Leitor Honeywell 4850dr

O Leitor Honeywell 4850dr é direcionado especialmente para farmácias e drogarias, pois facilita o trabalho de controle das receitas e dos medicamentos. Além de digitalizar a receita e ler os códigos de barras, o leitor também salva as imagens em diversos tamanhos.

Honeywell

4850DR

Document Reader

Bar Code Guide

Disclaimer

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1

Getting Started

About This Manual

This Bar Code Guide provides installation and programming instructions for the 4850dr document reader. Product specifications, dimensions, warranty, and customer support information are also included.

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

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

Unpacking 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.

The packaging for this device is as eco-friendly as we could make it. Please recycle the packaging.

Document Reader Models

The chart below lists the interfaces that can be used with your 4850DR document reader:

Interface
USB keyboard
USB HID
USB retail (IBM SurePOS)
USB COM port emulation

Connecting the Document Reader with USB

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

1. Connect the appropriate interface cable to the document reader first, then to the computer.
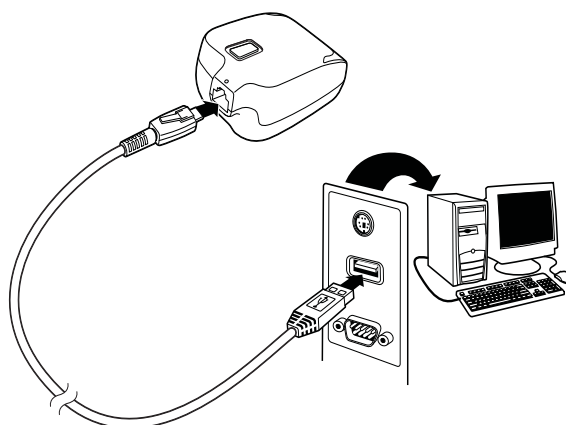
2. The document reader beeps.

3. Verify the document reader operation by scanning a bar code from the Sample Symbols in the back of this manual.

4. The unit defaults to a USB Serial. Refer to page 2-1 for other USB terminal settings.

For additional USB programming and technical information, refer to Honeywell "USB Application Note," available at www.honeywell.com/aidc.

Aligning the Document Reader Tray

Proper cable placement is important for accurate alignment of the device. Place the cable in the wire channel if the imager will remain in the base most of the time. If you plan to frequently lift out the imager to scan items, then set the cable in the location where it will rest while the imager is in the stand.

Note: The 4850dr will not capture any images until it has been properly aligned using the following procedure.

1. Loosen the screw in the base tray with a coin.

2. Place the alignment page on the tray. Align the upper left corner of the alignment page to the upper left corner of the tray.

3. Make sure the serial number on the alignment page matches the serial number on your document reader.

4850dr s/n ⟶ 07150A181D
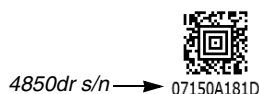
4. Press the button on the imager to display the illuminated aimer crosshairs. You will hear a single beep that indicates you are using the correct page.
    (If you hear an error razz and the aimer turns off, then you have the wrong alignment page for your document reader.)

5. Move the tray until the illuminated aimer crosshairs line up with the printed crosshairs on the alignment page. (Be sure to wait until the crosshairs go off before removing power or attempting to capture an image.)

6. Remove the alignment page and tighten the screw. Save the alignment page in the event that the tray needs to be realigned in the future.

Note: If you need to print a new copy of the alignment page, make sure to print the page in landscape mode.

Reading Techniques

The document reader has a view finder that projects a bright aimer that corresponds to the document reader's horizontal field of view. The bar code should be centered under the aiming crosshairs, but can be positioned in any direction for a good read.

**Linear bar codes
with aiming pattern**

**2D Matrix symbol
with aiming pattern**

The aimer is smaller when the bar code is closer to the document reader and larger when it is farther away. 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 bar code at an appropriate distance from the document reader, press the trigger, and center the aimer on the symbol. If the code being scanned is highly reflective (e.g., laminated), it may be necessary to tilt the code $\pm5°$ to prevent unwanted reflection.

Using the Scanner Out of the Stand

If you remove the scanner from the stand to read bar codes, you should hold it closer to the bar code. The optimum read range is 9 to 11 inches (22.86 to 27.94cm). Since this is primarily a document imager and works like a camera, you must hold the scanner steady when scanning bar codes out of the stand.

Resetting the Defaults

If you want the factory default settings restored to your device, scan the **Activate Custom Defaults** bar code below. This is the recommended default bar code for most users. It resets the device to the custom default settings. If there are no custom defaults, it will reset the device to the factory default settings.

DEFALT.

Activate Custom Defaults

2

Programming the Interface

Introduction

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

Programming the Interface - Plug and Play

Plug and Play bar codes provide instant 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.

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 bar code 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	Code 39	00 0A 0B

USB PC Keyboard

Scan the following code to program the scanner for a USB PC Keyboard with a CR suffix.

PAP124.

USB Keyboard (PC)

USB HID

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

PAP131.

USB HID Bar Code 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 (www.honeywellaidc.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 use a class driver.

TERMID130.
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

Remote MasterMind™ for USB

When using a USB interface, you may wish to configure your scanner to communicate with Remote MasterMind Scanner Management Software (ReM). Scan the **ReM On** bar code to communicate with ReM. To disable this capability, scan **ReM Off**. *Default = ReM On.*

REMIFC0.
ReM Off

REMIFC1.
* ReM On

Wincor Nixdorf Beetle™ Terminal Default Settings

Scan the following Plug and Play code to program the scanner for a Wincor Nixdorf Beetle terminal. The following prefixes are programmed for each symbology:

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

PAPBTL.

Wincor Nixdorf Beetle Settings

Keyboard Country Layout

Scan the appropriate country code below to program the keyboard layout for your country or language. As a general rule, the following characters are supported, but need special care for countries other than the United States:
@ | $ # { } [ ] = / ' \ < > ~

Keyboard Countries

KBDCTY0.
* United States

KBDCTY35.
Albania

KBDCTY81.
Azeri (Cyrillic)

KBDCTY80.
Azeri (Latin)

KBDCTY82.
Belarus

KBDCTY1.
Belgium

Keyboard Countries (Continued)

KBDCTY33.
Bosnia

KBDCTY16.
Brazil

KBDCTY59.
Brazil (MS)

KBDCTY52.
Bulgaria (Cyrillic)

KBDCTY53.
Bulgaria (Latin)

KBDCTY54.
Canada (French legacy)

KBDCTY18.
Canada (French)

KBDCTY55.
Canada (Multilingual)

KBDCTY32.
Croatia

KBDCTY15.
Czech

KBDCTY40.
Czech (Programmers)

IIIII III III | |||||| || IIII
KBDCTY39.
Czech (QWERTY)

IIIII III III | |||||| || IIII
KBDCTY38.
Czech (QWERTZ)

III III | |||||| || IIII
KBDCTY8.
Denmark

IIIII III III | |||||| || IIII
KBDCTY11.
Dutch (Netherlands)

III III | |||||| || IIII
KBDCTY41.
Estonia

IIIII III III | |||||| || IIII
KBDCTY83.
Faroese

III III | |||||| || IIII
KBDCTY2.
Finland

IIIII III III | |||||| || IIII
KBDCTY3.
France

III III | |||||| || IIII
KBDCTY84.
Gaelic

IIIII III III | |||||| || IIII
KBDCTY4.
Germany

III III | |||||| || IIII
KBDCTY17.
Greek

Keyboard Countries (Continued)

‖‖‖‖‖‖‖‖‖‖‖
KBDCTY64.
Greek (220 Latin)

‖‖‖‖‖‖‖‖‖‖‖
KBDCTY61.
Greek (220)

‖‖‖‖‖‖‖‖‖‖‖
KBDCTY65.
Greek (319 Latin)

‖‖‖‖‖‖‖‖‖‖‖
KBDCTY62.
Greek (319)

‖‖‖‖‖‖‖‖‖‖‖
KBDCTY63.
Greek (Latin)

‖‖‖‖‖‖‖‖‖‖‖
KBDCTY66.
Greek (MS)

‖‖‖‖‖‖‖‖‖‖‖
KBDCTY60.
Greek (Polytonic)

‖‖‖‖‖‖‖‖‖‖‖
KBDCTY12.
Hebrew

‖‖‖‖‖‖‖‖‖‖‖
KBDCTY50.
Hungarian (101 key)

‖‖‖‖‖‖‖‖‖‖‖
KBDCTY19.
Hungary

‖‖‖‖‖‖‖‖‖‖‖
KBDCTY75.
Iceland

Keyboard Countries (Continued)

‖‖‖‖‖‖‖‖‖‖‖‖
KBDCTY73.
Irish

‖‖‖‖‖‖‖‖‖‖‖‖
KBDCTY56.
Italian (142)

‖‖‖‖‖‖‖‖‖‖‖‖
KBDCTY5.
Italy

‖‖‖‖‖‖‖‖‖‖‖‖
KBDCTY28.
Japan ASCII

‖‖‖‖‖‖‖‖‖‖‖‖
KBDCTY78.
Kazakh

‖‖‖‖‖‖‖‖‖‖‖‖
KBDCTY79.
Kyrgyz (Cyrillic)

‖‖‖‖‖‖‖‖‖‖‖‖
KBDCTY14.
Latin America

‖‖‖‖‖‖‖‖‖‖‖‖
KBDCTY42.
Latvia

‖‖‖‖‖‖‖‖‖‖‖‖
KBDCTY43.
Latvia (QWERTY)

‖‖‖‖‖‖‖‖‖‖‖‖
KBDCTY44.
Lithuania

‖‖‖‖‖‖‖‖‖‖‖‖
KBDCTY45.
Lithuania (IBM)

Keyboard Countries (Continued)

```
KBDCTY34.
```
Macedonia

```
KBDCTY74.
```
Malta

```
KBDCTY86.
```
Mongolian (Cyrillic)

```
KBDCTY9.
```
Norway

```
KBDCTY20.
```
Poland

```
KBDCTY57.
```
Polish (214)

```
KBDCTY58.
```
Polish (Programmers)

```
KBDCTY13.
```
Portugal

```
KBDCTY25.
```
Romania

```
KBDCTY26.
```
Russia

```
KBDCTY67.
```
Russian (MS)

Keyboard Countries (Continued)

KBDCTY68.
Russian (Typewriter)

KBDCTY21.
SCS

KBDCTY37.
Serbia (Cyrillic)

KBDCTY36.
Serbia (Latin)

KBDCTY22.
Slovakia

KBDCTY49.
Slovakia (QWERTY)

KBDCTY48.
Slovakia (QWERTZ)

KBDCTY31.
Slovenia

KBDCTY10.
Spain

KBDCTY51.
Spanish variation

KBDCTY23.
Sweden

Keyboard Countries (Continued)

```
KBDCTY29.
```
Switzerland (French)

```
KBDCTY6.
```
Switzerland (German)

```
KBDCTY85.
```
Tatar

```
KBDCTY27.
```
Turkey F

```
KBDCTY24.
```
Turkey Q

```
KBDCTY76.
```
Ukrainian

```
KBDCTY7.
```
United Kingdom

```
KBDCTY87.
```
United States (Dvorak)

```
KBDCTY88.
```
United States (Dvorak left)

```
KBDCTY89.
```
United Stated (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).

KBDSTY2.
Shift Lock

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).

KBDSTY6.
Automatic Caps Lock

Autocaps via NumLock bar code 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.

KBDSTY7.
Autocaps via NumLock

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

KBDSTY5.
Emulate External Keyboard

Note: After scanning the Emulate External Keyboard bar code, 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 bar code: "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. *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 A-3. Only codes 00 through 1F are converted (the first column of the chart).

Note: Control + X (Control + ASCII) Mode overrides this mode.

Default = Off.

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 + X (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 Keyboard Function Relationships, page 7-1 for CTRL+ X 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 + X 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.*

```
||| ||||| ||| ||||| ||||| ||| ||||
KBDADC1.
```
**Automatic Direct Connect Mode
On**

![KBDADC0. barcode]

KBDADC0.

*** Automatic Direct Connect
Mode Off**

3

Input/Output Settings

3 - 1

Power Up Beeper

The scanner can be programmed to beep when it's powered up. Scan the **Off** bar code(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** bar code 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** bar code 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.*

BEPTRG0.
*Trigger Click Off

BEPTRG1.
Trigger Click On

3 - 1

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.*

BEPBEP0.
Beeper - Good Read Off

BEPBEP1.
* 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.*

BEPLVL1.
Low

BEPLVL2.
Medium

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)

BEPFQ12700.
*** Medium
(2700 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

LED – Indicator State

The LED indicator can be programmed to have an idle state of either Off or On, with a good read blink in the opposite state. When programmed to **LED Indicator Off**, the LED indicator is Off in its idle state. It blinks On for a good read, then returns to its idle Off state. When programmed to **LED Indicator On**, the LED indicator is On in its idle state. It blinks Off for a good read, then returns to its idle On state. (LED Indicator On can also be used as a power on indicator.) *Default = LED Indicator Off.*

BEPPOI0.

* LED Indicator Off

BEPPOI1.

LED Indicator On

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 bar code below and then scan a digit (1-9) bar code and the **Save** bar code on the Programming Chart inside the back cover of this manual. *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 bar code below and then scan a digit (1-9) bar code and the **Save** bar code on the Programming Chart inside the back cover of this manual. *Default = 1.*

BEPERR.

Number of Error Beeps/LED Flashes

Beeper Volume Max

Scan the following bar code to set all error and good read beeps to the maximum volume. This feature also sets the Beeper Pitch – Good Read to the highest level.

PAPBLM.

Beeper Volume Max

Good Read Delay

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

DLYGRD0.
* No Delay

DLYGRD500.
Short Delay (500 ms)

DLYGRD1000.
Medium Delay (1,000 ms)

DLYGRD1500.
Long Delay (1,500 ms)

User-Specified Good Read Delay

If you want to set your own length for the good read 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**.

DLYGRD.
User-Specified Good Read Delay

Manual Trigger Modes

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

Serial Trigger Mode

You can activate the scanner either by pressing the trigger, or using a serial trigger command (see Trigger Commands on page 9-3). When in serial mode, the scanner scans until a bar code 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** bar code, set the time-out duration (from 0-300,000 milliseconds) by scanning digits on the Programming Chart inside the back cover, then scanning **Save**. *Default = 30,000 ms.*

TRGSTO.

Read Time-Out

Scan Stand Presentation Mode

Scan Stand Presentation Mode uses ambient light to detect bar codes. When in Scan Stand Presentation Mode, the LEDs turn on for 10 seconds and scan when a bar code is detected. The LEDs remain off when no bar code is detected. If the light level in the room is not high enough, Scan Stand Presentation Mode may not work properly. Scan the following bar code to program your scanner for Scan Stand Presentation Mode.

TRGMOD4.

Scan Stand Presentation Mode

Presentation LED Behavior after Decode

When a scanner is in presentation mode, the LEDs turn off 15 seconds after a bar code is decoded. If you wish to turn off the LEDs immediately after a bar code is decoded, scan the **LEDs Off** bar code, below. *Default = LEDs On.*

TRGPCK1.

* LEDs On

TRGPCK0.

