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MetroSelect[®]
Configuration Guide

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INTRODUCTION

Your new scanner has been configured at the factory with a set of default communication protocols. Since many host systems have unique formats and protocol requirements, Metrologic provides a wide range of configurable features that may be selected with the use of this bar code configuration guide.

Once the configuration is completed, the scanner stores the settings in nonvolatile memory or NOVRAM. NOVRAM saves the settings when the power is turned off.

Symbol Key	
* (asterisk)	Default Feature
~ (tilde)	Feature requires the <i>Multi-Code Configuration Method</i> , see <i>Bar Code Configuration Methods on page x</i> .
	Important!
	Note

BAR CODE CONFIGURATION METHODS

Metrologic scanners can be bar code configured in two ways: the *Single-Code Method* and the *Multi-Code Method*.

Single-Code Method

Most features can be enabled or disabled using the Single-Code Method.

1. Power up the scanner.
2. Scan the bar code(s) for the desired feature(s).
3. Observe a multi-toned, “save setting” beep that indicates the configuration has been saved to NOVRAM.

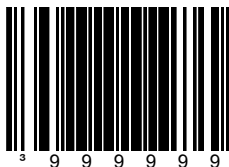
Multi-Code Method

All features can be enabled or disabled using the Multi-Code Method.

A feature marked with a “~” requires the Multi-Code Method.

1. Power up the scanner.
2. Scan the *Enter/Exit Configuration Mode* bar code. [3 beeps]
3. Scan the bar code(s) for the desired feature(s). [1 beep]
4. Scan the *Enter/Exit Configuration Mode* bar code [3 beeps] and save new configuration.

Enter/Exit Configuration Mode



To abort a configuration change, power off the scanner before scanning the *Enter/Exit Configuration Mode* bar code.

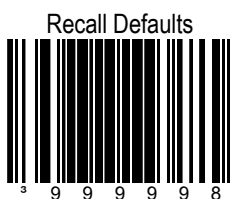
NEED TO START OVER?

Scan the Recall Default bar code. This will erase all previous settings and return to the scanner's default communications protocol.

- Keyboard Wedge interface scanners will load keyboard wedge defaults.
- All other scanners will load RS-232 defaults.

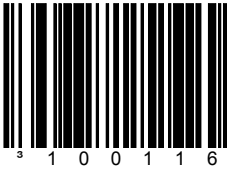


Metrologic manufactures custom OEM scanners, which load the OEM's defaults. For further information on the affects they have on Metrologic default communications protocols refer to Section N, Custom Defaults.





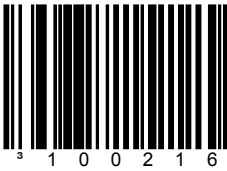
* Enable UPC/EAN



Disable UPC/EAN



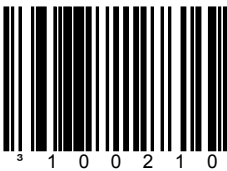
* Enable UPC-A



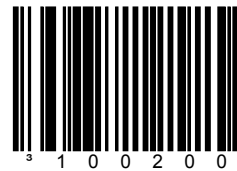
Disable UPC-A



* Enable UPC-E



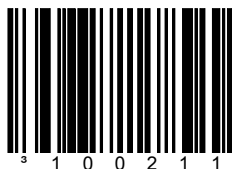
Disable UPC-E



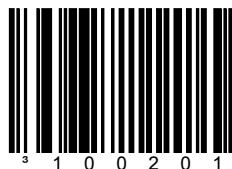
SECTION A

UPC/EAN

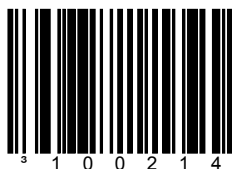
* Enable EAN-13



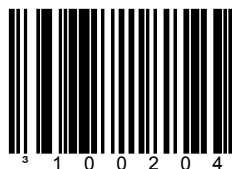
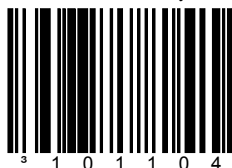
Disable EAN-13



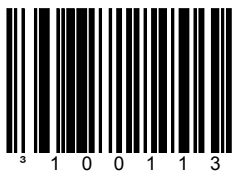
* Enable EAN-8



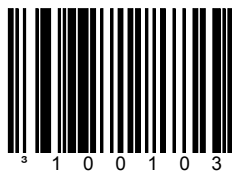
Disable EAN-8

* Enable
Auto Redundancy UPC-EDisable
Auto Redundancy UPC-E

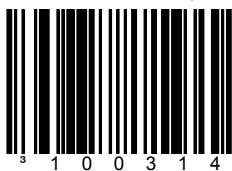
* Enable Code 128



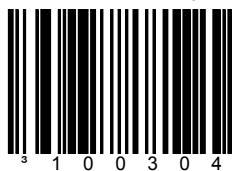
Disable Code 128



Enable
UCC/EAN-28
'JC1' Code Formatting



Disable
UCC/EAN-128
'JC1' Code Formatting

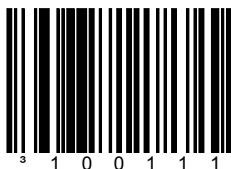


For Coupon Code 128, see Section B, page 5.

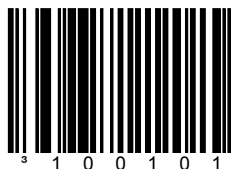
SECTION A

CODE 39

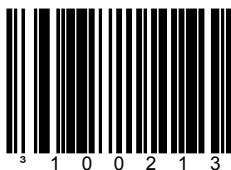
* Enable Code 39



Disable Code 39

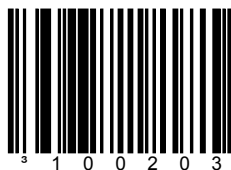


Enable MOD 43
Check on Code 39



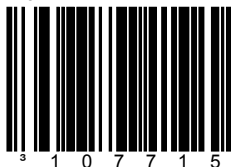
The scanner will only scan
Code 39 bar codes that
have a valid Modulo 43
check digit.

* Disable MOD 43
Check on Code 39



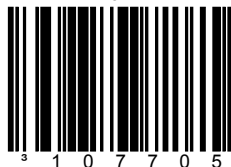
The scanner will not test
Code 39 bar codes for a
modulo 43 check digit.

Transmit Mode 43 Check
Digit on Code 39



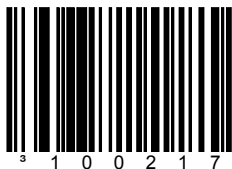
This feature works in
conjunction with Mode 43
Check on Code 39. Both
options must be enabled for
this feature to work.

* Do Not Transmit Mode 43
Check Digit on Code 39

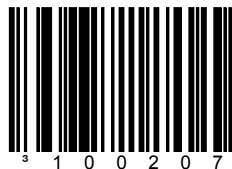


This option will not transmit
Code 39's Mod 43 check
character.

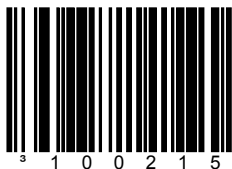
Enable Full ASCII Code 39



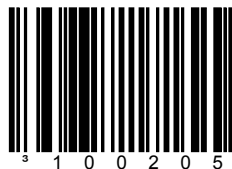
* Disable Full ASCII
Code 39



Enable PARAF Support
(Italian Pharmaceutical Codes)



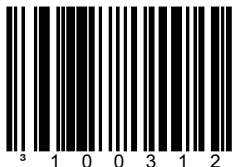
* Disable PARAF Support



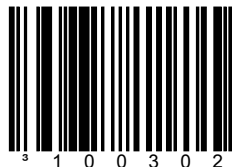
The scanner will convert
Code 39 bar codes to
PARAF format.

The scanner will not convert
code 39 bar codes to
PARAF format.

Enable TRI-OPTIC Code



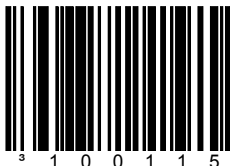
* Disable TRI-OPTIC Code



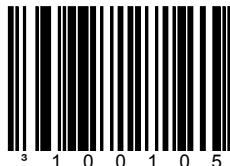
SECTION A

INTERLEAVED 2 OF 5

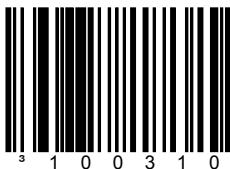
* Enable Interleaved
2 of 5 (ITF)



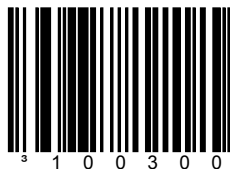
Disable Interleaved
2 of 5 (ITF)



Enable MOD 10
Check on ITF



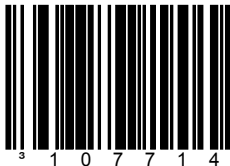
* Disable MOD 10
Check on ITF



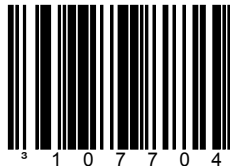
The scanner will only scan
Interleaved 2 of 5 (ITF)
Bar codes that have a
Modulo 10 check digit.

The scanner will not test
Interleaved 2 of 5 (ITF)
bar codes for a Modulo 10
check digit.

Transmit MOD 10
Check Digit on ITF



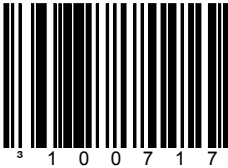
* Do Not Transmit MOD 10
Check Digit on ITF



The scanner transmits
Interleaved 2 of 5 (ITF)
MOD 10 check character.

The scanner will not
transmit Interleaved 2 of 5
(ITF) MOD 10 check digit
characters. This feature
works in conjunction with
Mod 10 Check on ITF. Both
must be enabled for this
feature to work.

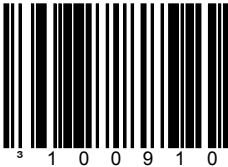
Enable ALT
Check Digit ITF



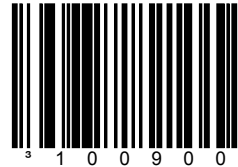
* Disable ALT
Check Digit ITF



Enable 12 Digit ITF
Check Digit at 1

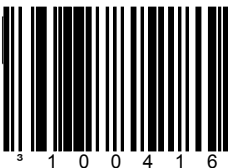


* Normal Check Digit

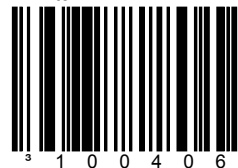


This feature requires
MOD 10 ITF Check Digit to
be enabled. The 12-
character ITF check digit
calculation will start with 1
instead of 0.

Enable ITF/Code 39 Filter



* Disable ITF/Code 39
Filter



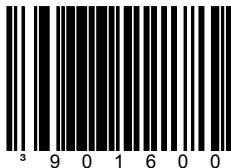
Supports Code 39/ITF filters.

This feature may
adversely affect reading
of Codabar, Code 93 and
some other non-standard
symbolologies.

SECTION A

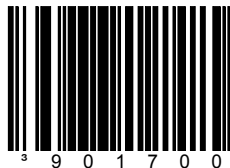
INTERLEAVED 2 OF 5

~ ITF Symbol Length
Lock 1 †



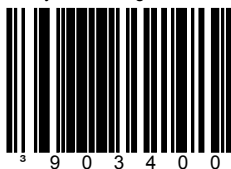
To specify a 1st ITF symbol length lock, scan the above bar code and the appropriate code bytes located in Section M.†

~ ITF Symbol Length
Lock 2 †



To specify a 2nd ITF symbol length lock, scan the above bar code and the appropriate code bytes located in Section M. †

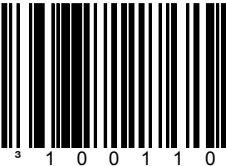
~ ITF Minimum
Symbol Length †



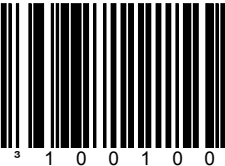
To specify a minimum number of ITF characters to be decoded, scan the above bar code and the appropriate code bytes located in Section M.†

† *Refer to the Multi-Code Configuration Method on page x.*

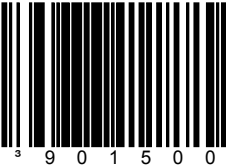
Enable
Standard 2 of 5



* Disable
Standard 2 of 5



~ Standard 2 of 5
Symbol Length Lock



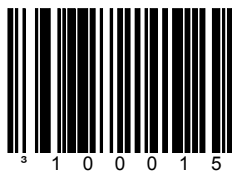
To specify a minimum number of ITF characters to be decoded, scan the above bar code and the appropriate code bytes located in Section M.[†]

[†] Refer to the Multi-Code configuration method on page x.

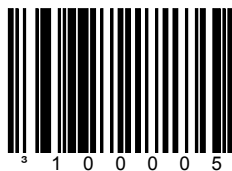
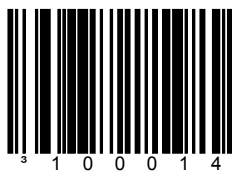
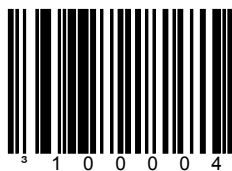
SECTION A

OTHER 2 OF 5 CODES

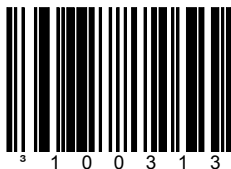
Enable Matrix 2 of 5



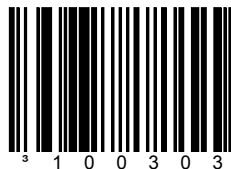
* Disable Matrix 2 of 5

Enable 15 Digit
Airline 2 of 5* Disable 15 Digit
Airline 2 of 5

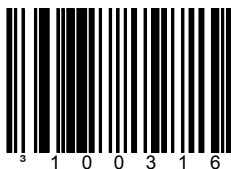
Enable 13 Digit
Airline 2 of 5



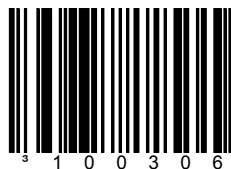
* Disable 13 Digit
Airline 2 of 5



Enable Hong Kong
2 of 5



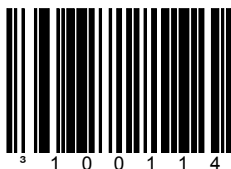
* Disable Hong Kong
2 of 5



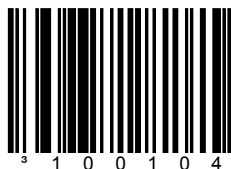
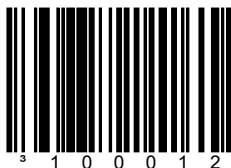
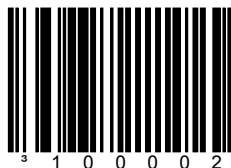
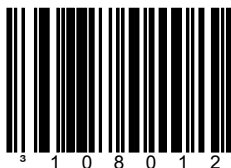
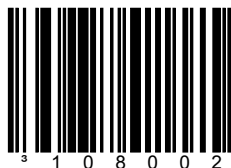
SECTION A

CODABAR

* Enable Codabar

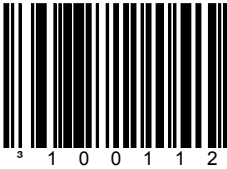


* Disable Codabar

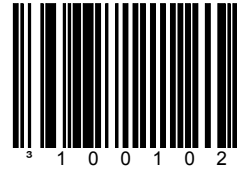
Enable
Dual Field Codabar* Disable
Dual Field CodabarEnable
Tab in Dual Codabar* Disable
Tab in Dual Codabar

This feature requires *Dual Field Codabar* to be enabled. The scanner will insert a tab between the fields of the dual field Codabar.

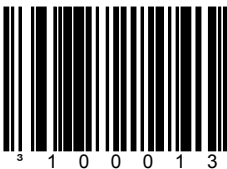
* Enable Code 93



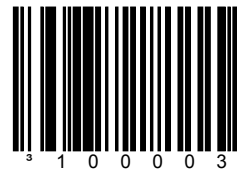
Disable Code 93



Enable Code 11



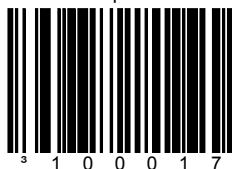
* Disable Code 11



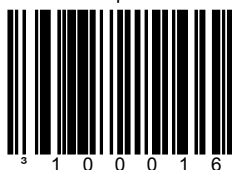
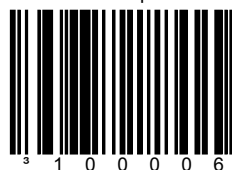
SECTION A

TELEPEN

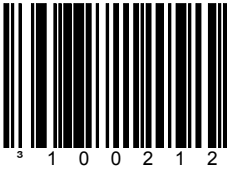
Enable Telepen



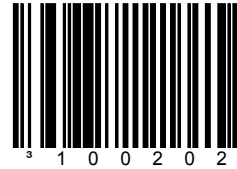
* Disable Telepen

Enable
ALPHA Telepen* Disable
ALPHA Telepen

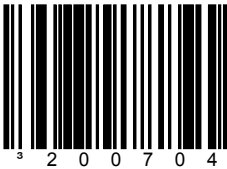
Enable MSI Plessey



* Disable MSI Plessey

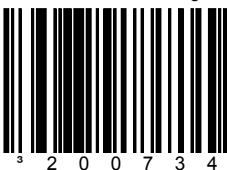


* No MSI Plessey
Check Digit



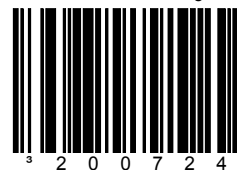
The scanner will not test
MSI Plessey bar codes for a
check digit.

Enable MSI Plessey
MOD 10/10 Check Digit



The scanner will test MSI
Plessey bar codes for a
double Modulo 10 check
digit.

* Enable MSI Plessey
MOD 10 Check Digit



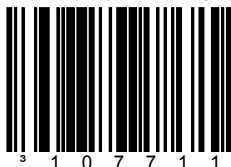
The scanner will test MSI
Plessey bar codes for a
single Modulo 10 check
digit.

SECTION A

PLESSEY CODES

Transmit

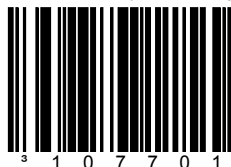
MSI Plessey Check Digit



This option works in conjunction with one or both of the Enabled MSI Plessey Mode options.

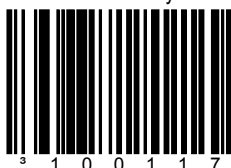
* Do Not Transmit

MSI Plessey Check Digit



The scanner will not transmit MSI Plessey check digit characters.

Enable UK Plessey

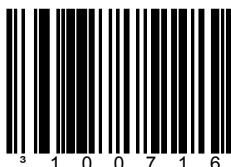


* Disable UK Plessey



Enable UK Plessey

A to X Conversion

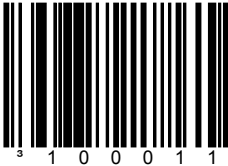


* Disable UK Plessey

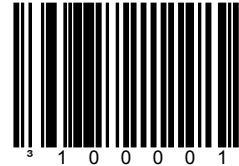
A to X Conversion



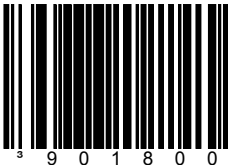
Enable Double Border
Required/Large
Inter-Character Space



* Disable Double Border
Required/Large
Inter-Character Space

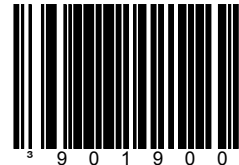


~ Minimum
Symbol Length †



Omnidirectional default is 4.
Combine this code with the
proper Code Bytes, to
specify the minimum
number of characters in all
non-UPC/EAN bar codes.†

~ Symbol Length Lock †



This code combined with the
proper Code Bytes, locks the
bar code's length into place.†

† Refer to the Multi-Code Configuration Method on page x.

