13

When **UPC-A Converted to EAN-13** is selected, UPC-A bar codes 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.



UPAENAD.

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



E13CKXD.

Off

## EAN/JAN-13 Redundancy

If you are encountering errors when reading EAN/JAN-13 bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code.

To adjust the redundancy, scan the EAN/JAN-13 Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



E13VOT.

**EAN/JAN-13 Redundancy**

## **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 bar codes that have addenda. *Default = Not Required.*



E13ARQ1.

**Required**



E13ARQ0.

**\* Not Required**

## **EAN-13 Beginning with 290 Addenda Required**

This setting programs the scanner to require a 5 digit addenda only on EAN-13 bar codes that begin with "290." The following settings can be programmed:

**Require 5 Digit Addenda:** All EAN-13 bar codes that begin with “290” must have a 5 digit addendum. The EAN-13 bar code with the 5 digit addendum is then transmitted as a single, concatenated bar code. If a 5 digit addendum is not found within the [Addenda Timeout](#) period, the EAN-13 bar code is discarded.

**Note:** *if you are using EAN-13 Beginning with 290 Addenda Required, this setting will take precedence.*

**Don't Require 5 Digit Addenda:** If you have selected Require 5 Digit Addenda, and you want to disable this feature, scan **Don't Require 5 Digit Addenda**. EAN-13 bar codes are transmitted, depending on the setting you are using for [EAN/JAN-13 Addenda Required](#).

*Default = Don't Require 5 Digit Addenda.*



ARQ2900.

\*Don't Require 5 Digit Addenda



ARQ2901.

Require 5 Digit Addenda

## EAN-13 Beginning with 378/379 Addenda Required

This setting programs the scanner to require any combination of a 2 digit addenda or a 5 digit addenda on EAN-13 bar codes that begin with a “378” or “379.” The following settings can be programmed:

**Require Addenda:** All EAN-13 bar codes that begin with a “378” or “379” must have a 2 digit addenda, a 5 digit addenda, or a combination of these addenda. The EAN-13 bar code with the addenda is then transmitted as a single, concatenated bar code. If the required addenda is not found within the [Addenda Timeout](#) period, the EAN-13 bar code is discarded.

**Don't Require Addenda:** If you have selected Require Addenda, and you want to disable this feature, scan **Don't Require Addenda**. EAN-13 bar codes are transmitted, depending on the setting you are using for [EAN/JAN-13 Addenda Required](#).

*Default = Don't Require Addenda.*



ARQ3780.

\* Don't Require Addenda



ARQ3781.

Require 2 Digit Addenda



ARQ3782.

Require 5 Digit Addenda



ARQ3783.

Require 2 or 5 Digit Addenda

## EAN-13 Beginning with 414/419 Addenda Required

This setting programs the scanner to require any combination of a 2 digit addenda or a 5 digit addenda on EAN-13 bar codes that begin with a “414” or “419.” The following settings can be programmed:

**Require Addenda:** All EAN-13 bar codes that begin with a “414” or “419” must have a 2 digit addenda, a 5 digit addenda, or a combination of these addenda. The EAN-13 bar code with the addenda is then transmitted as a single, concatenated bar code. If the required addenda is not found within the [Addenda Timeout](#) period, the EAN-13 bar code is discarded.

**Don't Require Addenda:** If you have selected Require Addenda, and you want to disable this feature, scan **Don't Require Addenda**. EAN-13 bar codes are transmitted, depending on the setting you are using for [EAN/JAN-13 Addenda Required](#).

*Default = Don't Require Addenda.*



ARQ4140.

\* Don't Require Addenda



ARQ4141.

Require 2 Digit Addenda



ARQ4142.

Require 5 Digit Addenda



ARQ4143.

Require 2 or 5 Digit Addenda

## EAN-13 Beginning with 434/439 Addenda Required

This setting programs the scanner to require any combination of a 2 digit addenda or a 5 digit addenda on EAN-13 bar codes that begin with a “434” or “439.” The following settings can be programmed:

**Require Addenda:** All EAN-13 bar codes that begin with a “434” or “439” must have a 2 digit addenda, a 5 digit addenda, or a combination of these addenda. The EAN-13 bar code with the addenda is then transmitted as a single, concatenated bar code. If the required addenda is not found within the [Addenda Timeout](#) period, the EAN-13 bar code is discarded.