LEDs Off

Presentation Sensitivity

Presentation Sensitivity is a numeric range that increases or decreases the scanner'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 (page 3-11).

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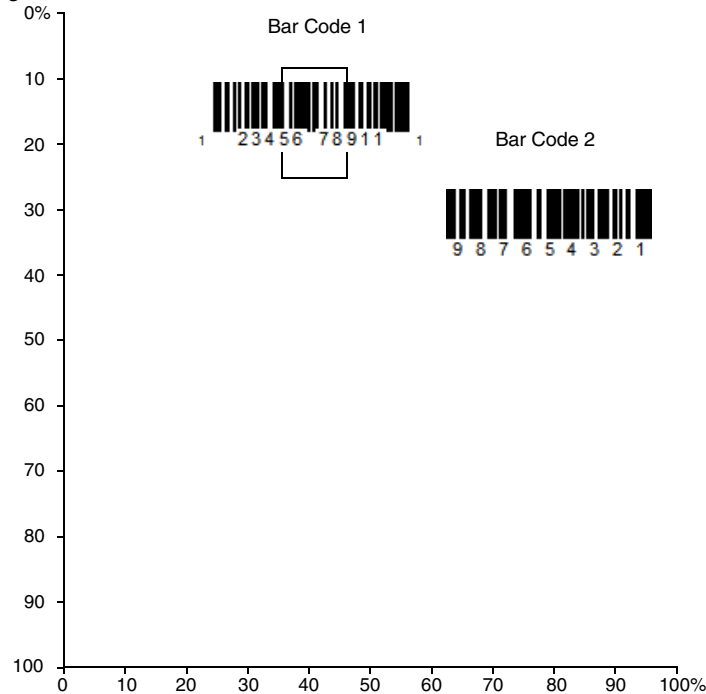
Note: A bar code needs only to be touched by the centering window in order to be read. It does not need to pass completely through the centering window.

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.*

PDCWIN1.
Presentation Centering On

PDCWIN0.
* Presentation Centering Off

PDCTOP.
Top of Presentation Centering Window

PDCBOT.
Bottom of Presentation Centering Window

**Left of
Presentation Centering
Window**

**Right of Presentation Centering
Window**

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 bar codes, but the bar code data is not transmitted until the trigger is pressed. When CodeGate is **Off**, bar code data is transmitted when it is decoded. *Default = CodeGate Off Out-of-Stand.*

*** CodeGate Off
Out-of-Stand**

**CodeGate On
Out-of-Stand**

Hands Free Time-Out

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

Hands Free Time-Out

Reread Delay

This sets the time period before the scanner 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 Scan Stand Presentation Mode (see page 3-6). *Default = Long.*

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** 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 (page 3-10).

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 pressed 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 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. *Default = Interlaced.*

SCNAIM0.
Off

```
SCNAIM2.
```
* Interlaced

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 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, page 3-10, 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.)

Note: To adjust centering when the scanner is in the stand, see Presentation Centering (page 3-6).

If a bar code 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** 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.
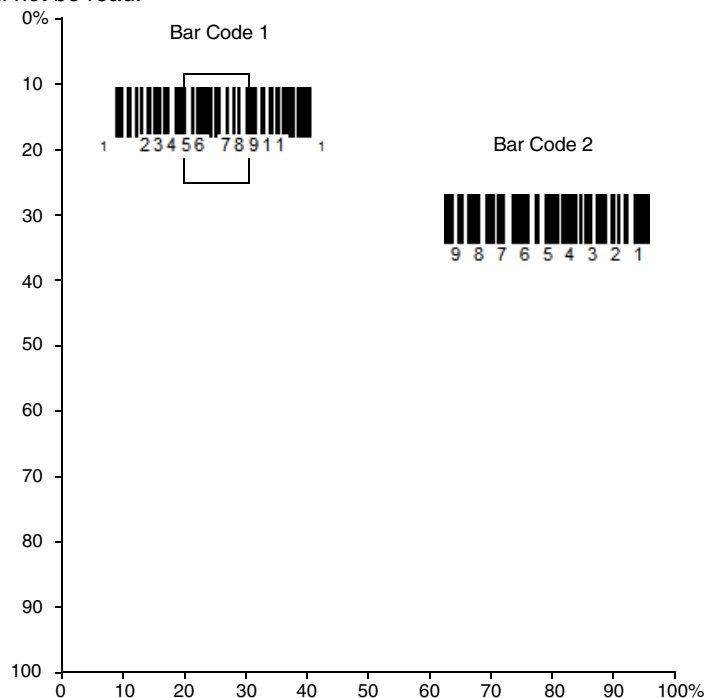
Note: A bar code needs only to be touched by the centering window in order to be read. It does not need to pass completely through the centering window.

Scan **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 Centering = 40% for Top and Left, 60% for Bottom and Right.

```
DECWIN1.
```
Centering On

||||||||||||||||||||||||
DECWIN0.
* Centering Off

||||||||||||||||||||||||
DECTOP.
Top of Centering Window

||||||||||||||||||||||||
DECBOT.
Bottom of Centering Window

||||||||||||||||||||||||
DECLFT.
Left of Centering Window

||||||||||||||||||||||||
DECRGT.
Right of Centering Window

Preferred Symbology

The scanner can be programmed to specify one symbology as a higher priority over other symbologies in situations where both bar code symbologies appear on the same label, but the lower priority symbology cannot be disabled.

For example, you may be using the scanner in a retail setting to read U.P.C. symbols, but have occasional need to read a code on a drivers license. Since some licenses have a Code 39 symbol as well as the PDF417 symbol, you can use Preferred Symbology to specify that the PDF417 symbol be read instead of the Code 39.

Preferred Symbology classifies each symbology as **high priority**, **low priority**, or as an **unspecified type**. When a low priority symbology is presented, the scanner ignores it for a set period of time (see Preferred Symbology Time-out on page 3-13) while it searches for the high priority symbology. If a high priority symbology is located during this period, then that data is read immediately.

If the time-out period expires before a high priority symbology is read, the scanner will read any bar code in its view (low priority or unspecified). If there is no bar code in the scanner's view after the time-out period expires, then no data is reported.

Note: A low priority symbol must be centered on the aiming pattern to be read.

Scan a bar code below to enable or disable Preferred Symbology.   *Default = Preferred Symbology Off.*

||||||||||||||||||||||||
PRFENA1.
Preferred Symbology On

||||||||||||||||||||||||
PRFENA0.
* Preferred Symbology Off

High Priority Symbology

To specify the high priority symbology, scan the High Priority Symbology bar code below. On the Symbology Charts on page A-1, find the symbology you want to set as high priority. Locate the Hex value for that symbology and scan the 2 digit hex value from the Programming Chart (inside back cover). Scan **Save** to save your selection. *Default = None*

PRFCOD.

High Priority Symbology

Low Priority Symbology

To specify the low priority symbology, scan the Low Priority Symbology bar code below. On the Symbology Charts on page A-1, find the symbology you want to set as low priority. Locate the Hex value for that symbology and scan the 2 digit hex value from the Programming Chart (inside back cover).

If you want to set additional low priority symbologies, scan **FF**, then scan the 2 digit hex value from the Programming Chart for the next symbology. You can program up to 5 low priority symbologies. Scan **Save** to save your selection. *Default = None*.

PRFBLK.

Low Priority Symbology

Preferred Symbology Time-out

Once you have enabled Preferred Symbology and entered the high and low priority symbologies, you must set the time-out period. This is the period of time the scanner will search for a high priority bar code after a low priority bar code has been encountered. Scan the bar code below, then set the delay (from 1-3,000 milliseconds) by scanning digits from the inside back cover, then scanning **Save**. *Default = 500 ms.*

PRFPTO.

Preferred Symbology Time-out

Preferred Symbology Default

Scan the bar code below to set all Preferred Symbology entries to their default values.

PRFDFT.

Preferred Symbology Default

Output Sequence Overview

Output Sequence Editor

This programming selection allows you to program the scanner 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 scanner 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 down while reading each bar code in the sequence.

To Add an Output Sequence

1. Scan the *Enter Sequence* symbol (see).

2. **Code I.D.**
    On the Symbology Charts on page A-1, 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 (Code Page 1252), page A-3, 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 *F F* 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 93, 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

The breakdown of the command line is shown below:

SEQBLK sequence editor start command

62	code identifier for **Code 39**
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 **Code 128**
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 **Code 93**
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 on , but assume a <CR> suffix and specific code lengths, you would use the following command line:

SEQBLK62001241FF6A001342FF69001243FF

The breakdown of the command line is shown below:

SEQBLKsequence editor start command

62	code identifier for **Code 39**
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 **Code 128**
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 **Code 93**
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

SEQBLK.
Enter Sequence

SEQDFT.
Default Sequence

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.)

SEQTTS1.
Transmit Partial Sequence

||||| SEQTTS0.
* Discard Partial Sequence

Require Output Sequence

When an output sequence is **Required**, all output data must conform to an edited sequence or the scanner will not transmit the output data to the host device. When it's **On/Not Required**, the scanner will attempt to get the output data to conform to an edited sequence but, if it cannot, the scanner 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 scanner decodes it. *Default = Off.*

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

||||| SEQ_EN2.
Required

||||| SEQ_EN1.
On/Not Required

||||| SEQ_EN0.
*Off

Multiple Symbols

When this programming selection is turned **On**, it allows you to read multiple symbols with a single press 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 pressed. When this programming selection is turned **Off**, the scanner will only read the symbol closest to the aiming beam. *Default = Off.*

||||| SHOTGN1.
On

||||| SHOTGN0.
* Off

No Read

With No Read turned **On**, the scanner notifies you if a code cannot be read. If using an EZConfig-Scanning Tool Scan Data Window (see page 8-3), an "NR" appears when a code cannot be read. If No Read is turned **Off**, the "NR" will not appear. *Default = Off.*

||||| SHWNRD1.
On

SHWNRD0.

* Off

If you want a different notation than "NR," for example, "Error," or "Bad Code," you can edit the output message (see Data Formatting beginning on page 5-1). The hex code for the No Read symbol is 9C.

Video Reverse

Video Reverse is used to allow the scanner 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 Stan-dard 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.

VIDREV1.

Video Reverse Only

VIDREV2

Video Reverse and Standard Bar Codes

VIDREV0.

* Video Reverse Off

Working Orientation

Some bar codes 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:

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

Upside Down:

Vertical, Bottom to Top:
(Rotate CCW 90°)
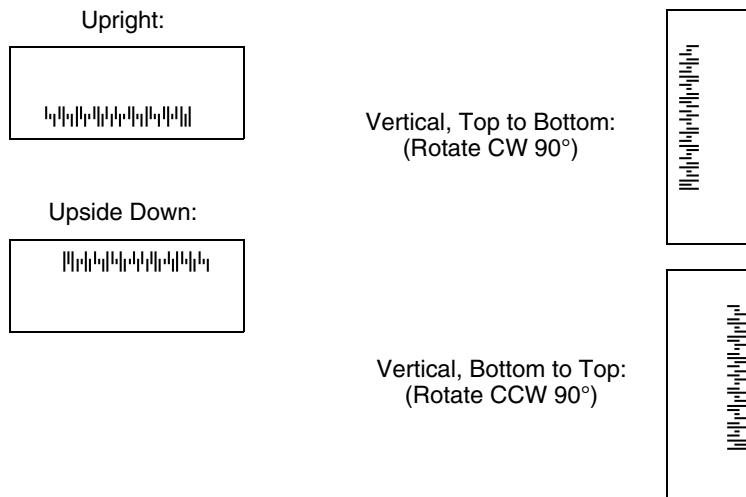
ROTATN0.
* Upright

ROTATN1.
Vertical, Bottom to Top

ROTATN2.
Upside Down

ROTATN3.
Vertical, Top to Bottom

4

Data Editing

Prefix/Suffix Overview

When a bar code is scanned, additional information is sent to the host computer along with the bar code data. This group of bar code 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:

Prefix	Scanned Data	Suffix
1-11 alpha numeric & control characters	variable length	1-11 alpha numeric & control characters
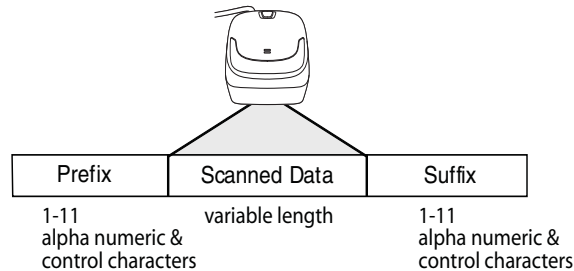
Points to Keep In Mind

- 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), beginning on page A-3, 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 4-2).

Step 2. Determine the 2 digit Hex value from the Symbology Chart (included in the Symbology Charts, beginning on page A-1) 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 inside the back cover of this manual or scan **9**, **9** for all symbologies.

Step 4. Determine the hex value from the ASCII Conversion Chart (Code Page 1252), beginning on page A-3, for the prefix or suffix you wish to enter.

Step 5. Scan the 2 digit hex value from the Programming Chart inside the back cover of this manual.

Step 6. Repeat Steps 4 and 5 for every prefix or suffix character.

Step 7. To add the Code I.D., scan **5**, **C**, **8**, **0**.
To add AIM I.D., scan **5**, **C**, **8**, **1**.
To add a backslash (\), scan **5**, **C**, **5**, **C**.

Note: To add a backslash (\) as in Step 7, you must scan 5C twice – once to create the leading backslash and then to create the backslash itself.

Step 8. Scan **Save** to exit and save, or scan **Discard** to exit without saving.

Repeat Steps 1-6 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 inside the back cover of this manual to apply this suffix to all symbologies.

Step 3. Scan **0**, **9** from the Programming Chart inside the back cover of this manual. This corresponds with the hex value for a horizontal tab, shown in the ASCII Conversion Chart (Code Page 1252), beginning on page A-3.

Step 4. Scan **Save**, or scan **Discard** to exit without saving.

To 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 Chart (included in the Symbology Charts, beginning on page A-1) 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 inside the back cover of this manual or scan **9**, **9** for all symbologies.

Your change is automatically saved.

To Add a Carriage Return Suffix to All Symbologies

Scan the following bar code 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.

VSUFCR.
Add CR Suffix
All Symbologies

Prefix Selections

PREBK2.
Add Prefix

PRECL2.
Clear One Prefix

PRECA2.
Clear All Prefixes

Suffix Selections

SUFBK2.
Add Suffix

SUFCA2.
Clear All Suffixes

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 Supported Interface Keys starting on page 7-3. When the scanner is in keyboard wedge mode, the scan code is converted to a key code before it is transmitted. *Default = Enable.*

RMVFNC0.
* Enable

RMVFNC1.
Disable

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** bar code below, then scan the number of 5ms delays, and the **Save** bar code using the Programming Chart inside the back cover of this manual.

Prefix	Scanned Data	Suffix

1 2 3 4 5
Intercharacter Delay

DLYCHR.
Intercharacter Delay
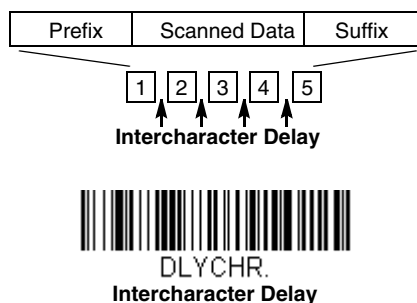
To remove this delay, scan the **Intercharacter Delay** bar code, then set the number of delays to 0. Scan the **Save** bar code using the Programming Chart inside the back cover of this manual.

