

PSC[®]

**DUET™ / VS800™
Scanner**



DUET Scanner



VS800 Scanner

Programming Kit

PSC Scanning, Inc.

959 Terry Street

Eugene, Oregon 97402

Telephone: (541) 683-5700

Toll Free: (800) 547-2507

Telefax: (541) 686-1702

PSC and the PSC logo are registered trademarks of PSC INC. Duet and VS800 are trademarks of PSC INC.

This manual and its contents are copyrighted, with all rights reserved. Under copyright law, this manual may not be copied in whole or in part without the prior written consent of PSC. The same proprietary and copyright notices must appear on any permitted copies as appear on the original. This exception does not permit copies to be made for others, whether or not sold. Under the law, copying includes translating into another language or format.

The information and specifications contained in this manual are subject to change without notice. PSC shall not be held liable for damages resulting from the use or misuse of the information contained herein.

Contents

Programming Your Scanner	2
Programmable Features	5
Return to Factory Settings	6
Additional Features	7
Programmable Rear Scan Line	9
Programmable Speaker Features	11
LED Lamp/Indication Features	28
Timeouts	31
Setting Laser Timeout	32
Setting Motor Timeout	36
Setting Double Read Timeout	41
Interface Selection	47
Changing Interfaces	48
RS-232 Interface Configuration	71
RS-232 Restrictions	72
RS-232 Host Echo Feature	93
RS-232 ACK/NAK Options	109
OCIA Interface Configuration	114
Wand Interface Configuration	121
Keyboard Wedge Interface Configuration	134
IBM 46xx Configuration	157

Label Transmit	
Format Configuration Items	164
Setting Label I.D.	165
Symbology Selection	172
UPC/EAN Options	186
UPC/EAN Expansion	188
UPC/EAN Check Digit Transmission	196
UPC/EAN/Instore Minimum Read Settings	209
Code 39 Options	230
Code 39 Stitching Options	241
Code 128 Options	263
Code 128 Minimum Read Settings	265
Interleaved 2 of 5 Options	274
I 2 of 5 Minimum Read Settings	280
I 2 of 5 Length Control	285
I 2 of 5 Fixed Length	301
Codabar Options	336
Codabar Minimum Read Settings	342
MSI/Plessey Options	355
MSI/Plessey Minimum Read Settings	363
Index	368

Programming with Bar Codes

This programming kit contains the procedures and bar code programming labels necessary to set the scanner's programmable features.

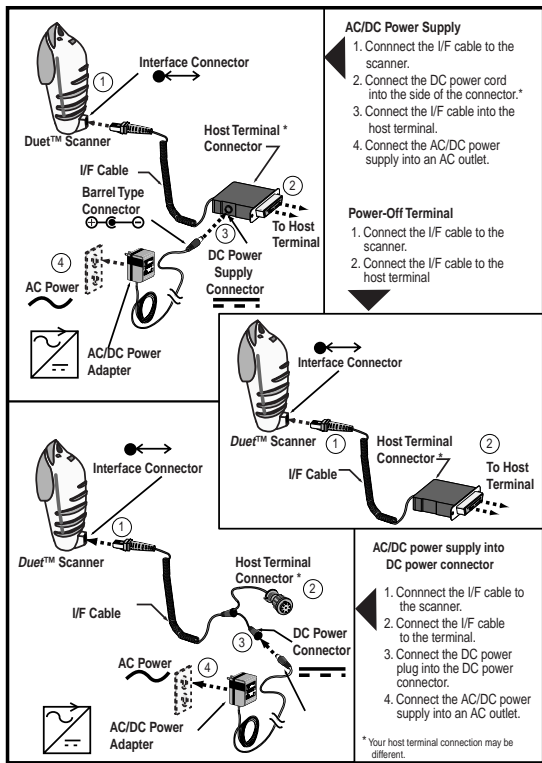
Programming Your Scanner

To program your scanner:

1. Power up the scanner to be programmed by one of the following methods:
 - Connect the scanner's interface cable at the scanner. Plug the AC/DC Adapter into an electrical outlet of the appropriate voltage and connect its other end at either the port located on the scanner's interface cable connector (furthest from the scanner) or its "pigtail" connection (see Figure 1*).
 - If the scanner is configured to receive power off the terminal (POT), connect the scanner via its interface cable to a working host terminal.

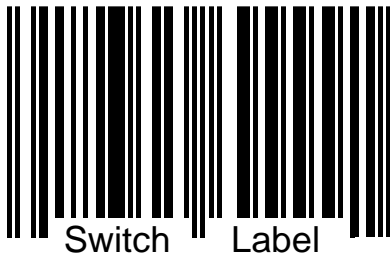
Wait for the scanner to complete the Selftest routine and emit four tones. The green lamp will light dimly, indicating that the scanner is in normal Operating Mode.

Figure 1. Power Up Scanner



2. Put the scanner into Programming Mode by scanning the **Programming Switch** bar code located on the next page and on the inside back cover. The green LED flashes continuously indicating that the scanner is in Programming Mode.
3. Scan the programming bar code(s) for the feature you want to change. The scanner will emit three beeps to indicate that the bar code has been read and the setting has been stored in the scanner's memory. Scan the remaining programming bar codes as required. If a bar code scanned is not a valid programming bar code, the scanner will emit a "chirping" (rapid beeping) rejection tone.
4. After all the desired programming bar codes have been successfully scanned, exit Programming Mode by scanning the **Programming Switch** bar code once again. The scanner will reset and emit four beeps during the power-up sequence.

The green lamp will light dimly, indicating that the scanner is ready for normal operation.



Programmable Features

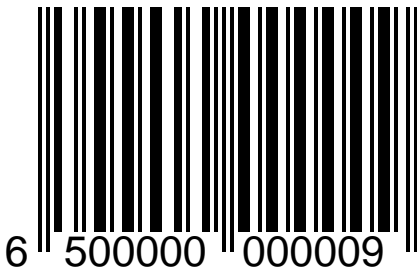
The remainder of this programming kit contains programming bar codes for all programmable features for the Duet™ and VS800 scanners. Refer to the detailed features listing shown in the index at the back of this manual to find the individual features that you wish to change.

Return to Factory Settings

Use this bar code to reset all options back to the original factory default settings for the current interface. For example, if your scanner's current interface is RS-232, all settings will return to the scanner's original factory settings for the RS-232 interface.

NOTE

Any settings you have selected in a previous programming session will be lost.



Additional Features

Other features are available for the scanner that are not included in this programming kit. Call PSC technical support for more information.

Some features not included here are:

- EAN13 number system digit (NSD)
- EAN two label configuration items (includes several options)
- UPC/EAN price/weight check digit options
- Addon label configuration items (includes several options)
- Coupon label configuration items (includes several options)
- Italian Pharmacode 39
- Keyboard Wedge send special characters, also quiet interval
- RS-232 ACK/NAK (includes several options)

- Full label editing configuration (includes several options for RS-232 and Keyboard Wedge)
- Symbology-specific Label I.D. control (Keyboard Wedge and RS-232 interfaces)
- Codabar fixed length control
- MSI/Plessey fixed length control

Programmable Rear Scan Line

The scanner's standard configuration comes with the single rear scan line pointer always on and ready for use. The bar codes on the next page allow you to change the operation of the rear scan line to be completely off until you push the button. Pressing the button automatically activates both the spotter beam and bar code reading.

To change your scanner's settings, use the rear scan line to scan the Switch Label, then the label for setting the rear laser mode and scan the Switch Label again. The scanner will reset and invoke the new mode of operation. This setting will be saved.

Rear Window Laser Always On



Rear Window Laser on When Trigger is Pressed



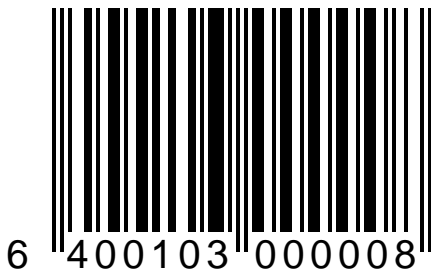
Programmable Speaker Features

The speaker has six programmable features:

- The speaker's **Good Read Indication** can be turned on or off.
- **Good Read Tone Length** can be adjusted to one of three different settings.
- Good read **Volume** can be set to one of three levels.
- **Speaker Tone** (pitch/frequency) can be programmed to sound at one of three settings.
- The tone sounded at power-up (**Power-up Tone**) can be enabled or disabled.
- **When to Indicate Good Read**

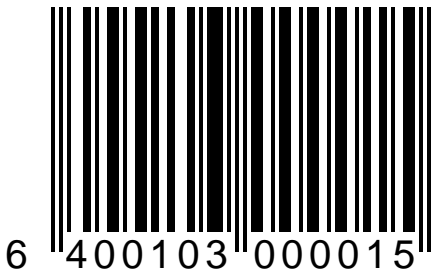
Speaker ("Good Read" Indication): ON

Use this bar code to enable the speaker's "good read" indication.



Speaker ("Good Read" Indication): Off

Use this bar code to disable the speaker's "good read" indication.



"Good Read" Tone Length = 100 ms.

Use this bar code to set the "good read" tone length to 100 milliseconds



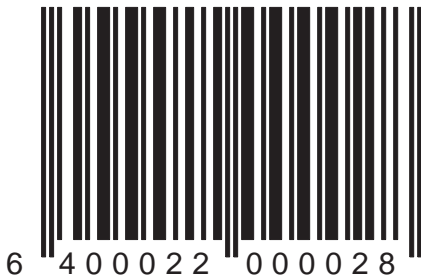
"Good Read" Tone Length = 250 ms.

Use this bar code to set the "good read" tone length to 250 milliseconds



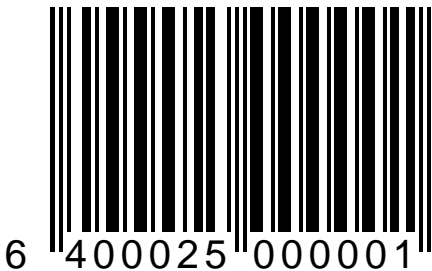
"Good Read" Tone Length = 500 ms.

Use this bar code to set the "good read" tone length to 500 milliseconds.



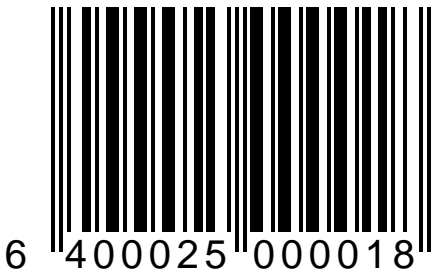
Speaker Volume = Low

Use this bar code to set the speaker volume to low.



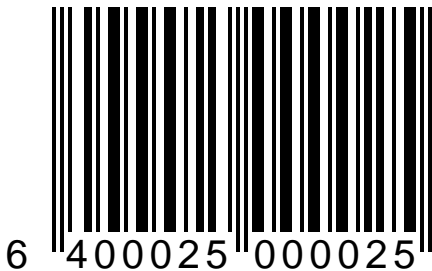
Speaker Volume = Medium

Use this bar code to set the speaker volume to medium.



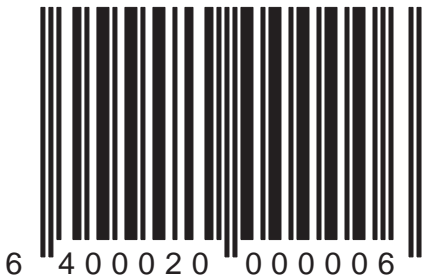
Speaker Volume = High

Use this bar code to set the speaker volume to high.



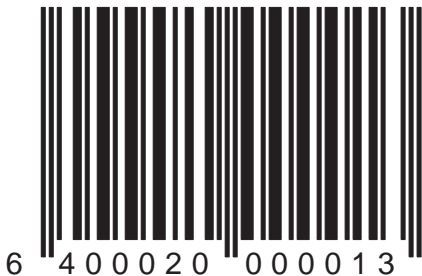
Speaker Tone = Low

Use this bar code to set the speaker tone to low.



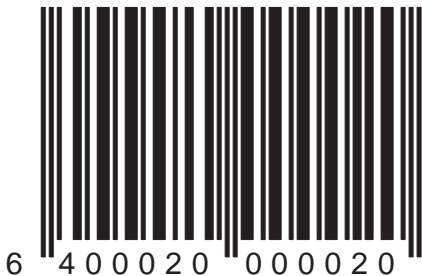
Speaker Tone = Medium

Use this bar code to set the speaker tone to medium.



Speaker Tone = High

Use this bar code to set the speaker tone to high.



Power-up Tone — Enable

Use this bar code to enable the tone sounded on power-up.



Power-up Tone — Disable

Use this bar code to disable the tone sounded on power-up.



When to Indicate "Good Read" = After Decode

Use this bar code to indicate a "good read" after a bar code has been successfully decoded.



When to Indicate "Good Read" = After Transmit

Use this bar code to indicate a "good read" after successfully transmitting the bar code data to the host.



When to Indicate "Good Read" = CTS Goes Inactive, Then Active (RS-232 ONLY)

Use this bar code to indicate "good read" after CTS switches from inactive to active.



LED Lamp/Indication Features

LED Features

The scanner's LED lamp can be programmed to indicate the scanner is idle:

- LED lamp is **off** when scanner is idle
- LED lamp is **dim** when scanner is idle

LED Lamp When Scanner is Idle = OFF

Use this bar code to set the LED lamp to OFF when the scanner is idle.



LED Lamp When Scanner is Idle = DIM

Use this bar code to set the LED lamp to DIM when the scanner is idle.



Timeouts

Timeouts allow you to shut off the scanner's laser and/or motor if the scanner isn't used for a predetermined period of time. This feature is included to reduce power consumption and lengthen scanner life.

NOTE

Laser safety requires that the laser switch off before the motor. If you set the motor timeout shorter than the laser timeout, the laser will switch off when the motor times out.

Setting Laser Timeout

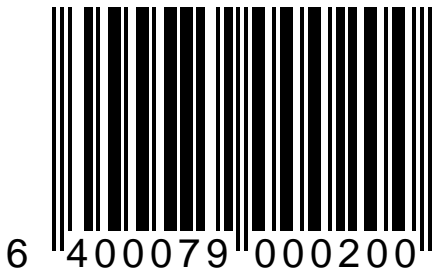
The laser timeout programming bar codes set the time for switching the laser off if the scanner isn't used.

The selections are:

- Laser timeout = 5 minutes
- Laser timeout = 10 minutes
- Laser timeout = 15 minutes

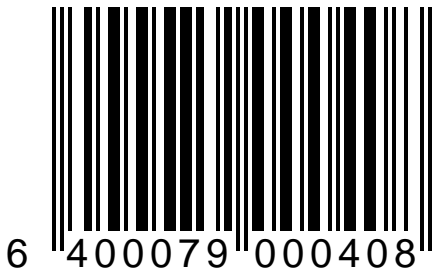
Laser Timeout = 5 Minutes

Use this bar code to set the laser timeout to 5 minutes.



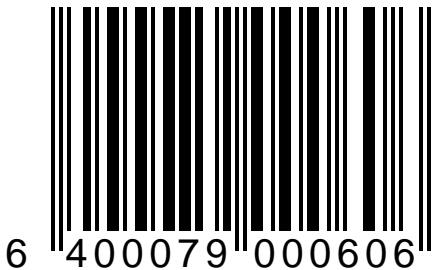
Laser Timeout = 10 Minutes

Use this bar code to set the laser timeout to 10 minutes.



Laser Timeout = 15 Minutes

Use this bar code to set the laser timeout to 15 minutes.



Setting Motor Timeout

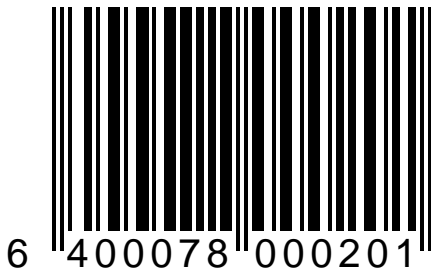
The Motor Timeout programming bar codes set the time for switching the motor off if the scanner isn't used. The motor will not timeout before the laser times out.

The selections are:

- Motor timeout = 5 minutes
- Motor timeout = 15 minutes
- Motor timeout = 30 minutes
- Motor timeout = 60 minutes

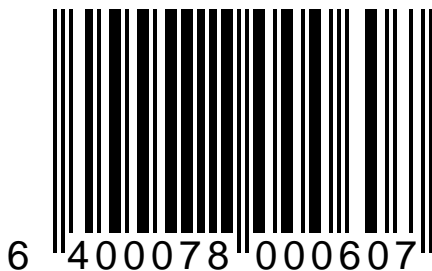
Motor Timeout = 5 Minutes

Use this bar code to set the motor timeout to 5 minutes.



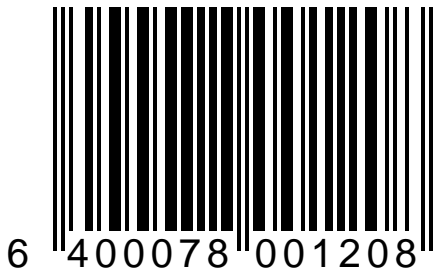
Motor Timeout = 15 Minutes

Use this bar code to set the motor timeout to 15 minutes.



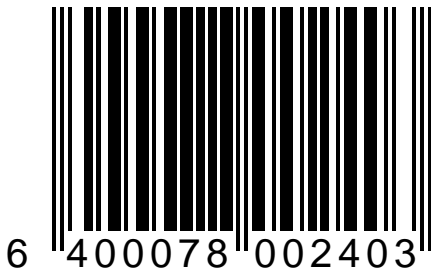
Motor Timeout = 30 Minutes

Use this bar code to set the motor timeout to 30 minutes.



Motor Timeout = 60 Minutes

Use this bar code to set the motor timeout to 60 minutes.



Setting Double Read Timeout

The double read timeout sets a time limit that determines how much time must pass before reading the same bar code (e.g. two identical items) again. A typical setting is 600 ms.

The selections are:

- Double read timeout = 400 milliseconds
- Double read timeout = 500 milliseconds
- Double read timeout = 600 milliseconds
- Double read timeout = 800 milliseconds
- Double read timeout = 1 second

Double Read Timeout = 400 ms.