SECTION A

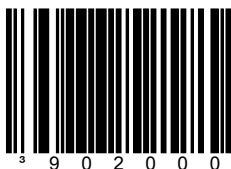
CONFIGURABLE CODE LENGTHS

There are seven bar code lock lengths available. Specific code types can be assigned to a lock length using the *Multi-Code* configuration method.

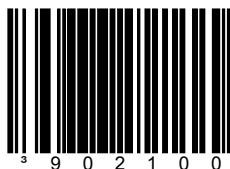
Example:

1. Scan the enter/exit configuration bar code.
2. Scan the *code length lock #1* bar code.
3. Scan the three Code Bytes that represent the code length.
Refer to the *Code Type Table* in Section M.
4. Scan the matching code type lock #1 bar code.
5. Scan the three code bytes that represent the code type.
6. Repeat steps 2 through 5 for lock lengths 2 through 7 if desired.
7. Scan the enter/exit configuration bar code when finished to save settings.

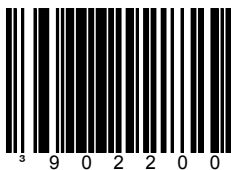
~ Code Length
Lock #1



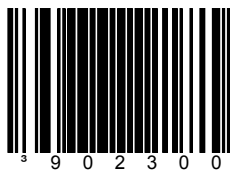
~ Code Type
Lock #1



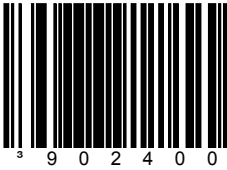
~ Code Length
Lock #2



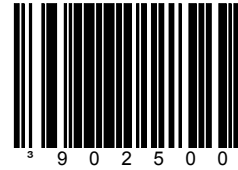
~ Code Type
Lock #2



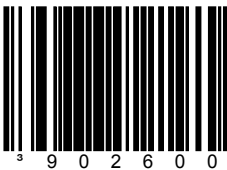
~ Code Length
Lock #3



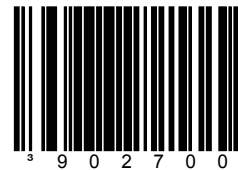
~ Code Type
Lock #3



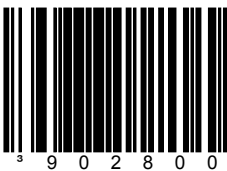
~ Code Length
Lock #4



~ Code Type
Lock #4



~ Code Length
Lock #5



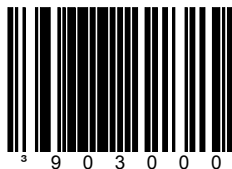
~ Code Type
Lock #5



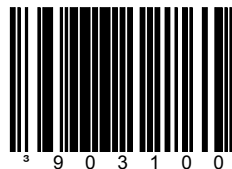
SECTION A

CONFIGURABLE CODE LENGTHS

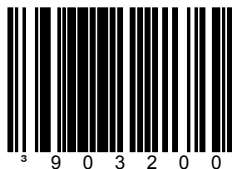
~ Code Length
Lock #6



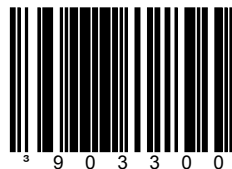
~ Code Type
Lock #6



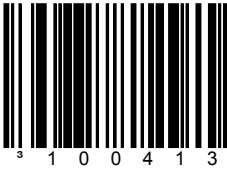
~ Code Length
Lock #7



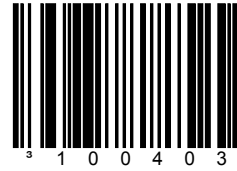
~ Code Type
Lock #7



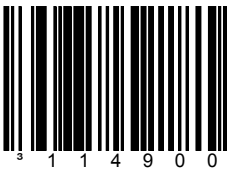
Enable RSS 14



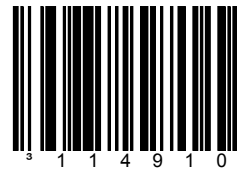
* Disable RSS 14



* Transmit
RSS 14 Check Digit



Do Not Transmit
RSS 14 Check Digit

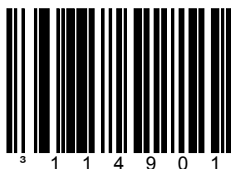


SECTION A

RSS 14 FEATURES

* Transmit

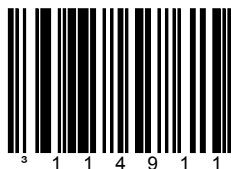
RSS 14 Application ID



Application identifier "01" is transmitted by default.

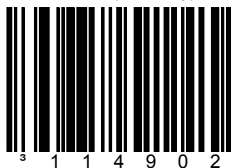
Do Not Transmit

RSS 14 Application ID



* Transmit

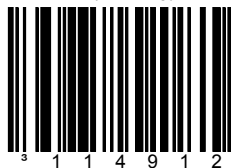
RSS 14 Symbology ID



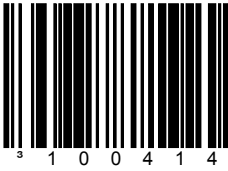
Symbology identifier "je0" is transmitted by default.

Do Not Transmit

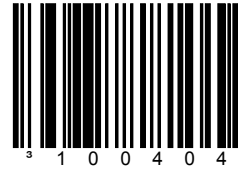
RSS 14 Symbology ID



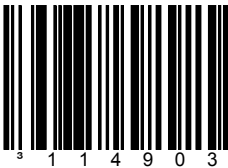
Enable RSS Limited



* Disable RSS Limited



* Transmit
RSS Limited Check Digit



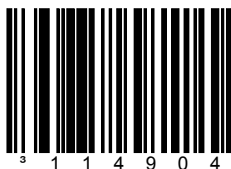
Do Not Transmit
RSS Limited Check Digit



SECTION A

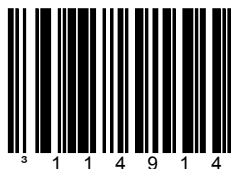
RSS LIMITED FEATURES

* Transmit RSS Limited
Application ID

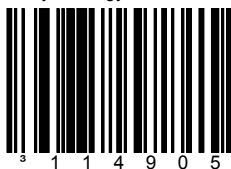


Application identifier "01" is
transmitted by default.

Do Not Transmit
RSS Limited Application ID

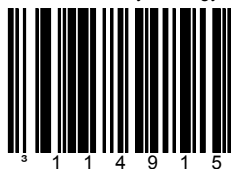


* Transmit RSS Limited
Symbology ID

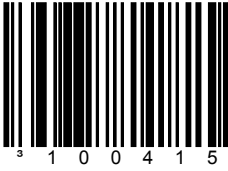


Symbology identifier "j0" is
transmitted by default.

Do Not Transmit
RSS Limited Symbology ID



Enable RSS Expanded



* Disable RSS Expanded



* Transmit RSS
Expanded Symbology ID



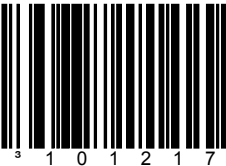
Do Not Transmit RSS
Expanded Symbology ID



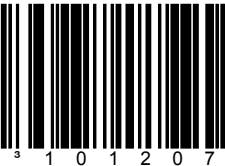
Symbology identifier “je0” is
transmitted by default.



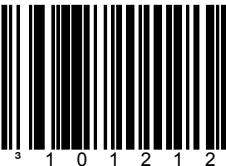
Enable Two Digit
Supplements



* Disable Two Digit
Supplements

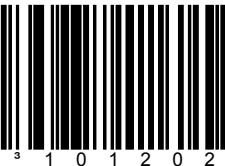


* Enable Two Digit
Redundancy



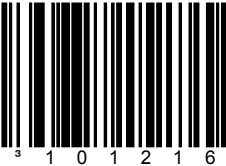
Twice before accepting data, the scanner will scan the bar code plus the two digit add on.

Disable Two Digit
Redundancy

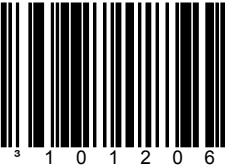


When scanned, will not implement the two digit redundancy feature.

Enable Five Digit
Supplements



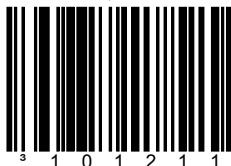
* Disable Five Digit
Supplements



SECTION B

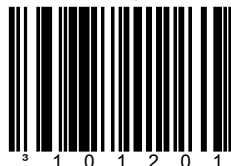
SUPPLEMENTS/REDUNDANCY

Enable Five Digit
Redundancy



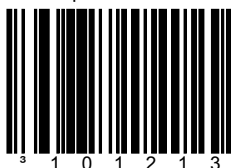
Twice before accepting
data, the scanner will scan
the bar code plus the five
digit add on.

* Disable Five Digit
Redundancy



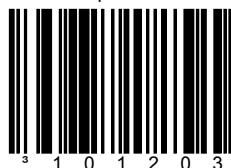
The scanner will not
implement the five digit
redundancy feature.

Supplements
are Required



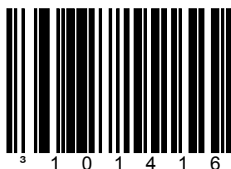
All UPC/EAN labels that are
scanned must have a
supplement.

* Supplements are
not Required

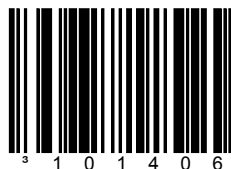


UPC/EAN labels do not
require a supplement to be
scanned.

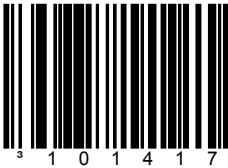
Enable Remote
Supplemental Requirement



* Disable
Remote Supplemental
Requirement



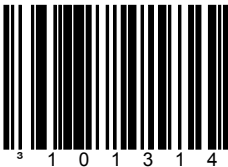
Enable Bookland (978)
Supplement Requirement



* Disable Bookland (978)
Supplement Requirement



Enable 977 (2 digit)
Supplemental Requirement



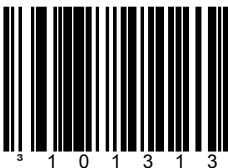
The scanner will require a
2 digit supplement be
scanned when an EAN-13
code begins with 977.

* Disable 977 (2 digit)
Supplemental
Requirement

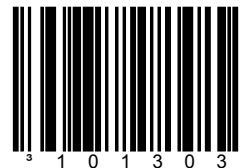


The scanner will not
require a 2 digit supplement
be scanned whenever an
EAN-13 code begins with
977.

Enable 378/379 French
Supplement Requirement



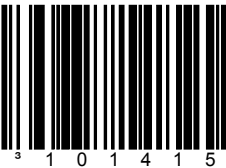
* Disable 378/379 French
Supplemental Requirement



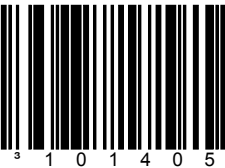
SECTION B

SUPPLEMENTS

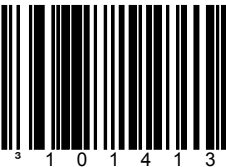
Enable 434/439 German
Supplemental Requirement



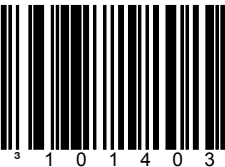
* Disable 434/439
German Supplemental
Requirement



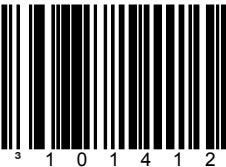
Enable 414/419 German
Supplemental Requirement



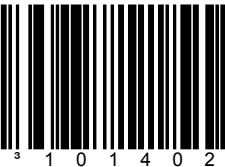
* Disable 414/419 German
Supplemental Requirement



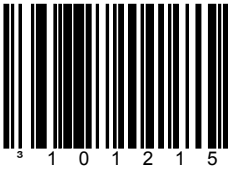
Enable # System 2
Requires Supplements



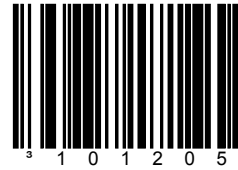
* Disable # System 2
Requires Supplements



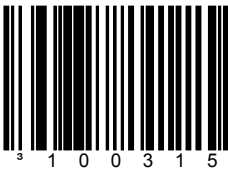
Enable # System 5
Requires Supplements



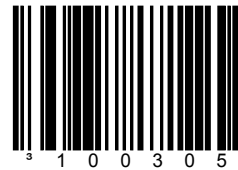
* Disable # System 5
Requires Supplements



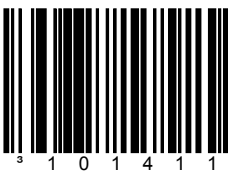
Enable Coupon
Code 128



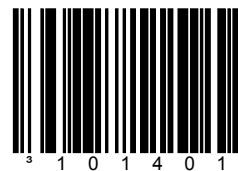
* Disable Coupon
Code 128



Enable Code 128 'JC1'
Extended Code Format



* Disable Code 128 'JC1'
Extended Code Format



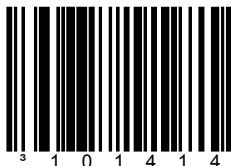
The scanner will transmit a 'JC1' at the beginning of the code 128 portion of the coupon code.

The scanner will not transmit a 'JC1' at the beginning of the code 128 portion of the coupon code.

SECTION B

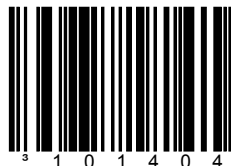
SUPPLEMENTS

Enable 128 Group
Separators



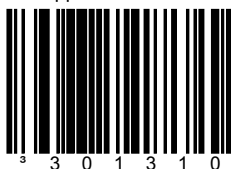
“GS” (1DH) character will be
transmitted with coupon
Code 128 codes.

* Disable 128 Group
Separators



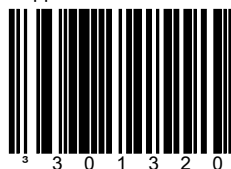
“GS” (1DH) character will
not be transmitted with
coupon Code 128 codes.

* 100 msec to Find
Supplemental



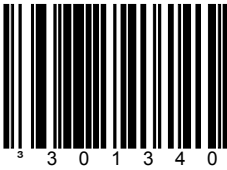
The scanner will allot 100
milliseconds to “find” an add
on after a main UPC/EAN
bar code has been
scanned.

200 msec to Find
Supplemental



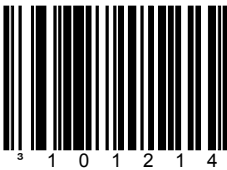
The scanner will allot 200
milliseconds to “find” an add
on after a main UPC/EAN
bar code has been
scanned.

400 msec to Find
Supplemental

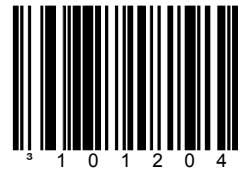


The scanner will allot 400 milliseconds to “find” an add on after a main UPC/EAN bar code has been scanned.

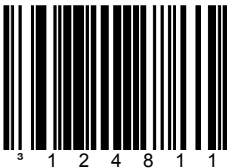
Enable Code ID's with
Supplements



* Disable Code ID's with
Supplements



Allow 2/5 on 977 Bar Code



This feature allows either 2 or 5 digit supplements if 977 mode is active.

Allow 2 on 977 Bar Code

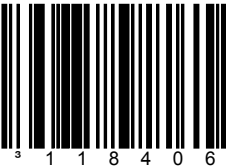


This feature allows 2 digit supplements if 977 mode is active.

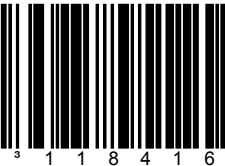
SECTION B

SUPPLEMENTS

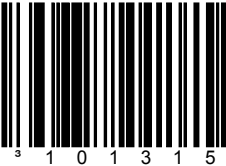
* Beep Once on
Supplements



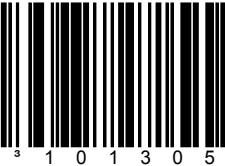
Beep twice on
Supplements



Enable ISBN Check Digit
Transmission

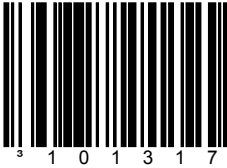


Disable ISBN Check Digit
Transmission



This feature is not
available with all
models.

Enable Bookland to
ISBN Conversion

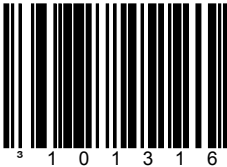


* Disable Bookland to
ISBN Conversion



This feature is not
available with all
models.

Enable
ISBN Re-Formatting



* Disable
ISBN Re-Formatting

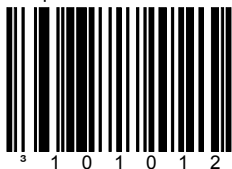


This feature is not
available with all
models.

SECTION B

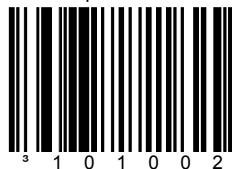
SUPPLEMENTS

Enable Number System 4
Coupon Code 128

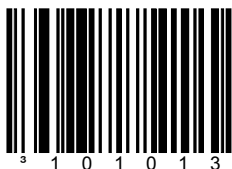


Supports Coupon Code 128
for Number System 4 bar
codes.

* Disable Number System
4 Coupon Code 128

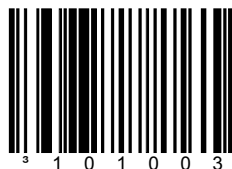


Enable UPC Discard

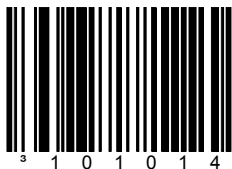


Supports UPC discard if the
Code 128 portion of the
Coupon Code 128 is
scanned.

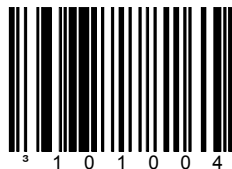
* Disable UPC Discard



Allow Supplements and
UPC in Same Line



Disable Supplements and
UPC in Same Line



This feature requires
2 digit supplements be
enabled as well as
required redundancy
and supplements.

* Enable RS-232



The scanner will work with RS-232 $\pm 12V$ serial output.

Load Keyboard Wedge Defaults



Scan this before selecting Normal or Stand Alone Mode.

Enable Light Pen/Wand Communication



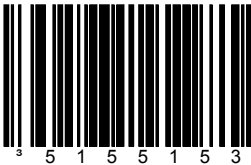
Use this option if a scanner is used in place of a light pen.

Enable Keyboard Wedge Emulation



Select if the scanner provides keyboard emulation by converting the scanned bar code data to the PC keyboard scan code equivalent.

Enable Stand-Alone Keyboard Scanner

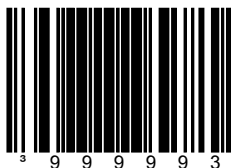


Allows the scanner to be used without an external keyboard.

SECTION C

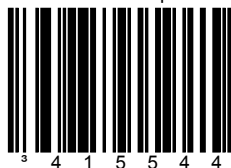
COMMUNICATIONS

Load OCIA Defaults

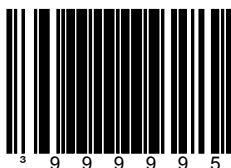


Scan this before selecting
Enable OCIA output.