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** bar code below, then scan the number of 5ms delays, and the **Save** bar code using the Programming Chart inside the back cover of this manual.

Next, scan the **Character to Trigger Delay** bar code, then the 2-digit hex value for the ASCII character that will trigger the delay ASCII Conversion Chart (Code Page 1252), beginning on page A-3.

Delay Length

Character to Trigger Delay

To remove this delay, scan the **Delay Length** bar code, and set the number of delays to 0. Scan the **Save** bar code using the Programming Chart inside the back cover of this manual.

Interfunction Delay

An interfunction delay of up to 5000 milliseconds (in 5ms increments) may be placed between the transmission of each control character in the message string. Scan the **Interfunction Delay** bar code below, then scan the number of 5ms delays, and the **Save** bar code using the Programming Chart inside the back cover of this manual.

Interfunction Delays

Interfunction Delay
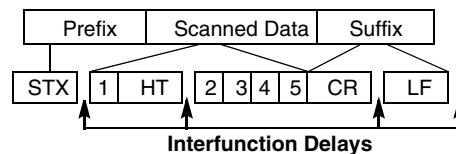
To remove this delay, scan the **Interfunction Delay** bar code, then set the number of delays to 0. Scan the **Save** bar code using the Programming Chart inside the back cover of this manual.

Intermessage Delay

An intermessage delay of up to 5000 milliseconds (in 5ms increments) may be placed between each scan transmission. Scan the **Intermessage Delay** bar code below, then scan the number of 5ms delays, and the **Save** bar code using the Programming Chart inside the back cover of this manual.

1st Scan Transmission   2nd Scan Transmission
Intermessage Delay

Intermessage Delay
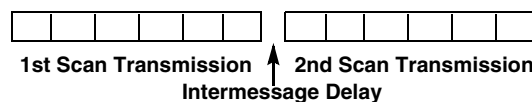
To remove this delay, scan the **Intermessage Delay** bar code, then set the number of delays to 0. Scan the **Save** bar code using the Programming Chart inside the back cover of this manual.

5

Data Formatting

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 bar code 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 bar code, it is output automatically. However, when you create a format, you must use a "send" command (see Send Commands on page 5-3) 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 a bar code is read that fails the first data format, the next data format, if there is one, will be used on the bar code data. If there is no other data format, the raw data is output.

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

Add a Data Format

Step 1. Scan the **Enter Data Format** symbol (page 5-2).

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 inside the back cover of this manual. 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" on page 5-12 for further information.)

Step 3. Terminal Type
Refer to Terminal ID Table (page 5-3) and locate the Terminal ID number for your PC. Scan three numeric bar codes on the inside back cover to program the scanner for your terminal ID (you must enter 3 digits). For example, scan **0 0 3** for an AT wedge.

Note: 099 indicates all terminal types.

Step 4. Code I.D.
In the Symbology Charts, beginning on page A-1, 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 inside the back cover of this manual.

Note: 99 indicates all symbologies.

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 inside the back cover of this manual. For example, 50 characters is entered as 0050.

Note: 9999 indicates all lengths.

Step 6. Editor Commands

Refer to Data Format Editor Commands (page 5-3). Scan the symbols that represent the command you want to enter. 94 alphanumeric characters may be entered for each symbology data format.

Step 7. Scan **Save** to save your data format, or **Discard** to exit without saving your changes.

DFMBK3.
Enter Data Format

MNUSAV.
Save

MNUABT.
Discard

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 inside the back cover of this manual. 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 on page A-1), and the bar code 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.

DFMCL3.
Clear One Data Format

DFMCA3.
Clear All Data Formats

MNUSAV.
Save

MNUABT.
Discard

Terminal ID Table

Terminal	Model(s)	Terminal ID
USB	PC keyboard (HID)	124
	PC Keyboard (Japanese)	134
	Serial (COM driver required)	130
	HID POS	131
	USB SurePOS Handheld	128
	USB SurePOS Tabletop	129

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), beginning on page A-3 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 A-3 for decimal, hex and character codes.

F2 Example: Send a number of characters

1234567890ABCDEFGHIJ

Send the first 10 characters from the bar code 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 bar code 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), beginning on page A-3 for decimal, hex and character codes.

F3 Example: Send all characters up to a particular character

1234567890ABCDEFGHIJ

Using the bar code 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 A-3 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 bar code 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>**

Insert symbology name

B3 Insert the name of the bar code's symbology in the output message, without moving the cursor. Only symbologies with a Honeywell ID are included (see Symbology Charts on page A-1). Refer to the ASCII Conversion Chart (Code Page 1252), beginning on page A-3 for decimal, hex and character codes.

Insert bar code length

B4 Insert the bar code's length in the output message, without moving the cursor. The length is expressed as a numeric string and does not include leading zeroes.

B3 and B4 Example: Insert the symbology name and length

1234567890ABCDEFGHIJ

Send the symbology name and length before the bar code data from the bar code above. Break up these insertions with spaces. End with a carriage return.

Command string: **B3F42001B4F42001F10D**

B3 is the "Insert symbology name" command

F4 is the "Insert a character multiple times" command

20 is the hex value for a space

01 is the number of times the space character is sent

B4 is the "Insert bar code length" command

F4 is the "Insert a character multiple times" command

20 is the hex value for a space

01 is the number of times the space character is sent

F1 is the "Send all characters" command

0D is the hex value for a CR

The data is output as:
Code128 20 1234567890ABCDEFGHIJ
<CR>

Insert key strokes

B5 Insert a key stroke or combination of key strokes. Key strokes are dependent on your keyboard (see Unicode Key Maps on page A-10). Any key can be inserted, including arrows and functions. *Syntax = B5xxssnn* where xx is the number of keys pressed (without key modifiers), ss is the key modifier from the table below, and nn is the key number from the Unicode Key Maps, page A-10.

Key Modifiers	
No Key Modifier	00
Shift Left	01
Shift Right	02
Alt Left	04
Alt Right	08
Control Left	10
Control Right	20

For example, B501021F inserts an "A" on a 104 key, U.S. style keyboard. B5 = the command, 01 = number of keys pressed (without the key modifier), 02 is the key modifier for Shift Right, and 1F is the "a" key. If a lower case "a" were to be inserted, B501001F would be entered.

If there are three keystrokes, the syntax would change from B5xxssnn for one keystroke to B5xxssnnssnnssnn. An example that would insert "abc" is as follows: B503001F00320030F833.

Note: Key modifiers can be added together when needed. Example: Control Left+Shift Left = 11.

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

1234567890ABCDEFGHIJ

Move the cursor forward 3 characters, then send the rest of the bar code data from the bar code 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 bar codes that begin with a 1

1234567890ABCDEFGHIJ

Search for bar codes that begin with a 1. If a bar code matches, move the cursor back to the beginning of the data and send 6 characters followed by a carriage return. Using the bar code 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 A-3 for decimal, hex and character codes.

F8 Example: Send bar code data that starts after a particular character

1234567890ABCDEFGHIJ

Search for the letter "D" in bar codes and send all the data that follows, including the "D." Using the bar code 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 A-3 for decimal, hex and character codes.

Search forward for a string

B0   Search forward for "s" string from the current cursor position, leaving cursor pointing to "s" string. Syntax = B0nnnnS where nnnn is the string length (up to 9999), and S consists of the ASCII hex value of each character in the match string. For example, B0000454657374 will search forward for the first occurrence of the 4 character string "Test."
Refer to the ASCII Conversion Chart (Code Page 1252), beginning on page A-3 for decimal, hex and character codes.

B0 Example: Send bar code data that starts after a string of characters

1234567890ABCDEFGHIJ

Search for the letters "FGH" in bar codes and send all the data that follows, including "FGH." Using the bar code above:

Command string: **B00003464748F10D**

B0 is the "Search forward for a string" command

0003 is the string length (3 characters)

46 is the hex value for "F"

47 is the hex value for "G"

48 is the hex value for "H"

F1 is the "Send all characters" command

0D is the hex value for a CR

The data is output as:
FGHIJ
<CR>

Search backward for a string

B1   Search backward for "s" string from the current cursor position, leaving cursor pointing to "s" string. Syntax = B1nnnnS where nnnn is the string length (up to 9999), and S consists of the ASCII hex value of each character in the match string. For example, B1000454657374 will search backward for the first occurrence of the 4 character string "Test."
Refer to the ASCII Conversion Chart (Code Page 1252), beginning on page A-3 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 A-3 for decimal, hex and character codes.

E6 Example: Remove zeroes at the beginning of bar code data

J00037692

This example shows a bar code 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 bar code 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 A-3 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 bar code data

345 678 90

This example shows a bar code that has spaces in the data. You may want to remove the spaces before sending the data. Using the bar code 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 = E4nnxx$_1$xx$_2$yy$_1$yy$_2$...zz$_1$zz$_2$* where nn is the total count of the number of characters in the list (characters to be replaced plus replacement characters); xx$_1$ defines characters to be replaced and xx$_2$ defines replacement characters, continuing through zz$_1$ and zz$_2$.

E4 Example: Replace zeroes with CRs in bar code data

1234056780ABC

If the bar code 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 bar code 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 A-3 for decimal, hex and character codes.

Compare string

B2 Compare the string in the input message to the string "s." If the strings are equal, move the cursor forward past the end of the string. Syntax = B2nnnnS where nnnn is the string length (up to 9999), and S consists of the ASCII hex value of each character in the match string. For example, B2000454657374 will compare the string at the current cursor position with the 4 character string "Test."
Refer to the ASCII Conversion Chart (Code Page 1252), beginning on page A-3 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 bar code begins with a number

If you want only data from bar codes 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 bar code 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 bar code 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 bar code begins with a letter

If you want only data from bar codes 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 bar code 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 bar code 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.a

Data Formatter

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

Data Formatter Off

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 Formatter On, Not Required, Drop Prefix/Suffix
Scanned data is modified according to your data format. If a data format is found for a particular symbol, those prefixes and suffixes are not transmitted. If a data format is *not* found for that symbol, the 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 bar code is not transmitted. If you wish to process this type of bar code without generating an error tone, see Data Format Non-Match Error Tone.

Data Format Required, Drop Prefix/Suffix
Scanned data is modified according to your data format. If a data format is found for a particular symbol, those prefixes and suffixes are not transmitted. Any data that does not match your data format requirements generates an error tone. If you wish to process this type of bar code without generating an error tone, see Data Format Non-Match Error Tone.

Choose one of the following options. *Default = Data Formatter On, Not Required, Keep Prefix/Suffix.*

DFM_EN1.
*** Data Formatter On,
Not Required,
Keep Prefix/Suffix**

DFM_EN3.
**Data Formatter On,
Not Required,
Drop Prefix/Suffix**

DFM_EN2.
**Data Format Required,
Keep Prefix/Suffix**

DFM_EN4.
**Data Format Required,
Drop Prefix/Suffix**

Data Format Non-Match Error Tone

When a bar code is encountered that doesn't match your required data format, the scanner normally generates an error tone. However, you may want to continue scanning bar codes without hearing the error tone. If you scan the **Data Format Non-Match Error Tone Off** bar code, data that doesn't conform to your data format is not transmitted, and no error tone will sound. If you wish to hear the error tone when a non-matching bar code is found, scan the **Data Format Non-Match Error Tone On** bar code. *Default = Data Format Non-Match Error Tone On*.

DFMDEC0.
*** Data Format Non-Match Error
Tone On**

DFMDEC1.
**Data Format Non-Match
Error Tone Off**

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 bar codes below.

ALTFNM0.

Primary Data Format

ALTFNM1.

Data Format 1

ALTFNM2.

Data Format 2

ALTFNM3.

Data Format 3

Single Scan Data Format Change

You can also switch between data formats for a single scan. The next bar code is scanned using an alternate data format, then reverts to the format you have selected above (either Primary, 1, 2, or 3).

For example, you may have set your device to the data format you saved as Data Format 3. You can switch to Data Format 1 for a single trigger press by scanning the **Single Scan-Data Format 1** bar code below. The next bar code that is scanned uses Data Format 1, then reverts back to Data Format 3.

VSAF_0.

**Single Scan-Primary
Data Format**

VSAF_1.

Single Scan-Data Format 1

VSAF_2.

Single Scan-Data Format 2

VSAF_3.

Single Scan-Data Format 3

6

Symbologies

This programming section contains the following menu selections. Refer to Chapter 9 for settings and defaults.

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 sym-bology. *Default = All Symbologies Off.*

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.   If the data length of the scanned bar code doesn't match the valid reading length, the scanner will issue an error tone. 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 misread.

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>

CBRDFT.

Codabar On/Off

CBRENA1.
* On

CBRENA0.
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.*

CBRSSX1.
Transmit

CBRSSX0.
* 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.

CBRCK20.
* No Check Character

CBRCK21.
Validate Modulo 16, but Don't Transmit

CBRCK22.
Validate Modulo 16 and Transmit

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.

A 1 2 3 4 D   D 5 6 7 8 A

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.