Use this bar code to set the double read timeout to 400 ms.



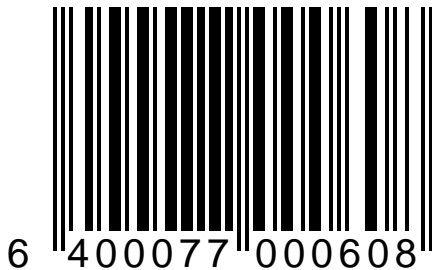
Double Read Timeout = 500 ms.

Use this bar code to set the double read timeout to 500 ms.



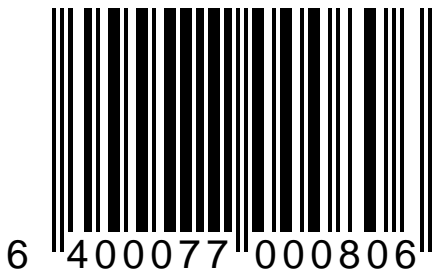
Double Read Timeout = 600 ms.

Use this bar code to set the double read timeout to 600 ms. This is the recommended setting.



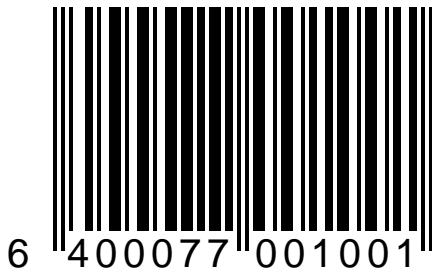
Double Read Timeout = 800 ms.

Use this bar code to set the double read timeout to 800 ms.



Double Read Timeout = 1 second

Use this bar code to set the double read timeout to 1 second.



Interface Selection

The scanner must be configured to operate with your POS terminal. The following interfaces are supported:

- OCIA (PSC)
- OCIA (NCR)
- OCIA (NCR 9-bit)
- OCIA (SNI)
- RS-232 (PSC)
- RS-232 (SNI)
- IBM 4683 (port 17)
- IBM 4683 (port 5B)
- IBM 4683 (port 9B)
- IBM 4682/3 (port E)
- Wand Emulation
- Keyboard Wedge
(Types listed below)

	PCs Supported
1	IBMAT & compatible, PS/2 25-286, 30-286, 50, 50Z, 60, 70, 80, 90 & 95. Use country mod to configure specific foreign keyboard
2	IBMAT & compatible, PS/2 25-286, 30-286, 50, 50Z, 60, 70, 80, 90 & 95 w/foreign keyboard/ALT mod
3	PCXT w/US keyboard
4	PCXT w/foreign keyboard/ALT mod
5	PS/2 25 and 30 w/US keyboard
6	PS/2 25 and 30 w/foreign keyboard/ALT mod
7	IBM317x, 318x, 319x, 34xx w/122 key keyboard
8	IBM31xx w/102 key keyboard (terminal keyboard)
9	Japanese DOS 101 key (JDOS)
10	NEC 9801

Changing Interfaces

Before changing the interface (I/F), ensure that the correct I/F board is present in the scanner. Call your PSC® dealer if you're not sure how to check this.

To change the scanner's current interface:

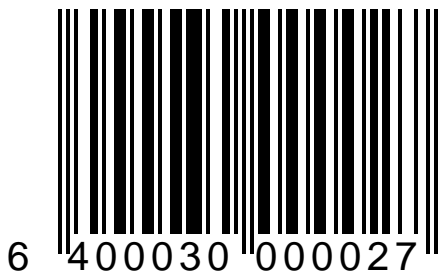
1. Place the scanner in Programming Mode (see *Programming Your Scanner* at the front of this manual).
2. Locate the programming bar code in this section for the required interface type (for example: RS-232) and scan the bar code.
3. It may be necessary to configure certain features for the interface selected (such as baud rate or parity) to ensure proper function with the host terminal. Proceed to the configuration section for that interface (for example: *RS-232 Configuration*) and determine which (if any) settings should be modified.
4. After programming all the chosen features, exit Programming Mode (see *Programming Your Scanner* at the front of this manual).

Host I/F	Symbolics Supported					
	UPC/ EAN Family	Code 39	12 of 5	Codebar	Code 128	MSI/ Plessey
COAIFSC	♦	♦	♦	♦	♦	
COIANDR 8bit	♦					
COIASN	♦	♦	♦	♦	♦	
COIANDR 9bit	♦	♦	♦		♦	
RS232	♦	♦	♦	♦	♦	♦
RS232- SN	♦	♦	♦	♦	♦	♦
IBM4683 Port 5B	♦	♦	♦			
IBM4683 Port 9B	♦	♦	♦		♦	
IBM4682 Port E	♦	♦	♦	♦	♦	
IBM4683 Port 17	♦	♦	♦	♦	♦	
WendEmul	♦	♦	♦	♦	♦	♦
Keybd Wedge (all)	♦	♦	♦	♦	♦	♦

* UPC/EAN family P2, P5 and Code 128 add-ons are supported by some interfaces.

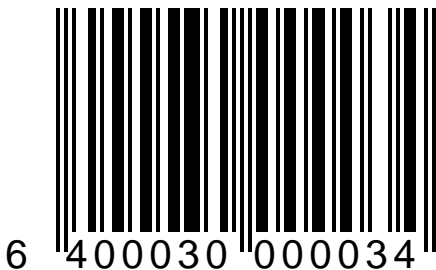
Interface Type = OCIA (PSC)

Scan this bar code to select the PSC OCIA interface protocol.



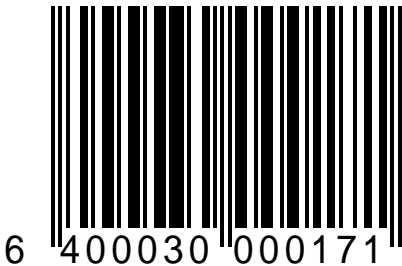
Interface Type = OCIA (NCR 8 Bit)

Scan this bar code to select the OCIA interface type compatible with an NCR 8 bit POS system.



Interface Type = OCIA (NCR 9 Bit)

Scan this bar code to select the OCIA interface type compatible with an NCR 9 bit POS system.



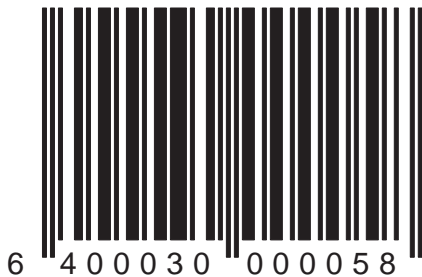
Interface Type = OCIA (SNI)

Scan this bar code to select the OCIA interface type compatible with an SNI POS system.



Interface Type = RS-232 (PSC)

Scan this bar code to select the standard RS-232 interface type.



Interface Type = RS-232 (SNI)

Scan this bar code to select the RS-232 interface type compatible with an SNI POS system.



Interface Type = IBM 4683 (Port 17)

Scan this bar code to select the
IBM 4683 Port 17 interface type.



Interface Type = IBM 4683 (Port 5B)

Scan this bar code to select the
IBM 4683 Port 5B interface type.



Interface Type = IBM 4683 (Port 9B)

Scan this bar code to select the
IBM 4683 Port 9B interface type.



Interface Type = IBM 4682/3 (Port E)

Scan this bar code to select the
IBM 4682/3 Port E interface type.



Interface Type = Wand Emulation

Scan this bar code to select
Wand Emulation as the active
interface type.



Interface Type = Keyboard Wedge Type: IBM AT & Compatible PS-2 US/Foreign

Scan this bar code to select the IBM AT & Compatible PS-2 Keyboard Wedge as the active interface type. This interface supports the following:

- IBM AT & compatible w/US keyboard.
- PS/2 25-286, 30-286, 50, 50Z, 60, 70, 80, 90 & 95 w/US keyboard (Use country mode to configure specific foreign keyboards).



Interface Type = Keyboard Wedge Type: IBM AT & Compatible PS-2, Foreign ALT

Scan this bar code to select the IBM AT & Compatible PS-2, with foreign keyboard ALT mode as the active interface type. The type B Keyboard Wedge interface supports the following:

- IBM AT & compatible w/foreign keyboard ALT mode.
- PS/2 25-286, 30-286, 50, 50Z, 60, 70, 80, 90 w/foreign keyboard ALT mode.



Interface Type = Keyboard Wedge Type: PC/XT (with US Keyboard)

Scan this bar code to select PC/XT
with (US keyboard) Keyboard
Wedge as the active interface
type.



Interface Type = Keyboard Wedge Type: PC/XT (with Foreign Keyboard ALT Mode)

Scan this bar code to select the
PC/XT with foreign keyboard
ALT mode Keyboard Wedge as
the active interface type.



Interface Type = Keyboard Wedge Type: PS/2 25 and 30 (w/US Keyboard)

Scan this bar code to select the PS/2 25 and 30 (with US keyboard) Keyboard Wedge as the active interface type.



Interface Type = Keyboard Wedge Type: PS/2 25 and 30 (w/Foreign Keyboard ALT Mode)

Scan this bar code to select the
PS/2 25 and 30 (with foreign
keyboard ALT mode) Keyboard
Wedge as the active interface type.



**Interface Type = Keyboard Wedge Type:
IBM 317x, 318x, 319x, 34xx w/122 Key Keyboard**

Scan this bar code to select IBM
317x, 318x, 319x, 34xx (w/122 key
keyboard) Keyboard Wedge as the
active interface type.



Interface Type = Keyboard Wedge Type: IBM 31xx w/102 Key (Terminal) Keyboard

Scan this bar code to select the IBM 31xx w/102 key (terminal keyboard) Keyboard Wedge as the active interface type.



Interface Type = Keyboard Wedge Type: Japanese DOS 101 Key (TDOS)

Scan this bar code to select the
Japanese DOS 101 Key (TDOS)
Keyboard Wedge as the active
interface type.



Interface Type = Keyboard Wedge Type: NEC 9801

Scan this bar code to select the
NEC 9801 Keyboard Wedge as the
active interface type.



RS-232 Interface Configuration

The programming bar codes in this section pertain only to POS terminals with an RS-232 communication interface. In order for the POS terminal and scanner to communicate, the scanner's configuration must match the communication settings of the POS terminal. Typically, the scanner's factory default configuration has been preset to match your POS terminal requirements.

RS-232 interface communication options are:

- Baud Rate
- Parity
- Data Bits
- Stop Bits
- Hardware Control (CTS Flow/Scan Control)
- Software Control (Xon/Xoff)
- Host Echo
- Intercharacter Delay

NOTE

The RS-232 interface must first be selected (reference the *Interface Selection* section of this manual) before you can set the RS-232 options in this section.

RS-232 Restrictions

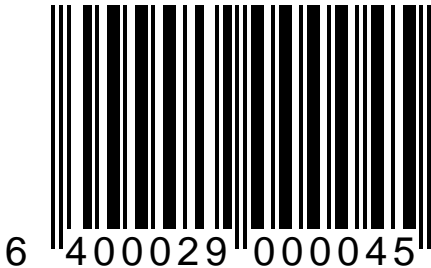
RS-232 interface hardware and software data flow control features are mutually exclusive and both should not be enabled at the same time.

CTS/RTS – hardware flow control. If this feature is enabled, Xon/Off (software flow control) should be disabled. The result of enabling both flow controls is unpredictable.

Xon/Xoff – software flow control. If this feature is enabled, CTS/RTS (hardware flow control) should be disabled. The result of enabling both flow controls is unpredictable.

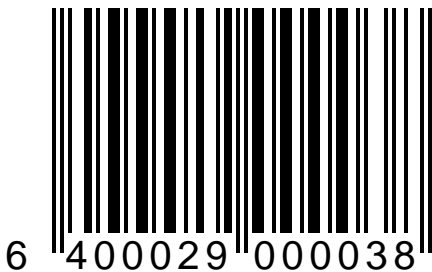
RS-232: Baud Rate = 1200

Use this bar code to set the RS-232
baud rate to 1200.



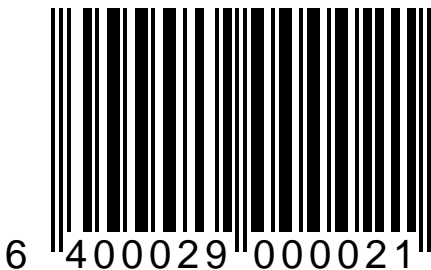
RS-232: Baud Rate = 2400

Use this bar code to set the RS-232
baud rate to 2400.



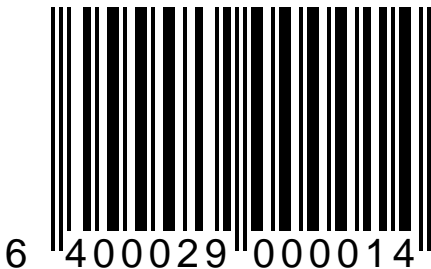
RS-232: Baud Rate = 4800

Use this bar code to set the RS-232
baud rate to 4800.



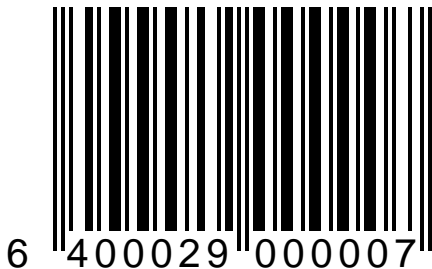
RS-232: Baud Rate = 9600

Use this bar code to set the RS-232
baud rate to 9600.



RS-232: Baud Rate = 19200

Use this bar code to set the RS-232
baud rate to 19200.



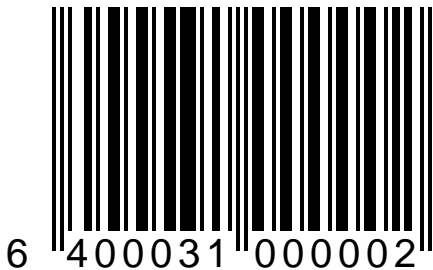
RS-232: Baud Rate = 38400

Use this bar code to set the RS-232
baud rate to 38400.



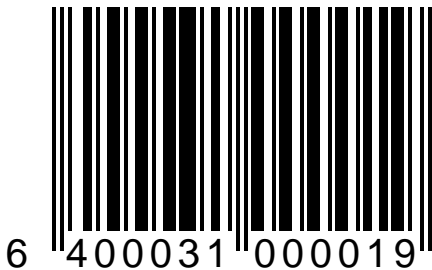
RS-232: Parity = None

Use this bar code to set parity to None.



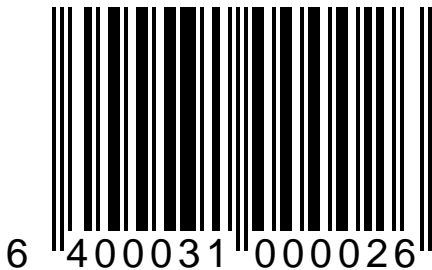
RS-232: Parity = Even

Use this bar code to set parity to Even.



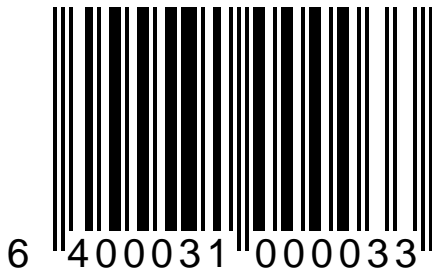
RS-232: Parity = Odd

Use this bar code to set parity to
Odd.



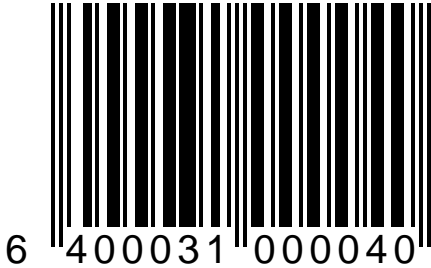
RS-232: Parity = Mark

Use this bar code to set parity to Mark.



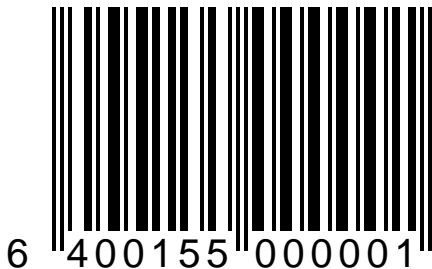
RS-232: Parity = Space

Use this label to set parity to Space.



RS-232: Data Bits = 7

Use this bar code to set the RS-232 data format to seven bits.



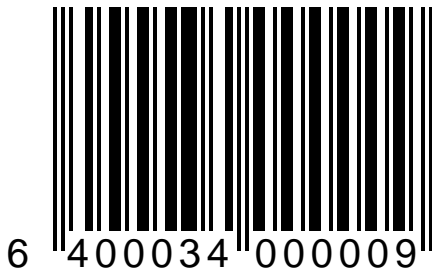
RS-232: Data Bits = 8

Use this bar code to set the RS-232 data format to eight data bits.



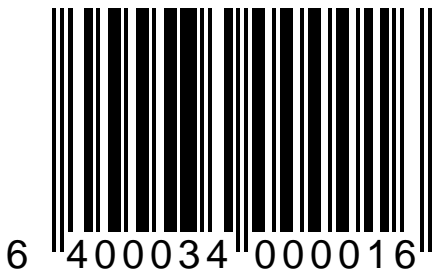
RS-232: Stop Bits = 1

Use this bar code to set the number of stop bits to one.



RS-232: Stop Bits = 2

Use this bar code to set the number of stop bits to two.



RS-232: CTS Flow Control — Enable

When Clear To Send (CTS) flow control is enabled, the CTS signal controls the transmission of data to the host.

NOTE

If this feature is enabled, Xon/Off (software flow control) should be disabled (scan the bar code: *Xon/Xoff—Disable*). The result of enabling both flow controls is unpredictable.

Scan the bar code below to enable CTS flow control.



RS-232: CTS Scan Control — Enable

When this option is enabled, the Clear To Send (CTS) line must be active for the scanner to read and transmit data. While the CTS line is inactive, the scanner will remain in a host disabled state. Following a successful transmission, the CTS signal must transition to inactive and then to active to enable scanning for the next bar code.