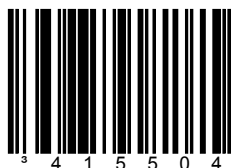
Enable OCIA Output



Select this option if the
communications
requirement is an Optically
Coupled Interface Adapter
(OCIA). This is a docked
(by the host) serial
interface.

Load
IBM 46xx Defaults

Scan this before selecting
Enable IBM 46xx
Communication

Enable IBM 46xx
Communication

Select this option for IBM
46xx SIOC/RS485
communications.



Not all scanners
support this interface.
The correct interface
board is required.

Load Low Speed
External USB Defaults †

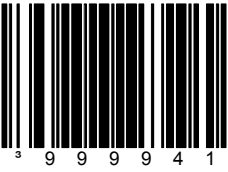


† Refer to Section P for full speed USB options.

Enable
Low Speed USB †



Load Low Speed
Internal USB Defaults †



Enable
No Communication Mode



Select this option if the scanner **does not** interface with the host device.

Reserved

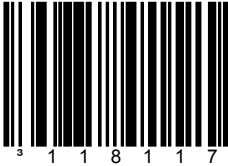


Reserved





Allow Configuration Mode
on Power-Up



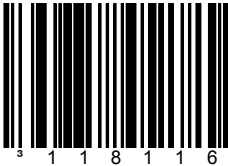
The scanner can only enter
MetroSet® mode before any
bar codes are scanned.

* Allow Configuration
Mode Anytime



Allow MetroSet®
configuration at any time.

Allow Configuration Codes
on Power Up



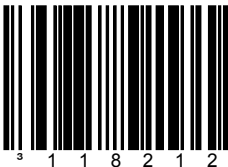
Once a product bar code is
scanned after power-up, the
scanner will not accept
configuration bar codes.

* Allow Configuration
Codes Anytime

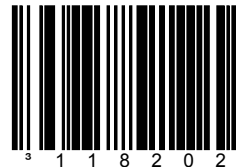


Allows scanning of
configuration bar codes any
time.

Enable
Single Code Programming



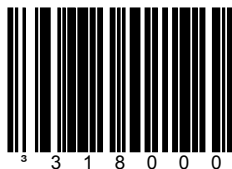
Disable
Single Code Programming



SECTION D

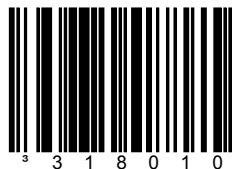
SCAN BUFFERS

* 1 Scan Buffer



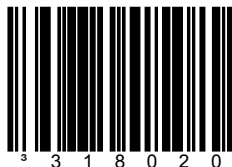
The scanner will scan one bar code in the scan field and not scan again until the bar code is removed from the scan field for the duration of the same symbol time out.

2 Scan Buffers



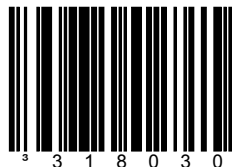
The scanner will scan 2 bar codes in the scan field one time each. These 2 bar codes will not be scanned again until they are removed from the scan field for the duration of the same symbol time out.

3 Scan Buffers



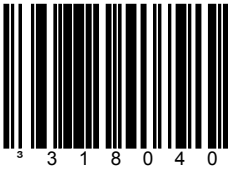
Same function as 2 Scan Buffers, but 3 bar codes are in the scan field.

4 Scan Buffers



Same function as 2 Scan Buffers, but 4 bar codes are in the scan field.

5 Scan Buffers



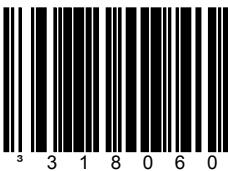
Same function as 2 Scan Buffers, but 5 bar codes are in the scan field.

6 Scan Buffers



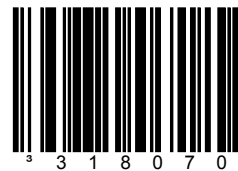
Same function as 2 Scan Buffers, but 6 bar codes are in the scan field.

7 Scan Buffers



Same function as 2 Scan Buffers, but 7 bar codes are in the scan field.

8 Scan Buffers

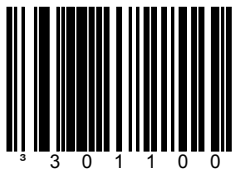


Same function as 2 Scan Buffers, but 8 bar codes are in the scan field.

SECTION D

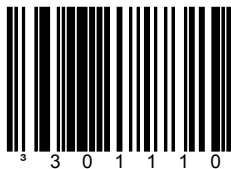
REDUNDANT SCANS

* 0 Redundant Scans



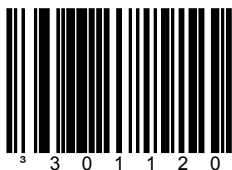
Requires 1 good decode for
a "good scan".

1 Redundant Scans



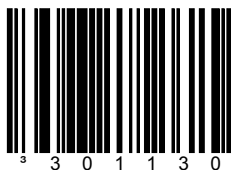
Requires 2 consecutive
decodes of the same bar
code data for a "good scan".

2 Redundant Scans



Requires 3 consecutive
decodes of the same bar
code data for a "good scan".

3 Redundant Scans



Requires 4 consecutive
decodes of the same bar
code data for a "good scan".

4 Redundant Scans



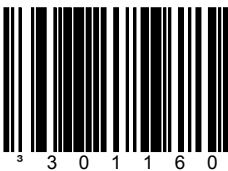
Requires 5 consecutive decodes of the same bar code data for a "good scan".

5 Redundant Scans



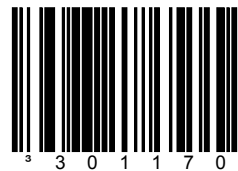
Requires 6 consecutive decodes of the same bar code data for a "good scan".

6 Redundant Scans



Requires 7 consecutive decodes of the same bar code data for a "good scan".

7 Redundant Scans

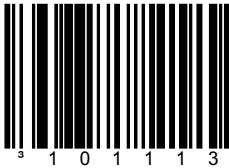


Requires 8 consecutive decodes of the same bar code data for a "good scan".

SECTION D

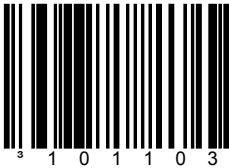
MISCELLANEOUS DECODE FEATURES

* Enable MAJIC



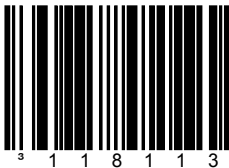
The Metrologic Algorithm for Joining Incomplete Codes (MAJIC) aids in deciphering damaged or incomplete bar codes. Enable for more aggressive decoding.

Disable MAJIC



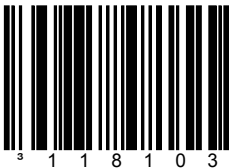
Disable this feature when bar codes are in good reading condition. This will speed up decoding and improve over all accuracy.

Optional
Same Symbol Check



Requires 1 different character between successive bar codes to consider the bar code "new".

* Normal
Same Symbol Check



Requires 3 different characters between successive bar codes to consider the bar code "new".

i Do not change these settings unless instructed by a Metrologic representative.

* Optimize for
Low Density Codes †



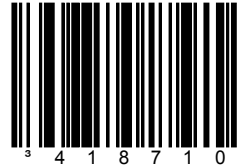
Optimize for
High Density Codes †



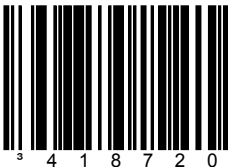
Fixed for
High Density Codes †



Fixed for
Medium Density Codes †



Fixed for
Low Density Codes †



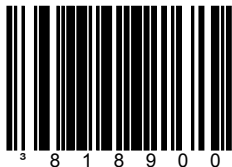
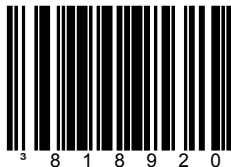
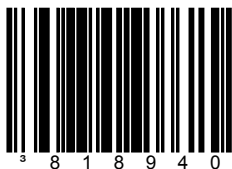
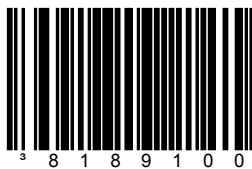
† For use with
omnidirectional
scanners only.

SECTION D

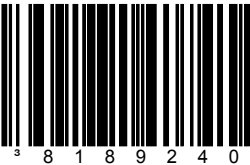
SAME SYMBOL TIME OUTS

These numbers determine the length of time before a bar code can be rescanned after it is removed from the scan field. Single code fixed settings in msec of No, 50, 100, 200, 500, 1200 (1.2 sec), 2000 (2.0 sec) and infinite are available. User configurable values can be set in user-configurable increments of 50 msec to 6350 msec (6.35 sec).

No Same Symbol Time Out

Same Symbol Time Out
100 msecSame Symbol Time Out
200 msec* Same Symbol Time Out
500 msec

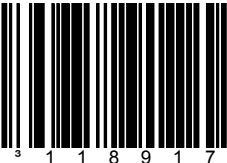
Same Symbol Time Out
1200 msecs



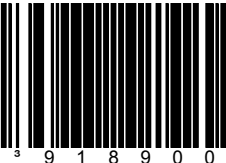
Same Symbol Time Out
2000 msecs



Infinite
Same Symbol Time Out



~ Variable
Same Symbol Time Out



The scanner will not
repetitively scan the same
bar code.



This option
overrides the
symbol rescan
time-outs.

Using the Multi-Code
Method (page x), scan this
bar code and a code byte
sequence from Section M to
set the same symbol time-
out duration. Values range
from 001 to 127 (50 to 6350
msecs).

SECTION D

LED OPTIONS

Flash Green LED if
Rescan Allowed

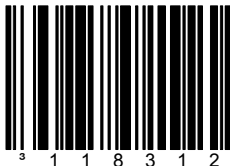


This indicates same symbol
timeout has elapsed.

* Do not flash Green LED if
Rescan Allowed

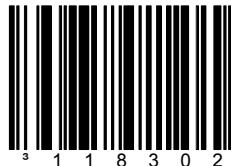


Reverse LED Functions



Red = Laser On
Green = Good Read

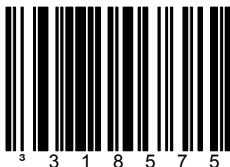
* Normal LED Functions



Green = Laser On
Red = Good Read

BEEPER OPTIONS

* Normal Tone



Optional Tone 1



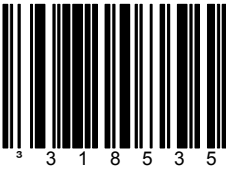
Optional Tone 2



Optional Tone 3



Optional Tone 4



Optional Tone 5



Optional Tone 6



No Beep



SECTION D

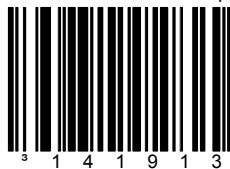
BEEPER OPTIONS

* Enable Good Scan Beep



Enable good scan beep on power up.

Disable Good Scan Beep

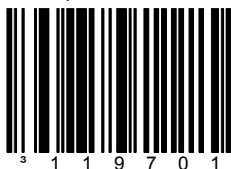


Disable good scan beep on power up.

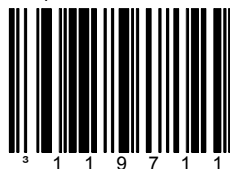
The following two bar codes will:

- Enable or Disable **tone** control with the button on the MS7220 and the MS7320.
- Enable or Disable **volume** control with the button on all of the Stratos Series product lines.

* Enable Button
Beep Controls



Disable Button
Beep Controls



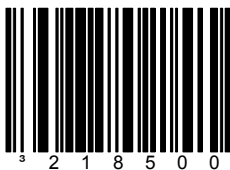
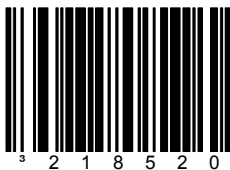
Next Beep Tone



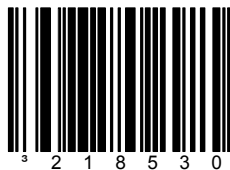
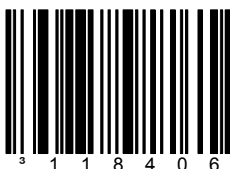
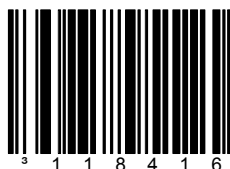
Next Volume



* Loudest Volume

2nd Loudest Volume3rd Loudest Volume

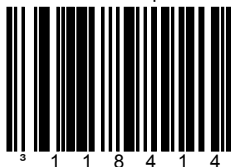
No Volume

* Beep Once on
SupplementsBeep Twice on
Supplements

SECTION D

BEEPER OPTIONS

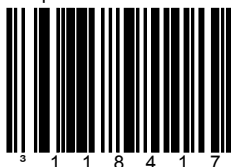
Enable Fast Beep



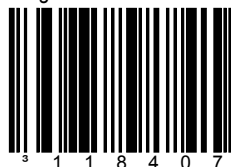
* Disable Fast Beep



Beep on BEL Command

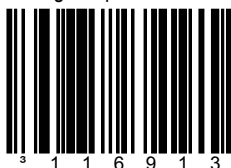


* Ignore BEL Command

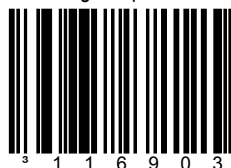


The scanner beeps when it receives a BEL character from the host. If a number is sent within 200 msec before the BEL character, then the scanner will beep that number of times.

Enable Light Pen Toggle During Beep



* Disable Light Pen Toggle During Beep

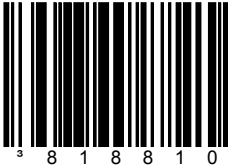


The scanner will beep and toggle the light pen data line on a successful decode. This drives a "good read" indicator.

SECTION D INTER-CHARACTER DATA TRANSMISSION DELAYS

Use these codes to select the amount of delay between sending data characters and “Bar Code” records from the scanner to the host. This helps prevent the scanner from overflowing host input buffers.

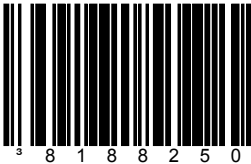
* 1 msec
Inter-Character Delay



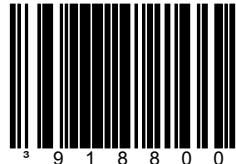
10 msec
Inter-Character Delay



25 msec
Inter-Character Delay



~ Variable msec
Inter-Character Delay



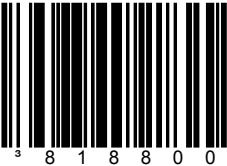
Scan this bar code and a sequence of code bytes in Section M to set the delay between characters sent to the host system. Delay range can be set from 1 to 255 msecs.

Refer to the *Multi-Code Configuration Method* on page x.

SECTION D

INTER-CHARACTER DATA TRANSMISSION DELAYS

No Inter-Character Delay

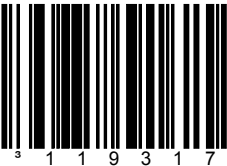


INTER-RECORD DATA TRANSMISSION DELAYS

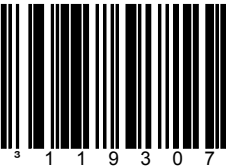
~ Variable
Inter-Record Delay



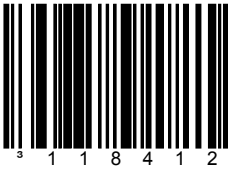
Turn Off Laser During
Inter-Record Delay



* Leave Laser On During
Inter-Record Delay



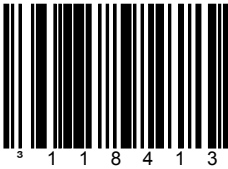
Enable
Communications Time Outs



* Disable Communications
Time Outs

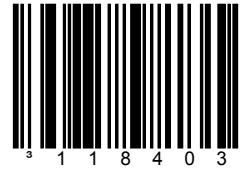


* Beep Before Transmit



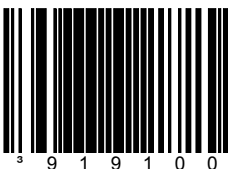
Scanner will beep before
each label is transmitted.

Beep After Transmit

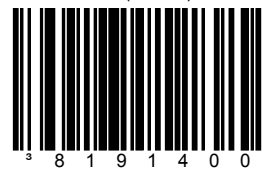


Scanner will beep after
each label is transmitted.

~ Variable Communications
Time Out



* Default Communications
Time Out (2 secs)



SECTION D

COMMUNICATION TIME OUT OPTIONS

Short Communications
Time Out (1 sec)



Long Communications
Time Out (4 secs)



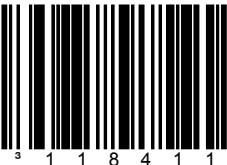
Three Beeps on Time Out



* No Beeps on Time Out



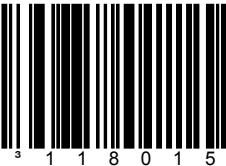
Razzberry Tone on
Time Out



* No Razzberry Tone
on Time Out

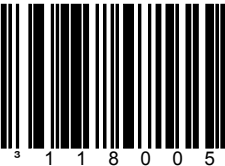


Enable "D/E" Disable
Command



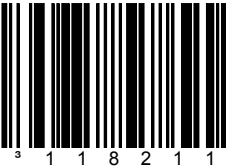
The scanner will disable scanning after it receives and ASCII "D" from the host device. It will enable scanning when it receives an ASCII "E".

* Disable "D/E" Disable



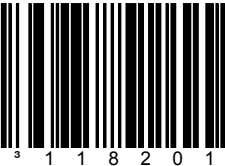
Do not monitor D/E commands.

Enable "Z/R" Type
D/E Simulation



The scanner will disable scanning after it receives an ASCII "Z" from the host device. It will enable scanning when it receives an ASCII "R".

* No "Z/R" Type
D/E Simulation

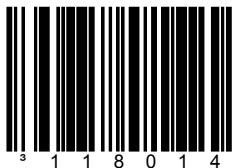


Do not monitor Z/R commands.

SECTION D

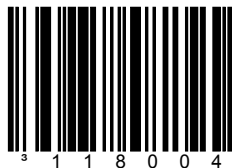
HOST SCANNER COMMANDS

Enable "F/L" Laser Command



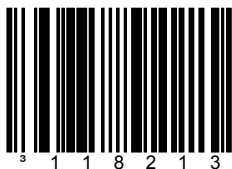
The scanner will turn off the laser after receiving an ASCII "F" character. The laser will turn on after it receives an ASCII "L" character.

* Disable "F/L" Laser Command



Do not monitor "F/L" commands.

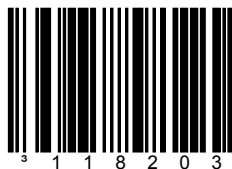
Motor "On/Off" Using M/O Commands †



The scanner will turn the motor OFF after it receives an ASCII "O" character. The motor will turn ON after the scanner receives an ASCII "M" character. †

† For use with omnidirectional scanners only.

* Disable "M/O" Commands



Do not monitor the M/O commands.