**Don't Require Addenda:** If you have selected Require Addenda, and you want to disable this feature, scan **Don't Require Addenda**. EAN-13 bar codes are transmitted, depending on the setting you are using for [EAN/JAN-13 Addenda Required](#).

*Default = Don't Require Addenda.*



ARQ4340.

\* Don't Require Addenda



ARQ4341.

Require 2 Digit Addenda



ARQ4342.

Require 5 Digit Addenda



ARQ4343.

Require 2 or 5 Digit Addenda

## EAN-13 Beginning with 977 Addenda Required

This setting programs the scanner to require a 2 digit addenda only on EAN-13 bar codes that begin with “977.” The following settings can be programmed:

**Require 2 Digit Addenda:** All EAN-13 bar codes that begin with “977” must have a 2 digit addendum. The EAN-13 bar code with the 2 digit addendum is then transmitted as a single, concatenated bar code. If a 2 digit addendum is not found within the [Addenda Timeout](#) period, the EAN-13 bar code is discarded.

**Don't Require 2 Digit Addenda:** If you have selected Require 2 Digit Addenda, and you want to disable this feature, scan **Don't Require 2 Digit Addenda**. EAN-13 bar codes are transmitted, depending on the setting you are using for [EAN/JAN-13 Addenda Required](#).

*Default = Don't Require 2 Digit Addenda.*



ARQ9770.

\* Don't Require 2 Digit Addenda



ARQ9771.

Require 2 Digit Addenda

## EAN-13 Beginning with 978 Addenda Required

These settings program the scanner to require a 5 digit addenda only on EAN-13 bar codes that begin with “978.” The following settings can be programmed:

**Require 5 Digit Addenda:** All EAN-13 bar codes that begin with “978” must have a 5 digit addendum. The EAN-13 bar code with the 5 digit addendum is then transmitted as a single, concatenated bar code. If a 5 digit addendum is not found within the [Addenda Timeout](#) period, the EAN-13 bar code is discarded.

**Don't Require 5 Digit Addenda:** If you have selected Require 5 Digit Addenda, and you want to disable this feature, scan **Don't Require 5 Digit Addenda**. EAN-13 bar codes are transmitted, depending on the setting you are using for [EAN/JAN-13 Addenda Required](#).

*Default = Don't Require 5 Digit Addenda.*



ARQ9780.

\* Don't Require 5 Digit Addenda



ARQ9781.

Require 5 Digit Addenda

## EAN-13 Beginning with 979 Addenda Required

These settings program the scanner to require a 5 digit addenda only on EAN-13 bar codes that begin with “979.” The following settings can be programmed:

**Require 5 Digit Addenda:** All EAN-13 bar codes that begin with “979” must have a 5 digit addendum. The EAN-13 bar code with the 5 digit addendum is then transmitted as a single, concatenated bar code. If a 5 digit addendum is not found within the [Addenda Timeout](#) period, the EAN-13 bar code is discarded.

**Don't Require 5 Digit Addenda:** If you have selected Require 5 Digit Addenda, and you want to disable this feature, scan **Don't Require 5 Digit Addenda**. EAN-13 bar codes are transmitted, depending on the setting you are using for [EAN/JAN-13 Addenda Required](#).

Default = Don't Require 5 Digit Addenda.



ARQ9790.

\* Don't Require 5 Digit Addenda



ARQ9791.

Require 5 Digit Addenda

## EAN/JAN-13 Addenda Separator

When this feature is **On**, there is a space between the data from the bar code 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](#).

## 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



## 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 Redundancy

If you are encountering errors when reading EAN/JAN-8 bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To adjust the redundancy, scan the EAN/JAN-8 Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*





## 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 Addenda and 5 Digit Addenda.*



EABAD21.  
**2 Digit Addenda On**



EABAD20.  
**\* 2 Digit Addenda Off**



EABAD51.  
**5 Digit Addenda On**



EABAD50.  
**\* 5 Digit Addenda Off**

## EAN/JAN-8 Addenda Required

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



EABARQ1.  
**Required**



EABARQ0.  
**\* Not Required**

## EAN/JAN-8 Addenda Separator

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



EABADS1.  
**\* On**



EABADS0.  
**Off**

# MSI

<Default All MSI Settings>



## MSI On/Off



## MSI Check Character

Different types of check characters are used with MSI bar codes. You can program the scanner to read MSI bar codes 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 bar codes 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 bar codes printed with the specified type check character(s), but will not transmit the check character(s) with the scanned data.