Scan the bar code below to enable CTS scan control.



RS-232: Hardware Control — Disable

When hardware control (CTS flow control and/or CTS scan control) is disabled, the scanner will transmit data to the host regardless of any activity on the CTS line.

Scan the bar code below to disable hardware control.



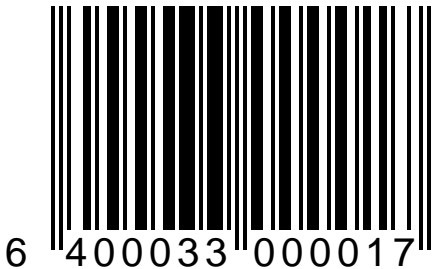
RS-232: Software Control (Xon/Xoff) — Enable

Use this bar code to enable Xon/Xoff for data flow control.

NOTE

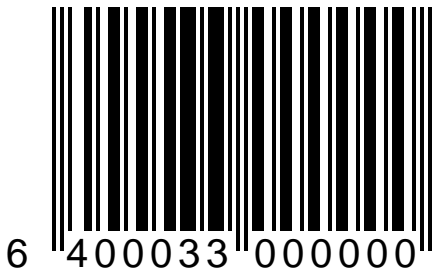
If this feature is enabled, CTS Flow Control should be disabled (scan the bar code: *Hardware Control—Disable*). The result of enabling both flow controls is unpredictable.

This configuration item will be ignored if Host Echo is enabled.



RS-232: Software Control (Xon/Xoff) — Disable

Use this bar code to disable Xon/
Xoff (no data flow control).



RS-232 Host Echo Feature

The scanner can be configured to echo (to the host) all characters received. The scanner shall echo character data as well as an RS-232 break. The priority of transmission is:

1. Break data
2. Label data
3. Echo data

NOTE

If the transmission is inhibited for any reason, the character will be buffered until transmission is enabled. Additional characters received during this time will overwrite the buffered character.

When transmission with parity has been configured, the scanner will calculate and apply the proper parity to the data being transmitted. The parity of the received data is ignored.

RS-232: Host Echo — Enable

Scan this bar code to enable Host Echo.



RS-232: Host Echo — Disable

Scan this bar code to disable Host Echo.



RS-232: Intercharacter Delay = 0

This feature sets the delay between the end of one character and the beginning of the next, in 10 millisecond increments.

This delay is enforced between all transmitted elements including host echo characters.

Scan this bar code to set intercharacter delay to specify no delay.



RS-232: Intercharacter Delay = 10 ms. Delay

Scan this bar code to set
intercharacter delay to 10 millise-
conds.



RS-232: Intercharacter Delay = 20 ms. Delay

Scan this bar code to set
intercharacter delay to 20 millise-
conds.



RS-232: Intercharacter Delay = 30 ms. Delay

Scan this bar code to set
intercharacter delay to 30 millise-
conds.



RS-232: Intercharacter Delay = 40 ms. Delay

Scan this bar code to set
intercharacter delay to 40 milliseconds.



RS-232: Intercharacter Delay = 50 ms. Delay

Scan this bar code to set
intercharacter delay to 50 millise-
conds.



RS-232: Intercharacter Delay = 60 ms. Delay

Scan this bar code to set intercharacter delay to 60 milliseconds.



RS-232: Intercharacter Delay = 70 ms. Delay

Scan this bar code to set
intercharacter delay to 70 millise-
conds.



RS-232: Intercharacter Delay = 80 ms. Delay

Scan this bar code to set
intercharacter delay to 80 millise-
conds.



RS-232: Intercharacter Delay = 90 ms. Delay

Scan this bar code to set
intercharacter delay to 90 millise-
conds.



RS-232: Intercharacter Delay = 100 ms. Delay

Scan this bar code to set
intercharacter delay to 100 milli-
seconds.



RS-232: Intercharacter Delay = 120 ms. Delay

Scan this bar code to set
intercharacter delay to 120
milliseconds.



RS-232: Intercharacter Delay = 140 ms. Delay

Scan this bar code to set
intercharacter delay to 140 milli-
seconds.



RS-232 ACK/NAK Options

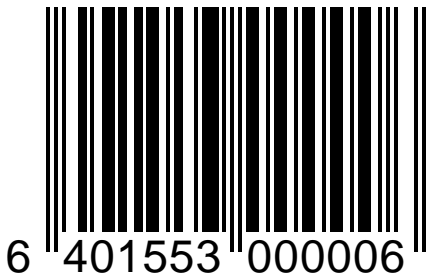
Several ACK/NAK parameters can be set for your scanner. Contact your PSC® dealer if the specific ACK/NAK option you wish to set is not included in this section.

Options for RS-232 ACK/NAK are:

- Disable ACK/NAK
- Enable ACK/NAK for bar code transmission
- Enable ACK/NAK for host command acknowledge
- Enable ACK/NAK for bar code transmission and host command acknowledge

RS-232: ACK/NAK—Disable

Scan this bar code to disable the ACK/NAK feature.



RS-232: ACK/NAK— Enable for Bar Code Transmission

Scan this bar code to enable the ACK/NAK feature for bar code transmission.



RS-232: ACK/NAK— Enable for Host Command Acknowledge

Scan this bar code to enable the
ACK/NAK feature for host
command acknowledge.



RS-232: ACK/NAK — Enable for Bar Code Transmission and Host Acknowledge

Scan this bar code to enable the ACK/NAK feature for bar code transmission and host acknowledge.



OCIA Interface Configuration

The following programming bar codes pertain only to POS terminals with an OCIA communication interface. In order for the POS terminal and scanner to communicate, the scanner's configuration must match the communication settings of the POS terminal. Typically, the scanner's factory default configuration has been preset to match your POS terminal requirements.

OCIA interface communication options are:

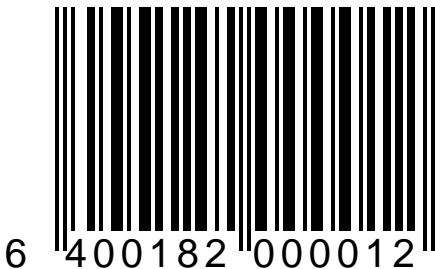
- Intercharacter Delay
- Host Commands
- Beep on "Not on File"

NOTE

The OCIA interface must first be selected (reference the *Interface Selection* section of this manual) before you can set the OCIA options in this section.

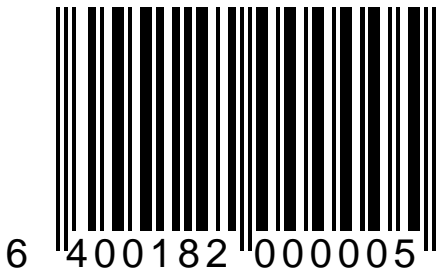
OCIA: Intercharacter Delay — Enable

Scan this bar code to enable an OCIA intercharacter delay of 70 microseconds.



OCIA: Intercharacter Delay — Disable

Scan this label to disable the OCIA intercharacter delay.



OCIA: Host Commands — Enable

The scanner can be configured to respond to host commands.

Scan this bar code to enable scanner response to OCIA host commands.



OCIA: Host Commands — Disable

The scanner can be configured to respond to host commands.

Scan this bar code to disable scanner response to OCIA host commands.



OCIA: Beep On Not On File — Enable

When enabled, this feature will cause the scanner to sound 21 Good Read Beeps upon receipt of a Not On File command from the host.

Note

OCIA host commands must be enabled for this option to work (scan the *OCIA: Host Commands — Enable* bar code).

Scan this bar code to enable the "beep on not on file" option.



OCIA: Beep On Not On File — Disable

Scan this bar code to disable the "beep on not on file" option.



Wand Interface Configuration

The following programming bar codes pertain only to POS terminals with the Wand Emulation communication interface. In order for the POS terminal and scanner to communicate, the scanner's configuration must match the communication settings of the POS terminal. Typically, the scanner's factory default configuration has been preset to match your POS terminal requirements. Wand interface communication options are:

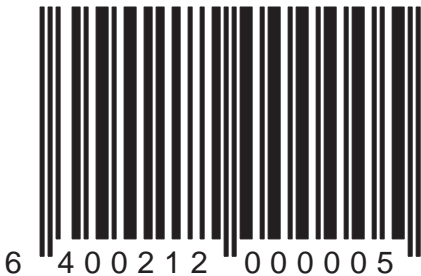
- Polarity
- Signal Speed
- Idle State
- Label Format
- Leading Noise

NOTE

The Wand interface must first be selected (reference the *Interface Selection* section of this manual) before you can set the Wand options in this section.

Wand Emulation: Polarity = ...Bars Low

Scan this bar code to set quiet zones and spaces high and bars low.



Wand Emulation: Polarity = ...Bars High

Scan this bar code to set quiet zones and spaces low and bars high.



Wand Emulation: Signal Speed = 330 μ s

Scan this bar code to set signal speed at 330 μ s per nominal bar or space.



Wand Emulation: Signal Speed = 660 μ s

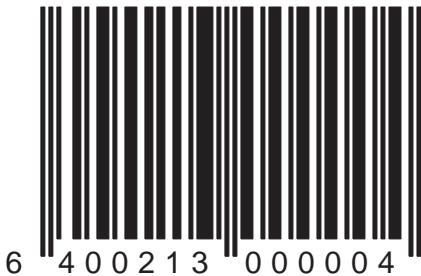
Scan this bar code to set signal speed at 660 μ s per nominal bar or space.



Wand Emulation: Idle State = Low

Idle state refers to the TTL logic level of the Wand Emulation signal when not in use. When the idle state is low, the output signal is between 0.0 and 0.7 VDC; the standard TTL logic low range.

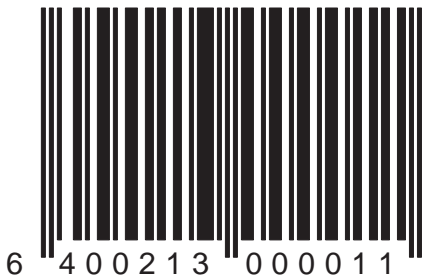
Scan this bar code to set the idle to low.



Wand Emulation: Idle State = High

Idle state refers to the TTL logic level of the Wand Emulation signal when not in use. When the idle state is high, the output signal is between 2.4 and 5.25 VDC, the standard TTL logic high range.

Scan this bar code to set the idle to high.



Wand Emulation: Label Format = Normal Mode

Scan this bar code to instruct the scanner to send label data to the host in its original format without any translation.



Wand Emulation: Label Format = Code 39

Scan this bar code to instruct the scanner to translate label data into Code 39 format before sending it to the host.



Wand Emulation: Label Format = Code 39 Full ASCII

Scan this bar code to instruct the scanner to translate label data into Code 39 full ASCII format before sending it to the host. Label data that is not in the Code 39 character set will be transmitted using full ASCII encoding.



Wand Emulation: Label Format = Code 128

Scan this bar code to instruct the scanner to translate label data into Code 128 format before sending it to the host. The label will be rejected if it contains data that is not in the Code 128 character set.



Wand Emulation: Leading Noise — Enable

When this option is enabled, the scanner generates noise transitions prior to sending the label data to the host. This noise signal notifies the host that label data is coming.

Scan this bar code to enable the feature.



Wand Emulation: Leading Noise — Disable

When this option is enabled, the scanner generates noise transitions prior to sending the label data to the host. This noise signal notifies the host that label data is coming.

Scan this bar code to disable the feature.



Keyboard Wedge Interface Configuration

The following programming bar codes pertain only to POS terminals with a Keyboard Wedge communication interface. In order for the POS terminal and scanner to communicate, the scanner's configuration must match the communication settings of the POS terminal. Typically, the scanner's factory default configuration has been preset to match your POS terminal requirements. Keyboard Wedge interface communication options are:

- Intercharacter Delay
- Keyboard Support
- Country /Language Selection
- Caps Lock

NOTE

The Keyboard Wedge interface must first be selected (reference the *Interface Selection* section of this manual) before you can set the options in this section.

Keyboard Wedge: Intercharacter Delay = 5ms.

Scan this bar code to set the Keyboard Wedge intercharacter delay to 5 milliseconds (the minimum delay setting).



Keyboard Wedge: Intercharacter Delay = 10ms.

Scan this bar code to set the
Keyboard Wedge intercharacter
delay to 10 milliseconds.



Keyboard Wedge: Intercharacter Delay = 20ms.

Scan this bar code to set the
Keyboard Wedge intercharacter
delay to 20 milliseconds.



Keyboard Wedge: Intercharacter Delay = 50ms.

Scan this bar code to set the
Keyboard Wedge intercharacter
delay to 50 milliseconds.



Keyboard Wedge: Keyboard Support — Disable

Scan this bar code if you are using a system with an external keyboard.



Keyboard Wedge: Keyboard Support — Enable

Scan this bar code if you are using a system with no external keyboard.



Keyboard Wedge: Country Mode = USA

Scan this bar code to select USA as the country/language supported by the keyboard.



Keyboard Wedge: Country Mode = Belgium

Scan this bar code to select Belgium as the country/language supported by the keyboard.



Keyboard Wedge: Country Mode = Britain

Scan this bar code to select Britain as the country/language supported by the keyboard.



Keyboard Wedge: Country Mode = Denmark

Scan this bar code to select Denmark as the country/language supported by the keyboard.



Keyboard Wedge: Country Mode = France

Scan this bar code to select France as the country/language supported by the keyboard.



Keyboard Wedge: Country Mode = Germany

Scan this bar code to select Germany as the country/language supported by the keyboard.



Keyboard Wedge: Country Mode = Japan

Scan this bar code to select Japan as the country/language supported by the keyboard.



Keyboard Wedge: Country Mode = Italy

Scan this bar code to select Italy as the country/language supported by the keyboard.



Keyboard Wedge: Country Mode = Norway

Scan this bar code to select Norway as the country/language supported by the keyboard.



Keyboard Wedge: Country Mode = Portugal

Scan this bar code to select Portugal as the country/language supported by the keyboard.



Keyboard Wedge: Country Mode = Spain

Scan this bar code to select Spain as the country/language supported by the keyboard.



Keyboard Wedge: Country Mode = Sweden

Scan this bar code to select Sweden as the country /language supported by the keyboard.



Keyboard Wedge: Country Mode = Switzerland

Scan this bar code to select Switzerland as the country / language supported by the keyboard.



Keyboard Wedge: Caps Lock = Off

Scan this bar code to send character data (to the host) in normal format.



Keyboard Wedge: Caps Lock = On

Scan this bar code to send character data (to the host) in reverse case:

- (a...z) = (A...Z)
- (A...Z) = (a...z)

Use this feature if your caps lock is on.



Keyboard Wedge: Caps Lock = Shift-Lock

Scan this bar code to send character data (to the host) in shifted case. Use this feature if your Shift Lock is on.

NOTE

For use with Keyboard Wedge Interface Type G (122-key keyboard) ONLY.



IBM 46xx Configuration

The following programming bar codes pertain only to POS terminals with IBM 46xx communication interfaces. In order for the POS terminal and scanner to communicate, the scanner's configuration must match the communication settings of the POS terminal. Typically, the scanner's factory default configuration has been preset to match your POS terminal requirements.

46xx communication options are:

- Limit Command Set
- Transmit in Code 39 Format
- Transmit Unsolicited Status

NOTE

The IBM 46xx interface must first be selected (reference the *Interface Selection* section of this manual) before you can set the options in this section.

IBM 46xx: Limit Command Set

Scanning this bar code will cause the scanner to appear to accept “disable laser” commands from the host, but in fact, not process these commands. Status responses to the host, however, will indicate the the laser has been disabled.



IBM 46xx: Do Not Limit Command Set

Scan this bar code to disable the
Limit Command Set feature.



IBM 46xx: Transmit in Code 39 Format — Enable

Scanning this bar code will set the scanner's symbology identifier to Code 39. Bar codes scanned while this feature is enabled will be transmitted to the host as Code 39, with no data checking or conversion.



IBM 46xx: Transmit in Code 39 Format — Disable

Scan this bar code to disable the
“Transmit in Code 39” feature.

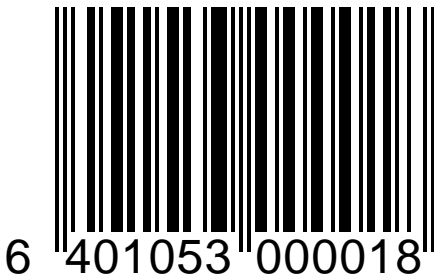


IBM 46xx: Transmit Unsolicited Status — Enable

Scan this bar code to cause the scanner to transmit a status message to the host upon receipt of an “SNRM”.

NOTE

This feature should be used with IBM Port 5B and Port 17 terminals.

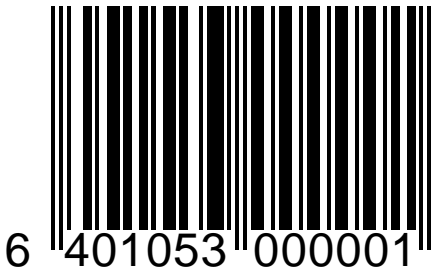


IBM 46xx: Transmit Unsolicited Status — Disable

Scan this bar code to disable the
“Transmit Unsolicited Status”
feature.

NOTE

Disable this feature when the scanner is
used with IBM Port 9B and Port E termi-
nals.



Label Transmit Format Configuration Items

(RS-232 and Keyboard Wedge Interfaces Only)

If you need to send information in addition to label data, the scanner can be configured to transmit symbology specific identifier characters (Label I.D.).

Label transmit options are:

- Transmit Label I.D. as Prefix (Preamble)
- Transmit Label I.D. as Suffix (Postamble)
- Disable Label I.D.
- Global Suffix

Setting Label I.D.

Label identifiers consist of one or two ASCII characters that can precede or follow barcode label data as it is transmitted to the host. The host uses these characters as a means of distinguishing between symbologies.

The established industry standards used are symbology-specific label identifiers, and are listed in the table below. Most scanners will be factory configured with the label I.D. used as a prefix.