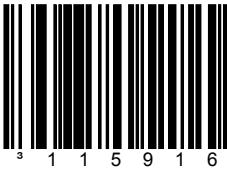
Enable I Command



Disable I Command



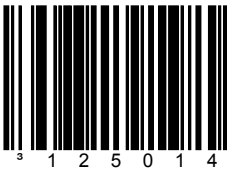
Enable i Command



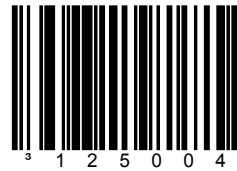
Disable i Command



Enable SI/SO Command



Disable SI/SO Command

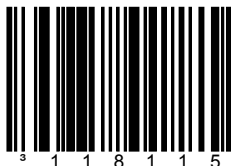


SECTION D

HOST SCANNER COMMANDS

Use

DTR Scan Disable



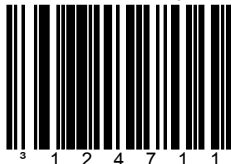
The scanner will monitor the DTR input to determine if scanning should be allowed. A +12V "active" level enables decoding. A -12V "inactive" level disables decoding.

* Do not use
DTR Scan Disable

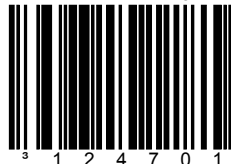


Do not monitor the DTR input.

Enable Pass Through

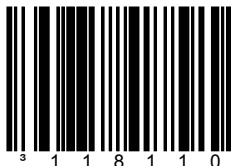


Disable Pass Through

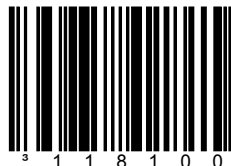


The AUX scanner must be configured for the same Baud rate as the host, with STX prefix, Nixdorf ID characters and CR Terminator enabled.

Activate on DC2 Character



* Do Not Activate on DC2
Character



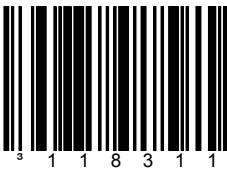
Transmit "NO READ" if
DC2 Activated



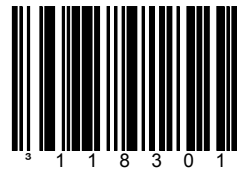
Do Not Transmit "NO
READ" if DC2 Activated



No Green LED During
"NO READ" Xmit



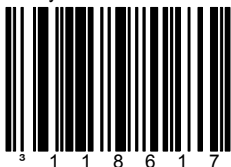
* Green LED During
"NO READ" Xmit



SECTION D

POWER SAVE MODES

Always Power Save Mode†



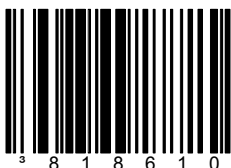
The scanner enters power save mode immediately after power-up and after each bar code scanned. †

No Power Save Mode†

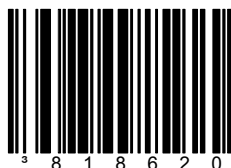


The scanner will never enter power save mode.†

† For use with omnidirectional scanners only.

Power Save Mode in
1 minute †

The scanner enters power save mode when the scanner remains idle for 1 minute. †

Power Save Mode in
2 minutes †

The scanner enters power save mode if the scanner remains idle for 2 minutes. †

Power Save in 5 Minutes †



The scanner enters power save mode if the scanner remains idle for 5 minutes. †

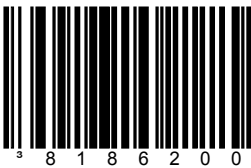
Power Save in 10 Minutes †



The scanner enters power save mode if the scanner remains idle for 10 minutes. †

† For use with omnidirectional scanners only.

Power Save in 20 Minutes †



The scanner enters power save mode if the scanner remains idle for 20 min. †

Power Save in 30 Minutes †

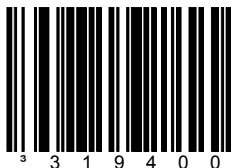


The scanner enters power save mode if the scanner remains idle for 30 min. †

SECTION D

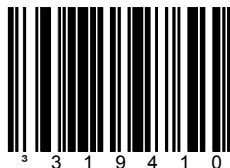
POWER SAVE MODES

Default
Power Save Mode ††



†† For MS7600, MS7220,
and MS7320 series
scanners only.

Blink
Power Save Mode ††



Blinks the laser OFF & ON
after a programmed period
of non-use.

When the scanner
recognizes a bar code it will
exit the Blink mode.

Laser OFF
Power Save Mode ††

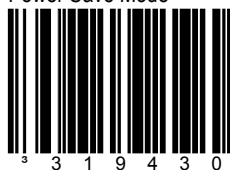


Turns the laser OFF after a
programmed period of non-
use. ††

The MS7220 and MS7320
will “wake” when the Multi-
Function Button is pressed.

The MS7600 will “wake” if
the IR detects movement.

Laser Motor OFF
Power Save Mode ††

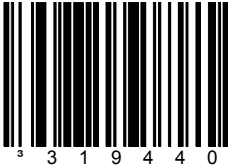


Turns the laser and motor
OFF after a programmed
period of non-use. ††

The MS7220 and MS7320
will “wake” when the Multi-
Function Button is pressed.

The MS7600 will “wake” if
the IR detects movement.

Dual #1
Power Save Mode ††

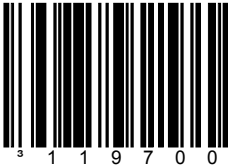


“Blinks” the laser OFF & ON after a programmed period of non-use then turns the laser and motor OFF at thirty-minute intervals.

The MS7220 and MS7320 will “wake” when the Multi-Function Button is pressed.

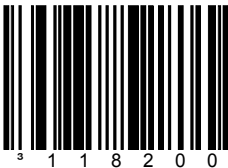
The MS7600 will “wake” if the IR detects movement.

* Enable
Power Save Switch



For MS7220 and MS7320 scanners only.

* Enable Bar Code
Absence Detection



†† For MS7600, MS7220, and MS7320 series scanners only.

Dual #2
Power Save Mode ††

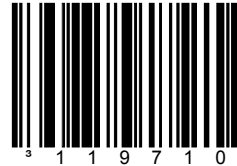


Turns the laser OFF after a programmed period of non-use then turns the motor OFF after thirty-minute intervals.

The MS7220 and MS7320 will “wake” when the Multi-Function Button is pressed.

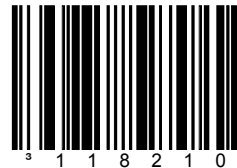
The MS7600 will “wake” if the IR detects movement.

Disable
Power Save Switch



For MS7220 and MS7320 scanners only.

Disable Bar Code
Absence Detection



SECTION D

JAPANESE DOUBLE FIELD SUPPORT

To support Japanese Double Field Bar Codes, first make sure you have your scanner programmed to the following settings.

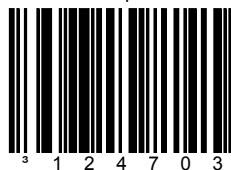
- Disable segmented decoding
- Enable 2 scan buffers
- Disable bar code absence detection
- Enable normal code selects

Then, scan the **Enable Japan 2 Field** bar code.

Enable Japan 2 Field



* Disable Japan 2 Field



Next, select the matching bar codes that are used for double field symbols.

Note that only UPC/EAN bar codes are allowed in double field mode.

Select at least two characters for each bar code. The maximum is 4 upper and 4 lower bar codes.

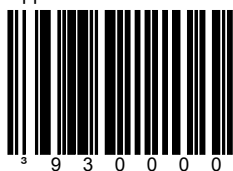
EXAMPLE**To select 54 as the first two characters in the Upper Code pair 1:**

1. Scan the *Upper Code 1 Character 1* bar code (shown on page D-31)
2. Determine the correct Code Byte Value for the character 5 in 54
(Refer to Section M's ASCII Reference Table on pages M-7 and M-8)
 - a. Scan Code Byte 0
 - b. Scan Code Byte 5
 - c. Scan Code Byte 3
3. Scan the *Upper Code 1 Character 2* bar code (shown on page D-31)
4. Determine the correct Code Byte Value for the character 4 in 54.
 - a. Scan Code Byte 0
 - b. Scan Code Byte 5
 - c. Scan Code Byte 2

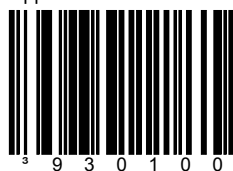
To select 18 as the first two characters in the Lower Code pair 1:

1. Scan the *Lower Code 1 Character 1* bar code (shown on page D-31)
2. Determine the correct Code Byte Value for the character 1 in 18
(refer to Section M's ASCII Reference Table)
 - a. Scan Code Byte 0
 - b. Scan Code Byte 4
 - c. Scan Code Byte 9
3. Scan the *Lower Code 1 Character 2* bar code (shown on page D-31)
4. Determine the correct Code Byte Value for the character 8 in 18.
(Refer to Section M's ASCII Reference Table on pages M-7 and M-8)
 - a. Scan Code Byte 0
 - b. Scan Code Byte 5
 - c. Scan Code Byte 6

Upper Code 1 Character 1



Upper Code 1 Character 2



Lower Code 1 Character 1



Lower Code 1 Character 2



Upper Code 2 Character 1



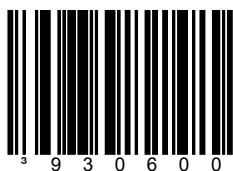
Upper Code 2 Character 2



SECTION D

JAPANESE DOUBLE FIELD SUPPORT

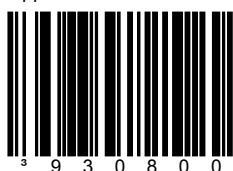
Lower Code 2 Character 1



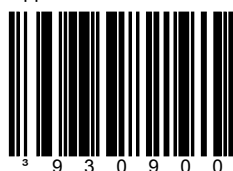
Lower Code 2 Character 2



Upper Code 3 Character 1



Upper Code 3 Character 2



Lower Code 3 Character 1



Lower Code 3 Character 1



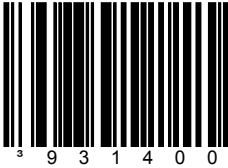
Upper Code 4 Character 1



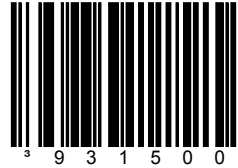
Upper Code 4 Character 2



Lower Code 4 Character 1



Lower Code 4 Character 2



SECTION D

JAPANESE DOUBLE FIELD SUPPORT

Japanese Trial Time



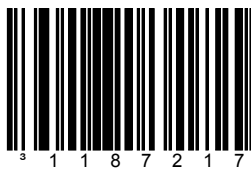
Scan the above bar code followed by the 3 code bytes in Section M that represent the timeout value desired if in special code select mode.

1 is equal to 100 milliseconds

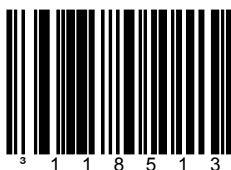
Example:

If a 500 millisecond timeout is desired, scan the above code followed by code byte 0, code byte 0 and code byte 5.

Enable Code Selects

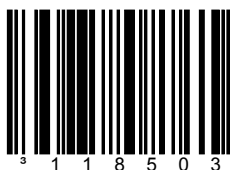


Enable Error Tone



Adds ability to sound RAZZ error tone when special code selects fail.

* Disable Error Tone



Scanability ON



The scanner will enter scanability test mode.

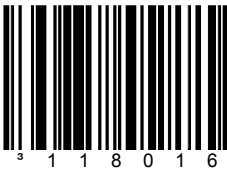


Do not enable unless instructed to by a Metrologic representative.

* Scanability OFF



Scan Count Mode ON

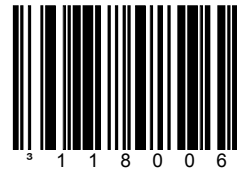


The scanner will enter scan count test mode and the scanner's firmware number will transmit to the host.



Do not enable unless instructed to by a Metrologic representative.

* Scan Count Mode OFF



Temporary Symbolologies



The *Temporary Symbolologies* test code enables all major types of bar code symbolologies, reduces the minimum number of characters required to 1, sets the minimum ITF characters required to 2, and adds the symbology name as a prefix to the transmission. This feature is disabled when power to the scanner is cycled OFF and ON.



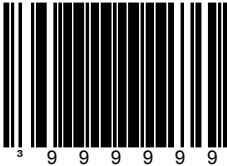
Do not enable unless instructed to by a Metrologic representative





Scan the *Enter/Exit Configuration Mode* bar code before trying to set this feature. Please refer to the Multi-Code method on page x.

Enter/Exit
Configuration Mode

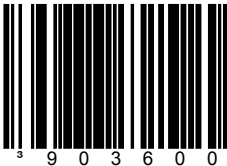


~ Configurable Prefix
Character #1



A prefix ID can be added and assigned for data transmission. Use this code with a 3-code byte sequence from Section M that represents the desired character.

~ Configurable Prefix
Character #2



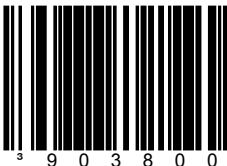
Assigns a 2nd configurable prefix character.

~ Configurable Prefix
Character #3



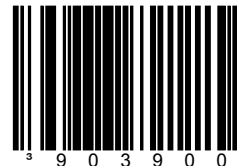
Assigns a 3rd configurable prefix character.

~ Configurable Prefix
Character #4



Assigns a 4th configurable prefix character.

~ Configurable Prefix
Character #5

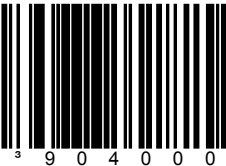


Assigns a 5th configurable prefix character.

SECTION E

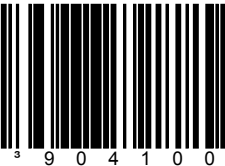
CONFIGURABLE PREFIXES, ALL DATA

~ Configurable Prefix
Character #6



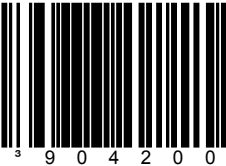
Assigns a 6th configurable
prefix character.

~ Configurable Prefix
Character #7



Assigns a 7th configurable
prefix character.

~ Configurable Prefix
Character #8



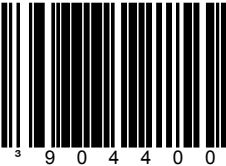
Assigns a 8th configurable
prefix character.

~ Configurable Prefix
Character #9



Assigns a 9th configurable
prefix character.

~ Configurable Prefix
Character #10



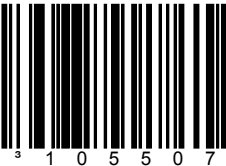
* Clear all User
Configurable Prefixes




SECTION E

CONFIGURABLE ID CHARACTERS, CODE SPECIFIC

* Use Configurable Code ID Bytes as Prefixes




User configured, code specific ID bytes are transmitted before the data.

 If using prefixes, user configured suffixes can not be used.

Use Configurable Code ID Bytes as Suffixes

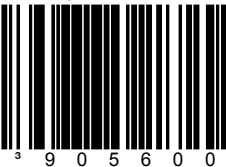


User configured, code specific ID bytes are transmitted after the data.

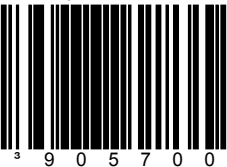
 If using suffixes, user configured prefixes can not be used.

IDENTIFIERS CHARACTER

~ Configurable UPC-A ID †



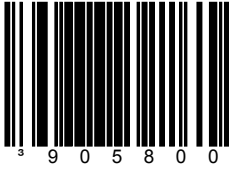
~ Configurable UPC-E ID †



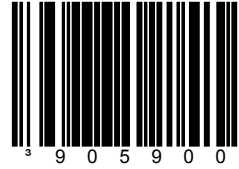
† While using the Multi-Code method, scan this bar code followed by the 3 code byte codes in Section M that represent a unique ID character to be associated with this bar code type. (Refer to the *Multi-Code Method* on page x.)

SECTION E CONFIGURABLE ID CHARACTERS, CODE SPECIFIC

~ Configurable EAN-8 ID †

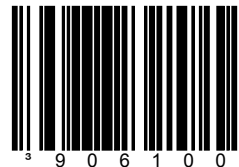


~ Configurable EAN-13 ID †



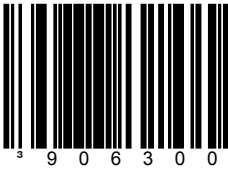
† While using the Multi-Code method, scan this bar code followed by the 3 code byte bar codes in Section M that represent a unique ID character to be associated with this bar code type. (Refer to the *Multi-Code Method* on page x.)

~ Configurable Code 39 ID †

~ Configurable
Code 128 ID †

SECTION E CONFIGURABLE ID CHARACTERS, CODE SPECIFIC

~ Configurable Code 93 ID †

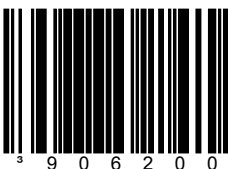


~ Configurable Code 11 ID †

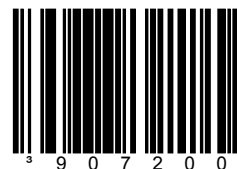


† While using the Multi-Code method, scan this bar code followed by the 3 code byte bar codes in Section M that represent a unique ID character to be associated with this bar code type. (Refer to the Multi-Code method on page x.)

~ Configurable Telepen ID †

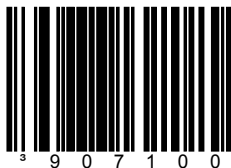


~ Configurable
TRI-OPTIC ID †



SECTION E CONFIGURABLE ID CHARACTERS, CODE SPECIFIC

~ Configurable
Standard 2 of 5 ID †

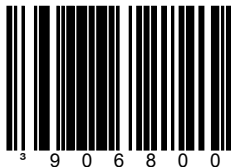


~ Configurable
Interleaved 2 of 5 ID †



† While using the Multi-Code method, scan this bar code followed by the 3 code byte bar codes in Section M that represent a unique ID character to be associated with this bar code type. (Refer to the *Multi-Code method* on page x.)

~ Configurable
Matrix 2 of 5 ID †



~ Configurable
Airline 2 of 5 ID †



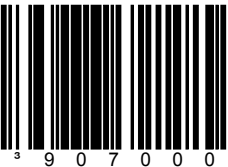
SECTION E

CONFIGURABLE ID CHARACTERS CODE SPECIFIC

~ Configurable
MSI Plessey ID †

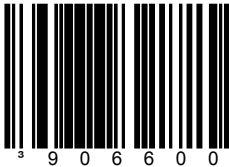


~ Configurable
UK Plessey ID†



† While using the Multi-Code method, scan this bar code followed by the 3 code byte bar codes in Section M that represent a unique ID character to be associated with this bar code type. (Refer to the *Multi-Code method* on page x.)

~ Configurable
Codabar ID †



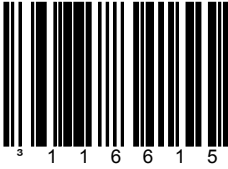
* Clear all Configurable
Code Specific ID's †



SECTION E

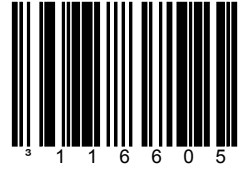
STANDARD PREFIX CHARACTERS

Enable STX Prefix



The scanner will transmit a **Start of TeXt** (ASCII 02H) before each bar code.

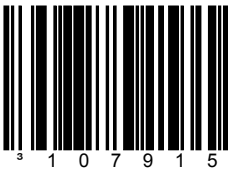
* Disable STX Prefix



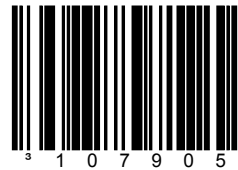
Will not transmit a **Start of TeXt** (ASCII 02H) before each bar code.

Enable
Rockford-Thompson Mode* Disable Rockford-
Thompson Mode

Enable AIM ID Characters



The scanner will transmit AIM symbology identifiers.