CBRCCT1.
On

CBRCCT0.
* Off

CBRCCT2.
Require

Codabar Message Length

Scan the bar codes below to change the message length. Refer to Message Length Description (page 6-1) 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

```
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 bar code. 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 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 (page 6-1) 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 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 (page 6-33) 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.

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 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 on page A-8), 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

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 (page 6-1) for additional information. Minimum and Maximum lengths = 2-80. Minimum Default = 4, Maximum Default = 80.

I25MIN.
Minimum Message Length

|||| |||||||||| ||| |||||||| ||||
I25MAX.
Maximum Message Length

NEC 2 of 5

< Default All NEC 2 of 5 Settings >

|||| |||||||||| ||| |||||||| ||||
N25DFT.

NEC 2 of 5 On/Off

|||| |||||||||| ||| |||||||| ||||
N25ENA1.
* On

|||| |||||||||| ||| |||||||| ||||
N25ENA0.
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.*

|||| |||||||||| ||| |||||||| ||||
N25CK20.
* No Check Digit

|||| |||||||||| ||| |||||||| ||||
N25CK21.
Validate, but Don't Transmit

|||| |||||||||| ||| |||||||| ||||
N25CK22.
Validate and Transmit

NEC 2 of 5 Message Length

Scan the bar codes below to change the message length. Refer to Message Length Description (page 6-1) 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 bar codes below to change the message length. Refer to Message Length Description (page 6-1) 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 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 on page A-8), 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)

<Default All Straight 2 of 5 Industrial Settings>

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 (page 6-1) 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 IATA (two-bar start/stop)

<Default All Straight 2 of 5 IATA Settings>

A25DFT.

Straight 2 of 5 IATA On/Off

A25ENA1.
On

A25ENA0.
* Off

Straight 2 of 5 IATA Message Length

Scan the bar codes below to change the message length. Refer to Message Length Description (page 6-1) for additional information. Minimum and Maximum lengths = 1-48. Minimum Default = 4, Maximum Default = 48.

A25MIN.
Minimum Message Length

A25MAX.
Maximum Message Length

Matrix 2 of 5

<Default All Matrix 2 of 5 Settings>

||| ||| ||||| ||| ||| ||| |||
X25DFT.

Matrix 2 of 5 On/Off

||| |||||||| ||| ||| |||||| ||| ||
X25ENA1.
On

||| |||| ||||| ||| |||| ||| |||||
X25ENA0.
* Off

Matrix 2 of 5 Message Length

Scan the bar codes below to change the message length. Refer to Message Length Description (page 6-1) for additional information. Minimum and Maximum lengths = 1-80. Minimum Default = 4, Maximum Default = 80.

||| |||||||| ||| |||| ||| |||
X25MIN.
Minimum Message Length

||| ||| ||||| ||| |||| ||| |||
X25MAX.
Maximum Message Length

Code 11

<Default All Code 11 Settings>

||| ||| ||||||| ||| || |||||| || ||||
C11DFT.

Code 11 On/Off

||| ||| |||||| ||||||||| ||| ||||
C11ENA1.
On

||| ||| |||||||||| ||| |||||||| |||||
C11ENA0.
* Off

Check Digits Required

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

||| || |||||| |||| |||||| || |||| ||||
C11CK20.
One Check Digit

||| ||| |||||| ||| |||||| ||| |||||
C11CK21.
* Two Check Digits

Code 11 Message Length

Scan the bar codes below to change the message length. Refer to Message Length Description (page 6-1) for additional information. Minimum and Maximum lengths = 1-80.   Minimum Default = 4, Maximum Default = 80.

||| ||| |||||| ||| ||| || |||| ||||
C11MIN.
Minimum Message Length

||| ||| |||||| ||| |||||| |||| |||
C11MAX.
Maximum Message Length

Code 128

<Default All Code 128 Settings>

‖‖‖‖‖‖‖‖‖‖‖
128DFT.

Code 128 On/Off

‖‖‖‖‖‖‖‖‖‖‖
128ENA1.
* On

‖‖‖‖‖‖‖‖‖‖‖
128ENA0.
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 bar codes on a blood product label. Use the bar codes below to turn concatenation on or off. *Default =Off.*

‖‖‖‖‖‖‖‖‖‖‖
ISBENA1.
On

‖‖‖‖‖‖‖‖‖‖‖
ISBENA0.
* Off

Code 128 Message Length

Scan the bar codes below to change the message length. Refer to Message Length Description (page 6-1) 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 on page A-8), 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

GS1-128

<Default All GS1-128 Settings>

```
GS1DFT.
```

GS1-128 On/Off

```
GS1ENA1.
```
* On

```
GS1ENA0.
```
Off

GS1-128 Message Length

Scan the bar codes below to change the message length. Refer to Message Length Description (page 6-1) for additional information. Minimum and Maximum lengths = 1-80.   Minimum Default = 1, Maximum Default = 80.

```
GS1MIN.
```
Minimum Message Length

```
GS1MAX.
```
Maximum Message Length

Telepen

<Default All Telepen Settings>

|||||||||||||||||||||||||||||||||
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 (page 6-1) for additional information. Minimum and Maximum lengths = 1-60.   Minimum Default = 1, Maximum Default = 60.

|||||||||||||||||||||||||||||||||
TELMIN.
Minimum Message Length

|||||||||||||||||||||||||||||||||
TELMAX.
Maximum Message Length

UPC-A

‖‖‖‖‖‖‖‖‖‖‖‖
UPADFT.

UPC-A On/Off

‖‖‖‖‖‖‖‖‖‖‖‖
UPAENA1.
* On

‖‖‖‖‖‖‖‖‖‖‖‖
UPAENA0.
Off

Note: To convert UPC-A bar codes to EAN-13, see Convert UPC-A to EAN-13 on page 6-25.

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

‖‖‖‖‖‖‖‖‖‖‖‖
UPACKX0.
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

‖‖‖‖‖‖‖‖‖‖‖‖
UPANSX0.
Off

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.

2 Digit Addenda On

* 2 Digit Addenda Off

5 Digit Addenda On

* 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 on page 6-20. *Default = Not Required.*

Required

* 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.*

Note: The Addenda Timeout setting is applied to all addenda and coupon code searches.

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 separate symbologies. Otherwise, it transmits the first coupon code it reads.

If you scan the **Require Concatenation** code, the scanner must see and read the coupon code and extended coupon code in a single read to transmit the data. No data is output unless both codes are read. *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 (page 6-24). *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 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

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.*

Note: The Addenda Timeout setting is applied to all addenda and coupon code searches.

Addenda Timeout

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.*

* On

Off

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.*

* On

Off

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.*

* On

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. bar codes lead with the 0 number system. For these codes, use UPC-E0 (page 6-22). 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 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.

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

E13ARQ1.
Required

E13ARQ0.
* 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.*

Note: The Addenda Timeout setting is applied to all addenda and coupon code searches.

DLYADD.
Addenda Timeout

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 (page 6-21).

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

‖‖‖‖‖‖‖‖‖‖‖
EA8ENA0.
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.

‖‖‖‖‖‖‖‖‖‖‖
EA8CKX1.
* On

‖‖‖‖‖‖‖‖‖‖‖
EA8CKX0.
Off

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.*

‖‖‖‖‖‖‖‖‖‖‖
EA8AD21.
2 Digit Addenda On

‖‖‖‖‖‖‖‖‖‖‖
EA8AD20.
* 2 Digit Addenda Off

‖‖‖‖‖‖‖‖‖‖‖
EA8AD51.
5 Digit Addenda On

* 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.*

Required

* 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.*

Note: The Addenda Timeout setting is applied to all addenda and coupon code searches.

Addenda Timeout

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.*

* On

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 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.

MSICHK0.
* Validate Type 10, but Don't Transmit

MSICHK1.
Validate Type 10 and Transmit

MSICHK2.
Validate 2 Type 10 Characters, but Don't Transmit

MSICHK3.
Validate 2 Type 10 Characters and Transmit

MSICHK4.
Validate Type 10 then Type 11 Character, but Don't Transmit

6 - 30

‖‖‖‖‖‖‖‖‖‖‖‖‖‖
MSICHK5.
**Validate Type 10 then
Type 11 Character and Transmit**

‖‖‖‖‖‖‖‖‖‖‖‖‖‖
MSICHK6.
Disable MSI Check Characters

MSI Message Length

Scan the bar codes below to change the message length. Refer to Message Length Description (page 6-1) 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

||||||||||||||||||||||||||||

RSSENA1.
* On

||||||||||||||||||||||||||||

RSSENA0.
Off

GS1 DataBar Limited

< Default All GS1 DataBar Limited Settings >

||||||||||||||||||||||||||||

RSLDFT.

GS1 DataBar Limited On/Off

||||||||||||||||||||||||||||

RSLENA1.
* On

||||||||||||||||||||||||||||

RSLENA0.
Off

GS1 DataBar Expanded

< Default All GS1 DataBar Expanded Settings >

```
RSEDFT.
```

GS1 DataBar Expanded On/Off

```
RSEENA1.
```
* On

```
RSEENA0.
```
Off

GS1 DataBar Expanded Message Length

Scan the bar codes below to change the message length. Refer to Message Length Description (page 6-1) for additional information. Minimum and Maximum lengths = 4-74.   Minimum Default = 4, Maximum Default = 74.

```
RSEMIN.
```
Minimum Message Length

```
RSEMAX.
```
Maximum Message Length

Trioptic Code

Note: If you are going to scan Code 32 Pharmaceutical codes (page 6-5), Trioptic Code must be off.

Trioptic Code is used for labeling magnetic storage media.

```
TRIENA1.
```
On

```
TRIENA0.
```
* Off

Codablock A

<Default All Codablock A Settings>

‖‖‖‖‖‖‖‖‖‖‖
CBADFT.

Codablock A On/Off

‖‖‖‖‖‖‖‖‖‖‖
CBAENA1.
On

‖‖‖‖‖‖‖‖‖‖‖
CBAENA0.
* Off

Codablock A Message Length

Scan the bar codes below to change the message length. Refer to Message Length Description (page 6-1) for additional information. Minimum and Maximum lengths = 1-600.   Minimum Default = 1, Maximum Default = 600.

‖‖‖‖‖‖‖‖‖‖‖
CBAMIN.
Minimum Message Length

‖‖‖‖‖‖‖‖‖‖‖
CBAMAX.
Maximum Message Length

Codablock F

<div align="center">

<Default All Codablock F Settings>

CBFDFT.

</div>

Codablock F On/Off

CBFENA1.
On

CBFENA0.
* Off

Codablock F Message Length

Scan the bar codes below to change the message length. Refer to Message Length Description (page 6-1) for additional information. Minimum and Maximum lengths = 1-2048.   Minimum Default = 1, Maximum Default = 2048.

CBFMIN.
Minimum Message Length

CBFMAX.
Maximum Message Length

PDF417

< Default All PDF417 Settings >

|||| |||||| ||| ||| ||||| || |||
PDFDFT.

PDF417 On/Off

||||||| ||| || ||||| ||| |||| || ||
PDFENA1.
* On

||| ||||| ||| || |||| ||||| |||| |||
PDFENA0.
Off

PDF417 Message Length

Scan the bar codes below to change the message length. Refer to Message Length Description (page 6-1) for additional information. Minimum and Maximum lengths = 1-2750.   Minimum Default = 1, Maximum Default = 2750.

||| ||||| || ||| || |||| |||| ||| ||
PDFMIN.
Minimum Message Length

||| ||||| ||| ||| ||| ||||| ||| ||
PDFMAX.
Maximum Message Length

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.*

||| ||||| ||| || ||| ||||| ||| |||
PDFMAC1.
* On

||| ||||| ||| ||| |||| ||||| || |||
PDFMAC0.
Off

MicroPDF417

< Default All MicroPDF417 Settings >

```
MPDDFT.
```

MicroPDF417 On/Off

```
MPDENA1.
```
On

```
MPDENA0.
```
* Off

MicroPDF417 Message Length

Scan the bar codes below to change the message length. Refer to Message Length Description (page 6-1) for additional information. Minimum and Maximum lengths = 1-366.   Minimum Default = 1, Maximum Default = 366.

```
MPDMIN.
```
Minimum Message Length

```
MPDMAX.
```
Maximum Message Length

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.*

UPC/EAN Version On

* 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 6-21) for further information.

GS1 Composite Code Message Length

Scan the bar codes below to change the message length. Refer to Message Length Description (page 6-1) for additional information. Minimum and Maximum lengths = 1-2435. Minimum Default = 1, Maximum Default = 2435.

Minimum Message Length

Maximum Message Length

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 A-1).

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,]e*m* (see Symbology Charts on page A-1).

If **GS1 Code Expansion Off** is scanned, retail code expansion is disabled, and UPC-E expansion is controlled by the UPC-E0 Expand (page 6-22) setting. If the AIM ID is enabled, the value will be the GS1-128 AIM ID,]C1 (see Symbology Charts on page A-1).

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

Default = GS1 Emulation Off.

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 (page 6-1) 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 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 on page A-8), 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

Data Matrix

< Default All Data Matrix Settings >

‖‖‖‖‖‖‖‖‖‖‖‖
IDMDFT.

Data Matrix On/Off

‖‖‖‖‖‖‖‖‖‖‖‖
IDMENA1.
* On

‖‖‖‖‖‖‖‖‖‖‖‖
IDMENA0.
Off

Data Matrix Message Length

Scan the bar codes below to change the message length. Refer to Message Length Description (page 6-1) 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 on page A-8), 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.

Data Matrix Code Page

MaxiCode

< Default All MaxiCode Settings >

MAXDFT.

MaxiCode On/Off

MAXENA1.

On

MAXENA0.

* Off

MaxiCode Message Length

Scan the bar codes below to change the message length. Refer to Message Length Description (page 6-1) 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

‖‖‖‖‖‖‖‖‖‖‖‖
AZTENA0.
Off

Aztec Code Message Length

Scan the bar codes below to change the message length. Refer to for additional information. Minimum and Maximum lengths = 1-3832.   Minimum Default = 1, Maximum Default = 3832.

‖‖‖‖‖‖‖‖‖‖‖‖
AZTMIN.
Minimum Message Length

‖‖‖‖‖‖‖‖‖‖‖‖
AZTMAX.
Maximum Message Length

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.*

‖‖‖‖‖‖‖‖‖‖‖‖
AZTAPP1.
* On

‖‖‖‖‖‖‖‖‖‖‖‖
AZTAPP0.
Off

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 on page A-8), 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.

||| ||| ||| ||| ||| |||
AZTDCP.
Aztec Code Page

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 (page 6-1) 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

```
POSTAL7.
```
British Post On

```
POSTAL30.
```
Canadian Post On

```
POSTAL10.
```
Intelligent Mail Bar Code On

```
POSTAL3.
```
Japanese Post On

```
POSTAL4.
```
KIX Post On

```
POSTAL5.
```
Planet Code On
Also see Planet Code Check Digit, page 6-48.

```
POSTAL9.
```
Postal-4i On

POSTAL6.
Postnet On

Also see Postnet Check Digit, page 6-48.

POSTAL11.
Postnet with B and B' Fields On

POSTAL2.
InfoMail On

Combination 2D Postal Codes:

POSTAL8.
InfoMail and British Post On

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

POSTAL14.
Postnet and Postal-4i On

POSTAL16.
Postnet and Intelligent Mail Bar Code On

POSTAL17.
Postal-4i and Intelligent Mail Bar Code On

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

POSTAL12.
Planet Code and Postnet On

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