UPC-A	'A'	EAN-8 (5 Add-on)	'FF'
UPC-E	'E'	EAN-8 (8 Add-on)	'FF'
EAN-8	'FF'	EAN-13 (2 add-on)	'F'
EAN-13	'F'	EAN-13 (5 Add-on)	'F'
UPC-A (2 add-on)	'A'	EAN-13 (8 Add-on)	'F'
UPC-A (5 Add-on)	'A'	Code 39	'*'
UPC-A (8 Add-on)	'A'	Codabar	'%'
UPC-E (2 add-on)	'E'	Interleaved.2 of 5	'i'
UPC-E (5 Add-on)	'E'	Code 93	'&'
UPC-E (8 Add-on)	'E'	Code 128	'#'
EAN-8 (2 add-on)	'FF'	MSI/Plessey	'@'

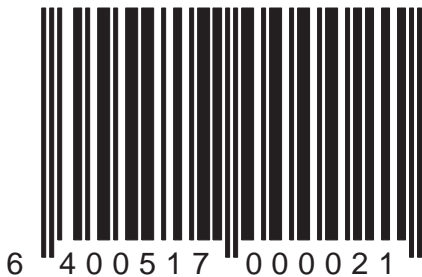
Transmit Label I.D. as Prefix

Scan this bar code to transmit the label I.D. as a prefix.



Transmit Label I.D. as Suffix

Scan this bar code to transmit the label I.D. as a suffix.



Transmit Label I.D. — Disable

Scan this bar code to disable transmission of the label I.D. (prefix and/or suffix).



Global Suffix = None

Scan this bar code to transmit no
global suffix.



Global Suffix = <CR>

Scan this bar code to transmit a carriage return as the global suffix.



**Global Suffix = <CR><LF>
(RS-232 ONLY)**

Scan this bar code to transmit a carriage return and line feed as the global suffix.



Symbology Selection

The scanner has the ability to read and auto-discriminate between the following bar code types (symbologies):

- UPC/EAN (symbology family)
- Code 39
- Code 128
- Codabar
- Interleaved 2 of 5 (I 2 of 5)
- MSI/Plessey

Any combination of the symbologies listed can be enabled simultaneously; however, to improve scanning performance, you should enable only those symbologies that will be in active use.

NOTE

If Code 39 stitching is enabled, Code 39 and the UPC/EAN family will be the ONLY symbologies that can be recognized.

Symbology Selection — continued

The programming bar codes for symbology selection are contained on the following pages. Be sure the symbology you wish to select is compatible with your POS terminal **before** you change these settings (see the “Symbologies Supported” table in the *Interface Selection* section of this kit).

To change symbologies:

1. Place the scanner in Programming Mode (see *Programming Your Scanner* at the front of this manual).
2. Locate the programming bar code in this section for the symbology you wish to enable or disable (for example: *Code 39 — Enable*) and scan the bar code.
3. You may desire or need to select certain options for the symbology selected. Proceed to the options section for that symbology (for example: *Code 39 Options*) and determine which (if any) option settings should be modified.

4. After programming all the chosen features, exit Programming Mode (see *Programming Your Scanner* at the front of this manual).

UPC/EAN Symbology Family — Enable

Use this bar code to enable UPC and EAN bar codes as active symbologies.

NOTE

The UPC/EAN symbology family also includes the Japanese Article Numbering system (JAN).

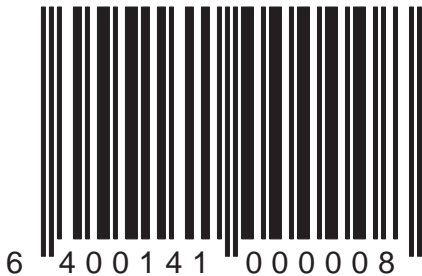


UPC/EAN Symbology Family — Disable

Use this bar code to disable UPC and EAN as active symbologies.

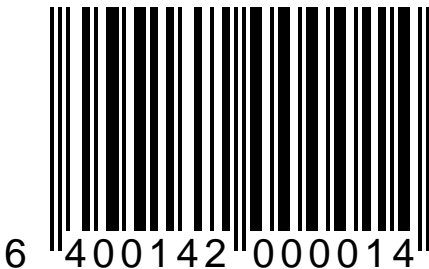
NOTE

The UPC/EAN symbology family is always active for the purpose of reading programming bar code labels. Scanning this bar code disables UPC/EAN transmission to the host (disables decoding of UPC/EAN non-programming labels).



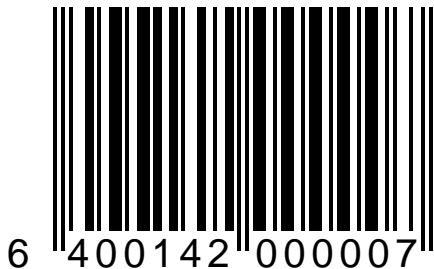
Code 39 — Enable

Use this bar code to select Code 39 as an active symbology.



Code 39 — Disable

Use this bar code to disable
Code 39 as an active symbology.



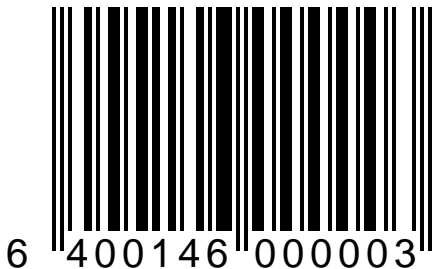
Code 128 — Enable

Use this bar code to enable Code 128 as an active symbology.



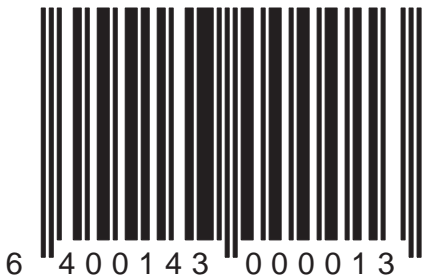
Code 128 — Disable

Use this bar code to disable Code 128 as an active symbology.



Codabar — Enable

Use this bar code to enable
Codabar as an active symbology.



Codabar – Disable

Use this bar code to disable
Codabar as an active symbology.



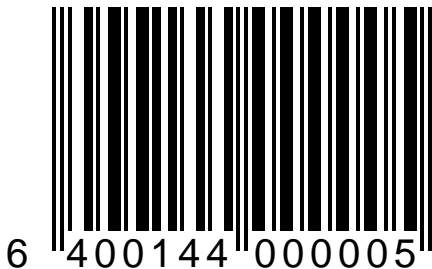
I 2 of 5 — Enable

Use this bar code to enable Interleaved 2 of 5 as an active symbology.



I 2 of 5 — Disable

Use this bar code to disable
Interleaved 2 of 5 as an active
symbology.



MSI/Plessey — Enable

Use this bar code to enable
MSI/Plessey as an active symbol-
ogy.



MSI/Plessey – Disable

Use this bar code to disable
MSI/Plessey as an active symbol-
ogy.



UPC/EAN Options

UPC/EAN family symbology options are contained on the following several pages. These options include:

- UPC/EAN Expansion
- Check Digit Transmission
- Number System Digit (NSD) Transmission
- Minimum Read

To use options available in this section:

1. Place the scanner in Programming Mode (see *Programming Your Scanner* at the front of this manual).
2. If UPC/EAN bar codes have not been enabled as active symbologies for the scanner being programmed, go to the *Symbology Selection* section of this manual and scan the *UPC/EAN Symbology — Enable* programming bar code.
3. Scan the bar codes in this section to modify the desired UPC/EAN options.

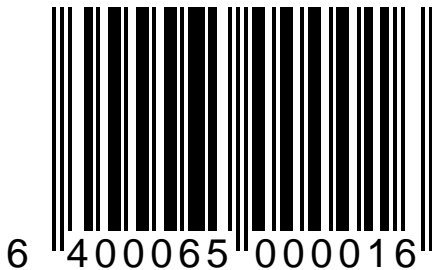
4. After programming all the chosen features, exit Programming Mode (reference *Programming Your Scanner* at the front of this manual).

UPC/EAN Expansion

The bar codes on the following pages allow you to change the UPC/EAN data transmission format.

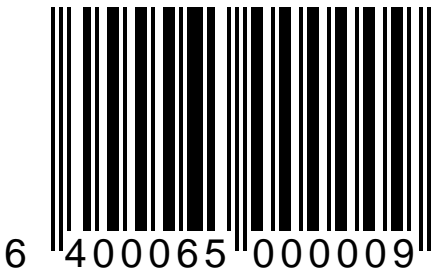
UPC-E to UPC-A Expansion — Enable

Use this bar code to enable the expansion of UPC-E data to UPC-A format before transmission to the host terminal. Enabling this feature will automatically disable the 'Expand UPC-E to EAN-13' feature.



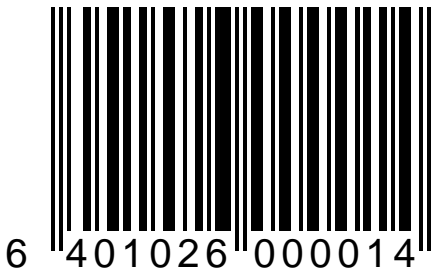
UPC-E to UPC-A Expansion — Disable

Use this bar code to disable the expansion of UPC-E data to UPC-A format before transmission to the host terminal.



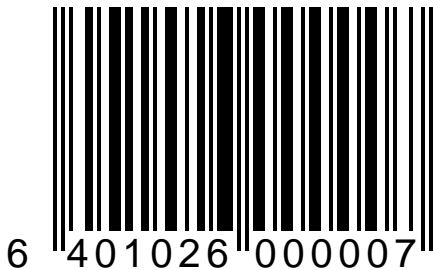
UPC-E to EAN-13 Expansion — Enable

Use this bar code to enable the expansion of UPC-E data to EAN-13 format before transmission to the host terminal. Enabling this feature will automatically disable the 'Expand UPC-E to UPC-A' feature.



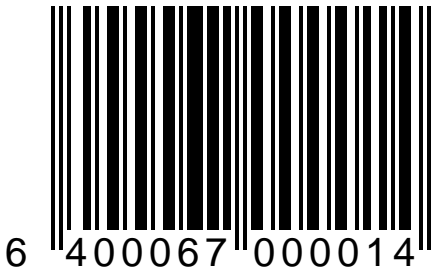
UPC-E to EAN-13 Expansion — Disable

Use this bar code to disable the expansion of UPC-E data to EAN-13 format before transmission to the host terminal.



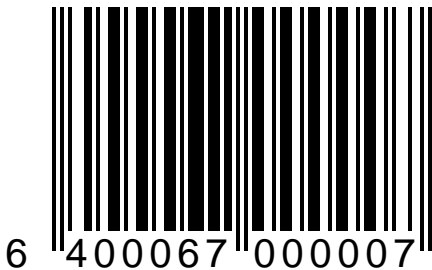
UPC-A to EAN-13 Expansion — Enable

Use this bar code to enable the expansion of UPC-A data to EAN-13 format before transmission to the host terminal.



UPC-A to EAN-13 Expansion — Disable

Use this bar code to disable the expansion of UPC-A data to EAN-13 format before transmission to the host terminal.



EAN-8 to EAN-13 Expansion — Enable

Use this bar code to enable the expansion of EAN-8 data to EAN-13 format before transmission to the host terminal.



EAN-8 to EAN-13 Expansion — Disable

Use this bar code to disable the expansion of EAN-8 data to EAN-13 format before transmission to the host terminal.



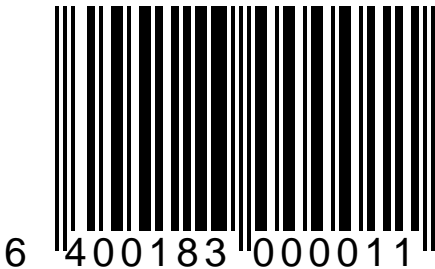
UPC/EAN Check Digit Transmission

The following pages contain the programming bar codes for enabling and disabling the transmission of UPC and EAN check digits.

- UPC-A Check Digit Transmission
- UPC-E Check Digit Transmission
- EAN-8 Check Digit Transmission
- EAN-13 Check Digit Transmission
- UPC-E Number System Digit (NSD) Transmission

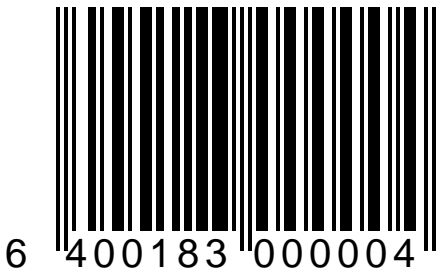
UPC-A Check Digit Transmission — Enable

Use this bar code to enable sending the UPC-A check digit to the host.



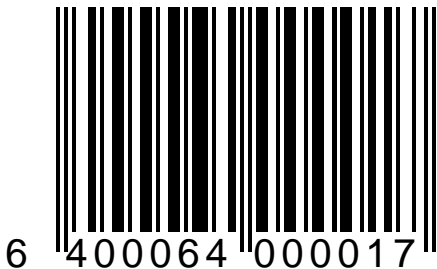
UPC-A Check Digit Transmission — Disable

Use this bar code to disable sending the UPC-A check digit to the host.



UPC-E Check Digit Transmission — Enable

Use this bar code to enable sending the UPC-E check digit to the host.



UPC-E Check Digit Transmission — Disable

Use this bar code to disable sending the UPC-E check digit to the host.



EAN-8 Check Digit Transmission — Enable

Use this bar code to enable sending the EAN-8 check digit to the host.



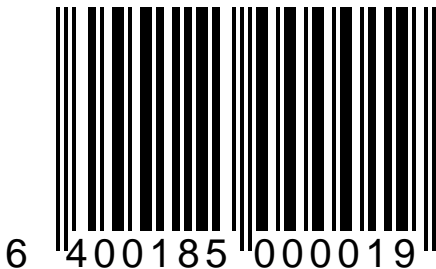
EAN-8 Check Digit Transmission — Disable

Use this bar code to disable sending the EAN-8 check digit to the host.



EAN-13 Check Digit Transmission — Enable

Use this bar code to enable sending the EAN-13 check digit to the host.



EAN-13 Check Digit Transmission — Disable

Use this bar code to disable sending the EAN-13 check digit to the host.



UPC-A Number System Digit Transmission — Enable

Use this bar code to enable
sending the UPC-A Number
System Digit (NSD) to the host.

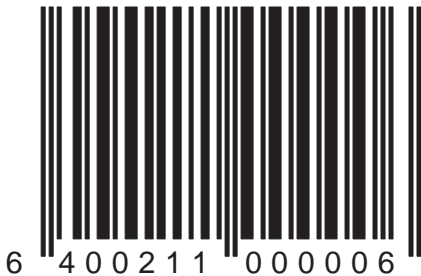


UPC-A Number System Digit Transmission — Disable

Use this bar code to disable sending the UPC-A Number System Digit (NSD) to the host.

NOTE

Disabling this feature may cause potential data duplication.



UPC-E Number System Digit Transmission — Enable

Use this bar code to enable
sending the UPC-E Number
System Digit (NSD) to the host.



UPC-E Number System Digit Transmission — Disable

Use this bar code to disable sending the UPC-E Number System Digit (NSD) to the host.



UPC/EAN/Instore Minimum Read Settings

Minimum read settings define the minimum number of consecutive times a bar code must be decoded with the same result before it is accepted as a good read. A higher minimum read setting offers more assurance that a bar code has been read correctly, while a lower setting allows faster scanning performance.

Selections for this option are:

- UPC-A Minimum Read (1, 2, 3, or 4)
- UPC-E Minimum Read (1, 2, 3, or 4)
- EAN-8 Minimum Read (1, 2, 3, or 4)
- EAN-13 Minimum Read (1, 2, 3, or 4)
- Instore Printed Bar Codes Minimum Read (1, 2, 3, or 4)

UPC-A Minimum Read = 1

Use this bar code to set the
UPC-A minimum read to 1.



UPC-A Minimum Read = 2

Use this bar code to set the
UPC-A minimum read to 2.



UPC-A Minimum Read = 3

Use this bar code to set the
UPC-A minimum read to 3.



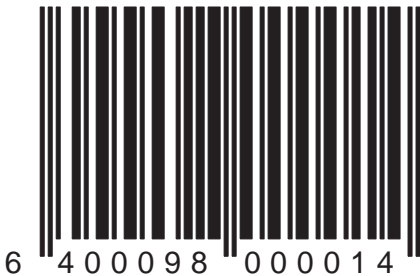
UPC-A Minimum Read = 4

Use this bar code to set the
UPC-A minimum read to 4.



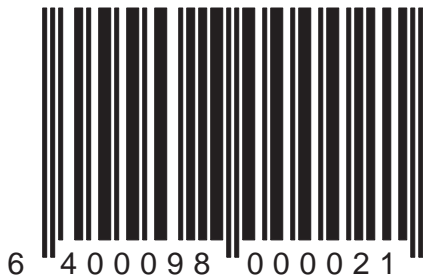
UPC-E Minimum Read = 1

Use this bar code to set the
UPC-E minimum read to 1.



UPC-E Minimum Read = 2

Use this bar code to set the
UPC-E minimum read to 2.



UPC-E Minimum Read = 3

Use this bar code to set the
UPC-E minimum read to 3.



UPC-E Minimum Read = 4

Use this bar code to set the
UPC-E minimum read to 4



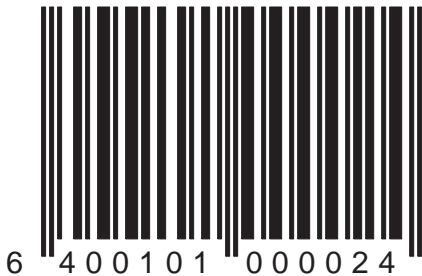
EAN-8 Minimum Read = 1

Use this bar code to set the
EAN-8 minimum read to 1.



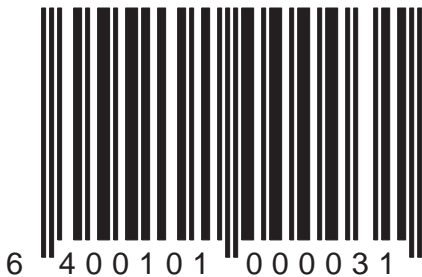
EAN 8-Minimum Read = 2

Use this bar code to set the
EAN-8 minimum read to 2.