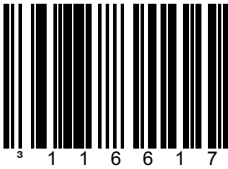
* Disable AIM ID
Characters

The scanner will not transmit AIM symbology identifiers.



Some scanner models may not support this feature.

Enable UPC Prefix ID



When enabled, the scanner will transmit a prefix before any UPC/EAN bar code.

The prefixes are as follows:

- A (UPC-A),
- E0 (UPC-E),
- F (EAN-13), and
- FF (EAN-8).

* Disable UPC Prefix ID



Do not send prefix ID Characters with UPC/EAN codes.

Enable NCR Prefix ID

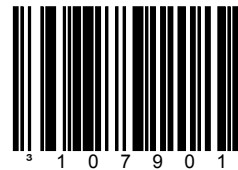


When enabled, the scanner will transmit a prefix before the following code types.

The prefixes are as follows:

- A (UPC-A),
- E0 (UPC-E),
- FF (EAN-8),
- F (EAN-13),
- B1 (Code 39),
- B2 (ITF) and
- B3 (Code 128 & other codes).

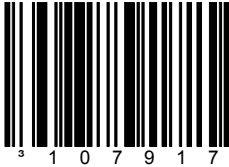
* Disable NCR Prefix ID



SECTION E

STANDARD PREFIX CHARACTERS

Enable Nixdorf ID
Characters



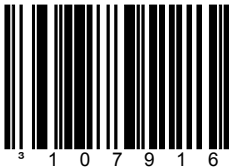
This option transmits code
identifiers before each bar
code for many
Siemens/Nixdorf registers.

* Disable Nixdorf ID
Characters



This option will not transmit
Siemens/Nixdorf code
identifiers.

Enable SANYO ID
Characters



Transmit Sanyo ID
Characters.

* Disable SANYO ID
Characters



Do not transmit Sanyo ID
Characters.

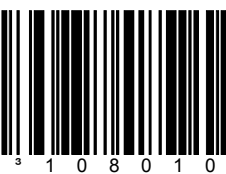
Enable TEC Register
Format ID Characters



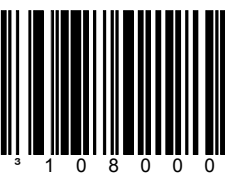
Disable TEC Register
Format ID Characters



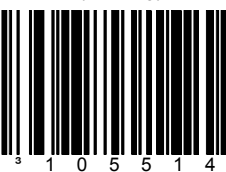
Enable TEC MA1530
ID Characters



Disable TEC MA1530
ID Characters

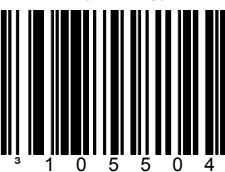


Enable Symbology Prefix



This option adds a symbology description in front of the bar code transmission.

Disable Symbology Prefix

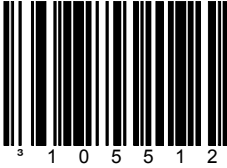


Do not add a symbology description in front of the bar code transmission.

SECTION E

STANDARD PREFIX CHARACTERS

Enable Manufacturer
ID Prefix



Transmits "METROLOGIC"
before all bar code data to
identify the scanner as a
Metrologic Scanner.

* Disable Manufacturer
ID Prefix



The scanner will not
transmit the manufacturer
identification string.

Enable "C" Prefix



* Disable "C" Prefix



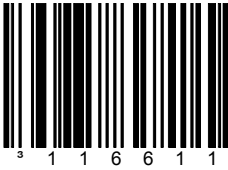
Enable "\$" Prefix ID
for UPC/EAN



* Disable "\$" Prefix ID
for UPC/EAN



Enable Tab Prefix



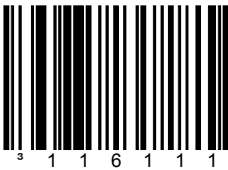
The scanner will transmit a TAB (ASCII 09H) before each bar code.

* Disable Tab Prefix



The scanner will not transmit a TAB.

Enable SNI Beetle Mode



* Disable SNI Beetle Mode



Enable Cipher 1021 IDs



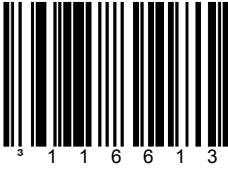
* Disable Cipher 1021 IDs



SECTION E

STANDARD SUFFIX CHARACTERS

* Enable CR Suffix



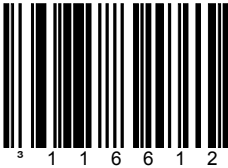
The scanner will transmit a **Carriage Return** after each bar code.

Disable CR Suffix



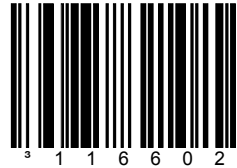
The scanner will not transmit a **Carriage Return** after each bar code.

* Enable LF Suffix



The scanner will transmit a **Line Feed** after each bar code.

Disable LF Suffix



The scanner will not transmit a **Line Feed** after each bar code.



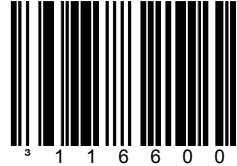
This feature is Disabled when keyboard wedge defaults are loaded.

Enable Tab Suffix



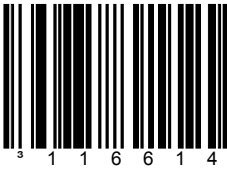
The scanner will transmit a **TAB (ASCII 09H)** after each bar code.

* Disable Tab Suffix



The scanner will not transmit a **TAB (ASCII 09H)** after each bar code.

Enable ETX Suffix



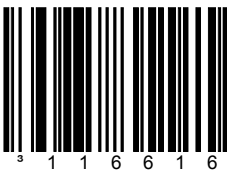
The scanner will transmit
End of TeXt (ASCII 03H)
after the bar code data.

* Disable ETX Suffix



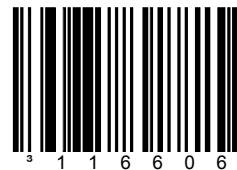
The scanner will not
transmit End of TeXt
(ASCII 03H).

Enable UPC Suffix ID



The scanner will transmit a
suffix after any UPC/EAN
bar code.

* Disable UPC Suffix ID



The scanner will not
transmit a suffix after
UPC/EAN bar codes.

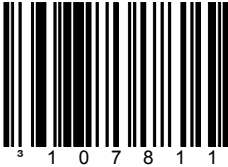
The suffixes are as follows:

- A (UPC-A),
- E (UPC-E),
- F (EAN-13) and
- F (EAN-8).

SECTION E

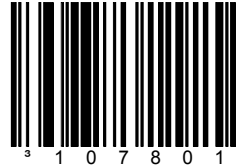
LONGITUDINAL REDUNDANCY CHECK (LRC)

Enable Transmit of
LRC Calculation



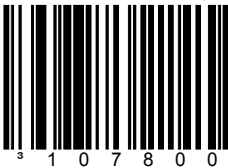
The scanner outputs an
LRC check character after
the bar code.

* Disable Transmit of
LCR Calculation



The scanner will not output
an LRC (check character)
after the bar code.

* Start LRC on First Byte



The scanner will calculate
the LRC check digit starting
with the first character.

Start LRC on Second Byte



The scanner will calculate
the LRC check digit starting
with the second character.

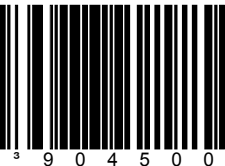


Scan the *Enter/Exit Configuration Mode* bar code before trying to set this feature. Refer to the *Multi-Code Method* on page x.

Enter/Exit
Configuration Mode



~ Configurable Suffix
Character #1



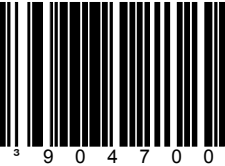
A suffix ID can be added and assigned for data transmission. Use this code with a 3 code byte sequence from Section M that represents the desired character.

~ Configurable Suffix
Character #2



Assigns a 2nd configurable suffix character.

~ Configurable Suffix
Character #3



Assigns a 3rd configurable suffix character.

SECTION E

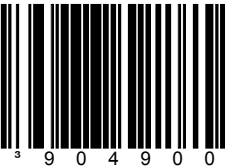
CONFIGURABLE SUFFIXES, ALL DATA

~ Configurable Suffix
Character #4 †



Assigns a 4th configurable
suffix character.

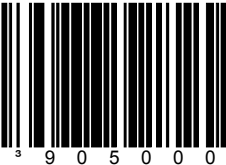
~ Configurable Suffix
Character #5 †



Assigns a 5th configurable
suffix character.

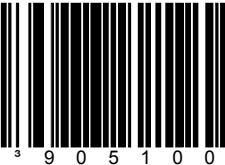
† While using the Multi-Code method,
scan this bar code followed by the 3
code byte bar codes in Section M
that represents the desired
character. (Refer to the *Multi-Code
method* on page x.)

~ Configurable Suffix
Character #6 †



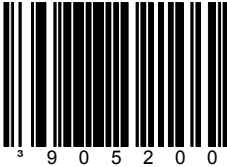
Assigns a 6th configurable
suffix character.

~ Configurable Suffix
Character #7 †



Assigns 7th configurable
suffix character.

~ Configurable Suffix
Character #8 †



Assigns a 8th configurable
suffix character.

~ Configurable Suffix
Character #9 †



Assigns a 9th configurable
suffix character.

~ Configurable Suffix
Character #10 †



Assigns a 10th configurable
suffix character.

† While using the Multi-
Code method, scan this
bar code followed by the
3 code byte bar codes in
Section M that represent
the desired character.
(Refer to the *Multi-Code
method* on page x.)

* Clear All User
Configurable Suffixes



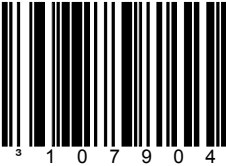
SECTION E

SPECIAL FORMATS

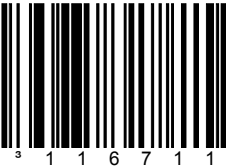
Enable SINEKO Mode



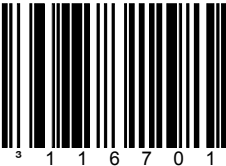
* Disable SINEKO Mode



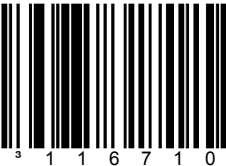
Enable Newcode
Formatting Mode A



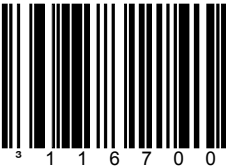
* Disable Newcode
Formatting Mode A



Enable Newcode
Formatting Mode B



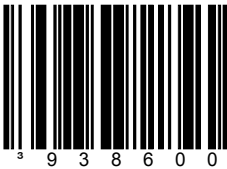
* Disable Newcode
Formatting Mode B



To replace a character:

1. Scan the *Enter/Exit Configuration Mode* bar code
(located on page x, at the front of this guide)
2. Scan the *Character to Replace Code* (shown below)
3. Scan the ASCII Code Byte value of the character you wish to replace.
(refer to the ASCII reference table in Section M)
4. Scan the *Replacement Character* bar code
5. Scan the ASCII Code Byte value of the replacement character.
6. Scan the *Enter/Exit Configuration Mode* bar code.
(located on page x, at the front of this guide)

Character to Replace



No Replacement

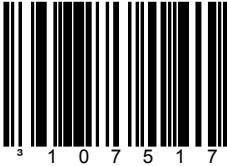


Replacement Character





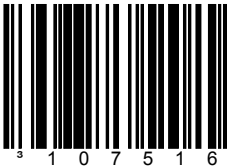
* Transmit UPC-A
Check Digit



Do not Transmit
UPC-A Check Digit



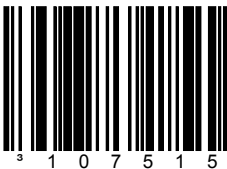
Transmit UPC-E
Check Digit



* Do Not Transmit
UPC-E Check Digit



Expand UPC-E to 12 Digits



* Do Not Expand
UPC-E To 12 Digits



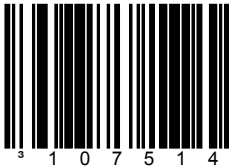
Expand UPC-E bar codes to
the 12 digit equivalent,
UPC-A bar codes.

Do not expand UPC-E to
the 12 digit equivalent,
UPC-A bar code.

SECTION F

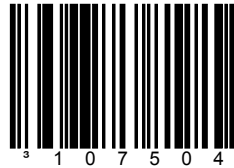
UPC/EAN

Convert UPC-A to EAN-13



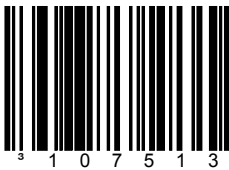
The scanner converts
UPC-A to EAN-13 by
transmitting a leading zero
before the bar code.

* Do Not Convert
UPC-A to EAN-13



The scanner will not convert
UPC-A to EAN-13.

Transmit Lead Zero
on UPC-E



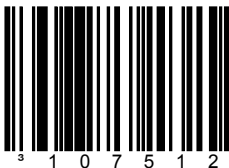
This option will transmit a
zero before each
UPC-E bar code.

Do Not Transmit
Lead Zero on UPC-E



This option will not transmit
a zero before each UPC-E
bar code.

Convert EAN-8 to EAN-13



The scanner will transmit
five zeros before the bar
code to convert EAN-8 to
EAN-13.

* Do Not Convert
EAN-8 to EAN-13



The scanner will not convert
EAN-8 to EAN-13.

* Transmit UPC-A
Number System

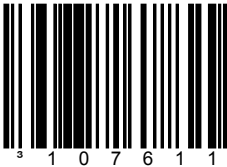


Do Not Transmit UPC-A
Number System

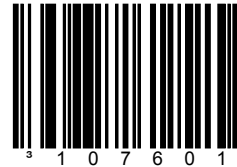


i Metrologic strongly
discourages using
this feature.
Duplicate numbers
may result in the
database.

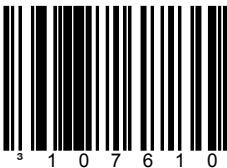
* Transmit
UPC-A MFR #



Do Not Transmit
UPC-A MFR #



* Transmit
UPC-A ITEM #



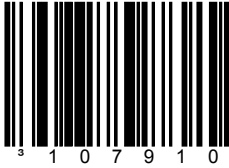
Do Not Transmit
UPC-A ITEM #



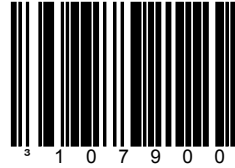
SECTION F

UPC/EAN

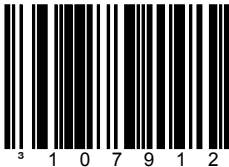
* Transmit EAN-8
Check Digit



Do Not Transmit
EAN-8 Check Digit



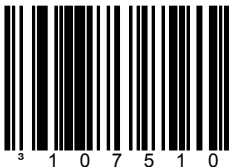
* Transmit EAN-13
Check Digit



Do Not Transmit
EAN-13 Check Digit

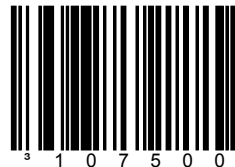


GTIN-14 Format †

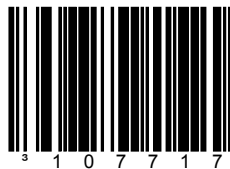


† For MS7220, MS7320 and
MS7600 scanners only.

No GTIN-14 Format †

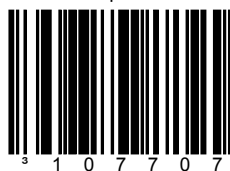


Transmit Codabar
Start/Stop Characters



Transmits Codabar's
start/stop characters before
and after each bar code.

* Do Not Transmit Codabar
Start/Stop



Will not transmit Codabar's
start/stop characters before
and after each bar code.

SECTION F

CODABAR

Enable
CLSI Editing

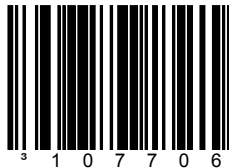


CLSI type editing will be done
before the information is
transmitted to the host.



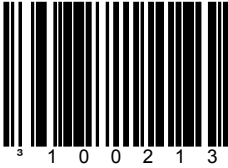
This option will only
work with 14 digit
Codabar type lengths.

* Do Not Enable
CLSI Editing



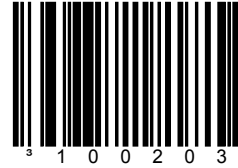
This option will not perform
CLSI type editing before the
information is transmitted to
the host.

Enable MOD 43
Check on Code 39



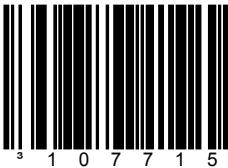
The scanner will only scan
Code 39 bar codes that
have a valid Modulo 43
Check Digit.

* Disable MOD 43 Check
on Code 39



The scanner will not test
Code 39 bar codes for a
Modulo 43 Check Digit.

Transmit Mod 43
Check Digit on Code 39



This feature works in
conjunction with Mod 43
Check on Code 39. Both
must be enabled for this
feature to work.

* Do Not Transmit Mod 43
Check Digit on Code 39



This option will not transmit
Code 39's Mod 43 check
character.

SECTION F

CODE 39

Transmit Code 39 Start/Stop
Characters



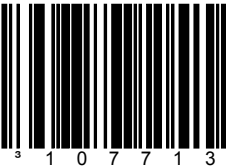
The scanner transmits Code
39's start/stop characters before
and after each bar code.

* Do Not Transmit Code 39
Start/Stop Characters



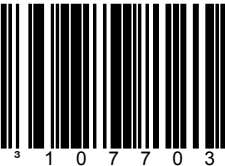
The scanner will not transmit
Code 39's start/stop characters
before and after each bar code.

Transmit
Code 11 Check Digit



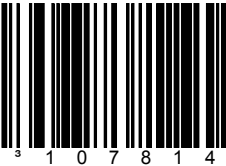
The scanner will transmit
Code 11 check characters
when used with the Enable
Code 11 feature in
Section A.

* Do Not Transmit
Code 11 Check Digit

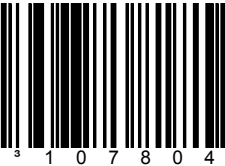


The scanner will not
transmit Code 11 check
characters.

Enable
Convert Telepen ^L to E



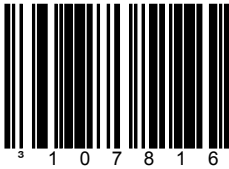
* Disable
Convert Telepen ^L to E



SECTION F

PLESSEY

Transmit
UK Plessey Check Digit



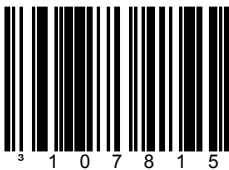
The scanner will transmit
UK Plessey Check Digit
characters when used with
the Enable UK Plessey
feature in Section A.

* Do Not Transmit
UK Plessey Check Digit



Will not transmit UK Plessey
Check Digit characters.