```
POSTAL13.
```
Planet Code and
Postal-4i On

```
POSTAL15.
```
Planet Code and
Intelligent Mail Bar Code On

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

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

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

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

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

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

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

||||||||||||||||||||||||||||

POSTAL28.

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

||||||||||||||||||||||||||||

POSTAL29.

**Planet Code,
Postal-4i,
Intelligent Mail Bar Code, 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 bar codes below to change the message length. Refer to Message Length Description (page 6-1) 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

||||||||||||||||||||||||
KPCENA1.
On

||||||||||||||||||||||||
KPCENA0.
* Off

Korea Post Message Length

Scan the bar codes below to change the message length. Refer to Message Length Description (page 6-1) 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 at the end of the scanned data.
Default = Don't Transmit.

||||||||||||||||||||||||
KPCCHK1.
Transmit Check Digit

||||||||||||||||||||||||
KPCCHK0.
* Don't Transmit Check Digit

7

Interface Keys

Keyboard Function Relationships

The following Keyboard Function Code, Hex/ASCII Value, and Full ASCII "CTRL"+ relationships apply to all terminals that can be used with the scanner. Refer to enable Control + X (Control + ASCII) Mode.

Function Code	HEX/ASCII Value	Full ASCII (CTRL + X Mode)
NUL	00	@
SOH	01	A
STX	02	B
ETX	03	C
EOT	04	D
ENQ	05	E
ACK	06	F
BEL	07	G
BS	08	H
HT	09	I
LF	0A	J
VT	0B	K
FF	0C	L
CR	0D	M
SO	0E	N
SI	0F	O
DLE	10	P
DC1	11	Q
DC2	12	R
DC3	13	S
DC4	14	T
NAK	15	U
SYN	16	V
ETB	17	W
CAN	18	X
EM	19	Y
SUB	1A	Z
ESC	1B	[
FS	1C	\
GS	1D	]
RS	1E	^
US	1F	_

The last five characters in the Full ASCII "CTRL"+ column ([\ ] 6 -), apply to US only. The following chart indicates the equivalents of these five characters for different countries.

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

Country	Codes				
Denmark	8	\	9	6	-
Norway	8	\	9	6	-
Spain	[	\	]	6	-

Supported Interface Keys

ASCII	HEX	IBM PC/AT and Compatibles, USB PC Keyboard
NUL	00	Reserved
SOH	01	Enter (KP)
STX	02	Cap Lock
ETX	03	ALT make
EOT	04	ALT break
ENQ	05	CTRL make
ACK	06	CTRL break
BEL	07	CR/Enter
BS	08	Reserved
HT	09	Tab
LF	0A	Reserved
VT	0B	Tab
FF	0C	Delete
CR	0D	CR/Enter
SO	0E	Insert
SI	0F	Escape
DLE	10	F11
DC1	11	Home
DC2	12	Print
DC3	13	Back Space
DC4	14	Back Tab
NAK	15	F12
SYN	16	F1
ETB	17	F2
CAN	18	F3
EM	19	F4
SUB	1A	F5
ESC	1B	F6
FS	1C	F7
GS	1D	F8
RS	1E	F9
US	1F	F10
DEL	7F	

Utilities

To 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 A-1) 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 Revision

Scan the bar code below to output the decoder revision.

REV_DR.

Show Decoder Revision

Show Scan Driver Revision

Scan the bar code below to output the scan driver revision. The scan driver controls image capture.

REV_SD.

Show Scan Driver Revision

Show Software Revision

Scan the bar code below to output the current software revision, unit serial number, and other product information for the scanner.

REVINF.

Show Software Revision

Show Data Format

Scan the bar code below to show current data format settings.

DFMBK3?.

Data Format Settings

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.

TSTMNU1.
On

TSTMNU0.
* Off

TotalFreedom

TotalFreedom is an open system architecture that makes it possible for you create applications that reside on your scanner. Decoding apps and Data Formatting apps can be created using TotalFreedom. For further information about TotalFreedom, go to our website at www.honeywellaidc.com.

Application Plug-Ins (Apps)

Any apps that you are using can be turned off or on by scanning the following bar codes. Apps are stored in groups: Decoding, and Formatting. You can enable and disable these groups of apps by scanning that group's **On** or **Off** bar code below. You can also scan the **List Apps** bar code to output a list of all your apps.

PLGDCE1.
* Decoding Apps On

PLGDCE0.
Decoding Apps Off

PLGFOE1.
Formatting Apps On

PLGFOE0.
* Formatting Apps Off

PLGINF.
List Apps

Note: You must reset your device in order for the apps setting to take effect.

EZConfig-Scanning Introduction

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

EZConfig-Scanning Operations

The EZConfig-Scanning software performs the following operations:

Scan Data

Scan Data allows you to scan bar codes and display the bar code data in a window. Scan Data lets you send serial commands to the scanner and receive scanner response that can be seen in the Scan Data window. The data displayed in the Scan Data window can either be saved in a file or printed.

Configure

Configure displays the programming and configuration data of the scanner. The scanner's programming and configuration data is grouped into different categories. Each category is displayed as a tree item under the "Configure" tree node in the application explorer. When one of these tree nodes is clicked, the right-hand side is loaded with the parameters' form belonging to that particular category. The "Configure" tree option has all the programming and configuration parameters specified for a scanner. You can set or modify these parameters as required. You can later write the modified settings to the scanner, or save them to a dcf file.

Imaging

Imaging provides all the image-related functions that a 2D Scanner can perform. You can capture an image using the current settings, and the image will be displayed in an image window. Images captured from the scanner can be saved to files in different image formats. You can modify the image settings and save the image settings to an INI file, which can be loaded later to capture new images. Imaging also lets you preview the images continuously captured by the scanner.

Installing EZConfig-Scanning from the Web

Note: EZConfig-Scanning requires .NET software. If .NET is not installed on your PC, you will be prompted to install it during the EZConfig-Scanning installation.

1. Access the Honeywell web site at www.honeywellaidc.com

2. Click on the **Resources** tab. Select **Software**.

3. Click on the dropdown for **Select Product Number**. Click on **4850DR**.

4. Click on the listing for **EZConfig-Scanning**.

5. When prompted, select **Save File**, and save the files to the **c:\windows\temp** directory.

6. Once you have finished downloading the file, exit the web site.

7. Using Explorer, go to the **c:\windows\temp** file.

8. Double click on the **Setup.exe** file. Follow the screen prompts to install the EZConfig-Scanning program.

9. If you've selected the defaults during installation, you can click on **Start Menu-All Programs**-**Honeywell-EZConfig-Scanning.**

Resetting the Defaults

If you want the factory default settings restored to your device, scan the **Activate Custom Defaults** bar code below. This is the recommended default bar code for most users. It resets the device to the custom default settings. If there are no custom defaults, it will reset the device to the factory default settings.

Activate Custom Defaults

The Menu Commands, beginning on page 9-4 list the factory default settings for each of the commands (indicated by an asterisk (*) on the programming pages).

9

Serial Programming Commands

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

The device must be set to an RS232 interface (see page 2-1). 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:

*parameter*A label representing the actual value you should send as part of a command.

[*option*]   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 Code 128 configuration settings are identified with a Tag of **128**.

SubTag A 3 character case-insensitive field that identifies the desired menu command within the tag group.   For example, the SubTag for the Code 128 defaults is **DFT**.

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 (I) 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 bar code (page 3-5), or by sending a serial menu command for triggering (page 3-5). 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 bar code has been read, until the deactivate command is sent, or until the serial time-out has been reached (see "Read Time-Out" on page 3-6 for a description, and the serial command on page 9-7).

Resetting the Custom Defaults

If you want the custom default settings restored to your scanner, scan the **Activate Custom Defaults** bar code 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.

DEFALT.

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			
Resetting the Defaults	Activate Defaults	DEFALT	
Programming the Interface			
Plug and Play Codes	USB IBM SurePos Handheld	PAPSPH	
	USB IBM SurePos Tabletop	PAPSPT	
	USB Keyboard (PC)	PAP124	
	USB HID	PAP131	
	USB Serial	TERMID130	
USB Serial Settings	CTS/RTS Emulation On	USBCTS1	
	CTS/RTS Emulation Off*	USBCTS0	
	ACK/NAK Mode On	USBACK1	
	ACK/NAK Mode Off*	USBACK0	
Remote MasterMind for USB	ReM Off	REMIFC0	
	*ReM On	REMIFC1	
Wincor Nixdorf Beetle Terminal Default Settings	Wincor Nixdorf Beetle	PAPBTL	
Program Keyboard Country	*U.S.A.	KBDCTY0	
	Albania	KBDCTY35	
	Azeri (Cyrillic)	KBDCTY81	
	Azeri (Latin)	KBDCTY80	
	Belarus	KBDCTY82	
	Belgium	KBDCTY1	
	Bosnia	KBDCTY33	
	Brazil	KBDCTY16	
	Brazil (MS)	KBDCTY59	
	Bulgaria (Cyrillic)	KBDCTY52	
	Bulgaria (Latin)	KBDCTY53	
	Canada (French legacy)	KBDCTY54	
	Canada (French)	KBDCTY18	
	Canada (Multilingual)	KBDCTY55	
	Croatia	KBDCTY32	
	Czech	KBDCTY15	
	Czech (Programmers)	KBDCTY40	
	Czech (QWERTY)	KBDCTY39	
	Czech (QWERTZ)	KBDCTY38	
	Denmark	KBDCTY8	
	Dutch (Netherlands)	KBDCTY11	
	Estonia	KBDCTY41	
	Faroese	KBDCTY83	
	Finland	KBDCTY2	

Selection	Setting *Indicates default*	Serial Command *# Indicates a numeric entry*	Page
	France	KBDCTY3	
	Gaelic	KBDCTY84	
	Germany	KBDCTY4	
	Greek	KBDCTY17	
	Greek (220 Latin)	KBDCTY64	
	Greek (220)	KBDCTY61	
	Greek (319 Latin)	KBDCTY65	
	Greek (319)	KBDCTY62	
	Greek (Latin)	KBDCTY63	
	Greek (MS)	KBDCTY66	
	Greek (Polytonic)	KBDCTY60	
	Hebrew	KBDCTY12	
	Hungarian (101 key)	KBDCTY50	
	Hungary	KBDCTY19	
	Iceland	KBDCTY75	
	Irish	KBDCTY73	
	Italian (142)	KBDCTY56	
	Italy	KBDCTY5	
	Japan ASCII	KBDCTY28	
	Kazakh	KBDCTY78	
	Kyrgyz (Cyrillic)	KBDCTY79	
	Latin America	KBDCTY14	
	Latvia	KBDCTY42	
	Latvia (QWERTY)	KBDCTY43	
	Lithuania	KBDCTY44	
	Lithuania (IBM)	KBDCTY45	
	Macedonia	KBDCTY34	
	Malta	KBDCTY74	
	Mongolian (Cyrillic)	KBDCTY86	
	Norway	KBDCTY9	
	Poland	KBDCTY20	
	Polish (214)	KBDCTY57	
	Polish (Programmers)	KBDCTY58	
	Portugal	KBDCTY13	
	Romania	KBDCTY25	
	Russia	KBDCTY26	
	Russian (MS)	KBDCTY67	
	Russian (Typewriter)	KBDCTY68	
	SCS	KBDCTY21	
	Serbia (Cyrillic)	KBDCTY37	
	Serbia (Latin)	KBDCTY36	
	Slovakia	KBDCTY22	
	Slovakia (QWERTY)	KBDCTY49	

Selection	Setting *Indicates default*	Serial Command *# Indicates a numeric entry*	Page
	Slovakia (QWERTZ)	KBDCTY48	2-9
	Slovenia	KBDCTY31	2-9
	Spain	KBDCTY10	2-9
	Spanish variation	KBDCTY51	2-9
	Sweden	KBDCTY23	2-9
	Switzerland (French)	KBDCTY29	2-10
	Switzerland (German)	KBDCTY6	2-10
	Tatar	KBDCTY85	2-10
	Turkey F	KBDCTY27	2-10
	Turkey Q	KBDCTY24	2-10
	Ukrainian	KBDCTY76	2-10
	United Kingdom	KBDCTY7	2-10
	United Stated (Dvorak right)	KBDCTY89	2-10
	United States (Dvorak left)	KBDCTY88	2-10
	United States (Dvorak)	KBDCTY87	2-10
	United States (International)	KBDCTY30	2-10
	Uzbek (Cyrillic)	KBDCTY77	2-11
Keyboard Conversion	*Keyboard Conversion Off	KBDCNV0	2-12
	Convert all Characters to Upper Case	KBDCNV1	2-12
	Convert all Characters to Lower Case	KBDCNV2	2-12
Keyboard Style	*Regular	KBDSTY0	2-11
	Caps Lock	KBDSTY1	2-11
	Shift Lock	KBDSTY2	2-11
	Automatic Caps Lock	KBDSTY6	2-11
	Emulate External Keyboard	KBDSTY5	2-11