MSCHK4.

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



MSCHK5.

Validate Type 11 then Type 10 Character and Transmit



MSCHK6.

Disable MSI Check Characters

## MSI Message Length

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



MSIMIN.

Minimum Message Length



MSIMAX.

Maximum Message Length

## MSI Redundancy

If you are encountering errors when reading MSI bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To adjust the redundancy, scan the MSI Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



MSIVOT.

MSI Redundancy

## GS1 DataBar Omnidirectional

< Default All GS1 DataBar Omnidirectional Settings >



## GS1 DataBar Omnidirectional On/Off



## GS1 DataBar Omnidirectional Redundancy

If you are encountering errors when reading GS1 DataBar Omnidirectional bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To adjust the redundancy, scan the GS1 DataBar Omnidirectional Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



## GS1 DataBar Limited

< Default All GS1 DataBar Limited Settings >



## GS1 DataBar Limited On/Off



RSENA1.

\* On



RSENA0.

Off

## GS1 DataBar Limited Redundancy

If you are encountering errors when reading GS1 DataBar Limited bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To adjust the redundancy, scan the GS1 DataBar Limited Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



RSLVOT.

GS1 DataBar Limited  
Redundancy

## GS1 DataBar Expanded

< Default All GS1 DataBar Expanded Settings >



RSEDFT.

## GS1 DataBar Expanded On/Off



RSEEA1.

\* On



RSEEA0.

Off

## GS1 DataBar Expanded Message Length

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



RSEMIN.

**Minimum Message Length**



RSEMAX.

**Maximum Message Length**

## GS1 DataBar Expanded Redundancy

If you are encountering errors when reading GS1 DataBar Expanded bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To adjust the redundancy, scan the GS1 DataBar Expanded Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



RSEVOT.

**GS1 DataBar Expanded  
Redundancy**

## Codablock A

<Default All Codablock A Settings>



## Codablock A On/Off



If you are reading Code 39 bar codes, Codablock A should remain disabled. If you are enabling Codablock A, you should disable Code 39.

## Codablock A Message Length

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



**Minimum Message Length**



**Maximum Message Length**

## Codablock F

<Default All Codablock F Settings>



## Codablock F On/Off



CBFENA1.

On



CBFENA0.

\* Off

If you are reading Code 128 bar codes, Codablock F should remain disabled. If you are enabling Codablock F, you should disable Code 128.

## Codablock F Message Length

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



CBFMIN.

Minimum Message Length



CBFMAX.

Maximum Message Length

## Label Code

The standard Label Code is used in libraries. *Default = Off.*



LBLENA1.

On



LBLENA0.

\*Off



## PDF417

< Default All PDF417 Settings >



## PDF417 On/Off



## PDF417 Message Length

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



## PDF417 Code Page

PDF417 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 bar code 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 bar code below, select the code page with which the bar codes were created (see [ISO 2022/ISO 646 Character Replacements](#)), and scan the value and the **Save** bar code from the [Programming Chart](#) on the inside the back cover of this manual. The data characters should then appear properly.



PDF417 Code Page

## MacroPDF417

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



## MicroPDF417

< Default All MicroPDF417 Settings >



## MicroPDF417 On/Off



## MicroPDF417 Message Length

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





MPD MAX.

**Maximum Message Length**

## MicroPDF417 Code Page

MicroPDF417 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 bar code 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 bar code below, select the code page with which the bar codes were created (see [ISO 2022/ISO 646 Character Replacements](#)), and scan the value and the **Save** bar code from the [Programming Chart](#) on the inside the back cover of this manual. The data characters should then appear properly.



MPDDCP.

**MicroPDF417 Code Page**

## 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.*



COMENA1.

**On**

COMENA0.

**\* Off**

## UPC/EAN Version

Scan the **UPC/EAN Version On** bar code 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](#) for further information.*

## GS1 Composite Code Message Length

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



## GS1 Composite Code Code Page

GS1 Composite Code 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 bar code 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 bar code below, select the code page with which the bar codes were created (see [ISO 2022/ISO 646 Character Replacements](#)), and scan the value and the **Save** bar code from the [Programming Chart](#) on the inside the back cover of this manual. The data characters should then appear properly.