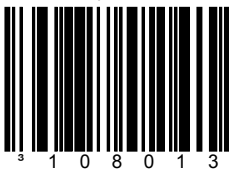
Enable
UK Plessey Special Format



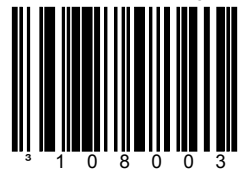
Disable
UK Plessey Special Format



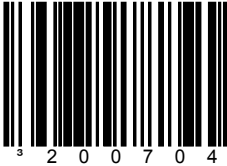
Handle Incorrect
UK Plessey Stop Character



* Normal UK Plessey Stop
Character Handling

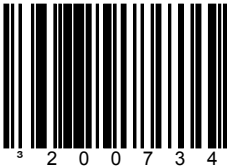


* No MSI Plessey
Check Digit



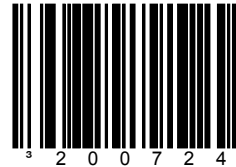
The scanner will not test
MSI Plessey bar codes for a
check digit.

Enable MSI Plessey MOD
10/10 Check Digit



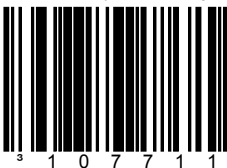
The scanner will test MSI
Plessey bar codes for a
double Modulo 10 check
digit.

* Enable MSI Plessey MOD
10 Check Digit



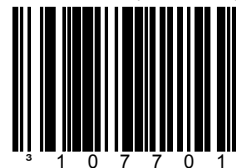
The scanner will test MSI
Plessey bar codes for a
single Modulo 10 check digit.

Transmit
MSI Plessey Check Digit



This option works in
conjunction with one or both
of the Enabled MSI Plessey
Mode options.

* Do Not Transmit
MSI Plessey Check Digit

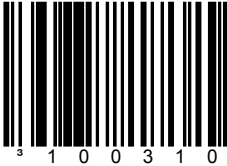


The scanner will not transmit
MSI Plessey's check digit
characters.

SECTION F

2 OF 5

Enable Mod 10
Check on ITF



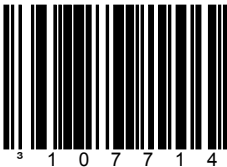
The scanner will only scan
Interleaved 2 of 5 (ITF) bar
codes that have a Modulo
10 check digit.

* Disable MOD 10
Check on ITF



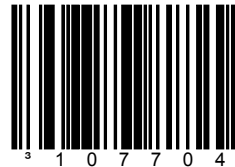
The scanner will not test
Interleaved 2 of 5 (ITF) bar
codes for a Modulo 10 check
digit.

Transmit Mod 10
Check Digit on ITF



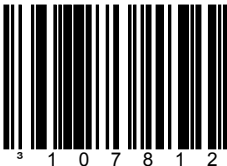
The scanner transmits
Interleaved 2 of 5 (ITF)
Mod 10 check character.

* Do Not Transmit Mod 10
Check Digit on ITF

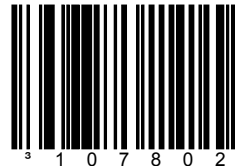


The scanner will not transmit
Interleaved 2 of 5 (ITF) Mod
10 check digit character. This
feature works in conjunction
with Mod 10 check on ITF.
Both must be enabled for this
feature to work.

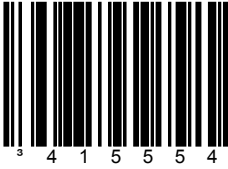
Transmit Matrix 2 of 5
Check Digit



* Do Not Transmit
Matrix 2 of 5 Check Digit.



* Enable RS-232 Mode



When enabled the scanner
will work with RS-232 $\pm 12V$
serial output.

SECTION G

PARITY FEATURES

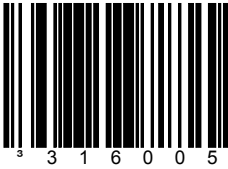


A parity bit is an extra data bit used to help catch data transmission errors. The scanner's parity must match the host's parity.

No Parity

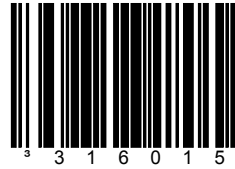


Odd Parity



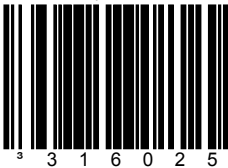
Select Odd Parity to set the parity bit to either 1 or 0 to ensure an odd number of bits are 1's.

* Space Parity



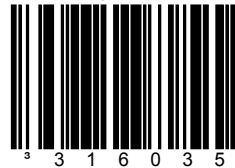
Select to set the parity bit always 0.

Even Parity



Select to set the parity bit to either 1 or 0 to ensure an even number of bits are 1's.

Mark Parity



Select to set the parity bit always 1.

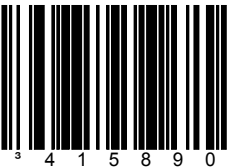


A “Baud” or “Baud Rate” is the speed at which data is transmitted. Select a Baud for the scanner that matches the host device.

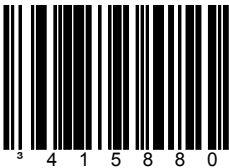
115200 BAUD Rate



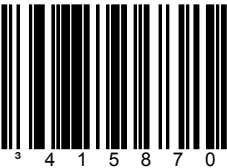
57600 BAUD Rate



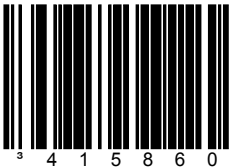
38400 BAUD Rate



19200 BAUD Rate



14400 BAUD Rate



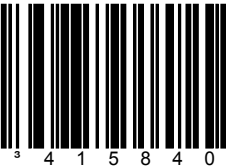
SECTION G

BAUD RATES

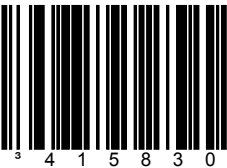
* 9600 BAUD Rate



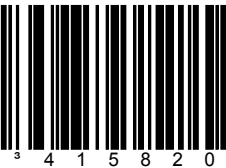
4800 BAUD Rate



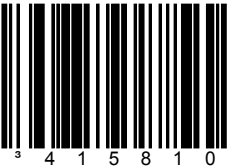
2400 BAUD Rate



1200 BAUD Rate



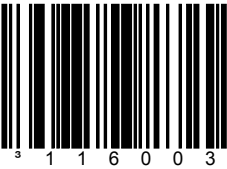
600 BAUD Rate



300 BAUD Rate

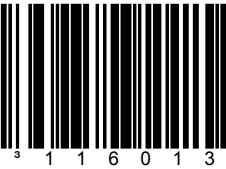


* 7 Data Bits

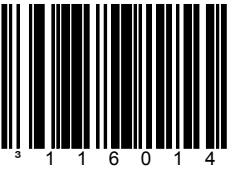


Number of data bits
transmitted for each
character.

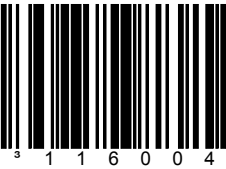
8 Data Bits



1 Stop Bit



* 2 Stop Bits



SECTION G

HARDWARE HANDSHAKING

Enable RTS/CTS
Handshaking



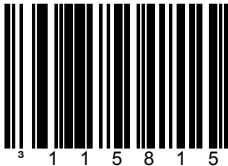
Output a **R**quest to **S**end
(RTS) signal and wait for a
Clear To **S**end (CTS) signal
before transmitting data.

* Disable RTS/CTS
Handshaking



Do not use RTS/CTS
handshaking.

* Character RTS/CTS



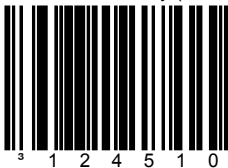
Activate/Deactivate RTS
signal for each character.

Message RTS/CTS



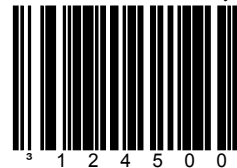
Activate RTS before
sending the first character
and leave it active until after
the last character has been
transmitted.

Invert RTS Polarity (RSV1)



+12V = Inactive
-12V = Active

* Standard RTS Polarity



Use standard RTS polarity
-12V = Inactive
+12V = Active

Invert CTS Polarity (RSV2)



+12V = Inactive, do not send

-12V = Active, OK to send

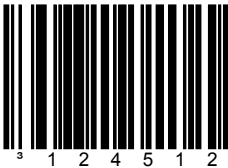
* Standard CTS Polarity



-12V = Inactive, do not send

+12V = Active, OK to send

Activate RTS, Do Not wait for CTS (RSV3)



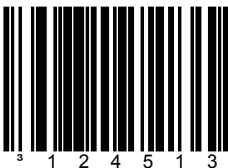
Activate RTS for transmission but do not wait for CTS to send.

* Activate RTS, Wait for CTS



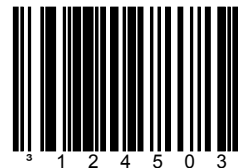
Wait for CTS after activating RTS.

Test CTS Not Present Before RTS (RSV4)



Do not activate RTS if CTS is already present.

* Do Not Test for CTS Present Before RTS

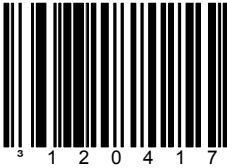


Activate RTS without testing if CTS is already active.

SECTION G

HARDWARE HANDSHAKING

CTS Scan Transmit



The CTS line is used to allow a decoded bar code to be transmitted

* No CTS Scan Transmit

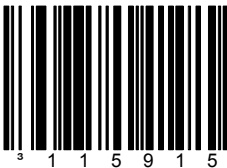


Enable DTR Support



The scanner will stop scanning when the Data Terminal Ready (DTR) signal goes inactive.

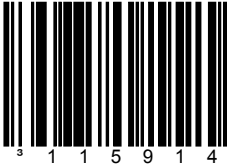
* Disable DTR Support

Enable
RTS Counter Toggle

The scanner will toggle the RTS line on a good decode.

* Disable
RTS Counter Toggle

Enable XON/XOFF Handshaking



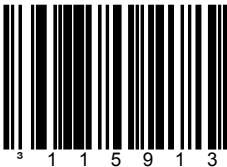
The scanner will stop transmission whenever an XOFF (ASCII 13H) is received. Transmission will resume after an XON (ASCII 11H) is received.

* Disable XON/XOFF Handshaking



The scanner will not test for XON/XOFF.

Enable ACK/NAK



After transmitting data, wait for an ACK (06H) or a NAK (15H) response from the host.

If ACK is received, complete the communications cycle and look for more bar codes.

If NAK is received, retransmit the last set of bar code data and wait for ACK/NAK again.

* Disable ACK/NAK

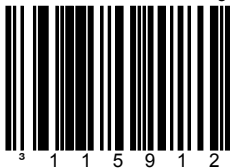


Do not support ACK/NAK handshaking.

SECTION G

SOFTWARE HANDSHAKING

Enable O/N Handshaking

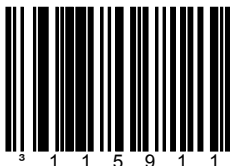


ACK/NAK handshaking (page G 9) must be enabled for this feature to work.

Disable O/N Handshaking

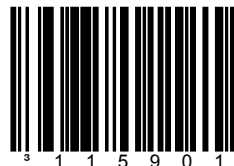


Support BEL/CAN in ACK/NAK



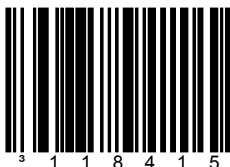
When BEL (07H) is received, the scanner beeps 3 times and exits the communications loop. If a CAN (18H) is received, then the scanner will exit the communications loop, silently.

* Ignore BEL/CAN in ACK/NAK



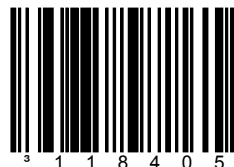
Ignore BEL/CAN characters in communication loop.

Enable Razz Command



When a z is received, the scanner will RAZZ once. Multiple razzes can be sounded if the character before the z is a number and is sent within 1 second of the z.

Disable Razz Command



Ignore z characters in communication loop.



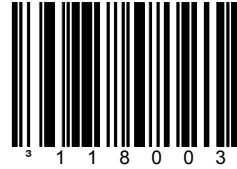
The normal BEL commands must be activated for feature.

Enable 5 Retries on
ACK/NAK Time Out



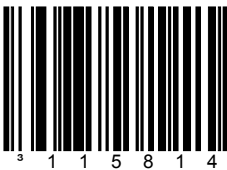
Allow up to 5 NAK
retransmissions of the data
before dropping out of the
communications loop.

* Disable 5 Retries on
ACK/NAK Time Out



Do not limit retransmission
to 5 NAK cycles.

Enable 5 NAK Retries



Disable 5 NAK Retries



SECTION G

MISCELLANEOUS

Enable French PC Term



The scanner transmits PC type make/break scan codes instead of ASCII data characters. The scan codes match a WYSE French PC Terminal Emulation.

* Disable French PC Term



Do not transmit in French PC Term Mode.

Enable USA Wyse PC



Enables USA Wyse PC style keyboard PCTERM mode.

Disable USA Wyse PC

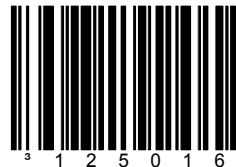


Disables USA Wyse PC style keyboard PCTERM mode.

* Enable Receive Data



Disable Receive Data



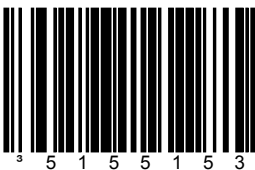
Disable receive port after 5 seconds.

Load Keyboard Wedge Defaults



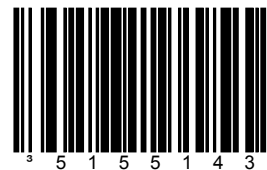
Loads default settings for keyboard wedge mode.

Enable Stand-Alone Keyboard Emulation



Use this with special stand-alone models that are not cabled for an external keyboard. When the Stand-Alone Mode is enabled, the scanner will send keyboard "power on" information and configure hardware to simulate a constant keyboard connection.

* Enable Keyboard Wedge Emulation

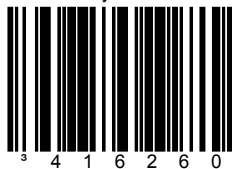


Use this with an external keyboard. Transmit in wedge mode to allow standard PC keyboards to communicate when no bar code data is available.

SECTION H

COUNTRY/SCAN CODE TABLE SELECTS

* USA Keyboard



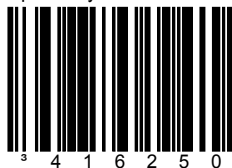
Enable USA Keyboard.

Switzerland Keyboard



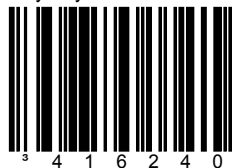
Enable Swiss Keyboard

Spain Keyboard



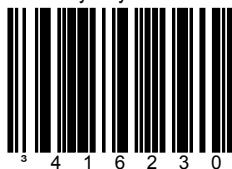
Enable Spanish Keyboard

Italy Keyboard



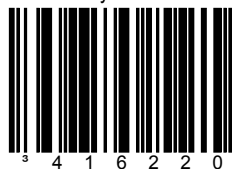
Enable Italian Keyboard

Germany Keyboard



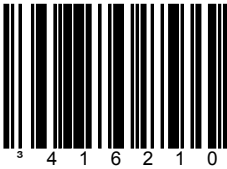
Enable German Keyboard

France Keyboard



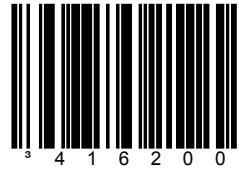
Enable French Keyboard

UK Keyboard



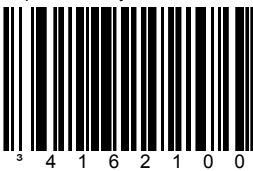
Enable UK Keyboard.

Belgium Keyboard



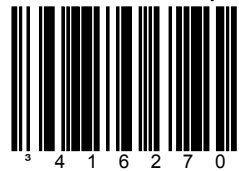
Enable Belgium Keyboard

Japanese Keyboard



Enable Japanese Keyboard

IBM 4700 Financial Keyboard



Enable IBM 4700 Financial
Keyboard

Sweden/Finland Keyboard

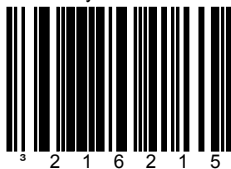


Enable Sweden/Finland
Keyboard

SECTION H

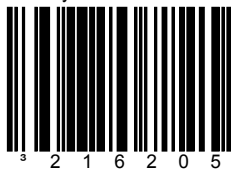
KEYBOARD/SYSTEM TYPE

* AT Keyboard



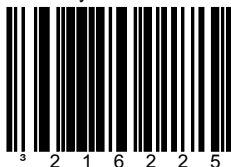
If using an AT computer,
scan the above bar code.
(Includes IBM PS/2 and
compatible models 50, 55,
60, 80)

XT Keyboard



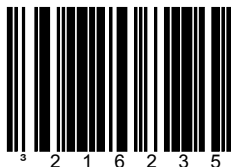
If using an XT computer,
scan the above bar code.

PS/2 Keyboard



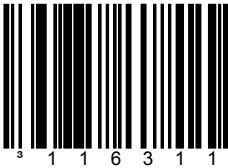
Scan the above code for
PS/2 computer. (Includes
IBM PC and compatible
models 30, 70 and 8556)

Terminal KB Emulation



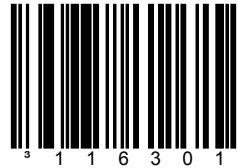
Scan the above code to
enable terminal keyboard
emulation mode.

Transmit
Make Code Only



i Do not scan unless instructed by a Metrologic representative.

* Transmit
Make/Break Code



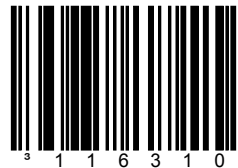
i Do not scan unless instructed by a Metrologic representative.

Do Not Transmit
F0H Break Code



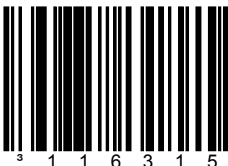
The scanner will not transmit the F0H in the break-code sequence.

* Transmit
F0H Break Code



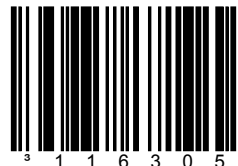
The scanner will transmit the F0H in the break-code sequence.

Transmit Cleanup Bit



Use for certain NEC computers.

* Do Not Transmit
Cleanup Bit



SECTION H

SPECIAL KEYBOARD FEATURES

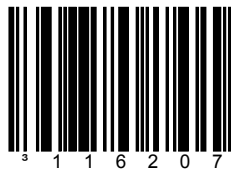
Enable Alt Mode



The scanner will duplicate the following keyboard sequence:

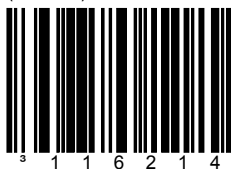
*Hold down ALT key and
Type decimal number that
corresponds to the
appropriate character.*

* Disable Alt Mode



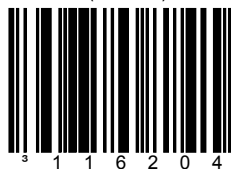
i Caution: If the host software application uses the right ALT key as a "Hot" key, ALT mode must be disabled.

Enable Auto Detect Mode (AT/PS2)



Automatically detects caps lock status.

* Disable Auto Detect Mode (AT/PS2)



The Auto Detect Caps Lock feature is not supported.

Enable Caps Lock (XT)

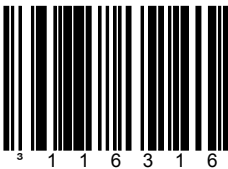


* Disable Caps Lock (XT)



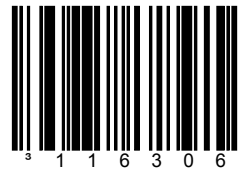
The Caps Lock feature is not supported.