Control Character Output	*Control Character Output Off	KBDNPE0	2-12
	*Control Character Output On	KBDNPE1	2-12
Keyboard Modifiers	*Control + X Off	KBDCAS0	2-13
	DOS Mode Control + X	KBDCAS1	2-13
	Windows Mode Control + X	KBDCAS2	2-13
	Windows Mode Prefix/Suffix Off	KBDCAS3	2-13
	*Turbo Mode Off	KBDTMD0	2-13
	Turbo Mode On	KBDTMD1	2-13
	*Numeric Keypad Off	KBDNPS0	2-13
	Numeric Keypad On	KBDNPS1	2-13
	*Auto Direct Connect Off	KBDADC0	2-14
	Auto Direct Connect On	KBDADC1	2-13
Input/Output Selections			
Power Up Beeper	Power Up Beeper Off - Scanner	BEPPWR0	3-1
	*Power Up Beeper On - Scanner	BEPPWR1	3-1

Selection	Setting *Indicates default*	Serial Command *# Indicates a numeric entry*	Page
Beep on BEL Character	Beep on BEL On	BELBEP1	3-1
	*Beep on BEL Off	BELBEP0	3-1
Trigger Click	On	BEPTRG1	3-1
	*Off	BEPTRG0	3-1
Beeper - Good Read	Off	BEPBEP0	3-2
	*On	BEPBEP1	3-2
Beeper Volume - Good Read	Off	BEPLVL0	3-2
	Low	BEPLVL1	3-2
	Medium	BEPLVL2	3-2
	*High	BEPLVL3	3-2
Beeper Pitch - Good Read (Frequency)	Low (1600) (min 400Hz)	BEPFQ11600	3-2
	*Medium (2700 Hz)	BEPFQ12700	3-2
	High (4200) (max 9000Hz)	BEPFQ14200	3-2
Beeper Pitch - Error (Frequency)	*Razz (250) (min 200Hz)	BEPFQ2800	3-3
	Medium (3250)	BEPFQ23250	3-3
	High (4200) (max 9000Hz)	BEPFQ24200	3-3
Beeper Duration - Good Read	*Normal Beep	BEPBIP0	3-3
	Short Beep	BEPBIP1	3-3
LED - Good Read	Off	BEPLED0	3-3
	*On	BEPLED1	3-3
LED Indicator State	*Off	BEPPOI0	3-4
	On	BEPPOI1	3-4
Number of Beeps - Error	*1	BEPERR3	3-4
	Range 1 - 9	BEPERR#	3-4
Number of Beeps - Good Read	*1	BEPRPT1	3-4
	Range 1 - 9	BEPRPT#	3-4
Beeper Volume Max	Beeper Volume Max	PAPBLM	3-4
Good Read Delay	*No Delay	DLYGRD0	3-5
	Short Delay (500 ms)	DLYGRD500	3-5
	Medium Delay (1000 ms)	DLYGRD1000	3-5
	Long Delay (1500 ms)	DLYGRD1500	3-5
User-Specified Good Read Delay	Range 0 - 30,000 ms	DLYGRD#####	3-5
Manual Trigger Modes	*Manual Trigger - Normal	PAPHHF	3-5
	Manual Trigger - Enhanced	PAPHHS	3-5
Serial Trigger Mode	Read Time-Out (0 - 300,000 ms) *30,000	TRGSTO####	3-6
Scan Stand Presentation Mode	Scan Stand Presentation Mode	TRGMOD4	3-6
Presentation LED Behavior After Decode	*LEDs On	TRGPCK1	3-6
	LEDs Off	TRGPCK0	3-6
Presentation Sensitivity	Range 0-20 (*1)	TRGPMS##	3-6

Selection	Setting *Indicates default*	Serial Command *# Indicates a numeric entry*	Page
Presentation Centering Window	Presentation Centering On	PDCWIN1	3-7
	*Presentation Centering Off	PDCWIN0	3-7
	Left of Presentation Centering Window (*40%)	PDCLFT###	3-8
	Right of Presentation Centering Window (*60%)	PDCRGT###	3-8
	Top of Presentation Centering Window (*40%)	PDCTOP###	3-7
	Bottom of Presentation Centering Window (*60%)	PDCBOT###	3-7
CodeGate	*CodeGate Off Out-of-Stand	AOSCGD0.	3-8
	CodeGate On Out-of-Stand	AOSCGD1.	3-8
Hands Free Time-Out	Range 0 - 300,000 ms	TRGPTO######	3-8
Reread Delay	Short (500 ms)	DLYRRD500	3-8
	Medium (750 ms)	DLYRRD750	3-9
	*Long (1000 ms)	DLYRRD1000	3-9
	Extra Long (2000 ms)	DLYRRD2000	3-8
User-Specified	Range 0 - 30,000 ms	DLYRRD#####	3-9
2D Reread Delay	*2D Reread Delay Off	DLY2RR0	3-9
	Short (1000ms)	DLY2RR1000	3-9
	Medium (2000ms)	DLY2RR2000	3-9
	Long (3000ms)	DLY2RR3000	3-9
	Extra Long (4000ms)	DLY2RR4000	3-9
Illumination Lights	*Lights On	SCNLED1	3-10
	Lights Off	SCNLED0	3-10
Aimer Delay	200 milliseconds	SCNDLY200	3-10
	400 milliseconds	SCNDLY400	3-10
	*Off (no delay)	SCNDLY0	3-10
User-Specified Aimer Delay	Range 0 - 4,000 ms	SCNDLY####	3-10
Aimer Mode	Off	SCNAIM0	3-10
	*Interlaced	SCNAIM2	3-11
Centering Window	Centering On	DECWIN1	3-11
	*Centering Off	DECWIN0	3-12
	Left of Centering Window (*40%)	DECLFT###	3-12
	Right of Centering Window (*60%)	DECRGT###	3-12
	Top of Centering Window (*40%)	DECTOP###	3-12
	Bottom of Centering Window (*60%)	DECBOT###	3-12

Selection	Setting *Indicates default*	Serial Command *# Indicates a numeric entry*	Page
Preferred Symbology	On	PRFENA1	3-12
	*Off	PRFENA0	3-12
	High Priority Symbology	PRFCOD##	3-13
	Low Priority Symbology	PRFBLK##	3-13
	Preferred Symbology Timeout (*500) Range 100-3000	PRFPTO####	3-13
	Preferred Symbology Default	PRFDFT	3-13
Output Sequence Editor	Enter Sequence	SEQBLK	3-15
	Default Sequence	SEQDFT	3-15
Partial Sequence	Transmit Partial Sequence	SEQTTS1	3-15
	*Discard Partial Sequence	SEQTTS0	3-16
Require Output Sequence	Required	SEQ_EN2	3-16
	On/Not Required	SEQ_EN1	3-16
	*Off	SEQ_EN0	3-16
Multiple Symbols	On	SHOTGN1	3-16
	*Off	SHOTGN0	3-16
No Read	On	SHWNRD1	3-16
	*Off	SHWNRD0	3-16
Video Reverse	Video Reverse Only	VIDREV1	3-17
	Video Reverse and Standard Bar Codes	VIDREV2	3-17
	*Video Reverse Off	VIDREV0	3-17
Working Orientation	*Upright	ROTATN0	3-18
	Vertical, Bottom to Top (Rotate CCW 90°)	ROTATN1	3-18
	Upside Down	ROTATN2	3-18
	Vertical, Top to Bottom (Rotate CW 90°)	ROTATN3	3-18
Prefix/Suffix Selections			
Add CR Suffix to All Symbologies		VSUFCR	4-2
Prefix	Add Prefix	PREBK2##	4-2
	Clear One Prefix	PRECL2	4-2
	Clear All Prefixes	PRECA2	4-2
Suffix	Add Suffix	SUFBK2##	4-2
	Clear One Suffix	SUFCL2	4-2
	Clear All Suffixes	SUFCA2	4-2
Function Code Transmit	*Enable	RMVFNC0	4-3
	Disable	RMVFNC1	4-3
Intercharacter Delay	Range 0 - 1000 (5ms increments)	DLYCHR##	4-3
User Specified Intercharacter Delay	Delay Length 0 - 1000 (5ms increments)	DLYCRX##	4-4
	Character to Trigger Delay	DLY_XX##	4-4
Interfunction Delay	Range 0 - 1000 (5ms increments)	DLYFNC##	4-4
Intermessage Delay	Range 0 - 1000 (5ms increments)	DLYMSG##	4-4

Selection	Setting *Indicates default*	Serial Command *# Indicates a numeric entry*	Page
Data Formatter Selections			
Data Format Editor	*Default Data Format (None)	DFMDF3	5-1
	Enter Data Format	DFMBK3##	5-2
	Clear One Data Format	DFMCL3	5-2
	Clear All Data Formats	DFMCA3	5-2
Data Formatter	Data Formatter Off	DFM_EN0	5-10
	*Data Formatter On, Not Required, Keep Prefix/Suffix	DFM_EN1	5-11
	Data Format Required, Keep Prefix/Suffix	DFM_EN2	5-11
	Data Formatter On, Not Required, Drop Prefix/Suffix	DFM_EN3	5-11
	Data Format Required, Drop Prefix/Suffix	DFM_EN4	5-11
Data Format Non-Match Error Tone	*Data Format Non-Match Error Tone On	DFMDEC0	5-11
	Data Format Non-Match Error Tone Off	DFMDEC1	5-11
Primary/Alternate Data Formats	Primary Data Format	ALTFNM0	5-12
	Data Format 1	ALTFNM1	5-12
	Data Format 2	ALTFNM2	5-12
	Data Format 3	ALTFNM3	5-12
Single Scan Data Format Change	Single Scan-Primary Data Format	VSAF_0	5-12
	Single Scan-Data Format 1	VSAF_1	5-12
	Single Scan-Data Format 2	VSAF_2	5-12
	Single Scan-Data Format 3	VSAF_3	5-12
Symbologies			
All Symbologies	*All Symbologies Off	ALLENA0	6-1
	All Symbologies On	ALLENA1	6-1
Codabar	Default All Codabar Settings	CBRDFT	6-2
	Off	CBRENA0	6-2
	*On	CBRENA1	6-2
Codabar Start/Stop Char.	*Don't Transmit	CBRSSX0	6-2
	Transmit	CBRSSX1	6-2
Codabar Check Char.	*No Check Char.	CBRCK20	6-2
	Validate, But Don't Transmit	CBRCK21	6-2
	Validate, and Transmit	CBRCK22	6-2
Codabar Concatenation	*Off	CBRCCT0	6-3
	On	CBRCCT1	6-3
	Require	CBRCCT2	6-3

Selection	Setting *Indicates default*	Serial Command *# Indicates a numeric entry*	Page
Codabar Message Length	Minimum (2 - 60) *4	CBRMIN##	6-3
	Maximum (2 - 60) *60	CBRMAX##	6-3
Code 39	Default All Code 39 Settings	C39DFT	6-4
	Off	C39ENA0	6-4
	*On	C39ENA1	6-4
Code 39 Start/Stop Char.	*Don't Transmit	C39SSX0	6-4
	Transmit	C39SSX1	6-4
Code 39 Check Char.	*No Check Char.	C39CK20	6-4
	Validate, But Don't Transmit	C39CK21	6-4
	Validate, and Transmit	C39CK22	6-4
Code 39 Message Length	Minimum (0 - 48) *0	C39MIN##	6-5
	Maximum (0 - 48) *48	C39MAX##	6-5
Code 39 Append	*Off	C39APP0	6-5
	On	C39APP1	6-5
Code 32 Pharmaceutical (PARAF)	*Off	C39B320	6-5
	On	C39B321	6-5
Code 39 Full ASCII	*Off	C39ASC0	6-6
	On	C39ASC1	6-6
	Code 39 Code Page	C39DCP	6-6
Interleaved 2 of 5	Default All Interleaved 2 of 5 Settings	I25DFT	6-7
	Off	I25ENA0	6-7
	*On	I25ENA1	6-7
Interleaved 2 of 5 Check Digit	*No Check Char.	I25CK20	6-7
	Validate, But Don't Transmit	I25CK21	6-7
	Validate, and Transmit	I25CK22	6-7
Interleaved 2 of 5 Message Length	Minimum (2 - 80) *4	I25MIN##	6-7
	Maximum (2 - 80) *80	I25MAX##	6-7
NEC 2 of 5	Default All NEC 2 of 5 Settings	N25DFT	6-8
	Off	N25ENA0	6-8
	*On	N25ENA1	6-8
NEC 2 of 5 Check Digit	*No Check Char.	N25CK20	6-8
	Validate, But Don't Transmit	N25CK21	6-8
	Validate, and Transmit	N25CK22	6-8
NEC 2 of 5 Message Length	Minimum (2 - 80) *4	N25MIN##	6-9
	Maximum (2 - 80) *80	N25MAX##	6-9

Selection	Setting *Indicates default*	Serial Command *# Indicates a numeric entry*	Page
Code 93	Default All Code 93 Settings	C93DFT	6-9
	Off	C93ENA0	6-9
	*On	C93ENA1	6-9
Code 93 Message Length	Minimum (0 - 80) *0	C93MIN##	6-9
	Maximum (0 - 80) *80	C93MAX##	6-9
Code 93 Append	On	C93APP1	6-10
	*Off	C93APP0	6-10
Code 93 Code Page	Code 93 Code Page	C93DCP	6-10
Straight 2 of 5 Industrial	Default All Straight 2 of 5 Industrial Settings	R25DFT	6-11
	*Off	R25ENA0	6-11
	On	R25ENA1	6-11
Straight 2 of 5 Industrial Message Length	Minimum (1 - 48) *4	R25MIN##	6-11
	Maximum (1 - 48) *48	R25MAX##	6-11
Straight 2 of 5 IATA	Default All Straight 2 of 5 IATA Settings	A25DFT	6-12
Straight 2 of 5 IATA	*Off	A25ENA0	6-12
	On	A25ENA1	6-12
Straight 2 of 5 IATA Message Length	Minimum (1 - 48) *4	A25MIN##	6-12
	Maximum (1 - 48) *48	A25MAX##	6-12
Matrix 2 of 5	Default All Matrix 2 of 5 Settings	X25DFT	6-13
	*Off	X25ENA0	6-13
	On	X25ENA1	6-13
Matrix 2 of 5 Message Length	Minimum (1 - 80) *4	X25MIN##	6-13
	Maximum (1 - 80) *80	X25MAX##	6-13
Code 11	Default All Code 11 Settings	C11DFT	6-14
	*Off	C11ENA0	6-14
	On	C11ENA1	6-14
Code 11 Check Digits Required	1 Check Digit	C11CK20	6-14
	*2 Check Digits	C11CK21	6-14
Code 11 Message Length	Minimum (1 - 80) *4	C11MIN##	6-14
	Maximum (1 - 80) *80	C11MAX##	6-14
Code 128	Default All Code 128 Settings	128DFT	6-15
	Off	128ENA0	6-15
	*On	128ENA1	6-15
ISBT Concatenation	*Off	ISBENA0	6-15
	On	ISBENA1	6-15
Code 128 Message Length	Minimum (0 - 80) *0	128MIN##	6-15
	Maximum (0 - 80) *80	128MAX##	6-15

Selection	Setting *Indicates default*	Serial Command *# Indicates a numeric entry*	Page
Code 128 Append	*On	128APP1	6-16
	Off	128APP0	6-16
Code 128 Code Page	Code 128 Code Page (*2)	128DCP##	6-16
GS1-128	Default All GS1-128 Settings	GS1DFT	6-17
	*On	GS1ENA1	6-17
	Off	GS1ENA0	6-17
GS1-128 Message Length	Minimum (1 - 80) *1	GS1MIN##	6-17
	Maximum (0 - 80) *80	GS1MAX##	6-17
Telepen	Default All Telepen Settings	TELDFT	6-18
	*Off	TELENA0	6-18
	On	TELENA1	6-18
Telepen Output	*AIM Telepen Output	TELOLD0	6-18
	Original Telepen Output	TELOLD1	6-18
Telepen Message Length	Minimum (1 - 60) *1	TELMIN##	6-18
	Maximum (1 - 60) *60	TELMAX##	6-18
UPC-A	Default All UPC-A Settings	UPADFT	6-19
	Off	UPAENA0	6-19
	*On	UPAENA1	6-19
UPC-A Check Digit	Off	UPACKX0	6-19
	*On	UPACKX1	6-19
UPC-A Number System	Off	UPANSX0	6-19
	*On	UPANSX1	6-19
UPC-A 2 Digit Addenda	*Off	UPAAD20	6-20
	On	UPAAD21	6-20
UPC-A 5 Digit Addenda	*Off	UPAAD50	6-20
	On	UPAAD51	6-20
UPC-A Addenda Required	*Not Required	UPAARQ0	6-20
	Required	UPAARQ1	6-20
Addenda Timeout	Range (0 - 65535) *100	DLYADD#####	6-20
UPC-A Addenda Separator	Off	UPAADS0	6-21
	*On	UPAADS1	6-21
UPC-A/EAN-13 with Extended Coupon Code	*Off	CPNENA0	6-21
	Allow Concatenation	CPNENA1	6-21
	Require Concatenation	CPNENA2	6-21
Coupon GS1 DataBar Output	GS1 Output Off	CPNGS10	6-21
	GS1 Output On	CPNGS11	6-21
UPC-E0	Default All UPC-E Settings	UPEDFT	6-22
	Off	UPEEN00	6-22
	*On	UPEEN01	6-22

Selection	Setting *Indicates default*	Serial Command *# Indicates a numeric entry*	Page
UPC-E0 Expand	*Off	UPEEXP0	6-22
	On	UPEEXP1	6-22
UPC-E0 Addenda Required	Required	UPEARQ1	6-22
	*Not Required	UPEARQ0	6-22
Addenda Timeout	Range (0 - 65535) *100	DLYADD#####	6-22
UPC-E0 Addenda Separator	*On	UPEADS1	6-23
	Off	UPEADS0	6-23
UPC-E0 Check Digit	Off	UPECKX0	6-23
	*On	UPECKX1	6-23
UPC-E0 Leading Zero	Off	UPENSX0	6-23
	*On	UPENSX1	6-23
UPC-E0 Addenda	2 Digit Addenda On	UPEAD21	6-24
	*2 Digit Addenda Off	UPEAD20	6-24
	5 Digit Addenda On	UPEAD51	6-24
	*5 Digit Addenda Off	UPEAD50	6-24
UPC-E1	*Off	UPEEN10	6-24
	On	UPEEN11	6-24
EAN/JAN-13	Default All EAN/ JAN Settings	E13DFT	6-25