EAN-8 Minimum Read = 3

Use this bar code to set the
EAN-8 minimum read to 3.



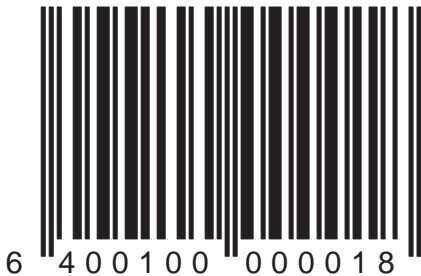
EAN-8 Minimum Read = 4

Use this bar code to set the
EAN-8 minimum read to 4.



EAN-13 Minimum Read = 1

Use this bar code to set the
EAN-13 minimum read to 1.



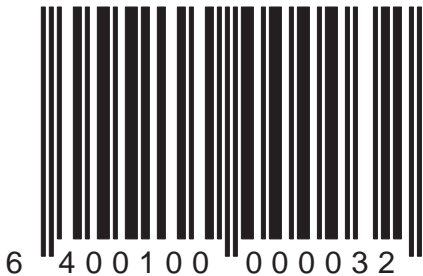
EAN-13 Minimum Read = 2

Use this bar code to set the
EAN-13 minimum read to 2.



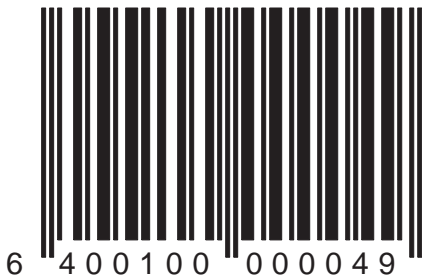
EAN-13 Minimum Read = 3

Use this bar code to set the
EAN-13 minimum read to 3.



EAN-13 Minimum Read = 4

Use this bar code to set the
EAN-13 minimum read to 4.



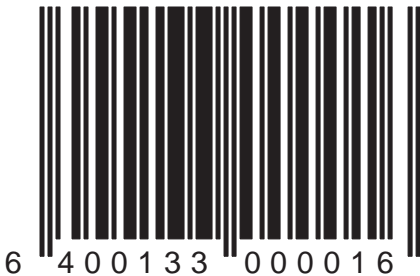
Instore Minimum Read = 1

Use this bar code to set the
Instore label minimum read to 1.

NOTE

Instore labels are typically defined as:

- UPCA bar codes with a Number System Digit (NSD) of 2 or 4
or
- EAN-8 or EAN13 bar codes with flag 1 or 2.



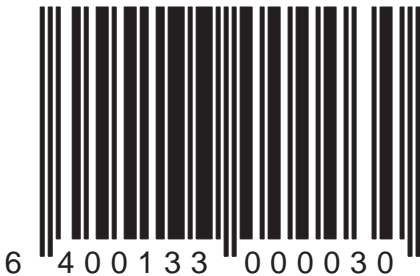
Instore Minimum Read = 2

Use this bar code to set the
Instore label minimum read to 2.



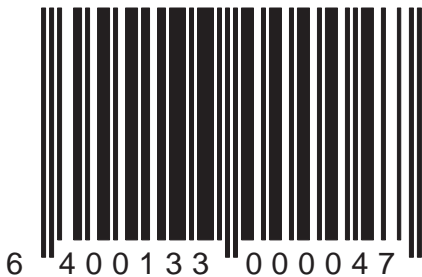
Instore Minimum Read = 3

Use this bar code to set the
Instore label minimum read to 3.



Instore Minimum Read = 4

Use this bar code to set the
Instore label minimum read to 4.



Code 39 Options

Options for the Code 39 symbology are contained on the following several pages. These options include:

- Check Character Verification
- Check Character Transmission
- Minimum Read
- Code 39 Stitching
- Full ASCII Translation
- Start/Stop Characters

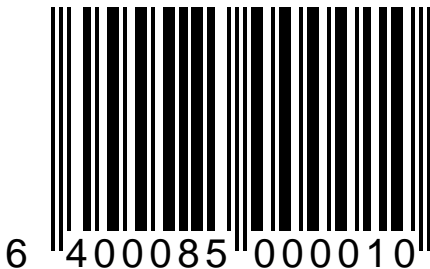
To use options available in this section:

1. Verify that Code 39 is a symbology supported by the scanner's current interface (see the Symbologies Supported table in the *Interface Selection* section of this manual).
2. Place the scanner in Programming Mode (see *Programming Your Scanner* at the front of this manual).

3. If Code 39 has not been enabled as an active symbology for the scanner being programmed, go to the *Symbology Selection* section of this manual and scan the *Code 39 — Enable* programming bar code.
4. Scan the bar codes in this section to modify the desired Code 39 options.
5. After programming all the chosen features, exit Programming Mode (see *Programming Your Scanner* at the front of this manual).

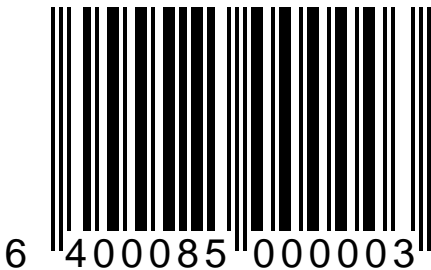
Code 39: Check Character — Verify

Use this bar code to enable calculation and verification of the optional Code 39 check character. (The check character will not be sent to the host unless you also enable *Code 39: Check Character — Send*). This feature checks to see if data collected matches the bar code's internal check character.



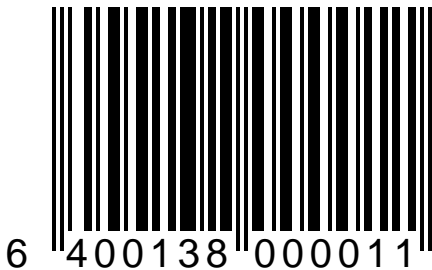
Code 39: Check Character — Don't Verify

Using this bar code disables verification of the Code 39 check character. If you disable this feature, you should also scan the bar code that disables sending the Code 39 check character.



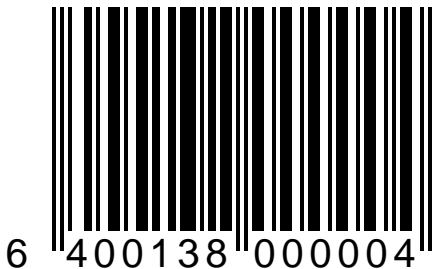
Code 39: Check Character — Send

Use this bar code to instruct the scanner to send an optional Code 39 check character to the host terminal. This feature will have no affect unless *Code 39: Check Character — Verify* is also enabled.



Code 39: Check Character — Don't Send

Use this bar code to disable transmission of an optional Code 39 check character to the host terminal.



Code 39 Minimum Read Settings

Minimum read settings define the minimum number of consecutive times a bar code must be decoded with the same result before it is accepted as a good read. A higher minimum read setting offers more assurance that a bar code has been correctly read, while a lower setting allows faster scanning performance.

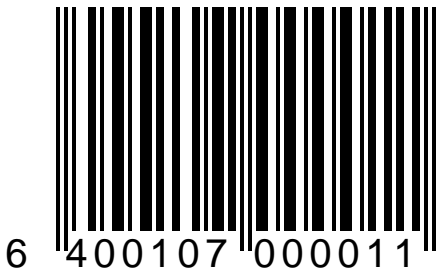
Selections for this option are:

- Code 39: Minimum Read = 1
Use this setting when you do not experience misreads.
- Code 39: Minimum Read = 2
Use this setting when you occasionally experience misreads.
- Code 39: Minimum Read = 3
Use this setting when you regularly experience misreads.
- Code 39: Minimum Read = 4
Use this setting when misreads are a common problem.

If you must use settings of 3 or 4, examine your bar code printing/production methods.

Code 39: Minimum Read = 1

Use this bar code to set the Code 39 minimum read setting to 1.



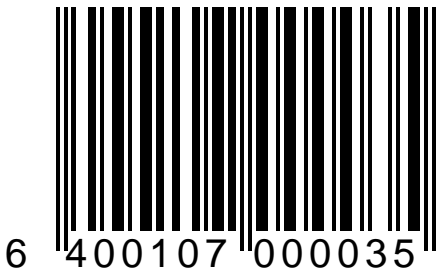
Code 39: Minimum Read = 2

Use this bar code to set the Code 39 minimum read setting to 2.



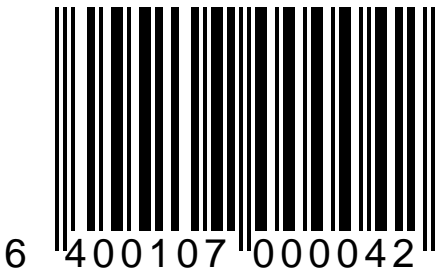
Code 39: Minimum Read = 3

Use this bar code to set the Code 39 minimum read setting to 3.



Code 39: Minimum Read = 4

Use this bar code to set the Code 39 minimum read setting to 4.



Code 39 Stitching Options

The scanner can be configured to perform Code 39 stitching, an advanced method of decoding Code 39 bar codes that are damaged, hard to read, or extended in length.

NOTE

When Code 39 stitching is enabled, UPC/EAN and Code 39 bar codes are the only symbologies that can be decoded by the scanner (see the *Symbology Selection* section of this manual).

Enabling Code 39 stitching requires that a stitching length be specified from the selections on the following pages.

Code 39 stitching options are:

- Code 39 Stitching — Enable/Disable
- Code 39 Stitching Length — selectable length from 6 to 20 characters incremented by one (6,7,8,9, etc.)

Code 39: Stitching — Enable

The scanner can be configured to perform Code 39 stitching. If enabled, a valid stitching length must be provided.



Code 39: Stitching — Disable

Use this bar code to disable Code 39 stitching.



Code 39: Stitching Length = 6

This bar code specifies a fixed length of 6 for the Code 39 stitching decoder.

This item applies only when Code 39 stitching is configured as enabled.



Code 39: Stitching Length = 7

This bar code specifies a fixed length of 7 for the Code 39 stitching decoder.

This item applies only when Code 39 stitching is configured as enabled.



Code 39: Stitching Length = 8

This bar code specifies a fixed length of 8 for the Code 39 stitching decoder.

This item applies only when Code 39 stitching is configured as enabled.



Code 39: Stitching Length = 9

This bar code specifies a fixed length of 9 for the Code 39 stitching decoder.

This item applies only when Code 39 stitching is configured as enabled.



Code 39: Stitching Length = 10

This bar code specifies a fixed length of 10 for the Code 39 stitching decoder.

This item applies only when Code 39 stitching is configured as enabled.



Code 39: Stitching Length = 11

This bar code specifies a fixed length of 11 for the Code 39 stitching decoder.

This item applies only when Code 39 stitching is configured as enabled.



Code 39: Stitching Length = 12

This bar code specifies a fixed length of 12 for the Code 39 stitching decoder.

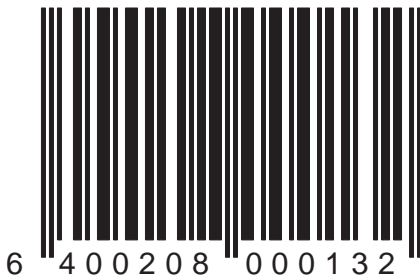
This item applies only when Code 39 stitching is configured as enabled.



Code 39: Stitching Length = 13

This bar code specifies a fixed length of 13 for the Code 39 stitching decoder.

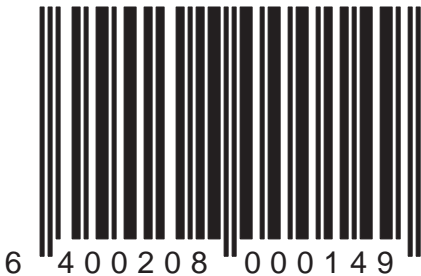
This item applies only when Code 39 stitching is configured as enabled.



Code 39: Stitching Length = 14

This bar code specifies a fixed length of 14 for the Code 39 stitching decoder.

This item applies only when Code 39 stitching is configured as enabled.



Code 39: Stitching Length = 15

This bar code specifies a fixed length of 15 for the Code 39 stitching decoder.

This item applies only when Code 39 stitching is configured as enabled.



Code 39: Stitching Length = 16

This bar code specifies a fixed length of 16 for the Code 39 stitching decoder.

This item applies only when Code 39 stitching is configured as enabled.



Code 39: Stitching Length = 17

This bar code specifies a fixed length of 17 for the Code 39 stitching decoder.

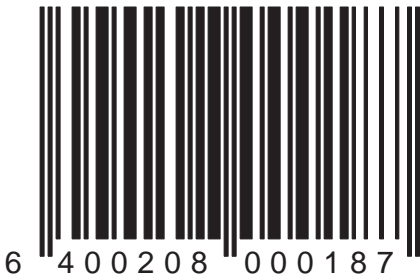
This item applies only when Code 39 stitching is configured as enabled.



Code 39: Stitching Length = 18

This bar code specifies a fixed length of 18 for the Code 39 stitching decoder.

This item applies only when Code 39 stitching is configured as enabled.



Code 39: Stitching Length = 19

This bar code specifies a fixed length of 19 for the Code 39 stitching decoder.

This item applies only when Code 39 stitching is configured as enabled.



Code 39: Stitching Length = 20

This bar code specifies a fixed length of 20 for the Code 39 stitching decoder.

This item applies only when Code 39 stitching is configured as enabled.



Code 39: Full ASCII — Enable

Use this bar code to enable the scanner to read Code 39 bar codes using the full set of ASCII¹ mode symbols. (Ordinarily, Code 39 is limited to only 42 ASCII symbols.)

¹ Refer to the AIM Uniform Symbology Specification for Code 39 ANSI/AIM-BC1-1995.



Code 39: Full ASCII — Disable

Use this bar code to instruct the scanner to read the standard Code 39 ANSII symbol set (42 characters), rather than the full set of ASCII mode symbols.



Code 39: Start/Stop Characters — Send

Scan this bar code to enable transmission of Code 39 start/stop characters.



Code 39: Start/Stop Characters — Don't Send

Scan this bar code to disable transmission of Code 39 start/stop characters.

NOTE

If there are no data characters, start/stop characters will be sent.



Code 128 Options

Options for the Code 128 symbology are contained on the following pages. These options include:

- Minimum Read
- AIM Symbology Prefix
- Transmit Function Characters

To use options available in this section:

1. Verify that Code 128 is a symbology supported by the scanner's current interface (see the Symbologies Supported table in the *Interface Selection* section of this manual).
2. Place the scanner in Programming Mode (see *Programming Your Scanner* at the front of this manual).
3. If Code 128 has not been enabled as an active symbology for the scanner being programmed, go to the *Symbology Selection* section of this manual and scan the *Code 128 — Enable* programming bar code.

4. Scan the bar codes in this section to modify the desired Code 128 options.
5. After programming all the chosen features, exit Programming Mode. (See *Programming Your Scanner* at the front of this manual.)

Code 128 Minimum Read Settings

Minimum read settings define the minimum number of consecutive times a bar code must be decoded with the same result before it is accepted as a good read. A higher minimum read setting offers more assurance that a bar code has been correctly read, while a lower setting allows faster scanning performance.

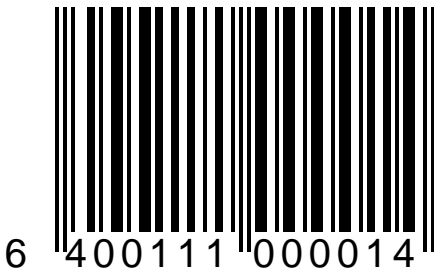
Selections for this option are:

- Code 128: Minimum Read = 1
Use this setting when you do not experience misreads.
- Code 128: Minimum Read = 2
Use this setting when you occasionally experience misreads.
- Code 128: Minimum Read = 3
Use this setting when you regularly experience misreads.
- Code 128: Minimum Read = 4
Use this setting when misreads are a common problem.

If you must use settings of 3 or 4, examine your bar code printing/production methods.

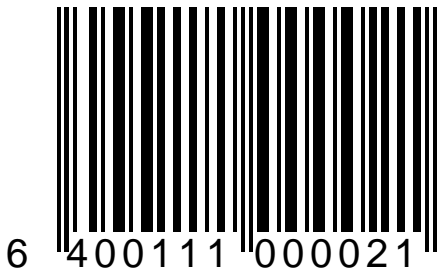
Code 128: Minimum Read = 1

Use this bar code to set the Code 128 minimum read setting to 1.



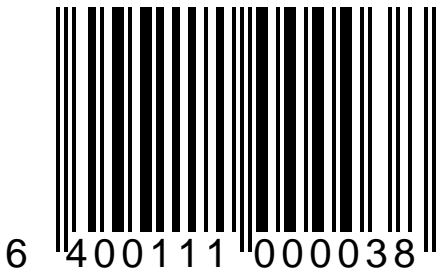
Code 128: Minimum Read = 2

Use this bar code to set the Code 128 minimum read setting to 2.



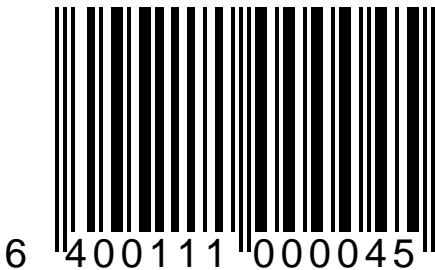
Code 128: Minimum Read = 3

Use this bar code to set the Code 128 minimum read setting to 3.



Code 128: Minimum Read = 4

Use this bar code to set the Code 128 minimum read setting to 4.



Code 128: UCC/AIM Symbology ID — Enable

The addition of the AIM defined symbology identifier to Code 128 bar codes can be enabled or disabled.

Scan this bar code to enable addition of the AIM defined symbology identifier prefix to the bar code data.



Code 128: UCC/AIM Symbology ID — Disable

The addition of the AIM defined symbology identifier to Code 128 bar codes can be enabled or disabled.

Scan this bar code to disable addition of the AIM defined symbology identifier prefix to the bar code data.