Send Numbers as Keypad Data

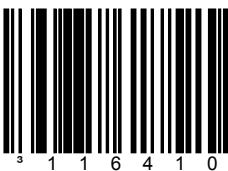


All data is sent as if it has been entered on a keypad.

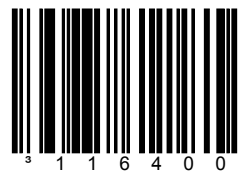
* Send Numbers as Normal Data



Enable Reserved Feature



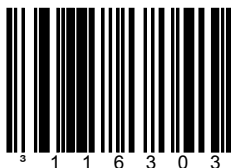
* Disable Reserved Feature



SECTION H

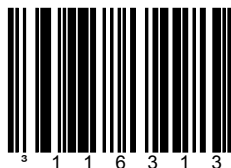
SPECIAL KEYBOARD FEATURES

- * Use Extended ASCII to
Send Extended
Key Codes



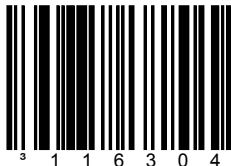
Use extended ASCII
characters to send PC
keyboard keys such as F1,
F2, etc....See section M for
details.

Use Extended ASCII
Characters as Extended
ASCII

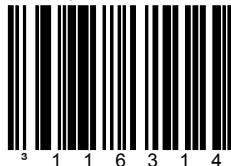


Transmit extended ASCII
codes via ALT mode.

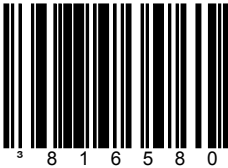
- * Character KB Inhibit



Message KB Inhibit



Inter-Scan Code Delay
800 Microseconds

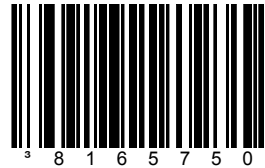


The time specified represents the amount of time between individual 9 bit-scan codes.



This parameter may need to be adjusted for operation with certain PC keyboard BIOS.

Inter-Scan Code Delay
7.5 msec

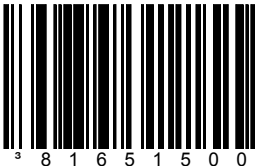


The time specified represents the amount of time between individual 9 bit-scan codes.



This parameter may need to be adjusted for operation with certain PC keyboard BIOS.

Inter-Scan Code Delay
15 msec

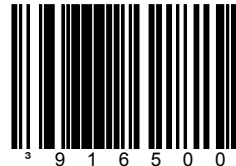


The time specified represents the amount of time between individual 9 bit-scan codes.



This parameter may need to be adjusted for operation with certain PC keyboard BIOS.

~ Variable Inter-Scan
Code Delay msec



Refer to the Multi-Code Configuration method on page x.

SECTION H

CONTROL SETS

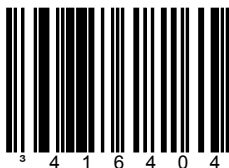
In general, standard bar code symbologies will only encode the ASCII character set. Function keys, arrow keys and many other “extended” keys on an IBM compatible keyboard do not translate to ASCII characters. One method of “bar coding” the extended keys is to substitute the extended key codes when a specific ASCII control character found in the bar code stream. The Control Sets are specific translation of the ASCII (HEX) set.

CONTROL SET #1

Enable Control Set #1



Disable Control Set #1

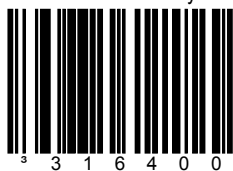


ASCII (HEX)	ASCII Control	Extended Key
00H	Null	Numeric Keypad
01H	SOH	Num Lock
02H	STX	Down
03H	ETX	Numeric Keypad
04H	EOT	Insert
05H	ENQ	Delete
06H	ACK	System Request
07H	BEL	←
08H	BS	→
09H	TAB	Tab
0AH	LF	Caps Lock
0BH	VT	Shift Tab
0CH	FF	Alt
0DH	CR	Enter
0EH	SO	Control
0FH	SI	Up Arrow
10H	DLE	F1
11H	DC1	F2
12H	DC2	F3
13H	DC3	F4
14H	DC4	F5
15H	NAK	F6
16H	SYN	F7
17H	ETB	F8
18H	CAN	F9
19H	EM	F10
1AH	SUB	Home
1BH	ESC	Esc
1CH	FS	Page Up
1DH	GS	Page Down
1EH	RS	Print Screen
1FH	US	End

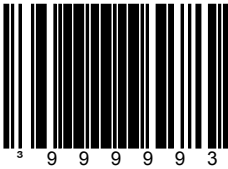
SECTION H

3151 TERMINAL KEYBOARD

* 3151 Terminal Keyboard



Load OCIA Defaults



Enable OCIA

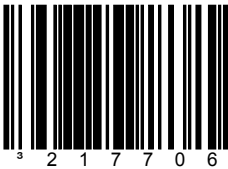


Select this option if communications require OCIA (**O**ptically **C**oupled **I**nterface **A**dapter).

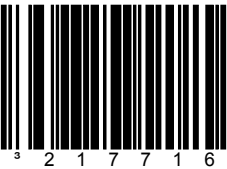


This serial interface is clocked by the host.

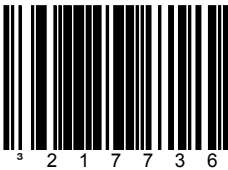
Enable DTS/Siemens



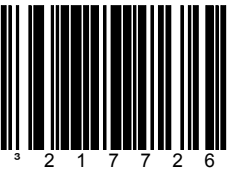
* Enable DTS/Nixdorf



Enable NCR-S

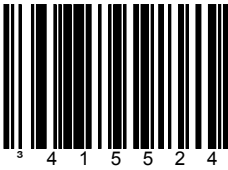


Enable NCR-F



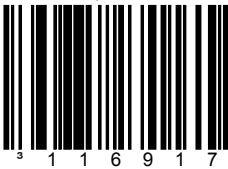


Enable Light Pen Mode

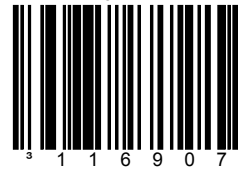


Select this option if the scanner will be used in place of a light pen. It provides light pen emulation of each bar code scanned.

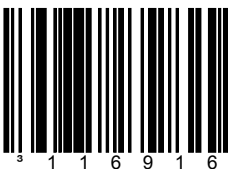
* Bars High



Spaces High

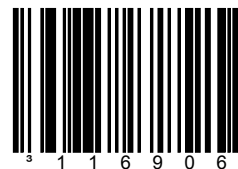


Transmit Code 39



All bar codes will be decoded then transmitted as code 39 bar codes.

* Transmit as Scanned

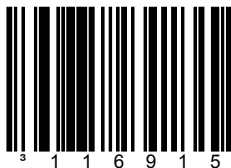


All bar codes will be decoded and transmitted in their original symbology.

SECTION J

LIGHT PEN/SET NARROW ELEMENT BORDER

Poll Light Pen Source

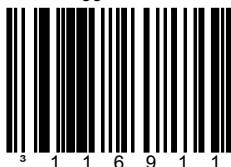


The scanner waits for an active source voltage before transmitting data.

* Do Not
Poll Light Pen Source

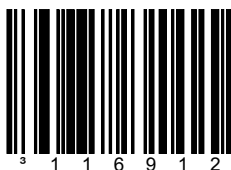


The scanner will not wait for an active source voltage before transmitting data.

Enable Light Pen
Extra Toggle

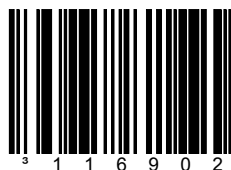
The scanner beeps and toggles the light pen data line with an extra data pulse to condition the decoder.

* Disable Light Pen
Extra Toggle

10x Narrow
Element Border

This bar code allows the transmission of Light Pen/Wand emulation using a 10x border.

* 50x Narrow
Element Border

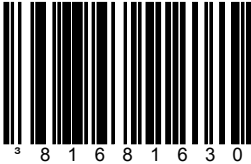


This bar code allows the transmission of Light Pen/Wand emulation using a 50x border.

SECTION J SET NARROW ELEMENT WIDTH /LASER EMULATION

* 1 ms

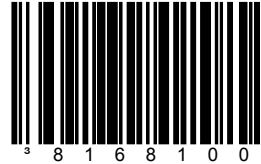
Narrow Element Width



This option allows the transmission of Light/Pen Wand emulation a 1 ms narrow element width.

60 μ s

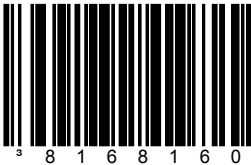
Narrow Element Width



This transmits at 60 μ s narrow element width.

100 μ s

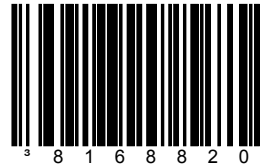
Narrow Element Width



This transmits at 100 μ s narrow element width.

500 μ s

Narrow Element Width



This transmits at 500 μ s narrow element width.

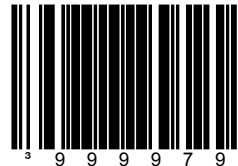
~ Variable

Narrow Element Width †



† Refer to the Multi-Code Method on page x.

Laser Emulation



Sets the minimum x-dimension in 6 μ s increments. Scan this code followed by a 3 digit code byte sequence found in Section M. †



Load
IBM 46xx Defaults



Load default format settings
for IBM 46xx systems.

Enable IBM 46xx
Communication



Select this option for IBM
46xx SIOC/RS485
communication.

i Not all scanners
support this interface.
The correct interface
board is required.

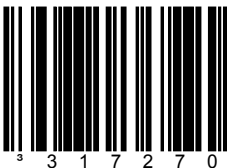
IBM Port 17B
3687-2 In Counter



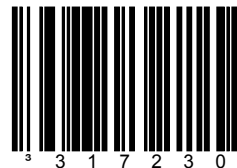
IBM Port 5B
1520 HH Laser



* IBM Port 9B
4500 CCD HH BCR1



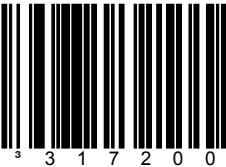
IBM Port 9B
4501 CCD HH BCR2



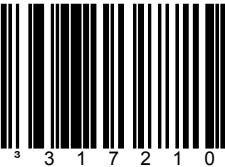
SECTION K

IBM RESERVE CODES

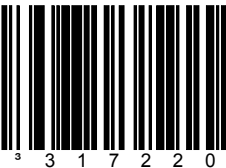
IBM Reserve #1



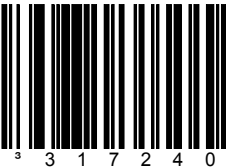
IBM Reserve #2



IBM Reserve #3



IBM Reserve #5



User configurable prefixes, symbol length and other features that use these code bytes for configuration, require that the scanner be in configuration mode. Scan the Enter/Exit Configuration Mode bar code before starting the configuration cycle. Single code configuration mode does not work for these multi-code sequences.



EXAMPLE

User configurable prefix/suffix characters (Section E) can be saved into the scanner by scanning the 3 digit decimal equivalent of the ASCII character into the appropriate character location with the code byte bar codes.

To add an asterisk (*) as a prefix scan the following bar codes in order:

1. Enter/Exit Configuration Mode (3 beeps)
2. Configurable Prefix 1 (1 beep)
3. Code Byte 0 (1 beep)
4. Code Byte 4 (2 beeps)
5. Code Byte 2 (3 beeps)
6. Enter/Exit Configuration Mode (3 beeps)

SECTION M

CODE BYTES 0-5

Code Byte 0



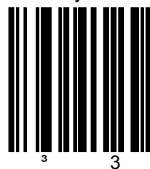
Code Byte 1



Code Byte 2



Code Byte 3



Code Byte 4



Code Byte 5



Code Byte 6



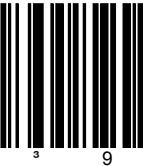
Code Byte 7



Code Byte 8



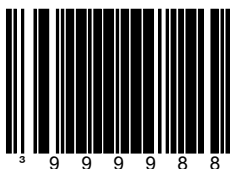
Code Byte 9



SECTION M

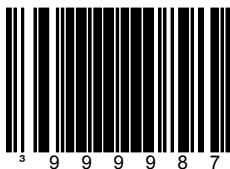
RESERVED CODES

~ Enable Reserved Code



Contact a Metrologic customer service representative for additional details on this feature.

~ Disable Reserved Code



CODE BYTE	CODE TYPES
004	UPC-A
002	UPC-E
003	EAN-8
005	EAN-13
080	Code 39
081	Codabar
082	Interleaved 2 of 5
083	Code 128
084	Code 93
091	MSI Plessey
092	Code 11
093	Airline 2 of 5 (15 digits)
094	Matrix 2 of 5
095	Telepen
096	UK Plessey
098	Standard 2 of 5
097	Airline (13 digits)
099	TRI-OPTIC

SECTION M

ASCII REFERENCE TABLE

HEX VALUE	DECIMAL VALUE/ CODE BYTE VALUE	CHARACTER	CONTROL KEYBOARD EQUIVALENT
00	000	NUL	@
01	001	SOH	A
02	002	STX	B
03	003	ETX	C
04	004	EOT	D
05	005	ENQ	E
06	006	ACK	F
07	007	BEL	G
08	008	BS	H
09	009	HT	I
0A	010	LF	J
0B	011	VT	K
0C	012	FF	L
0D	013	CR	M
0E	014	SO	N
0F	015	SI	O
10	016	DLE	P
11	017	DC1	Q
12	018	DC2	R
13	019	DC3	S
14	020	DC4	T
15	021	NAK	U
16	022	SYN	V
17	023	ETB	W
18	024	CAN	X
19	025	EM	Y
1A	026	SUB	Z

HEX VALUE	DECIMAL VALUE/ CODE BYTE VALUE	CHARACTER	CONTROL KEYBOARD EQUIVALENT
1B	027	ESC	[
1C	028	FS	\
1D	029	GS	^
1E	030	RS	—
1F	031	US	
20	032	SP	space, blank
21	033	!	
22	034	“	
23	035	#	
24	036	\$	
25	037	%	
26	038	&	
27	039	‘	apostrophe
28	040	(
29	041)	
2A	042	*	
2B	043	+	
2C	044	,	comma
2D	045	-	minus
2E	046	.	period
2F	047	/	
30	048	0	number zero
31	049	1	number one
32	050	2	
33	051	3	
34	052	4	
35	053	5	

SECTION M

ASCII REFERENCE TABLE

HEX VALUE	DECIMAL VALUE/ CODE BYTE VALUE	CHARACTER	CONTROL KEYBOARD EQUIVALENT
36	054	6	
37	055	7	
38	056	8	
39	057	9	
3A	058	:	
3B	059	;	
3C	060	<	less than
3D	061	+	
3E	062	>	greater than
3F	063	?	
40	064	@	shift P
41	065	A	
42	066	B	
43	067	C	
44	068	D	
45	069	E	
46	070	F	
47	071	G	
48	072	H	
49	073	I	letter I
4A	074	J	
4B	075	K	
4C	076	L	
4D	077	M	
4E	078	N	

HEX VALUE	DECIMAL VALUE/ CODE BYTE VALUE	CHARACTER	CONTROL KEYBOARD EQUIVALENT
4F	079	O	letter O
50	080	P	
51	081	Q	
52	082	R	
53	083	S	
54	084	T	
55	085	U	
56	086	V	
57	087	W	
58	088	X	
59	089	Y	
5A	090	Z	
5B	091	[shift K
5C	092	\	shift L
5D	093]	shift M
5E	094	^	↑, shift N
5F	095	_	←, shift O, underscore
60	096	`	accent grave
61	097	a	
62	098	b	
63	099	c	
64	100	d	
65	101	e	
66	102	f	
67	103	g	
68	104	h	
69	105	i	

SECTION M

ASCII REFERENCE TABLE

HEX VALUE	DECIMAL VALUE/ CODE BYTE VALUE	CHARACTER	CONTROL KEYBOARD EQUIVALENT
6A	106	j	
6B	107	k	
6C	108	l	
6D	109	m	
6E	110	n	
6F	111	o	
70	112	p	
71	113	q	
72	114	r	
73	115	s	
74	116	t	
75	117	u	
76	118	v	
77	119	w	
78	120	x	
79	121	y	
7A	122	z	
7B	123	{	
7C	124		vertical slash
7D	125	}	alt mode
7E	126	~	(alt mode)
7F	127	DEL	delete, rubout

KEY	AT SCAN CODE	PS2 SCAN CODE	3151	PREFIX/SUFFIX VALUE HEX = DECIMAL
↑	75H	48H	63H	80H = 128
↓	72H	50H	60H	81H = 129
→	74H	4DH	6AH	82H = 130
←	6BH	4BH	61H	83H = 131
Insert	70H	52H	67H	84H = 132
Delete	71H	53H	64H	85H = 133
Home	6CH	47H	6EH	86H = 134
End	69H	4FH	00H	87H = 135
Page Up	7DH	49H	00H	88H = 136
Page Down	7AH	51H	00H	89H = 137
Right Alt	11H	38H	00H	8AH = 138
Right Ctrl	14H	1DH	39H	8BH = 139
Reserved	00H	00H	00H	8CH = 140
Reserved	00H	00H	00H	8DH = 141
Numeric Keypad Enter	5AH	1CH	79H	8EH = 142
Numeric Keypad /	4AH	35H	00H	8FH = 143
F1	05H	3BH	07H	90H = 144
F2	06H	3CH	0FH	91H = 145
F3	04H	3DH	17H	92H = 146
F4	0CH	3EH	1FH	93H = 147
F5	03H	3FH	27H	94H = 148
F6	0BH	40H	2FH	95H = 149
F7	83H	41H	37H	96H = 150
F8	0AH	42H	3FH	97H = 151
F9	01H	43H	47H	98H = 152
F10	09H	44H	4FH	99H = 153
F11	78H	57H	56H	9AH = 154
F12	07H	58H	5EH	9BH = 155
Numeric +	79H	4EH	00H	9CH = 156

SECTION M

EXTENDED KEY CODE REFERENCE TABLE

KEY	AT SCAN CODE	PS2 SCAN CODE	3151	PREFIX/SUFFIX VALUE HEX = DECIMAL
Numeric -	7BH	4AH	7CH	9DH = 157
Numeric *	7CH	37H	00H	9EH = 158
Caps Lock	58H	3AH	14H	9FH = 159
Num Lock	77H	45H	00H	A0H = 160
Left ALT	11H	38H	00H	A1H = 161
Left CTRL	14H	1DH	11H	A2H = 162
Left Shift	12H	2AH	12H	A3H = 163
Right Shift	59H	36H	59H	A4H = 164
Print Screen	Multiple	00H	00H	A5H = 165
Tab	0DH	0FH	0DH	A6H = 166
Shift Tab	8DH	8FH	65H	A7H = 167
Enter	5AH	1CH	5AH	A8H = 168
ESC	76H	01H	08H	A9H = 169
Left ALT Make	11H	36H	00H	AAH = 170
Left ALT Break	11H	B6H	00H	ABH = 171
Left CTRL Make	14H	1DH	00H	ACH = 172
Left CTRL Break	14H	9DH	00H	ADH = 173
* Left ALT + 1 character	11H	36H	00H	AEH = 174
* Left CTRL + 1 character	14H	1DH	00H	AFH = 175
* Send			58H	C0H = 192
Clear			6FH	C1H = 193
Jump			76H	C2H = 194
Send Line			7EH	C3H = 195
Erase EOF			6DH	C4H = 196
Send - Make Only			58H	C5H = 197

* Example:

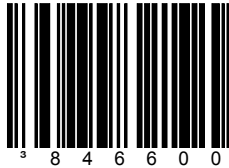
1st Configurable Prefix = 174

2nd Configurable Prefix = 065

Scanner will transmit <left ALT Make> "A" <Left ALT Break>

Metrologic manufactures several scanners for OEM applications. These scanners may use a different set of defaults than the standard Metrologic factory defaults. Scanning the following bar codes will restore the default factory settings.