	Off	E13ENA0	6-25
	*On	E13ENA1	6-25
Convert UPC-A to EAN-13	UPC-A Converted to EAN-13	UPAENA0	6-25
	Do not Convert UPC-A	UPAENA1	6-25
EAN/JAN-13 Check Digit	Off	E13CKX0	6-25
	*On	E13CKX1	6-25
EAN/JAN-13 2 Digit Addenda	2 Digit Addenda On	E13AD21	6-26
	*2 Digit Addenda Off	E13AD20	6-26
	5 Digit Addenda On	E13AD51	6-26
	*5 Digit Addenda Off	E13AD50	6-26
EAN/JAN-13 Addenda Required	*Not Required	E13ARQ0	6-26
	Required	E13ARQ1	6-26
Addenda Timeout	Range (0 - 65535) *100	DLYADD#####	6-26
EAN/JAN-13 Addenda Separator	Off	E13ADS0	6-27
	*On	E13ADS1	6-27
ISBN Translate	*Off	E13ISB0	6-27
	On	E13ISB1	6-27
EAN/JAN-8	Default All EAN/ JAN 8 Settings	EA8DFT	6-28
	Off	EA8ENA0	6-28
	*On	EA8ENA1	6-28
EAN/JAN-8 Check Digit	Off	EA8CKX0	6-28
	*On	EA8CKX1	6-28

Selection	Setting *Indicates default*	Serial Command *# Indicates a numeric entry*	Page
EAN/JAN-8 Addenda	*2 Digit Addenda Off	EA8AD20	6-28
	2 Digit Addenda On	EA8AD21	6-28
	*5 Digit Addenda Off	EA8AD50	6-28
	5 Digit Addenda On	EA8AD51	6-28
EAN/JAN-8 Addenda Required	*Not Required	EA8ARQ0	6-29
	Required	EA8ARQ1	6-29
Addenda Timeout	Range (0 - 65535) *100	DLYADD#####	6-29
EAN/JAN-8 Addenda Separator	Off	EA8ADS0	6-29
	*On	EA8ADS1	6-29
MSI	Default All MSI Settings	MSIDFT	6-30
	*Off	MSIENA0	6-30
	On	MSIENA1	6-30
MSI Check Character	*Validate Type 10, but Don't Transmit	MSICHK0	6-30
	Validate Type 10 and Transmit	MSICHK1	6-30
	Validate 2 Type 10 Chars, but Don't Transmit	MSICHK2	6-30
	Validate 2 Type 10 Chars and Transmit	MSICHK3	6-30
	Validate Type 10 then Type 11 Char, but Don't Transmit	MSICHK4	6-30
	Validate Type 10 then Type 11 Char and Transmit	MSICHK5	6-31
	Disable MSI Check Characters	MSICHK6	6-31
MSI Message Length	Minimum (4 - 48) *4	MSIMIN##	6-31
	Maximum (4 - 48) *48	MSIMAX##	6-31
GS1 DataBar Omnidirectional	Default All GS1 DataBar Omnidirectional Settings	RSSDFT	6-32
	Off	RSSENA0	6-32
	*On	RSSENA1	6-32
GS1 DataBar Limited	Default All GS1 DataBar Limited Settings	RSLDFT	6-32
	Off	RSLENA0	6-32
	*On	RSLENA1	6-32
GS1 DataBar Expanded	Default All GS1 DataBar Expanded Settings	RSEDFT	6-33
	Off	RSEENA0	6-33
	*On	RSEENA1	6-33
GS1 DataBar Expanded Msg. Length	Minimum (4 - 74) *4	RSEMIN##	6-33
	Maximum (4 - 74) *74	RSEMAX##	6-33
Trioptic Code	*Off	TRIENA0	6-33
	On	TRIENA1	6-33

Selection	Setting *Indicates default*	Serial Command *# Indicates a numeric entry*	Page
Codablock A	Default All Codablock A Settings	CBADFT	6-34
	*Off	CBAENA0	6-34
	On	CBAENA1	6-34
Codablock A Msg. Length	Minimum (1 - 600) *1	CBAMIN###	6-34
	Maximum (1 - 600) *600	CBAMAX###	6-34
Codablock F	Default All Codablock F Settings	CBFDFT	6-35
	*Off	CBFENA0	6-35
	On	CBFENA1	6-35
Codablock F Msg. Length	Minimum (1 - 2048) *1	CBFMIN####	6-35
	Maximum (1 - 2048) *2048	CBFMAX####	6-35
PDF417	Default All PDF417 Settings	PDFDFT	6-36
	*On	PDFENA1	6-36
	Off	PDFENA0	6-36
PDF417 Msg. Length	Minimum (1-2750) *1	PDFMIN####	6-36
	Maximum (1-2750) *2750	PDFMAX####	6-36
MacroPDF417	*On	PDFMAC1	6-37
	Off	PDFMAC0	6-37
MicroPDF417	Default All Micro PDF417 Settings	MPDDFT	6-37
	On	MPDENA1	6-37
	*Off	MPDENA0	6-37
MicroPDF417 Msg. Length	Minimum (1-366) *1	MPDMIN###	6-37
	Maximum (1-366) *366	MPDMAX###	6-37
GS1 Composite Codes	On	COMENA1	6-37
	*Off	COMENA0	6-37
UPC/EAN Version	On	COMUPC1	6-38
	*Off	COMUPC0	6-38
GS1 Composite Codes Msg. Length	Minimum (1-2435) *1	COMMIN####	6-38
	Maximum (1-2435) *2435	COMMAX####	6-38
GS1 Emulation	GS1-128 Emulation	EANEMU1	6-38
	GS1 DataBar Emulation	EANEMU2	6-37
	GS1 Code Expansion Off	EANEMU3	6-39
	EAN8 to EAN13 Conversion	EANEMU4	6-39
	*GS1 Emulation Off	EANEMU0	6-39
TCIF Linked Code 39	On	T39ENA1	6-39
	*Off	T39ENA0	6-39
QR Code	Default All QR Code Settings	QRCDFT	6-39
	*On	QRCENA1	6-39
	Off	QRCENA0	6-39
QR Code Msg. Length	Minimum (1-7089) *1	QRCMIN####	6-40
	Maximum (1-7089) *7089	QRCMAX####	6-40
QR Code Append	*On	QRCAPP1	6-40
	Off	QRCAPP0	6-40
QR Code Page	QR Code Page (*3)	QRCDCP##	6-40

Selection	Setting *Indicates default*	Serial Command *# Indicates a numeric entry*	Page
Data Matrix	Default All Data Matrix Settings	IDMDFT	
	*On	IDMENA1	
	Off	IDMENA0	
Data Matrix Msg. Length	Minimum (1-3116) *1	IDMMIN####	
	Maximum (1-3116) *3116	IDMMAX####	
Data Matrix Append	*On	IDMAPP1	
	Off	IDMAPP0	
Data Matrix Code Page	Data Matrix Code Page (*51)	IDMDCP##	
MaxiCode	Default All MaxiCode Settings	MAXDFT	
	On	MAXENA1	
	*Off	MAXENA0	
MaxiCode Msg. Length	Minimum (1-150) *1	MAXMIN###	
	Maximum (1-150) *150	MAXMAX###	
Aztec Code	Default All Aztec Code Settings	AZTDFT	
	*On	AZTENA1	
	Off	AZTENA0	
Aztec Code Msg. Length	Minimum (1-3832) *1	AZTMIN####	
	Maximum (1-3832) *3832	AZTMAX####	
Aztec Append	*On	AZTAPP1	
	Off	AZTAPP0	
Aztec Code Page	Aztec Code Page (*51)	AZTDCP##	
Chinese Sensible (Han Xin) Code	Default All Han Xin Code Settings	HX_DFT	
	On	HX_ENA1	
	*Off	HX_ENA0	
Chinese Sensible (Han Xin) Code Msg. Length	Minimum (1-7833) *1	HX_MIN####	
	Maximum (1-7833) *7833	HX_MAX####	
Postal Codes - 2D			
2D Postal Codes	*Off	POSTAL0	
Single 2D Postal Codes	Australian Post On	POSTAL1	
	British Post On	POSTAL7	
	Canadian Post On	POSTAL30	
	Intelligent Mail Bar Code On	POSTAL10	
	Japanese Post On	POSTAL3	
	KIX Post On	POSTAL4	
	Planet Code On	POSTAL5	
	Postal-4i On	POSTAL9	
	Postnet On	POSTAL6	
	Postnet with B and B' Fields On	POSTAL11	
	InfoMail On	POSTAL2	

Selection	Setting *Indicates default*	Serial Command # *Indicates a numeric entry*	Page
Combination 2D Postal Codes	InfoMail and British Post On	POSTAL8	6-46
	Intelligent Mail Bar Code and Postnet with B and B' Fields On	POSTAL20	6-46
	Postnet and Postal-4i On	POSTAL14	6-46
	Postnet and Intelligent Mail Bar Code On	POSTAL16	6-46
	Postal-4i and Intelligent Mail Bar Code On	POSTAL17	6-46
	Postal-4i and Postnet with B and B' Fields On	POSTAL19	6-46
	Planet and Postnet On	POSTAL12	6-46
	Planet and Postnet with B and B' Fields On	POSTAL18	6-47
	Planet and Postal-4i On	POSTAL13	6-47
	Planet and Intelligent Mail Bar Code On	POSTAL15	6-47
	Planet, Postnet, and Postal-4i On	POSTAL21	6-47
	Planet, Postnet, and Intelligent Mail Bar Code On	POSTAL22	6-47
	Planet, Postal-4i, and Intelligent Mail Bar Code On	POSTAL23	6-47
Combination 2D Postal Codes (continued)	Postnet, Postal-4i, and Intelligent Mail Bar Code On	POSTAL24	6-47
	Planet, Postal-4i, and Postnet with B and B' Fields On	POSTAL25	6-47
	Planet, Intelligent Mail Bar Code, and Postnet with B and B' Fields On	POSTAL26	6-47
	Postal-4i, Intelligent Mail Bar Code, and Postnet with B and B' Fields On	POSTAL27	6-47
	Planet, Postal-4i, Intelligent Mail Bar Code, and Postnet On	POSTAL28	6-48
	Planet, Postal-4i, Intelligent Mail Bar Code, and Postnet with B and B' Fields On	POSTAL29	6-47
Planet Code Check Digit	Transmit	PLNCKX1	6-48
	*Don't Transmit	PLNCKX0	6-48
Postnet Check Digit	Transmit	NETCKX1	6-48
	*Don't Transmit	NETCKX0	6-48
Australian Post Interpretation	Bar Output	AUSINT0	6-49
	Numeric N Table	AUSINT1	6-49
	Alphanumeric C Table	AUSINT2	6-49
	Combination N and C Tables	AUSINT3	6-49

Selection	Setting *Indicates default*	Serial Command *# Indicates a numeric entry*	Page
Postal Codes - Linear			
China Post (Hong Kong 2 of 5)	Default All China Post (Hong Kong 2 of 5) Settings	CPCDFT	
	*Off	CPCENA0	
	On	CPCENA1	
China Post (Hong Kong 2 of 5) Msg. Length	Minimum (2 - 80) *4	CPCMIN##	
	Maximum (2 - 80) *80	CPCMAX##	
Korea Post	Default All Korea Post Settings	KPCDFT	
	*Off	KPCENA0	
	On	KPCENA1	
Korea Post Msg. Length	Minimum (2 - 80) *4	KPCMIN##	
	Maximum (2 - 80) *48	KPCMAX##	
Korea Post Check Digit	Transmit Check Digit	KPCCHK1	
	*Don't Transmit Check Digit	KPCCHK0	
Utilities			
Add Code I.D. Prefix to All Symbologies (Temporary)		PRECA2,BK2995C80!	
Show Decoder Revision		REV_DR	
Show Scan Driver Revision		REV_SD	
Show Software Revision		REVINF	
Show Data Format		DFMBK3?	
Test Menu	On	TSTMNU1	
	*Off	TSTMNU0	
Application Plug-Ins (Apps)	*Decoding Apps On	PLGDCE1	
	Decoding Apps Off	PLGDCE0	
	Formatting Apps On	PLGFOE1	
	*Formatting Apps Off	PLGFOE0	
	List Apps	PLGINF	

10

Product Specifications

Operational	
Light Source:	
Illumination LEDs	Visible White LED 434nm and 556nm
Aiming Laser	Red, VLD 652.5nm ± 7.5nm
Mechanical	
Dimensions (Typical):	
Height (excluding cable)	14.38 inches (365.22mm)
Length	13.39 inches (340.08mm)
Width	15.07 inches (382.68mm)
Weight (typical):	
Imager	3 oz. (85g)
Stand	4.4 lbs (2kg)
Electrical	
Input Voltage	4.5 - 5.25 VDC
Power:	
Operating	1.75W (350mA @ 5VDC)
Standby	0.5W (100mA @5VDC)
Environmental	
Environmental Sealing	IP40
Mechanical Drop - Imager	Operational after 50 drops from 5 feet (1.524m) to concrete
Temperature Ranges:	
Operating	+32°F to +122°F (0°C to +50°C)
Storage	-4°F to +140°F (-20°C to +60°C)
ESD Tolerance	±8 KV Direct and ±15 KV Air
Humidity	5 to 95% relative humidity, non-condensing
Light Levels	100,000 lux
Scan Performance	
Scan Pattern	Area Image (2592 x1944 pixel array)
Skew Angle	
Horizontal Field Angle	+/-25.5°
Vertical Field Angle	+/-20°
Symbol Contrast	20% minimum reflectance difference
Pitch, Skew, Tilt	45°, 45°
Image Resolution	200ppi
Image Speed	17 ppm minimum - 8.5" x 11.0" (A4) with image processing via TWAIN / SANE / SDKs

Image Format	JPEG: Compression scaled from 0 to 100 BMP:Grayscale TIFF: Binary, Binary Compressed (Group 4), Grayscale
Decode Capability	Reads standard 1D, PDF, 2D, and Postal symbologies

Depth of Field Charts

Typical Performance

Focus			
Symbology		**Near Distance**	**Far Distance**
5 mil Code 39	in.	6.6	12.7
	mm	167.6	322.6
7.5 mil Code 39	in.	5.6	15.7
	mm	142.2	398.8
10 mil Code 39	in.	4.6	16.8
	mm	116.8	426.7
13 mil UPC	in.	2.9	19.2
	mm	73.7	487.7
15 mil DM	in.	4.9	17.2
	mm	124.5	436.9
6.7 mil PDF417	in.	5.8	14.4
	mm	147.3	365.8
NYS Drivers License	in.	6.1	14.7
	mm	154.9	373.4
10 mil PDF417	in.	4.3	17.3
	mm	109.2	439.4
8.3 mil PDF417	in.	5.1	16.4
	mm	129.5	416.6
8.3 mil QR Code	in.	6.9	13.5
	mm	175.3	342.9
20 mil QR Code	in.	2.5	20.2
	mm	63.5	513.1

Guaranteed Performance

Focus			
Symbology		**Near Distance**	**Far Distance**
5 mil Code 39	in.	7.9	11.1
	mm	200.7	281.9
7.5 mil Code 39	in.	6.7	12.4
	mm	170.2	315
10 mil Code 39	in.	5.5	11.7
	mm	139.7	297.2

Focus			
13 mil UPC	in.	3.5	15
	mm	88.9	381
15 mil DM	in.	5.9	14.3
	mm	149.9	363.2
6.7 mil PDF417	in.	7	11.7
	mm	177.8	297.2
NYS Drivers License	in.	7.6	11.5
	mm	193	292.1
10 mil PDF417	in.	5.1	12.5
	mm	129.5	317.5
8.3 mil PDF417	in.	5.8	12.4
	mm	147.3	315
8.3 mil QR Code	in.	8.3	11.7
	mm	210.8	297.2
20 mil QR Code	in.	3.2	15.2
	mm	81.3	388.6

Standard Connector Pinout

Note: This pin assignment is 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.

USB Type A Connector

1	VBUS
2	D-
3	D+
4	Ground

USB Micro Type B Connector
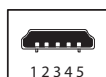
1	Vbus
2	D-
3	D+
4	Reserved/NC
5	Ground

11

Maintenance

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 12-1).

Maintenance

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

Cleaning the Scanner

The scanner housing and window may be cleaned with a soft cloth or tissue dampened with water (or a mild detergent-water solution.) If a detergent solution is used, rinse with a clean tissue dampened with water only.

> ⚠ **Caution:**
> **Do not submerge the scanner in water. The scanner's housing is not watertight.**
>
> **Do not use abrasive wipes or tissues 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.**

Inspecting 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 11-1.

Replacing 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.

Replacing an Interface Cable

1. Turn the power to the host system OFF.

2. Disconnect the scanner's cable from the terminal or computer.

3. Squeeze the retention tab and pull the cable from the scanner.

4. 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.

Retention Tab
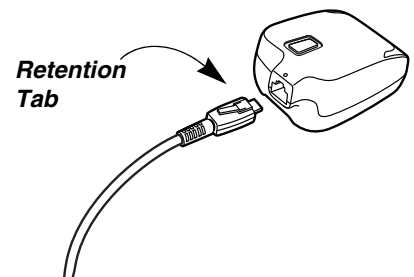
Troubleshooting a Scanner

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 bar code displayed but not entered?