GS1 Composite Code Code  
Page

# 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](#)).

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](#)).

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

If **EAN8 to EAN13 Conversion** is scanned, all EAN8 bar codes 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 bar code 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.*



T39ENA1.  
**On**



T39ENA0.  
**\* Off**

## QR Code

< Default All QR Code Settings >



QRCDFT.

## QR Code On/Off

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



QRCENA1.  
**\* On**



QRCENA0.  
**Off**

## QR Code Message Length

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



QRCCMIN.  
**Minimum Message Length**



QRCMAX.  
Maximum Message Length

## QR Code Append

This function allows the scanner to append the data from several QR Code bar codes together before transmitting them to the host computer. When the scanner encounters an QR Code bar code with the append trigger character(s), it buffers the number of QR Code bar codes determined by information encoded in those bar codes. Once the proper number of codes is reached, the data is output in the order specified in the bar codes. *Default = On.*



QRCAPP1.  
\* On



QRCAPP0.  
Off

## 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 bar code 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 bar code below, select the code page with which the bar codes were created (see [ISO 2022/ISO 646 Character Replacements](#)), and scan the value and the **Save** bar code from the [Programming Chart](#) on the inside the back cover of this manual. The data characters should then appear properly.



QRCDCP.  
QR Code Page

## QR Code No Quiet Zone

Activate QR Code No Quiet Zone to be able to decode bar codes with no quiet zone around the patterns.



QRQNQZ1.  
On



## DotCode

< Default All DotCode Settings >



## DotCode On/Off



## Poor Quality DotCodes

This setting improves the scanner's ability to read damaged or badly printed DotCodes. *Default = Poor Quality DotCodes Off.*

**Note:** When enabled decoding may be longer.





## DotCode Message Length

Scan the bar codes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 1-2400. Minimum Default = 1, Maximum Default = 2400.



DOTMIN.

Minimum Message Length



DOTMAX.

Maximum Message Length

## Digimarc Barcode™

### Digimarc Decoder Attempts

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



DIGSTR.

Digimarc Decoder Attempts

### 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 Honeywell decoder will read every fifth frame.

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

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

Default = Uses Digimarc Decoder then Both Decoders.



DIGENA0.

Off



DIGENA1.

On



DIGENA2.

Use Honeywell Decoder then Both Decoders



DIGENA3.

\* Use Digimarc Decoder then Both Decoders



DIGENA4.

Use Honeywell Decoder then Alternates Decoders



DIGENA5.

Use Digimarc Decoder then Alternates Decoders

## Data Matrix

< Default All Data Matrix Settings >



IDMDFT.

## Data Matrix On/Off



IDMENA1.

\* On



IDMENA0.

Off

## Low Contrast Data Matrix Enhancements

Use this setting if you are reading low contrast Data Matrix and dot peened direct part mark bar codes. If you are having trouble reading non-dot peen Data Matrix bar codes, it may be helpful to turn this setting off by scanning the **Low Contrast Data Matrix Enhancements Off**. Default = Low Contrast Data Matrix Enhancements On.



DPMENA1.

\*Low Contrast Data Matrix  
Enhancements On



DPMENA0.

Low Contrast Data Matrix  
Enhancements Off



DPMENA2.

Reflective Low Contrast Data  
Matrix Enhancements On

## Data Matrix Message Length

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



IDMMIN.

Minimum Message Length



IDMMAX.

Maximum Message Length

## Data Matrix Append

This function allows the scanner to append the data from several Data Matrix bar codes together before transmitting them to the host computer. When the scanner encounters an Data Matrix bar code with the append trigger character(s), it buffers

the number of Data Matrix bar codes determined by information encoded in those bar codes. Once the proper number of codes is reached, the data is output in the order specified in the bar codes. *Default = On.*



IDMAPP1.  
**\* On**



IDMAPP0.  
**Off**

## 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 bar code 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 bar code below, select the code page with which the bar codes were created (see [ISO 2022/ISO 646 Character Replacements](#)), and scan the value and the Save bar code from the [Programming Chart](#) on the inside the back cover of this manual. The data characters should then appear properly.



IDMDCP.  
**Data Matrix Code Page**

## Grid Matrix

<Default All Grid Matrix Settings>



GMXDFT.