Code 128: Transmit Function Chars — Enable

Scan this bar code to enable transmission of Code 128 function characters 1, 2, 3 and 4 to the host terminal.

NOTE

This should be disabled for all interfaces except Wand Emulation, otherwise results are unpredictable. For Wand Emulation, this feature is meaningful only if Wand Transmit Label Format is set to either "Transmit in normal mode," or "Transmit in Code 128 format."



Code 128: Transmit Function Chars — Disable

Scan this bar code to disable transmission of C128 function characters.



Interleaved 2 of 5 Options

Options for the Interleaved 2 of 5 (I 2 of 5) symbology are contained on the following several pages. These options include:

- Check Character Verification
- Check Character Transmission
- Minimum Read
- Fixed Length Control

To use options available in this section:

1. Verify that I 2 of 5 is a symbology supported by the scanner's current interface (see the Symbologies Supported table in the *Interface Selection* section of this manual).
2. Place the scanner in Programming Mode (see *Programming Your Scanner* at the front of this manual).
3. If I 2 of 5 has not been enabled as an active symbology for the scanner being programmed, go to the *Symbology Selection* section of this manual

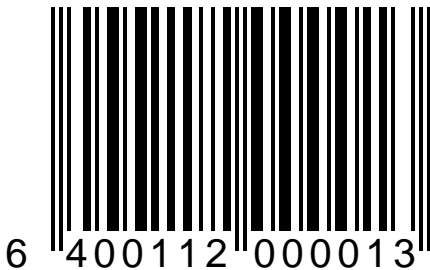
and scan the *I 2 of 5 — Enable* programming bar code.

4. Scan the bar codes in this section to modify the desired I 2 of 5 options.
5. After programming all the chosen features, exit Programming Mode. (see *Programming Your Scanner* at the front of this manual.)

I 2 of 5: Check Character — Verify

Use this bar code to enable calculation and verification of the optional I 2 of 5 check character. (The check character will not be sent to the host unless you also enable *Interleaved 2 of 5: Check Character — Send*). This feature checks to see if data collected matches the bar code's internal check character.

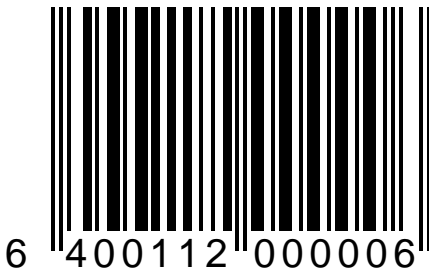
Check your system interface communications requirements before changing this setting.



I 2 of 5: Check Character — Don't Verify

Use this bar code to disable verification of the I 2 of 5 check character. If you disable this feature, you should also scan the *I 2 of 5: Check Character — Don't Send* bar code.

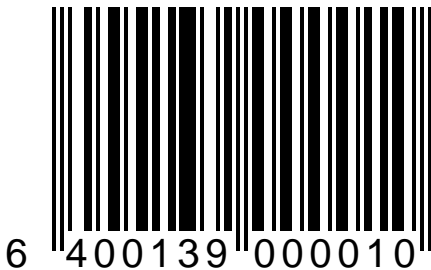
Check your system interface communications requirements before changing this setting.



I 2 of 5: Check Character — Send

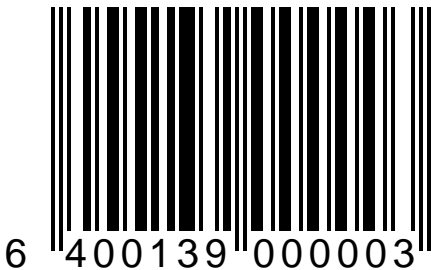
Use this bar code to instruct the scanner to send an optional I 2 of 5 check character to the host terminal. This feature will have no affect unless *Interleaved 2 of 5: Check Digit — Verify* is also enabled.

Check your system interface communications requirements before changing this setting.



I 2 of 5: Check Character — Don't Send

Use this bar code to disable transmission of an optional I 2 of 5 check character to the host terminal. This feature is only required for some host interfaces. Check your system interface communications requirements before changing this setting.



I 2 of 5 Minimum Read Settings

Minimum read settings define the minimum number of consecutive times a bar code must be decoded with the same result before it is accepted as a good read. A higher minimum read setting offers more assurance that a bar code has been correctly read, while a lower setting allows faster scanning performance.

Selections for this option are:

- I 2 of 5: Minimum Read = 1
Use this setting when you do not experience misreads.
- I 2 of 5: Minimum Read = 2
Use this setting when you occasionally experience misreads.
- I 2 of 5: Minimum Read = 3
Use this setting when you regularly experience misreads.
- I 2 of 5: Minimum Read = 4
Use this setting when misreads are a common problem.

If you must use settings of 3 or 4, examine your bar code printing/production methods.

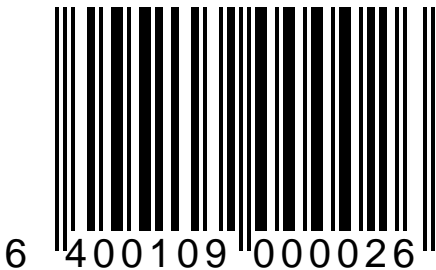
I 2 of 5: Minimum Read = 1

Use this bar code to set the I 2 of 5 minimum read setting to 1.



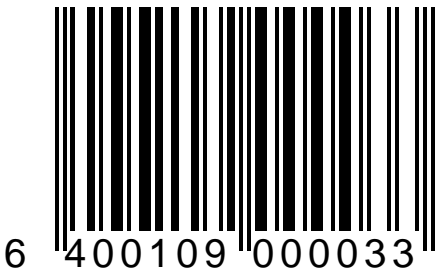
I 2 of 5: Minimum Read = 2

Use this bar code to set the I 2 of 5 minimum read setting to 2.



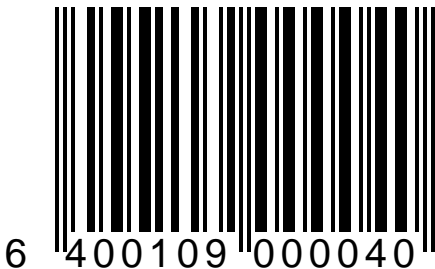
I 2 of 5: Minimum Read = 3

Use this bar code to set the I 2 of 5
minimum read setting to 3.



I 2 of 5: Minimum Read = 4

Use this bar code to set the I 2 of 5 minimum read setting to 4.



I 2 of 5 Length Control

The I 2 of 5 symbology is subject to misreads, since a scanner may read only a portion of an I 2 of 5 bar code and the decoder can erroneously interpret the portion as the entire bar code.

Two safeguards for this problem are offered in this programming kit:

- Set a **Minimum Allowable Length** for I 2 of 5 bar codes. This length is selectable from 4 to 32 characters (even numbers only).
- Set one or two **Fixed Lengths**. This option causes the scanner to read only I 2 of 5 bar codes that are of a specified length or lengths.

NOTE

The minimum allowable length setting will only apply when the fixed length option is disabled.

I 2 of 5: Minimum Allowable Length = 4

Use this bar code to set the I 2 of 5 minimum allowable length to 4 (including the check character).



I 2 of 5: Minimum Allowable Length = 6

Use this bar code to set the I 2 of 5 minimum allowable length to 6 (including the check character).



I 2 of 5: Minimum Allowable Length = 8

Use this bar code to set the I 2 of 5 minimum allowable length to 8 (including the check character).



I 2 of 5: Minimum Allowable Length = 10

Use this bar code to set the I 2 of 5
minimum allowable length to 10
(including the check character).



I 2 of 5: Minimum Allowable Length = 12

Use this bar code to set the I 2 of 5 minimum allowable length to 12 (including the check character).



I 2 of 5: Minimum Allowable Length = 14

Use this bar code to set the I 2 of 5 minimum allowable length to 14 (including the check character).



I 2 of 5: Minimum Allowable Length = 16

Use this bar code to set the I 2 of 5 minimum allowable length to 16 (including the check character).



I 2 of 5: Minimum Allowable Length = 18

Use this bar code to set the I 2 of 5
minimum allowable length to 18
(including the check character).



I 2 of 5: Minimum Allowable Length = 20

Use this bar code to set the I 2 of 5 minimum allowable length to 20 (including the check character).



I 2 of 5: Minimum Allowable Length = 22

Use this bar code to set the I 2 of 5
minimum allowable length to 22
(including the check character).



I 2 of 5: Minimum Allowable Length = 24

Use this bar code to set the I 2 of 5 minimum allowable length to 24 (including the check character).



I 2 of 5: Minimum Allowable Length = 26

Use this bar code to set the I 2 of 5 minimum allowable length to 26 (including the check character).



I 2 of 5: Minimum Allowable Length = 28

Use this bar code to set the I 2 of 5 minimum allowable length to 28 (including the check character).



I 2 of 5: Minimum Allowable Length = 30

Use this bar code to set the I 2 of 5
minimum allowable length to 30
(including the check character).



I 2 of 5: Minimum Allowable Length = 32

Use this bar code to set the I 2 of 5
minimum allowable length to 32
(including the check character).



I 2 of 5 Fixed Length

A fixed length defines for the scanner exactly how many characters should be present in the I 2 of 5 barcodes you plan to scan. This helps to avoid incomplete or erroneous bar code scans. You have the option of specifying either one or two fixed lengths for this symbology.

NOTE

If you choose not to set fixed length(s), it is recommended that you set a minimum allowable length for I 2 of 5 bar codes since this symbology is frequently subject to partial/misreads.

To define I 2 of 5 Fixed Length(s):

1. Place the scanner in Programming Mode (see *Programming Your Scanner* at the front of this manual).
2. Scan the *I 2 of 5: Fixed Length Control* — *Enable* bar code.

3. Determine the fixed length(s) you require. Example: You plan to scan I 2 of 5 bar codes that are six characters long or 14 characters long (including their check digit(s)).
4. Scan the appropriate first fixed length bar code. For our example, you would scan the *I 2 of 5: First Fixed Length = 6* bar code.
5. Scan the appropriate second fixed length bar code. For our example, you would scan the *I 2 of 5: Second Fixed Length = 14* bar code.

NOTE

If no second fixed length is required, scan the *No Second Fixed Length* bar code. This instructs the scanner to recognize bar codes containing the first fixed length only.

6. After programming all the chosen features, exit Programming Mode. (see *Programming Your Scanner* at the front of this manual.)

I 2 of 5: Fixed Length Control — Enable

Scan this bar code to enable you to specify fixed lengths. This feature is described on the previous pages.



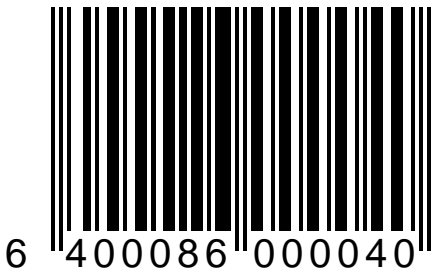
I 2 of 5: Fixed Length Control — Disable

Scan this bar code to disable fixed length specifications. When no fixed length is specified, the scanner will read any length I 2 of 5 bar code.



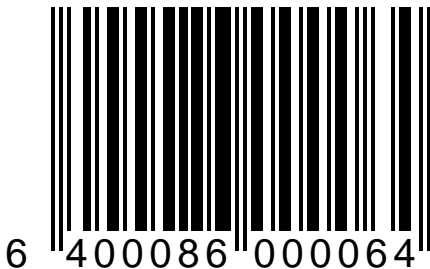
I 2 of 5: First Fixed Length = 4

Scan the bar code below to set the first I 2 of 5 fixed length to 4 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length (with the exception of a second fixed length you may set using the *I 2 of 5: Second Fixed Length* programming bar codes from this section).



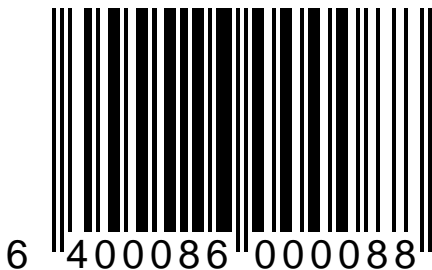
I 2 of 5: First Fixed Length = 6

Scan the bar code below to set the first I 2 of 5 fixed length to 6 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length (with the exception of a second fixed length you may set using the *I 2 of 5: Second Fixed Length* programming bar codes from this section).



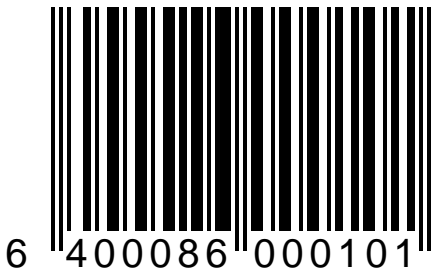
I 2 of 5: First Fixed Length = 8

Scan the bar code below to set the first I 2 of 5 fixed length to 8 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length (with the exception of a second fixed length you may set using the *I 2 of 5: Second Fixed Length* programming bar codes from this section).



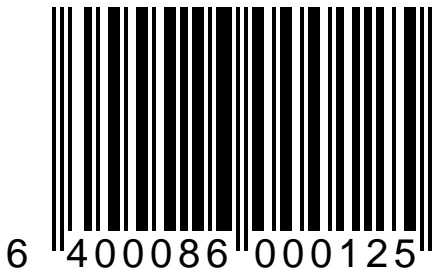
I 2 of 5: First Fixed Length = 10

Scan the bar code below to set the first I 2 of 5 fixed length to 10 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length (with the exception of a second fixed length you may set using the *I 2 of 5: Second Fixed Length* programming bar codes from this section).



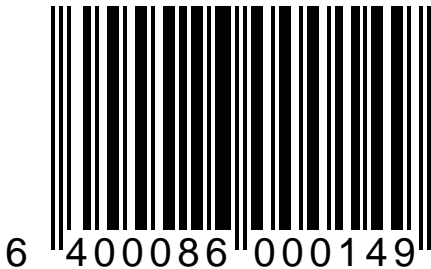
I 2 of 5: First Fixed Length = 12

Scan the bar code below to set the first I 2 of 5 fixed length to 12 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length (with the exception of a second fixed length you may set using the *I 2 of 5: Second Fixed Length* programming bar codes from this section).



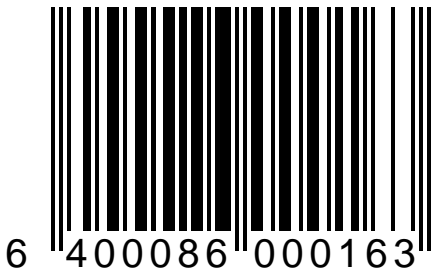
I 2 of 5: First Fixed Length = 14

Scan the bar code below to set the first I 2 of 5 fixed length to 14 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length (with the exception of a second fixed length you may set using the *I 2 of 5: Second Fixed Length* programming bar codes from this section).



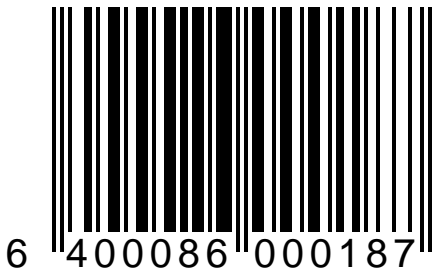
I 2 of 5: First Fixed Length = 16

Scan the bar code below to set the first I 2 of 5 fixed length to 16 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length (with the exception of a second fixed length you may set using the *I 2 of 5: Second Fixed Length* programming bar codes from this section).



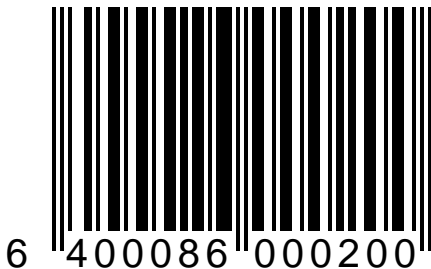
I 2 of 5: First Fixed Length = 18

Scan the bar code below to set the first I 2 of 5 fixed length to 18 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length (with the exception of a second fixed length you may set using the *I 2 of 5: Second Fixed Length* programming bar codes from this section).



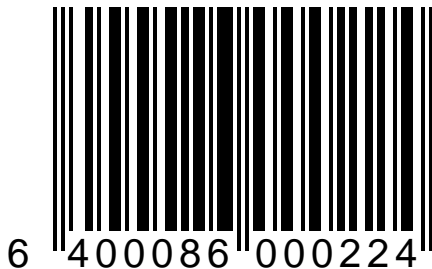
I 2 of 5: First Fixed Length = 20

Scan the bar code below to set the first I 2 of 5 fixed length to 20 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length (with the exception of a second fixed length you may set using the *I 2 of 5: Second Fixed Length* programming bar codes from this section).



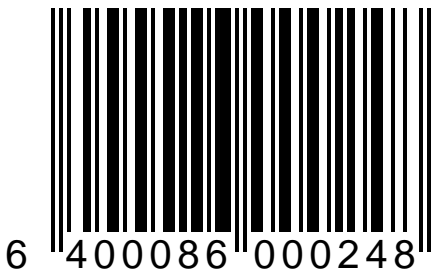
I 2 of 5: First Fixed Length = 22

Scan the bar code below to set the first I 2 of 5 fixed length to 22 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length (with the exception of a second fixed length you may set using the *I 2 of 5: Second Fixed Length* programming bar codes from this section).



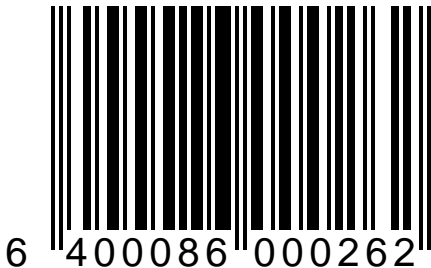
I 2 of 5: First Fixed Length = 24

Scan the bar code below to set the first I 2 of 5 fixed length to 24 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length (with the exception of a second fixed length you may set using the *I 2 of 5: Second Fixed Length* programming bar codes from this section).