The bar code 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 bar code data plus the key you need (such as "CR") to enter the data into your application. Refer to Prefix/Suffix Overview on page 4-1 for further information.

Does the scanner read the bar code incorrectly?

If the scanner reads a bar code, but the data is not displayed correctly on the host screen:

- The scanner may not be programmed for the appropriate terminal interface.
  For example, you scan "12345" and the host displays "@ es%."

Reprogram the scanner with the correct Plug and Play bar code. See Programming the Interface beginning on page 2-1.

- The scanner may not be programmed to output your bar code data properly.
  For example, you scan "12345" and the host displays "A12345B."

Reprogram the scanner with the proper symbology selections. See Chapter 6.

The scanner won't read your bar code at all.

1. Scan the sample bar codes in the back of this manual. If the scanner reads the sample bar codes, check that your bar code is readable.
   Verify that your bar code symbology is enabled (see Chapter 6).

2. If the scanner still can't read the sample bar codes, scan All Symbologies On, page 6-1.

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 Resetting the Defaults on page 8-4.

Customer Support

Technical Assistance

If you need assistance installing or troubleshooting your device, please contact us by using one of the methods below:

Knowledge Base: www.hsmknowledgebase.com

Our Knowledge Base provides thousands of immediate solutions. If the Knowledge Base cannot help, our Technical Support Portal (see below) provides an easy way to report your problem or ask your question.

Technical Support Portal: www.hsmsupportportal.com

The Technical Support Portal not only allows you to report your problem, but it also provides immediate solutions to your technical issues by searching our Knowledge Base. With the Portal, you can submit and track your questions online and send and receive attachments.

Web form: www.hsmcontactsupport.com

You can contact our technical support team directly by filling out our online support form. Enter your contact details and the description of the question/problem.

Telephone: www.honeywellaidc.com/locations

For our latest contact information, please check our website at the link above.

Product Service and Repair

Honeywell International Inc. provides service for all of its products through service centers throughout the world. To obtain warranty or non-warranty service, please visit www.honeywellaidc.com and select **Support > Contact Service and Repair** to see your region's instructions on how to obtain a Return Material Authorization number (RMA #). You should do this prior to returning the product.

Limited Warranty

Honeywell International Inc. ("HII") warrants its products to be free from defects in materials and workmanship and to conform to HII's published specifications applicable to the products purchased at the time of shipment. This warranty does not cover any HII product which is (i) improperly installed or used; (ii) damaged by accident or negligence, including failure to follow the proper maintenance, service, and cleaning schedule; or (iii) damaged as a result of (A) modification or alteration by the purchaser or other party, (B) excessive voltage or current supplied to or drawn from the interface connections, (C) static electricity or electrostatic discharge, (D) operation under conditions beyond the specified operating parameters, or (E) repair or service of the product by anyone other than HII or its authorized representatives.

This warranty shall extend from the time of shipment for the duration published by HII for the product at the time of purchase ("Warranty Period"). Any defective product must be returned (at purchaser's expense) during the Warranty Period to HII factory or authorized service center for inspection. No product will be accepted by HII without a Return Materials Authorization, which may be obtained by contacting HII. In the event that the product is returned to HII or its authorized service center within the Warranty Period and HII determines to its satisfaction that the product is defective due to defects in materials or workmanship, HII, at its sole option, will either repair or replace the product without charge, except for return shipping to HII.

EXCEPT AS MAY BE OTHERWISE PROVIDED BY APPLICABLE LAW, THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER COVENANTS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, ORAL OR WRITTEN, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT.

HII'S RESPONSIBILITY AND PURCHASER'S EXCLUSIVE REMEDY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT WITH NEW OR REFURBISHED PARTS. IN NO EVENT SHALL HII BE LIABLE FOR INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, AND, IN NO EVENT, SHALL ANY LIABILITY OF HII ARISING IN CONNECTION WITH ANY PRODUCT SOLD HEREUNDER (WHETHER SUCH LIABILITY ARISES FROM A CLAIM BASED ON CONTRACT, WARRANTY, TORT, OR OTHERWISE) EXCEED THE ACTUAL AMOUNT PAID TO HII FOR THE PRODUCT. THESE LIMITATIONS ON LIABILITY SHALL REMAIN IN FULL FORCE AND EFFECT

EVEN WHEN HII MAY HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH INJURIES, LOSSES, OR DAMAGES. SOME STATES, PROVINCES, OR COUNTRIES DO NOT ALLOW THE EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

All provisions of this Limited Warranty are separate and severable, which means that if any provision is held invalid and unenforceable, such determination shall not affect the validity of enforceability of the other provisions hereof. Use of any peripherals not provided by the manufacturer may result in damage not covered by this warranty. This includes but is not limited to: cables, power supplies, cradles, and docking stations. HII extends these warranties only to the first end-users of the products. These warranties are non-transferable.

The duration of the limited warranty for the 4850DR is three (3) years.

A

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 Editing beginning on page 4-1 and Data Formatting beginning on page 5-1 for information about using Code ID and AIM ID.

Linear Symbologies

	AIM		Honeywell	
Symbology	**ID**	**Possible modifiers (*m*)**	**ID**	**Hex**
All Symbologies				99
Codabar	]F*m*	0-1	a	61
Code 11	]H3		h	68
Code 128	]C*m*	0, 1, 2, 4	j	6A
Code 32 Pharmaceutical (PARAF)	]X0		<	3C
Code 39 (supports Full ASCII mode)	]A*m*	0, 1, 3, 4, 5, 7	b	62
TCIF Linked Code 39 (TLC39)	]L2		T	54
Code 93 and 93i	]G*m*	0-9, A-Z, a-m	i	69
EAN	]E*m*	0, 1, 3, 4	d	64
EAN-13 (including Bookland EAN)	]E0		d	64
EAN-13 with Add-On	]E3		d	64
EAN-13 with Extended Coupon Code	]E3		d	64
EAN-8	]E4		D	44
EAN-8 with Add-On	]E3		D	44
GS1				
GS1 DataBar	]e*m*	0	y	79
GS1 DataBar Limited	]e*m*		{	7B
GS1 DataBar Expanded	]e*m*		}	7D
GS1-128	]C1		I	49
2 of 5				
China Post (Hong Kong 2 of 5)	]X0		Q	51
Interleaved 2 of 5	]I*m*	0, 1, 3	e	65
Matrix 2 of 5	]X0		m	6D
NEC 2 of 5	]X0		Y	59
Straight 2 of 5 IATA	]R*m*	0, 1, 3	f	66
Straight 2 of 5 Industrial	]S0		f	66
MSI	]M*m*	0, 1	g	67
Telepen	]B*m*		t	74
UPC		0, 1, 2, 3, 8, 9, A, B, C		

	AIM		Honeywell	
Symbology	**ID**	**Possible modifiers** (*m*)	**ID**	**Hex**
UPC-A	]E0		c	63
UPC-A with Add-On	]E3		c	63
UPC-A with Extended Coupon Code	]E3		c	63
UPC-E	]E0		E	45
UPC-E with Add-On	]E3		E	45
UPC-E1	]X0		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	]z*m*	0-9, A-C	z	7A
Chinese Sensible Code (Han Xin Code)	]X0		H	48
Codablock A	]O6	0, 1, 4, 5, 6	V	56
Codablock F	]O*m*	0, 1, 4, 5, 6	q	71
Code 49	]T*m*	0, 1, 2, 4	l	6C
Data Matrix	]d*m*	0-6	w	77
GS1	]e*m*	0-3		
GS1 Composite	]e*m*	0-3	y	79
GS1 DataBar Omnidirectional	]e*m*		y	79
MaxiCode	]U*m*	0-3	x	78
PDF417	]L*m*	0-2	r	72
MicroPDF417	]L*m*	3-5	R	52
QR Code	]Q*m*	0-6	s	73
Micro QR Code	]Q*m*		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 Bar Code	]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 characters		ASCII control	Keyboard Control + ASCII (CTRL+X) Mode		
				Windows Mode Control + X Mode On (KBDCAS2)	
DEC	HEX	Char	Control + X Mode Off (KBDCAS0)	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	*(Apple Make)*	CTRL+ H	History
9	09	HT	Tab	CTRL+ I	Italic
10	0A	LF	*(Apple Break)*	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	⌂	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

Printable Characters (Continued)								
DEC	HEX	Character	DEC	HEX	Character	DEC	HEX	Character
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	ƒ	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	ˆ	ê	Page Up	0x49
137	89	‰	ë	Page Down	0x51
138	8A	Š	è	Right ALT	0x38
139	8B	‹	ï	Right CTRL	0x1D
140	8C	Œ	î	Reserved	n/a
141	8D		ì	Reserved	n/a
142	8E	Ž	Ä	Numeric Keypad Enter	0x1C
143	8F		Å	Numeric Keypad /	0x35
144	90		É	F1	0x3B
145	91	'	æ	F2	0x3C
146	92	'	Æ	F3	0x3D
147	93	"	ô	F4	0x3E

Extended ASCII Characters (Continued)					
DEC	HEX	CP 1252	ASCII	Alternate Extended	PS2 Scan Code
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	›	¢	F12	0x58
156	9C	œ	£	Numeric Keypad +	0x4E
157	9D		¥	Numeric Keypad -	0x4A
158	9E	ž	Pts	Numeric Keypad *	0x37
159	9F	Ÿ	ƒ	Caps Lock	0x3A
160	A0		á	Num Lock	0x45
161	A1	¡	í	Left Alt	0x38
162	A2	¢	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	¦	ª	Tab	0x0F
167	A7	§	º	Shift Tab	0x8F
168	A8	¨	¿	Enter	0x1C
169	A9	©	⌐	Esc	0x01
170	AA	ª	¬	Alt Make	0x36
171	AB	«	½	Alt Break	0xB6
172	AC	¬	¼	Control Make	0x1D
173	AD		¡	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	┴		
194	C2	Â	┬		
195	C3	Ã	├		
196	C4	Ä	─		
197	C5	Å	í		
198	C6	Æ	╞		
199	C7	Ç	╟		

Extended ASCII Characters (Continued)					
DEC	HEX	CP 1252	ASCII	Alternate Extended	PS2 Scan Code
200	C8	È	╚		
201	C9	É	╔		
202	CA	Ê	╩		
203	CB	Ë	╦		
204	CC	Ì	╠		
205	CD	Í	═		
206	CE	Î	╬		
207	CF	Ï	╧		
208	D0	Ð	╨		
209	D1	Ñ	╤		
210	D2	Ò	╥		
211	D3	Ó	╙		
212	D4	Ô	╘		
213	D5	Õ	╒		
214	D6	Ö	╓		
215	D7	×	╫		
216	D8	Ø	╪		
217	D9	Ù	┘		
218	DA	Ú	┌		
219	DB	Û	█		
220	DC	Ü	▄		
221	DD	Ý	▌		
222	DE	Þ	▐		
223	DF	ß	▀		
224	E0	à	α		
225	E1	á	ß		
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	÷	≈		
248	F8	ø	°		
249	F9	ù	·		
250	FA	ú	·		
251	FB	û	√		

Extended ASCII Characters (Continued)					
DEC	HEX	CP 1252	ASCII	Alternate Extended	PS2 Scan Code
252	FC	ü	n		
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 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, select the code page with which the bar codes 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
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	#	$	§	¡	Ñ	¿	^	`	°	ñ	ç	~
ES	51	91	#	$	·	¡	Ñ	Ç	¿	`	´	ñ	ç	¨
COUNTRY	Country Keyboard	Honeywell CodePage	**ISO / IEC 646 National Character Replacements**											

Unicode Key Maps

| 6E | | 70 71 72 73 | | 74 75 76 77 | | 78 79 7A 7B | | 7C 7D 7E | | | | |

104 Key U.S. Style Keyboard

105 Key European Style Keyboard

Sample Symbols

UPC-A
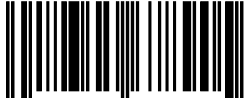
0 123456 7890

Interleaved 2 of 5
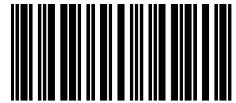
1234567890

EAN-13
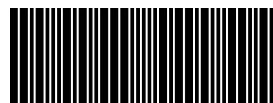
9 780330 290951

Code 128
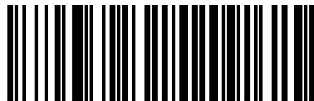
Code 128

Code 39

BC321

Codabar

A13579B

Code 93

123456-9$

Code 2 of 5

123456

Matrix 2 of 5

6543210

RSS-14

(01)00123456789012

Sample Symbols

PDF417

Car Registration

Code 49
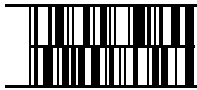
1234567890

Postnet

Zip Code

Data Matrix

Test Symbol

QR Code

Numbers
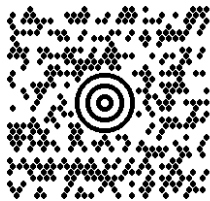
Aztec

Package Label

MaxiCode

Test Message

Micro PDF417

Test Message

**OCR-A with Modulo 36
check character**

532427D

**OCR-A with Modulo 10
check character**

5324277

Programming Chart

‖‖‖‖‖‖‖‖
K0K
0

‖‖‖‖‖‖‖‖
K1K
1

‖‖‖‖‖‖‖‖
K2K
2

‖‖‖‖‖‖‖‖
K3K
3

‖‖‖‖‖‖‖‖
K4K
4

‖‖‖‖‖‖‖‖
K5K
5

‖‖‖‖‖‖‖‖
K6K
6

‖‖‖‖‖‖‖‖
K7K
7

‖‖‖‖‖‖‖‖
K8K
8

‖‖‖‖‖‖‖‖
K9K
9

Programming Chart

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 Scanning & Mobility

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Fort Mill, SC 29707

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