## Grid Matrix On/Off



GMXENA1.  
**On**



GMXENA0.  
**\* Off**

## Grid Matrix Message Length

Scan the bar codes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 1-2751. Minimum Default = 1, Maximum Default = 2751.



GMXMIN.

Minimum Message Length



GMXMAX.

Maximum Message Length

## MaxiCode

< Default All MaxiCode Settings >



MAXDFT.

## MaxiCode On/Off



MAXENA1.

On



MAXENA0.

\* Off

## MaxiCode Message Format

Use this setting to specify whether the secondary message of a MaxiCode bar code is decoded or not. Default = Primary Required, Secondary if Available.



MAXFMT0.

Primary Message Only



MAXFMT1.

\*Primary Required, Secondary if Available



MAXFMT2.

Both Primary and Secondary  
Required

## MaxiCode Message Length

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



MAXMIN.

Minimum Message Length



MAXMAX.

Maximum Message Length

## Aztec Code

< Default All Aztec Code Settings >



AZTDFT.

## Aztec Code On/Off



AZTENA1.

\* On



AZTENAO.

Off

## Aztec Code Message Length

Scan the bar codes below to change the message length. Refer to [Message Length Description](#) 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 bar codes together before transmitting them to the host computer. When the scanner encounters an Aztec bar code with the append trigger character(s), it buffers the number of Aztec bar codes determined by information encoded in those bar codes. Once the proper number of codes is reached, the data is output in the order specified in the bar codes. *Default = On.*



## 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 bar code 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 bar code below, select the code page with which the bar codes were created (see [ISO 2022/ISO 646 Character Replacements](#)), and scan the value and the Save bar code from the [Programming Chart](#) on the inside the back cover of this manual. The data characters should then appear properly.



## Chinese Sensible (Han Xin) Code

< Default All Han Xin Settings >



HX\_DFT.

### Han Xin Code On/Off



HX\_ENA1.

On



HX\_ENA0.

\* Off

### Han Xin Code Message Length

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



HX\_MIN.

Minimum Message Length



HX\_MAX.

Maximum Message Length

## 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.*



POSTAL0.

\* 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](#)



POSTAL6.  
Postnet On  
Also see [Postnet](#)



POSTAL7.  
British Post On



POSTAL10.  
Intelligent Mail Bar Code 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 Bar Code On



POSTAL12.  
Planet Code and  
Postnet On



POSTAL13.  
Planet Code and  
Postal-4i On



POSTAL20.  
Intelligent Mail Bar Code and  
Postnet with B and B' Fields On



POSTAL16.  
Postnet and  
Intelligent Mail Bar Code 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 Bar Code On**



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



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



POSTAL15.  
**Planet Code and  
Intelligent Mail Bar Code**



POSTAL22.  
**Planet Code,  
Postnet, and  
Intelligent Mail Bar Code On**



POSTAL24.  
**Postnet,  
Postal-4i, and  
Intelligent Mail Bar Code On**



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



POSTAL28.  
**Planet Code,  
Postal-4i,  
Intelligent Mail Bar Code, and  
Postnet 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.*



## 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.*



## 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.



AUSINTD.

\* 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 bar codes below to change the message length. Refer to [Message Length Description](#) for additional information. Minimum and Maximum lengths = 2-80. Minimum Default = 4, Maximum Default = 80.



CPCMIN.

**Minimum Message Length**



CPCMAX.

**Maximum Message Length**

## China Post Redundancy

If you are encountering errors when reading China Post bar codes, you may want to adjust the redundancy count. Redundancy adjusts the number of times a bar code is decoded before transmission, which may reduce the number of errors. Note that the higher the redundancy count, the longer it will take to decode the bar code. To adjust the redundancy, scan the China Post Redundancy bar code below, then scan a redundancy count between 0 and 10 on the [Programming Chart](#). Then scan the **Save** bar code. *Default = 0.*



CPCVOT.

**China Post Redundancy**

## Korea Post

<Default All Korea Post Settings>



KPCDFT.

## Korea Post On/Off



KPCENA1.

**On**



KPCENA0.

**\* Off**

## Korea Post Message Length

Scan the bar codes below to change the message length. Refer to [Message Length Description](#) 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**

# Programming Chart





# Programming Chart



KAK  
A



KCK  
C



KEK  
E



MNUSAV.  
Save



RESET\_  
Reset



KBK  
B



KDK  
D



KFK  
F



MNUABT.  
Discard

**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.