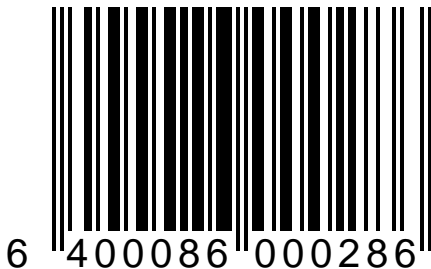
I 2 of 5: First Fixed Length = 26

Scan the bar code below to set the first I 2 of 5 fixed length to 26 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length (with the exception of a second fixed length you may set using the *I 2 of 5: Second Fixed Length* programming bar codes from this section).



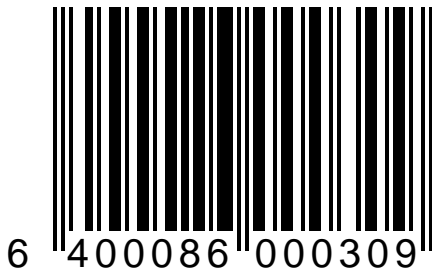
I 2 of 5: First Fixed Length = 28

Scan the bar code below to set the first I 2 of 5 fixed length to 28 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length (with the exception of a second fixed length you may set using the *I 2 of 5: Second Fixed Length* programming bar codes from this section).



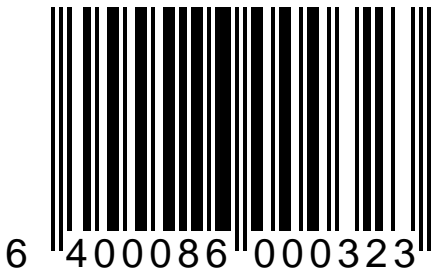
I 2 of 5: First Fixed Length = 30

Scan the bar code below to set the first I 2 of 5 fixed length to 30 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length (with the exception of a second fixed length you may set using the *I 2 of 5: Second Fixed Length* programming bar codes from this section).



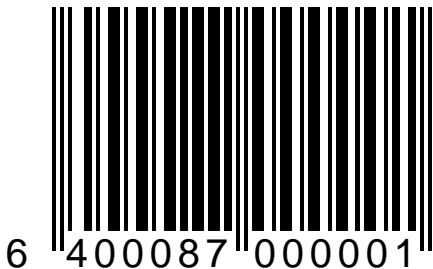
I 2 of 5: First Fixed Length = 32

Scan the bar code below to set the first I 2 of 5 fixed length to 32 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length (with the exception of a second fixed length you may set using the *I 2 of 5: Second Fixed Length* programming bar codes from this section).



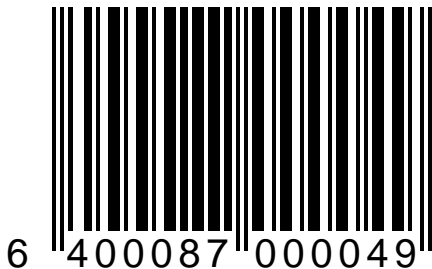
I 2 of 5: No Second Fixed Length

Scan the bar code below if you do not need to set a second fixed length for I 2 of 5 bar codes. The scanner will read and decode I 2 of 5 bar codes containing ONLY the number of characters you previously set for the first fixed length.



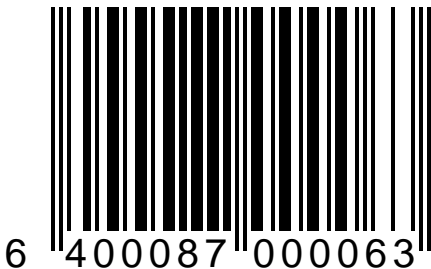
I 2 of 5: Second Fixed Length = 4

Scan the bar code below to set the second I 2 of 5 fixed length to 4 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length or those containing the number of characters you previously set for the first fixed length.



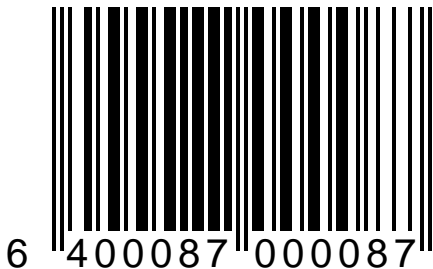
I 2 of 5: Second Fixed Length = 6

Scan the bar code below to set the second I 2 of 5 fixed length to 6 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length or those containing the number of characters you previously set for the first fixed length.



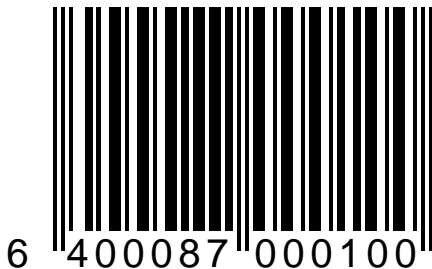
I 2 of 5: Second Fixed Length = 8

Scan the bar code below to set the second I 2 of 5 fixed length to 8 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length or those containing the number of characters you previously set for the first fixed length.



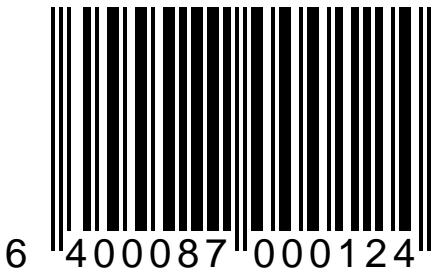
I 2 of 5: Second Fixed Length = 10

Scan the bar code below to set the second I 2 of 5 fixed length to 10 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length or those containing the number of characters you previously set for the first fixed length.



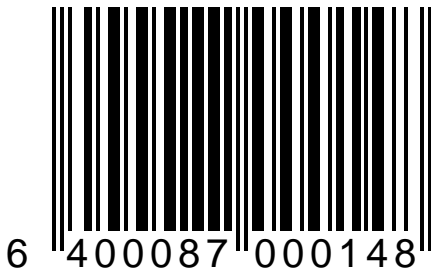
I 2 of 5: Second Fixed Length = 12

Scan the bar code below to set the second I 2 of 5 fixed length to 12 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length or those containing the number of characters you previously set for the first fixed length.



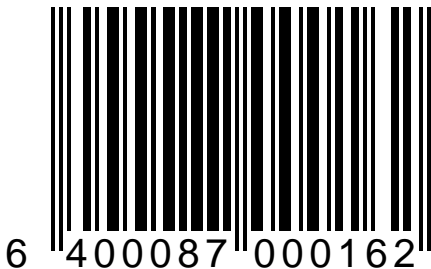
I 2 of 5: Second Fixed Length = 14

Scan the bar code below to set the second I 2 of 5 fixed length to 14 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length or those containing the number of characters you previously set for the first fixed length.



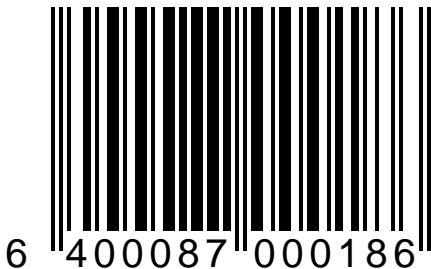
I 2 of 5: Second Fixed Length = 16

Scan the bar code below to set the second I 2 of 5 fixed length to 16 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length or those containing the number of characters you previously set for the first fixed length.



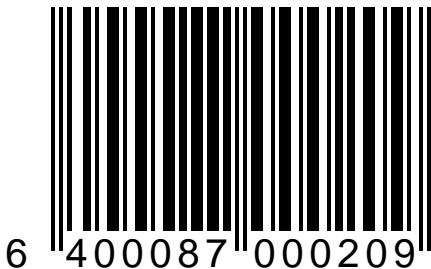
I 2 of 5: Second Fixed Length = 18

Scan the bar code below to set the second I 2 of 5 fixed length to 18 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length or those containing the number of characters you previously set for the first fixed length.



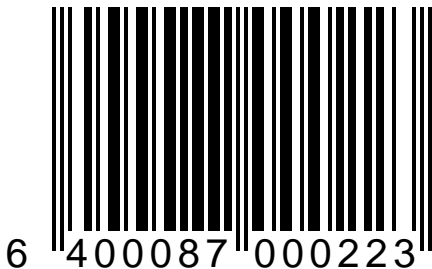
I 2 of 5: Second Fixed Length = 20

Scan the bar code below to set the second I 2 of 5 fixed length to 20 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length or those containing the number of characters you previously set for the first fixed length.



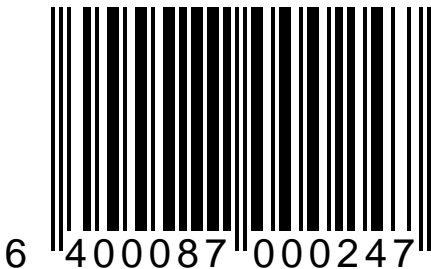
I 2 of 5: Second Fixed Length = 22

Scan the bar code below to set the second I 2 of 5 fixed length to 22 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length or those containing the number of characters you previously set for the first fixed length.



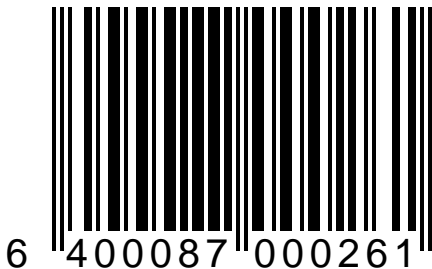
I 2 of 5: Second Fixed Length = 24

Scan the bar code below to set the second I 2 of 5 fixed length to 24 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length or those containing the number of characters you previously set for the first fixed length.



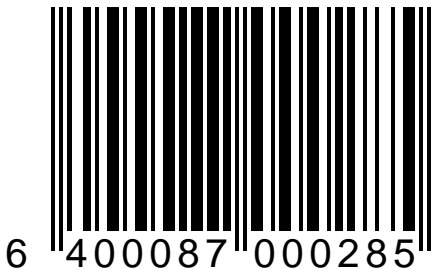
I 2 of 5: Second Fixed Length = 26

Scan the bar code below to set the second I 2 of 5 fixed length to 26 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length or those containing the number of characters you previously set for the first fixed length.



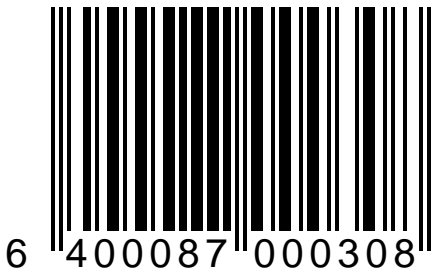
I 2 of 5: Second Fixed Length = 28

Scan the bar code below to set the second I 2 of 5 fixed length to 28 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length or those containing the number of characters you previously set for the first fixed length.



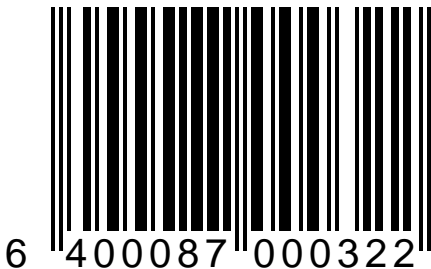
I 2 of 5: Second Fixed Length = 30

Scan the bar code below to set the second I 2 of 5 fixed length to 30 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length or those containing the number of characters you previously set for the first fixed length.



I 2 of 5: Second Fixed Length = 32

Scan the bar code below to set the second I 2 of 5 fixed length to 32 characters. The scanner will read and decode I 2 of 5 bar codes of ONLY this exact length or those containing the number of characters you previously set for the first fixed length.



Codabar Options

Options for the Codabar symbology are contained on the following pages. These options include:

- Check Character Verification
- Check Character Transmission
- Minimum Read
- Start/Stop Characters

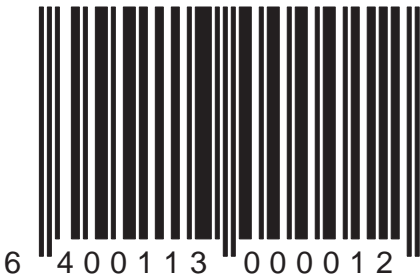
To use options available in this section:

1. Verify that Codabar is a symbology supported by the scanner's current interface (see the Symbologies Supported table in the *Interface Selection* section of this manual).
2. Place the scanner in Programming Mode (see *Programming Your Scanner* at the front of this manual).
3. If Codabar has not been enabled as an active symbology for the scanner being programmed, go to the *Symbology Selection* section of this manual and scan the *Codabar — Enable* programming bar code.

4. Scan the bar codes in this section to modify the desired Codabar options.
5. After programming all the chosen features, exit Programming Mode. (See *Programming Your Scanner* at the front of this manual.)

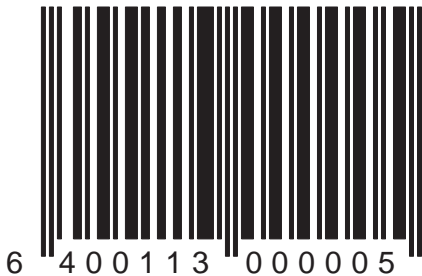
Codabar: Check Character — Verify

Use this bar code to enable calculation and verification of the optional Codabar check character. (The check character will not be sent to the host unless you also enable *Codabar: Check Character — Send*). This feature checks to see if data collected matches the bar code's internal check character.



Codabar: Check Character — Don't Verify

Use this bar code to disable verification of the Codabar check character. If you disable this feature, you should also scan the bar code that disables sending the Codabar check character.



Codabar: Check Character — Send

Use this bar code to instruct the scanner to send an optional Codabar check character to the host terminal. This feature will have no affect unless *Codabar: Check Character — Verify* is also enabled.



Codabar: Check Character — Don't Send

Use this bar code to disable transmission of the optional Codabar check character to the host terminal.



Codabar Minimum Read Settings

Minimum read settings define the minimum number of consecutive times a bar code must be decoded with the same result before it is accepted as a good read. A higher minimum read setting offers more assurance that a bar code has been correctly read, while a lower setting allows faster scanning performance.

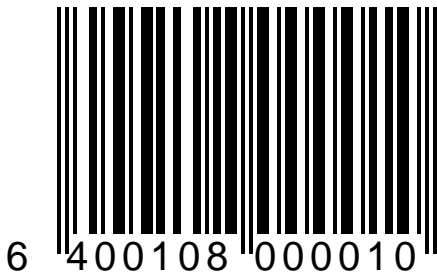
Selections for this option are:

- **Codabar: Minimum Read = 1**
Use this setting when you do not experience misreads.
- **Codabar: Minimum Read = 2**
Use this setting when you occasionally experience misreads.
- **Codabar: Minimum Read = 3**
Use this setting when you regularly experience misreads.
- **Codabar: Minimum Read = 4**
Use this setting when misreads are a common problem.

If you must use settings of 3 or 4, examine your bar code printing/production methods.

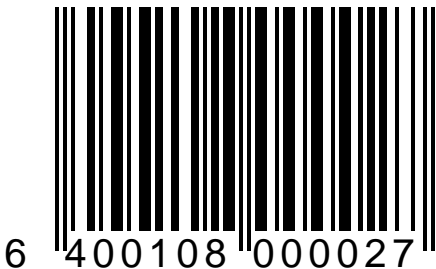
Codabar: Minimum Read = 1

Use this bar code to set the
Codabar minimum read setting to
1.



Codabar: Minimum Read = 2

Use this bar code to set the Codabar minimum read setting to 2.



Codabar: Minimum Read = 3

Use this bar code to set the
Codabar minimum read setting to
3.



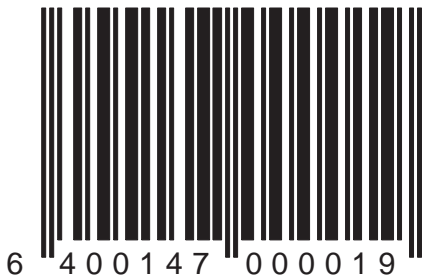
Codabar: Minimum Read = 4

Use this bar code to set the Codabar minimum read setting to 4.



Codabar: Start/Stop Character — Send

Scan this bar code to enable transmission of Codabar start/stop characters.



Codabar: Start/Stop Character — Don't Send

Scan this bar code to disable transmission of Codabar start/stop characters.



Codabar: Start/Stop Char Set — ABCD/TN*E

Scan this bar code to select the
Codabar start/stop character set
format: ABCD/TN*E.



Codabar: Start/Stop Char Set — ABCD/ABCD

Scan this bar code to select the
Codabar start/stop character set
format: ABCD/ABCD.



Codabar: Start/Stop Char Set — abcd/tn*e

Scan this bar code to select the
Codabar start/stop character set
format: abcd/tn*e.



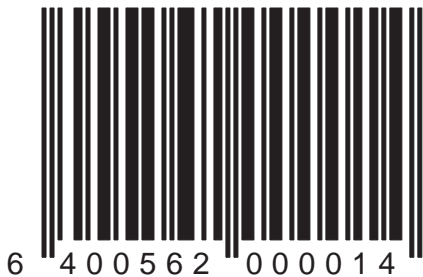
Codabar: Start/Stop Char Set — abcd/abcd

Scan this bar code to select the
Codabar start/stop character set
format: abcd/abcd.



Codabar: Start/Stop Character Match — Enable

Scan this bar code to require that start and stop characters match.



Codabar: Start/Stop Character Match — Disable

Scan this bar code to disable the requirement that start and stop characters must match.



MSI/Plessey Options

Options for the MSI/Plessey symbology are contained on the following several pages. These options include:

- Check Character Verification
- Check Character Transmission
- Minimum Read

To use options available in this section:

1. Be sure that MSI/Plessey is compatible with your POS terminal **before** you select this symbology and set its options (see the “Symbologies Supported” table in the *Interface Selection* section of this kit).
2. Place the scanner in Programming Mode (see *Programming Your Scanner* at the front of this manual).
3. If MSI/Plessey has not been enabled as an active symbology for the scanner being programmed, go to the *Symbol-ogy Selection* section of this manual

and scan the *MSI/Plessey* — *Enable* programming bar code.

4. Scan the bar codes in this section to modify the desired *MSI/Plessey* options.
5. After programming all the chosen features, exit Programming Mode. (See *Programming Your Scanner* at the front of this manual.)