Enable Factory Defaults



Scan this code followed by the “Recall Defaults” code to enable and load Metrologic factory defaults.

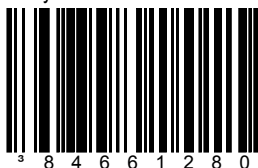
Recall Defaults



SECTION N

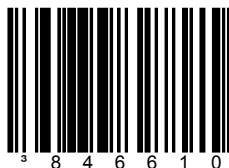
CUSTOM DEFAULTS

Ruby Verifone Defaults



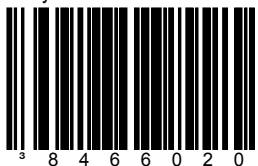
Scan this code followed by the "Recall Defaults" code to enable and load Ruby Verifone Defaults.

RCH



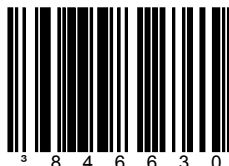
Scan this code followed by the "Recall Defaults" code to enable and load RCH Defaults.

Sanyo



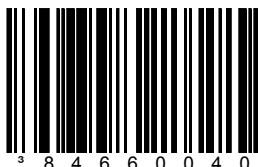
Scan this code followed by the "Recall Defaults" code to enable and load Sanyo Defaults.

Gilbarco



Scan this code followed by the "Recall Defaults" code to enable and load Gilbarco Defaults.

ALT Defaults



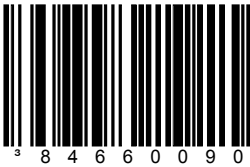
Scan this code followed by the "Recall Defaults" code to enable and load ALT Defaults.

MS6750 Defaults



Scan this code followed by the "Recall Defaults" code to enable and load MS6750 Defaults.

German Post Defaults

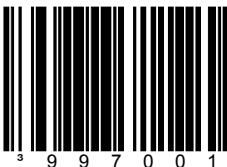


Scan this code followed by the "Recall Defaults" code to enable and load German Post Defaults.

Custom Keyboard FR1



Custom Terminal FR1



SECTION N

SERIAL PROGRAM MODE

For Serial Program Mode, all commands must be framed by an STX (02 Hex) and ETX (03 Hex). To recall defaults:

1. Transmit <STX>999999<ETX> through the Serial Port. This will put the scanner in serial program mode. Scanning will be suspended and the scanner will respond with an ACK (06 Hex).
2. Transmit <STX>999998<ETX> through the Serial Port. This is the Recall Default bar code in the MetroSelect guide. The scanner will respond with an ACK (06 Hex).
3. Transmit <STX>999999<ETX> through the Serial Port. This will cause the scanner to exit program mode and save the new settings. The scanner will beep 3 times and send an ACK (06 Hex).

If at anytime, the scanner cannot recognize a command, it will respond with a NAK (15 Hex).

SOFTWARE IDENTIFICATION

Software Number



The scanner will transmit its software revision when this feature is enabled.

* Disable AUX Port



AUX PORT AND SECONDARY DEVICE DATA FORMATS FOR THE MS7220, MS7320, MS7600 AND MS202X

Follow **Step 1** to configure the *auxiliary port* to accept a Metrologic scanner as the *secondary* scanner. Then follow **Step 2** to configure the *secondary* scanner to match the auxiliary port's data format.

If the secondary scanner is not a Metrologic scanner go to page 3 and follow the instructions under "When using a non-Metrologic RS-232 Device as a secondary".



The auxiliary input port's data format must match the main output format of the secondary scanner.

Step 1: Scan the following bar code to enable the *auxiliary port* on the MS7220/7320/7600.

AUX Port Data Format



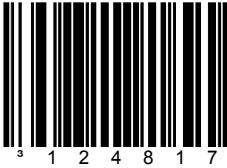
Continued on next page.

SECTION O **AUX PORT AND SECONDARY DEVICE DATA FORMATS**

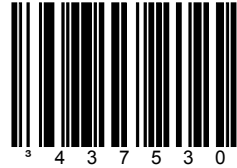
FOR THE MS7220, MS7320, MS7600 AND MS202X

Step 2: Then scan the following bar codes, in order, to configure the *secondary* scanner.

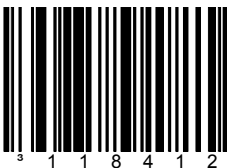
1. Enable AUX Output



2. Secondary Scanner Data Format



3. Enable Comm Timeouts



4. Turn OFF Auxiliary Scanner's Beeper (Optional)



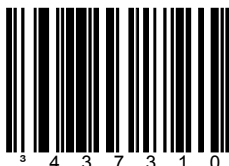
SECTION O **AUX PORT AND SECONDARY DEVICE DATA FORMATS**

FOR THE MS7220, MS7320, MS7600 AND MS202X

When using a non-Metrologic RS-232 device as a secondary:

Scan the following bar code to enable the auxiliary port on the MS7220/7320/7600/202x.

AUX Port General RS-232 Format



The *auxiliary* input port's data format must match the main output format of the secondary device. The *secondary* device must be capable of RTS/CTS handshaking and have a carriage return (ASCII 0DH) terminator on the data.



The default settings for the *AUX Port General RS-232 Format* are:

- 38400 baud
- 7 data bits
- 2 stop bits
- Space parity

To change these settings refer to Section O, pages 5-8.

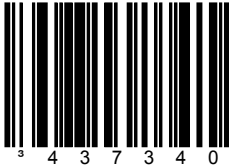
SECTION O

ADDITIONAL AUXILIARY PORT DATA FORMATS

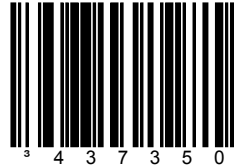


The auxiliary input port's data format must match the main output format of the secondary device.

Enable AUX Port with UPC
Supplemental Data Format



Enable AUX Port with Code
Select Data Format



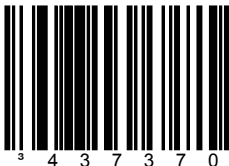
Enable AUX Port with Tech 7,
8 Data Format



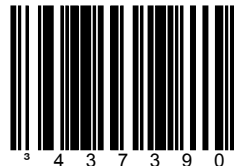
Enable AUX Port with
Reserved 2 Data Format



Enable AUX Port
with Reserved 3 Data Format



Enable AUX Port with
Reserved 1 Data Format



Enable AUX Port with Stratos
Decode Data Format



SECTION O

AUXILIARY PORT BAUD RATES

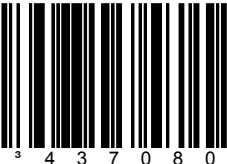
AUX 115200 Baud Rate



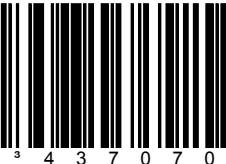
AUX 57600 Baud Rate



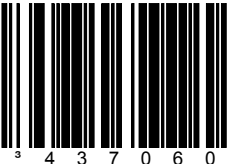
AUX 38400 Baud Rate



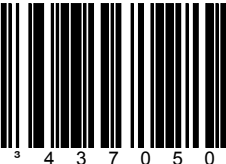
AUX 19200 Baud Rate



AUX 14400 Baud Rate



AUX 9600 Baud Rate



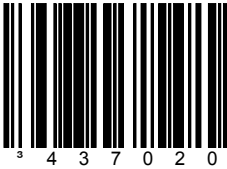
AUX 4800 Baud Rate



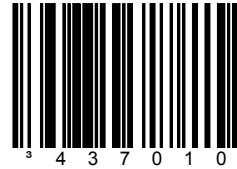
AUX 2400 Baud Rate



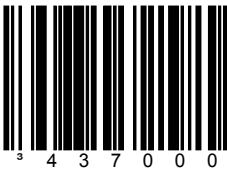
AUX 1200 Baud Rate



AUX 600 Baud Rate



AUX 300 Baud Rate



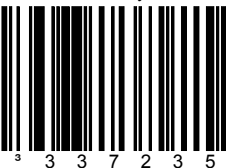
SECTION O

AUXILIARY PORT PARITY

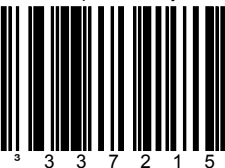
AUX No Parity



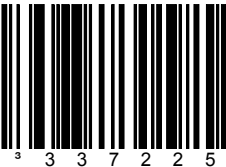
AUX Mark Parity



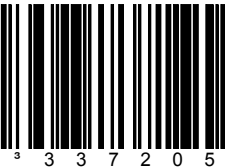
* AUX Space Parity



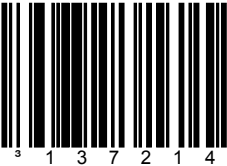
AUX Even Parity



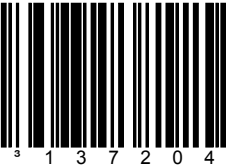
AUX Odd Parity



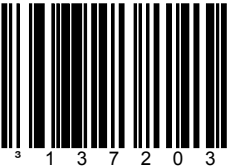
AUX 1 Stop Bit



* AUX 2 Stop Bits



* AUX 7 Data Bits



AUX 8 Data Bits



SECTION O

AUXILIARY RTS/CTS AND MODE 7

* Enable AUX RTS/CTS Handshaking



Disable AUX RTS/CTS Handshaking



Message AUX RTS/CTS



* Character AUX RTS/CTS



Enable AUX Port Mode 7



Disable AUX Port Mode 7



Mode 7 enables reception of prefix and suffix codes when AUX port RTS/CTS handshaking is disabled.

Enable
AUX "D/E" Commands



* Disable
AUX "D/E" Commands



Enable AUX "F/L"
Commands



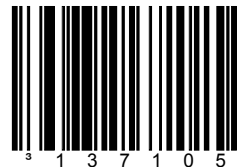
* Disable AUX "F/L"
Commands



Enable AUX
"M/O" Commands



* Disable AUX
"M/O" Commands



SECTION O

AUXILIARY XON/XOFF AND ACK/NAK

* Enable AUX XON/XOFF
Handshaking



Disable AUX XON/XOFF
Handshaking



* Enable AUX
ACK/NAK Commands



Disable AUX
ACK/NAK Commands



SECTION O

AUXILIARY CTS AND RTS POLARITY

* Normal
AUX CTS Polarity



Flip
AUX CTS Polarity



* Normal
AUX RTS Polarity



Flip
AUX RTS Polarity



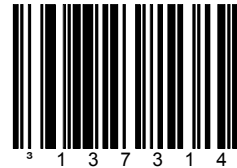
AUXILIARY SAME SYMBOL TIMEOUT

* AUX has
Same Symbol Timeout



This feature skips the same symbol timeout in the master when the auxiliary scanner scans (or repeats) faster than the same symbol timeout in the master scanner.

No AUX
Same Symbol Timeout

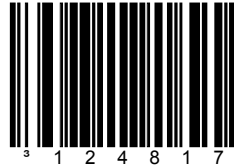


Metrologic recommends turning off the auxiliary scanner's beep if the *AUX Same Symbol Timeout* feature is disabled.

SECTION O MAIN OUTPUT PORT AUXILIARY DATA FORMATS

When a scanner is used as a secondary scanner to another scanner's auxiliary input, the output data can be in one of the following formats.

Reserve Code 32

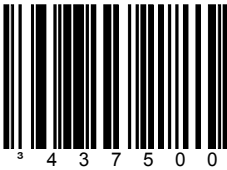


This is a quick method for setting reserve Code 32 in the secondary scanner using HoloTrak Decode Data Format.



This code should not be used for the MS6720.

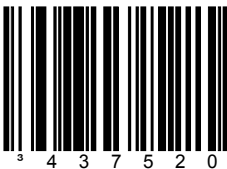
* HoloTrak Decode Output
AUX Data Format



UPC Supplemental Output
AUX Data Format



Stratos Decode Output
AUX Data Format



Code Select Output
AUX Data Format



SECTION O

MAIN OUTPUT PORT AUXILIARY DATA FORMATS

TECH 7 & 8 Output AUX
Data Format



Reserved 1 Output AUX
Data Format



Reserved 2 Output
AUX Data Format

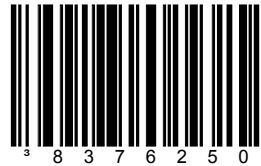


Reserved 3 Output
AUX Data Format



SECTION O

INTER-CHARACTER DELAYS

No AUX Port
Inter-Character Delays* 1 msec AUX Port
Inter-Character Delay10 msec AUX Port
Inter-Character Delay25 msec AUX Port
Inter-Character Delay~ Variable AUX Port
Inter-Character Delay

The Delay between characters being sent out of the auxiliary port can be set in 1 millisecond increments by scanning the *Variable AUX Port Inter-character Delay* barcode followed by a 3 character sequence of code bytes that range from 001 to 255 milliseconds.

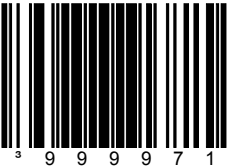
Refer to the *Multi-Code Configuration Method* on page x.

Enable Full Speed USB



Adds the ability to encode
scanner serial number in
NOVRAM.

Full Speed USB Defaults



Load Integrated
Full Speed USB Defaults



SECTION P

FULL SPEED USB

The following codes can be used if the *Full Speed USB Default* bar code has **not** been scanned.

Enable USB IBM ID



Disable USB IBM ID



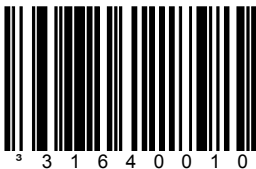
RS232 of USB Out



Normal USB Out

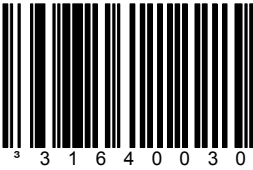


Scanner 4A00h Flatbed



The following codes can be used if the *Full Speed USB Default* bar code has **not** been scanned.

Scanner 4B00h Handheld



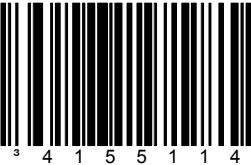
4A00h/6E00h
Tabletop Scanner/Scale



SECTION P

LOW SPEED USB

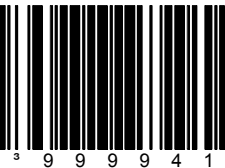
Enable
Low Speed USB



Load Low Speed
External USB Defaults



Load Low Speed
Internal USB Defaults



The following codes only apply to scanners with internal Low-Speed USB interfaces and specific software versions. Please contact a Metrologic representative for additional information on the use and restrictions of these bar codes.

POS USB Mode



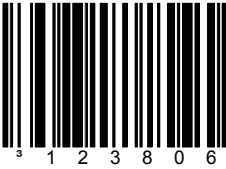
HID - Keyboard Mode



The following bar codes are specific to the IS3480 and MS3480 only.

Button Modes

* Button Click Pattern
Switching Mode



Button Hold Pattern
Switching Mode

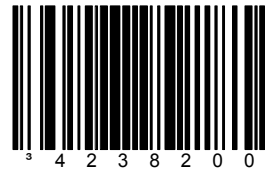


Button Click Delay

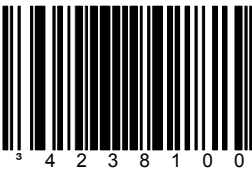
15 Second Time Out



10 Second Time Out



* 5 Second Time Out



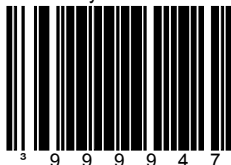
SECTION R

IS3480 / MS3480

The following bar codes are specific to the IS3480 and MS3480 only.

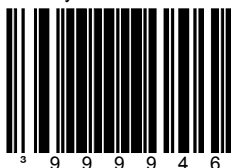
Primary Scan Patterns

* Primary Omni



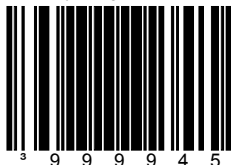
This bar code sets the **primary** pattern to all scan lines on for omnidirectional reading.

Primary Raster



This bar code sets the **primary** pattern to horizontal raster.

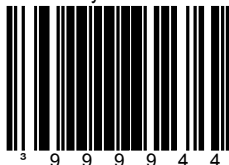
Primary Single-Line



This bar code sets the **primary** pattern to single-line for menu reading.

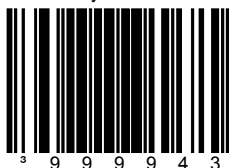
Secondary Scan Patterns

Secondary Omni



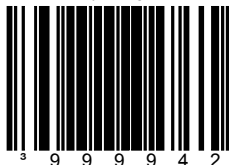
This bar code sets the **secondary** pattern to all scan lines on for omnidirectional reading.

Secondary Raster



This bar code sets the **secondary** pattern to horizontal raster.

Secondary Single-Line

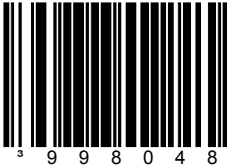


This bar code sets the **secondary** pattern to single-line for menu reading.

The following bar codes are specific to the IS3480 and MS3480 only.

Sweet Spot Mode

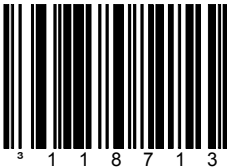
Enable Sweet Spot Mode



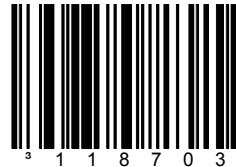
The sweet spot mode is used to determine where the maximum read rate point or “sweet spot” is located for a specific bar code type. Refer to the IS3480 Installation and User’s Guide (MLPN 00-02026) for a complete description of the sweet spot mode.

CodeGate®

* Enable CodeGate

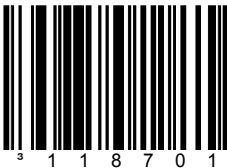


Disable CodeGate

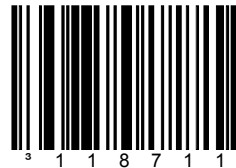


Depth of Field

* Normal Depth of Field



Reduced Depth of Field



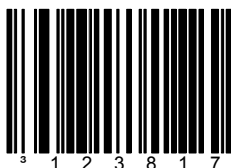
SECTION R

IS3480 / MS3480

The following bar codes are specific to the IS3480 and MS3480 only.

IR Activation

IR Activation



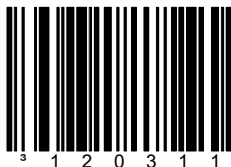
* Disable IR Activation



TTL RS232

The following bar codes are only valid for the TTL RS232 Quantum series (IS/MS3x80-102).

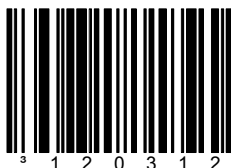
Enable TTL RS232



Disable TTL RS232

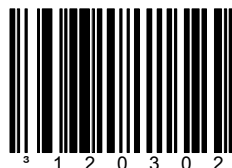


Invert TTL RxD and TxD



The TTL RxD and TxD pins
idle at 0V

Std. TTL RxD and TxD



The TTL RxD and TxD pins
idle at +5V



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