MSI/Plessey: Check Character — Verify

Use this bar code to enable calculation and verification of the one or two optional MSI/Plessey check character(s). (The check character(s) will not be sent to the host unless you also enable *MSI/Plessey: Check Character — Send*). This feature checks to see if data collected matches the bar code's internal check character(s).



MSI/Plessey: Check Character — Don't Verify

Use this bar code to disable verification of the MSI/Plessey check character(s). If you disable this feature, you should also scan the bar code that disables sending the MSI/Plessey check character(s).



MSI/Plessey: Number of Check Characters = 1

Scan this bar code to calculate and verify one (1) MSI/Plessey check character.



MSI/Plessey: Number of Check Characters = 2

Scan this bar code to calculate and verify two (2) MSI/Plessey check characters.



MSI/Plessey: Check Character — Send

Use this bar code to instruct the scanner to send the optional MSI/Plessey check character(s) to the host terminal. This feature will have no affect unless *MSI/Plessey: Check Character — Verify* is also enabled.



MSI/Plessey: Check Character — Don't Send

Use this bar code to disable transmission of the optional MSI/Plessey check character(s) to the host terminal.



MSI/Plessey Minimum Read Settings

Minimum read settings define the minimum number of consecutive times a bar code must be decoded with the same result before it is accepted as a good read. A higher minimum read setting offers more assurance that a bar code has been correctly read, while a lower setting allows faster scanning performance.

Selections for this option are:

- MSI/Plessey: Minimum Read = 1
Use this setting when you do not experience misreads.
- MSI/Plessey: Minimum Read = 2
Use this setting when you occasionally experience misreads.
- MSI/Plessey: Minimum Read = 3
Use this setting when you regularly experience misreads.
- MSI/Plessey: Minimum Read = 4
Use this setting when misreads are a common problem.

If you must use settings of 3 or 4, examine your bar code printing/production methods.

MSI/Plessey: Minimum Read = 1

Use this bar code to set the MSI/
Plessey minimum read setting to
1.



MSI/Plessey: Minimum Read = 2

Use this bar code to set the MSI/
Plessey minimum read setting to
2.



MSI/Plessey: Minimum Read = 3

Use this bar code to set the MSI/
Plessey minimum read setting to
3.



MSI/Plessey: Minimum Read = 4

Use this bar code to set the MSI/
Plessey minimum read setting to
4.



Index

C

Codabar – Disable	181
Codabar — Enable	180
Codabar: Check Character — Don't Send	341
Codabar: Check Character — Don't Verify	339
Codabar: Check Character — Send	340
Codabar: Check Character — Verify	338
Codabar: Minimum Read = 1	343
Codabar: Minimum Read = 2	344
Codabar: Minimum Read = 3	345
Codabar: Minimum Read = 4	346
Codabar: Start/Stop Char Set — ABCD/ABCD	350
Codabar: Start/Stop Char Set — abcd/abcd	352
Codabar: Start/Stop Char Set — ABCD/TN*E	349
Codabar: Start/Stop Char Set — abcd/tn*e	351
Codabar: Start/Stop Character — Don't Send	348
Codabar: Start/Stop Character Match — Disable	354
Codabar: Start/Stop Character Match — Enable	353
Code 128 — Disable	179
Code 128 — Enable	178
Code 128: Minimum Read = 1	266
Code 128: Minimum Read = 2	267
Code 128: Minimum Read = 3	268

Code 128: Minimum Read = 4	269
Code 128: Transmit Function Chars — Disable	273
Code 128: Transmit Function Chars — Enable	272
Code 128: UCC/AIM Symbology ID — Disable	271
Code 128: UCC/AIM Symbology ID — Enable	270
Code 39 — Disable	177
Code 39 — Enable	176
Code 39: Check Character — Don't Send	235
Code 39: Check Character — Don't Verify	233
Code 39: Check Character — Send	234
Code 39: Check Character — Verify	232
Code 39: Full ASCII — Disable	260
Code 39: Full ASCII — Enable	259
Code 39: Minimum Read = 1	237
Code 39: Minimum Read = 2	238
Code 39: Minimum Read = 3	239
Code 39: Minimum Read = 4	240
Code 39: Start/Stop Characters — Don't Send	262
Code 39: Start/Stop Characters — Send	261
Code 39: Stitching — Disable	243
Code 39: Stitching — Enable	242
Code 39: Stitching Length = 10	248
Code 39: Stitching Length = 11	249
Code 39: Stitching Length = 12	250
Code 39: Stitching Length = 13	251
Code 39: Stitching Length = 14	252
Code 39: Stitching Length = 15	253

Code 39: Stitching Length = 16	254
Code 39: Stitching Length = 17	255
Code 39: Stitching Length = 18	256
Code 39: Stitching Length = 19	257
Code 39: Stitching Length = 20	258
Code 39: Stitching Length = 6	244
Code 39: Stitching Length = 7	245
Code 39: Stitching Length = 8	246
Code 39: Stitching Length = 9	247

D

Double Read Timeout = 1 second	46
Double Read Timeout = 400 ms.	42
Double Read Timeout = 500 ms.	43
Double Read Timeout = 800 ms.	45
Double Timeout = 600 ms.	44

E

EAN 8-Minimum Read = 2	219
EAN-13 Check Digit Transmission — Disable	204
EAN-13 Check Digit Transmission — Enable	203
EAN-13 Minimum Read = 1	222
EAN-13 Minimum Read = 2	223
EAN-13 Minimum Read = 3	224
EAN-13 Minimum Read = 4	225
EAN-8 Check Digit Transmission — Disable	202

EAN-8 Check Digit Transmission — Enable	201
EAN-8 Minimum Read = 1	218
EAN-8 Minimum Read = 3	220
EAN-8 Minimum Read = 4	221

G

Global Suffix = <CR>	170
Global Suffix = <CR><LF>(RS-232 ONLY)	171
Global Suffix = None	169
"Good Read" Tone Length = 100 ms.	14
"Good Read" Tone Length = 250 ms.	15
"Good Read" Tone Length = 500 ms.	16

I

I 2 of 5 — Disable	183
I 2 of 5 — Enable	182
I 2 of 5: Check Character — Don't Verify	277
I 2 of 5: Check Character — Verify	276
I 2 of 5: First Fixed Length = 10	308
I 2 of 5: First Fixed Length = 12	309
I 2 of 5: First Fixed Length = 14	310
I 2 of 5: First Fixed Length = 16	311
I 2 of 5: First Fixed Length = 18	312
I 2 of 5: First Fixed Length = 20	313
I 2 of 5: First Fixed Length = 22	314
I 2 of 5: First Fixed Length = 24	315

I 2 of 5: First Fixed Length = 26	316
I 2 of 5: First Fixed Length = 28	317
I 2 of 5: First Fixed Length = 30	318
I 2 of 5: First Fixed Length = 32	319
I 2 of 5: First Fixed Length = 4	305
I 2 of 5: First Fixed Length = 6	306
I 2 of 5: First Fixed Length = 8	307
I 2 of 5: Fixed Length Control — Disable	304
I 2 of 5: Fixed Length Control — Enable	303
I 2 of 5: Minimum Allowable Length = 10	289
I 2 of 5: Minimum Allowable Length = 12	290
I 2 of 5: Minimum Allowable Length = 14	291
I 2 of 5: Minimum Allowable Length = 16	292
I 2 of 5: Minimum Allowable Length = 18	293
I 2 of 5: Minimum Allowable Length = 20	294
I 2 of 5: Minimum Allowable Length = 22	295
I 2 of 5: Minimum Allowable Length = 24	296
I 2 of 5: Minimum Allowable Length = 26	297
I 2 of 5: Minimum Allowable Length = 28	298
I 2 of 5: Minimum Allowable Length = 30	299
I 2 of 5: Minimum Allowable Length = 32	300
I 2 of 5: Minimum Allowable Length = 4	286
I 2 of 5: Minimum Allowable Length = 6	287
I 2 of 5: Minimum Allowable Length = 8	288
I 2 of 5: Minimum Read = 1	281
I 2 of 5: Minimum Read = 2	282
I 2 of 5: Minimum Read = 3	283

I 2 of 5: Minimum Read = 4	284
I 2 of 5: No Second Fixed Length	320
I 2 of 5: Second Fixed Length = 10	324
I 2 of 5: Second Fixed Length = 12	325
I 2 of 5: Second Fixed Length = 14	326
I 2 of 5: Second Fixed Length = 16	327
I 2 of 5: Second Fixed Length = 18	328
I 2 of 5: Second Fixed Length = 20	329
I 2 of 5: Second Fixed Length = 22	330
I 2 of 5: Second Fixed Length = 24	331
I 2 of 5: Second Fixed Length = 26	332
I 2 of 5: Second Fixed Length = 28	333
I 2 of 5: Second Fixed Length = 30	334
I 2 of 5: Second Fixed Length = 32	335
I 2 of 5: Second Fixed Length = 4	321
I 2 of 5: Second Fixed Length = 6	322
I 2 of 5: Second Fixed Length = 8	323
IBM 46xx: Do Not Limit Command Set	159
IBM 46xx: Limit Command Set	158
IBM 46xx: Transmit in Code 39 Format — Disable	161
IBM 46xx: Transmit in Code 39 Format — Enable	160
IBM 46xx: Transmit Unsolicited Status — Disable	163
IBM 46xx: Transmit Unsolicited Status — Enable	162
Instore Minimum Read = 1	226
Instore Minimum Read = 2	227
Instore Minimum Read = 3	228
Instore Minimum Read = 4	229

Interface Type = IBM 4682/3 (Port E)	59
Interface Type = IBM 4683 (Port 17)	56
Interface Type = IBM 4683 (Port 5B)	57
Interface Type = IBM 4683 (Port 9B)	58
Interface Type = Keyboard Wedge Type:IBM 317x, 318	67
Interface Type = Keyboard Wedge Type:IBM 31xx w/10	68
Interface Type = Keyboard Wedge Type:IBM AT & Comp 61, 62	61, 62
Interface Type = Keyboard Wedge Type:Japanese DOS	69
Interface Type = Keyboard Wedge Type:NEC 9801	70
Interface Type = Keyboard Wedge Type:PC/XT (with f	64
Interface Type = Keyboard Wedge Type:PC/XT (with U	63
Interface Type = Keyboard Wedge Type:PS/2 25 and 3	65, 66
Interface Type = OCIA (NCR 8 Bit)	51
Interface Type = OCIA (NCR 9 Bit)	52
Interface Type = OCIA (PSC)	50
Interface Type = OCIA (SNI)	53
Interface Type = RS-232 (PSC)	54
Interface Type = RS-232 (SNI)	55
Interface Type = Wand Emulation	60

K

Keyboard Wedge: Caps Lock = Off	154
Keyboard Wedge: Caps Lock = On	155
Keyboard Wedge: Caps Lock = Shift-Lock	156
Keyboard Wedge: Country Mode = Belgium	142
Keyboard Wedge: Country Mode = Britain	143

Keyboard Wedge: Country Mode = Denmark	144
Keyboard Wedge: Country Mode = France	145
Keyboard Wedge: Country Mode = Germany	146
Keyboard Wedge: Country Mode = Italy	148
Keyboard Wedge: Country Mode = Japan	147
Keyboard Wedge: Country Mode = Norway	149
Keyboard Wedge: Country Mode = Portugal	150
Keyboard Wedge: Country Mode = Spain	151
Keyboard Wedge: Country Mode = Sweden	152
Keyboard Wedge: Country Mode = Switzerland	153
Keyboard Wedge: Country Mode = USA	141
Keyboard Wedge: Intercharacter Delay = 10ms.	136
Keyboard Wedge: Intercharacter Delay = 20ms.	137
Keyboard Wedge: Intercharacter Delay = 50ms.	138
Keyboard Wedge: Intercharacter Delay = 5ms.	135
Keyboard Wedge: Keyboard Support — Disable	140
Keyboard Wedge: Keyboard Support — Enable	139

L

Laser Timeout = 10 Minutes	34
Laser Timeout = 15 Minutes	35
Laser Timeout = 5 Minutes	33
LED Lamp When Scanner is Idle = DIM	28
LED Lamp When Scanner is Idle = OFF	28

M

Motor Timeout = 15 Minutes	38
Motor Timeout = 30 Minutes	39
Motor Timeout = 5 Minutes	37
Motor Timeout = 60 Minutes	40
MSI/Plessey – Disable	185
MSI/Plessey — Enable	184

O

OCIA: Beep On Not On File — Disable	120
OCIA: Beep On Not On File — Enable	119
OCIA: Host Commands — Disable	118
OCIA: Host Commands — Enable	117
OCIA: Intercharacter Delay — Disable	116
OCIA: Intercharacter Delay — Enable	115

P

Power up Tone — Disable	24
Power up Tone — Enable	23

R

Return to Factory Settings	6
RS-232: ACK/NAK — Enablefor Bar Code Transmission	113
RS-232: ACK/NAK—Disable	110

RS-232: ACK/NAK—Enable for Bar Code Transmission	111
RS-232: ACK/NAK—Enable for Host Command Acknowled ..	112
RS-232: Baud Rate = 1200	73
RS-232: Baud Rate = 19200	77
RS-232: Baud Rate = 2400	74
RS-232: Baud Rate = 38400	78
RS-232: Baud Rate = 4800	75
RS-232: Baud Rate = 9600	76
RS-232: CTS Flow Control — Enable	88
RS-232: CTS Scan Control — Enable	89
RS-232: Data Bits = 7	84
RS-232: Data Bits = 8	85
RS-232: Hardware Control — Disable	90
RS-232: Host Echo — Disable	95
RS-232: Host Echo — Enable	94
RS-232: Intercharacter Delay = 0	96
RS-232: Intercharacter Delay = 10 ms. Delay	97
RS-232: Intercharacter Delay = 100 ms. Delay	106
RS-232: Intercharacter Delay = 120 ms. Delay	107
RS-232: Intercharacter Delay = 140 ms. Delay	108
RS-232: Intercharacter Delay = 20 ms. Delay	98
RS-232: Intercharacter Delay = 30 ms. Delay	99
RS-232: Intercharacter Delay = 40 ms. Delay	100
RS-232: Intercharacter Delay = 50 ms. Delay	101
RS-232: Intercharacter Delay = 60 ms. Delay	102
RS-232: Intercharacter Delay = 70 ms. Delay	103
RS-232: Intercharacter Delay = 80 ms. Delay	104

RS-232: Intercharacter Delay = 90 ms. Delay	105
RS-232: Parity = Even	80
RS-232: Parity = Mark	82
RS-232: Parity = None	79
RS-232: Parity = Odd	81
RS-232: Parity = Space	83
RS-232: Software Control (Xon/Xoff) — Disable	92
RS-232: Software Control (Xon/Xoff) — Enable	91
RS-232: Stop Bits = 1	86
RS-232: Stop Bits = 2	87

S

Speaker ("Good Read" Indication): Off	13
Speaker ("Good Read" Indication): ON	12
Speaker Tone = High	22
Speaker Tone = Low	20
Speaker Tone = Medium	21
Speaker Volume = High	19
Speaker Volume = Low	17
Speaker Volume = Medium	18

T

Transmit Label I.D. — Disable	168
Transmit Label I.D. as Prefix	166
Transmit Label I.D. as Suffix	167

U

UPC-A Check Digit Transmission — Disable	198
UPC-A Check Digit Transmission — Enable	197
UPC-A Minimum Read = 1	210
UPC-A Minimum Read = 2	211
UPC-A Minimum Read = 3	212
UPC-A Minimum Read = 4	213
UPC-A to EAN-13 Expansion — Disable	193
UPC-A to EAN-13 Expansion — Enable	192
UPC-A Number System Digit Transmission — Disable	206
UPC-A Number System Digit Transmission — Enable	205
UPC-E Check Digit Transmission — Disable	200
UPC-E Check Digit Transmission — Enable	199
UPC-E Minimum Read = 1	214
UPC-E Minimum Read = 2	215
UPC-E Minimum Read = 3	216
UPC-E Minimum Read = 4	217
UPC-E to EAN-13 Expansion — Disable	191
UPC-E to EAN-13 Expansion — Enable	190
UPC-E to UPC-A Expansion — Disable	189
UPC-E to UPC-A Expansion — Enable	188
UPC-E Number System Digit Transmission — Disable	208
UPC-E Number System Digit Transmission — Enable	207
UPC/EAN Symbology Family — Disable	175
UPC/EAN Symbology Family — Enable	174

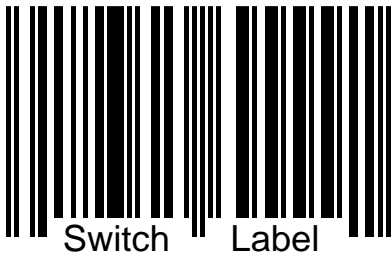
W

Wand Emulation: Idle State = High	127
Wand Emulation: Idle State = Low	126
Wand Emulation: Label Format = Code 128	131
Wand Emulation: Label Format = Code 39	129
Wand Emulation: Label Format = Normal Mode	128
Wand Emulation: Label Format= Code 39 Full ASCII	130
Wand Emulation: Leading Noise — Disable	133
Wand Emulation: Leading Noise — Enable	132
Wand Emulation: Polarity = ...Bars High	123
Wand Emulation: Polarity = ...Bars Low	122
Wand Emulation: Signal Speed = 330 μ s	124
Wand Emulation: Signal Speed = 660 μ s	125
When to Indicate "Good Read" = After Transmit	30
When to Indicate "Good Read" = CTS Goes Inactive	27

Switch Label

All programming sessions must begin with the Switch label in order for the scanner to recognize them as programming labels and end with the Switch label for the scanner to store the changes you have made.

When changing (programming) a feature, it is a good practice to cover the label on the opposite page to prevent the scanner from reading both labels since it reads both the leading and trailing edges of all items that are scanned.





www.pscnet.com

Corporate Headquarters

675 Basket Road
Webster, NY 14580-9787
Telephone: (716) 265-1600
Toll Free: (800) 828-6489
Telefax: (716) 265-6400

PSC Scanning, Inc.

959 Terry Street
Eugene, OR 97402-9150
Telephone: (541) 683-5700
Toll Free: (800) 547-2507
Telefax: (541) 686-1702



Printed on
recycled paper

